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Asian Economic Integration Monitor

MARCH 2013

Asian Development Bank

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Abbreviations and Acronyms

ADB	Asian Development Bank
ADBI	Asian Development Bank Institute
AEIM	Asian Economic Integration Monitor
AFC	1997/98 Asian financial crisis
AFTA	ASEAN Free Trade Area
APEC	Asia–Pacific Economic Cooperation
ARIC	Asia Regional Integration Center
ASEAN	Association of Southeast Asian Nations
ASEAN+3	ASEAN plus the People's Republic of China, Japan, and the Republic of Korea
ASEAN-4	Indonesia, Malaysia, the Philippines, and Thailand
ASEAN+6	ASEAN plus Australia, the People's Republic of China, India, Japan, the Republic of Korea, and New Zealand
BIMP-EAGA	Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area
BoJ	Bank of Japan
BoK	The Bank of Korea
BPM	Balance of Payments Manual
BPO	business process outsourcing
BSA	Bilateral Swap Arrangement
CAREC	Central Asia Regional Economic Cooperation
CIS	computer and information services
CMIM	Chiang Mai Initiative Multilateralisation
CROP	Council of Regional Organisations of the Pacific
DDA	Doha Development Agenda
DMC	developing member country
EMEAP	Executives' Meeting of East Asia Pacific Central Banks
EU	European Union
EU-6	France, Germany, Italy, the Netherlands, Spain, and the United Kingdom
EWEC	East–West Economic Corridor
FAL	Convention on Facilitation of International Maritime Traffic
FDI	foreign direct investment
FSM	Federated States of Micronesia
FTA	free trade agreement
FY	fiscal year
GDP	gross domestic product
GFC	2008/09 global financial crisis
GMS	Greater Mekong Subregion
G3	Group of Three (eurozone, Japan, and the United States)
G7	Group of Seven (Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States)
G20	Group of Twenty (Argentina, Australia, Brazil, Canada, the People's Republic of China, France, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Mexico, Russian Federation, Saudi Arabia, South Africa, Turkey, the United Kingdom, the United States, and European Union)
HQLA	high quality liquid assets
ICT	information and communication technology
IMF	International Monetary Fund
IMT-GT	Indonesia–Malaysia–Thailand Growth Triangle
IATA	International Air Transport Association
ISPS Code	International Ship and Port Facility Security Code
Lao PDR	Lao People's Democratic Republic
LCR	liquidity coverage ratio
LPI	Logistics Performance Index
LHS	left-hand scale
MFN	most favored nation
MoPs	margins of preference
NAFTA	North American Free Trade Agreement
NTBs/ NTMs	non-tariff barriers or measures
OFW	overseas Filipino workers
OREI	Office of Regional Economic Integration
OWWA	Overseas Workers Welfare Administration
PBOC	People's Bank of China
PECs	Pan-European Cumulation System
PMI	purchasing managers' index
PNG	Papua New Guinea
PRC	People's Republic of China
q-o-q	quarter-on-quarter
RBI	Reserve Bank of India
RCEP	Regional Comprehensive Economic Partnership
RCI	regional cooperation and integration
RHS	right-hand scale
ROOs	rules of origin
saar	seasonally adjusted annualized rate
SAARC	South Asian Association for Regional Cooperation
SAFTA	South Asian Free Trade Area
SASEC	South Asia Subregional Economic Cooperation
SCS	submarine cable system
SEACEN	South East Asian Central Banks
SOLAS	Safety of Life at Sea
SEC	Southern Economic Corridor
TCIS	telecommunication, computer and information services
TLP	Trade Liberalization Programme
TPP	Trans-Pacific Partnership
UN	United Nations
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
VAR	vector autoregression
US	United States
WTO	World Trade Organization
y-o-y	year-on-year

HIGHLIGHTS

Regional Economic Update

- Despite a still weak external environment, most of developing Asia will likely see their economies improve on increased domestic demand and a modest recovery in export growth; GDP is forecast to rise 6.6% in 2013 from 6.0% last year.

- The economic outlook for developing Asia is subject to three major risks: (i) an economic slowdown in the US from missed fiscal deadlines; (ii) a worsening eurozone debt crisis; and (iii) destabilizing capital flows.

- Given the evolving global economic landscape, developing Asia's policymakers should not let short-term adjustments interfere with the longer-term goal of a more balanced, sustainable, inclusive, and integrated economy.

Progress in Regional Cooperation and Integration

- Regional integration progressed as the 2008/09 global financial and eurozone debt crises brought greater cooperation to Asia; yet, deepening cooperation will likely be more challenging.

- As advanced economies are readjusting, Asia continues to deepen initiatives and explore new ways to enhance regional cooperation, collaboration and coordination.

- Despite a shift in direction of Asia's exports, the share of intraregional exports has remained unchanged at around 56% in 2011.

- Trade in services is increasingly important to Asia, though its growth remains below trade in goods; Asia should prioritize service exports as a new growth channel—particularly modern services.

- The 2008/09 global financial crisis accelerated financial integration, with intraregional asset holdings rising and Asian investors increasing bond purchases from the People's Republic of China (PRC) and Japan.

- Since 2008, Asia's equity returns have converged in response to global shocks; co-movements in bond yields, however, have not changed much since 2000, as they are mostly affected by local events.

- Examining the correlation between consumption and output growth in Asia shows risk sharing to be quite small, even if there has been some increase over time.

- Intraregional remittances within Asia are rising rapidly, indicating growing intraregional labor mobility; as intra-Asian migration grows, better management to avoid conflict is an essential challenge to future cooperation.

- While regional connectivity is improving, demand continues to rise faster than supply, widening the infrastructure gap.

- As tariffs decline globally, transport and trade transaction costs, along with other non-tariff barriers, are becoming more important; cross-border procedures need to be simplified, harmonized, and use international best practices.

- Increasing interdependence underlines the importance of regional public goods in addressing both global and regional issues—such as climate change and the environment, epidemics, disaster preparedness, good governance, and cross-border crime.

- Financing and the delivery of regional public goods remain challenges to regional cooperation; as do institutional design and the standards used to deliver regional public goods.

- Currency swap arrangements have been used widely since the 2008/09 global financial crisis and have become a major form of central bank coordination; the PRC is expanding its network of swap agreements to promote trade settlement in local currencies—facilitating bilateral trade and investment and the internationalization of its currency.

Special Chapter: Multilateralizing Asian Regionalism—Approaches to Unraveling the Asian Noodle Bowl

- The proliferation of free trade agreements (FTAs) has been greatest in Asia; the global multilateral impasse has helped create an Asian noodle bowl, with more than 100 ratified FTAs involving at least one Asian economy.

- Two key proposals have been advanced to disentangle the Asian noodle bowl: consolidation—which creates a regional FTA to harmonize bilateral FTAs; and multilateralization—which grants nondiscriminatory preferences to nonmembers, eliminating preference discrepancies.

- The ASEAN-led Regional Comprehensive Economic Partnership could pave the way for consolidating ASEAN FTAs under a single regional agreement, although it is still too early to tell.

- Multilateralization can proceed from a consolidated regional FTA, or economies can seek multilateralization independently; but they both must overcome competing interests that lose from the dilution of preferences.

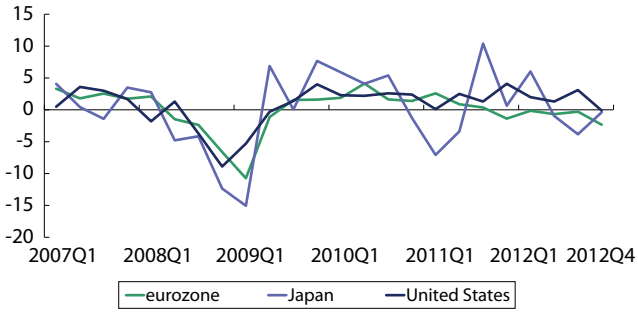
- Although consolidation and multilateralization are not mutually exclusive—consolidation is a means; multilateralization is the end—history shows that unilateral actions (of which multilateralization is a special case) are not only feasible but account for most trade liberalization to date.

External Economic Environment

Despite some improvement, the external environment for developing Asia will likely remain weak in 2013.[1]

While financial markets stabilized last year, real economic activity in the G3 (eurozone, Japan, and the United States [US]) was mixed. The US economy did better than expected, while the eurozone's continued to contract, and the Japanese economy weakened in the second half **(Figure 1)**. For 2013, the eurozone economy should remain subdued as authorities confront daunting structural challenges amid record high unemployment. In Japan, it is unclear how far recent expansionary policies and a depreciating yen will boost the economy.

Figure 1: GDP Growth—G3 (saar, q-o-q, %)

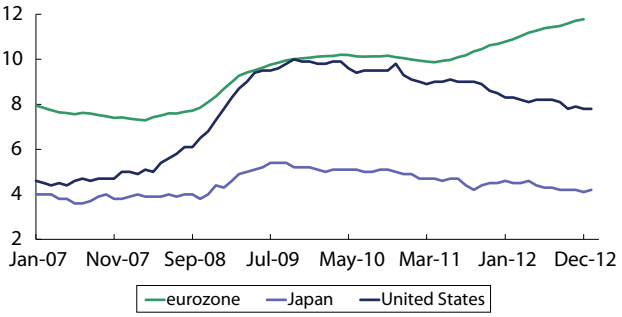


q-o-q = quarter-on-quarter, saar = seasonally adjusted annualized rate.
Source: ADB calculations using data from Eurostat and national sources.

US economic growth is expected to remain below trend in 2013.

Gross domestic product (GDP) grew modestly at 2.2% in 2012, with positive contributions from private consumption and fixed investment (including residential and nonresidential). However, the recovery's momentum stalled in the fourth quarter as GDP contracted 0.1%—on a quarter-on-quarter seasonally adjusted annualized rate (q-o-q, saar)—largely due to a significant decline in private inventories, government spending, and exports. While the fiscal cliff was narrowly averted in early January, it nonetheless continues to slow the US recovery. There are still too few new jobs and unemployment—at 7.8%—remains stubbornly high **(Figure 2)**. Moreover, consumer and business confidence has fallen recently. Therefore, US economic growth will likely remain below trend, with GDP expected to grow 2.1% in 2013.

Figure 2: Unemployment Rate—G3
(seasonally adjusted, % of labor force)



Note: Data for eurozone until November 2012.
Source: US Bureau of Labor Statistics, European Central Bank, and CEIC.

The eurozone economy will likely continue to stagnate in 2013 with high unemployment and a concern of stalled policy implementation.

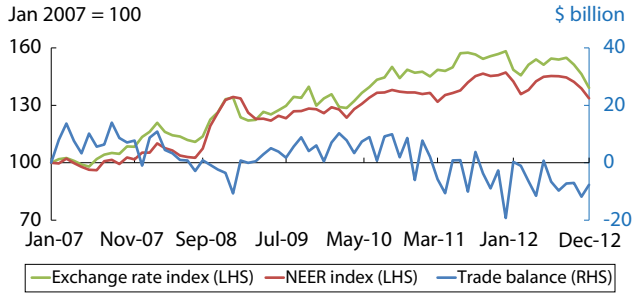
The eurozone economy contracted 0.5% in 2012—falling 2.3% (saar) in the last quarter of 2012 compared with 0.3% in the third quarter. Domestic demand weakened significantly and led to imports growing slower than exports, resulting in an expanded trade surplus. Unemployment continued to creep up, reaching a record high of 11.7% in December. While plans for fiscal consolidation have been set for many peripheral countries, uncertainties remain on how to achieve fiscal targets and address the delicate balance between growth and debt reduction. The dangerous link between sovereign debt and bank stress in weaker economies continues, and needed structural reforms have only barely begun to be implemented. In sum, GDP is expected to stagnate in 2013.

Japan's new fiscal stimulus and rapidly changing monetary regime is designed to spur growth; whether it can kick-start the economy remains uncertain.

While growing 1.9% last year, the economy contracted q-o-q in the last 3 quarters of 2012 as the trade deficit deepened and business investment slumped.

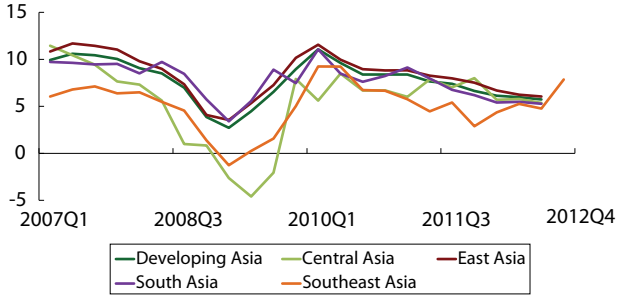
[1]Developing Asia refers to the 44 developing member countries of the Asian Development Bank and Brunei Darussalam, an unclassified regional member.

Figure 3: Exchange Rate Indexes and Trade Balance—Japan



LHS = left-hand scale, NEER = nominal effective exchange rate, RHS = right-hand scale.
Note: For exchange rate and NEER indexes, an increase means appreciation while decrease means depreciation.
Source: ADB calculations using data from the Bank for International Settlements, Reuters, and CEIC.

Figure 4: GDP Growth—Asia (y-o-y, %)



Note: Developing Asia includes Central Asia, East Asia, South Asia, and Southeast Asia. The Pacific is excluded as quarterly data unavailable. Central Asia includes Armenia, Georgia, and Kazakhstan. East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; Mongolia; and Taipei,China. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. South Asia includes India and Sri Lanka. Data up to 2012Q3 except for Southeast Asia.
Source: ADB calculations using data from CEIC.

Expansionary macroeconomic policies adopted by the newly elected government late in the year have energized financial markets and resulted in rapid yen depreciation. In less than 4 months, the yen fell from ¥77.5 to the US dollar to about ¥95, a depreciation of over 20%—it was over ¥120 per US dollar in mid-2007 **(Figure 3)**. The depreciation began with the new government's strong commitment to ease monetary policy and deepening trade and current account deficits in recent months. The parliament recently approved the government's supplemental budget, which includes fresh stimulus. To battle stubborn deflation, the Bank of Japan adopted an inflation target of 2% and announced a policy of unlimited asset purchases on 22 January. These expansionary policies, yen depreciation, and consumers' advance purchases in anticipation of a consumption tax increase—from 5% to 8% in April 2014—should spur economic growth. However, previous demand stimulus over two "lost" decades neither cured deflation nor led to sustained growth. Given that it is too early to assess the latest round of macroeconomic stimulus, GDP is forecast to grow 1.4% in 2013.

Regional Economic Outlook

After moderating in 2012, growth across most of developing Asia is expected to improve this year on increased domestic demand and modest recovery in export growth.

Last year saw a slowdown in growth in the People's Republic of China (PRC) and the more open export-oriented economies in East Asia **(Figure 4, Table 1)**. India's economy also moderated as growth in private consumption and investment slowed. However, the relatively robust growth across most of Southeast Asia continued. With the PRC's growth improving and robust domestic demand continuing, growth across most of developing Asia is likely to pick up this year. The only subregion forecast to slow is the Pacific. Overall, however, growth in developing Asia is forecast to accelerate to 6.6% in 2013 after growing 6.0% in 2012.

The growth slowdown in the PRC has bottomed out as the government loosened monetary policy and resumed fiscal stimulus.

The PRC economy expanded 7.8% in 2012 with growth accelerating in the second half. Strong fiscal spending likely contributed to the recovery, offsetting some of the effects of weaker external demand. The government accelerated approvals for infrastructure projects in major cities—giving momentum to the recovery. The economy also benefitted from a more accommodative monetary stance as the central bank began reducing the 1-year benchmark lending rate in June and July. The moderation in industrial production and retail sales growth appears to have run its course and export growth recovered to 25.0% in January. Consumer confidence also rose slightly during 2012 **(Figure 5)**. The Purchasing Managers' Index for January stood at 50.4, signaling modest growth **(Figure 6)**. Overall, GDP is expected to expand 8.1% in 2013.

After slumping in 2012 due to a weak external environment, the highly-open East Asian economies should recover this year.

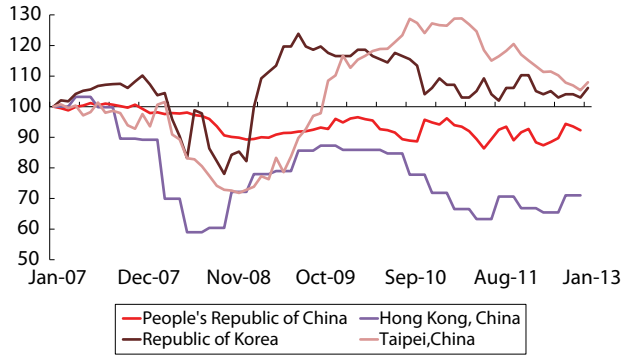
Weak global demand significantly slowed economic growth across the rest of East Asia. In 2012, growth in the Republic of Korea and Taipei,China plunged—

Table 1: Regional GDP Growth[1] (y-o-y, %)

	2009	2010	2011	2012 Estimate[2]	2013 Forecast[3]	Likely revision to 2013 forecast
Developing Asia	6.1	9.2	7.2	6.0	6.6	—
Central Asia[4]	3.2	6.8	6.5	5.4	5.7	▲
East Asia[5]	6.8	9.8	8.1	6.4	7.0	▲
People's Republic of China	9.2	10.4	9.3	7.8	8.1	▲
South Asia[6]	7.7	8.5	6.0	5.0	6.2	▼
India	8.6	9.3	6.2	5.0	6.5	▼
Southeast Asia[7]	1.4	7.9	4.7	5.5	5.5	▼
The Pacific[8]	4.3	5.5	8.1	6.8	4.2	▲
Major Industrialized Economies						
eurozone	-4.4	2.0	1.4	-0.5	0.0	
Japan	-5.5	4.7	-0.6	1.9	1.4	
United States	-3.1	2.4	1.8	2.2	2.1	

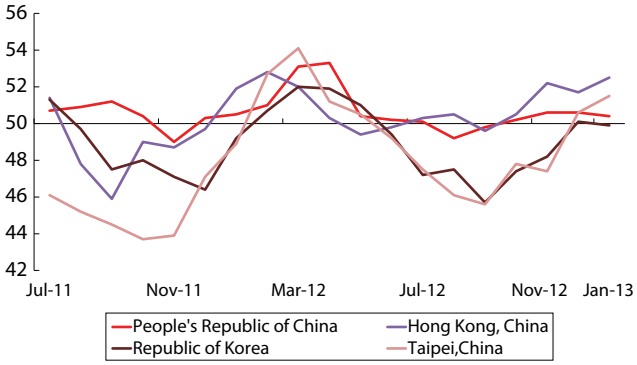
[1]Aggregates are weighted according to gross national income levels (Atlas method, current $) from *World Development Indicators*, World Bank.
[2]ADB estimates, except for eurozone, India, and the United States (advanced official estimates); actual figures for the People's Republic of China and Japan.
[3]ADB forecasts from *Asian Development Outlook Supplement, December 2012*. The new forecasts for 2013 and 2014 will be released in *Asian Development Outlook 2013* to be published in April.
[4]Includes Armenia, Azerbaijan, Georgia, Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.
[5]Includes the People's Republic of China; Hong Kong, China; the Republic of Korea; Mongolia; and Taipei,China.
[6]Includes Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan, and Sri Lanka. Data for Bangladesh, India, and Pakistan are recorded on a fiscal-year basis. For India, the fiscal year spans the current year's April through the next year's March. For Bangladesh and Pakistan, the fiscal year spans the previous year's July through the current year's June.
[7]Includes Brunei Darussalam, Cambodia, Indonesia, the Lao People's Democratic Republic, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Excludes Myanmar as weights unavailable.
[8]Includes the Cook Islands, Fiji, Kiribati, the Marshall Islands, the Federated States of Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu, and Vanuatu. Excludes Nauru as weights unavailable.
Source: ADB calculations using data from various issues of the *Asian Development Outlook,* Asian Development Bank; and CEIC.

Figure 5: Consumer Confidence Index—East Asia
(Jan 2007 = 100)



Source: ADB calculations using data from Bloomberg and CEIC.

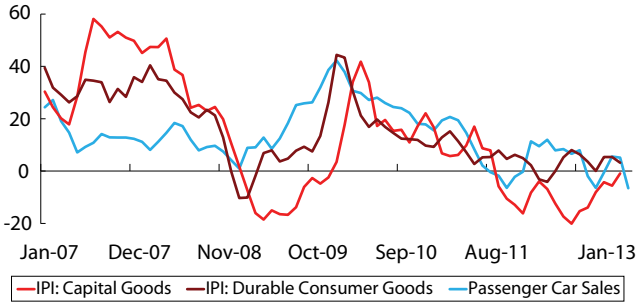
Figure 6: Manufacturing Purchasing Managers' Index (PMI)[1]**—East Asia**



[1]A manufacturing puchasing managers' index reading above 50 points indicates an expansion in the manufacturing sector while below 50 points indicates a contraction. Composite PMI for Hong Kong, China.
Source: Markit Economics and national source for the People's Republic of China.

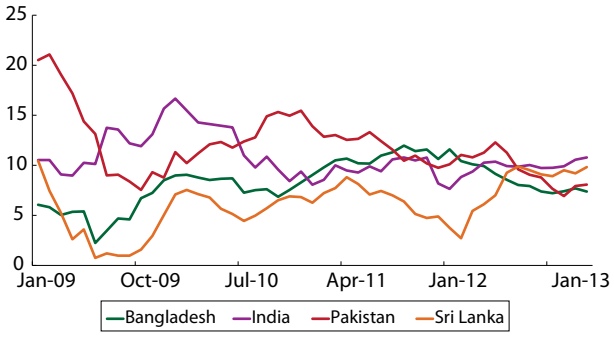
to 2.0% (from 3.6% in 2011) and 1.3% (from 4.1%), respectively. Exports and investment started to show signs of recovery in Taipei,China toward the end of 2012. In Hong Kong, China, GDP expanded 1.3% in the third quarter, up marginally from 1.2% in the second quarter—the slowdown in the PRC likely had a major influence. Including Mongolia, which grew 10.6% in the fourth quarter, East Asia GDP (including the PRC) is forecast to grow 7.0% in 2013, up from last year's 6.4%.

Figure 7: Growth of Leading Indicators for Domestic Demand[1]—India (y-o-y, %)



IPI = Industrial Production Index.
[1]3-month moving average. Data for IPI until Dec 2012.
Source: ADB calculations using data from CEIC.

Figure 8: Headline Inflation[1]—South Asia (y-o-y, %)



[1]Refers to consumer price index (CPI).
Source: ADB calculations using data from CEIC and Haver Analytics.

India's growth remained sluggish in the first half of fiscal year 2012, but recent monetary easing and a revival of reform momentum may provide some impetus.[2]

In the second quarter of fiscal year (FY) 2012, India's GDP growth dipped to 5.3%, dragged by a continued decline in private consumption and weak investment. In addition, last year's low monsoon rainfall will likely hurt agricultural output in the remainder of FY2012, which will likely constrain consumption growth and push inflation higher. Early indicators also show that consumption and investment remained weak over the past few months **(Figure 7)**. The Reserve Bank of India cut policy rates by 0.25 percentage points to 7.75% in January to stimulate domestic demand. But the high budget deficit, coupled with elevated inflation, limits its ability to cut rates further. The government has announced a series of economic reform measures, including fiscal consolidation and opening markets to foreign investors, which may help the economy regain momentum in the coming years. India's economy is expected to recover to 6.5% growth in FY2013, after slowing to 5.0% in FY2012.

Elevated inflation dampens South Asia's economic prospects.

While falling in some economies, overall, inflation remains elevated in South Asia **(Figure 8)**. In Bangladesh and Pakistan, inflation fell from 10.6% and 11.0% in FY2012 to 7.4% and 8.1% in January 2013, respectively, while it remained about 10% in India and Sri Lanka. Several central banks in the region, including India, Sri Lanka, and Pakistan, have eased monetary policy as inflation fell in recent months, which will likely boost output this year. Tight monetary policies through most of 2012 slowed growth. Sri Lanka's GDP expansion continued to fall in the third quarter of 2012. However, industrial production in Pakistan started to pick up in the second quarter of FY2013, and Bangladesh also saw some recovery in industrial production in the first quarter of FY2013.[3] With India expected to recover, South Asia's economic growth will likely reach 6.2% in 2013—after moderating to 5.0% in 2012.

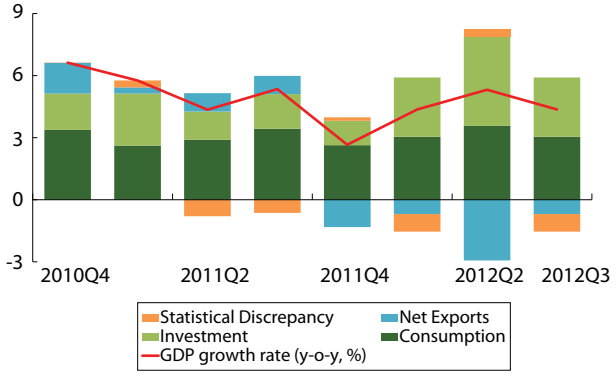
Strong domestic demand in Southeast Asia is expected to help sustain robust economic growth.

Despite falling export demand, Southeast Asian countries maintained growth momentum by relying more on domestic demand **(Figure 9)**. The Philippines' GDP growth jumped to 6.6% in 2012 from 3.9% in 2011 on strong investment and government spending. Supported by domestic demand, Indonesia maintained growth momentum with GDP expanding 6.2% in 2012 from 6.5% in 2011. Thailand's GDP growth accelerated to 6.4% from 0.1% in 2011 on reconstruction efforts following massive flooding, and Malaysia's output expanded 5.6%, after 5.1% in 2011. However, last year's weak external environment hurt Singapore's highly open economy, which, as exports contracted, grew just 1.3% in 2012, significantly down from 5.2% in 2011. Robust domestic demand is expected to continue across most economies, while consumer confidence remains high in Indonesia and the Philippines **(Figure 10)**. Together, Southeast Asia's economies are expected to retain growth at 5.5% in 2013. The five largest economies (Indonesia, Malaysia, the Philippines, Singapore, and Thailand) are forecast to expand 5.8% in 2013, after growing 5.6% in 2012.

[2]FY2012 for India refers to April 2011 to March 2012.

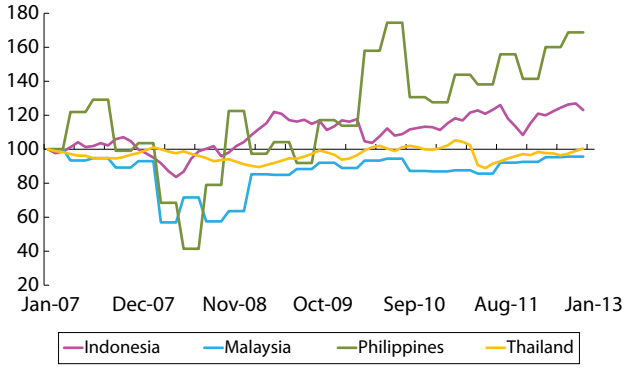
[3]FY2013 for Bangladesh and Pakistan refers to July 2012 to June 2013.

Figure 9: Contributions to GDP Growth—Southeast Asia[1]
(percentage points[2])



[1]Includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
[2]Based on year-on-year (y-o-y) changes.
Source: ADB calculations using data from CEIC.

Figure 10: Consumer Confidence Index—Southeast Asia
(Jan 2007 = 100)



Source: ADB calculations using data from Bloomberg and CEIC.

Growth in Central Asia has weakened, mainly due to slower natural resource output and domestic issues in its two largest economies—Azerbaijan and Kazakhstan.

Kazakhstan's GDP grew 5.3% in the first 9 months of 2012, compared with 7.2% over the same period in 2011. Mining output has been hurt by the drop in global metal prices, and agricultural output was also down. Delays in major investment projects are also contributing to weaker growth. In Azerbaijan, the growth outlook remains weak on falling oil production and a delayed rollout of salary increases for civil servants. Nonetheless, with a somewhat improving external environment, Central Asia's economies are forecast to grow 5.7% in 2013, slightly above the 5.4% growth in 2012.

Economic growth in the Pacific is expected to slow in 2013 on the lagged impact of last year's weaker global economy.

Due mainly to the winding down of major infrastructure spending in Papua New Guinea (PNG) and Timor-Leste (two of the largest economies in the Pacific subregion), growth is expected to slow from an estimated average of 6.8% in 2012 to 4.2% in 2013. However, this masks improved growth prospects in nearly half of the countries of the subregion. Tourism in the Cook Islands, Fiji, Palau, Samoa, Tonga, and Vanuatu remained robust in 2012 and this should continue in 2013. Resource exports and expenditures on major infrastructure projects, especially in PNG and Timor-Leste, remain the primary drivers of regional economic growth over the medium term. While lower regional growth is expected in 2013, if PNG and Timor-Leste are able to execute their governments' ambitious infrastructure spending plans more effectively than in recent years, this would raise growth prospects in the Pacific.

Risks to the Outlook and Policy Issues

The 2013 economic outlook for developing Asia is subject to three major risks: (i) an economic slowdown in the US from missed fiscal deadlines; (ii) a worsening eurozone debt crisis, and (iii) destabilizing capital flows.

Downside risks to the outlook are less severe than just a few months ago, as the US averted its "fiscal cliff" and the risk of a eurozone breakup has receded. But there remain significant risks nonetheless. First, looming fiscal deadlines in the US threaten to derail the fragile recovery and could push the economy back into recession. While the US congress delayed its fiscal reckoning, there remains the 1 March spending sequestration and the debt ceiling deadline to confront. Government operations could be disrupted with a huge contractionary impact. Also, the eurozone debt crisis remains unresolved and could worsen. Recession in periphery countries continues, while it could spread to the eurozone core of Germany, France, and Italy. Also, banking losses in the periphery countries may worsen. Progress toward a banking and fiscal union is slow and discontent over hardships from austerity measures is growing. Finally, uncertainty in the global economy and continuing quantitative easing in advanced economies

could bring large and volatile capital flows into developing Asia. This could drive excessive credit growth and currency appreciation, and exposes the region to sudden shifts in risk aversion.

While preparing counter-cyclical measures in case the short-term global outlook worsens, policymakers in developing Asia should target polices for a better balanced, sustainable, inclusive, and integrated future economy in the region.

As the external environment will remain weak in 2013—despite some positive developments in the US and eurozone over the past several months—developing Asia's policymakers should remain vigilant and ready to implement measures to safeguard the region's robust growth. Moreover, as advanced economies face a prolonged period of structural weakness, global growth will likely be lower than in recent decades. The region needs to transform its economies to adapt to this new global economic landscape. The 2008/09 global financial and eurozone debt crises showed that while day-to-day "firefighting" is needed in the short-term, policymakers should also take time to invest more capital in developing sound medium- and long-term policy options. Short-term fixes cannot solve structural problems.

Policymakers in the region should remain cautious and prudent, and be prepared to respond quickly to any deterioration in the global economy.

Global economic conditions and prospects for future recovery remain uncertain. Policymakers must be prepared to use available macroeconomic tools to safeguard economic growth while making growth more inclusive. Several developing economies in Asia have been loosening monetary policy or introduced new fiscal stimulus to offset some of the impact of the weaker global environment. Subdued inflationary pressures offer further scope to support growth. In addition, policymakers should stand ready to ensure financial systems in the region are liquid and well-capitalized. Governments must ensure that adequate social protection mechanisms are in place to support the poor and most vulnerable in case of falling employment or price shocks.

Financial sector development and macroprudential policy remain key to managing capital flows more effectively and ensuring long-term financial stability.

Developing deeper, more broad-based, and transparent financial markets can help economies allocate financial resources more efficiently for productive use and apply large pools of savings more effectively—thus better managing volatile capital flows. While economies in the region have made progress, policymakers need to keep up with the fast-changing financial environment and remain in step with financial globalization and innovation. Authorities can also curb financial excess stemming from capital inflows by providing macroprudential supervision and regulation to prevent systemic crises. Monetary policy must be augmented by macroprudential tools, such as capital requirements, additional capital buffers for banks, guidance on leverage ratios, and liquidity management to build a firewall against financial excess.

Developing Asia should continue to promote economic transformation to adjust to the new global economic landscape.

In the medium to long term, advanced economies face an extended period of structural weakness while repairing balance sheets. The region must confront the difficult task of adjustment—diversifying sources of growth, allocating financial resources more effectively and efficiently toward productive and socially equitable investment, and bolstering domestic and regional demand. Given the sluggish growth in advanced economies, developing Asia should further expand trade—particularly within the region, across its subregions, and with other emerging markets such as Latin America and Africa. Just as important, the region must ensure future growth is not merely sustainable but increasingly inclusive. Policies should be designed to improve people's welfare and the environment. Key features of public policy could include developing and broadening human capital, creating more productive jobs, building inclusive financial systems, narrowing infrastructure deficits, investing in environmentally sustainable development, and providing effective social safety nets. Progress will increasingly be determined by the quality of growth rather than simply its level.

PROGRESS IN REGIONAL COOPERATION AND INTEGRATION

Introduction

When economic and financial crises force countries to collaborate, recovery runs smoother and crisis prevention is strengthened.

A key lesson from past crises—whether Latin American debt crisis, Europe's 1992 currency crisis, and the 1997/98 Asian financial crisis—is that when countries work together to address some of the root causes of economic and financial crises, they recover from the crisis much more quickly. Crises help promote regionalism, which in turn builds greater resilience against future crises.[4] For Asia in particular, the 1997/98 Asian financial crisis led governments to cooperate to monitor the region's crisis impact, pursue needed financial reforms, build regional safety nets, and thus helped the region to better manage the impact of the 2008/09 global financial crisis **(Table 2)**. Closer cooperation further promoted market-led integration across Asia—as supply chains and production networks accelerated trade, investment, and finance—both intraregionally and increasingly inter-regionally via "South-South" trade. And without global cooperation—in response to the 2008/09 liquidity crunch—the impact would likely have been much worse.

The 2008/09 global financial and eurozone debt crises also triggered further cooperation in Asia, helping build resilience to future shocks.

As external demand from advanced economies slowed following the 2008/09 global financial crisis, regional trade—including trade in services—picked up the slack. Free trade agreements (FTAs) continue to proliferate and support for regional trade agreements has grown—with the Association of Southeast Asian Nations plus Australia, the People's Republic of China (PRC), India, Japan, the Republic of Korea, and New Zealand (ASEAN+6) launching Regional Comprehensive Economic Partnership (RCEP) negotiations in November 2012. Intra-Asian labor mobility is also expanding with remittance inflows consistently rising. Boosting physical connectivity across the region is now a major priority. ASEAN+3—ASEAN, the PRC, Japan, and the Republic of Korea—also expanded their regional financial safety net, established an independent surveillance unit, and continued work on deepening local currency bond markets across the region. India has offered to finance a financial safety net for South Asia, while several countries have expanded bilateral currency swap arrangements to step up financial cooperation and promote trade settlement in local currencies. All these initiatives bolster Asian economic integration.

Table 2: Country Coverage[1]

Central Asia		
Armenia	Kazakhstan	Turkmenistan
Azerbaijan	Kyrgyz Republic	Uzbekistan
Georgia	Tajikistan	
East Asia		
People's Republic of China	Japan	Mongolia
Hong Kong, China	Republic of Korea	Taipei,China
South Asia		
Afghanistan	India	Pakistan
Bangladesh	Maldives	Sri Lanka
Bhutan	Nepal	
Southeast Asia		
Brunei Darussalam	Malaysia	Thailand
Cambodia	Myanmar	Viet Nam
Indonesia	Philippines	
Lao People's Democratic Republic	Singapore	
The Pacific		
Cook Islands	Nauru	Timor-Leste
Fiji	Palau	Tonga
Kiribati	Papua New Guinea	Tuvalu
Marshall Islands	Samoa	Vanuatu
Federated States of Micronesia	Solomon Islands	
Oceania		
Australia	New Zealand	
Asia = Central Asia + East Asia + South Asia + Southeast Asia + the Pacific + Oceania.		

[1]Applies to this chapter of the *Asian Economic Integration Monitor,* unless otherwise stated.

[4]Crises have been described in studies as "triggers", "catalysts", "turning points", "critical junctures", and "historical episodes" that create intense pressure to act quickly and forge a collective response to a common threat. They can either help or hinder the development of regionalism, defined here as government-led policy initiatives that focus on regional cooperation, which in turn tends to bring about greater integration.

However, as Asia's policymakers digest the ongoing eurozone debt crisis and costs of contagion, they may have a reduced appetite for deeper cooperation.

The link between Europe's monetary integration and sovereign debt crisis raised several issues underlying the very *raison d'etre* of regional cooperation and integration. The contagion across Europe was a vivid reminder of the risk of a highly integrated system. This could give pause to policymakers behind Asia's cooperation efforts. At the same time, increasing global and regional interdependence implies that economic and financial shocks from advanced economies channel across the region more quickly. This was true after the 2008/09 global financial and eurozone debt crises, when financial markets and currencies in the region tumbled despite their relative strength. This is a key weakness of the global financial system, which Asia must reassess and rethink. Moreover, integration, while helping low-income countries grow faster than higher-income economies, appears to have contributed to increasing inequality within countries. Thus, in Asia, both the costs and benefits of integration are increasingly being debated.[5]

Work on future cooperation will likely become more challenging as well.

Regional economic integration has progressed rapidly in Asia, with the easy and more straightforward benefits from regional cooperation and integration having been realized. The remaining areas of cooperation and integration—and deepening existing ones—are much more complex. For instance, while trade tariffs are generally low, other barriers—such as quantitative restrictions, border administration and even closures—along with behind-the-border barriers affecting logistics, transport, infrastructure, and weak institutions significantly constrain further integration. Trade in services is often restricted through domestic regulations. The impact of regional trade blocs remains unclear—for example, the Trans-Pacific Partnership (TPP) and the RCEP could result in either debilitating competition or supporting global trade agreement. Financial integration is limited and cooperation on macroeconomic policy has barely begun. Furthermore, the degree of integration varies significantly across subregions and economies within subregions. Therefore, integration and cooperation benefit some economies more than others, widening disparities. Diversity is a blessing, but also a challenge in prioritizing initiatives that lead to regional convergence. Further cooperation in these key areas is likely to be much more difficult and challenging than before.

Progress of Regional Cooperation and Integration in Asia

The first issue of the *Asian Economic Integration Monitor* (AEIM) used five indicators to track the progress of regional integration in Asia during the pre-Asian financial crisis (1990–1996), post-Asian financial crisis (2000–2007) and global crises (2008–2011, covering the 2008/09 global financial and eurozone debt crises) periods. These indicators included the shares of intraregional flows in foreign direct investment (FDI), tourism, and total trade; intraregional holdings of equities and debt securities, and output correlations between economies in the region **(Figure 11)**. The progress of integration in Asia was most evident through trade, tourism, capital markets, and macroeconomic links, with output correlations during the global crises most likely reflecting the impact of the global shock as it hit the region. The only exception was intraregional FDI flows, which remained below its pre-Asian financial crisis share.[6]

These indicators have several limitations. They are not exhaustive and do not cover other important areas of cooperation and integration, such as infrastructure connectivity and institutional development, among others. They also hold different benchmarks for measuring the progress of integration; and it is quite difficult to judge—by merely comparing values—whether the level of integration in trade is, say, greater than the level of integration in tourism or capital markets.[7]

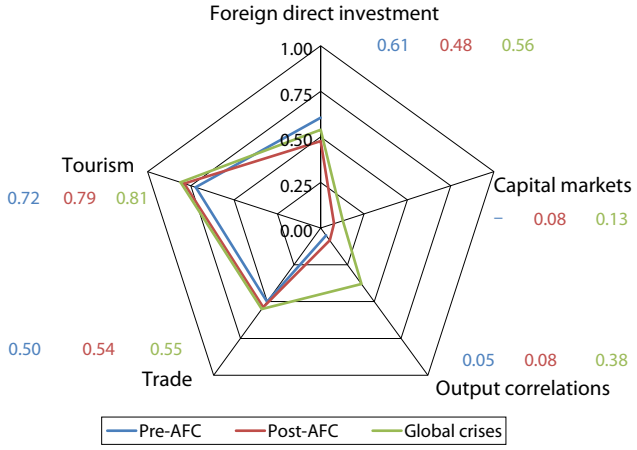
This issue of the AEIM examines integration indicators differently **(Box 1)**. To help compare changes across indicators and assess areas of interdependence that have strengthened the most, the five indicators are "normalized" to assess the changes of these indicators

[5]See, for example, ADB. 2012. Regional Integration: A Balanced View. *Asian Economic Integration Monitor July 2012*. Manila.

[6]This could be due to the quality of FDI data, which are patchy, released with a long lag, and prone to large revisions.

[7]Another problem is how to apply these indicators to Asia's various subregions, which are quite diverse and unique. While these indicators may be suitable for East and Southeast Asia—where trade and capital flows are essential—they may not reflect levels of integration in other subregions, such as Central Asia, which is more integrated from the perspective of physical connectivity. Quite the opposite, for example, from the perspective of the widely dispersed Pacific island countries.

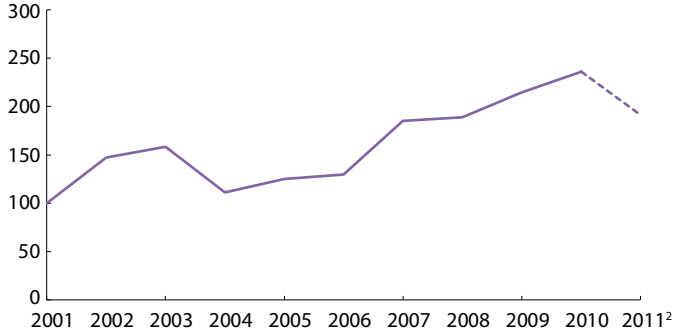
Figure 11: Advancing Integration: Regional Indicators—Asia
(Pre-AFC, post-AFC, and global crises)



AFC = Asian financial crisis. Unless otherwise stated, pre-AFC = 1990–1997, post-AFC = 1998–2007, and global crises = 2008–2011 (covering 2008/09 global financial and eurozone debt crises).
Foreign direct investment: Average share of the intraregional foreign direct investment inflows. Data unavailable for Afghanistan; Bhutan; the Cook Islands; Kiribati; the Maldives; the Marshall Islands; the Federated States of Micronesia; Mongolia; Nauru; Nepal; Palau; Samoa; Solomon Islands; Sri Lanka; Taipei,China; Tajikistan; Timor-Leste; Tonga; Turkmenistan; Tuvalu; Uzbekistan; and Viet Nam. Value for 2011 assumed to be the same as the previous year.
Capital markets: Average share of intraregional debt and equity investment based on investments from Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Thailand; and Vanuatu. Post-AFC = 2001–2007. Data available from 2001. Does not include Oceania. Recipient data unavailable for Azerbaijan, Bhutan, the Federated States of Micronesia, Palau, Samoa, Tonga, Turkmenistan, and Tuvalu.
Output correlations: Based on simple averages of 3-year rolling bilateral correlations of annual growth rates (difference of natural logarithms) of real GDP series (2005 base year). Pre-AFC = 1996–1997; global crises = 2008–2012. Data unavailable for Afghanistan, the Cook Islands, the Marshall Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, Timor-Leste, and Tuvalu. Does not include Oceania.
Trade: Average share of intraregional trade. Reporter data unavailable for Bhutan, Kiribati, Nauru, Palau, Timor-Leste, and Tuvalu. Reporter and partner data unavailable for the Cook Islands, the Marshall Islands, and the Federated States of Micronesia.
Tourism: Average share of intraregional tourist flows. Pre-AFC = 1995–1997. Does not include Oceania. Value for 2011 assumed to be the same as the previous year.
Source: ADB calculations using data from Bloomberg; CEIC; *Asia Regional Integration Center*, Asian Development Bank; *Coordinated Portfolio Investment Survey,* International Monetary Fund; *Direction of Trade Statistics*, International Monetary Fund; *World Economic Outlook Database October 2012*, International Monetary Fund; United Nations Conference on Trade and Development; and United Nations World Tourism Organization.

relative to a benchmark of typical economy-to-economy variations in the region. In general, normalizing an indicator shows how far the indicator has changed from its long-term, region-wide average—expressed in terms of units of standard deviation. The normalized indicators were then converted into indexes to show how they have changed over time. To measure the overall level of integration in the region, a composite index is constructed from the average indexes of the normalized indicators for Asia from 2001 to 2011—period where the five indicators are available. It is clear from the composite index that integration has progressed in Asia during this period—more sharply after 2006—although the progress has tapered off in 2011 reflecting less synchronized output growth in the region due to effects of domestic shocks such as the Japanese earthquake and Thailand floods **(Figure 12)**.

Figure 12: Composite Integration Index[1]—Asia (2001=100)



[1]Average of five standardized indicators: foreign direct investment, capital markets, output correlations, trade, and tourism. Standardization involves transforming each observation using the following formula: $x^*_{ijt} = (x_{ijt} - A_i)/s_i$, where x_{ijt} is the value of indicator *i* in region *j* at time *t*, A_i is the average of the ith indicator over all *j* and *t*, and s_i is the standard deviation of the ith indicator over all *j* and *t*.
[2]Uses estimates for foreign direct investment and tourism.
Foreign direct investment: Average share of the intraregional foreign direct investment inflows. Data unavailable for Afghanistan; Bhutan; the Cook Islands; Kiribati; the Maldives; the Marshall Islands; the Federated States of Micronesia; Mongolia; Nauru; Nepal; Palau; Samoa; Solomon Islands; Sri Lanka; Taipei,China; Tajikistan; Timor-Leste; Tonga; Turkmenistan; Tuvalu; Uzbekistan; and Viet Nam. Value for 2011 assumed to be the same as the previous year.
Capital markets: Average share of intraregional debt and equity investment based on investments from Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Thailand; and Vanuatu. Does not include Oceania. Recipient data unavailable for Azerbaijan, Bhutan, the Federated States of Micronesia, Palau, Samoa, Tonga, Turkmenistan, and Tuvalu.
Output correlations: Based on the median of 3-year rolling bilateral correlations of annual growth rates (difference of natural logarithms) of real GDP series (2005 base year). Data unavailable for Afghanistan, the Cook Islands, the Marshall Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, Timor-Leste, and Tuvalu. Does not include Oceania.
Trade: Share of intraregional trade. Reporter data unavailable for Bhutan, Kiribati, Nauru, Palau, Timor-Leste, and Tuvalu. Reporter and partner data unavailable for the Cook Islands, the Marshall Islands, and the Federated States of Micronesia.
Tourism: Share of intraregional tourist flows. Does not include Oceania. Value for 2011 assumed to be the same as the previous year.
Source: ADB calculations using data from Bloomberg; CEIC; *Asia Regional Integration Center*, Asian Development Bank; *Coordinated Portfolio Investment Survey,* International Monetary Fund; *Direction of Trade Statistics,* International Monetary Fund; *World Economic Outlook Database October 2012*, International Monetary Fund; United Nations Conference on Trade and Development; and United Nations World Tourism Organization.

To assess the progress of integration over a longer period, the normalized indicators and their averages are also calculated for three periods: before and after the 1997/98 Asian financial crisis, and during the global crises **(Figure 13)**. The averages of the normalized indicators show that regional integration has advanced since the 1997/98 Asian financial crisis and after the global crises. This seemed to suggest that financial crises could have spurred regional cooperation and integration in the past two decades, with the progress of integration evident in the areas of trade, tourism, capital markets, and macroeconomic links.

Regional integration in Asia has progressed in two stages: trade and tourism links improved prior to closer capital market and macroeconomic links.

In the first stage, which occurred after the 1997/98 Asian financial crisis, trade and tourism links rose significantly—by as much as 0.5–2.0 standard deviations

Box 1: An *Asian Economic Integration Monitor* Roadmap

The *Asian Economic Integration Monitor* (AEIM) tracks the progress of regional economic cooperation and integration across Asia and its subregions. It examines and analyzes new regional cooperation and integration developments, continuing—on a regular basis—the work of a trilogy of studies conducted jointly by the Asian Development Bank (ADB) and ADB Institute: (i) *Emerging Asian Regionalism: A Partnership for Shared Prosperity* (2008); (ii) *Infrastructure for a Seamless Asia* (2009); and (iii) *Institutions for Regional Integration: Toward an Asian Economic Community* (2010). By monitoring the region's progress, the AEIM can help assess how the region balances the benefits and costs of integration.

Each issue of the AEIM will hone in on specific aspects of integration—some are discussed based on available data and general trends, while others will be analyzed from a more technical, empirical perspective.

The inaugural issue of AEIM—published in July 2012—analyzed developments in regional cooperation and integration since the publication of the trilogy, mainly covering progress since the global financial crisis in 2008. It examined in depth stylized facts for each area of regional integration in Asia and its subregions.

The depth of trade integration varies across subregions, with the primacy of intermediate goods trade reflecting deepening regional production networks. Cooperation in trade policy has developed most effectively in Asia through a combination of unilateral liberalization and a plethora of free trade agreements. Asia's financial integration lags behind trade integration, with the region's financial markets more integrated through global markets than among themselves. But there are signs since the 2008/09 global financial crisis that financial integration is accelerating. The crisis provided further impetus to regional macroeconomic and financial cooperation in Asia—through dialogue processes, regional financial safety nets, and developing bond markets. Internationalizing the renminbi will likely boost regional cooperation and integration, particularly in East and Southeast Asia.

Regional labor mobility remains low, even if migrant stock data showed mobility increased between 2000 and 2010—migrants increasingly favor countries outside Asia. However, surging remittance inflows suggest labor mobility within Asia increased significantly over the past decade.

Closer trade, investment, financial, and labor links are making the region's economies more interdependent. Correlations of output and inflation rose sharply in recent years, largely due to the impact of the common shocks from the 2008/09 global financial crisis and the rise in world commodity prices in 2006–2008. As Asia's economies integrate, income disparity across the region has declined as low-income countries grew faster than higher-income economies. Strong growth in the People's Republic of China and India were major factors in the reduction in income disparity between Asian economies.

Asia's infrastructure gap remains huge, requiring far greater cross-border connectivity to strengthen intraregional trade and regional demand. In addition to physical infrastructure, Asia needs to strengthen its "soft" infrastructure—policy, legal, regulatory, and institutional frameworks, along with the systems and procedures for moving goods and services across borders.

The inaugural July 2012 issue also included a special chapter, "Regional Integration: A Balanced View." Examining various facets of regional integration, its main premise was that both benefits and costs should be carefully gauged in evaluating proposals for regional integration. The overall aim of regional cooperation and integration, like any development agenda, is to boost people's welfare—reducing poverty and narrowing inequality. Small and large economies alike should equally benefit from regional integration. Greater cooperation is needed to better and carefully manage market processes to reap benefits of integration while minimizing its potential costs.

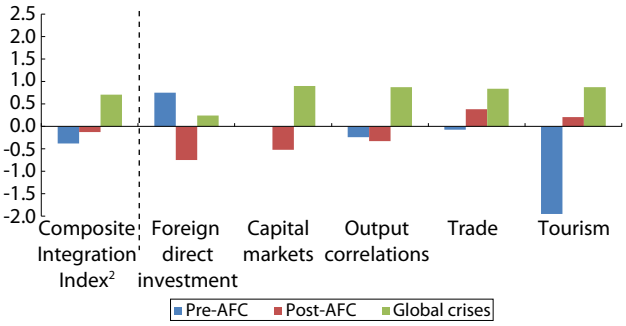
This second issue of the AEIM continues to track the progress of regional cooperation and integration—and also discusses new issues not covered in the July 2012 issue. The trade section delves into trade in services, while the financial integration section examines whether variations in returns and yields in the region's financial markets are driven by global or regional shocks. The macroeconomic interdependence section examines risk sharing in Asia by analyzing the behavior of consumption and output. The labor mobility part looks closely at remittance data and its implications for labor mobility in Asia.

The infrastructure connectivity section explains in detail several subregional cross-border infrastructure projects—information communication and technology, transport, and energy. The macroeconomic and financial cooperation section tracks recent progress through global and regional policy forums. It also discusses currency swap arrangements—a major form of central bank coordination used widely since the 2008/09 global financial crisis.

This issue also discusses the provision of regional public goods.

The special chapter—"Multilateralizing Asian Regionalism: Approaches to Unraveling the Asian Noodle Bowl"—critiques various options for further trade cooperation in Asia.

Figure 13: Progress of Integration in Asia[1]
(Pre-AFC, post-AFC, and global crises)



AFC = Asian financial crisis. Unless otherwise stated, pre-AFC = 1996–1997, post-AFC = 1998–2007, and global crises = 2008–2011 (covering 2008/09 global financial and eurozone debt crises).

[1]Indicators are standardized for comparability. Standardization involves transforming each observation using the following formula: $x^*_{ijt} = (x_{ijt} - A_i)/s_i$, where x_{ijt} is the value of indicator *i* in region *j* at time *t*, A_i is the average of the ith indicator over all *j* and *t*, and s_i is the standard deviation of the ith indicator over all *j* and *t*. The average of each indicator's standardized observations is taken for each period specified.

[2]Average of foreign direct investment, output correlations, trade, and tourism only. Capital markets do not have a pre-1997 benchmark as data unavailable.

Foreign direct investment: Average share of intraregional foreign direct investment inflows. Data unavailable for Afghanistan; Bhutan; the Cook Islands; Kiribati; the Maldives; the Marshall Islands; the Federated States of Micronesia; Mongolia; Nauru; Nepal; Palau; Samoa; Solomon Islands; Sri Lanka; Taipei,China; Tajikistan; Timor-Leste; Tonga; Turkmenistan; Tuvalu; Uzbekistan; and Viet Nam. Value for 2011 assumed to be the same as the previous year.

Capital markets: Average share of intraregional debt and equity investment based on investments from Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Thailand; and Vanuatu. Post-AFC = 2001–2007. Data available from 2001. Does not include Oceania. Recipient data unavailable for Azerbaijan, Bhutan, the Federated States of Micronesia, Palau, Samoa, Tonga, Turkmenistan, and Tuvalu.

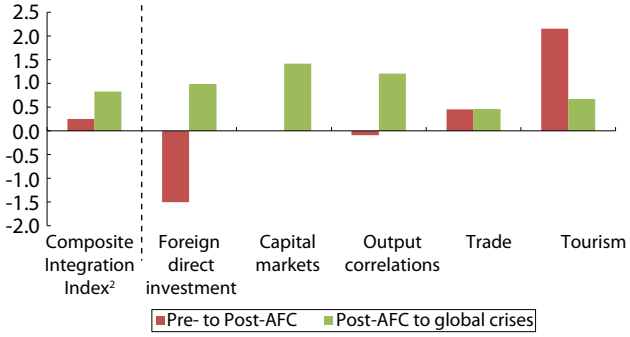
Output correlations: Based on the median of 3-year rolling bilateral correlations of annual growth rates (difference of natural logarithms) of real GDP series (2005 base year). Data unavailable for Afghanistan, the Cook Islands, the Marshall Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, Timor-Leste, and Tuvalu. Does not include Oceania.

Trade: Average share of intraregional trade. Reporter data unavailable for Bhutan, Kiribati, Nauru, Palau, Timor-Leste, and Tuvalu. Reporter and partner data unavailable for the Cook Islands, the Marshall Islands, and the Federated States of Micronesia.

Tourism: Average share of intraregional tourist flows. Does not include Oceania. Value for 2011 assumed to be the same as the previous year.

Source: ADB calculations using data from Bloomberg; CEIC; *Asia Regional Integration Center*, Asian Development Bank; *Coordinated Portfolio Investment Survey,* International Monetary Fund; *Direction of Trade Statistics*, International Monetary Fund; *World Economic Outlook Database October 2012,* International Monetary Fund; United Nations Conference on Trade and Development; and United Nations World Tourism Organization.

Figure 14: Average Change in Integration Indicators[1]**—Asia**
(Pre-AFC, post-AFC, and global crises)



AFC = Asian financial crisis. Unless otherwise stated, pre-AFC = 1996–1997, post-AFC = 1998–2007, and global crises = 2008–2011 (covering 2008/09 global financial and eurozone debt crises).

[1]Change in the average of standardized indicators from pre- to post-AFC and post-AFC to global crises. Standardization involves transforming each observation using the following formula: $x^*_{ijt} = (x_{ijt} - A_i)/s_i$, where x_{ijt} is the value of indicator *i* in region *j* at time *t*, A_i is the average of the ith indicator over all *j* and *t*, and s_i is the standard deviation of the ith indicator over all *j* and *t*. The average of each indicator's standardized observations is taken for each period specified, then the difference between the averages is calculated.

[2]Average of foreign direct investment, output correlations, trade, and tourism only. Capital markets do not have a pre-1997 benchmark as data unavailable.

Foreign direct investment: Average share of intraregional foreign direct investment inflows. Data unavailable for Afghanistan; Bhutan; the Cook Islands; Kiribati; the Maldives; the Marshall Islands; the Federated States of Micronesia; Mongolia; Nauru; Nepal; Palau; Samoa; Solomon Islands; Sri Lanka; Taipei,China; Tajikistan; Timor-Leste; Tonga; Turkmenistan; Tuvalu; Uzbekistan; and Viet Nam. Value for 2011 assumed to be the same as the previous year.

Capital markets: Average share of intraregional debt and equity investment based on investments from Hong Kong, China; India; Indonesia; Japan; Kazakhstan; the Republic of Korea; Malaysia; Pakistan; the Philippines; Singapore; Thailand; and Vanuatu. Post-AFC = 2001–2007. Data available from 2001. Does not include Oceania. Recipient data unavailable for Azerbaijan, Bhutan, the Federated States of Micronesia, Palau, Samoa, Tonga, Turkmenistan, and Tuvalu.

Output correlations: Based on the median of 3-year rolling bilateral correlations of annual growth rates (difference of natural logarithms) of real GDP series (2005 base year). Data unavailable for Afghanistan, the Cook Islands, the Marshall Islands, the Federated States of Micronesia, Myanmar, Nauru, Palau, Timor-Leste, and Tuvalu. Does not include Oceania.

Trade: Average share of intraregional trade. Reporter data unavailable for Bhutan, Kiribati, Nauru, Palau, Timor-Leste, and Tuvalu. Reporter and partner data unavailable for the Cook Islands, the Marshall Islands, and the Federated States of Micronesia.

Tourism: Average share of intraregional tourist flows. Does not include Oceania. Value for 2011 assumed to be the same as the previous year.

Source: ADB calculations using data from Bloomberg; CEIC; *Asia Regional Integration Center*, Asian Development Bank; *Coordinated Portfolio Investment Survey,* International Monetary Fund; *Direction of Trade Statistics*, International Monetary Fund; *World Economic Outlook Database October 2012*, International Monetary Fund; United Nations Conference on Trade and Development; and United Nations World Tourism Organization.

from their long-run averages. During this period, however, FDI flows within the region actually weakened. In the second stage, beginning with the global financial crisis in 2008, however, regional integration deepened more in terms of FDI flows, capital markets, and output correlations—between 0.75 and 2.5 standard deviations above their long-run averages **(Figure 14)**.

The progress of integration in trade and tourism, however, appears to have plateaued or slowed during the global crises, while output correlations and integration in capital markets and FDI strengthened. There are three possible explanations for this. First, the global crises, still ongoing, was relatively short compared with the other two periods, such that the crisis impact on both trade and travel dominated. Second, the slowdown in trade integration reflected the strong global orientation of PRC trade and the relative fall of its trade with its neighbors. The PRC's share of intraregional trade has been falling in recent years, as it vastly expanded trade links with Latin America and Africa. On the contrary, the global crises not only increased risks, but also lowered returns of real and financial assets in advanced economies—mostly outside of Asia—and thus FDI and portfolio investment increasingly flowed within Asia. In addition, the shocks from the global crises affected all economies simultaneously and therefore boosted output correlations between Asian economies.

Trade Integration

Trade in Goods

The eurozone debt crisis continues to affect Asia through the trade channel; although far less than the 2008/09 global financial crisis.

After recovering to a year-high of $80.6 billion in July 2011, exports to the European Union (EU) as of August 2012 have remained roughly 20% below the peak. For the same period, exports to the US were also 5.3% below its 2011 peak ($68.7 billion). More broadly, in the months following the eurozone debt crisis, merchandise exports of major Asian economies fell a modest 10%. This fall, however, was more modest than the nearly 40% drop during the 2008/09 global financial crisis **(Figure 15)**. Asia's merchandise exports were climbing back since August 2012, almost reaching their pre-eurozone debt crisis peak.

While Asia's export growth continues to slow—with exports to the EU contracting most—exports to Africa, Latin America, and the Middle East rose in 2012.

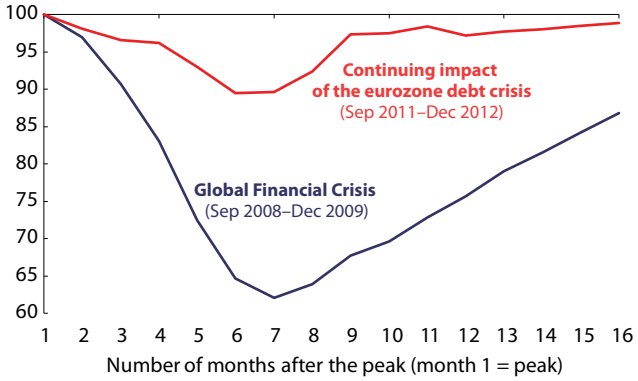
Asia's total export growth fell to 5.5% in July and August 2012 from a high of 19.8% in the same period of 2011. From its peak in 2010, the region's export growth in 2012 also moderated across the board reflecting the broad impact of the eurozone debt crisis **(Table 3)**. In contrast, exports to the Middle East grew strongly, followed by Africa and Latin America.[8] As a result, the export share to these regions increased from 8.4% in January 2007 to 11.3% in August 2012 **(Figure 16)**.

Despite a shift in the direction of Asia's exports, the share of its intraregional exports has remained unchanged.

In the first 8 months of 2012, intraregional exports accounted for 56% of total Asian exports—equivalent to its 2009–2011 average (see Figure 16). Similarly, Asia's intra-subregional trade shares were also quite stable—except for East Asia, which moderated slightly **(Figure 17)**. The slight easing in East Asia can be

[8]S. Hamanaka and A. Tafgar. 2013. Critical Review of East Asia–South America Trade. *ADB Working Paper Series on Regional Economic Integration*. No. 105. Manila: Asian Development Bank.

Figure 15: Merchandise Exports[1] During Crisis—Asia[2]
(peak month = 100)



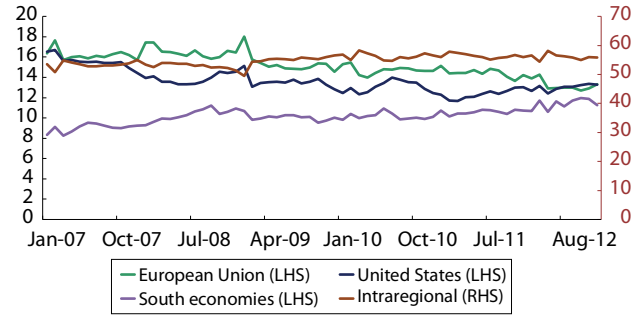
[1]3-month moving average. Based on $ values.
[2]Includes Australia; the People's Republic of China; Hong Kong, China; India; Indonesia; Japan; the Republic of Korea; Malaysia; New Zealand; the Philippines; Singapore; Taipei,China; Thailand; and Viet Nam. Only economies with up-to-date data were included.
Source: ADB calculations using data from CEIC.

Table 3: Merchandise Export Growth by Destination—Asia
(y-o-y, %)

	2008	2009	2010	2011	2012[1]
Intraregional	14.6	-15.4	33.2	18.2	-3.7
United States	2.9	-20.1	25.9	11.7	4.1
European Union	17.5	-24.3	25.4	15.4	-13.1
Africa	27.4	-13.8	27.4	25.0	4.2
Latin America	29.0	-26.4	50.5	27.2	2.9
Middle East	36.3	-19.9	22.1	18.9	8.3
Total	15.5	-18.5	30.3	18.0	-3.1

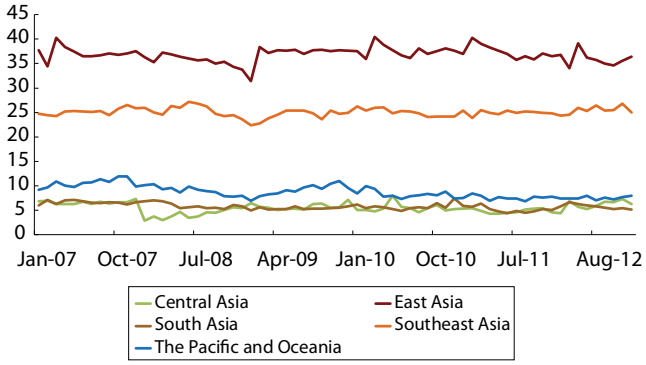
Note: Country groupings for Asia, Africa, Latin America, and the Middle East are based on *Asian Development Outlook 2011: South–South Economic Links*, Asian Development Bank. European Union (EU) refers to the aggregate of 27 EU members.
[1]Data up to Aug 2012.
Source: ADB calculations using data from *Direction of Trade Statistics*, International Monetary Fund; and CEIC for Taipei,China.

Figure 16: Merchandise Exports by Destination—Asia (% of total)



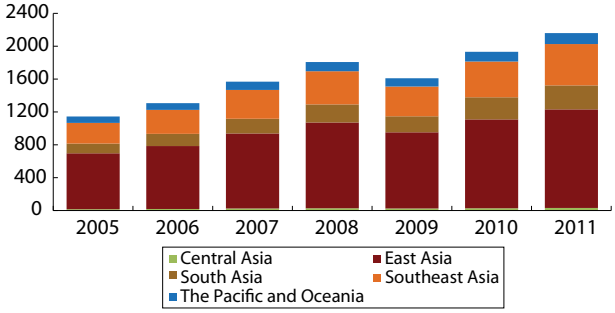
LHS = left-hand scale, RHS = right-hand scale.
Note: Country groupings of South economies (Asia, Africa, Latin America, and the Middle East) based on *Asian Development Outlook 2011: South–South Economic Links*, Asian Development Bank. European Union (EU) refers to the aggregate of 27 EU members.
Source: ADB calculations using data from *Direction of Trade Statistics*, International Monetary Fund; and CEIC for Taipei,China.

Figure 17: Intra-subregional Trade Share[1]—Asia (%)



[1]Intra-subregional trade share (INTS) of region *i* is defined as $INTS_i = X_{ii}/X_{i.}$; where X_{ii} = exports of region *i* to region *i* and $X_{i.}$ = total exports of region *i*.
Source: ADB calculations using data from *Direction of Trade Statistics,* International Monetary Fund; and CEIC for Taipei,China.

Figure 18: Total Trade in Services[1]—Asian Subregions[2] ($ billion)



[1]Exports plus imports.
[2]Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund.

explained by slowing trade between the PRC and Hong Kong, China—a knock-on effect of weak demand from advanced economies on intraregional trade.

Trade in Services

During the last decade, services trade has become an important driver of economic growth.[9]

The growing importance of services trade can be seen from stories of some small countries that have successfully exported high-tech services worldwide. As a result, service exports of developing countries almost tripled between 1997 and 2007.[10] Generally, the importance of services trade grew with the information and technology revolution, which enhanced the technology, transportability and tradability of services. Traditionally, services exports are mostly confined to the production of inputs or the provision of personal services.[11] However, with improvements in telecommunications and digital technology, a modern class of services—limited by neither time nor space—has emerged. These services take advantage of information and communications technology (ICT), globalization, and economies of scale; and benefit from higher productivity. They include information technology, education, and business processing outsourcing—transcribing medical records, data services, call centers, and entertainment production services, among others.[12]

Trade in services is increasingly important to Asia; though it is growing slower than trade in goods.

Since 2005, the value of services trade in Asia doubled from $1.1 trillion to $2.2 trillion in 2011 (preliminary data)—an annual growth of 11.2%. A large chunk of services trade originates from East and Southeast Asia **(Figure 18)**. Comparatively, services trade growth remains below growth in trade in goods. The value of goods trade in Asia more than doubled from $5.2 trillion in 2005 to $10.9 trillion in 2011—an annual growth of 13.1%. As a result, the share of Asia's services exports to total exports fell from 16.5% in 2005 to 15.7% in 2011, after reaching a peak of 18.0% in 2009 **(Figure 19)**.[13]

[9]This section uses data based on the Balance of Payments Manual Sixth Edition (BPM6) (see Box 3 for a comparison of BPM6 and BPM5 data).

[10]S. Mishra et al. note the global value of cross-border services exports in 2007 was $3.3 trillion (20% of total world trade). However, this could be higher. H. Escaith (2008) notes that the share of services is almost 50% if transactions are measured in terms of direct and indirect value-added content—that is, if measured in terms of processing imported components into final products for export. If sales of services by foreign affiliates of multinational firms are added, then the value of trade in services rises further. Data for 15 OECD countries put the value of these sales at around $1.5 trillion in 2007. See S. Mishra, S. Lundstrom, and R. Anand. 2011. Service Export Sophistication and Economic Growth. *Policy Research Working Paper.* No. 5606. Washington, DC: The World Bank; H. Escaith. 2009. Measuring Trade in Value Added in the New Industrial Economy: Statistical Implications. MPRA Paper. 4 April. http://mpra.ub.uni-muenchen.de/14454/1/MPRA_paper_14454.pdf; World Trade Organization. 2009. *International Trade Statistics 2009*. Geneva; and B. Hoekman and A. Mattoo. 2008. Services Trade and Growth. *Policy Research Working Paper*. No. 4461. Washington, DC: The World Bank.

[11]Traditional services include transport; travel; construction; personal, cultural, and recreational services; government goods and services; manufacturing services on physical inputs owned by others such as processing, assembly, labeling or packing; and maintenance and repair services

[12]This modern class of services includes financial services covering financial intermediation and auxiliary services; insurance and pensions; telecommunications, computer, and information; charges for the use of intellectual property or royalties and license fees; other business including research and development, professional and management consulting; and technical, trade-related, and other business services.

[13]The ratio peaked in 2009 as services export growth proved to be more resilient to the 2008/09 global financial crisis than goods export growth.

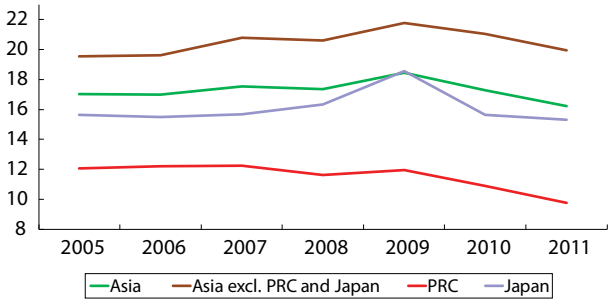
Box 2: Trading Goods and Services—What you can hold and What you cannot

There are important differences when trading goods and services—both within and across borders. First and foremost, services are intangible. There is no inventory for services; immediate consumption is usually required. Direct contact between supplier and consumer is needed for some services. As a result, trading services internationally is more complicated than goods.

To comprehensively capture how international services are traded, they are categorized four ways in computing balance of payments: Mode 1 (cross-border trade) where the service moves across borders; Mode 2 (consumption abroad) where it is the consumer who travels; Mode 3 (trade through commercial presence) where an institutional service supplier moves across borders; and Mode 4 (movement of natural persons) where an individual supplier of the service travels across borders. Balance of payments data mainly covers Modes 1 and 2, although services can also be transacted using a combination of various modes.

While there are some commonalities between goods and services trade in terms of explanatory factors (for example, a large GDP leads to large trade flows), there are also some notable differences: (i) common language between two trading countries significantly increases services rather than goods trade; and (ii) archipelagoes prove critically unfavorable for goods trade, but not for trade in services.

Figure 19: Share of Services to Total Exports[1]—Asia[2] (%)



PRC = People's Republic of China.
[1]Goods and services.
[2]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam.
Source: ADB calculations using data from *Balance of Payments Statistics* and *Direction of Trade Statistics,* International Monetary Fund; and CEIC.

There is a good chance that the preliminary data for 2011 will be revised **(Boxes 2, 3)**.[14]

Excluding Asia's two largest economies, the share of services exports for the majority of Asian economies is growing.

The decline in the share of services exports is mainly due to falling shares in the PRC and Japan (see Figure 19). In particular, the falling services export share in the PRC—and increasing share of goods exports—reflects the PRC's growing role as global factory and the trade in parts and components associated with regional supply chains, rather than any weakness in services trade. Excluding the PRC and Japan, Asia's services share increased from 19.1% in 2005 to 21.3% in 2009, before falling back to 19.4% in 2011.

Unlike trade in goods, which generates a cumulative surplus for Asia, trade in services shows a cumulative deficit.

For goods trade, Asian economies had an average cumulative surplus of $428 billion a year since 2005. This is in contrast to trade in services, which generated an average cumulative deficit of $34 billion a year.[15] Despite narrowing slightly from 2005 to 2007, the region's services trade deficit has shown an upward trend since 2008 **(Figure 20)**.

Country level data show that the PRC and Japan account for most of the services trade deficit in Asia. For the PRC, its prime deficit lies with Hong Kong, China; the EU-6; and the US.[16] In the case of Japan, it has large deficits with the US and Hong Kong, China. In contrast, Hong Kong, China; India; and the Philippines show significant surpluses **(Figure 21)**. For Hong Kong, China, most of its surplus is with the PRC, the US, and EU-6—mostly derived from financial services. The modest

[14]Balance of payment data on services trade are patchy and have limited history, with data revisions made even after 2–3 years. Therefore, caution is needed when interpreting trends, especially during more recent years.

[15]These figures refer to the cumulative trade balance of all Asian economies and reflect their net trade position with all trading partners, including other Asian economies. Unfortunately, bilateral trade data are not available for all Asian economies for all years.

[16]EU-6 includes France, Germany, Italy, the Netherlands, Spain, and the United Kingdom.

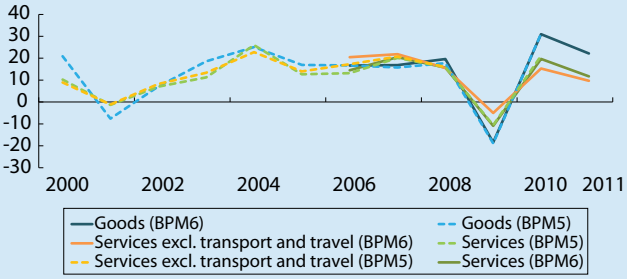
Box 3: Statistics on Services Trade—Balance of Payments Manuals 5 and 6

Data on services trade is based on the B*alance of Payments Manual* (BPM) of the International Monetary Fund (IMF). The BPM serves as the standard for statistics on transactions and positions between an economy and the rest of the world. Since 1948, the BPM has undergone several revisions to incorporate new economic and financial developments, changes in analytical demand, and better experienced compilers. To date, the fifth edition of the manual (BPM5) provides the longest historical series for services trade—up to 2010 for most countries. However, a new edition (BPM6) was released in 2009. BPM6 aims to ensure consistency with the updated System of National Accounts and IMF definition of foreign direct investment. Data for BPM6, however, are only available from 2005 to 2011.

Although BPM5 remains adequate, BPM6 data are used in this section to incorporate the numerous updates and improvements. Below is a comparison of some key trends for services trade under BPM5 and BPM6 **(Box table)**. The share of services exports to total exports in Asia increased up to 2009, under both BPM5 and BPM6—but declined thereafter. More so, services trade showed more resilience relative to goods trade (excluding transport and travel) during the 2008/09 global financial crisis **(Box figure)**.

BMP6 has 12 services sectors: (i) manufacturing services on physical inputs owned by others—such as processing, assembly, labeling or packing; (ii) maintenance and repair; (iii) transport; (iv) travel; (v) construction; (vi) insurance and pensions; (vii) financial services covering financial intermediation and auxiliary services (except insurance and pensions); (viii) charges for the use of intellectual property or royalties and license fees; (ix) telecommunications, computer, and information; (x) other business services including research and development, professional and management consulting, and technical, trade-related, and other business services; (xi) personal, cultural and recreational services; and (xii) government goods and services. Among the 12 components, travel is different as it does not refer to a single product but to the expenses for services incurred by a person during his visit to a country other than his own.

Total Trade Growth[1]—Asia[2] (%)



BPM = Balance of Payments Manual.
[1]Exports plus imports.
[2]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. East Asia does not include Taipei,China. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam and Viet Nam.
Source: ADB calculations using data from *Balance of Payments Statistics*, International Monetary Fund; and CEIC.

Share of Services to Total Exports[1]—Asia[2] (%)

	Edition	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Asia	BPM6	–	–	–	–	–	16.5	16.5	17.0	16.8	18.0	16.8	15.7
	BPM5	14.3	15.4	15.5	14.9	15.3	15.1	14.9	15.6	15.7	16.9	16.0	–
Asia excl. PRC and Japan	BPM6	–	–	–	–	–	19.1	19.1	20.3	20.1	21.3	20.5	19.4
	BPM5	11.0	11.9	12.0	11.3	11.5	11.3	11.2	11.8	11.8	12.9	12.1	–
PRC	BPM6	–	–	–	–	–	11.6	11.7	11.8	11.1	11.4	10.4	9.3
	BPM5	10.9	11.1	10.9	9.6	9.5	8.9	8.7	9.1	9.3	9.7	9.8	–
Japan	BPM6	–	–	–	–	–	15.2	15.0	15.2	15.8	18.1	15.1	14.8
	BPM5	13.1	14.4	14.2	14.7	15.3	16.3	16.0	16.0	16.6	19.1	16.2	15.6

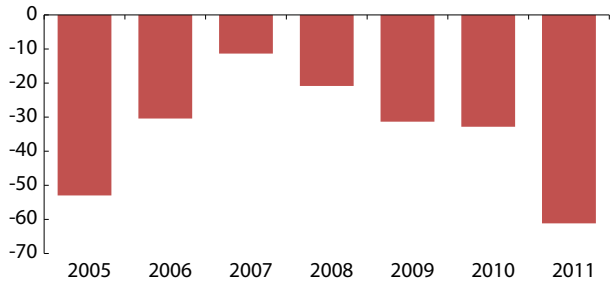
– = data unavailable, BPM = Balance of Payments Manual, PRC = People's Republic of China.
[1]Goods and services.
[2]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. East Asia does not include Taipei,China. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam and Viet Nam.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund; and CEIC.

surplus in India and the Philippines comes from trade in telecommunications, computer, and information services **(Box 4)**.

Asia plays a moderate but increasing role in the global services trade.

In 2011, only the PRC, Japan, India, and Singapore made it to the top 10 in services trade **(Table 4)**. The PRC ranked fourth, with Japan sixth. Interestingly, both the PRC and Japan are more dominant in global exports of goods—ranking first and fourth, respectively. Despite this, the region's share in global services trade has been increasing, with its share of world services trade up from 17.6% in 2005 to 20.1% in 2011 **(Figure 22)**. Trends for individual economies are mixed, with most Asian economies showing rising shares, except for Australia which is flat, and Japan which is declining **(Figure 23)**.

Figure 20: Services Trade Balance—Asia[1] ($ billion)



[1]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund; and CEIC.

Table 4: Services Trade[1]**—Top Ten Economies**
(% of world trade)

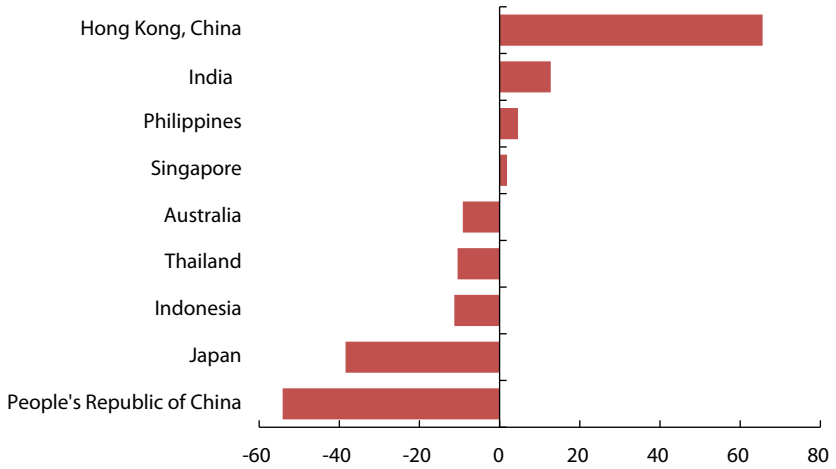
	2011
United States	12.8
Germany	7.1
United Kingdom	5.9
People's Republic of China	5.3
France	5.0
Japan	3.9
India	3.3
Spain	3.0
Singapore	2.8
Italy	2.8

[1]Exports plus imports.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund; and CEIC.

Asia should prioritize services exports as a new growth channel—particularly exports of modern services.

Services exports hold much promise for the region. First, the region has a large pool of highly trained labor to support these industries. The capital requirements for some of these modern services are not huge. These modern services can also be unbundled—their production fragmented across the region—thereby providing a good opportunity for Asia to create high-tech services jobs for some of its low- and middle-income countries. More importantly, exports of these types of services are not hampered by trade or other physical barriers and could potentially contribute to greater regional integration. The only challenge is domestic regulation that still limits market access.

Figure 21: Services Trade Balance—Selected Asian Economies, 2011 ($ billion)



Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund.

Box 4: Services Trade in India and the Philippines

While Asia's overall trade services deficit reached $61.2 billion in 2011, India had a $12.7 billion surplus and the Philippines $4.6 billion. Historically, both countries had a services trade deficit. But India was able to generate a surplus beginning in 2004, while the Philippines joined in 2005. The two countries today earn large surpluses from trade in telecommunication, computer and information services (TCIS). These surpluses are offset by deficits in transport. For example, in 2011, India had a TCIS surplus of $55.8 billion, partially offset by a deficit in transport of $39.2 billion. Similarly, the Philippines posted a surplus in TCIS of $8.7 billion with a transport deficit of $3.6 billion. In terms of data availability, TCIS has two subcategories—(i) telecommunications services, and (ii) computer and information services (CIS). Telecommunications services include broadcast or data transmission or other information using telephone, mobile, email, satellite, or other means. CIS consists of hardware- and software-related services, data processing services, news agencies, and database services.

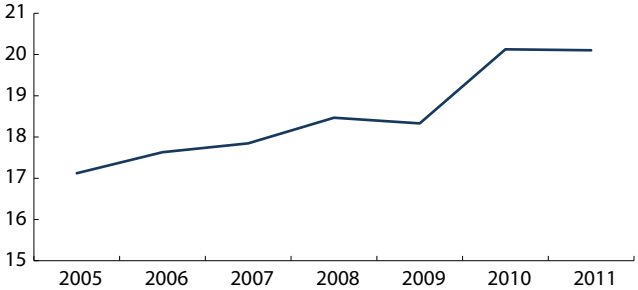
For India, its strong TCIS surplus comes from telecommunications services, which generated a $59.6 billion surplus in 2011. This derives from India's huge telecommunications network—the second largest in the world—with a telephone subscriber base of about 940 million, over 900 million of which are wireless connections (as of August 2012). The strong growth of India's telecommunication industry reflects the successful liberalization in the early 1990s, which transformed the industry from being wholly government-owned to one with up to 74% foreign equity participation. Liberalization brought with it increased competition from foreign investors. Due to intense competition, India has one of the lowest call tariffs in the world.

For the Philippines, its strength mainly lies in providing CIS—with a surplus of around $6.7 billion in 2011—although there is no breakdown to help identify its strong subcomponents. A large part of business process outsourcing (BPO) services falls within CIS. Based on the Philippine government classification, BPO includes the provision of information- and technology-enabled services.[1]

The BPO sector comprises call centers, back office support, information technology outsourcing, engineering services outsourcing, transcription, and animation. Of these, call centers in the Philippines account for 80% of the BPO business. Part of the reason for their success is low cost and reliable telecommunications; affordable real estate; up to 100% foreign ownership; a large pool of young, English speaking graduates; and some tax incentives.

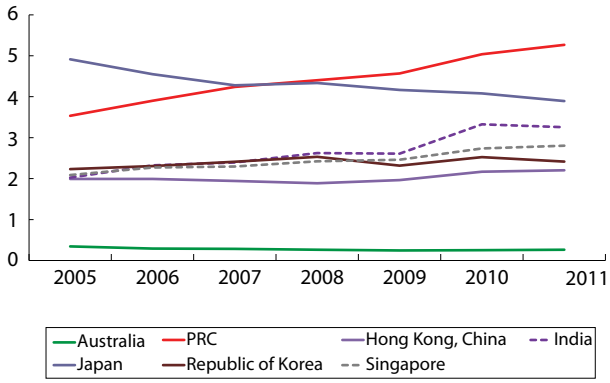
[1]Bangko Sentral ng Pilipinas. 2010. *Results of the 2010 Survey of Information Technology-Business Process Outsourcing (IT-BPO) Services*. http://www.bsp.gov.ph/downloads/Publications/2012/ICT_2010.pdf

Figure 22: Trade in Services[1]—Aggregate of Key Asian Economies[2]
(% of world trade)



[1]Exports plus imports.
[2]Australia; the People's Republic of China; Hong Kong, China; India; Japan; the Republic of Korea; and Singapore.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund; and CEIC.

Figure 23: Trade in Services[1]—Key Asian Economies
(% of world trade)

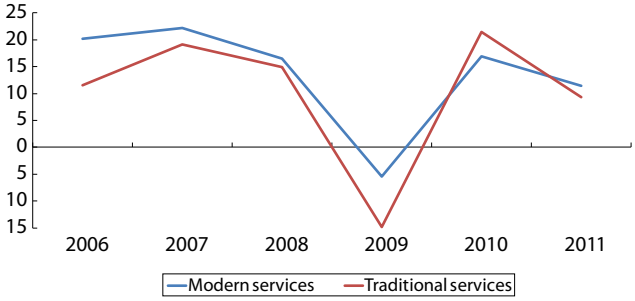


PRC = People's Republic of China.
[1]Exports plus imports.
Source: ADB calculations using data from *Balance of Payments Statistics*, International Monetary Fund; and CEIC.

The composition of Asia's services trade is changing toward modern services.

The region's trade in modern services has grown faster than trade in traditional services **(Figure 24)**. In the 7 years to 2011, modern services grew an average 13.2% per year compared with 9.6% for traditional services. Thus, the share of traditional services declined from 65.4% in 2005 to 60.8% in 2011. During the same period, the share of modern services increased from 34.6% to 39.2%.

Figure 24: Growth of Traditional and Modern Services Trade[1]—Asia[2] (y-o-y, %)

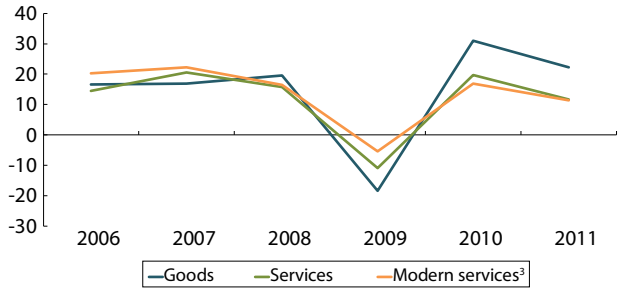


[1]Exports plus imports. **Modern services** include financial services covering financial intermediation and auxiliary services; insurance and pensions; telecommunications, computer, and information; charges for the use of intellectual property or royalties and license fees; other business including research and development, professional and management consulting; and technical, trade-related, and other business services. **Traditional services** include transport; travel; construction; personal, cultural, and recreational services; government goods and services; manufacturing services on physical inputs owned by others such as processing, assembly, labeling or packing; and maintenance and repair services.
[2]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. East Asia does not include Taipei,China. South Asia does not include Afghanistan, Bhutan, and the Maldives. Southeast Asia does not include Brunei Darussalam and Viet Nam.
Source: ADB calculations using data from *Balance of Payments Statistics*, International Monetary Fund; and CEIC.

Similar to goods trade, trade in services is income elastic; but more resilient than trade in goods, thereby cushioning the region from global shocks.

In the aftermath of the 2008/09 global financial crisis, services trade in Asia fell 10.9% in 2009 **(Figure 25)**. But the decline for modern services trade was even smaller (5.4%), well below the decline in goods trade (18.4%). Generally, the provision of traditional services—particularly transport, travel, and services inputs to the production of goods—are directly linked to the flow of goods and people in the region. They can be sensitive to economic shocks, making them volatile. Travel is also quite cyclical, largely discretionary, and the first to be cut when there is an economic crunch. On the other hand, trade in modern services such as insurance, communication, and telecommunications, and computer and information are more robust and tend to remain stable. Studies show that services such as bookkeeping are "necessities," irrespective of the economic situation.[17] Also, services trade/production is generally less reliant on external finance than goods. Thus, they continue regardless of financial volatility.

Figure 25: Total Trade Growth[1]—Asia[2] (y-o-y, %)



[1]Exports plus imports.
[2]Asia includes all subregions. Central Asia does not include Tajikistan, Turkmenistan, and Uzbekistan. East Asia does not include Taipei,China. South Asia does not include Afghanistan, Bhutan, and the Maldives . Southeast Asia does not include Brunei Darussalam and Viet Nam.
[3]Modern services includes financial services covering financial intermediation and auxiliary services; insurance and pensions; telecommunications, computer, and information; charges for the use of intellectual property or royalties and license fees; other business including research and development, professional and management consulting; and technical, trade-related, and other business services.
Source: ADB calculations using data from *Balance of Payments Statistics,* International Monetary Fund; and CEIC.

Financial Integration

The 2008/09 global financial crisis severely affected Asian financial markets; but it also accelerated the pace of the region's financial integration.

The 2008/09 global financial crisis and eurozone debt crisis in 2011 saw Asia's stock prices, bond yields, and exchange rates fluctuating wildly, usually in tandem with global financial developments. This was due to the close links between Asia's financial markets and global markets. However, there are also signs that financial integration in Asia has been deepening in the aftermath of the 2008/09 global financial and eurozone debt crises. The progress of financial integration can be measured by an assessment of both price and volume indicators. When markets are financially integrated, prices for similar assets—those with similar expected risk-adjusted returns—should converge from capital flows and arbitrage; so the greater the financial integration, the greater the co-movement in prices. And this would be

[17] I. Brochert and A. Matoo. 2009. The Crisis-Resilience of Services Trade. *Poverty Reduction and Economic Management Network Notes.* No. 135. Washington, DC: the World Bank.

typically accompanied by an increase in the share of financial assets traded within the region and held by regional market participants.

Cross-market dispersions of daily equity returns and 10-year bond yield spreads relative to US Treasury bond yields are used in this analysis as price indicators of financial integration. Lower dispersion implies that markets are integrating—as risk-adjusted asset prices converge. To help identify whether variations of asset prices are driven more by global or regional shocks, vector autoregressions (VAR) are estimated to decompose variances in asset prices **(Box 5)**.

Price co-movements among Asian equities increased since the early 2000s, with some acceleration in 2009 and 2012, mostly due to the global shocks.

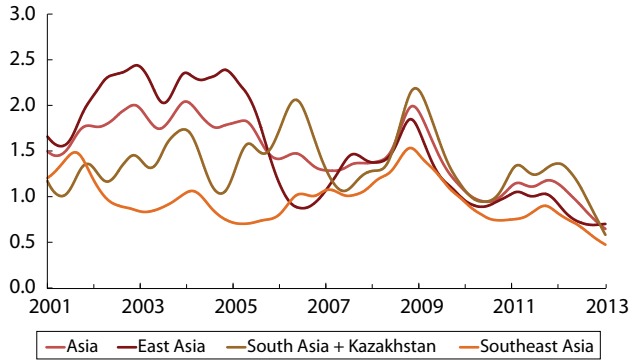
Asian daily stock returns have converged over the past few years, with cross-market dispersion of equity returns lower in 2012 compared with 2001 throughout the region and its subregions **(Figure 26)**. The increase in co-movements accelerated (i) following the September 2008 Lehman Brothers collapse, (ii) as political bickering over the US public debt ceiling rattled markets in mid-2011, and (iii) in 2012, when worries over the eurozone debt crisis were at their peak.

While equity returns are largely driven by local conditions, they are increasingly affected by regional and global events. The VAR analysis suggests that shocks emanating from US markets in 2009 and 2012, when global financial markets were rattled, accounted for more than 20% of the total variations in Asian stock market performance **(Figure 27)**. Shocks from Japan and other Asian economies had much less impact. However, the rising share of regional shocks in explaining variations in equity returns also suggests that the region's financial markets are integrating further. There are some differences across Asia's subregions **(Table 5)**. East Asia's markets have the strongest local bias—given the PRC's stock markets' unique behavior. Southeast Asia—which is integrated heavily in global production networks—is least susceptible to local shocks. South Asia's stock prices are largely affected by local events (explaining more than 75% of total variations), implying these markets are not yet well-integrated with regional and global markets.

Co-movements in Asia's bond yield spreads, however, have not changed much since 2000, indicating that markets may have become more risk sensitive to an individual economy's fundamentals.

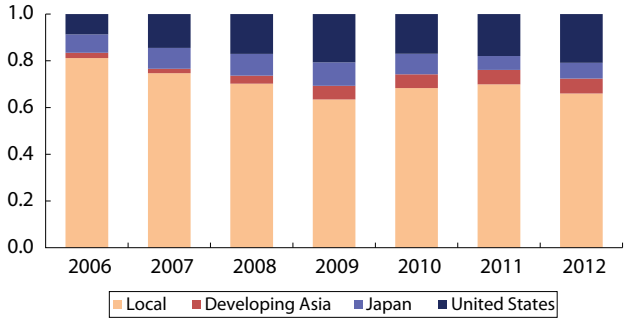
After converging until mid-2007, Asia's bond yield spreads diverged following the 2008/09 global financial crisis **(Figure 28)**. Yet, bond yield spreads converged within subregions or among economies holding similar macroeconomic fundamentals. For example, yield spreads converged among the middle income ASEAN-4 (Indonesia, Malaysia, the Philippines, and Thailand), which possess similar fundamentals. The same was true within East Asia and South Asia subregions. East Asia economies generally have stable inflation and current

Figure 26: Cross-Market Dispersion of Equity Returns (%)



Note: Cross-market standard deviation of daily stock market returns, de-trended using Hodrick-Prescott (HP) filter. Asia includes East Asia, South Asia plus Kazakhstan, and Southeast Asia. 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, Pakistan, and Sri Lanka. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Data until 8 January 2013.
Source: ADB calculations using data from Bloomberg.

Figure 27: Annual Average of Originations of Shocks to Stock Market Returns[1]



[1]Variance decomposition of local shocks and external shocks from Asia, Japan, and the United States (US) measured using vector autoregression (VAR) (Refer to Box 5). Annual figure is computed by averaging the mean of variances of countries within the subregion. Shock from local source is the aggregate of country—country variance; shock from Asia is the aggregate of Asia—country variance. Developing Asia includes the People's Republic of China; Hong Kong, China; India; Indonesia; Kazakhstan; the Republic of Korea; Malaysia; the Philippines; Pakistan; Singapore; Sri Lanka; Taipei,China; Thailand; and Viet Nam.
Source: ADB calculations using data from Bloomberg.

Box 5: Using Vector Autoregression Models to Identify the Origination of Shocks

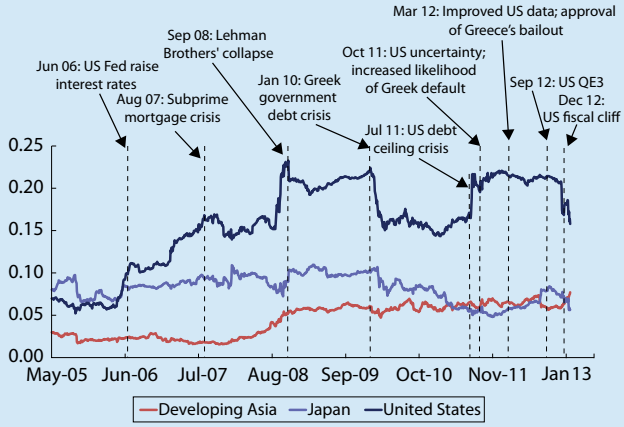
Assessing capital mobility from price movements is difficult, given that price merely skims the surface of complex and fungible money flows.[1] One of the difficulties of using price co-movements is that it does not distinguish between co-movements driven by either regional or global factors. Co-movements may increase if there is a strong global shock, even without increasing capital mobility within a region. To address this limitation, it is necessary to identify the origins of shocks to help interpret price co-movement indicators. If regional shocks account for a larger share of variations (relative to global shocks) in an economy's asset price movements, then that market is likely regionally integrated. In contrast, price movements in a market integrated more globally will likely respond more to global shocks. Vector autoregression (VAR) can help identify the source of shocks.

Variances in asset prices are decomposed by using VAR for each economy to identify originations of shocks. The results for each economy are aggregated into a regional index weighted by market capitalization, and the annual average for each source of shocks is then computed. The specification of the VAR model for each country is the following:

$$y_t = c + A_1 y_{t-1} + A_2 y_{t-2} + \ldots + A_p y_{t-p} + \varepsilon_t$$

where y_t is a vector of four variables: the daily returns on assets (equity or 10-year government bonds) of (i) the United States (US), (ii) Japan, (iii) other Asia (excluding Japan and the individual economy), and (iv) the individual economy. A_p is a $1 \times k$ vector of coefficients to be estimated, where p and k are the number of lags and variables, respectively. The US variable is used as a proxy for global prices. The return of "other Asia" is calculated by aggregating the daily returns of other Asian economies weighted by market capitalization. Lags are determined based on several information criteria. The order of impulse response functions is set as "US–Japan–other Asia–individual economy".[2] The samples were rolled from 1 January 2005 to 10 January 2013 within a 364-day window to see the time-varying trend of shock origination.

Comparison of Shocks from Asia, Japan, and the United States to Equity Markets in Developing Asia[1]



[1]Variance decomposition of external shocks from developing Asia, Japan, and the United States (US) using vector autoregression (VAR). The value is computed by averaging the daily variances of each economy in developing Asia (the People's Republic of China; Hong Kong, China; India; Indonesia; Kazakhstan; the Republic of Korea; Malaysia; the Philippines; Pakistan; Singapore; Sri Lanka; Taipei,China; Thailand; and Viet Nam). Data until 10 January 2013.
Source: ADB calculations using data from Bloomberg.

Variance decomposition analysis can show how much of the forecast error variance of each economy's asset prices is explained by shocks from the US, Japan, and the rest of Asia. The results—before computing the annual average on the originations of shocks to Asian equity returns—shows that a series of global events closely influenced Asian equity prices **(Box figure)**. Shocks originating from the US began rising in early 2007 as the subprime loan problem came to light, culminating in September 2008 when Lehman Brothers collapsed. The second rise appeared in mid-2011, when the US debt ceiling grabbed the headlines and the eurozone debt crisis intensified. It only declined after the fiscal cliff was narrowly averted in January this year. These results also suggest that an increase in price co-movements of Asian asset prices in 2009 and 2012 were accented by strong global shocks.

[1]One of the harshest criticisms of using price indicators is the argument that price may not have a direct relationship with capital mobility, and hence, cannot assess links between economies. However, price at least reflects an investor's belief on how an economy connects to others.

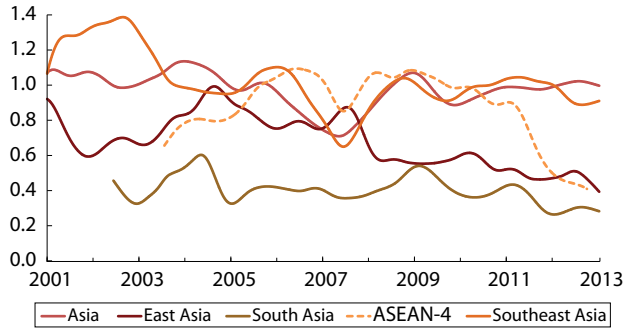
[2]One of the potential weaknesses of this indicator lies in this ordering. The reduced model assumes that a variable in the late order does not affect a variable in the former position. Although it may be natural to assume that the US shocks affect Asia but not vice-versa, more research is needed to examine the validity of this assumption as well as to explore better restrictions.

Table 5: Annual Average of Variance Decomposition of Shocks to Stock Market Returns—Asian Subregions[1]

	Local Shock							United States Shock						
	2006	2007	2008	2009	2010	2011	2012	2006	2007	2008	2009	2010	2011	2012
East Asia	0.78	0.84	0.76	0.71	0.73	0.73	0.61	0.09	0.06	0.09	0.10	0.10	0.12	0.16
Southeast Asia	0.61	0.46	0.46	0.39	0.46	0.52	0.41	0.21	0.37	0.35	0.37	0.31	0.31	0.40
South Asia plus Kazakhstan	0.78	0.74	0.66	0.65	0.72	0.77	0.75	0.13	0.18	0.19	0.23	0.18	0.13	0.17

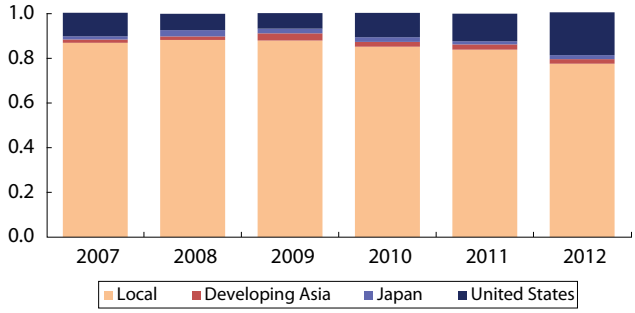
[1]Variance decomposition of local shocks and external shocks in Asia, Japan, and the United States measured using vector autoregression (VAR) (Refer to Box 5). Annual average is computed by taking the mean of variances of countries within the subregion. East Asia includes Hong Kong, China; the People's Republic of China; the Republic of Korea; and Taipei,China. South Asia includes India, Pakistan, and Sri Lanka. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.
Source: ADB calculations using data from Bloomberg.

Figure 28: Coefficient of Variation of 10-Year Bond Yield Spreads



Note: Coefficient of variation of 10-year government bond yield spreads over benchmark United States Treasuries, de-trended using Hodrick-Prescott (HP) Filter. Asia includes East Asia, South Asia, and Southeast Asia. East Asia includes the People's Republic of China; Hong Kong, China; Japan; the Republic of Korea; and Taipei,China. South Asia includes India, Pakistan, and Sri Lanka. ASEAN-4 includes Indonesia, Malaysia, the Philippines, and Thailand. Southeast Asia includes ASEAN-4 plus Singapore and Viet Nam. Data until 9 January 2013.
Source: ADB calculations using data from Bloomberg.

Figure 29: Annual Average of Originations of Shocks to 10-Year Bond Yields[1]



[1]Variance decomposition of local shocks and external shocks from Asia, Japan, and the United States measured using vector autoregression (VAR) (Refer to Box 5). Annual figure is computed by averaging the mean of variances of countries within the subregion. Shock from local source is the aggregate of country—country variance; shock from Asia is the aggregate of Asia—country variance. Developing Asia includes the People's Republic of China; Hong Kong, China; India; Indonesia; Kazakhstan; the Republic of Korea; Malaysia; the Philippines; Pakistan; Singapore; Sri Lanka; Taipei,China; Thailand; and Viet Nam. Data for Viet Nam beginning in November 2007 and for Sri Lanka in September 2009.
Source: ADB calculations using data from Bloomberg.

account surpluses. By contrast, most of South Asia suffers from high inflation and high current account and fiscal deficits. The difference in fundamentals between these subregions drove the price divergence within Asia as a whole. As would seem intuitive, relatively healthier economies attracted more foreign investment, while economies with weak fundamentals received less. For example, if Singapore and Viet Nam are added to the ASEAN-4 grouping, then yield spreads diverge.

Asian bond yields are mostly affected by local events, though US shocks also had spillover effects on Asian bond yields.

In general, domestic shocks drive local bond yields, while global shocks have less impact on bond yields than on equity returns **(Figure 29)**. However, since mid-2011, the impact of US shocks on Asian bond yields was much greater across bond markets in all Asian subregions **(Table 6)**. This may be due to the severity of global risks—the uncertainty over the US recovery and worries about the eurozone. Local bond markets have shown vulnerability to the ongoing eurozone debt crisis as the crisis impact on mature markets is transmitted into Asia's domestic asset markets.[18]

After the 2008/09 global financial crisis, intra-Asian debt holdings grew quickly while intra-Asian equity holdings declined, due to heightened risk aversion, Asia's robust growth, and aggressive quantitative easing in the US and Europe.

Deepening financial integration can also be measured by volume indicators, which track the amount of Asian assets held by Asian investors.[19] The ratio of Asian assets

[18]ADB. 2012. *Asia Bond Market Monitor November 2012*. Manila.

[19]Data for equity and debt security holdings are sourced from the IMF's *Coordinated Portfolio Investment Survey,* which covers most Asian economies as investment destinations, but does not cover some important investor economies such as the PRC and Taipei,China.

Table 6: Annual Average of Variance Decomposition of Shocks to 10-Year Bond Yields—Asian Subregions[1]

	Local Shock						United States Shock					
	2007	2008	2009	2010	2011	2012	2007	2008	2009	2010	2011	2012
East Asia	0.79	0.80	0.92	0.84	0.93	0.80	0.15	0.16	0.06	0.15	0.05	0.11
Southeast Asia[2]	0.98	0.95	0.97	0.91	0.81	0.80	0.01	0.01	0.01	0.05	0.16	0.17
South Asia plus Kazakhstan[3]	–	–	0.95	0.93	0.93	0.75	–	–	0.03	0.03	0.05	0.24

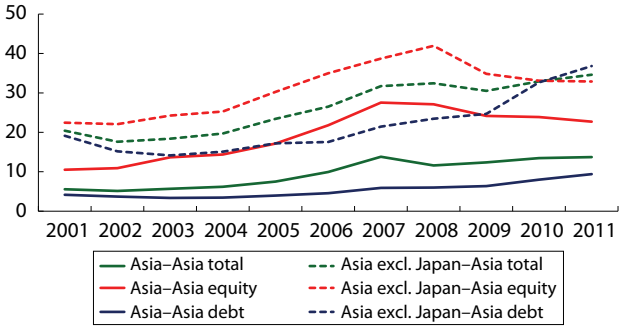
– = data unavailable.
[1]Variance decomposition of local shocks and external shocks from Asia, Japan, and the United States (US) measured using vector autoregression (VAR) (Refer to Box 5). Annual figure is computed by averaging the mean of variances of countries within the subregion. East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; and Taipei,China. South Asia includes India, Pakistan, and Sri Lanka. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. Data availability for Viet Nam beginning in November 2007 and for Sri Lanka in September 2009.
[2]Variance decomposition of local and US shocks in Southeast Asia for 2007 starts November.
[3]Variance decomposition of local and US shocks in South Asia + Kazakhstan for 2009 starts September.
Source: ADB calculations using data from Bloomberg.

to total cross-border assets held by Asian investors show that—despite a drop in 2008 due to heightened global risk aversion—intra-Asian holdings increased steadily **(Figure 30)**. Intra-Asian bond holdings rose to 9.4% in 2011 from 5.9% in 2007. In contrast, intra-Asian equity holdings fell from a 2007 peak of 27.6% to 22.7% by 2011—a substantial decline even accounting for changes in stock price valuations.[20] Excluding Japan (with its US investment bias), intra-Asian debt holdings jumped from 21.4% in 2007 to 36.8% in 2011. Excluding Japan, the level of intra-Asian debt holdings exceeded that of intraregional equity holdings in 2011.

There are two reasons why intraregional asset holdings are rising and shifting from equities to bonds. One is the heightened global risk aversion following the 2008/09 global financial crisis—which shifted investments away from Asian equities to less riskier bonds. The heightened risk also drove investors away from Asia in general, with intraregional bond holdings flat in 2008.

Massive monetary easing in the US and Europe—and the relatively robust growth of Asian economies despite the global slowdown—are key factors behind the increase of intra-Asian asset holdings, particularly bonds. The near-zero US and eurozone policy rates increased relative returns on Asian assets compared with US and eurozone bonds. Asia's robust and resilient economic growth also made Asian assets increasingly attractive. This created expectations among investors of further Asian currency appreciation and lower risk premiums. Thus, higher returns and further currency appreciation, coupled with lower risk premiums, are driving Asian investors to purchase Asian assets—particularly bonds—resulting in higher intra-Asian asset holdings.

Figure 30: Portfolio Holdings—Asia (% share)



Note: Asia–Asia total refers to the total portfolio holdings (equity and debt securities) in Asia divided by the global portfolio holdings of Asia. Asia includes East Asia, Central Asia, South Asia, Southeast Asia, and the Pacific. Australia and New Zealand are excluded as source and destination due to differences in the structure of their economies with the rest of Asia. Countries included in Asia as recipient differ from that of Asia as source due to data unavailability. In particular, data for the People's Republic of China as source is unavailable.
Source: ADB calculations using data from *Coordinated Portfolio Investment Survey*, International Monetary Fund. Accessed 19 December 2012.

Increased investment in East Asia's debt was a key driver behind the rise in intra-Asian bond holdings following the 2008/09 global financial crisis.

Rising intra-Asian bond holdings was driven by increased intraregional investment to East Asia—particularly to the PRC and Japan **(Figure 31)**. It appears that much of the investment flow to Japan was considered "flight to safety," as Japan's bond market is deep and liquid, with the yen strong prior to the end of 2012. The increased investment in the PRC, in contrast, was more of a "search for yield," driven by expected renminbi appreciation and relatively high bond yields. The PRC's gradual internationalization of the renminbi also helped Asian investors purchase CNY-denominated assets.[21]

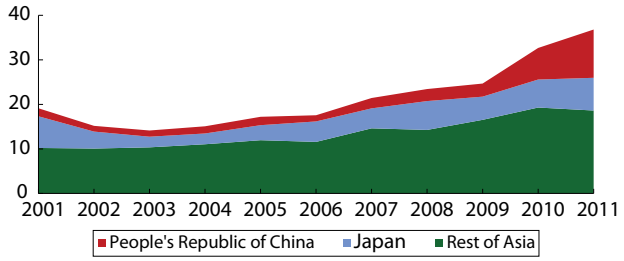
[20]The difference in equity valuations can change intra-Asian equity ratios even if the level of intra-Asian stock holdings remains the same.

[21]ADB. 2012. Macroeconomic and Financial Cooperation. *Asian Economic Integration Monitor July 2012*. Manila.

The share of Asian economies' international borrowing from Japanese banks increased through the third quarter of 2012, largely replacing European exposure.

Another volume indicator on international banking claims shows developing Asia's increasing reliance on Japanese lending, with Southeast Asia receiving most. Japanese claims on Asia's liabilities to foreign banks increased from 11.1% in the first quarter of 2005 to 14.6% in the third quarter of 2012 **(Figure 32)**. Declines in the share of European bank exposure (excluding the United Kingdom) over the same period implies that the increased Japanese share in effect eased the impact of Europe's deleveraging. The share of Asian loans in Japanese bank portfolios increased steadily from 6.3% in the first quarter of 2005 to 11.0% in the third quarter of 2012.

Figure 31: Total Debt Securities—Asia excl. Japan
(by investment destination, % share)



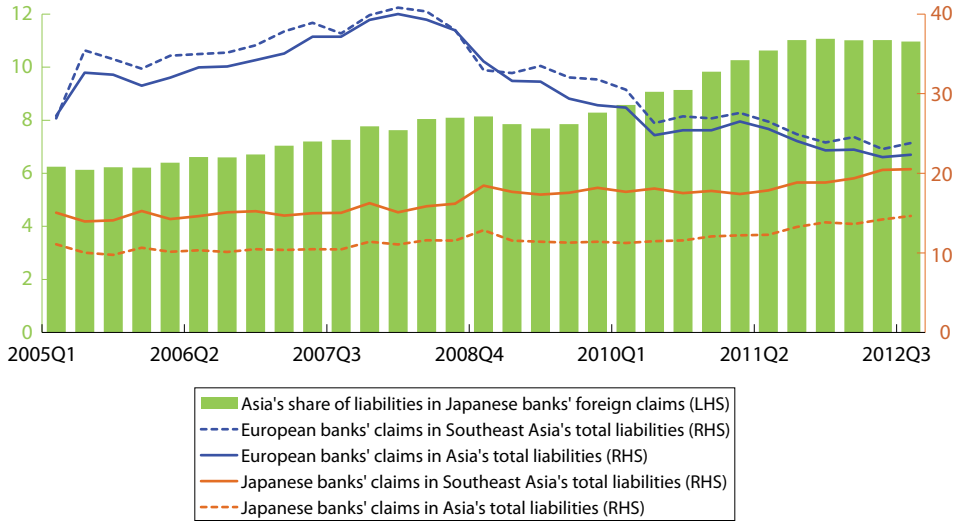
Note: Asia includes East Asia, Central Asia, South Asia, Southeast Asia, and the Pacific. Australia and New Zealand are excluded due to differences in the structure of their economies with the rest of the countries in Asia. Countries included in Asia as recipient differ from that of Asia as source due to data unavailability. In particular, data for the People's Republic of China as source is not available.
Source: ADB calculations using data from *Coordinated Portfolio Investment Survey*, International Monetary Fund. Accessed 19 December 2012.

Macroeconomic Interdependence

A trend toward greater co-movement of consumption across the region's economies is a sign of increased macroeconomic interdependence.

There has been a deepening of financial development and integration in Asia over the past two decades. One of the expected benefits would be to allow more efficient risk sharing across countries. When economies have the opportunity to invest in each other's financial assets, they can more easily diversify risk. As a result, consumption patterns can be smoothed out.

Figure 32: Japanese and European[1] Banks' Foreign Claims in Asia[2] (% share to total claims[3])



LHS = left-hand scale, RHS = right-hand scale.
[1]European banks (excluding British banks) based on Bank for International Settlements (BIS) definition.
[2]Asia excludes Australia, Japan, and New Zealand due to differences in the structure of their economies with the rest of Asia.
[3]Total foreign claims of banks from 22 BIS reporting economies.
Source: ADB calculations using data from Bank for International Settlements (Table 9D). Data accessed on 20 February 2013.

Economic models predict that in a world without trade and financial integration, consumption would be highly correlated with domestic output.[22] However, when markets become integrated, risk sharing happens. And this should help countries sever the link between movements in domestic output and domestic consumption. In a world with perfect risk sharing, domestic consumption should be affected only by global or regional output shocks—risks that cannot be diversified away. As a result, there would be little or no link between domestic consumption and domestic output. Instead, there would be significant co-movements of consumption across countries, driven by a common regional or global shock. Further, fluctuations in consumption would be more highly correlated with global or regional output, than with national output.

This section analyzes the four facets of consumption and output behavior that would result from risk sharing. Of course, perfect risk sharing in Asia's economies is unlikely. However, given the general trend toward greater financial integration in the region, some trends toward greater risk sharing should appear. An increase in risk sharing would show (i) higher cross-country correlations of consumption, (ii) that these cross-country consumption correlations are higher than those of cross-country output correlations, (iii) lower co-movements between domestic consumption and domestic output, and (iv) domestic consumption that is more highly correlated with regional or global output than with national output.

The analysis uses a sample of nine economies from East Asia and Southeast Asia, covering 1993–2011.[23] The sample is limited to these economies because of data requirements (a sufficient length of quarterly data on per capita GDP and consumption). The data series for per capita output and consumption are seasonally adjusted and converted to constant 2005 US dollars before deriving the quarter-on-quarter growth rates, which form the basis of the analysis. The impact of major shocks to the region's economies is taken into account and the sample period is thus divided into four sub-periods: 1993Q1–1996Q4 and 2000Q1–2007Q2 are "calm" periods without major shocks; while 1997Q1–1999Q4 and 2007Q3–2011Q4 are "crisis" periods, when the region was affected by the 1997/98 Asian financial crisis and 2008/09 global financial crisis, respectively.

Cross-economy correlation of private consumption growth is rising; but cross-economy correlation of output growth is rising faster.

The results also show that cross-economy correlation of private consumption growth across the sample increased between 1993Q1–1996Q4 and 2007Q3–2011Q4 **(Table 7)**.[24] At first glance, this would seem to support greater risk sharing in the region. However, the analysis shows that private consumption correlations tend to increase during periods of crisis in line with the rise in output growth correlations. This suggests that the latter is the likely source of rising consumption correlation, not risk sharing. Comparing 1993Q1–1996Q4 with 2000Q1–2007Q2—both non-crisis periods—the results are more mixed. Some economies—such as the PRC, the Republic of Korea, the Philippines, Singapore, and Thailand—had an increase in the median of the correlation consumption, while others like Hong Kong, China and Indonesia saw their cross-country correlations of consumption fall.

One of the factors causing higher consumption correlations could be that output correlations have been increasing in the region with the increase in trade integration **(Table 8)**.[25] The results show that there has been an increase in correlation in output since the start of the sample period. In particular, correlations of output tend to be much higher during the crisis periods (1997Q1–1999Q4 and 2007Q3–2011Q4). But even comparing the two non-crisis periods (1993Q1–1996Q4 and 2000Q1–2007Q2), there was a significant increase in the correlation of output. Therefore, some of the observed increases in consumption correlations could be due to higher output correlations. Interestingly, the increase in correlations in output tends to be higher than the correlations in consumption. This suggests there has been limited progress in risk sharing **(Table 9)**. Some of the rise in output correlations in the last sub-period is due to the effects of the 2008/09 global financial crisis, which were transmitted worldwide.

[22]See S. Kim, S.H. Kim, and Y. Wang. 2006. Financial Integration and Consumption Risk Sharing in East Asia. *Japan and the World Economy.* 18 (2). pp. 143–157.

[23]The People's Republic of China; Hong Kong, China; Indonesia; the Republic of Korea; Malaysia; the Philippines; Singapore; Taipei,China; and Thailand.

[24]Results for private consumption are presented here to separate out the effect of public consumption.

[25]The decline in investment rates across many of the region's economies following the 1997/98 Asian financial crisis may also have contributed to the increase in the correlations of consumption.

Table 7: Cross-Economy Correlation of Private Consumption Growth

	PRC	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei,China	Thailand
Full sample	0.04	0.32	0.50	0.57	0.53	0.44	0.56	0.45	0.59
1993Q1–1996Q4	-0.12	0.27	0.21	0.08	0.25	-0.12	0.29	0.35	0.25
1997Q1–1999Q4	0.27	0.48	0.73	0.65	0.83	0.71	0.71	0.71	0.66
2000Q1–2007Q2	0.14	0.14	0.15	0.38	0.25	0.23	0.43	0.35	0.50
2007Q3–2011Q4	0.18	0.50	0.45	0.64	0.35	0.45	0.62	0.55	0.42

PRC = People's Republic of China.
Note: Figures are the median of the bilateral cross-economy correlations across the sample of nine economies.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

Table 8: Cross-Economy Correlation of Output Growth

	PRC	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei,China	Thailand
Full sample	0.04	0.36	0.56	0.64	0.67	0.54	0.64	0.56	0.65
1993Q1–1996Q4	-0.01	0.02	-0.02	0.27	0.30	-0.11	0.11	0.33	0.13
1997Q1–1999Q4	0.25	0.53	0.70	0.68	0.82	0.75	0.78	0.71	0.71
2000Q1–2007Q2	0.24	0.25	0.33	0.47	0.36	0.37	0.55	0.44	0.59
2007Q3–2011Q4	0.14	0.61	0.63	0.70	0.77	0.55	0.77	0.77	0.63

PRC = People's Republic of China.
Note: Figures are the median of the bilateral cross-economy correlations across the sample of nine economies.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

The correlation of domestic output growth to domestic consumption growth remains high.

Correlations between output growth and consumption growth in each economy are examined to show the correlation of total consumption and private consumption with domestic output for the full sample period **(Table 10)**. The correlation for each economy was calculated. Then the cross-sectional medians of the correlations for each group of economies were determined. The result was that the median correlation between both total consumption and private consumption with domestic output are very high—close to unity for all economic groups. There is no clear trend of an increase in correlations over time for Asian economies. However, correlations tend to fall during non-crisis periods and increase during crisis periods. This effect is stronger for the 1997/98 Asian financial crisis than the 2008/09 global financial crisis. For G7 economies, there was little change in the correlations. To check for the robustness of these results, correlations over a 3-year period for each group were calculated to check if the results are sensitive to the specific choice of time periods. The results are broadly similar.

The correlation of domestic consumption growth with Asian output growth was driven mainly by co-movements between domestic output and Asian output.

The correlations between output and consumption growth rates were then examined in each economy with respect to the growth rates of an aggregate of Asian economies **(Table 11)**.[26] Over the entire sample, the economies tended to have similar correlations between domestic consumption and Asian output, and between domestic output and Asian output. This suggests that the correlation with regional output is not driven by risk sharing, but by the co-movement of domestic output with regional output. This is particularly true during crisis years, not as much during "calm" years. Further, the correlations are much lower than 1.0. All these suggest that risk sharing is quite limited within Asia.

[26]For each economy, computed as the aggregate of the other Asian economies in the sample.

Table 9: Difference Between Cross-Economy Correlation of Consumption Growth and Output Growth

	PRC	Hong Kong, China	Indonesia	Korea, Rep. of	Malaysia	Philippines	Singapore	Taipei,China	Thailand
Full Sample	-0.01	-0.04	-0.06	-0.07	-0.14	-0.10	-0.07	-0.11	-0.06
1993Q1–1996Q4	-0.11	0.25	0.23	-0.19	-0.05	-0.01	0.17	0.02	0.12
1997Q1–1999Q4	0.02	-0.05	0.02	-0.03	0.01	-0.04	-0.07	0.00	-0.04
2000Q1–2007Q2	-0.10	-0.10	-0.18	-0.09	-0.11	-0.14	-0.12	-0.09	-0.09
2007Q3–2011Q4	0.05	-0.11	-0.18	-0.06	-0.41	-0.10	-0.15	-0.22	-0.20

PRC = People's Republic of China.
Note: Figures are the median of the bilateral cross-economy correlation of consumption growth minus bilateral cross-economy correlation of output growth across the sample of nine economies.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

Table 10: Correlation of Domestic Consumption Growth and Domestic Output Growth

	Total Consumption				Private Consumption			
	Asia	East Asia	Southeast Asia	G7	Asia	East Asia	Southeast Asia	G7
Full Sample	0.94	0.91	0.94	0.99	0.94	0.95	0.93	0.98
1993Q1–1996Q4	0.62	0.85	0.33	0.99	0.73	0.86	0.55	0.98
1997Q1–1999Q4	0.98	0.89	0.99	0.99	0.99	0.92	0.99	0.97
2000Q1–2007Q2	0.84	0.83	0.89	0.99	0.85	0.82	0.88	0.98
2007Q3–2011Q4	0.87	0.95	0.82	0.99	0.88	0.96	0.81	0.99

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: Calculated as median correlation for each regional group. Asia includes East Asia and Southeast Asia. East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; and Taipei,China. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
Source: ADB calculations using data from *International Financial Statistics*, International Monetary Fund; and national sources for Taipei,China.

Table 11: Correlation of Domestic Output Growth and Consumption Growth with Asian Output Growth

	Domestic Output				Total Consumption				Private Consumption			
	Asia	East Asia	Southeast Asia	G7	Asia	East Asia	Southeast Asia	G7	Asia	East Asia	Southeast Asia	G7
Full Sample	0.47	0.34	0.58	0.14	0.48	0.32	0.51	0.12	0.49	0.36	0.57	0.24
1993Q1–1996Q4	-0.15	-0.18	-0.03	-0.35	0.22	0.23	0.21	-0.38	0.36	0.14	0.45	0.20
1997Q1–1999Q4	0.85	0.73	0.85	0.19	0.82	0.71	0.84	0.22	0.66	0.54	0.78	0.32
2000Q1–2007Q2	0.61	0.43	0.64	0.26	0.41	0.34	0.41	0.22	0.35	0.38	0.32	0.53
2007Q3–2011Q4	0.52	0.51	0.57	0.73	0.50	0.50	0.52	0.72	0.33	0.23	0.44	0.50

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: Calculated as median correlation for each regional group. Asia includes East Asia and Southeast Asia. East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; and Taipei,China. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
Source: ADB calculations using data from *International Financial Statistics*, International Monetary Fund; and national sources for Taipei,China.

Correlations of domestic consumption growth with global output are lower—as Asian economic growth is more correlated with regional than global growth.

Correlations of consumption growth rates with global output were also examined **(Table 12)**.[27] The correlation of domestic consumption growth with world output (0.39) is lower than the correlation with Asian output (0.48). This may imply that there is more risk sharing within Asia than with the rest of the world. However, this is not likely the case—as the correlation of domestic output growth with global output (0.43) is also lower than the correlation with Asian output (0.47). This generally tracks the increase in correlation of domestic output with global output. The correlations rose markedly during the crisis periods, especially during the 2008/09 global financial crisis.

[27]The output of the G7 economies, which accounted for 48% of global output in 2011, is taken as a proxy for global output.

Table 12: Correlation of Domestic Output Growth and Consumption Growth with World Output Growth

	Domestic Output				Total Consumption				Private Consumption			
	Asia	East Asia	Southeast Asia	G7	Asia	East Asia	Southeast Asia	G7	Asia	East Asia	Southeast Asia	G7
Full Sample	0.43	0.33	0.44	0.67	0.39	0.36	0.40	0.66	0.34	0.30	0.41	0.68
1993Q1–1996Q4	0.39	0.23	0.39	0.25	0.34	0.34	0.34	0.25	0.28	0.24	0.31	0.36
1997Q1–1999Q4	0.35	0.33	0.41	0.70	0.35	0.32	0.36	0.55	0.41	0.52	0.36	0.61
2000Q1–2007Q2	0.37	0.22	0.43	0.80	0.35	0.21	0.37	0.78	0.37	0.24	0.41	0.76
2007Q3–2011Q4	0.70	0.68	0.70	0.81	0.61	0.68	0.58	0.82	0.61	0.62	0.60	0.83

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: Calculated as median correlation for each regional group. Asia includes East Asia and Southeast Asia. East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; and Taipei,China. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

Another implication of risk sharing is that there would be lower correlation between domestic consumption and domestic output than between domestic consumption and regional or global output. Comparing the results for the full sample, the correlations of domestic consumption with domestic output (see Table 10) are much higher than those of domestic consumption with Asian (see Table 11) or global output (see Table 12). Based on a regression model, there has been some improvement in risk sharing in the region over time, although it remains low **(Box 6)**.

These results suggest that there has been limited consumption risk sharing in Asia.

While there has been some increase in risk sharing over time, it appears to be quite small. While cross-country correlations of consumption tend to be quite high, they reflect the closer co-movement of Asian economies with regional and global output. Some of the increases over time of consumption correlations are also attributable to greater integration with the global economy. Also, cross-country correlations of consumption are about the same as cross-country correlations of output. Further, domestic consumption is highly correlated with domestic output, much higher than the correlation with regional or global output. All the above shows little evidence of consumption risk sharing in the region.

The results consistently show that risk sharing continues to be low in Asia. The region has witnessed a rise in cross-economy correlations in consumption growth, driven more by an increase in correlations of output growth across the region. The results also show that correlations between domestic consumption and domestic output growth remain high, suggesting little diversification of risks across the region. In addition, correlations between domestic consumption and Asian output seem not to be driven by risk sharing, but rather by the co-movement of domestic output with regional output. Finally, correlations between domestic growth and global output growth are generally lower than with regional growth, except during the 2008/09 global financial crisis. While there are economies—like Singapore and Malaysia—that fare better, consumption growth in Asia still largely track movements in domestic output growth. Progress in financial integration in the region does not improve cross-economy smoothing of consumption. Nevertheless, the region has made progress in cooperative risk sharing—such as the doubling of funds in the Chiang Mai Initiative Multilateralization (CMIM), which helps pool resources in ASEAN+3 to mitigate the impact of crises in individual countries.[28]

[28]See footnote 21.

Box 6: Risk Sharing in Asia

A test was conducted to determine the presence of risk sharing—by regressing growth rates of consumption on growth rates of output. To isolate the economy-specific movements in output and consumption, the common growth component corresponding to external factors from each variable is taken out. Global growth is subtracted from individual economic output and consumption growth to obtain the economy-specific growth.

For the panel model, the estimated equation is

$$\Delta\log c_{it} - \Delta\log C_t = \alpha + \beta(\Delta\log y_{it} - \Delta\log Y_t) + \varepsilon_{it} \quad (1)$$

while in the time-series model, the equation below is estimated

$$\Delta\log c_{it} - \Delta\log C_t = \alpha + \beta_t(\Delta\log y_{it} - \Delta\log Y_t) + \varepsilon_{it} \quad (2)$$

where c_{it} *and* y_{it} denote per capita consumption and GDP of country *i* in time *t*; and C_t and Y_t are world per capita consumption and world GDP.

As countries move toward greater risk sharing, there will be a lower coefficient of output growth (β), or conversely, higher value of 1-β. The results from estimating the panel model (equation 1) show output to be a statistically significant determinant of consumption. There is a very high coefficient on output, although this has declined after the 2008/09 global financial crisis **(Box table 1)**. This suggests that the power of output in explaining the consumption growth rate—although still high—declined from 2007 to 2011. Examining the relationship on an annual basis—using a 9-year rolling window—shows a steady drop in the coefficient of output growth since the start of the 2008/09 global financial crisis **(Box table 2)**.

To see if there are regional differences in this pattern, results between Southeast Asia and East Asia are compared, with largely similar results. However, Southeast Asia shows a bigger decline in the coefficient of output growth during the 2008/09 global financial crisis compared with East Asia—risk sharing rose faster in Southeast Asia than East Asia during the 2008/09 global financial crisis. This is consistent with results of the correlation analysis **(Box table 3)**.

Aside from this regional difference, there are also country variations in the level of risk sharing in Asia. The estimated risk sharing index (1-β) for each of the country was calculated from the time-series model (equation 2) **(Box table 4)**. After examining how the figures had changed over the years, it is evident that (i) risk sharing remains low, but has been rising, particularly in recent years; (ii) some economies with more developed financial systems—Singapore and Malaysia, for example—have relatively higher levels of risk sharing, while in others—Thailand and the Republic of Korea, for example—they remain low.

1: Dependent Variable—Domestic Consumption Growth (Net of G7 Consumption Growth) by period

	Full Sample	1993Q1–1996Q4	1997Q1–1999Q4	2000Q1–2007Q2	2007Q3–2011Q4
Output growth	0.974	0.854	1.041	0.972	0.755
Constant	-0.001	0.002	0.002	-0.002	0.000
Observations	682	142	108	270	162
Adjusted R^2	0.846	0.567	0.961	0.701	0.684

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: Output growth is statistically significant at 1% level.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

Continued on next page

2: Dependent Variable—Domestic Consumption Growth (Net of G7 Consumption Growth), by year

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Output growth	1.014	1.016	1.021	1.022	1.023	1.024	0.945	0.929	0.893	0.849	0.817
Constant	0.001	0.000	0.000	-0.001	-0.001	-0.001	-0.002	-0.001	-0.002	-0.002	-0.001
Observations	322	324	324	324	324	324	324	324	324	324	324
Adjusted R^2	0.883	0.893	0.904	0.906	0.915	0.894	0.688	0.699	0.719	0.690	0.681

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: Based on a 9-year rolling window ending the year indicated. Output growth is statistically significant at 1% level.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

3: Dependent Variable—Domestic Consumption Growth (Net of G7 Consumption Growth), by region and period

	Southeast Asia				East Asia			
	1993Q1–1996Q4	1997Q1–1999Q4	2000Q1–2007Q2	2007Q3–2011Q4	1993Q1–1996Q4	1997Q1–1999Q4	2000Q1–2007Q2	2007Q3–2011Q4
Output growth	0.644	1.035	0.987	0.669	0.930	1.085	0.952	0.836
Constant	0.003	0.004	-0.001	0.001	0.001	0.000	-0.002	-0.001
Observations	78	60	150	90	64	48	120	72
Adjusted R^2	0.175	0.961	0.662	0.513	0.927	0.961	0.785	0.870

G7 = Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.
Note: East Asia includes the People's Republic of China; Hong Kong, China; the Republic of Korea; and Taipei,China. Southeast Asia includes Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Output growth is statistically significant at 1% level.
Source: ADB calculations using data from *International Financial Statistics,* International Monetary Fund; and national sources for Taipei,China.

4: Risk Sharing by Economy

	PRC	Hong Kong, China	Korea, Rep. of	Taipei,China	Indonesia	Malaysia	Philippines	Singapore	Thailand
2001	0.08	0.23	-0.08	0.25	0.00	-0.10	0.04	0.39	0.07
2002	0.06	0.21	-0.12	0.17	-0.02	-0.17	0.01	0.22	0.02
2003	0.01	0.17	-0.11	0.22	-0.01	-0.15	0.02	0.18	0.01
2004	0.02	0.21	-0.11	0.17	-0.01	-0.20	0.02	0.25	0.00
2005	0.02	0.19	-0.11	0.18	-0.01	-0.21	0.03	0.24	0.00
2006	0.07	0.20	-0.11	0.19	-0.01	-0.24	0.03	0.18	-0.01
2007	0.07	0.22	-0.13	0.21	-0.03	-0.28	0.04	0.21	0.10
2008	0.05	0.23	-0.11	0.21	0.01	-0.01	0.03	0.43	0.15
2009	0.05	0.23	-0.02	0.25	-0.01	0.24	0.11	0.32	0.02
2010	0.06	0.25	0.01	0.34	0.01	0.55	0.11	0.31	-0.06
2011	0.10	0.26	0.02	0.30	0.07	0.21	0.13	0.56	-0.04

PRC = People's Republic of China.
Note: Based on a 9-year rolling window ending the year indicated.
Source: ADB calculations using data from *International Financial Statistics*, International Monetary Fund; and national sources for Taipei,China.

Labor Mobility

Given Asia's diverse labor market structure, easing labor mobility offers economies greater efficiency; however, managing worker movements is a critical challenge facing Asian policymakers.

The structure of labor varies across Asia's landscape. Some of Asia's high-income and middle-income countries have labor shortages, while others have a large, young workforce with a shortage of job opportunities. This diversity underpins growing labor flows and will benefit both source and recipient economies. Recipient economies better fulfill labor needs for production, while source economies can enjoy more job opportunities and benefit from inward remittances, contributing to higher efficiency for the region's human resource allocation.

Labor flows within Asia will likely continue to increase for the foreseeable future. First, demography changes slowly. So Asia will continue with both labor surplus and shortage in the decades to come. Second, development gaps between economies will also persist. Regional approaches are also growing. For example, ASEAN is working toward the free movement of skilled labor by the 2015 launch of the ASEAN Economic Community.

This section examines recent trends in Asia's labor mobility using remittance data. As shown in the inaugural *AEIM*, migrant stock data and remittance data provide the most consistent information—even if remittances are affected by a variety of economic conditions. Also, remittances between Asian economies can be the result of—or lead to—greater regional cooperation and integration. Some countries, including the Philippines, Bangladesh, and Sri Lanka, provide bilateral remittance data that paints a picture of growing intra-Asia labor mobility.

Asia is home to the world's major labor exporting countries, and receives more than 40% of global aggregate remittance inflows.

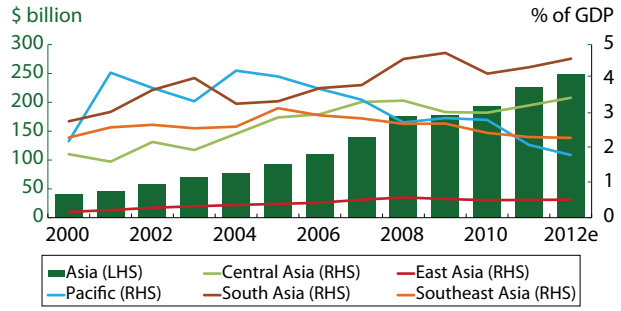
Asia received more than 40% of global aggregate remittance inflows in 2011. Globally, the top two net remittance recipients are Asian—India and the PRC—with the Philippines, Pakistan, Bangladesh, and Viet Nam also among the top 15 **(Table 13)**. However, with Asia home to more than half the world's population, its labor mobility remains below the global average. Remittance-to-GDP ratios also suggest wide regional differences. Labor mobility in Central Asia and South Asia is above the world average, while East Asia and Southeast Asia is lower. Small landlocked and island countries have very high labor mobility and are highly dependent on

Table 13: Top 15 Remittance Sources, 2011

Net Remittance Inflows ($ million)		Net Remittance Outflows ($ million)		Net Remittance Inflows (% of GDP)		Net Remittance Outflows (% of GDP)	
India	59,123	United States	46,155	Tajikistan	43.8	Luxembourg	16.2
People's Republic of China	57,799	Saudi Arabia	28,231	Lesotho	24.9	Maldives	11.2
Mexico	23,588	Switzerland	27,473	Kyrgyz Republic	23.4	Oman	9.9
Philippines	22,986	Russian Federation	17,064	Liberia	23.3	Bahrain	7.9
Nigeria	20,543	Kuwait	11,770	Nepal	22.0	Kuwait	7.3
Egypt, Arab Republic of	14,031	Luxembourg	9,643	Moldova	21.6	Solomon Islands	6.9
Pakistan	12,235	Netherlands	9,031	Samoa	20.5	Bhutan	5.8
Bangladesh	12,056	Oman	7,176	Haiti	17.7	Saudi Arabia	4.7
Viet Nam	8,600	Italy	5,992	Honduras	16.5	Macao, China	4.2
Morocco	7,185	Norway	3,662	El Salvador	16.0	Switzerland	4.2
Ukraine	6,685	Kazakhstan	3,304	Kosovo	15.0	Papua New Guinea	3.1
Belgium	6,381	Israel	2,553	Tonga	14.2	Brunei Darussalam	2.7
Poland	5,660	Japan	2,472	Nicaragua	12.5	Libya	1.8
United Kingdom	4,824	Germany	2,197	Jamaica	12.2	Kazakhstan	1.8
France	4,713	Australia	2,175	Armenia	11.1	Bahamas, The	1.6

Source: ADB calculations using World Bank estimates based on *Balance of Payments Statistics Yearbook 2011* and *World Economic Outlook Database October 2012*, International Monetary Fund.

Figure 33: Gross Remittance Inflows—Asia



e = estimate, LHS = left-hand scale, RHS = right-hand scale.
Note: 2012 figures are estimates. GDP shares are computed as total remittances for a subregion divided by total GDP of a subregion. Asia excludes Oceania. Central Asia includes Armenia, Azerbaijan, Georgia, Kazakhstan and the Kyrgyz Republic. Tajikistan is included starting 2002. East Asia excludes Taipei,China. The Pacific includes Fiji, Papua New Guinea, Samoa, Solomon Islands, and Vanuatu. Tonga is included starting 2001. South Asia excludes Afghanistan, while Bhutan is included starting 2007. Southeast Asia excludes Brunei Darussalam and Singapore.
Source: ADB calculations using World Bank estimates based on *Balance of Payments Statistics Yearbook 2011*, and *World Economic Outlook Database October 2012,* International Monetary Fund.

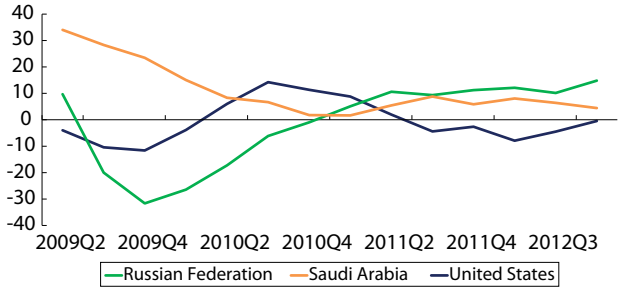
remittances. In 2011, among Asian economies, Tajikistan has the highest remittance-to-GDP ratio (43.8%), followed by the Kyrgyz Republic (23.4%), Nepal (22.0%), and Samoa (20.5%). As for host economies, the Maldives ranks second worldwide with remittance outflows equivalent to 11.2% of GDP. Solomon Islands, Bhutan, PNG, Brunei Darussalam, and Kazakhstan also rank in the top 15. Other countries—Malaysia, Singapore, and Thailand, for example—are growing rapidly as host countries.

With significant subregional variations, remittance inflows to Asia increased 16.3% in 2011, with growth estimated at 10.1% last year; Asian labor mobility is expanding.

Remittance inflows to the region recovered from a dip in 2009 and continue to grow solidly **(Figure 33)**. They surged 16.3% in 2011 and are estimated to have grown 10.1% in 2012—to $248.5 billion.[29] The remittance-to-GDP ratio grew slightly from 1.17% in 2010 to 1.19% in 2011 and to an estimated 1.22% in 2012. Growth has varied across subregions. Inflows to Central Asia and South Asia show robust growth in both nominal values and the remittance-to-GDP ratio in 2011 and 2012; while the value of remittances to the Pacific fell 7.5% in 2011, recovering marginally (0.3%) last year, resulting in an overall decline in the remittance-to-GDP ratio. Nominal inflows to Southeast Asia and East Asia have increased steadily since 2010, while remittance-to-GDP ratios have remained stable.

[29]World Bank estimate for 2012.

Figure 34: Remittance Outflows (quarterly moving average, y-o-y, %)



Note: Remittances are defined by the Central Bank of Russia as compensation paid to employees, by the Saudi Arabian Monetary Agency as workers' remittances, and by the United States Bureau of Economic Analysis as private remittances and other transfers.
Source: ADB calculations using data from Haver Analytics.

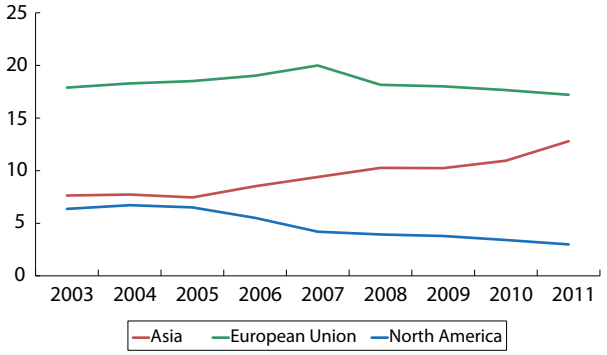
Differences in remittance flows among subregions illustrate migrant destination profiles.[30]

Based on migrant stock data, 62.0% of Central Asia's out-migrants head to the Russian Federation. Remittance flows from Russian Federation recovered from a steep decline in 2009, growing 16.9% in the first 3 quarters of 2012 compared with the same period in 2011—high commodity prices helped improve economic conditions. Thus, robust growth of remittance inflow to Central Asia captures the dominance of Russian Federation as destination. Growth in remittance outflows from the Middle East—destination for 40.7% of all out-migrants from South Asia—has slowed, but the decline was more modest than the slowdown in remittances from the US after the 2008/09 global financial crisis **(Figure 34)**. Thus, South Asia did not see remittances fall in nominal value during the global financial crisis, even if its remittance-to-GDP ratio declined slightly. In contrast to Central Asia and South Asia, 35.9% of out-migrants from East Asia, 33.7% from Southeast Asia, and 26.7% from the Pacific work in North America. For these subregions, US remittances fell dramatically in 2009 and have declined modestly since 2011. The countries with declining remittances after the crisis appear to have large shares of US-bound workers. The US remains the world's largest source of remittances.

Economic conditions in the host country clearly affect remittance flows—and they can be volatile. Inflows to Central Asia and South Asia are also subject to conditions in the Russian Federation and the Middle East, respectively. One way to address these risks is to diversify destination profiles. In fact, based on bilateral remittance

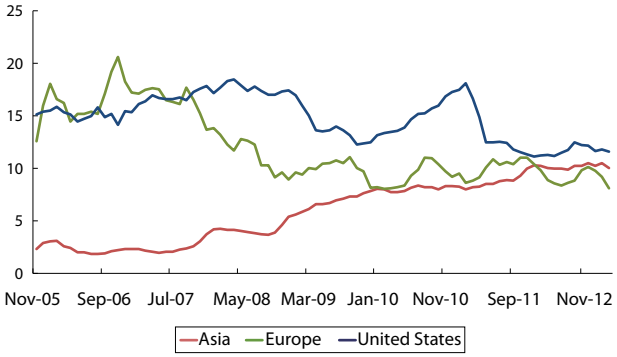
[30]For further discussion on destination of migrants, see ADB. 2012. International and Regional Transmigration. *Asian Economic Integration Monitor July 2012*. Manila. pp. 31–32.

Figure 35: Remittance Shares—Sri Lanka (by origin, % of total)



Note: Asia includes Afghanistan; Bangladesh; Bhutan; Brunei Darussalam; Hong Kong, China; India; Indonesia; Japan; the Republic of Korea; the Maldives; Myanmar; Pakistan; the Philippines; Singapore; Taipei,China; Thailand; and Viet Nam. European Union (EU) includes the 27 EU member countries. North America includes Canada and the United States.
Source: ADB calculations using data from CEIC.

Figure 36: Remittance Shares—Bangladesh[1]
(by origin, % of total)



[1]3-month moving average.
Note: Asia includes Hong Kong, China; Japan; the Republic of Korea; Malaysia; and Singapore. Europe includes Germany, Italy and the United Kingdom.
Source: ADB calculations using data from CEIC.

data, this is beginning to happen. With a limited number of economies providing regular bilateral remittance data, any conclusions must be qualified and biased toward economies with available data. What there is, shows that—after the crisis in particular—more Asian migrants are destined to other Asian economies. Thus, it appears that intra-Asia labor mobility is rising.

Still, the largest portion of Asian migrants continues to work outside Asia. For instance, in the Philippines, Asia accounted for 13.8% of 2012 remittance receipts, while the North America accounted for 52.3%.[31] In Sri Lanka, remittances in 2011 from Asia were 12.8% of the total, while 58.9% came from the Middle East. However, Sri Lanka's Asian share has grown steadily—from 7.6% in 2003. In contrast, the share of North America—6.4% of total remittances in 2003—declined to 3.0% in 2011 **(Figure 35)**. Some Asian economies are increasingly becoming hosts for foreign labor. Malaysia, Singapore, and Thailand have grown rapidly as recipient countries, significantly contributing to intraregional migration. Thailand hosts workers from Myanmar, the Lao PDR, and Cambodia. Flows into Malaysia come primarily from Indonesia and several South Asian countries. Singapore receives migrants from both South Asia and Southeast Asia. With economic growth in developing Asia above that in advanced economies, the shift to greater intraregional migration will likely continue.

[31]Asia refers to Hong Kong, China; Japan; and Singapore. Data from *Bangko Sentral ng Pilipinas*. http://www.bsp.gov.ph

In Bangladesh, intraregional remittances are rising faster than those from the US, and have surpassed Europe.

While some 65% of remittances to Bangladesh originate in the Middle East, the share from Asia has increased dramatically, from roughly 2% in 2005 to almost 10% last year **(Figure 36)**. The remittance share from the US and Europe have declined from about 17% before the 2008/09 global financial crisis to about 10% today. This shift contributed to the average 14% growth in remittance flows during the past 5 years. Moreover, cooperation between governments will help continue this trend. A recent memorandum of understanding signed between Malaysia and Bangladesh lifts an existing ban on recruiting new Bangladeshi workers. The first group of 10,000 new workers is expected to be recruited early this year. Also, both governments plan to take a more direct role in recruitment to avoid the risks of fraud by unscrupulous recruiters.

Despite the huge benefits of labor mobility, it is often a contentious issue (as in the US and Europe); as intraregional labor migration grows, better management to avoid conflict is an essential.

Movements from labor surplus to deficit economies can lead to more efficient use of the region's human resources and contribute to growth in both source and recipient economies. Recipient countries benefit by increasing their stock of a core factor of production. This allows for growth momentum and increases international competitiveness. It can even out job mismatches in labor markets. At the same time, source economies also benefit. Sending labor abroad

eases population pressure on domestic job markets. Remittances boost consumption and investment at home, as well as contribute to the current account and, in some cases, ease foreign exchange pressure. In addition, mobility among skilled workers supports technology transfer and can promote the establishment of new industries.

Nonetheless, labor mobility is often a sensitive issue for both source and host economies—and can heighten social and political tensions. The biggest challenge is to better manage and work toward resolving the issue of illegal foreign workers and worker protection. The combination of the need for cheap labor and migrants desperate for jobs often results in illegal workers exploited by transfer agents and employers. Poor understanding of the benefits of migrant labor to a host country's economy or the belief that migrants "steal" jobs help set battle lines over immigration policy.[32] If conflicts become severe, they often lead to immigration bans, which hurt both source and recipient economies. Close cooperation is essential to address these issues and set a conducive environment for properly managed labor flows and ensuring adequate living conditions in host countries.

For Asia, tackling these issues requires close cooperation bilaterally and regionally; lessons learned from experiences in Asia and elsewhere can aid policymakers in finding better solutions.

Asia's policymakers can use their own and others experience—such as the EU—to map out ways to benefit from greater labor mobility. The Philippines is an example of a mature source country. In 1977, it established government programs to protect and promote the welfare of overseas Filipino workers (OFW). The Overseas Workers Welfare Administration (OWWA) works on many levels, from negotiating with host economies over OFW living conditions to offering seminars on language and culture prior to departure—which lessens the possibility of host country conflicts. The agency also works with the central bank and others to encourage use of the formal banking system to remit funds. For returning workers, OWWA also has a program to smoothen reintegration. The Philippine government also offers incentives for Filipinos to work abroad—for instance, exempting OFWs from airport fees and taxes on income earned abroad. Over the past decade, several South Asian countries—including Bangladesh (2001), India (2004) and Pakistan (2008)—have established government agencies with similar aims and functions, and adopt policies to better protect and motivate overseas workers.

Some labor exporting economies have reached the stage of economic development where returnees, especially skilled workers, identify opportunities at home to develop new industries—India's IT industry and medical tourism in Southeast Asia are two examples. Malaysia recently established a government body to attract talent—especially skilled Malaysians working abroad—to further promote national development. Of course, some of these economies enticing skilled migrants back home continue exporting unskilled labor, while some shift to importing labor, including unskilled migrants. These new trends demonstrate that there is long-run dynamism in international migration; a labor-exporting country may evolve into a labor-importing economy—although great variance exists in reality. Understanding these developments will help Asia fully benefit from greater labor mobility. A regional approach may help Asian countries better learn and adapt from others' experience at lower cost than doing so individually.

The EU experience shows that managing perceptions and attitudes toward immigrants in a recipient economy is prerequisite to attracting skilled workers or professionals.

Europe has much experience in managing skilled labor mobility, including the design and implementation of Mutual Recognition Agreements. It also deals with the issue of unskilled migrants and their welfare. Unskilled labor often attracts discriminatory attitudes, and these can also be barriers to attracting skilled workers, given the greater options they have in choosing destinations.[33] Preventing and managing potential conflicts between source and host economies or between overseas workers and the host population are critical if Asia is to benefit from labor mobility. This is a major challenge. Studies discuss attempts to properly manage international labor

[32] A famous example is the negative impact on wages in host countries. Various empirical research demonstrate that even the (maximum) wage decline in the host country (advanced countries in most cases) due to the influx of foreign workers is very small or negligible.

[33] See M. Kahanec. 2012. Skilled Labor Flows: Lessons from the European Union. *IZA Research Report Series.* No. 49. Bonn: Institute for the Study of Labor (IZA).

flows as a "quest for control," and there is no consensus on what proper management is or whether it can be achievable or not.[34]

A cooperative, regional approach is perhaps the best option in addressing these issues, given the complexity of the migration web within Asia. Regional cooperation can help assure the benefits of labor mobility outweigh its costs. Economies or regions that have dealt with immigration issues can provide useful knowledge for others as they confront common challenges—recruitment practices, worker protection, handling illegal migrants, and how to construct a management framework of cooperation between source and recipient economies.

Infrastructure Connectivity

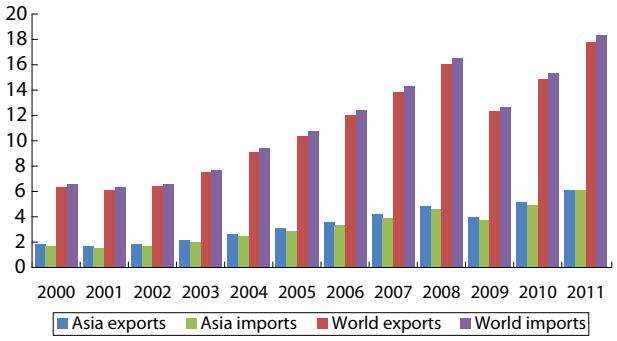
While regional connectivity is improving, demand continues to rise faster than supply, widening the infrastructure gap.

As globalization deepens and Asian economies continue to expand, demand for greater information and communication technology (ICT), energy, power, and transport and logistics is intensifying. Asia's renowned supply chains and production networks—euphemistically labeled "Factory Asia"—have driven growth in intraregional, inter-regional, and global trade. Raw materials, intermediate and final goods and services require efficient infrastructure to link producers to suppliers, suppliers to manufacturers, and manufacturers to markets. The services that promote and finance this trade also require seamless infrastructure. And underlying the entire process is the power needed to fuel production. Higher incomes and growing populations also increase demand for food and natural resources, requiring more efficient infrastructure.

World trade grew at an average annual rate of 9.8% between 2000 and 2011—despite the 23% contraction during the 2008/09 global financial crisis. It reached a historic high of over $36 trillion in 2011 **(Figure 37)**. Asia's total trade surged from $3.5 trillion in 2000 to $12.2 trillion in 2011—an annual growth rate of 12.0%. This has increasingly overwhelmed transport infrastructure and service in the region. In addition, production fragmentation increasingly requires better trade efficiency to feed global supply chain networks.

[34]See S. Castles and M.J. Miller. 2009. *The Age of Migration: International Population Movements in the Modern World.* 4th ed. Basingstoke: Palgrave Macmillan.

Figure 37: Merchandise Trade—Asia and the World ($ trillion)



Source: ADB calculations using data from *Direction of Trade Statistics*, International Monetary Fund; and CEIC for Taipei,China.

Today's industries and firms actively use multimodal transport services and apply just-in-time inventory management with low overheads and shorter lead times. All these require efficient transport infrastructure, logistics services, and customs, especially at airports and seaports—where more than 90% of international trade passes.

The quality of cross-border connectivity is improving in Asia, yet more needs to be done.

To satisfy projected demand, new regional infrastructure in Asia is estimated to cost $320 billion during 2010–2020.[35] Of this total, about half is needed for regional transport and logistics, while the rest covers cross-border infrastructure that moves power from surplus to deficit economies. This includes building and upgrading the Asian Highway Network, Trans-Asian Railway Network, and Asian Container Ports programs. It also includes regional ICT, transport, and energy projects promoted under regional cooperation programs such as ASEAN, the Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area (BIMP-EAGA), the Central Asia Regional Economic Cooperation (CAREC) program, the Indonesia–Malaysia–Thailand Growth Triangle (IMT-GT), the Greater Mekong Subregion (GMS), South Asia Subregional Economic Cooperation (SASEC) program, and Council of Regional Organisations of the Pacific (CROP).

[35]B. Bhattacharyay. 2010. Estimating Demand for Infrastructure in Energy, Transport, Telecommunications, Water and Sanitation in Asia and the Pacific: 2010-2020. *Asian Development Bank Institute Working Paper Series.* No. 248. Tokyo: Asian Development Bank Institute.

Asia's economies, together with bilateral and multilateral partners, have actively promoted regional cooperation on infrastructure connectivity, mobilizing more than $40 billion for regional infrastructure during the last 2 decades. For example, 172 GMS and CAREC regional projects were completed by the end of 2011, costing $35 billion.[36] Regional transport projects absorbed 77% ($27 billion) of the total. The two programs also conducted numerous training sessions, strengthening human capital to support regional infrastructure management and new trade facilitation and security measures, among others. IMT-GT is working on connectivity projects worth over $5 billion. About $1 billion has been earmarked for regional projects under BIMP-EAGA with $22 million in technical support. Since the start of SASEC in 2001, 19 subregional projects worth over $6 billion have been approved. SASEC has gained momentum in the past few years, with $4 billion in investments covering transport, energy, security, and trade facilitation planned for 2013–2015. In 2012, SASEC approved two complementary subregional projects—a highway corridor with two cross-border facilities in Bangladesh (a strategic intervention after SASEC corridor improvements in Nepal and Bhutan) and a trade facilitation program. CROP, a committee of the heads of eight subregional organizations in the Pacific (the oldest dating back to 1947), was established in 1988 to better coordinate work on regional ICT and aviation safety control—reflecting the unique characteristics of the subregion.

Improvements along the GMS East–West Economic Corridor (EWEC) have shortened travel time between Dong Ha in Viet Nam and Savannakhet in the Lao PDR from 12 hours to 3 hours. It also attracted foreign direct and domestic investment, creating business opportunities in district towns and employment opportunities for villagers used to subsistence farming. Automotive part suppliers use the Second Mekong International Bridge between the Lao PDR and Thailand and the upgraded road along EWEC in the Lao PDR to transport parts assembled in the Lao PDR to factories in Thailand. Wood chips travel the same route to feed Thai paper mills. Da Nang port, at the eastern end of EWEC, has been upgraded to handle more trade and provide new business opportunities. Cambodia and Thailand simplified cross-border procedures at the Cambodia–Thailand border along the GMS Southern Economic Corridor, which runs through southern Thailand, Cambodia, and Viet Nam. Automotive suppliers are establishing factories in Cambodia near the border to supply parts to assembly lines in Thailand. A CAREC Corridor Performance Measurement and Monitoring system assesses regional transport and trade efficiency along CAREC corridors—in 2011, the time taken to cross borders by road declined to 6.2 hours on average, a 2% decline from 2010.

There are few regional projects on energy. The Nam Theun 2 Hydropower project in the Lao PDR supplies electricity to Thailand, generating about $2 billion for the Lao PDR over the 25-year project period. The revenue supports government programs, while the electricity offers Thailand a less expensive alternative to domestically produced electricity. A $6 billion-worth ASEAN Power Grid—with nine interconnections to be completed by 2015—should save more than $600 million at current electricity prices. Five interconnections are currently operational with four under construction. In 2010, Cambodia imported about 385 million kilowatt hours (kWh) of electricity from Thailand and 1,162 million kWh from Viet Nam through cross-border electricity trade arrangements. Indonesia and Malaysia signed a memorandum of understanding for interconnection between Peninsular Malaysia and Sumatra and an agreement to begin electricity trade in 2015 between West Kalimantan and Sarawak.[37] ASEAN utilities and power authorities are working to harmonize regulatory and technical standards. India is offering to sell power to the Bangladesh Power Development Board; they are constructing an interconnection line between the western power grid of Bangladesh and India's eastern electrical grid.

A gas pipeline between Myanmar and Thailand has been completed, with Myanmar exporting about 80% of total gas production from the Yadana and Yetagun offshore gas fields to Thailand—more than 30% of Myanmar's total export earnings. The Trans-ASEAN Gas Pipeline program consists of seven pipelines totaling 1,659 kilometers **(Table 14)**.

ICT is creating new cross-border business opportunities and providing greater efficiency.

Global ICT market liberalization has increased user-access exponentially. Based on SIM card distribution basis, mobile phone users are estimated at about six billion, equal to some 86% of the world population. This has fed new cross-border business opportunities.

[36]Comprises $20 billion under the CAREC Program and $15 billion under the GMS Program.

[37]See Southeast Asia Infrastructure. 2012. Integrated Prosperity: Cross-Border Infrastructure Crucial. http://southeastasiainfra.com/integrated-prosperity/

Table 14: Trans-ASEAN Gas Pipeline Program

Project	Length (kilometers)
West Natuna (Indonesia)–Duyong (Malaysia)	100
Malaysia–Thailand (Joint Development Area)	270
Yetagun (Myanmar)–Ratchaburi (Thailand)	340
Yadana (Myanmar)–Ratchaburi (Thailand)	470
Grissik (South Sumatra, Indonesia)–Singapore	470
Two Cross-Border Pipelines between Malaysia and Singapore	9
Total	1,659

Source: Southeast Asia Infrastructure. 2012. Integrated Prosperity: Cross-Border Infrastructure Crucial. http://southeastasiainfra.com/integrated-prosperity/

It has allowed finance to become more inclusive, even in remote Asia. ICT network development also supports logistics services and customs operations between customs authorities globally.

The 2015 ASEAN Economic Community includes an ICT Master Plan 2015 and the creation of an ASEAN Broadband Corridor. It promotes harmonizing radio spectrum allocations as services shift from analogue to digital—the so-called digital dividend. SASEC began building an information highway in 2007 and has increased the broadband supply, skilled ICT manpower, which has led to more e-government, e-learning, tele-medicine, e-remittance, and e-commerce services—with special focus on the poor. It links SASEC to the global information economy. ICT connectivity has helped the geographically dispersed Pacific island countries by generating new business globally and creating employment regionally **(Box 7)**.[38]

The private sector is increasingly getting concerned with transport and trade transaction costs, and other non-tariff barriers as duties decline globally.

With the general decline in tariffs levied, the private sector has shifted its focus from tariffs to reducing transport and transaction costs, along with other non-tariff barriers such as border procedures. Logistics is increasingly important. According to the World Bank's Logistics Performance Index (LPI), logistics performance in Asia improved 8% during the last 5 years—notably higher than the 5% world average over the same period **(Table 15)**. Improvements in infrastructure (11%), tracking and tracing (9%), and customs (9%) are partly behind these gains. Among subregions, East Asia and Southeast Asia are at the top of the LPI list. Governments in the Pacific and Central Asia subregions improved their LPI scores by 17% and 16%, respectively. Central Asia has focused on infrastructure upgrading, improving 25% over the past 5 years, followed by South Asia (15%), and the Pacific (14%). Tracking and tracing, and customs procedures have likewise improved.

Developing Asia's logistics score—2.82 in 2012—is comparable with the 2.87 world average, but remains far behind North America's 3.89 and the EU's 3.51. As with other regional indicators, developing Asia's logistics performance is uneven, with East Asia doing best, particularly in timeliness, and the Pacific lowest, particularly in customs administration. Performance by Southeast Asian economies range from 4.13 (Singapore) to 2.37 (Myanmar), and in East Asia from 4.12 (Hong Kong, China) to 2.25 (Mongolia). Narrowing disparities is a major private sector challenge.

Cross-border procedures need to be simplified, harmonized, and use international best practices.

Asia's relatively low logistics performance and wide variations between subregions mean time-consuming and cumbersome cross-border procedures. Greater cooperation can help. The private sector expects cross-border efficiency, while governments want to reduce security risks and smuggling. International agreements, conventions, and best practices boosts efficiency, safety, and security. The plethora of free trade agreements (FTAs) created an Asian noodle bowl of FTAs (see *Multilateralizing Asian Regionalism*: *Approaches to Unraveling the Asian Noodle Bowl,* page 49). Multilateral conventions can disentangle trade-related issues as they define global rules applicable to all participating countries. Regional cooperation should work toward accession to major international conventions, supported by domestic laws and procedures. Despite the benefits of membership, accession to these conventions has been slow and uneven **(Figure 38)**.

For customs, the Harmonized System (HS) Convention—a commodity nomenclature classification system—has the highest level of accession with 72% of United Nations (UN) members (139 contracting parties), including 60% of ADB developing member countries (DMCs). The Revised Kyoto Convention, the blueprint for modern and efficient customs, has 39% of UN members (76 contracting parties), including 28% of ADB DMCs.

[38]See footnote 37.

Box 7: Improving ICT Connectivity in the Pacific

ADB has long supported regional cooperation and integration among its 14 Pacific developing member countries (Pacific DMCs), often with co-financing. Contributions include support for regional development forums; infrastructure finance; regional projects focused on renewable energy, marine and coastal management; and strengthening disaster preparedness. ADB's regional technical assistance contributes to strengthening capacity for public financial management, statistics, and data collection.

More recently, ADB positioned itself to support improved regional Information and Communications Technology (ICT) connectivity in the Pacific—predicated on the assumption that the development potential of improved broadband connectivity hinges on three complementary pillars: (i) the availability and quality of broadband infrastructure (fiber optics, satellites, domestic backbone); (ii) the quality of regulatory regimes to ensure competitiveness of the telecommunications sector, cost-based wholesale and retail pricing, and universal access policies; and (iii) broadband-based improvements to promote inclusive service delivery in key social sectors like health and education, and reduce the cost of doing business.

The experience from a range of low and middle-income countries suggests that when these pillars come together, improved broadband connectivity contributes to more inclusive economic growth and wider social impact. In the Pacific, ADB and the World Bank have actively supported the development of infrastructure and innovative broadband-based service delivery, along with strengthening regulatory regimes.

Recent Developments

Since 2010, the Federated States of Micronesia (FSM), Papua New Guinea (PNG), the Marshall Islands, Samoa, and Fiji have been connected by submarine fiber-optic cables. All other Pacific DMCs rely on satellite, which is expensive and constrained by limited bandwidth.

In response to Pacific Islands Forum's call for improved international connectivity, ADB has been supporting the Pacific Regional ICT Connectivity Project (initiated by the World Bank), which aims to connect Tonga, Samoa, Solomon Islands, and Vanuatu by submarine fiber optic cables to the existing global submarine cable network.

Under the first phase of the initiative, endorsed in August 2011, ADB and the World Bank jointly supported Tonga Cable Limited in developing a submarine cable system (SCS) that includes installation of an 827-kilometer cable link between Nuku'alofa (Tonga) and Suva (Fiji).

Under the second phase—the "Broadband for Development Project"—support is provided to the Solomons Oceanic Cable Company, in developing a SCS that will link Solomon Islands to the existing Pipe Pacific Cable-1 cable that runs between Guam and Sydney. In addition to the international link (roughly 430-kilometers), SCS will comprise two domestic spurs to Malaita and the Western Province (roughly 400 and 150 kilometer, respectively). An interesting feature of this project is that the financing plan comprises a mix of sovereign funds (loan and grant) and non-sovereign funds (commercial debt and equity). The sovereign financing component was approved in September 2012.

Discussions on a possible extension of the Tonga–Fiji cable to Samoa, as well as ADB's possible support for a SCS linking Guam with the FSM and Palau are currently under discussion.

ADB also supports a regional resource center for ICT regulatory reforms (based in Fiji) and initiatives focused on improving delivery of public services, mainly in e-governance, health and education. The Rural Health Services Improvement Program in PNG, for example, is piloting the use of mobile data devices in selected remote provinces of the country.

Benefits of Improved Regional ICT Connectivity

A recent World Bank study indicates that a 10% increase in broadband penetration results in a 1.38% increase in GDP growth in low- and middle-income countries.[1] These result from (i) reduced transaction costs for business, government, and household communications; (ii) new business opportunities such as investments in e-commerce and business process outsourcing (BPO); and (iii) improved public service delivery, in particular through the introduction of e-education and e-health services; the remote delivery of agricultural extension, policing, judicial, employment, disaster management and other public services; and mobile banking. Wholesale bandwidth prices will likely be halved, leading to a conservatively estimated retail price reduction of 20%.

Across the Pacific, lack of access to markets and services, combined with high transport and communication costs leaves many countries relatively isolated. The regional ICT connectivity project in the Pacific supports economic and social development and new business opportunities. Improved ICT connectivity also supports the development of services such as tourism and BPO by increasing the frequency and quality of communications, not only among the countries in the region but also the rest of the world.

[1]World Bank. 2009. *Information and Communications for Development 2009: Extending Reach and Increasing Impact.* Washington, DC.
Source: ADB Pacific Regional Department.

Table 15: Logistics Performance Index (LPI)[1], 2012

Regions	LPI	Customs	Infrastructure	International Shipments	Logistics Competence	Tracking and Tracing	Timeliness
East Asia	3.54	3.29	3.60	3.44	3.46	3.56	3.90
Southeast Asia	3.02	2.78	2.82	3.02	2.95	3.11	3.42
Central Asia	2.51	2.40	2.43	2.45	2.42	2.53	2.86
South Asia	2.58	2.47	2.38	2.59	2.58	2.48	2.93
Pacific Islands[2]	2.40	2.14	2.15	2.40	2.17	2.46	3.06
Asia	2.90	2.72	2.78	2.85	2.82	2.92	3.28
Developing Asia[3]	2.82	2.63	2.68	2.79	2.74	2.83	3.22
Europe and Central Asia	2.71	2.47	2.60	2.66	2.65	2.75	3.14
Latin America and the Caribbean	2.71	2.46	2.57	2.70	2.64	2.73	3.12
East Asia and the Pacific	2.77	2.51	2.58	2.77	2.64	2.85	3.26
Middle East and North Africa	2.58	2.29	2.40	2.68	2.49	2.56	3.02
Sub-Saharan Africa	2.46	2.27	2.29	2.47	2.43	2.40	2.86
World Average	**2.87**	**2.66**	**2.77**	**2.82**	**2.82**	**2.88**	**3.26**

Note: Asia, Central Asia, East Asia, South Asia, and Southeast Asia are based on ADB regional classification. Europe and Central Asia, Latin America and the Caribbean, East Asia and the Pacific, Middle East and North Africa, and Sub-Saharan Africa based on World Bank regional classification.

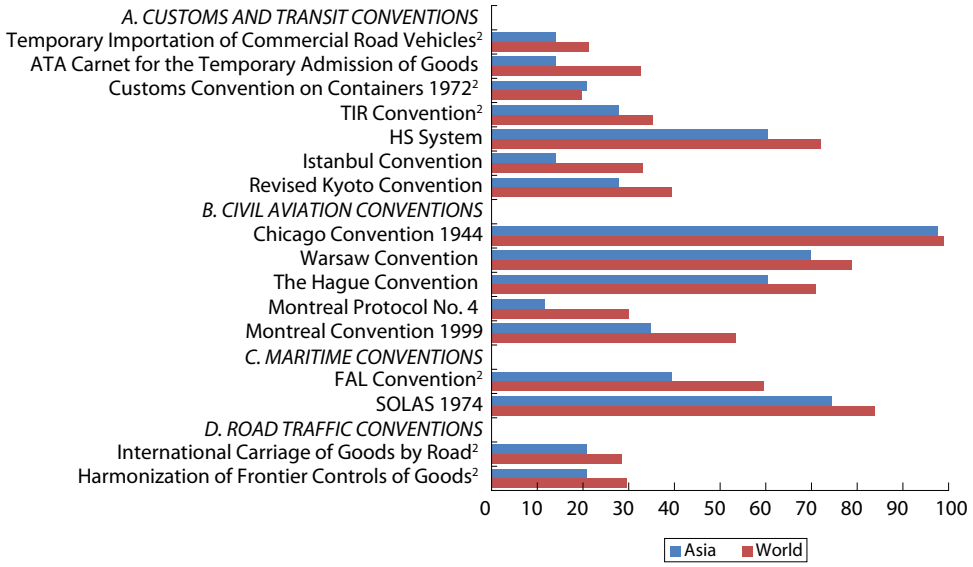
[1]LPI scores are based on the following dimensions: (i) efficiency of border control and customs process, (ii) transport and trade-related infrastructure, (iii) competitively priced shipments, (iv) ability to track and trace consignments, and (v) timeliness of shipments. Countries are rated from 1 to 5, with 1 being the worst performance and 5 being the best.

[2]Fiji, Papua New Guinea, and Solomon Islands.

[3]Refers to 44 developing member countries of the Asian Development Bank and Brunei Darussalam, an unclassified regional member.

Source: ADB calculations using data from *Logistics Performance Index,* World Bank.

Figure 38: Levels of Accession to Selected International Conventions—Asia and the World[1] (%)



ATA = Admission Temporaire/Temporary Admission, FAL = Facilitation of International Maritime Traffic, HS System = International Convention on the Harmonized Commodity Description and Coding System, SOLAS = International Convention for the Safety of Life at Sea.

[1]Asia refers to the level of participation of Asia excluding Australia, Japan, and New Zealand. World refers to the level of participation of the 193 United Nations members.

[2]One of the eight international conventions with respect to facilitation across international borders that United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) Resolution 48/11 of April 1992 recommends countries in the region to accede to.

Source: International Civil Aviation Organization (ICAO), Current Lists of Parties to Multilateral Air Law Treaties. http://www.icao.int/secretariat/legal/Lists/Current%20lists%20of%20parties/AllItems.aspx; International Maritime Organization, Status of Conventions. http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx; United Nations Treaty Collection, Status of Treaties. http://treaties.un.org/pages/participationStatus.aspx

About 80% of global trade now follows the provisions of this convention.[39]

In air transport, almost all countries are party to the Chicago Convention, which provides for the regulation of air navigation and international air transport. The Montreal Convention (1999) aims to provide a universal system to govern airline liability to passengers and shippers. It currently includes 53% of UN members (103 countries), including 35% of ADB DMCs. The Warsaw Convention (1929), which unifies rules relating to international air carriage, has been amended and modified by the Hague Convention (1955), Montreal Protocol No. 4 (1975), and the Montreal Convention (1999). Several countries remain outside the system.

The Convention on Facilitation of International Maritime Traffic (FAL)—designed to help reduce delays in maritime traffic and introduce standardized procedures—has 60% UN member participation (115 countries) and 40% of ADB DMCs. Regarded by the maritime community as the most important treaty covering the safety of merchant ships, the International Convention for the Safety of Life at Sea (SOLAS 1974) has 84% of UN members' signatures (162 countries) and 74% of ADB DMCs. SOLAS 1974 specifies minimum safety standards with respect to the construction and operation of ships, and includes the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code was adopted in 2002 after the 9/11 attacks in the US and includes security requirements for governments, port authorities, and shipping companies.

Private sector calls for interagency coordination among transport, trade and customs authorities and efficient multimodal transport are growing.

Despite substantial transportation investments, many Asian economies maintain poor regional transport connectivity, constraining international and regional trade and transport, and increasing costs of doing business. Several initiatives are underway.

On air transport, an electronic-freight (e-freight) initiative introduced by the International Air Transport Association (IATA) has taken shape. In 2004, IATA carried out an industry-wide program—involving airlines, shippers, freight forwarders, ground handling agents, and customs authorities—to replace paper accompanying airfreight shipments with cheaper, more accurate, and more reliable electronic messaging. With each shipment requiring up to 30 paper documents required by several government authorities across different points in the supply chain, the benefits of e-freight are obvious, particularly the efficiency of one-time data entry. Electronic documentation also allows pre-screening and real-time tracking. In 2007, e-freight began with six pilot locations. As of September 2012, there were 42 countries and 437 airports, of which 110 carried out international e-freight operations.[40] With 42 participating airlines, 1,569 freight forwarders, 12,558 ready trade lanes, and 3,004 trade lanes, e-freight is now supporting a monthly e-freight volume of 139,412 consignments, or 5.5% market penetration.[41] While less than 1% of the global freight market, e-freight has enormous potential to support air cargo, which accounts for about 35% of the value of the goods traded globally.

Provision of Regional Public Goods

As countries increasingly collaborate on economic issues, they find that regional cooperation also allows them to tackle collective threats to public welfare—regional public goods.

Integration can bring with it unintended consequences—from the spread of disease (epidemics) to cross-border crime (money laundering and human trafficking), among others. But it also creates the opportunity to cooperate on crisis prevention—whether through disaster preparedness, environmental sustainability, or in pursuing regional financial stability. All of these opportunities and issues combine with increased cross-border interdependence to build demand for regional public goods.

[39] World Customs Organization. http://www.wcoomd.org

[40] As defined by IATA, "countries" may also be administrative areas with local e-freight Operational Procedures (e-FOP) defined and validated by local customs, which accept inbound and outbound shipments performed as e-freight. "Airports" are where stakeholders can operate e-freight to or from another participating airport. See International Air Transport Association. http://www.iata.org/

[41] A trade lane between two participating airports is where at least one e-freight shipment has been performed, whereas a ready trade lane is a trade lane between two participating airports in countries which have ratified the Montreal Convention 1999 and/or Montreal Protocol No. 4. Both conventions update the Warsaw Convention in relation to a system of liability and liability limits, among others. See International Air Transport Association. http://www.iata.org/

Box 8: ASEAN's Response to Transboundary Haze

The recurrence of large forest fires and haze have important environmental and economic impacts, bringing transboundary air pollution, disrupting transportation, creating health hazards, and damaging social welfare. ASEAN countries—home to 60% of the world's tropical peatlands—are prone to forest fires that are the major cause of fire and transboundary haze pollution. The blaze of 1997/98 affected six ASEAN countries and was among the most damaging in recorded history.[1]

In response to the problem—which began to intensify in the 1980s, ASEAN members signed an ASEAN Agreement on Transboundary Haze Pollution (ASEAN Haze Agreement) in 2002 to collectively address the haze problem. [2]

The agreement takes a holistic approach and includes national, bilateral, subregional, and regional cooperation to cover prevention, monitoring, mitigation and fire suppression measures. Public awareness is a first step through outreach programs down to communities and villages. A panel of ASEAN experts was created in 2005 to provide rapid independent assessments and recommendations on how to mobilize resources during expected critical periods. An ASEAN website—ASEAN Haze Action Online—was created to provide daily updates on fire-and-haze conditions and other information. Substantial progress has been made in implementing the agreement, including the conduct of simulation exercises, implementation of the ASEAN Peatland Management Strategy, and the use of zero-burning and controlled-burning practices. The establishment of a regional air quality monitoring network and development and refinement of the fire danger rating system are planned.

Funds were mobilized through several channels, including ASEAN government funding, the ASEAN Haze Fund (with voluntary contributions), and contributions from international and regional development partners. A broad range of bilateral and multilateral development partners participated in the program, including ADB, Australian Agency for International Development, Canadian International Development Agency, EU, Global Environment Facility, GTZ, Hanns Seidel Foundation (Germany), International Fund for Agricultural Development, Japan International Cooperation Agency, United Nations Environment Programme, United States Agency for International Development, World Health Organization, World Meteorological Organization, and the World Bank. ADB provided $1 million in technical assistance to support ASEAN capacity building in tackling the haze pollution.

[1]Affected countries included Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand. The fire burned more than 9 million hectares of land, 6.5 million of which were forested. Damage was estimated at more than $9 billion in economic, social and environmental losses, including the release of an estimated 1–2 billion tons of carbon.

[2]The agreement recognizes the importance of mitigating the transboundary haze pollution through concerted national and international cooperation, and comprehensively addresses all aspects of fire and haze including prevention, monitoring, and mitigation. An ASEAN Transboundary Haze Pollution Control Fund was established to mobilize financial resources, and the ASEAN Secretariat was designated to coordinate operational activities under the Agreement.

Source: *ASEAN HazeOnline*. http://haze.asean.org/ and ADB. 2001. Fire, Smoke, and Haze: The ASEAN Response Strategy. Manila.

The Importance of Regional Public Goods

Public goods have two fundamental characteristics—no one is excluded from using them; and consumption of a good does not diminish the amount available to others.

As an issue for development economics, regional public goods has a relatively short history, although the study of public finance and related issues of externalities extend back considerably further.[42] A regional public good is generally defined as a public good that is shared by two or more countries in a specified region. Public goods vary in terms of "publicness" depending on how they are produced. But in general, they cannot be supplied by usual market mechanisms, as potential suppliers are deterred by the knowledge that they will be unable to reap the full benefit of their efforts. Public sector intervention is needed to define the issue, create appropriate policies, and ensure adequate supplies of public goods. In the context of regional economic cooperation, regional public goods correct problems that individual countries cannot address on their own. For example, the ASEAN response on transboundary haze illustrates how regional public goods can help members address cross-border challenges **(Box 8)**.

[42]I. Kaul. 2006. Public Goods: A Positive Analysis. In J-P. Touffut, ed. *Advancing Public Goods.* Cheltenham, UK and Northampton, MA, USA: Edward Elgar. pp. 13-39.

Climate change and the environment, disease and disaster, good governance and crime-fighting are all regional public goods.

There are many types of regional public goods. One study identifies three essential regional public goods: peace and security, knowledge, and communicable diseases.[43] Another highlights taxation, environment, health, criminal activities, and infrastructure.[44] Generally, these can be classified into the following areas[45]:

i. Clean energy and energy efficiency—Climate change is a global public good, but its regional dimensions are just as critical. Rising fossil fuel use is increasing CO_2 emissions which, in turn, cause global climate change. Financing, technology, and knowledge are needed to adapt to the impact of climate change and to mitigate its acceleration. Emissions-induced climate change also requires regional institutions for capacity building and knowledge sharing. For example, Clean Air Asia—a joint initiative of ADB, the World Bank, and the US–Asia Environmental Partnership—acts as the region's air quality network to reduce air pollution and greenhouse emissions from transport, energy, and other sectors.

ii. Environment—Rapid economic growth has brought tremendous benefits to various regions, but the environmental damage from urban and industrial expansion, and the depletion of natural resources have become increasingly obvious. Problems include serious air and water pollution, dust and sandstorms, marine and coastal management, and competition over river resources. One example in addressing these issues is the Greater Mekong Subregion's (GMS) Core Environment Program and Biodiversity Conservation Corridors Initiative, an ADB-administered program that seeks to approach economic growth and environmental protection in parallel, and in a way that boosts people's welfare all along the Mekong river basin.

iii. Communicable Diseases—The rapid spread and emergence of diseases such as HIV/AIDS, severe acute respiratory syndrome and avian influenza can be exacerbated by greater integration and increased cross-border mobility. Regardless, the potential for epidemics requires regional frameworks and coordinated policy structures among vulnerable countries, as well as between developed and developing countries. This could also include vaccines and best practices for treating region-specific diseases. Recently, a new alliance between Singapore, Indonesia and Malaysia, *UNITEDengue*, was formed to speed up dengue surveillance and control, and hopes to expand to other countries in the region that face the same vulnerability.

iv. Disaster Risk Management—Asia is more prone to natural disasters than anywhere else in the world. Earthquakes, tsunamis, transboundary pollution, and rising sea levels highlight the cross-border impact of natural (and some man-made) disasters. There is need for a high degree of regional coordination to respond quickly and efficiently. It also stresses the need for regional disaster prevention as well as early warning systems. To reduce Central Asia's vulnerability to disasters, for example, the UN established the Central Asia and Caucasus Disaster Risk Management Initiative, where risk assessments are prepared and regional issues and potential areas of co-operation addressed, including financing and information sharing.

v. Governance—Good governance is a quintessential public good. The importance of collective and coordinated action for good governance, the adoption and monitoring of sound practices, and control of transborder crime is becoming increasingly important as the region's economies become more integrated through trade facilitation and improved infrastructure. In 1999, 30 governments in Asia joined to cooperate in the fight against corruption, creating an Anti-Corruption Initiative for Asia-Pacific under the joint leadership of ADB and the Organisation for Economic Co-operation and Development. The program's Anti-Corruption Action Plan for Asia and the Pacific sets out goals and standards for sustainable safeguards against economic and political corruption.

vi. Human and Drug Trafficking and Money Laundering—The problem of human trafficking may be increasing as result of differential growth rates, rising inequality and improved connectivity. Sustained progress in addressing this issue requires policy dialogue in appropriate forums. The problem of money laundering also requires a coordinated regional solution—an objective pursued by the 41-member Asia/Pacific Group on Money Laundering.

[43] T. Sandler. 2006. Regional Public Goods and International Organizations. *The Review of International Organizations.* 1 (1). pp. 5–25.

[44] V. Tanzi. 2005. Social Protection in a Globalizing World. *Rivista di Politica Economica Policy Paper.*

[45] ADB. 2010. *Institutions for Regional Integration: Toward an Asian Economic Community.* Manila.

Throughout its 47-year history, ADB has been active in many of these fields. Regional public goods is the fourth pillar of ADB's 2006 *Regional Cooperation and Integration Strategy*.

Challenges in Providing Regional Public Goods

While proliferation of regional and subregional programs in Asia heightens the attention given to regional public goods, financing the supply and logistics required remains a challenge to regional cooperation.

Development banks like ADB have increasingly taken up the cause of regional public goods.[46] But they are not without problems. Conceptually, some studies note that regional public goods may be more difficult to provide for than global public goods. Some of the problems identified include:

i. lack of spillover/benefit for major donors,

ii. lack of lead countries,

iii. political security issues in some regions,

iv. lack of a single beneficiary as borrower, and

v. lack of interest in part due to apathy and the perceived lack of influence in international forums where different regional public goods are discussed.

Also, the financing and logistics in delivering regional public goods differ widely and are heavily dependent on how they are produced. For example, finding a cure for AIDS is most likely a "best shot" public good, where the largest effort determines the level of public good that can be achieved. This, however, means that a lead nation—most likely an advanced economy—must work to coalesce and focus resources. Without such a leader, little can actually be achieved.

There has been much discussion on how to tackle these difficulties, using innovative financing to produce regional public goods. In Asia, several ideas have been explored:

i. tapping private resources from both nonprofit sources (philanthropies) and business;

ii. establishing public-private partnerships—especially where there is some prospect for the longer-term private sector profitability, for example, the Medicines for Malaria Venture, which concentrates resources to achieve best shot public goods (new medicines); and

iii. fees for cooperation programs that essentially operate as "clubs"—where membership benefits and costs are clearly discernible and hence more likely to attract collection of "club fees". Subregional cooperation initiatives within each cooperation program could also collect fees—for example, regional power grids, waterways, and cross-border economic corridors.

Regional Public Goods and Institutional Design

Regional public goods pose two major challenges to the design of institutions for regionalism—new or existing institutions, and the standards used to deliver goods where they are needed most.

First, is the public good to be provided by new or existing institutions? On balance, there is much to favor existing institutions as it takes advantage of hard-earned trust and minimizes the risk and marginal costs of addressing a new area. For example, the 20-year old GMS could extend cooperation into disaster risk management. A potential problem with using existing institutions would be lack of interest by a significant number of members or the need to cooperate with areas outside the cooperation program.

Second, how should a group establish subsidiary standards to bring institutional responses as close as possible to the area affected by the goods spillover? There will be those who get no benefits being asked to contribute, or some who receive benefits remain out of the group of participants. The subsidiary principle also leads to a decrease in transaction costs derived from negotiating and supervising regional public goods—it reduces the number of participants and allows great homogeneity in the interests of those involved. This argues against the need for a pan-Asian institution to deliver regional public goods. The strict application of the subsidiary principle may actually

[46]See, for example, A. Estevadeordal et al. 2009. *Bridging Regional Trade Agreements in the Americas.* New York, US: Inter-American Development Bank.

be counterproductive when goods have important economies of scale in their production or distribution, such as in the procurement of pharmaceuticals or transactions in the international carbon market, particularly for small economies. In that case, it may prove more efficient to search for institutions, which have a large jurisdiction. Similarly, if goods have broad economies of scope, the subsidiary approach will have to be modified. In this case, it might be better to integrate different activities under the same institutional structure to take advantage of existing links.[47]

Regional public goods can play a key role in addressing many global issues as well.

Increasing interdependence among countries may also make regional public goods imperative. The increase in regional cooperation programs in Asia greatly facilitates the production of regional public goods. Although financing and production of regional public goods is not without problems, large regional development banks like ADB maintain regional public goods programs effectively covering a wide spectrum of issues. The subsidiary principle should play a key role in designing regional institutions, but factors such as economies of scale and scope, how specific regional public goods are produced, as well as the goods themselves, also must be carefully considered in designing institutions for regional cooperation.

Macroeconomic and Financial Cooperation

While advanced economies continue to struggle with debt and fiscal issues, Asia is moving forward with initiatives and exploring ways to enhance regional collaboration and coordination.

The global economic outlook remains uncertain as authorities continue to grapple with how to restructure and reignite growth. For Asia, it accents the need for deeper cooperation to ensure macroeconomic and financial stability. Further monetary and financial cooperation is also needed to promote trade and integrate production further—key to rebalancing Asia's sources of growth from overreliance on exports to more domestic and regional demand. Initiatives are underway to further develop and broaden regional financial markets. In September 2012, ASEAN Exchanges—a collaboration of seven ASEAN stock exchanges—announced the rollout of the much-awaited ASEAN Trading Link, initially connecting Bursa Malaysia and the Singapore Exchange. In October, the Stock Exchange of Thailand joined, creating a $1.4 trillion virtual market. ASEAN+3 has also begun exploring ways to enhance the role of the region's currencies for trade settlement in East Asia.

The Group of 20 (G20) is also pursuing greater economic policy coordination and cooperation to address lackluster growth and job creation, along with the financial and sovereign debt crisis in advanced economies.

In 2012, the G20—the premier forum for international economic cooperation—concentrated on immediate risks to the global economy, including the eurozone debt crisis. It made progress on policy coordination through its Los Cabos Growth and Jobs Action Plan and Accountability Assessment Framework—to establish procedures for reporting progress on policy commitments. To strengthen the global financial firewall and enhance the International Monetary Fund's (IMF) role in crisis prevention and resolution, the G20 agreed last year to increase IMF resources and total commitments to about $461 billion. Moreover, it expanded policy coordination and cooperation on numerous agendas—such as open trade and investment (to resist protectionism), financial regulation and reform, financial inclusion, food security, commodity price volatility, the development challenge, and inclusive green growth.

In early January this year, the Basel Committee on Banking Supervision agreed to loosen restrictions on which assets can be used for the liquidity coverage ratio, postponing full implementation until 2019.

The liquidity coverage ratio (LCR) was developed to increase short-term resilience of banks' liquidity risk profile—an essential component of the Basel III reforms. The LCR standard forces banks to have an adequate stock of unencumbered high quality liquid assets (HQLA)—cash or assets that can be converted into cash without losing much value in private markets—to meet

[47] R. Kanbur. 2001. Cross-Border Externalities, International Public Goods and their Implications for Aid Agencies. *Cornell University Department of Applied Economics and Management Working Paper Series.* No. 127364. New York: Cornell University.

their liquidity needs for a 30-calendar day liquidity stress scenario. The Basel Committee on Banking Supervision amended the HQLA definition and the timetable for phasing in the standard. Given ongoing market and economic pressures, the introduction of the LCR standard was made more pragmatic and gradual.[48] This gradual approach is designed to ensure the least disruption to banking systems and real economies.

Various regional groupings and policy forums remain the main venue for policy cooperation and coordination, particularly when working toward financial stability regionally and globally.

The Executives' Meeting of East Asia Pacific Central Banks (EMEAP)—a cooperative organization of central banks and monetary authorities in East Asia and the Pacific—met in July 2012 to discuss progress on bank supervision, financial markets, payment and settlement systems, and information technology, among others. The governors also examined progress on enhancing surveillance and creating a regional crisis management framework. The South East Asian Central Banks (SEACEN) Meeting of the Board of Governors and High Level Seminar in November 2012 explored ways to bolster financial stability through enhanced regional collaboration and coordination. Also in November, ministry of finance and central bank deputies from ASEAN+3 met to review progress of ASEAN+3 financial cooperation initiatives and conduct economic review and policy dialogue.

Inter-regional policy forums promote dialogue across regions, contribute to global cooperation in addressing economic crises, and support inter-regional trade and investment.

At the 2012 Asia–Pacific Economic Cooperation (APEC) Finance Ministerial Meeting held in Moscow, Russia at the end of August last year, ministers highlighted the need to promote growth and stability amid uncertainty and significant downside risks to the global economy. The discussions also stressed the importance of financial literacy and financial policies in tackling the impact of natural disasters. The Asia-Europe Meeting (ASEM) of Finance Ministers in Thailand last October discussed how regional financial arrangements in Asia and Europe could help secure financial stability. Ministers also reaffirmed Asia and Europe's partnership for enhancing inter-regional investment and trade. The IMF and World Bank annual meeting—in effect a global policy forum—was held in Japan in October 2012 with the eurozone debt crisis and US recovery topping its agenda.

Currency swap arrangements have been used widely since the 2008/09 global financial crisis and have become a major form of central bank coordination.

A currency swap is a financial transaction in which two counterparties exchange specific amounts of two different currencies and repay at a future date based on a predetermined rule reflecting both interest payments and principal amortization.[49] A simpler form of currency swaps has been used much more frequently—where only principal amounts are exchanged on the initial and maturity dates at agreed exchange rates. The primary purpose of currency swaps between central banks is to provide ample liquidity, manage international reserves, and help stabilize financial markets. The 2008/09 global financial crisis, particularly after the collapse of Lehman Brothers in late-2008, led to unprecedented use of bilateral currency swaps between central banks. To offer dollar liquidity to financial institutions and thus relieve financial stress, the US Federal Reserve (the Fed) extended swap lines initially to the central banks of Canada, eurozone, Japan, Switzerland and the United Kingdom, and then to those in other advanced economies. For the first time, the Fed granted similar arrangements with four emerging economies: Brazil, the Republic of Korea, Mexico, and Singapore ($30 billion each). The European Central Bank also established swap agreements with some European economies—helping calm global financial markets, including those in emerging economies.

Central banks in Asia have expanded multilateral and bilateral currency swap agreements to guard against financial crises in the region and to ease trade settlement in local currencies.

In addition to accumulating large stocks of foreign exchange reserves to insure against future crises, ASEAN+3 also set up a regional reserve pooling

[48]Specifically, the LCR will start as planned on 1 January 2015, but the minimum requirement will begin at 60%, rising gradually to full implementation on 1 January 2019.

[49]S.Y. Cross et al. 1986. Recent Innovations in International Banking (Cross Report). *Committee on the Global Financial System Publications.* No. 1. Basel: Bank for International Settlements.

Table 16: Swap Arrangements—India, Japan, and the Republic of Korea

Counterparties	Date	Amount	Swap Term	Note
Republic of Korea–Japan	Jun-10	$3 billion	3 years	Bank of Japan (BoJ) and the Bank of Korea (BoK) bilateral won–yen swap arrangement extended until 3 July 2013. Originally signed in May 2005, it was expanded to $20 billion from Dec 2008 to Apr 2010 and $30 billion from Oct 2011 to Oct 2012.
Republic of Korea–PRC	Oct-11	KRW64 trillion (CNY360 billion)	3 years	The BoK and the People's Bank of China (PBOC) doubled its bilateral won–renminbi swap arrangement. Originally signed on Dec 2008, it was on top of the existing arrangement under the Chiang Mai Initiative. On Dec 2012, the swap was expanded to finance trade settlement facility.
Japan–India	Dec-12	$15 billion	3 years	The BoJ and the Reserve Bank of India signed a yen–rupee Bilateral Swap Arrangement (BSA). Expanded from $3 billion, the BSA was originally signed in Jun 2008.
India–SAARC	May-12	$2 billion		The South Asian Association for Regional Cooperation (SAARC) Swap Facility will be offered in US dollar, Euro or Indian Rupee against the domestic currency or domestic currency denominated government securities of the requesting country. The corpus of $2 billion is contributed entirely by India. SAARC members are Afghanistan, Bangladesh, Bhutan, India, the Maldives, Nepal, Pakistan and Sri Lanka.

PRC = People's Republic of China.
Source: Bank of Japan, Reserve Bank of India, and The Bank of Korea.

arrangement—Chiang Mai Initiative Multilateralization (CMIM), a multilateral currency swap agreement governed by a single contract—to provide emergency liquidity support and supplement existing financial facilities.[50] A similar swap arrangement is emerging in South Asia with the Reserve Bank of India offering a $2 billion facility to members of the South Asian Association for Regional Cooperation (SAARC). Major Asian economies, including the PRC, India, Japan, and the Republic of Korea, also established bilateral swap lines among themselves or with other trading partners to provide short-term liquidity support. Those facilities are mostly in US dollars and mitigate the spillovers from financial turmoil **(Table 16)**. However, the currency swaps offered by the People's Bank of China (PBOC) are mostly in the local currencies of signatories.

Beyond promoting financial cooperation and financial stability, PBOC's swap lines aim to expand trade settlement in local currencies—thus promoting trade and investment between the PRC and its partners.

Since December 2008, the PRC signed local-currency swap agreements with 18 central banks within and outside of Asia, including some advanced economies **(Table 17)**. The swap lines total about CNY1.7 trillion. It is unclear whether any have been activated, except briefly to the Hong Kong Monetary Authority, which activated its swap line in 2010 when it faced a renminbi shortage. PBOC's swap arrangements are effective for an initial period of 3–4 years and can be extended, as opposed to the usual validity of 1 year or less. The swaps can be activated by either party to provide local currency liquidity—critical when global financial stress heightens and major settlement currencies such as the US dollar are in short supply. By using local currencies, economies are better able to stabilize bilateral trade flows even when trade finance collapses and exchange rates fluctuate wildly. This also reduces the US dollar reliance, currency risks, and possibly trade transaction costs. One of the key lessons from the 2008/09 global financial crisis was how the global credit crunch froze US dollar-based trade finance, which led to a sudden halt in trade flows.

Beyond short-term liquidity support, renminbi swaps have a clear long-term objective of supporting bilateral trade and investment in local currencies. In December 2012, the Bank of Korea, Korean Ministry of Strategy and Finance, and PBOC introduced a trade-settlement facility—financed by the PRC–Republic of Korea currency swap arrangement (with an amount of CNY360 billion or KRW64 trillion). The facility will be used to support trade settlement in renminbi by Korean firms and in won by Chinese firms. An active use of both countries' currencies in bilateral trade and investment will open the renminbi-won foreign exchange markets and make the swap facility permanent, thus deepening financial integration between the two economies. The PRC–Republic of Korea swap-financed trade settlement facility could become a model for other countries. While improving renminbi

[50]For a detailed introduction of CMIM, see ADB. 2012. *Asian Economic Integration Monitor July 2012*. Manila. p. 49.

Table 17: Swap Arrangements—People's Bank of China

Date	Counterparty	Amount (CNY billion)	Swap Term (years)	Note
Mar-09	Belarus	20.0	3	
Mar-09	Indonesia	100.0	3	
Mar-09	Argentina	70.0	3	
Jun-10	Iceland	3.5	3	
Jul-10	Singapore	150.0	3	
Apr-11	New Zealand	25.0	3	
Apr-11	Uzbekistan	0.7	3	
Jun-11	Kazakhstan	7.0	3	
Oct-11	Republic of Korea	360.0	3	Swap amount increased from CNY180 billion in Dec-08
Nov-11	Hong Kong, China	400.0	3	Swap amount increased from CNY200 billion in Jan-09
Dec-11	Pakistan	10.0	3	
Dec-11	Thailand	70.0	3	
Jan-12	UAE	35.0	3	
Feb-12	Malaysia	180.0	3	Swap amount increased from CNY80 billion in Feb-09
Feb-12	Turkey	10.0	3	
Mar-12	Mongolia	10.0	4	Swap amount increased from CNY5 billion in May-11
Mar-12	Australia	200.0	3	
Jun-12	Ukraine	15.0	3	
Total		1,666.2		

Source: People's Bank of China.

settlement facilities in Hong Kong, China, the PBOC and its counterpart are also setting up similar platforms in Taipei,China and Singapore. These bilateral local currency trade settlement facilities will pave the way for a regional local currency trade settlement infrastructure.

Renminbi bilateral swaps are one key element in boosting international use of renminbi and ensure its convertibility.

Establishing swap agreements is a significant step in internationalizing the renminbi. In 2009, to cope with the global financial crisis, the PRC introduced pilot schemes to encourage renminbi use in cross-border trade settlement—later expanded to cover all current account transactions. Renminbi swaps provide easy and low-cost access to renminbi liquidity in other countries, and thus, increases the use of renminbi internationally. As the world's biggest exporter, the PRC could easily boost renminbi use in trade settlement. Building on its use in current account transactions, the renminbi could gradually be used in capital account transactions as the PRC gradually removes controls.

MULTILATERALIZING ASIAN REGIONALISM: APPROACHES TO UNRAVELING THE ASIAN NOODLE BOWL

Introduction

Asia is a relative latecomer to free trade agreements (FTAs); but over the past decade, the number of FTAs involving at least one country from the region has increased dramatically—creating the so-called "Asian noodle bowl."[51]

By January 2013, ratified FTAs had more than tripled—109 from 36 in 2002. There are another 148 FTAs at various stages of development, bringing the total to 257. Today, global FTA activity involves Asia more than any other region.[52]

Clearly, the delay in concluding the World Trade Organization's (WTO) Doha Development Agenda (DDA) of multilateral negotiations drove FTA activity. This section does not question choices made by Asian policymakers, or revisit arguments on the first- versus second-best ways to liberalize trade. Instead, it examines the current situation and asks "where do we go from here, and how do we do it?" One could argue that there are limited short-run options given this current environment. However, there is increasing recognition—even from FTA proponents—that FTA proliferation has become convoluted—the so-called "noodle bowl" effect.[53]

The proliferation of FTAs has been greatest in Asia; the global multilateral impasse has helped create an Asian noodle bowl, with more than 100 ratified FTAs involving at least one Asian economy.

So where do we go from here? The number of FTAs will increase, given the pipeline of would-be FTAs at differing levels of completion, with new proposals still the fastest growing component (see *FTAs in Asia: State of Play*, p. 50). A speedy and successful conclusion of global multilateral negotiations would likely remove much of the motivation to pursue new FTAs. It may also dilute the preferences in many existing FTAs, thereby reducing their impact on trade and other flows. But the question remains as to whether a successful conclusion is even likely, let alone when. There is also renewed discussion of sectoral agreements on trade facilitation and other issues, which may substitute for such a more comprehensive multilateral round. The so-called cherry picking approach of sectoral agreements appears the most likely way to break the deadlock in moving away from the DDA's demanding all-or-nothing "single undertaking" option.

In any case, the current state of FTAs suggests that the DDA alone or some variant may be insufficient to neutralize today's highly complex and distorted trading environment, and complementary efforts will be required. So, how do we do it? Several proposals have been advanced to deal with the noodle bowl. These can be broadly grouped into two categories: consolidation and multilateralization of preferences. Consolidation involves compressing bilateral FTAs into a broader region-wide FTA where intraregional bilateral FTAs become redundant. Multilateralization of preferences, or multilateralization for short, grants non-discriminatory preferences to nonmembers, eliminating any margin of preference (MoP). Of the two approaches, multilateralization would be ideal. However, as we have seen in the DDA discussions, there are some very difficult issues that will take time to resolve. Yet, there are several interim steps that can prepare the groundwork for taking this approach, such as harmonized reduction of external tariffs and dilution of rules of origin (ROOs).[54]

[51] There is no generally accepted definition of Asia. But one used here is the ADB definition (Table 2).

[52] The parties to Asia's 101st FTA, the Republic of Korea and the United States (US), have a total of 47 FTAs, 23 of which are in force. This FTA came just 2 weeks after the 100th FTA was ratified, between Japan and Peru. Even the Lao People's Democratic Republic (Lao PDR), a relatively poor, landlocked nation of only six million people, is involved in 13 FTAs, 8 of which are currently in effect, despite having struggled for more than a decade to meet the requirements for accession to the World Trade Organization.

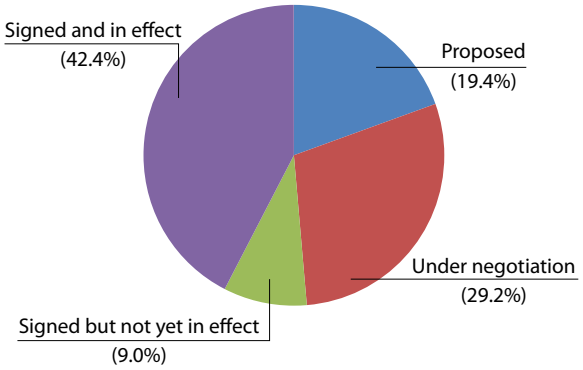
[53] Contributing to the administrative complexity of the sheer number of FTAs are the varying rules of origin (ROOs), different commencement dates, completion dates, tariff reduction schedules, exclusion lists (temporary and general), and any other item that is up for negotiated liberalization.

[54] These are discussed in further detail in Baldwin (2006, 2008) and Menon (2009).

Two key proposals have been advanced to disentangle the Asian noodle bowl: consolidation—which creates a regional FTA to harmonize bilateral FTAs; and multilateralization—which grants nondiscriminatory preferences to nonmembers, eliminating preference discrepancies.

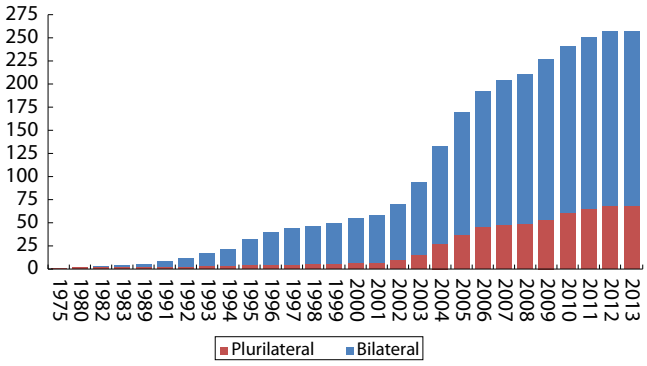
The remainder of this article is in seven parts. In Part 2, the current state of play of FTAs in the region is outlined, as well as examining why FTAs have been so popular, especially bilateral. In Part 3, issues related to the DDA are assessed in terms of both the likelihood and the form in which it might be concluded—including the possibility of one or more multilateral sectoral deals. Parts 4 and 5 examine the pros and cons of the two main approaches being proposed in dealing with the noodle bowl, consolidation and multilateralization, respectively. Part 6 examines the interim steps that can be taken to prepare the groundwork for moving closer to the remedies proposed. Part 7 looks at the different welfare effects, in stylized form, of consolidation, multilateralization, and interim steps discussed, and catalogues the benefits and challenges of each approach. A conclusion follows.

Figure 39: FTAs by Status—Asia, 2013



FTA= free trade agreement.
Notes: **Proposed** = the parties consider an FTA; governments or relevant ministries issue a joint statement on its desirability or establish a joint study group/joint task force to conduct feasibility studies. **Under negotiation** = the parties, through relevant ministries, negotiate the contents of a framework agreement that serves as a framework for future negotiations, or declare the official launch of negotiations, or start the first round of negotiations. **Signed but not yet in effect** = the parties sign the agreement after negotiations have been completed, but the agreement has yet to become effective. **Signed and in effect** = FTA provisions become effective, after legislative or executive ratification. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

Figure 40: FTAs by Scope—Asia (cumulative, selected years)



FTA= free trade agreement.
Notes: **Bilateral** refers to a preferential trading arrangement involving only two parties. **Plurilateral** refers to a preferential trading arrangement involving more than two parties. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

FTAs in Asia: The State of Play

Over the past decade, the number of FTAs involving at least one Asian country has more than tripled—from 70 in 2002 to 257 as of January 2013 **(Table 18)**. This surge in FTAs has been driven by a significant increase in the number of proposed or under negotiation FTAs. In 2002, a quarter of the FTAs in the region were in proposed or negotiation stages. By early 2013, that share had increased to almost half the total. Of the 257 FTAs announced as of January 2013, 132 have been signed, with 109 already in effect; 75 are being negotiated, and 50 have been proposed **(Figure 39)**.

Close to three-quarters or 189 of the total were bilateral FTAs (involving two countries) as of January 2013; only 68 were plurilateral FTAs (involving more than two countries) **(Figure 40)**.

Within Asia, FTAs involving the ASEAN+6 countries—the 10 ASEAN members plus Australia, the People's Republic of China (PRC), India, Japan, the Republic of Korea, and New Zealand—have increased at an even faster rate than Asia's FTAs as a whole, growing more than six-fold from 27 in 2002 to 179 in January 2013. To date, ASEAN+6 countries account for 70% of the total FTAs in Asia (see Table 18, **Figure 41**).

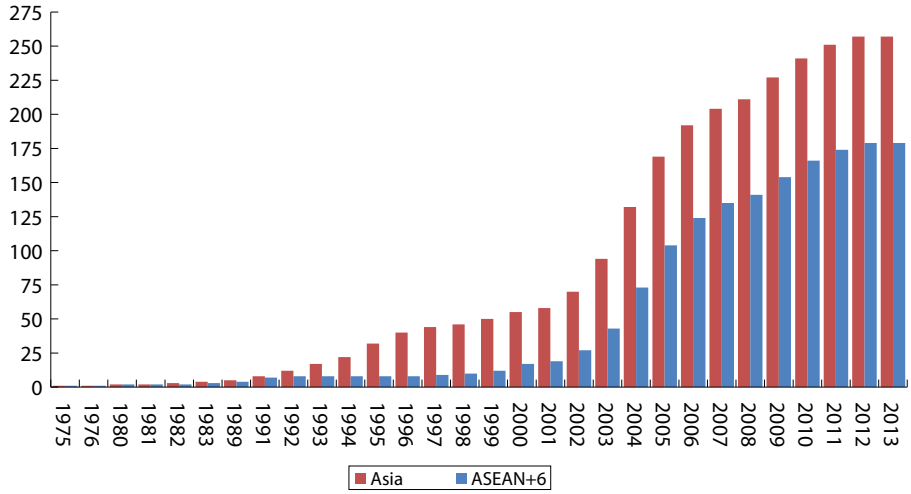
Of the 179 FTAs involving ASEAN+6 countries, the vast majority (130) are bilateral FTAs. Only a third (42) of these bilateral FTAs involves two ASEAN+6 countries; the rest are with countries outside of the group; 67 of these involve an ASEAN+6 country and a trading partner outside Asia **(Table 19)**. The growing importance of non-

Table 18: FTAs by Status—Asia and ASEAN+6 (cumulative, selected years)

			Under negotiation									
	Proposed		Framework agreement signed		Negotiations launched		Signed but not yet in effect		Signed and in effect		Total	
Year	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6	Asia	ASEAN+6
1975	0	0	0	0	0	0	1	1	0	0	1	1
1976	0	0	0	0	0	0	0	0	1	1	1	1
1980	0	0	0	0	0	0	1	1	1	1	2	2
1981	0	0	0	0	0	0	0	0	2	2	2	2
1982	0	0	0	0	0	0	1	0	2	2	3	2
1983	0	0	0	0	0	0	1	0	3	3	4	3
1989	1	1	0	0	0	0	1	0	3	3	5	4
1991	1	1	0	0	0	0	2	1	5	5	8	7
1992	1	1	0	0	0	0	6	2	5	5	12	8
1993	1	1	0	0	0	0	2	1	14	6	17	8
1994	1	1	0	0	0	0	5	1	16	6	22	8
1995	1	1	0	0	0	0	12	1	19	6	32	8
1996	1	1	0	0	0	0	15	1	24	6	40	8
1997	2	2	0	0	0	0	17	1	25	6	44	9
1998	2	2	0	0	0	0	16	2	28	6	46	10
1999	4	3	0	0	1	1	16	2	29	6	50	12
2000	3	3	0	0	6	5	16	3	30	6	55	17
2001	2	2	0	0	8	8	15	1	33	8	58	19
2002	8	6	2	2	8	8	16	1	36	10	70	27
2003	18	14	4	3	9	8	22	4	41	14	94	43
2004	31	26	14	9	15	13	24	7	48	18	132	73
2005	43	35	18	13	28	24	24	7	56	25	169	104
2006	48	41	18	13	37	31	20	6	69	33	192	124
2007	46	39	18	13	42	38	23	7	75	38	204	135
2008	46	39	16	11	42	38	22	9	85	44	211	141
2009	53	43	16	11	45	41	22	9	91	50	227	154
2010	57	47	17	12	47	41	23	10	97	56	241	166
2011	60	49	17	12	47	42	23	8	104	63	251	174
2012	50	41	14	9	61	54	24	9	108	66	257	179
2013	50	41	14	9	61	54	23	8	109	67	257	179

ASEAN+6 = ASEAN plus Australia, the People's Republic of China, India, Japan, the Republic of Korea, and New Zealand; FTA = free trade agreement.
Note: **Proposed** = the parties consider an FTA; governments or relevant ministries issue a joint statement on its desirability or establish a joint study group/joint task force to conduct feasibility studies. **Framework agreement signed** = the parties, through relevant ministries, negotiate the contents of a framework agreement that serves as a framework for future negotiations. **Negotiations launched** = the parties, through relevant ministries, declare the official launch of negotiations, or start the first round of negotiations. **Signed but not yet in effect** = the parties sign the agreement after negotiations have been completed, but the agreement has yet to become effective. **Signed and in effect** = FTA provisions become effective, after legislative or executive ratification. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

Figure 41: FTAs—Asia and ASEAN+6 (cumulative, selected years)



ASEAN+6 = ASEAN plus Australia, the People's Republic of China, India, Japan, the Republic of Korea, and New Zealand; FTA= free trade agreement.
Note: Data as of January 2013.
Source: *Asia Regional Integration Center FTA database* , ADB.

Table 19: Bilateral FTAs—ASEAN+3 and ASEAN+6, 2013

Region	Number
Within sub-region	
ASEAN+3	19
ASEAN+6	42
Across sub-region (within Asia)	
ASEAN+3 + Non-ASEAN+3	34
ASEAN+6 + Non-ASEAN+6	21
With Non-Asian Countries	
ASEAN+3 + Non-Asia	51
ASEAN+6 + Non-Asia	67
TOTAL: ASEAN+3	**104**
TOTAL: ASEAN+6	**130**

ASEAN+3 = ASEAN plus the People's Republic of China, Japan, and the Republic of Korea; ASEAN+6 = ASEAN plus Australia, the People's Republic of China, India, Japan, the Republic of Korea, and New Zealand; FTA = free trade agreement.
Notes: **Within subregion** means both countries are ASEAN+3 (ASEAN+6) members. **Across subregion** means one is an ASEAN+3 (ASEAN+6) member with its partner an Asian country but not an ASEAN+3 (ASEAN+6) member. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

Asian trading partners is mirrored in the membership of plurilateral FTAs **(Table 20)**.

Perhaps not surprisingly, the rapid increase in FTAs in Asia has been led by Singapore, India, and the large economies of East Asia—the PRC, Japan, and the Republic of Korea **(Figure 42)**. As of January 2013, Singapore had the most with 37, of which 18 are currently in effect. India came in second with a total of 34 FTAs, 13 in effect. The Republic of Korea had a total of 32 FTAs, while the PRC and Japan had 27 and 26 FTAs, respectively. Pakistan also has 27 FTAs, 6 in effect. Within ASEAN, Malaysia, Thailand, and Indonesia are not far behind with 26, 26, and 21 FTAs, respectively.

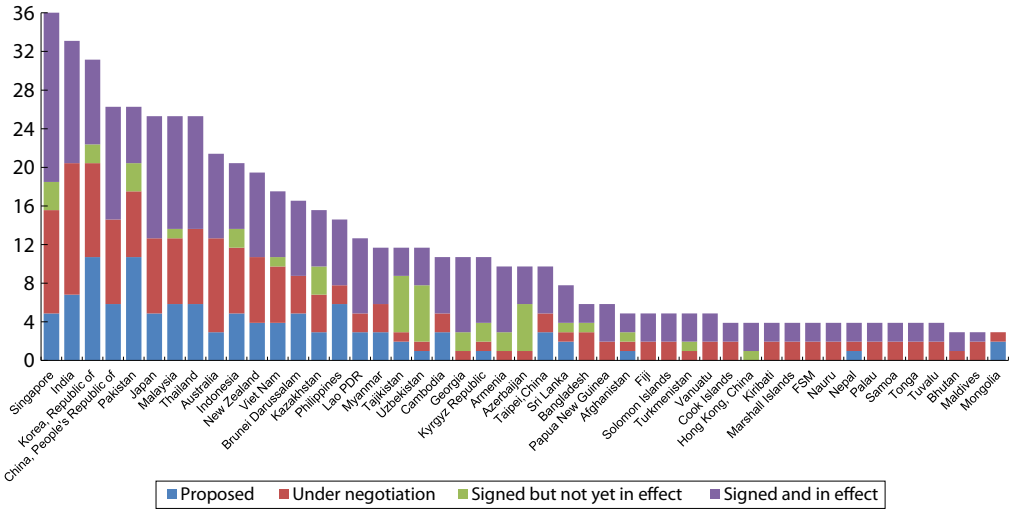
Why are FTAs so popular, especially bilateral?[55] An important reason is disenchantment with the WTO.

The difficulties associated with concluding the DDA have simply reinforced this view. Many have pursued FTAs as a means of pressing ahead with their trade and liberalization agendas regardless.

FTAs are generally welfare enhancing, with respect to their members at least. The extent of the welfare improvement depends on the amount of trade created versus trade diverted, which in turn depends on a host of factors—including the extent, breadth and speed of

[55]See Menon (2007b) for details, and a taxonomy of motivations for pursuing FTAs.

Figure 42: FTAs by Country—Asia, 2013



FSM = Federated States of Micronesia ; FTA = free trade agreement.
Notes: **Proposed** = the parties consider an FTA; governments or relevant ministries issue a joint statement on its desirability or establish a joint study group/joint task force to conduct feasibility studies. **Under negotiation** = the parties, through relevant ministries, negotiate the contents of a framework agreement that serves as a framework for future negotiations, or declare the official launch of negotiations, or start the first round of negotiations. **Signed but not yet in effect** = the parties sign the agreement after negotiations have been completed, but the agreement has yet to become effective. **Signed and in effect** = FTA provisions become effective, after legislative or executive ratification. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

Table 20: Plurilateral FTAs—Asia and ASEAN+6, 2013

Plurilateral FTAs	Number
Asian Plurilateral	12
ASEAN+6 Plurilateral	5
Asian Plurilateral + Asian Country	7
ASEAN+6 Plurilateral + ASEAN+6 Country	5
Non-Asian Plurilateral + Asian Country	33
Non-ASEAN+6 Plurilateral + ASEAN+6 Country	28
Asian Plurilateral + Non-Asian Plurilateral	2
ASEAN+6 Plurilateral + Non-ASEAN+6 Plurilateral	1
Asian Plurilateral + Non-Asian Country	0
ASEAN+6 Plurilateral + Non-ASEAN+6 Country	1
Cross-regional Plurilateral (Asia)	11
Cross-regional Plurilateral (ASEAN+6)	10
Cross-regional Plurilateral + Asian Country	2
Cross-regional Plurilateral + ASEAN+6 Country	2
Cross-regional Plurilateral + Non-Asian Plurilateral	1
Cross-regional Plurilateral + Non-ASEAN+6 Plurilateral	1
TOTAL ASIA	**68**
TOTAL ASEAN+6	**53**

ASEAN+6 = ASEAN plus Australia, the People's Republic of China, India, Japan, the Republic of Korea, and New Zealand; FTA = free trade agreement.
Notes: **Asian (ASEAN+6) plurilateral** refers to groupings of more than two economies with all members Asian (ASEAN+6) economies. **Non-Asian (Non-ASEAN+6) plurilateral** refers to a plurilateral FTA with no Asian (ASEAN+6) member. **Cross-regional plurilateral** refers to groupings of more than two economies with members a combination of Asian (ASEAN+6) and non-Asian (non-ASEAN+6) economies. Data as of January 2013.
Source: *Asia Regional Integration Center FTA database*, ADB.

the preferential liberalization. There are also longer-term dynamic effects that could accrue members through competitive and related effects, which are possible but difficult to quantify. FTAs have the potential for deeper agreements to be reached more rapidly on a range of areas, especially non-tariff issues, when there are only two or a few negotiating partners involved. Preferential accords involving some non-tariff measures—such as in services for instance—can be more easily achieved regionally or bilaterally, compared with the large numbers at the multilateral level. Reforms in these difficult sectors and the more difficult non-tariff barriers have stalled at the multilateral level, and some FTAs have been successful in moving these agendas forward. The deep integration provisions in the (Republic of) Korea–EU (European Union) FTA and the Singapore–US FTA are cases in point. The (Republic of) Korea–US FTA, which includes provisions to promote and protect investment, also contains an Investor-to-State Dispute Settlement Mechanism. Although the majority of FTAs involving at least one Asian economy have remained relatively shallow, the potential for deepening over time exists, and increases as the delay at the multilateral level continues. These welfare effects are a clear economic motivation to pursue FTAs, and arguably their key economic benefit.

There are also non-economic benefits to FTAs. There is no doubt that political economy considerations also come into play, as FTAs can promote international ties

beyond pure economics between a pair or group of countries. Indeed, it is often claimed that most—if not all—FTAs have political or strategic motivation. The fact that the EU was awarded the Nobel Peace Prize in 2012 is a recent and clear recognition of how a regional cooperation agreement can be more than just an economic imperative. Similarly, ASEAN's success has been on non-economic as well as economic fronts. All these suggest that the value of an FTA goes well beyond its direct economic impact.

FTAs may also be more politically feasible, as they tend to attract less attention, including from the media. So the pressure from the political opposition at home (such as the anti-free trade lobby or particular "sensitive" industry groups) or from abroad (like traditional trade partners or other regional group members) will likely be low. This would quicken the speed of negotiation, and thus the number of FTAs concluded.

A snowballing or domino effect has also been driving FTA growth. There is clearly momentum driving some of the growth in FTAs with countries not wanting to be left behind. There are costs of doing nothing in an environment where FTAs are proliferating, when access to traditional markets may be affected. More than 5 years ago, one study (Baldwin 2008, p. 474) predicted such an effect could continue to play a role in the proliferation of FTAs in the region:

> If history is any guide, the domino effect in East Asia will spread to many, many more countries in the neighborhood. In Europe, for example, the playing out of several waves of domino effects has left the EU with preferential trade deals with every WTO member except nine. It is therefore conceivable that the 13 members of the ASEAN+3 group will end up signing a very large number of bilaterals in the coming years.

These predictions appear to have been confirmed.

The final reason, which favors bilateral over plurilateral FTAs, relates to pure possibilities (or the maximum number) that are technically feasible. In theory, it is possible to have thousands of bilateral FTAs—many more than plurilateral or one multilateral deal—because only two entities are involved. There are no geographical (regional) restrictions on membership. Indeed, any two countries, in any part of the world, for any reason, can come together to form a bilateral FTA. If n represents the number of countries in the world (a number approaching 200), it is technically possible to have up to $(n \times n-1)/2$ bilateral FTAs, or more than 18,000 of them. Of course, this does not explain why bilateral FTAs are so popular. But they do suggest that, if they are, then they can proliferate dramatically and almost uncontrollably.

Despite their immense popularity, and the significant benefits they confer to members—both economic and non-economic—FTA negotiations and implementation come at a cost.

The costs of FTAs are increasingly shown through data on utilization rates of preferences that show many FTAs have yet to significantly impact actual trade and other flows. Although there is variation across studies on the utilization rates of FTAs in ASEAN and East Asia, it is not uncommon to find utilization rates as low as 10%–20%; rarely are they above 30%. However, the most recent enterprise surveys conducted by Asian Development Bank (ADB) and Asian Development Bank Institute (ADBI) in seven countries suggest that utilization rates could be improving, as firms become more aware of and familiar with FTAs—32% of firms in the sample reported that they used FTA preferences for exporting their goods (Kawai and Wignaraja 2012). Despite these recent increases, utilization rates of one-third or less are low by any standard—including comparisons with Europe or North America.[56]

How do we explain these low utilization rates? The ADB and ADBI surveys show that, while lack of information on FTAs was cited as the most significant reason, low margins of preference (MoPs) and delays or administrative costs associated with rules of origin (ROOs) are also significant barriers to the wider use of preferences (Kawai and Wignaraja 2011a, 2011b). Because the cost of complying with ROOs and other requirements are perceived to be higher than the benefits accrued, importers choose to ignore the preferential tariffs and use most favored nation (MFN) rates. One study (Pomfret 2007) claims that much world trade continues using MFN rates, despite the proliferation of FTAs. Needless to say, this dilutes the potential benefits of FTAs. Previous assessments of FTAs have assumed complete utilization of preferences, and when more realistic utilization rates are employed, the positive impacts on economic welfare are almost equally diminished (Menon 2013a).

[56]To put this in a comparative perspective, utilization rates of below 50% are considered low in European preferential trading agreements (see, for instance, Augier, Gasiorek, and Lai-Tong [2005]).

Apart from the underutilization of costly FTAs, another potential economic cost is greater trade diversion. This is well-known. But perhaps the biggest cost of FTA proliferation is its impact on the global trading system. While FTAs can produce significant benefits for members, there are harmful spillover effects that cannot be ignored. While major trading partners that are excluded may be individually hurt, raising the risk of retaliation, the overall trade landscape affecting all countries can be hampered as well and more so if the fallacy of composition applies. One study (Bhagwati 2008) argues that the system of preferences embedded in bilateral or even plurilateral FTAs is destroying the principle of nondiscrimination in trade, with FTAs serving as stumbling rather than building blocks. While this remains an open question, a key issue facing policymakers in the short- to medium-term is "what else can be done?"

The Doha Development Agenda: Compromise or Coma?

The difficulty of agreeing on the Doha Development Agenda's (DDA) ambitious program is clear; attention has shifted recently toward a compromise involving sectoral deals, including one that addresses trade facilitation.

The heads of all the multilateral development banks recently signed a petition promoting such a deal.[57] Enthused by this prospect, *The Economist* (2012a) has dubbed it the Global Recovery Round.

Concluding sectoral agreements may be one way to break the deadlock and relieve the DDA's long-standing coma. But one concern is that it may actually reduce the incentive to conclude a comprehensive multilateral deal. This may well be warranted, as sectoral agreements dilute the strength of available trade-offs, and therefore reduce the ability to strike a bargain among countries with disparate interests. Although the multilateral framework remains the best forum to deal with liberalizing sensitive sectors or difficult issues, this advantage rests on one key factor: the ability to trade concessions across a wide range of countries with divergent interests. That is the ability to offset the costs to countries of conceding protection in sensitive sectors—such as agriculture, for example—against the benefits from increased market access in areas where they hold comparative advantage: for example, changing rules on investment, intellectual property, or services.[58] A sectoral agreement may constrain negotiating positions and options within the WTO. In the same vein, each time an FTA allows a country to bypass this trade-off—simply through its choice of partner—and secure benefits without incurring costs, the task of liberalizing sensitive sectors is more difficult. The recent announcement to pursue a US–EU FTA highlights how a common interest—limiting the liberalization of the agricultural sector—can assist in facilitating an agreement second in size only to that of the DDA, while simultaneously diminishing prospects of addressing the most distorted sector in world trade. The problem, however, is that reaching a bilateral agreement is easier and more practical—with unquantifiable gains from a political economy perspective—in comparison with concluding a sectoral agreement involving several countries, let alone a multi-country, multi-sector agreement.

Yet, with the likelihood of striking a single deal like the DDA already low, the benefits derived from successfully concluding a sectoral deal on trade facilitation should not be underestimated. Indeed, the benefits would be quite significant, and the prospect of concluding one by the time of the WTO Bali Ministerial Meeting in December 2013 is a further plus. On average, trade-weighted tariffs account for about 5% of trade costs, while logistical and other trade facilitation costs are about 10%. The WTO-based trade negotiations aim to bring these logistics costs down by half, or to an average of 5%—equivalent of removing all tariffs. These potential gains are substantial enough to warrant serious consideration, and perhaps counter concerns over the reduced incentives to conclude the more elusive, comprehensive deal.

Depending on timing and the form a multilateral deal eventually takes, both the need and urgency for other remedies could be reduced, although not removed. The longer it takes to conclude a multilateral deal and the weaker any eventual deal is, the greater will be the need and urgency for other remedies. If all that can be salvaged from the DDA is a sectoral deal, or a few sectoral agreements, then restoring order to the multilateral trading system will require a different approach.

[57]See *Modern Ghana* (2012).

[58]A potent example was in the lead-up to the WTO meeting in Hong Kong, China in December 2005. Brazil and India, representing the apparent position of a majority of developing countries, proposed opening their markets further to industrial goods and services in exchange for the EU and the US dismantling the elaborate system of agricultural support. In the end, this did not happen, but for a host of mostly unrelated reasons (see Menon 2007b).

Consolidation

Given the problems posed by FTA proliferation, consolidation involves compressing intraregional agreements into a broader regional FTA, making those between members of the broader region unnecessary or redundant.

The consolidation approach has gained ground as a way to disentangle the noodle bowl (see Brummer 2007, Kawai 2007, and Park and Park 2009). Indeed, there are examples of defunct bilateral FTAs after the EU was created that lend credence to this approach. For example, the creation of the Central European Free Trade Area (CEFTA) in 2006 successfully subsumed and nullified 32 bilateral FTAs involving CEFTA members. Also, the US–Canada FTA was superseded by the North American Free Trade Agreement (NAFTA). If successful, consolidation could be considered multilateralizing bilateral accords at the regional level, or "regional multilateralization." In Asia, the ASEAN-led Regional Comprehensive Economic Partnership (RCEP) could pave the way for consolidating ASEAN FTAs under a single regional agreement.[59] The RCEP will initially include all ASEAN+6 members.

What are the likely welfare impacts of the RCEP? It remains too early to say, given that implementation and other pertinent details remain unclear—for instance, will the RCEP address existing FTAs between members or serve purely as a template for future negotiations? Nevertheless, the analytical framework for assessing FTAs and their expansion offers some useful pointers. An expanded region-wide FTA would be welfare-improving if it results in substantial terms of trade gains, where size matters. If the FTA is large enough, it could lead to improving the FTA's *collective* terms of trade by reducing imports from and export supply to the rest of the world. This implies a substantial amount of trade diversion. In this scenario, the welfare gains from improving terms of trade is large enough to offset the welfare losses associated with increased trade diversion (Menon 2000).

The ASEAN-led Regional Comprehensive Economic Partnership could pave the way for consolidating ASEAN FTAs under a single regional agreement, although it is still too early to tell.

While this holds for the expanded FTA as a whole, the distribution of gains (or even losses for some) among group members may vary significantly. Given that ASEAN centrality is often emphasized—and with the ASEAN Free Trade Area (AFTA) the only plurilateral FTA involving a subset of RCEP members—the distribution issue could be assessed by examining how an expansion could affect AFTA. In other words, could an AFTA expansion to the RCEP result in a welfare outcome superior compared with the original AFTA? If the AFTA expansion results in a substantial amount of trade creation, then this could lead to some deterioration in the terms of trade, because part of the resultant increase in real incomes is likely to spill over into greater demand for imports from the rest of the world. Under this scenario, the welfare loss associated with deteriorating terms of trade would have to be smaller than the welfare gains from increased trade creation. In the end, the question on welfare impacts will be determined empirically.

The Trans-Pacific Partnership (TPP) is the other major preferential initiative that involves several RCEP members. However, the TPP does not strictly fit as consolidation. Whereas RCEP will initially involve countries already with existing bilateral FTAs, the network of bilateral FTAs between potential members of the TPP is far from complete. Instead, the TPP follows an *expansion* approach—it has an accession clause, and countries not involved in the networks of bilateral FTAs among potential members can also join the initiative (Hamanaka 2012, Drysdale 2013). The TPP agenda is wide-ranging and demanding, much more so than most other high-quality FTAs, let alone DDA requirements. It is unclear if many TPP members will be able to comply with these stringent requirements. Another challenge involves its current limited membership, which excludes the "plus 3" countries—the PRC, Japan, and the Republic of Korea. Although Japan and the Republic of Korea are contemplating joining TPP negotiations, as are other Asian economies, a significant increase in Asian membership is needed before it can be a serious alternative to the RCEP. Should many Asian economies join, and the program comes to fruition without too many exemptions, the welfare effects could be significant. But as with the RCEP, the likely impact can only be empirically determined—and thus, too early to tell.

[59]The ASEAN Framework on the RCEP was formally endorsed at the 19th ASEAN Summit held in November 2011, and negotiations kicked off on 20 November 2012, on the sidelines of the East Asia Summit in Phnom Penh, Cambodia.

Despite this, consolidating existing FTAs through the RCEP or TPP expansion will likely continue in light of the challenges faced in concluding multilateral negotiations. However, consolidation comes with its own set of challenges. FTAs are a highly heterogeneous group of agreements. They invariably have different tariff rates, treatment of quantitative restrictions, sector exemptions (and often different "phase-in" rates for each), ROOs that vary by product, and a host of other arrangements ranging from some service sector liberalization rules to labor and standards provisions. If consolidation moves ahead, the more likely outcome is a "race to the bottom" to reach consensus, with the result determined by the lowest common denominator, which would likely achieve very little, and could even set back reforms in some cases. The recent trend attempting to link regional blocs globally could increase these difficulties, as these tie-ups increase both the number of members and total diversity, as well as the degree of heterogeneity of accords that need to be harmonized.

Even if it were possible to implement a consolidated or expanded regional FTA, it would be critical to examine the incentives for policymakers to lobby their governments to join. If the provisions in bilateral FTAs are superior to those of a regional FTA, then the regional utilization will likely be low. One example is the case of trade involving Sri Lanka and India. The South Asia Free Trade Area (SAFTA) came into effect in 2006, after a number of intraregional bilateral FTAs had been ratified, including an India–Sri Lanka FTA. Like most bilateral FTAs, the India–Sri Lanka agreement had better provisions compared to SAFTA's in almost all respects. As a result, 93% of Sri Lanka's exports to India currently enter duty free under the bilateral FTA (Weerakoon 2008). Thus, rather than consolidating and neutralizing the India-Sri Lanka or other bilateral FTAs, it appears the use of SAFTA has been quite limited given the existing bilateral FTAs. The results of one study (Rodríguez-Delgado 2007) seem to bear this out. Using a modified gravity equation, the effects of SAFTA's Trade Liberalization Programme (TLP), which started in 2006, were examined. The results showed that SAFTA would have a minor effect on regional trade flows. SAFTA's TLP would affect regional trade flows mainly by increasing India's exports and imports from Bangladesh and Nepal. Of course, it could be argued that this may be a timing issue, since full implementation of SAFTA is scheduled for 2016.

Proponents generally argue that deeper agreements can be achieved more rapidly on a range of areas when there are only two, or a few, negotiating partners involved. But many of the same proponents also promote FTA consolidation, without saying how these wider accords can be agreed upon among a much larger group of countries. In fact, bilateral FTA consolidation—to create a regional agreement—may be more difficult than starting from scratch, particularly where potential members do not have any, or only a few FTAs between themselves.

While the RCEP holds promise, it is interesting to note that most Asian bilateral FTAs are with countries outside the region (see Table 19). Hence, the RCEP will likely address roughly a third of all bilateral FTAs, leaving a significant majority of FTAs unaffected (Menon 2013b).

There is also a systemic concern associated with consolidating bilateral FTAs. Regional blocs may be seen as fragmenting the world trade system. While RCEP may rightly be Asia's response to the EU and NAFTA—more so now with the proposed EU–US FTA—a consolidated Asia-centered FTA may be viewed as another major bloc. It is therefore critical to coordinate South–South as well as North–South to ensure that regional blocs do not become trade fortresses. This was heightened recently with the announcement of EU–US FTA negotiations.

If a consolidated FTA is perceived as isolating or discriminatory in any way, it could provide fresh impetus for a new wave of bilateral FTAs, as traditional trade partners outside the region seek to retain trade access with the newly-formed FTA.

Perception and reality can vary, but in this context, perceptions may matter more in the end. It is quite likely that a new, large, consolidated bloc could be seen as threatening traditional nonmember trading partners, however open the consolidated FTA is designed to be. If this perception holds—with more countries outside the region than inside—it is possible that total bilateral FTAs could actually increase. This could happen if the reduction in the number of intraregional bilateral FTAs through a consolidated FTA is more than offset by the number of inter-regional market-restoring bilateral FTAs that it indirectly induces. This is hardly a remedy to the problems facing Asian economies or the world trading system. On the contrary, it could spin more noodles.

However, like the proliferation of FTAs, consolidation then is a recent reality that must be addressed. So consolidation should not be seen as an end to itself, but rather as a means of preparing the groundwork for greater liberalization in some non-tariff areas, if it is viewed as part of the journey rather than the destination.

Multilateralization of Preferences

In remedying the noodle bowl and its distortions, multilateralization can be pursued in two ways—moving forward after consolidation or proceeding unilaterally.

The first follows from the consolidation approach, whereby the harmonized accords of the consolidated FTA are offered to nonmembers on a nondiscriminatory basis. This would realize the full gains from consolidation, removing the potential for trade diversion and the costs associated with implementing ROOs, while reducing the risk of a new wave of market-restoring FTAs. So once a country has concluded FTAs with most, if not all, of its major trading partners, it may then make sense to (i) equalize preferences across these FTAs, and (ii) offer them to non-FTA countries on an MFN basis. Instead of limiting the harmonized procedures to members, as pursued in regional blocs, this approach goes one critical step further in multilateralizing them. There are several proponents of this approach (for example, Baldwin 2006, 2008; Feridhanusetyawan 2005; and Menon 2007a, 2009).

In the discussion on the practicality of consolidating FTAs, the difficulties associated with folding multiple, disparate FTAs into one big harmonized FTA were highlighted. But consolidation is not a prerequisite for multilateralization. Even without consolidation, or even if an attempt to consolidate fails to work, multilateralization can still be pursued unilaterally. Indeed, the need in this situation becomes more pressing from a welfare perspective.

Multilateralization can proceed from a consolidated regional FTA, or economies can seek multilateralization independently; but they both must overcome competing interests that lose from the dilution of preferences.

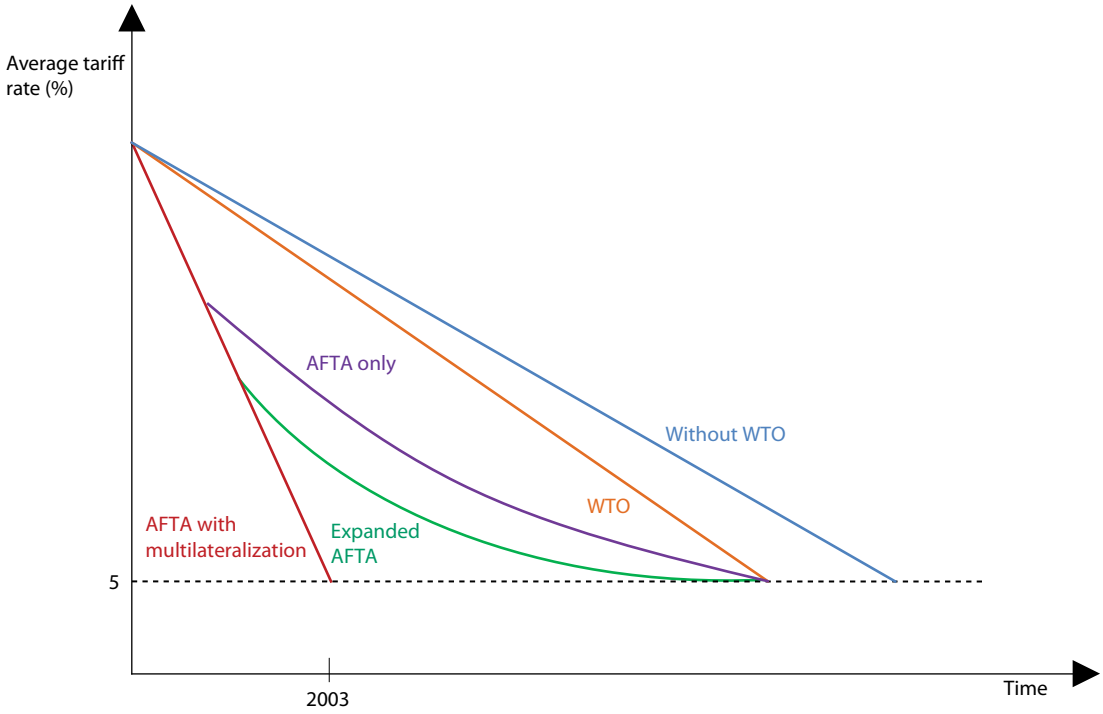
Although all this may be appealing in theory, how realistic is it in practice? There are precedents to the voluntary multilateralization of preferential accords. ASEAN's FTA is a case in point—and the actions of its original members confirm this (see Feridhanusetyawan 2005, Menon 2007a). When multilateralization is pursued in conjunction with aggressive preferential liberalization such as with AFTA, the goal of free, nondiscriminatory trade can be reached sooner. To illustrate, trade liberalization outcomes under AFTA—with and without multilateralization—can be portrayed in stylized form **(Figure 43)**. The outcome under a WTO-based multilateral deal is also depicted, as a reference point, to identify the goal of free and open trade (defined here as 0%–5% average tariff rates).

How can AFTA be used to move its members toward this ultimate goal? If AFTA is implemented on a purely minimalist basis (refer to *AFTA only* curve in Figure 43), or without any multilateralization of tariff preferences, then the time taken to reach its goal is unchanged. Average tariff rates do fall more rapidly however, particularly up to AFTA's 2003 deadline for 0%–5% internal tariff rates, but this gain could be offset by the trade diversion that it would also induce.[60] If AFTA expands its membership (*Expanded AFTA* in Figure 43)—or participates in a consolidation exercise such as proposed by the RCEP—then the pace of reduction increases but the end-point remains unchanged. If, however, members choose to multilateralize their preferences soon after AFTA becomes effective (*AFTA with multilateralization* in Figure 43), then the deadline for free and open trade moves closer to AFTA's deadline of 2003. In reality, the preferences for a majority of tariff lines were fully multilateralized before the AFTA deadline. For instance, preferences were fully multilateralized—or the MoP was zero—for more than half of the tariff lines for the original ASEAN members by 2002, while more than two-thirds had MoPs of less than 10% (Feridhanusetyawan 2005). This share continues to increase yearly (Calvo-Pardo, Freund, and Ornelas 2011), although admittedly the MoPs for a range of sensitive products remain high. If these remaining tariff lines are dealt with relatively soon, then the deadline will fall somewhere between 2003 and possibly before a multilateral deal is concluded. In any case, AFTA has already served as a building block enabling its original members to achieve their goal much faster, because of the multilateralization of the majority of preferences.

At the Asia–Pacific Economic Cooperation (APEC) Leaders' Summit in Subic Bay in 1996, President Fidel Ramos of the Philippines raised the option of multilateralizing the AFTA accords within APEC. At that time, Indonesia had already begun providing its AFTA accords to other APEC members. Although this proposal was never formally adopted by AFTA members, the original members have been pursuing multilateralization of their accords as well, not just within APEC, but on an MFN basis on a wide range of products. As most trade liberalization worldwide has stemmed from unilateral actions, there is a strong basis for optimism in promoting this approach. For instance, the World Bank (2005)

[60]This deadline applies to the original ASEAN members, while the newer member countries have been given more time.

Figure 43: The Speed of Tariff Liberalization Outcomes with and without Multilateralization—AFTA and WTO



AFTA = ASEAN Free Trade Agreement; WTO = World Trade Organization.
Source: Adapted from Menon (2007a).

estimates that—between 1983 and 2003—unilateral actions comprised the bulk of liberalization, or 65% of developing country tariff reductions (see also ADB 2012). In particular, with respect to the original ASEAN members, a highly liberalizing competitive unilateralism took place in the 1980s and 1990s to attract FDI from Japan into regional production networks (Vézina 2010).

As mentioned, preferential accords in non-tariff areas—such as in services—can be more easily reached regionally or bilaterally when a smaller number of participants are involved. If these breakthroughs can be achieved, and if they can be harmonized within a consolidated FTA, then implementing multilateralization would be easier, and the potential gains much greater. The accords in these areas are quite easily multilateralized once they have been negotiated (see Hoekman and Winters 2007, Lloyd 2002). This is because the instrument of protection in many services, for example, is regulation of one form or the other—such as rules related to foreign investment, competition policy, or government procurement. The same applies to the myriad measures relating to trade facilitation (see Hamanaka, Tafgar, and Lazaro [2010] for examples of how trade facilitation measures in FTAs can be multilateralized), as well as sanitary and phytosanitary measures, technical product standards, certification procedures and processes, and mutual recognition arrangements relating to professional qualifications. These regulations are quite naturally applied in a nondiscriminatory fashion, treating domestic and foreign firms equally. This is quite different from tariffs affecting trade in goods, where domestic/foreign and intra-foreign discrimination is the objective.

Unlike tariff liberalization, it is often difficult or costly to remove non-tariff barriers or measures (NTBs or NTMs) preferentially. It is usually impractical for these types of concessions to be exchanged in a discriminatory fashion—once a NTB or NTM is removed, the cost of excluding nonmembers is likely to be high, if not prohibitive, as with most public goods. This difficulty and associated cost varies by type of measure. While export subsidies or export licensing, for example, could be offered or applied preferentially, production subsidies cannot be reduced in the same way. With reducing production subsidies arguably the biggest barrier to

reforming agricultural trade, this is a major problem (Bhagwati 2013).[61]

In terms of supporting global trade liberalization, the multilateralization process fares well. Because preferential tariff reduction schedules are generally quite ambitious and rapidly paced, this approach can also accelerate multilateral trade liberalization.

What then stands in the way of pursuing this approach? Clearly the desire to secure more reciprocal concessions or market access is a key factor. While the benefits from reciprocal liberalization outweigh unilateral actions, the more relevant question currently is how much longer should countries wait for reciprocity from countries outside any existing FTA, while foregoing the gains from multilateralization. Furthermore, the low utilization rates of FTAs in Asia also suggest that the benefits expected from reciprocity may be seriously overestimated. The potential for trade deflection further erodes expected benefits. Given the difficulties of linking mega-blocs together, as noted in a recent editorial (*The Economist* 2012c), the risk is very real. Taken together, there is little basis for holding off on multilateralization to try and gain reciprocity in a residual set of countries not covered by existing FTAs. There is, however, a greater need to make the case for multilateralization more strongly, especially when resistance from vested interests and other lobbies can stand in the way (Menon 2013b).

[61] Even if it were possible to exclude third parties, this could seriously derail the reform program. A recent study by the United Nations Economic and Social Commission for Asia and the Pacific (2011) notes that preferential treatment negotiated with selected trading partners typically involves additional documentation. The study presents evidence of significant delays associated with such requirements, as FTAs have adopted different approaches to the rules on substantive measures relating to trade facilitation. Moreover, differences in scope, depth, and level of detail often translate into varying degrees of administrative inefficiency, through a maze of different procedures applied to respective trading partners under different FTAs.

Interim Steps to Multilateralization: Harmonized Reduction of MFN Tariffs and Dilution of Rules of Origin

There are two interim steps that can be used on the way toward multilateralization—harmonizing reduction of MFN tariffs and diluting rules of origin (ROOs).

As attempts to multilateralize face resistance, what are the interim steps that can be taken to prepare the groundwork for multilateralization? While "pure" unilateral actions are commonplace and account for the vast majority of trade liberalization observed worldwide, the multilateralization of FTA-based preferences is so far much less commonplace. One way forward is to reduce the MoP and the distortions it creates by bringing down MFN tariffs themselves. When brought down gradually, the MoP is not zero in the interim or at the end, but much smaller. This approach may be more realistic when members feel committed to the preferential arrangement and therefore prefer a measured approach that retains some integrity of the arrangement, especially in the interim. When employing this method, an aggressive stance would involve a coordinated approach—such as harmonizing MFN tariffs, as with a Customs Union—to the lowest rate applied in the region. This does not require an established Customs Union, however in the case of Latin American FTAs (Estevadeordal, Freund, and Ornelas 2007). This aggressive approach is preferred, if practicable, in harmonizing MFN tariffs through coordinated reduction. To some extent, this approach can be considered a mirror to multilateralization, only more pragmatic in its gradualism, and with an eventual result that is less ambitious (non-zero MoP). It also differs from multilateralization in that it applies only to tariffs but not non-tariff measures.

The second possible interim step is the dilution of ROOs through liberalization. If FTA members are not yet ready to give up reciprocal preferences, then this approach could be seen as preparing the groundwork for that process. It could be done through harmonization, and expanding rules of cumulation. If the ROOs are sufficiently liberalized and rules of cumulation adequately expanded, it can remove distortions associated with artificial sourcing of inputs simply to meet regional accumulation requirements. This will reduce the incentive for the spoke or peripheral

countries to pursue FTAs with either the hub or other spokes in order to prevent (non-preferential) spoke-spoke trade being diverted to (preferential) hub-spoke trade. The Pan-European Cumulation System (PECs) is a good model for how this can work (see Gasiorek 2007).

If rules of cumulation are sufficiently expanded and then harmonized across different agreements, complete multilateralization of tariff accords is no longer needed. In this sense, liberalizing ROOs, like harmonized reduction of MFN tariffs, can be thought of as an alternative means to the same end. Like the harmonized reduction approach, it would apply mainly to tariff measures. It should be noted, however, that the high share of product fragmentation trade—as a result of the vertical specialization spread across this region—is likely to limit the extent to which a system like PECs could be successfully introduced. Multilateralization, when pursued by all members of the consolidated bloc, also delivers reciprocity the same way that a consolidated FTA does. This was, after all, the idea behind the "open regionalism" approach in the original conception of APEC (Drysdale and Patrick 1979, Garnaut and Drysdale 1994). But with multilateralization, the possibility of addressing non-tariff barriers and regulatory reforms is enhanced, as they are naturally non-excludable once achieved and therefore easier to reach when pursued without the constraint of requisite excludability. Therefore, in East Asia in particular, dilution of ROOs may still serve mainly as a sequential complement that prepares the groundwork—rather than a substitute—for multilateralization.

Neither multilateralization nor consolidation—or interim measures—can directly result in any change in barriers existing in nonmember countries. Barriers facing members in export markets outside the region remain an important issue preventing the realization of further welfare gains to all parties. A multilateral deal would do this, but, as mentioned, reaching a deal appears increasingly remote. In the quest for reciprocity, members of a consolidated bloc may wish to pursue tie-ups with other blocs—and this is becoming increasingly popular (see *The Economist* 2012c). The recent decision to create the world's largest FTA between the EU and the US will increase pressure to pursue such tie-ups, either with this mega-FTA or with others around the world.[62] Although such tie-ups may be inevitable, adding to the benefits members receive, does it become an end point in and of itself?

[62]In fact the EU has been aggressively pursuing FTAs with countries globally, and tie-ups with other FTAs. So has the US, although to a lesser extent.

As with a consolidated regional FTA, an expanded inter-regional one should be viewed as a means rather than an end. Issues relating to trade diversion will remain, although they could begin to diminish as the mega-bloc grows, but the risk of trade deflection could increase. Concerns over incomplete utilization would also remain and significantly erode potential benefits expected on the assumption of full utilization. Any expanded FTA would only realize its full potential—while removing these risks and the need to implement ROOs—when preferences are multilateralized. In fact, such tie-ups between large blocs should make eventual multilateralization easier, as members would have secured preferential access with a larger number of trading partners. In the absence of a multilateral deal, multilateralization should still remain the end game.

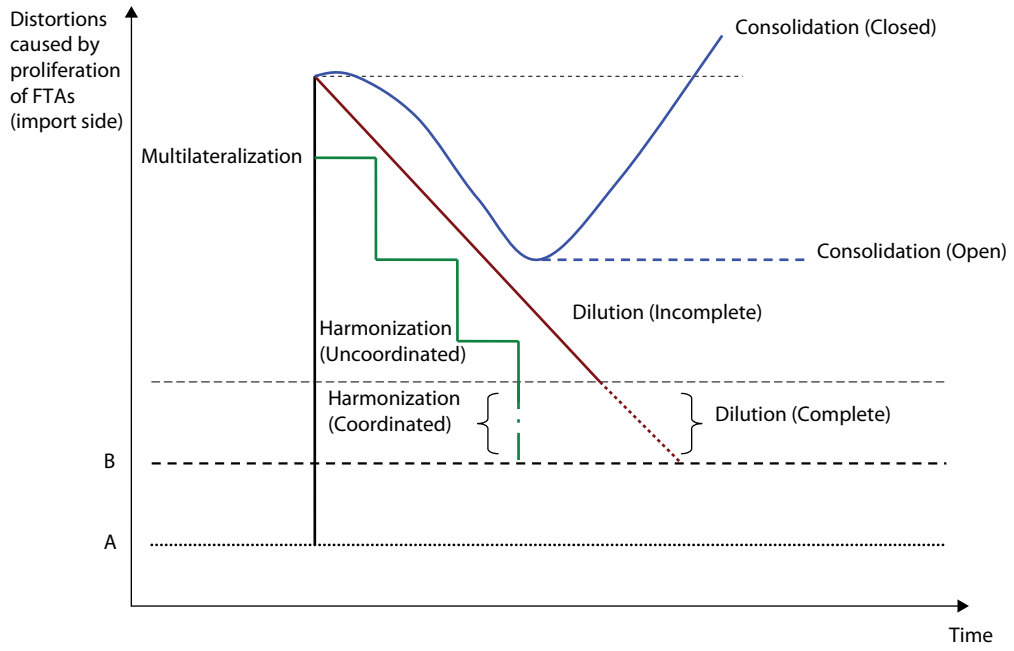
Comparing the Relative Merits of Consolidation, Multilateralization, and the Interim Steps to Multilateralization

The assessment and likely impact from consolidation, multilateralization, and the two interim steps to multilateralization—harmonized reduction of tariffs and dilution of ROOs—in disentangling the noodle bowl and promoting liberalization more generally can be summarized. Again, in stylized form, the likely welfare effects of each remedy on a single country relating to its own (import) barriers can be portrayed, before considering the benefits and challenges of each **(Figure 44, Table 21)**. The stylized framework captures only imports and only tariffs, but it is broadly applicable to non-tariff parameters as well.

Two points about Figure 44 are worth highlighting. First is the fact that multilateralization produces the most significant reduction in distortions and does so in the shortest time. It can eliminate not only MoPs, but also some distortions associated with discriminatory non-trade restrictions, especially in services. It can achieve this in the shortest time because it involves a one-off decision, as opposed to staggered (harmonization) or gradual (dilution) changes.

If multilateralization is the most preferred approach, the least preferred is consolidation. Although distortions fall initially, as (some) intraregional FTAs are neutralized,

Figure 44: Stylized Welfare Effects of Different Remedies



FTA = free trade agreement.
A: Distortions (Trade Barriers)
B: Distortions (Trade and Non-Trade Barriers)
Source: Menon (2009).

they can rise again if (i) a "lowest common denominator" outcome prevails, whereby the average level of distortions actually increases; and/or (ii) they induce new extra-regional FTAs. If the consolidated FTA is perceived as being relatively closed, then it is likely that distortions could increase substantially. Even if the consolidated FTA is "open" and is perceived to be so, the reduction in distortions is lowest among the four approaches because most FTAs involving an Asian country are inter-regional, and these are not addressed using consolidation alone. If the share of intraregional trade involving final goods is high, however, consolidation does offer benefits to exporters through increased access to each other's markets. Reciprocal access would offset the welfare losses associated with the distortions described above.

These stylized impacts can be better understood by cataloguing the benefits and challenges of the different approaches, considering unilateral liberalization for completeness **(Table 21)**. Table 21 is largely self-explanatory—it is clear that each has its own strengths and weaknesses, with the severity of each varying by approach. Furthermore, the most beneficial may not be politically feasible, however, so trade-offs must be struck.

Concluding Remarks

The proliferation of FTAs has been greatest in Asia. The noodle bowl—with more than 100 ratified FTAs involving at least one Asian economy—is an understandable response to the global multilateral impasse. Yet its sheer complexity and diversity requires reform. Reviving the Doha Developing Agenda (DDA) alone may be insufficient, and the prospects for doing so are not high. It is more likely the DDA will be sliced into a host of sectoral agreements. Against this backdrop, two key proposals have been advanced to disentangle the Asian noodle bowl—consolidation and multilateralization. Consolidation builds a regional FTA to harmonize bilateral FTAs—such as the RCEP—while multilateralization grants nondiscriminatory preferences to nonmembers, eliminating preference discrepancies. These two approaches, however, need not be mutually exclusive. Should the consolidation approach result in a regional FTA, it does not preclude multilateralization. The preferences of a regional FTA could still be offered to outsiders on a nondiscriminatory basis. Indeed, consolidation, if possible, should be viewed as a means toward an end. However, several questions on the consolidation approach remain, such as (i) how multiple bilateral agreements—each with its own defining rules and characteristics—can be folded into one

Table 21: The Trade Journey—Benefits and Challenges of Trade Liberalization

Steps in the sequence of trade reforms	Benefits	Challenges
Unilateral Liberalization	• Maximizes trade creation without trade diversion • No need for coordination (Note: 65% of developing tariff reductions from 1983–2003 were unilateral)	• Lack of reciprocity is politically costly
Consolidation	• Political capital for governments and policymakers • Higher welfare generally assured for members • Potential for long-term dynamic partnerships, by opening up markets, providing growth opportunities, and promoting competition, among others • Potential to achieve deeper reforms, because of the smaller number of economies involved, compared with the WTO, for instance	• Trade diversion (although FTAs also create new trade) and deflection • Complexity of dealing with different rules of origin (ROOs) • Low utilization rates may limit benefits, especially given high transaction costs in drafting and negotiating FTAs; consolidated FTA may not negate the use of bilateral FTAs if the commitments of the latter are superior • Could tax consumers and producers if a lower cost supplier lies outside the region and if trade is diverted as a result of high margins of preference (MoPs) • Possible retaliatory actions by non-members if significantly harmed
Harmonized Reduction of External Barriers	• More practical with flexible pace of implementation • MoP reduction secured indirectly and therefore more feasible	• More easily applied to tariff than non-tariff measures
Dilution of ROOs	• Practical if members are unwilling to give up reciprocal preferences • Reduces trade diversion and the "export of protection"	• Applies only to tariffs and any domestic content requirements of investment provisions • Less effective in Asia (particularly East Asia) given the high share of production network trade and low value-added involved
Multilateralization of Preferences	• Flexible as it can be pursued unilaterally, but coordinated form delivers reciprocity to all parties involved • Realizes the full gains from consolidation • Amenable to building block approach, although consolidation is not a prerequisite for multilateralization • Removes potential for trade diversion or deflection • Eliminates costs associated with implementing ROOs • Reduces/eliminates the risk of a new wave of market-restoring FTAs	• Time-consuming and fraught with political difficulties if concessions/preferences are extended to all • A key stumbling block is securing reciprocity from—and/or market access to—third parties • Liberalizing non-tariff barriers is complex, and vested interests (such as agriculture) prevent extending preferences to nonmembers

FTA = free trade agreement; WTO = World Trade Organization.
Source: Office of Regional Economic Integration, ADB.

agreement without resorting to the lowest common denominator to reach consensus; and (ii) how to address inter-regional bilateral agreements, which constitute the majority of Asia's FTAs—including RCEP members. The recent trend favoring tie-ups between regional blocs could address part of the problem associated with (ii), but may exacerbate the difficulties involved with (i), as tie-ups increase both the number and likely diversity of members. Both issues are addressed by multilateralization however, whether applied independently or jointly with consolidation. Although consolidation requires multilateralization, the reverse is not true. Countries are free to pursue multilateralization independently. But they must overcome competing interests that lose from the dilution of preferences—usually the same interests that favored the FTAs to begin with.

Although consolidation and multilateralization are not mutually exclusive—consolidation is a means; multilateralization is the end—history shows that unilateral actions (of which multilateralization is a special case) are not only feasible but account for most trade liberalization to date.

Because most trade liberalization to date has been unilateral, there is much to support this approach. The argument that unilateral actions such as multilateralization lack the proper incentives and are therefore, impracticable, ignores the lessons of history. Nonetheless, policymakers handling trade in Asia and in other regions continue to face considerable challenges. The arguments presented in this special section, which favor multilateralization—or consolidation as an interim step—should not be construed as underestimating these problems. But the case for multilateralization should be made stronger, and pursued more strongly, as the welfare gains will likely be larger.

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