

REGIONAL INTEGRATION AND SPILLOVERS

Contents:

East Asia and Pacific
(China and Japan)

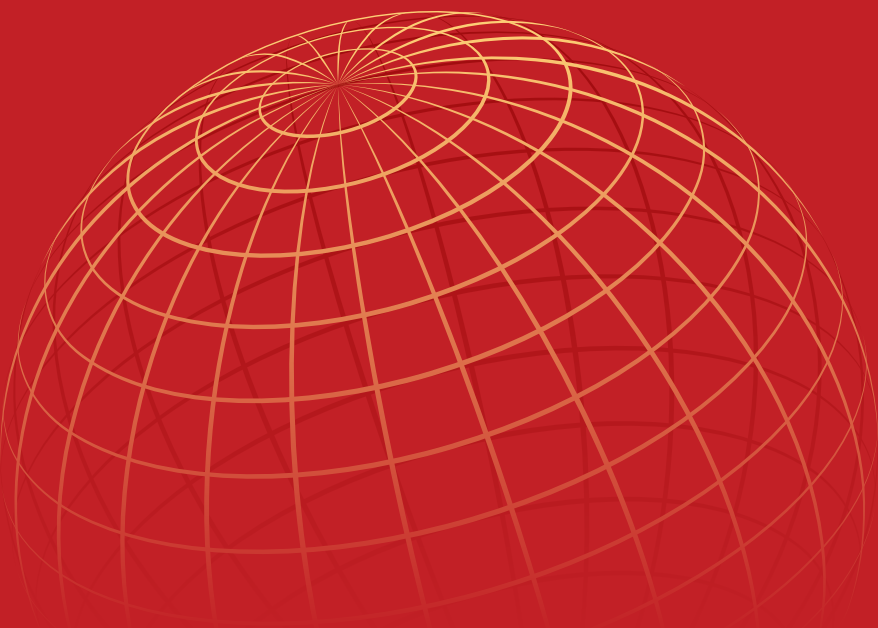
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REGIONAL INTEGRATION AND SPILLOVERS

East Asia and Pacific

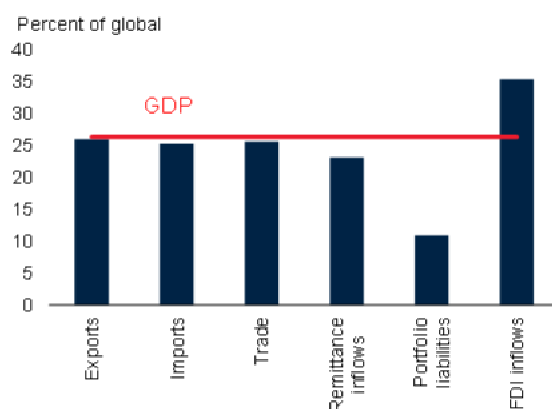
BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific

Countries in East Asia and Pacific (EAP) are deeply integrated with the global economy and with each other. China has become the largest trading partner and source of FDI for the region, although Japan remains one of the largest sources of FDI for several economies. Reflecting this integration, a growth slowdown in China could result in sizeable spillovers to a large number of countries, while a slowdown in Japan would primarily affect Malaysia, Thailand, and Indonesia. Slowdowns in major advanced economies outside the region could also have sizeable spillovers.

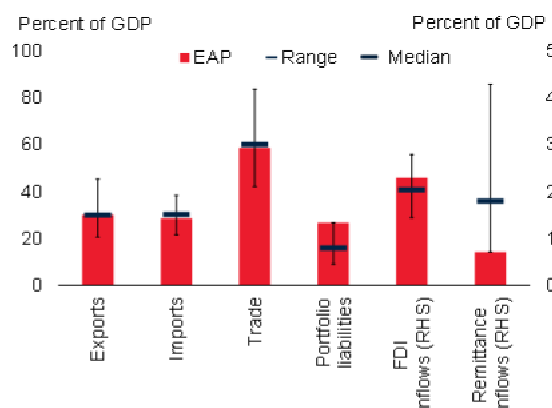
FIGURE 2.1.1.1 Cross-region comparisons

The region is open to global trade and finance.

A. EAP: Share of global activity, trade and finance, 2014



B. EAP: Trade and finance in regional comparison, 2014



Sources: IMF October 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, IMF Coordinated Portfolio Investment Survey, World Bank Remittance and Migration Database, World Bank World Development Indicators.

B. The red bars denote exports, imports, trade, remittance inflows, portfolio liabilities and FDI inflows in percent of GDP on average across EAP countries. The vertical line denotes the range of averages for all six developing regions.

Note: This box was prepared by Ekaterine Vashakmadze, Nikola Spatafora, and Duygu Guven. Modeling work was done by Raju Huidrom and Jesper Hanson. Research assistance was provided by Trang Nguyen and Qian Li.

Introduction

EAP is characterized by deep regional and global integration through trade and investment flows.¹ The region accounts for about 25 percent of global trade (Figure 2.1.1.1), and its economies are among the most integrated into global value chains. Intra-regional trade and foreign direct investment (FDI) are substantial: in 2014, countries within the region accounted for 51 percent of the region's trade and 44.1 percent of its FDI inflows.

Deep intra-regional trade and financial integration has fostered growth. These ties are also conduits for the transmission of growth fluctuations, in particular from China and Japan. Such transmission can arise both through direct economic links and through common shifts of investor sentiment across the region. China's gradual slowdown over the past year has been accompanied market volatility and real-sector headwinds. Looking ahead, spillovers are a key concern, given the risk of a faster-than-expected slowdown in China, and the still-fragile recovery in Japan.

This box discusses two key issues:

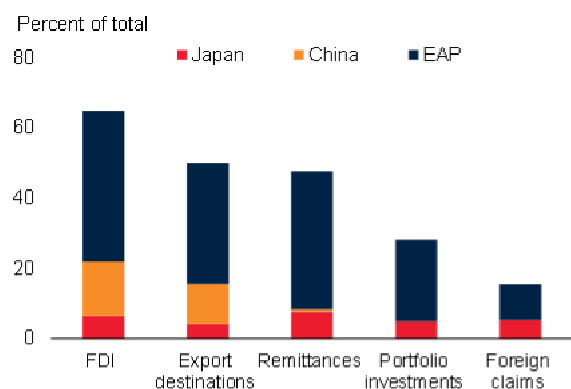
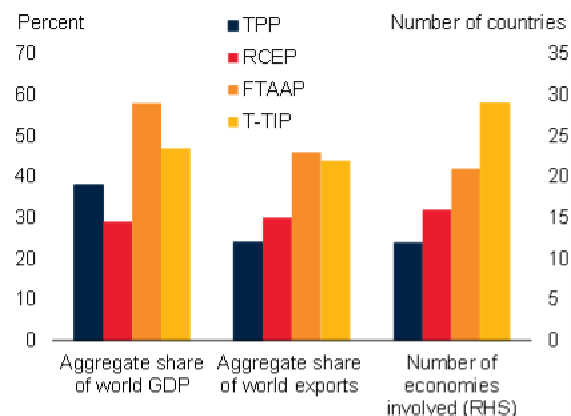
- How open is EAP to global and regional trade and financial flows?
- How large are the potential intra-regional spillovers from the region's two largest economies, China and Japan?

The findings suggest that spillovers from growth fluctuations in China are sizeable, and affect a wide range of countries. For now, spillovers arise primarily through trade channels, given the region's deeply integrated supply chains, and more limited intra-regional non-FDI financial flows. Spillovers from growth shocks in Japan are modest in general, but pronounced in Thailand, which relies heavily on FDI from Japan.

¹Throughout this box, EAP is defined as consisting of developing EAP and high-income EAP. In turn, developing EAP comprises: American Samoa, Cambodia, China, Fiji, Indonesia, Korea, Kiribati, Lao PDR, Malaysia, the Marshall Islands, Micronesia, Mongolia, Myanmar, Palau, Papua New Guinea, the Philippines, Samoa, the Solomon Islands, Taiwan, China, Thailand, Timor-Leste, Tonga, Tuvalu, Vanuatu, and Vietnam. High-income EAP comprises: Australia; Hong Kong SAR, China; Japan; New Zealand; and Singapore.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**FIGURE 2.1.1.2 Regional integration**

Countries in the region are deeply integrated with each other. China is a major export destination and source of FDI for EAP countries. Japan remains one of the largest sources of FDI and portfolio inflows for several economies in EAP.

A. Within-region integration, 2014**B. Major actual and potential free trade agreements**

Sources: International Monetary Fund (IMF), World Economic Outlook (WEO), International Finance Statistics (IMF), Direction of Trade Statistics (DOTS), Coordinated Direct Investment Survey (CDIS); World Bank; Schott (2014), United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP).

A. EAP includes American Samoa, Cambodia, China, Fiji, Indonesia, Japan, Kiribati, Lao PDR, Malaysia, Marshall Islands, Micronesia, Mongolia, Myanmar, Palau, Papua New Guinea, Philippines, Samoa, Solomon Islands, Thailand, Timor Leste, Tonga, Tuvalu, Vanuatu, Vietnam, Australia; Hong Kong SAR, China; Japan, New Zealand, and Singapore. Portfolio liabilities data include: Australia; Hong Kong SAR, China; Indonesia, Japan, Korea, Malaysia, Mongolia, New Zealand, Philippines, Singapore, and Thailand. FDI inflow data include: Australia; Hong Kong SAR, China; Indonesia, China, Japan, Korea, Malaysia, Mongolia, New Zealand, Philippines, Samoa, Singapore, and Thailand. Portfolio investment denotes stocks of portfolio investment liabilities.

B. FTAAP=Free Trade Area of the Asia-Pacific, RCEP=Regional Comprehensive Economic Partnership, TPP=Trans-Pacific Partnership Agreement, TTIP=Transatlantic Trade and Investment Partnership.

How open is the region to global and regional trade and financial flows?

EAP is characterized by large trade flows, including intra-regional flows (Figure 2.1.1.2). The region includes two of the world's largest trading economies (China and Japan). It also hosts two global trading hubs (Hong Kong SAR, China and Singapore). As a result, trade exceeds 45 percent of GDP in three-quarters of the region's economies, and 150 percent of GDP in Cambodia, Malaysia, Thailand, and Vietnam. Intra-regional exports account for more than 60 percent of total exports in China; Hong Kong SAR, China; Malaysia; Singapore; and Thailand.

The region contains several large commodity importers and exporters. Demand from China for metals and energy has grown rapidly since 2000, reflecting the sharp expansion of the industrial sector. China now accounts for more than half of the global demand for metals, and 23 percent of the global demand for primary energy (Figure 3.5, Chapter 3).² Several EAP countries, including Indonesia, Malaysia, and Mongolia, are globally important commodity producers.³

Since 2000, intra-regional trade has gradually tilted from Japan to China, for commodity importers and exporters alike (Figure 2.1.1.4). The share of trade with China has doubled since 2000 for Australia, Japan, and the Republic of Korea, and tripled for Malaysia and New Zealand. China is now the largest trading partner for Australia; Hong Kong SAR, China; Malaysia; Myanmar; New Zealand; and Thailand. It represents the second-largest trading partner for Indonesia and Lao PDR, and the third-largest for the Philippines. That said, Japan remains an important trading partner for Australia, Indonesia, Malaysia, the Philippines, and Thailand.

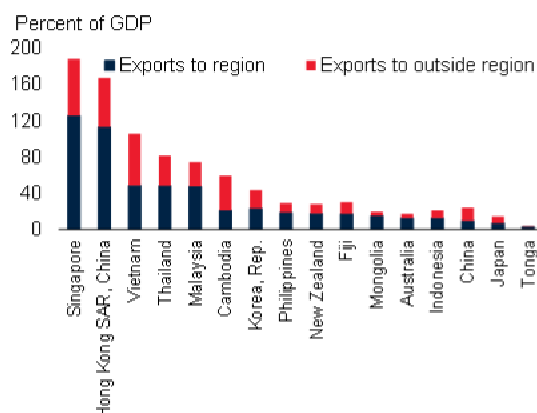
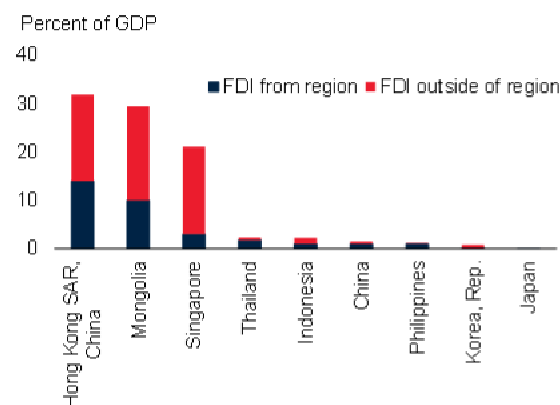
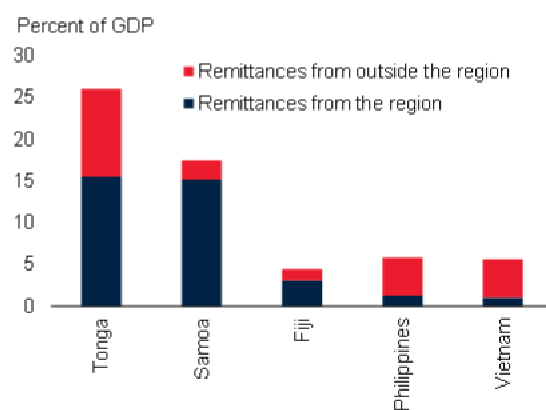
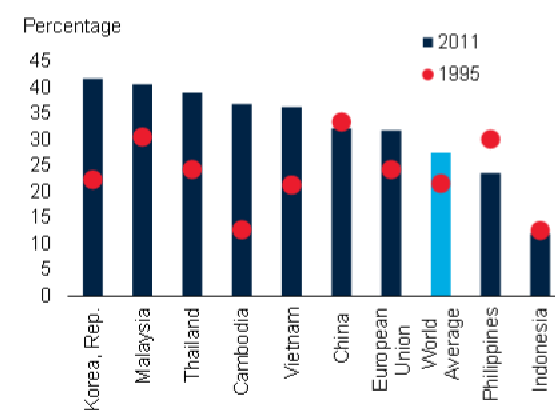
China is an increasingly important source of final demand for the rest of the region, for both commodities and manufactures. A large and rapidly growing share of the rest

²In contrast, China's consumption of most agricultural commodities (except edible oils) has grown broadly in line with global consumption since 2000. Underlying this, consumption of industrial commodities, including metals and energy, tends to respond to economic activity. Consumption of food commodities (especially grains) is mainly associated with population growth (Baffes et al. 2015).

³Commodity exports in these countries account for 6–30 percent of their GDP. Indonesia's share of global exports is 20 percent or more for aluminum, coal, natural rubber, nickel, palm oil and rubber. Malaysia's share of global exports is 35 percent for palm oil, and 5 percent for petroleum gas. Thailand's share of global exports is 20 percent or more for natural rubber and rice (World Bank 2015b).

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**FIGURE 2.1.1.3 Main spillover channels**

Each of these charts shows trade and financial links as a percent of the region's GDP—red for outside the region, blue for inside the region. All regional economies are deeply integrated within the region through trade, FDI, and remittances.

A. Export destinations, 2014**B. FDI inflows, 2008-12****C. Remittance inflows, 2014****D. Foreign value added share of gross exports**

Sources: International Monetary Fund (IMF), WB, UN Comtrade, Organization for Economic Co-operation and Development (OECD).

D. This indicator reflects the share of total gross exports contributed by foreign value added in an industry's exports. The sum over all industries is the total foreign value added share of gross exports. (OECD 2015).

of the region's value added is accounted for by exports used to meet final demand from Chinese consumers (World Bank 2015c). This applies to both the commodity- and non-commodity trade. Malaysia, Thailand, and Vietnam are among the countries most dependent on final demand from China for non-commodity merchandise.

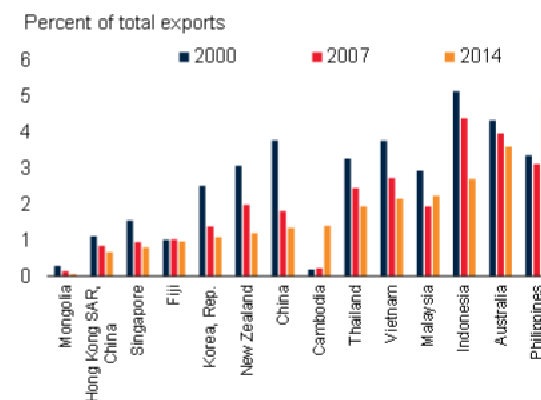
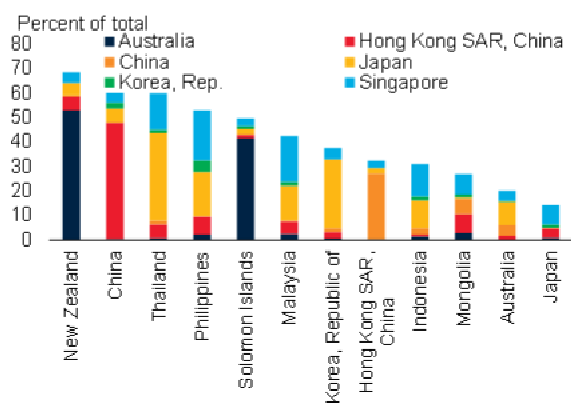
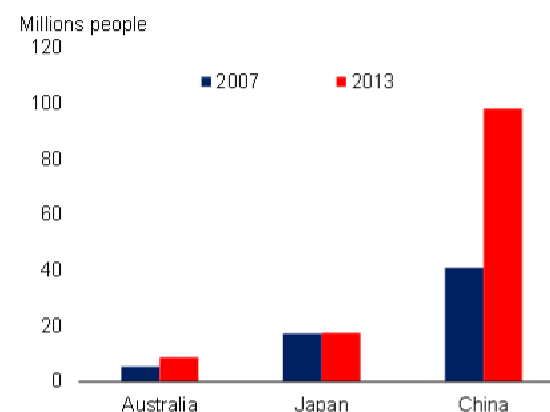
Trade liberalization has encouraged, and will continue to boost, trade and supply-chain integration. China joined the World Trade Organization in 2001; it has implemented free trade agreements (FTAs) with a wide range of countries, and is in discussions on many others,

including three comprehensive Free Trade Agreements that are currently under negotiation (Chapter 4.1, and Figure 2.1.3 and Table 2.1.1.1).⁴ Partly as a result of trade liberalization, regional economies, especially the Republic of Korea and the ASEAN countries, are highly integrated

⁴China has implemented FTAs with ASEAN, other countries in Asia (Korea and Pakistan), Latin America (Chile, Costa Rica, and Peru), the Pacific (New Zealand), and Europe (Iceland and Switzerland). Negotiations are advanced for FTAs with Australia, the Gulf Cooperation Council (Bahrain, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates), Japan, Norway, and Sri Lanka. FTAs with Columbia, Georgia, India, and Moldova are under consideration.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**FIGURE 2.1.1.4 Trade and finance with China and Japan**

There has been a shift in within-region trade from Japan to China since 2000. For most countries (except the Philippines), the share of exports to China has grown steeply and that to Japan has declined. For FDI, however, Japan remains one of the largest sources. Outbound tourism from China has also increased significantly.

A. Exports to China**B. Exports to Japan****C. FDI flows to the region, 2014****D. Total outbound tourism, 2013**

Sources: UN Comtrade.

into regional and global value chains (Figure 2.1.1.3).⁵

Intra-regional tourism has also grown robustly, with China accounting for a rapidly rising share. China has become the world's largest source of tourists (UNWTO 2015). There were 62 million outbound Chinese tourists in the first half of 2015, compared with 41 million in the whole of 2007 (China Tourism Research Institute 2015).

⁵As measured by the Global Value Chain Participation Index. This measures the share of imported inputs used to produce a country's exports, and the share of a country's exports that serve as intermediate inputs into other countries' exports (OECD 2009).

Chinese tourists are particularly important for Cambodia, Lao, PDR, Malaysia, Thailand, Vietnam, and some Pacific Islands (Fiji and, especially, Palau). For instance, in Thailand, they account for 18 percent of all tourists and over 2 percent of GDP in tourism revenues.

The region is also characterized by large FDI inflows and outflows. Developing EAP accounts for more than half of all FDI inflows to developing regions. FDI has typically gone into a wide variety of sectors, including manufacturing (Cambodia, Indonesia, Vietnam), construction (Cambodia and Lao PDR), tourism

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)

(Cambodia, Indonesia, Thailand), and resource extraction (Lao PDR, Mongolia, Myanmar). China was the world's largest recipient of FDI in 2014, and the second-largest source of FDI after the United States.⁶ Chinese investors have been heavily involved in power projects in Lao PDR, garment manufacturing projects in Cambodia, and mining in Mongolia. Japan remains an important source of FDI flows to Thailand (accounting for 40 percent of total inflows), Korea, Malaysia, and the Philippines (Figure 2.1.1.4).

The EAP region attracts substantial portfolio investment, most of which goes to Australia, Korea, Malaysia and Singapore (Figure 2.1.1.5). Modest portfolio flows to China relative to its size reflect remaining restrictions on such flows.⁷ Several regional economies have deep capital markets, including Australia; Hong Kong SAR, China; Japan; Korea; Malaysia; New Zealand; and Singapore. However, economies in EAP are more financially integrated with the major global financial centers than with each other (Park and Shin 2015; Kim et al. 2014).

How large are the potential intra-regional spillovers from the region's two largest economies, China and Japan?

Growth fluctuations in the two largest countries in the region, China and Japan, would generate spillovers on other countries in the region. The transmission channels include bilateral trade, including trade in intermediate goods within regional supply chains; FDI; and (especially for the Pacific Islands) tourism. A growth decline in China would also affect global commodity markets, further reducing demand and prices. Lower export volumes and weaker terms of trade would reduce growth prospects in commodity-exporting countries. In addition to the trade and financial channels for the transmission of growth fluctuations within the region, there may be significant spillovers through the confidence channel even though those are hard to estimate econometrically (Box 3.2).

⁶In 2000, China established a sovereign wealth fund to encourage companies to invest abroad. It also began easing restrictions on FDI flows. These actions resulted in sizeable FDI into foreign natural resources, including oil and minerals.

⁷The Chinese government actively encourages the use of the renminbi (RMB) in international trade. As a result, transactions volume has grown rapidly, to make the RMB the seventh most traded currency globally, with 1.72 percent of world payments settlements as of September 2014. The RMB is now the second most used currency in international trade finance.

To capture direct as well as indirect effects, we used a Bayesian structural VAR to estimate spillover effects, using quarterly data from 1998Q1 – 2015Q2. For each country, the variables included are as follows, in order they are used in the model: growth in the G7 excluding Japan; the JPMorgan Emerging Market Bond Index; growth in Japan, China, and Korea; trade-weighted average commodity prices; growth in the affected country; and the real effective exchange rate of the affected country. Explicit trade linkages (perhaps overestimated in the case of Hong Kong SAR, China because of large share of re-exports to China) should not affect estimation results, since the VAR model does not explicitly include variables for direct trade links, it is rather estimating direct growth on growth impact.

The model has a recursive structure, with earlier variables assumed to be contemporaneously unaffected by later variables. Spillovers are measured as the cumulative response of growth to a 1 percentage point decline in growth in China or Japan, upon impact, after one year, and after two years.

The estimated magnitude of these spillovers varies across countries, particularly with respect to growth fluctuations in China (Figure 2.1.1.6):

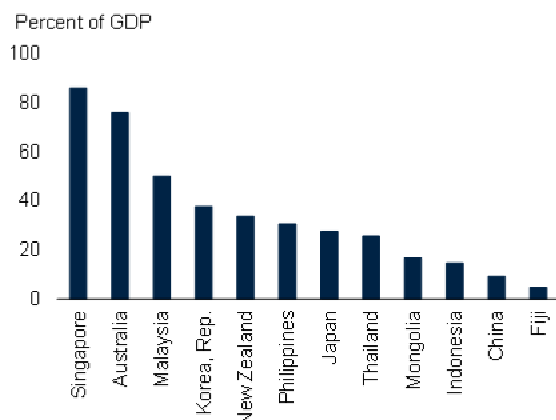
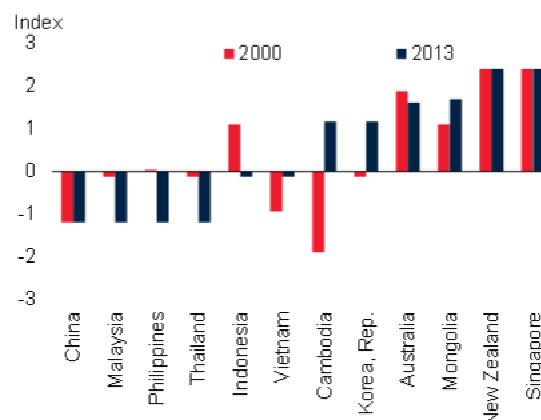
- *Spillovers from China.* A one-off, 1-percentage-point decline in China's growth reduces growth particularly sharply in the trading hub of Singapore; and in Hong Kong SAR, China.⁸ After two years, their growth rates also decrease by around 1 percentage point.⁹ Growth in Indonesia, Malaysia, and Thailand decreases by around 0.4 percentage point. Japan and Korea are affected to a much smaller degree. The magnitude of spillovers from China could be more pronounced if growth fluctuations are amplified via the confidence channel. In a historical decomposition, pre-crisis, China's growth appears to have contributed significantly to growth in the rest of the region. Since 2011, the slowdown in China weighed on activity in the rest of the region. These estimates are based on a sample period during which China's integration into global and regional trade was rapidly increasing.

⁸Explicit trade linkages (perhaps overestimated in the case of Hong Kong SAR, China because of large share of re-exports to China) should not affect estimation results, since the VAR model does not explicitly include variables for direct trade links.

⁹The impulse is quite persistent. After two years, the cumulative decline in China's output amounts to 2 percent of the baseline.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**FIGURE 2.1.1.5 Portfolio liabilities and capital account restrictions**

Portfolio investment inflows are largest into Japan and Korea. They are modest in China, partly as a result of capital account restrictions.

A. Portfolio liabilities, 2011-2014**B. Capital account restrictions**

Source: Coordinated Portfolio Investment Survey (CPIS), IMF, Chinn and Ito (2006).

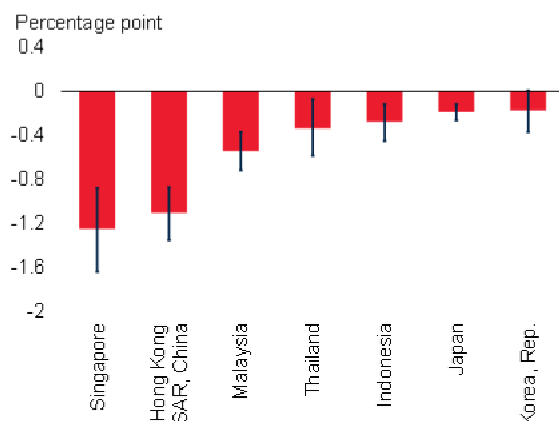
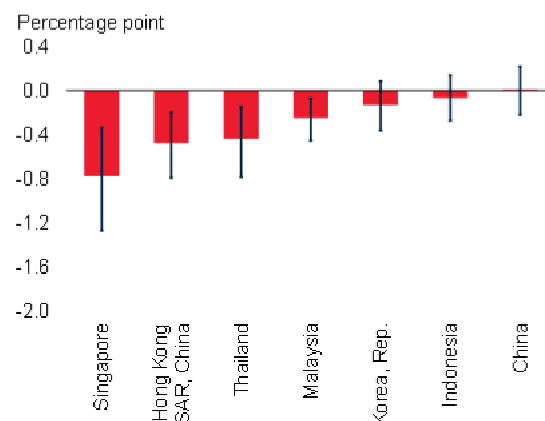
A. Stock of portfolio liabilities, average for 2011-14.

B. Chinn-Ito index is defined as an index measuring a country's degree of capital account openness.

The index by Chinn and Ito (2006) is based on binary dummy variables that codify the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). Negative values indicate less-than-average financial openness.

FIGURE 2.1.1.6 Intra-regional spillovers

Spillovers from a growth slowdown in China would be sizeable for Hong Kong SAR, China; Thailand; Malaysia; Singapore; and Indonesia. Spillovers from a growth slowdown in Japan mainly affect Thailand, reflecting deep FDI and trade links.

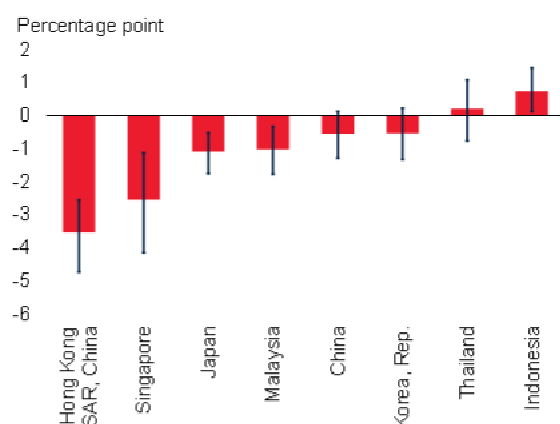
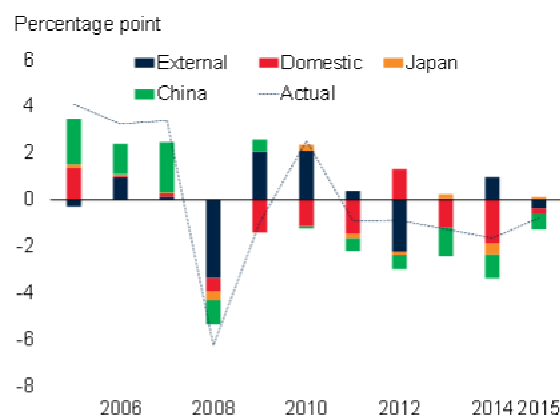
A. Response of growth to 1 percentage point decline in growth in China**B. Response of growth to 1 percentage point decline in growth in Japan**

Source: World Bank.

Note: Based on a Bayesian structural VAR model. The maximum data coverage is 1998Q1-2015Q2; time series coverage for some countries is shorter. The model is estimated for each spillover destination country. For instance, when Thailand is the spillover destination country, the variables are included, in the following Cholesky ordering: G-7 growth, EMBI, Japan's growth, China's growth, Korea's growth, Thailand's trade-weighted commodity prices, Thailand's growth, and Thailand's real effective exchange rates. Global spillovers refer to spillovers from the G7 countries. The model includes a dummy that captures the global financial crisis of 2008-09. Further details of the model, including the construction of the trade weighted commodity prices, are provided in Annex 3.2 of Chapter 3. Solid bars represent the median responses and the errors bars represent the 33-66 percent confidence bands.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**FIGURE 2.1.1.7 Spillovers from G7 excluding Japan**

Spillovers from the G7 (excluding Japan) are larger than spillovers from China and Japan, especially for the highly open economies of Hong Kong SAR, China; Korea; Malaysia; Singapore; and Thailand. China's growth bolstered EAP growth during the pre-crisis years, but has since weighed on regional growth. Since 2010, the slowdown in China and Japan growth has accounted for a significant portion of the slowdown in the rest of EAP region, especially in 2014 and 2015.

A. Spillovers from G7 excluding Japan**B. Contributions to EAP growth**

Source: World Bank.

A. B. Based on a Bayesian structural VAR model. The maximum data coverage is 1998Q1-2015Q2; time series coverage for some countries is shorter. The model is estimated for each spillover destination country. For instance, when Thailand is the spillover destination country, the variables are included in the following Cholesky ordering: G-7 growth (excluding Japan), EMBI, Japan's growth, China's growth, Korea's growth, Thailand's trade-weighted commodity prices, Thailand growth, and Thailand's real effective exchange rates. Global spillovers refer to spillovers from G7 excluding Japan. The model includes a dummy that captures the global financial crisis of 2008-09. Further details of the model, including the construction of the trade-weighted commodity prices, are provided in Annex 3.2 of Chapter 3.

B. Demeaned growth rates. Actual is the simple average growth of Hong Kong SAR, China, Indonesia, Malaysia, Singapore, and Thailand. External variables include G7 growth (excluding Japan), EMBI, trade-weighted commodity prices, real effective exchange rate. Domestic variable is growth of the spillover destination country.

- *Spillovers from Japan.* Spillovers from Japan are considerably smaller. A 1-percentage-point decline in Japan's growth reduces growth by 0.8 percentage point in Singapore, 0.5 percentage point in Thailand (which has deep FDI links with Japan) and Hong Kong SAR, China, 0.3 percentage point in Malaysia, and smaller amounts elsewhere.

Other studies find similar results (Table 2.1.1.2). For instance, Duval et al. (2014) report that a 1 percentage point decline in China's growth would lower growth in the median Asian economy by about 0.3 percentage point after a year, as compared with 0.1 percentage point for the median non-Asian economy. The IMF (2011) estimates that a 1-percentage-point growth decline in Japan would reduce growth in China by 0.18 percentage point, and by less than this in Indonesia and Korea.¹⁰

Shocks to growth in major advanced countries outside the region, such as the G7 (excluding Japan), also have a material impact. The most open and diversified regional economies—including Hong Kong SAR, China; Singapore; Japan; and Malaysia—are particularly vulnerable to growth fluctuations in the G7 (excluding Japan) (Figure 2.1.1.7). Quantitatively, the spillovers on EAP countries from a 1-percentage-point decline in growth in G7 countries (excluding Japan) are in several cases more than twice as large as the spillovers from an equivalent slowdown in China, and seven times as large as the spillovers from Japan.¹¹ The sizeable implications of G7 (excluding Japan) growth shocks reflect both the globally diversified nature of the region's exports, and the amplification of these shocks through their impact on China and Japan.

Conclusion

Countries in EAP are highly exposed to external shocks, including those originating from developing countries within the region, advanced economies outside the region, and to a lesser degree, Japan. China has experienced a

¹⁰Since Japan's financial sector is largely domestically oriented, financial spillovers from Japan are smaller than those from other systemically important economies.

¹¹Since the volatilities of growth for G7 (excluding Japan), China and Japan are historically different we also estimated impulse defined in terms of a 1-standard-deviation decline in growth. In this case, for Thailand and Indonesia, the spillovers from growth in China are larger than the spillovers from G7 growth (excluding Japan); for Singapore, the spillovers from G7 growth (excluding Japan) are slightly larger; and for most other countries, the two spillovers are comparable in magnitude.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)

gradual growth slowdown since 2010. Meanwhile, Japan has struggled to emerge from recession, and a series of deflationary shocks. Slowing or weak activity in the two largest economies in the region has already weighed on growth in EAP countries. In addition, EAP countries, with their highly diversified export markets, have also been held back by the anemic recovery in high-income countries outside the region.

The magnitude of spillovers, and financial spillovers in particular, is likely to increase. So far, regional links are

mainly based on trade, foreign direct investment, and tourism. Going forward, financial integration could accelerate. For example, if China were to liberalize more fully its capital account, it could generate large capital flows to other emerging markets, as Chinese investors diversify their assets (Bayoumi and Ohnsorge 2013, Hooley 2013). This would yield benefits, including through greater investment, but would at the same time raise the potential for the transmission of shocks.

TABLE 2.1.1.1 Membership of major actual and potential free trade agreements

	ASEAN	APEC	RCEP	TPP	FTAAP	T-TIP
Brunei Darussalam	X	X	X	X	X	
Malaysia	X	X	X	X	X	
Singapore	X	X	X	X	X	
Vietnam	X	X	X	X	X	
Indonesia	X	X	X		X	
Philippines	X	X	X		X	
Thailand	X	X	X		X	
Cambodia	X		X			
Lao PDR	X		X			
Myanmar	X		X			
Australia		X	X	X	X	
Japan		X	X	X	X	
New Zealand		X	X	X	X	
Korea, Rep.		X	X		X	
China		X	X		X	
Canada		X		X	X	
United States		X		X	X	X
Mexico		X		X	X	
Chile		X		X	X	
Peru		X		X	X	
Taiwan, China		X			X	
Hong Kong SAR, China		X			X	
Papua New Guinea		X			X	
Russian Federation		X			X	
India			X			
European Union						X

Source: World Bank.

Notes: ASEAN (Association of Southeast Asian Nations), APEC=Asia-Pacific Economic Cooperation, FTAAP=Free Trade Area of the Asia-Pacific, RCEP=Regional Comprehensive Economic Partnership, TPP=Trans-Pacific Partnership Agreement, TTIP=Transatlantic Trade and Investment Partnership.

BOX 2.1.1 Regional integration and spillovers: East Asia and Pacific (continued)**TABLE 2.1.1.2 Literature review**

Author	Methodology	Results
World Bank (2016)	Bayesian SVAR (structural vector autoregression)	A 1 percentage point growth slowdown in China and Japan reduces growth in Malaysia and Thailand between -0.2 and -0.5 percentage point after two years, respectively.
Ahuja and Nabar (2012)	Panel regression	Growth slowdown in China would affect major commodity exporters with less diversified economies, such as Indonesia. Economies that lie within the Asian regional supply chain—Republic of Korea; Taiwan, China; and Malaysia—would also be adversely affected.
Duval et al. (2014)	Panel regression based on new value-added trade data for 63 advanced and emerging economies during 1995–2012	A 1 percentage point decline in China's growth may lower GDP growth in the median Asian economy by about 0.3 percentage point after a year.
Inoue, Kaya, and Ohshige (2015)	GVAR (global vector autoregressive)	A slowdown in China's real GDP growth has a significant impact on neighboring countries, especially commodity exporters (e.g., Indonesia). Export-dependent countries on the EAP production cycle (Japan, Malaysia, Singapore, and Thailand) are also severely affected.

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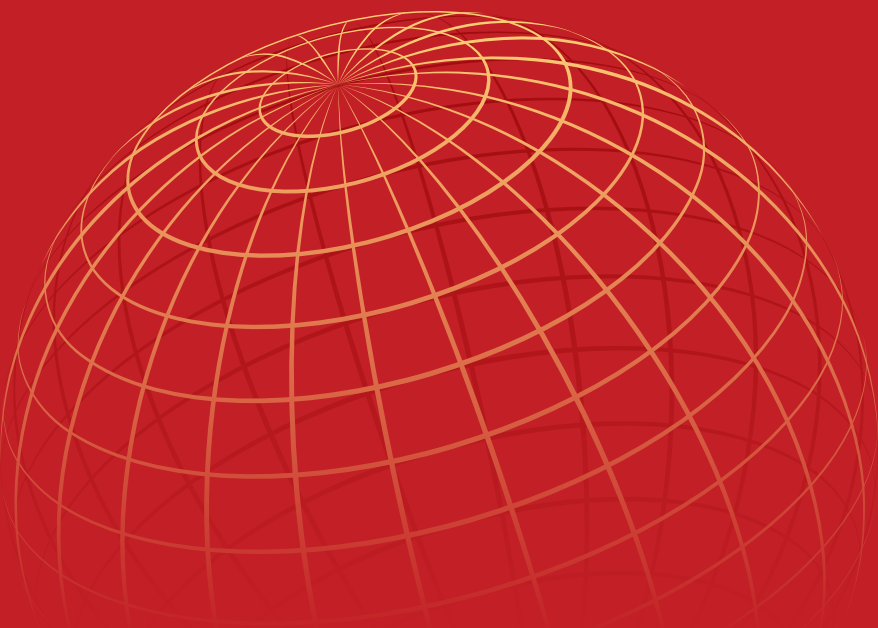
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REGIONAL INTEGRATION AND SPILLOVERS

Europe and Central Asia

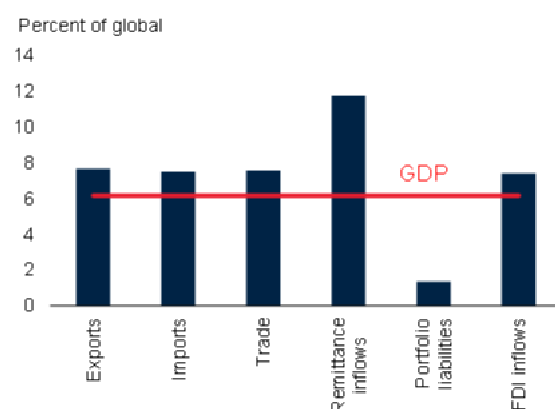
BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia

As a region with a generally high degree of openness, Europe and Central Asia (ECA) is vulnerable to spillovers from major advanced economies and emerging markets. Although there is wide heterogeneity, spillovers reflect the region's increasing integration with the European Union and dependence of several large economies in ECA on commodity exports. China is gaining prominence as a trading partner especially for energy exporting economies. Within-ECA ties are pronounced with the Russian Federation, particularly in the eastern part of the region. Estimates suggest that a 1 percentage point growth slowdown in Russia could set back growth in other ECA countries by an average of 0.3 percentage point over two years. Spillover effects from Turkey, the second largest emerging market economy in the region, are small and limited to a few neighboring countries. Encouraging investment into internationally competitive sectors and increasing geographic diversification could lessen vulnerabilities to growth shocks.

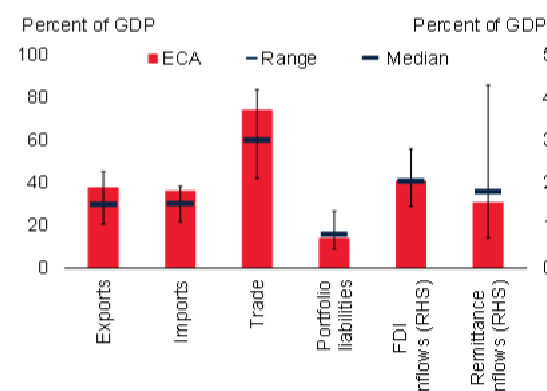
FIGURE 2.2.1.1 Cross-region comparison

The ECA is generally very open, despite wide within-region heterogeneity. The region accounts for about 8 percent of world trade flows and 12 percent of international remittances. Exposures to global financial investment tend to be lower, with the exception of Turkey.

A. ECA: Share of global activity, trade and finance, 2014



B. ECA: Trade and finance in regional comparison, 2014



Sources: IMF October 2015 World Economic Outlook; IMF International Financial Statistics; IMF Direction of Trade Statistics; IMF Coordinated Portfolio Investment Survey; UNCTAD FDI/TNC database; World Bank Remittance and Migration Database; World Bank World Development Indicators.

B. The red bar denotes exports, imports, trade, remittance inflows, portfolio liabilities and FDI inflows in percent of GDP on average across ECA countries. The vertical line denotes the range of averages for all six developing country regions.

Introduction

The Europe and Central Asia region is generally very open, despite wide within-region heterogeneity. Its economy represents about 6 percent of global GDP, broadly similar to that of the Latin America and Caribbean region, but about a third less than that of the East Asia and Pacific region. The region accounts for about 8 percent of world trade flows, and 12 percent of international remittances (Figure 2.2.1.1). Trade is equivalent to 74 percent of GDP and remittance inflows about 1.5 percent of GDP. Exposures to global financial investment tend to be lower, with the exception of Turkey.

The region's openness reflects increasing integration with the European Union (EU) and the presence of several large commodity-exporting economies. The latter makes ECA vulnerable to global commodity price fluctuations. Goods and factor market integration with the rest of the world stems from extensive trade and economic agreements, as well as well-linked transportation networks. The Western part of the region includes several members of the EU and is integrated with EU supply chains and labor markets (Figure 2.2.1.2). In the eastern part, notwithstanding trade and economic agreements with Russia, trade and investment from China are gaining prominence (Chapter 3). Meanwhile, the share of the U.S. in regional trade has gradually diminished.

Russia is a prominent source of within-region trade and remittance flows and, to a lesser extent, foreign direct investment. These linkages are tighter in the Eastern part of the region. Integration with Turkey—the second largest regional economy—is limited, and associated spillovers are correspondingly modest.

This box discusses the main spillovers from outside the region, as well as from the two largest economies inside the region, Russia and Turkey. Specifically, it discusses the following questions:

Note: Prepared by Ekaterine Vashakmadze and Duygu Guven, with contributions from Raju Huidrom and Jesper Hanson. Research assistance was provided by Trang Nguyen and Qian Li.

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)

- How open is the ECA region to global and regional trade and financial flows?
- How large are the potential intra-regional spillovers from the region's two largest economies, Russia and Turkey?

How open is the ECA region to global and regional trade and financial flows?

Despite wide regional variation, the majority of ECA countries are highly open to global trade (Figure 2.2.1.3). They also receive substantial FDI and remittance inflows, especially from the Euro Area. Most countries in the region, with the exception of Turkey, receive limited portfolio inflows.

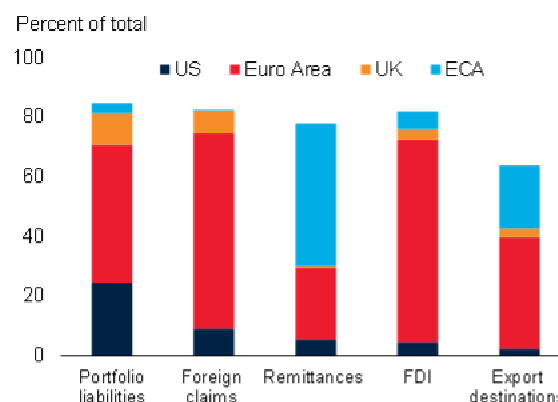
Integration with the Euro Area. ECA countries, like those in other developing regions, are predominantly linked to the major advanced countries in their proximity: the Euro Area is the single largest trading partner and source of financial flows to ECA. In addition to geographical proximity, interlinkages with the Euro Area also reflect that most countries in the western part of the region are members of the EU or have European Association Agreements in place. This has deepened supply-chain integration and encouraged labor mobility. ECA's trade with the Euro Area rose from negligible levels in the 1990s to over 50 percent of total trade in 2014, including for the eastern part of the region (over 40 percent in Azerbaijan, Kazakhstan, and Russia, and over 25 percent in Armenia, Belarus, Georgia, and Ukraine). The EU is the primary source of remittances for the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, FYR Macedonia, Montenegro, Serbia) and to a lesser extent, for Armenia, Georgia, and Moldova. They amount to around 10 percent of GDP in Kosovo and Moldova, 7 percent of GDP in Albania, and about 2 percent of GDP in Armenia and Georgia.

A tilt towards China. Trade with China has increased sharply since 2009, especially for energy-exporting economies like Azerbaijan, Kazakhstan, Russia, and Turkmenistan, where exports to China surpassed 10 percent of total exports in 2014 (Figure 2.2.1.4). Over the medium term, trade with China should continue to grow as new pipelines between the major energy exporters (Kazakhstan, Uzbekistan, Russia) and China are constructed, and the on-going negotiations of free trade agreements between China, Georgia, and Moldova are approved and implemented.

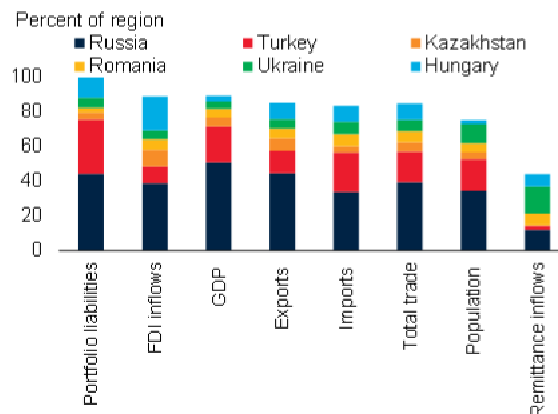
FIGURE 2.2.1.2 Main features of the ECA region

There are deep trade and remittance networks within the region and with the Euro Area. Intra-region flows of remittances are large. Russia and Turkey together account for more than 50 percent of the region's GDP and exports.

A. Regional Integration, 2014



B. Six largest economies of the region (average 2011-14)



Sources: IMF World Economic Outlook; IMF International Financial Statistics; IMF Direction of Trade Statistics; IMF Coordinated Direct Investment Survey; World Bank; International Investment Position.

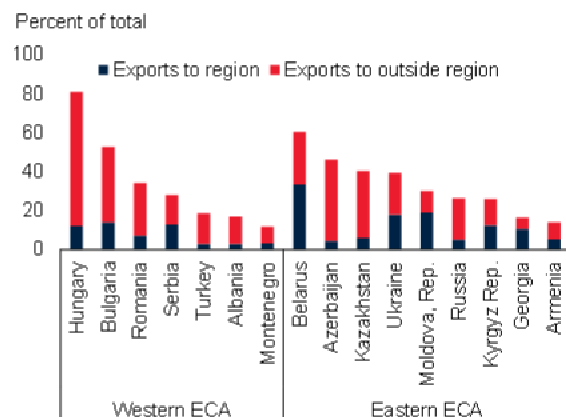
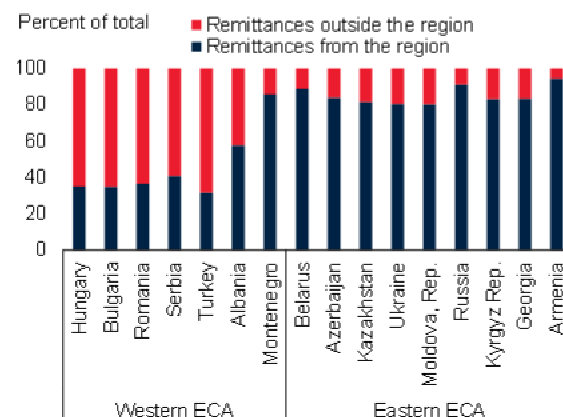
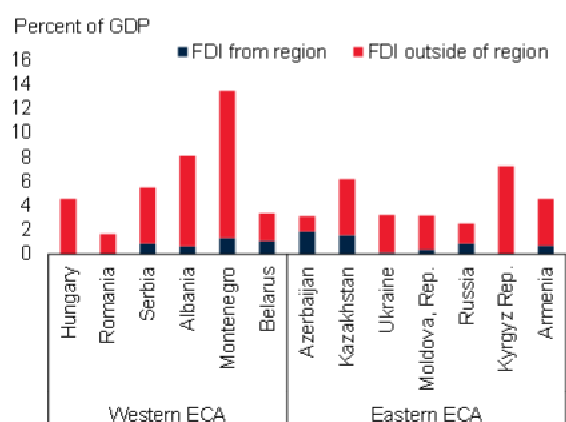
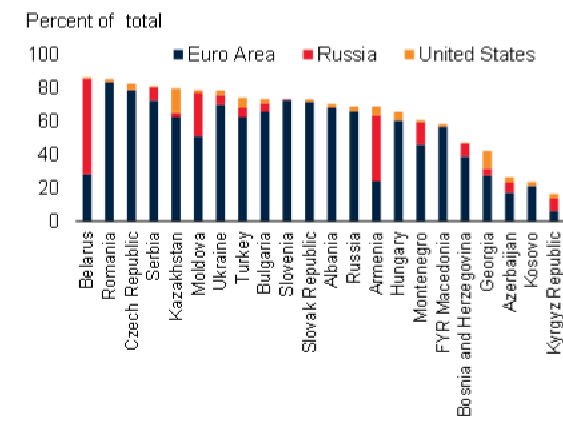
A. ECA countries include: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Georgia, Hungary, Kazakhstan, Former Yugoslav Republic of Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan, and Russia.

A. B. Portfolio liabilities denote stock of portfolio investment liabilities.

Within-region ties. Within-region ties to Russia are particularly strong regarding trade and remittance flows. Direct economic ties with other large economies in the region, which are predominantly trade-based, have grown rapidly from a low base. Thus, the share of exports to Turkey increased substantially in the 2000s, reaching 20

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)**FIGURE 2.2.1.3 Trade, remittances, and foreign direct investment**

Intra-regional trade integration is divided between east and west. The eastern part of the ECA region is integrated with the rest of the region—especially Russia—through trade and remittances. The western part of the region is integrated with the Euro Area through trade, portfolio flows, FDI, and remittances.

A. Trade linkages, 2014**B. Remittances, 2014****C. FDI inflows, 2008-12****D. FDI inflows from to Russia, Euro Area, and United States, 2013**

Sources: IMF; World Bank; UN Comtrade.

Note: Region includes Russia. Euro Area is considered outside the region.

percent of total trade for Georgia and is around 7 percent for Bulgaria, Tajikistan, and Uzbekistan.

Ties with Russia. Intra-regional ties are deepest in the Eastern part of the region, mainly reflecting the close links between Russia and its Eurasian Economic Union trade partners (Armenia, Belarus, Kazakhstan, and the Kyrgyz Republic), despite a declining share of Russia in the region's trade.

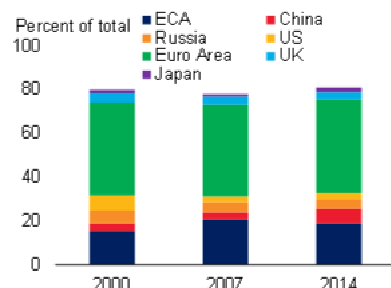
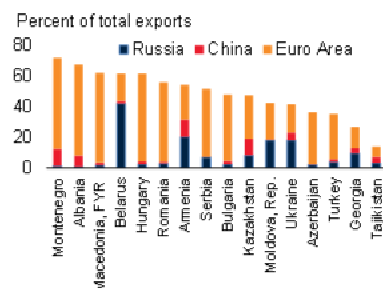
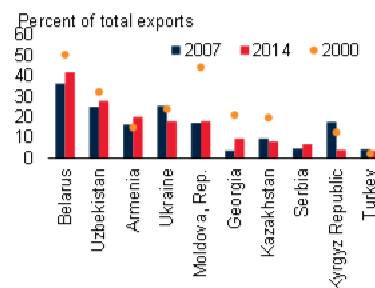
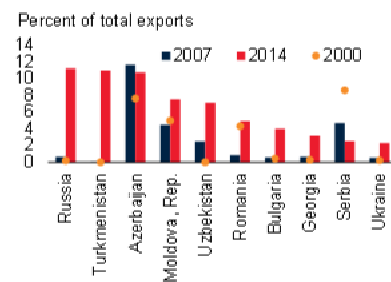
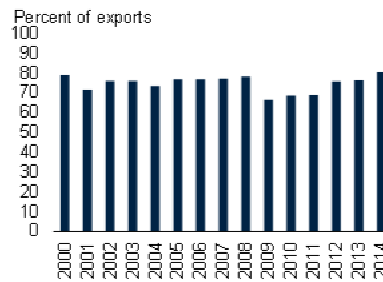
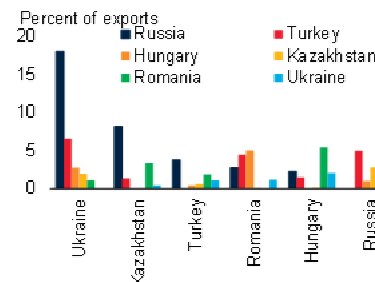
- **Trade.** Russia remains a major trading partner for regional economies, accounting for 8 percent of

ECA's trade and 30 percent of trade in some Central Asian countries (Figure 2.2.1.4).¹ This reflects the large size of the Russian economy and the legacy of

¹In Central Asia, the share of exports to Russia was 15.4 percent of total exports in 2014. Exports to Russia account for about half of Azerbaijan's non-oil exports, while for Armenia, exports to Russia, mostly food and brandy, constitute about 20 percent. Turkmenistan and Uzbekistan export gas to Russia, though they have been increasingly diversifying toward other markets, primarily China. Imports from Russia, especially energy, are also relatively large. For Armenia and Tajikistan, energy imports from Russia amount to about 30 percent of their total energy consumption (IMF 2015g).

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)**FIGURE 2.2.1.4 Main export markets**

Russia is an important export market for the eastern part of the region, whereas the Euro Area is the main export destination for the western parts of the region. Over the 2000s, there has been a gradual shift towards exports to China and, for countries in the South Caucasus, exports to Turkey.

A. Exports to major economies, 2014**B. Exports to China, Euro Area and Russia, 2014****C. Exports to Russia****D. Exports to China****E. Share of within-region trade over time****F. Exports to countries within the region, 2014**

Sources: IMF; World Bank; UN Comtrade.
Note: Region includes Russia. Euro Area is considered outside the region.

trade integration and economic agreements within the region. The Eurasia Economic Union (EEU) among Armenia, Belarus, Kazakhstan, the Kyrgyz Republic, and Russia, came into force in 2015, aiming to promote closer economic integration. Still, Russia's share in the region's trade has diminished steadily over the past two decades, following trade liberalization and expansion with Europe and more recently with China.

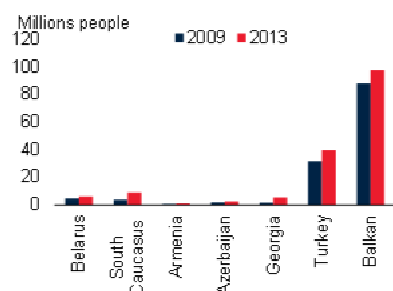
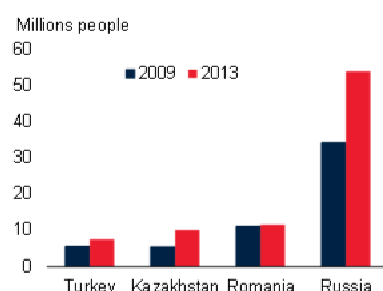
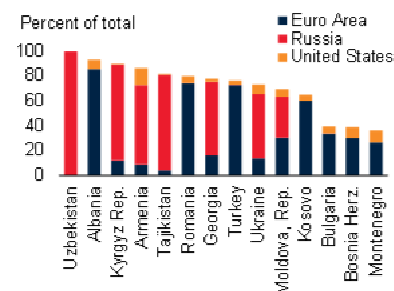
- Tourism.** Russia's rapidly growing tourism industry has created economic opportunities for the region. Providing tourism-related services to Russia has become an important source of external earnings for several countries in Southeastern Europe (Bulgaria, Croatia, Romania, and the Western Balkans) and the South Caucasus (Azerbaijan, Belarus, Bulgaria, Kazakhstan, Montenegro, Turkey) (World Economic Forum 2015; Figure 2.2.1.5).

- Migration and remittances.** Remittances from Russia account for about 62 percent of remittance inflows to the eastern part of the region. Large migration movements have been fostered by free or liberal visa regimes, strong historic ties, and a common language. Opportunities created by a shrinking Russian working-age population in contrast to a growing Central Asian one have also encouraged migration of workers to Russia. Remittances from Russia represent an important source of income for several regional economies in Central Asia (the Kyrgyz Republic, Tajikistan, Uzbekistan), South Caucasus (Armenia, Georgia), and Eastern Europe (Moldova, Ukraine).² In 2015, these remittance flows and their real value dropped sharply with the steep recession in Russia and

²In 2014, remittances from Russia accounted for about 43 percent of GDP in Tajikistan, 30 percent in the Kyrgyz Republic, and 20 percent in Armenia.

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)**FIGURE 2.2.1.5 Tourism and remittances**

Central Asia relies heavily on remittances from Russia, whereas countries in the South Caucasus receive large remittances from the Euro Area. Outbound tourism from Russia is an important source of income for several countries in the region, including Bulgaria, Georgia, Montenegro, and Turkey.

A. Inbound tourism**B. Outbound tourism****C. Remittance inflows by source economy, 2014**

Source: World Bank; World Tourism Organization.

A. Inbound tourism denotes non-resident visitors within the economic territory of the country of reference.

B. Outbound tourism denotes resident visitors outside the economic territory of the country of reference.

the large ruble depreciation (World Bank 2015). In addition, new Russian regulations, which took effect in January 2015, bar immigrants who overstay their one year visas from re-entering Russia for the next ten years, as well as raising fees for migrant laborers and migrants from non-EEU countries. These regulations may encourage many, especially for non-EEU countries, to leave earlier than they had planned.³ Absorbing returning workers into domestic economies could pose challenges.

- **Bank lending.** Direct cross-border lending by Russian banks is limited, but Russian-owned banks account for about 10 percent of banking system assets in several countries (Belarus, Kazakhstan, Ukraine) (Stepanyan et al. 2015). Some Azerbaijani and Kazakh banks have subsidiaries in Russia, but their assets are small (about 2 percent of the home country's GDP). Latvia is the recipient of large non-resident deposits, equivalent to about 50 percent of total deposits, much of which is presumed of Russian origin (Stepanyan et al. 2015).

- **Foreign direct investment.** Russian foreign direct investment accounts for a sizeable share of foreign direct investment in Armenia, Belarus, and the Kyrgyz Republic (all members of the EEU), as well as in Tajikistan.

How large are the potential intra-regional spillovers from the region's two largest economies, Russia and Turkey?

Reflecting openness and substantial commodity exports, the ECA region is more vulnerable to growth shocks originating outside the region than within (Chapter 3). Nevertheless, strong within-region trade, finance and remittance links are reflected in sizeable spillovers, especially from Russia.

In addition to the trade and financial channels for the transmission of growth shocks within the region, there may be significant spillovers through less measurable channels, including through policy and confidence (Clinton et al. 2010). To capture direct as well as indirect effects, a Bayesian structural vector autoregression model is estimated for 1998Q1-2015Q2. For each country, the variables included are as follows, in order they are used in the model: growth in the rest of the world; the JPMorgan Emerging Market Bond Index; growth in Russia and Turkey; trade-weighted average commodity

³Hundreds of thousands of migrant workers are reported to have returned to Tajikistan, Uzbekistan and, to a lesser extent, the Kyrgyz Republic (EBRD 2015b).

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)

prices; growth in the affected country; and the real effective exchange rate of the affected country. Explicit trade linkages should not affect estimation results, since the VAR model does not explicitly include variables for direct trade links, it is rather estimating direct growth on growth impact. The exercise focuses on estimating the impact of growth shocks in the two largest economies—Russia and Turkey—on other countries in the region. Spillovers are estimated as the response of growth in a country to a 1 percentage point decline in growth in the source country of the shock (Russia or Turkey).⁴

Russian growth shocks have sizeable effects across the region. The estimates suggest that a 1 percentage point decline in Russian growth reduces growth in other ECA countries by an average of 0.3 percentage point over two years (Figure 2.2.1.6). The estimated impact is larger in countries in the South Caucasus (0.6 percentage point in Armenia). The estimated impact for Kazakhstan (0.3 percentage point)—the only central Asian economy where data was available for the estimation—was in line with the average impact for the region. In other countries, the impact is more modest.

Other authors report similar findings (see summary table below). The remittances channel is particularly important for oil importers in the eastern part of the region; the trade channel has weakened over time; the FDI channel is significant for Armenia and Tajikistan; and the financial sector channel is limited, because of the modest presence of Russian banks (Ilahi et al. 2009, IMF 2015g). Overall, the study finds that Russian growth shocks are associated with sizable effects on growth in Belarus, Kazakhstan, and Tajikistan.⁵ These authors find that a severe simulated shock, involving a 4 percent decline in Russian GDP, a deterioration in confidence, an increase in capital cost, and a slowdown in the productivity growth of the Russian tradable goods sector, could reduce GDP in CIS countries by 2.5-3 percent below the baseline over one year (IMF, 2015f). This is broadly proportional to the results presented above and the magnitude of spillovers is broadly

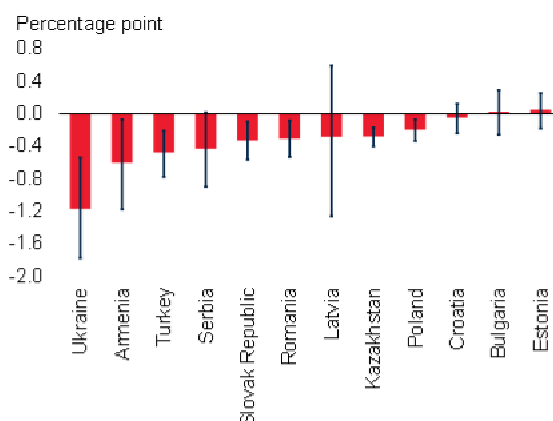
⁴To facilitate comparisons across models, responses are scaled by the cumulative change in the source country in the same quarter (1 percentage point, by definition), after one year and after two years. The estimations require quarterly data.

⁵The estimated spillover effects of a one standard deviation shock to the Russian GDP (about 2 percent) peak after two quarters to reach 0.6 percent in Belarus, 1.7 percent in Kazakhstan, and 2 percent in Tajikistan. The impact would last between 3 and 6 quarters. The estimated effects are less significant in Georgia and the Kyrgyz Republic and not significant in Moldova and Uzbekistan.

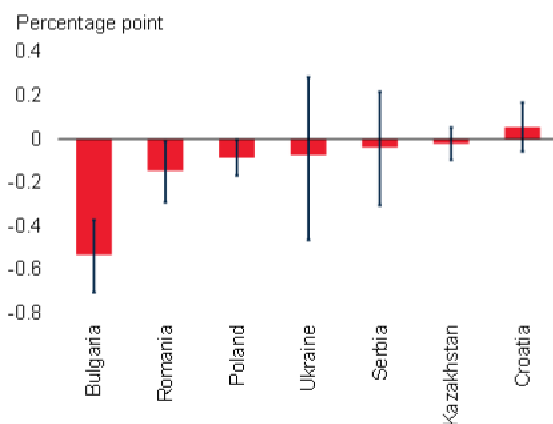
FIGURE 2.2.1.6 Regional spillovers

Spillovers from Russia are sizeable, particularly in the eastern part of the region, which is deeply integrated with Russia through trade and remittances. Spillovers from Turkey are smaller, and mostly local, but may be gaining importance.

A. Impact on growth of a 1 percentage point decline in Russia's growth



B. Impact on growth of 1 percentage point decline in Turkey's growth



Source: World Bank.

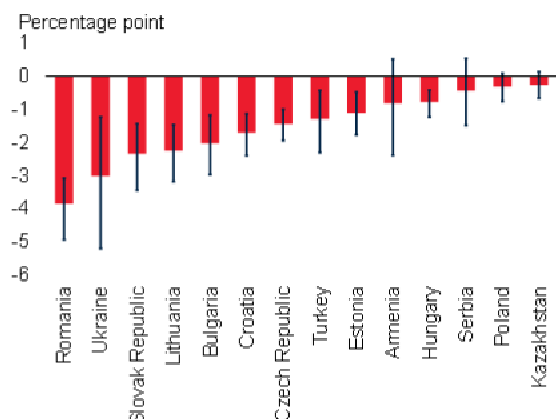
Note: Cumulative impact response after two years of each country's real GDP growth to a 1 percentage point decline in Russia's or Turkey's growth. Based on estimates of a structural VAR using data from 1998Q2-2015Q2.

in line with trade links (Stepanyan et al. 2015). Effects are amplified by remittances from Russia (for Armenia, Moldova and other oil importers in Caucasus and Central Asia) and the impact of depreciations on banking sectors (Kazakhstan). The ongoing crisis in Russia and Ukraine has had limited spillovers on Europe (Husabø 2014). The

BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia (continued)**FIGURE 2.2.1.7 Spillovers from the rest of the world**

Global spillovers are larger than within-region spillovers, reflecting the openness of the region, especially to the Euro Area and to world commodity markets.

Impact on growth of 1 percentage point decline in the rest of the world growth



Source: World Bank.

Note: Cumulative impulse response after two years, scaled by cumulative impulse response of growth in source country of shock. Solid bars represent the median responses and the errors bars represent the 33-66 percent confidence bands.

largest estimates are for countries with sizeable export exposures to Russia (Finland, Latvia, Lithuania, Slovakia, and Slovenia), but even in these cases there is less than 0.5 percentage point decline in growth in response to a negative 1 percent shock in Russia. Others have also found that the effects of shocks from Russian GDP on activity in Baltic countries are not large (Obiora 2009). At most, a 1 percent decline in Russia's GDP reduces Lithuania's GDP by about 0.5 percentage point. These spillovers are relatively weak because of increasing trade and financial integration with the EU and declining trade with Russia (Shiells et al. 2005).

Our estimates suggest that growth shocks in Turkey have smaller, and mostly local, repercussions for countries in the neighborhood. A 1 percentage point decline in growth in Turkey reduces growth in other ECA countries by an average of 0.1 percentage point over two years. The estimated impact is larger in Bulgaria and Romania where a 1 percentage point decline in growth in Turkey reduces

growth by 0.5 and 0.2 percentage point, respectively, over two years. Spillovers to other ECA countries are smaller.

Estimated spillovers from the rest of the world are larger than those from either Russia or Turkey. A 1 percentage point decline in the rest of the world growth would reduce growth in ECA countries by 1.7 percentage points over two years (Figure 2.2.1.7). This broadly reflects the deep integration of the western part of the region with the Euro Area, and of the eastern part of the region with global commodity markets.

Conclusion

ECA is one of the most open developing regions to trade, remittances, and FDI. For historical reasons, it has vibrant intra-regional trade and financial networks, especially in the East of the region, which retains strong ties to Russia despite a gradual shift towards China. The West of the region is deeply integrated into supply chains and, to some extent, labor markets in the EU. Because of this openness, and the presence of several large commodity exporters, the ECA region is more vulnerable to global growth shocks than to shocks originating from within the region. The rapid expansion of economic links with China is shifting the potential source of external disturbances. The eastern part of the region remains vulnerable to a growth slowdown in Russia, through trade and remittances links.

Planned infrastructure investment into regional road and rail corridors, combined with continued trade liberalization and improved business environments, could help diversify the region's trade partners and sources of finance. Barriers to open markets are particularly significant in Central Asia (World Bank 2015f). Reducing these barriers would spur productivity and increase resilience to external shocks. Tariffs remain high in Uzbekistan and Turkmenistan; non-tariff barriers require streamlining in Kazakhstan and Russia; and trade facilitation can be further improved across the region. Current low commodity prices heighten the importance of diversification in commodity-exporting countries, by initiatives to build institutions that reduce economic volatility, change incentives away from non-tradables, penetrate new and dynamic export markets, encourage FDI in new industries, and build human capital (Gill et al. 2014).

TABLE 2.2.1.1 Summary of the literature

Author	Methodology	Results
World Bank (2016)	Bayesian structural vector autoregression	A 1-percentage-point growth decline in Russia reduces GDP in Armenia and Kazakhstan by 0.6 and 0.3 percentage point, respectively, after two years. Growth shocks in Turkey have a smaller effect on growth in other countries in the region. A 1-percentage-point decline in growth in Turkey reduced growth in the region by 0.1 percentage point on average after two years.
Ilahi et al. (2009)	Panel regression; Vector autoregression (VAR). 1997-2008 Panel: annual data. VAR: quarterly data.	Russian growth shocks have strong effects on Belarus, Kazakhstan, Tajikistan, and, to some extent, Georgia and the Kyrgyz Republic. In Belarus, Kazakhstan, and Tajikistan the spillover effects on GDP growth are 0.6 percent to 2 percent, respectively. The effects are less significant in Georgia and the Kyrgyz Republic, and not significant in Moldova and Uzbekistan.
Obiora (2009)	VAR	There are significant cross-country spillovers to the Baltics with those from the EU outweighing spillovers from Russia. Lithuania's GDP response to a one percent shock from Russia occurs contemporaneously with growth of about ½ percent.
Husabø (2014)	VAR	Spillovers from Russian GDP growth are largest for Finland, Latvia, Lithuania, Slovakia, and Slovenia (i.e., countries with the largest export exposures to Russia).

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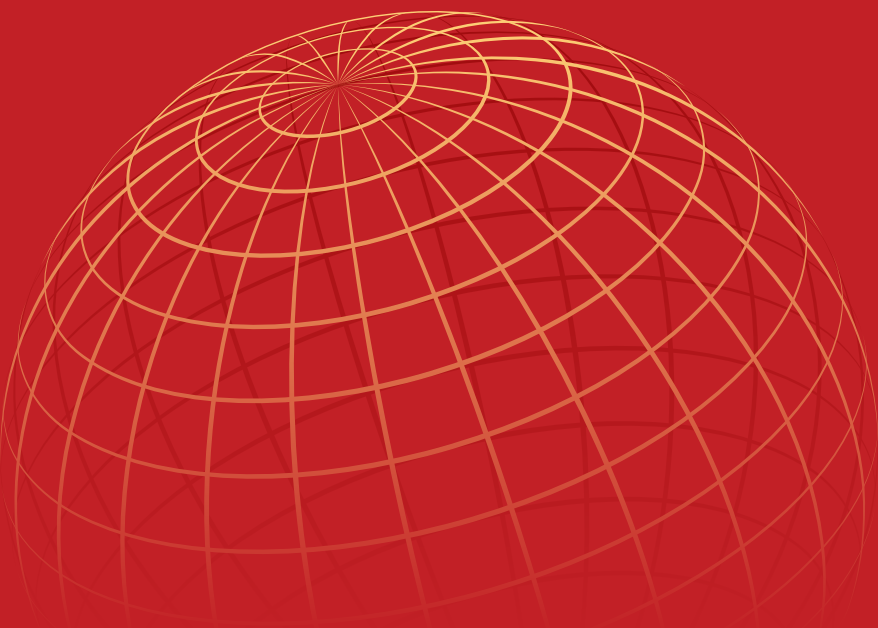
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REGIONAL INTEGRATION AND SPILLOVERS

Latin America and the Caribbean

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean

The Latin America and Caribbean region (LAC) is less open than other emerging and developing regions to global trade and finance. Despite a multitude of regional trade agreements, economic linkages within the region tend to be limited and largely confined to sub-regions. Estimated spillovers from growth slowdowns in Brazil are modest for its South American neighbors (Argentina, Chile, Colombia, Ecuador, Paraguay and Peru), while those from Mexico are negligible.

Introduction

Although there is considerable heterogeneity among countries, the LAC region is one of the least open regions to trade, despite a large presence in global commodity markets. Commodity discoveries, and the prospect of large domestic markets, have attracted considerable FDI and portfolio flows into the region. Among the three sub-regions, South America is most dependent on global commodity markets, while its trade and financial partners are broadly diversified. In contrast, the main economic partner of developing Central and North America, and the Caribbean is the United States. Regional trade and finance flows are limited. However, the three sub regions have forged somewhat closer sub-regional ties, especially in South America.

This box addresses the following questions:

- How open is the LAC region to global and regional trade and financial flows?
- How significant are the potential intra-regional spillovers from the region's two largest economies, Brazil and Mexico?

Brazil and Mexico are the two largest economies in the region. Brazil has slipped into recession due to a combination of global and domestic challenges. While still positive, Mexico's growth has been tepid recently, compared to the pre-crisis and immediate post-crisis years. While the low growth of the region's largest economies may weigh on the outlook of trading partners and financial counterparts elsewhere in the region, limited intra-regional ties reduce the potential drag. Growth slowdowns in Brazil are estimated to have measurable spillovers to South American neighbors (Argentina, Chile, Colombia, Ecuador, Paraguay and Peru), whereas growth decelerations in Mexico have negligible spillovers to other countries in the region.

How open is the LAC region to global and regional trade and financial flows?

Of the six World Bank developing country regions, LAC is the least open to trade, and the region's role in global trade is considerably less than its contribution to global activity (Figure 2.3.1.1). The region is not well integrated into international supply chains, in contrast to East Asia, for example (Estevadeordal 2012; De la Torre, Dider, Ize, Lederman and Schmukler 2015). The region's heavy reliance on primary commodity exports, the associated lack of economic diversification, and the narrow product base are additional contributing factors for being relatively closed. However, the region has absorbed a large share of global FDI, which has been attracted by rapidly growing domestic markets, and by commodity discoveries. Portfolio inflows into LAC have been quite high, but the stock of liabilities relative to GDP has declined (Figure 2.3.1.2). Post-crisis, LAC trade has grown broadly in line with the global economy, while remittance flows have lagged behind those of other developing regions. The anemic recovery and weak labor market in Spain, which hosts about 5 percent of South American migrants, has held back remittance flows to the sub-region (Figure 2.3.1.3). Similarly, in the United States, modest growth in the sectors employing a large share of immigrants (construction and agriculture) and stricter enforcement of immigration laws have discouraged migrant inflows from Central America, constraining remittance flows (Chishti and Hipsman 2015).

The United States and Europe continue to be the most important economic partners for the region, accounting for 40-80 percent of LAC's trade and financial flows (Figure 2.3.1.4). The United States remains the largest importer from the region (exceeding 7 percent of regional GDP in 2011-14). That said, for South and Central America as well as the Caribbean, the share of exports to the United States has steadily declined since 2000, as exports to other major destinations and other LAC economies have gained ground (Cesa-Bianchi et al. 2012).

The LAC region does have a large global presence in commodity markets. On average, primary commodities constitute more than 50 percent of regional goods exports

Note: This box was prepared by Derek H. C. Chen with contributions from Raju Huidrom, Duygu Guven, Jesper Hanson and Mai Anh Bui.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)

and 9 percent of GDP (Figure 2.3.1.5). South America is, by far, the most commodity-intensive sub-region, with commodities making up more than 70 percent of merchandise exports, and nearly 10 percent of GDP. Although developing Central and North America is considerably less commodity dependent than South America, commodities still account for about one quarter of exports, and 7.5 percent of GDP. Reliance on commodity exports tends to be associated with a high correlation between commodity prices and GDP, implying a higher susceptibility to commodity price fluctuations and increased volatility in activity (Camacho and Perez-Quiros 2013).

There are important differences in regional and global integration across the three sub-regions within LAC. Regional economic links are generally modest, and mostly within sub-regions. Examples are trade among Central American countries (excluding Mexico), and trade and remittances within South America (World Bank 2005, ECLAC 2014, Villarreal 2012). Even within regional trade agreements, trade remains modest, partly reflecting low road and rail density (Scholvin and Malamud 2014). Argentina, Bolivia, Paraguay and Uruguay, which are Mercosur members, ship only 20 to 30 percent of their exports to Brazil—compared with 40-60 percent of within-region trade for member countries of the North American Free Trade Agreement (NAFTA) and the European Union (EU) (Chapter 4.1).¹ FDI flows from Brazil and Mexico are largely confined to their respective sub-regions as well (Figure 2.3.1.6).

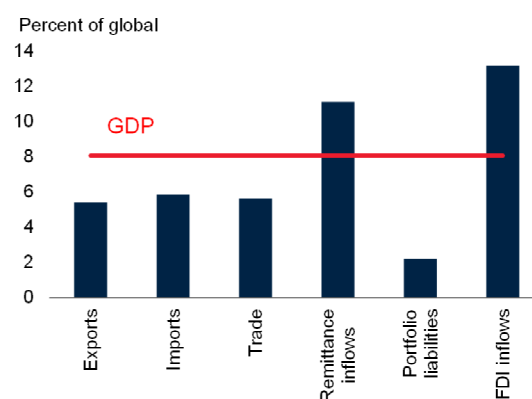
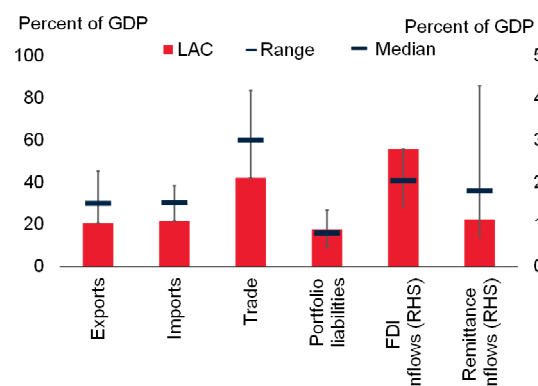
South America's trade links are well-diversified, but its financial flows predominantly originate from Europe, and its remittances inflows originate about equally from the United States and Europe.

Central America's trade, remittances and, to a lesser extent, portfolio flows, rely heavily on the United States. Other financial flows predominantly originate from Europe. With its economic linkages enhanced by NAFTA, around 80 percent of Mexican exports are shipped to the United States. Mexico's trade with Central America is modest (with the exception of Nicaragua, which ships about 20 percent of its exports to Mexico, IMF 2012a).

¹Bolivia is an associate state and in the final stages of the accession to become a full and the sixth member of Mercosur.

FIGURE 2.3.1.1 International linkages: Cross-region comparison

The Latin America and Caribbean (LAC) region is the least open to trade among the six World Bank developing regions. But it absorbs a large share of global FDI. Portfolio inflows are small on a global scale, but the stock of portfolio liabilities relative to GDP is similar to the average for the other developing regions.

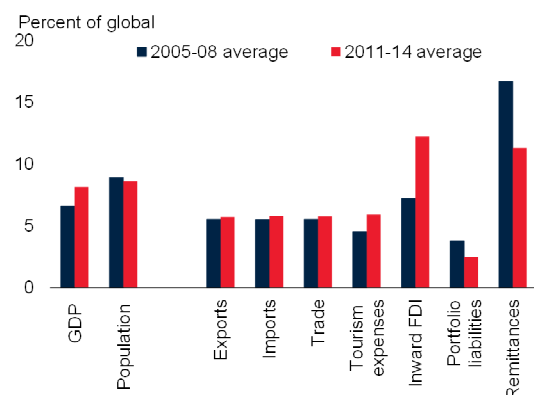
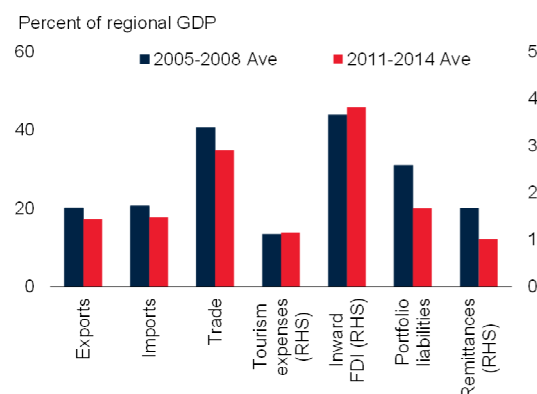
A. LAC share of global activity, trade and finance, 2014**B. LAC trade and finance in regional comparison, 2014**

Sources: IMF October 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.

B. The red bar denotes exports, imports, trade, remittance inflows, portfolio liabilities and FDI inflows in percent of GDP on average across LAC countries. The vertical line denotes the range of averages for all six developing country regions.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)**FIGURE 2.3.1.2 Evolution of openness**

External ties—other than remittances—have grown broadly in line with the global economy. However, they have shrunk relative to regional GDP as a result of rapid growth led by domestic demand that was supported by policy in the wake of the crisis. Slow growth in Europe and a fragile recovery in the United States have set back remittances.

A. LAC's share of global GDP, population, trade and financial flows**B. Trade and financial flows in percent of regional GDP**

Sources: IMF April 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.

Note: Tourist arrivals and tourism expenditures data are average 2011-2013.

The Caribbean is deeply tied to the United States and to Japan, via foreign claims on Caribbean banks. Similar to Central America, sub-regional trade is modest (around 16 percent of total sub-regional total merchandise exports in 2014). This may partly reflect countries having similar economic structures and a prevalence of services trade.

Major trade agreements such as NAFTA and CAFTA-DR deepened ties between LAC and North America (World Bank 2014a). The 1994 NAFTA between Canada, Mexico, and the United States, was aimed at eliminating tariffs and substantially reducing nontariff barriers in a broad range of sectors by 2008. NAFTA has greatly boosted trade and FDI flows, and at the same time increased business cycle co-movement among the three North American economies (Lederman, Maloney and Servén, 2005). For example, NAFTA is estimated to have increased Mexican exports to the United States by 5-8 percent per year. Other estimates attribute to NAFTA as much as half of the post-1993 increase in exports from Mexico to the United States.²

The Dominican Republic-Central America FTA (CAFTA-DR) is a free trade agreement between the United States and Central American economies (Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, the Dominican Republic), which came partially into effect in 2005 and fully in 2009. Total goods trade between the U.S. and the six CAFTA-DR partners increased from \$35 billion in 2005 to \$60 billion in 2013 (USTR 2015). The trade and growth benefits of the agreements would be considerably enhanced by domestic reforms and infrastructure investment (Lopez and Shankar 2011).

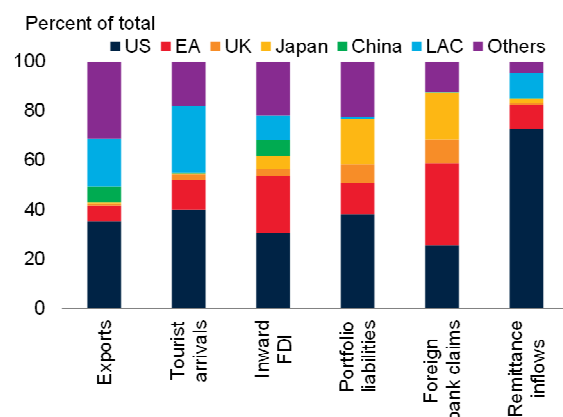
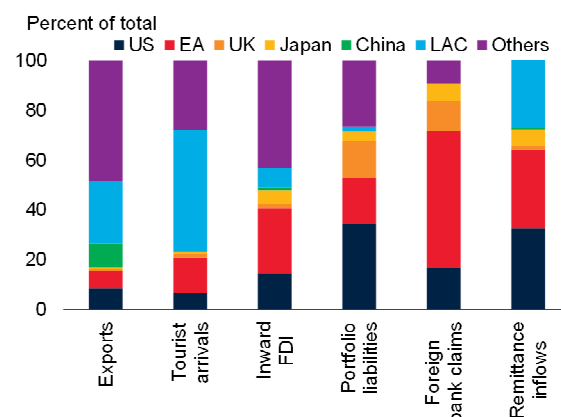
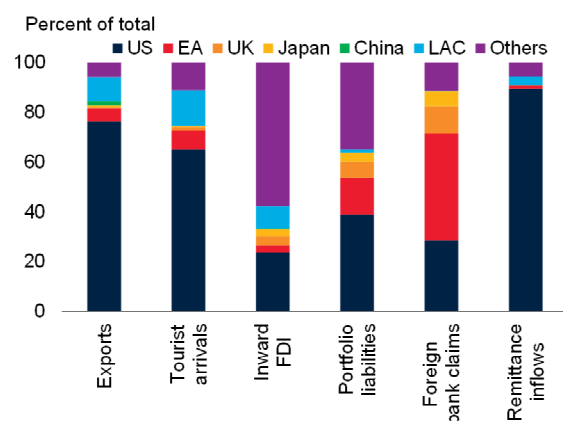
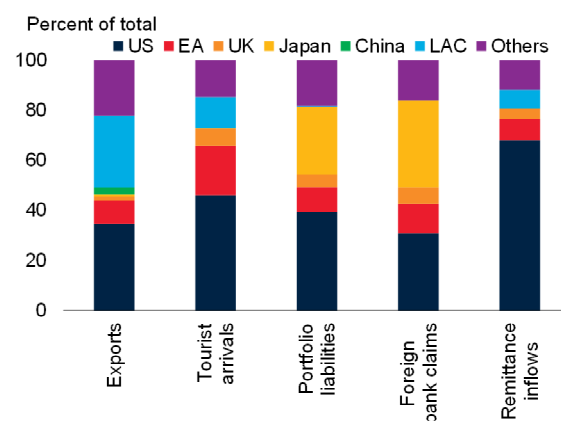
Regional integration has been promoted through various regional agreements within the sub-regions (Figure 2.3.1.4):

- The Mercosur (Common Market of the South) customs union came into force in 1991, and comprises five member countries—Argentina, Brazil, Paraguay, Uruguay, and the República Bolivariana de Venezuela—and Bolivia, which is in the final stages of the accession to become the sixth member. While

²See Romalis (2007); CBO (2003); Easterly, Fiess and Lederman (2003); Cuevas, Messmacher, and Werner (2002); Torres and Vela (2003); Kose, Meredith, and Towe (2005). Lederman, Maloney, and Servén (2005) estimate that Mexico's exports would have been 50 percent lower and its FDI 40 percent less without NAFTA and the agreement may have lifted GDP per capita by some 4 percent during 1994-2002.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)**FIGURE 2.3.1.3 Sources of trade and financial flows**

LAC has a diversified set of export markets. Remittances are predominantly from the United States, and financial inflows are mostly from Europe. However, there are considerable differences between sub-regions. Central America, Mexico and the Caribbean are most closely tied to the United States. South America is most closely tied to Europe and other countries within the region.

A. Latin America and the Caribbean**B. South America****C. Central America and Mexico****D. Caribbean**

Sources: IMF April 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators, UNWTO, Bank for International Settlements.

Note: Exports and remittance inflows are average 2011-14. Portfolio liabilities and tourist arrivals are average 2011-13. FDI inflows are average 2010-12. Foreign banking claims are for 2014.

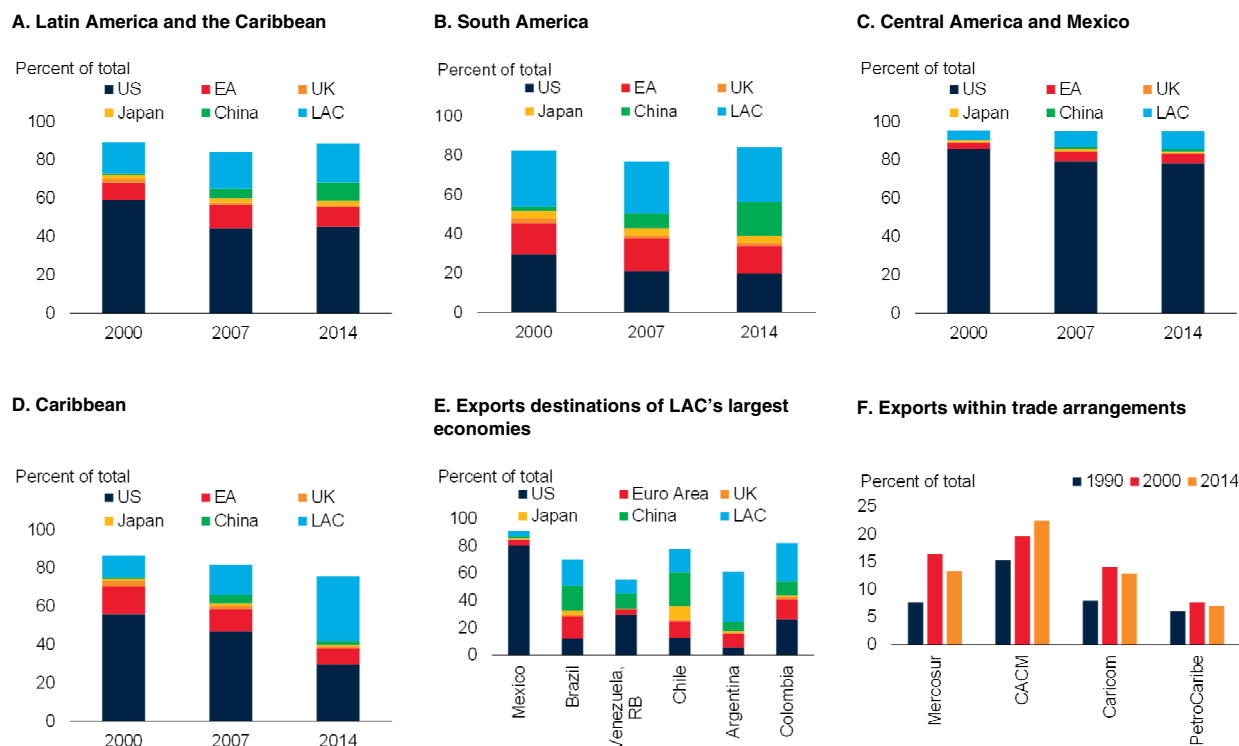
there has been some controversy about the net impact of Mercosur, the share of exports to other members has increased from 7.6 percent in 1990 to 13.3 percent in 2014 (Connolly and Gunther 1999).

- CACM (Central American Common Market) is an association of five Central American nations

(Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica) that was formed in 1960 to facilitate regional economic development through free trade and economic integration. Exports among members have steadily increased from about 15 percent in 1990 to around 22 percent of total exports in 2014. Since its inception, CACM is estimated to have tripled

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)**FIGURE 2.3.1.4 LAC exports**

LAC exports to the United States have grown less rapidly than those to China (especially for South America) and to other LAC countries (especially in the Caribbean).



Source: IMF Direction of Trade Statistics.

E. Data is for 2014.

F. Mercosur members: Argentina, Brazil, Paraguay, Uruguay, and República Bolivariana de Venezuela (established 1991). CACM members: Guatemala, Honduras, El Salvador, Nicaragua, Costa Rica (established 1960). Caricom members: Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago (established in 1973). PetroCaribe members: Antigua and Barbuda, the Bahamas, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Saint Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and República Bolivariana de Venezuela (established in 2005). Chart shows República Bolivariana de Venezuelan exports to PetroCaribe members as a share of total exports.

member country exports compared to a baseline without such an agreement (Baier and Bergstrand 2009).

- Caricom (The Caribbean Community) is a common market established in 1973. Members consist of Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, Suriname, Trinidad and Tobago. Empirical estimates have found that the agreement has had a modest impact on trade among members

(Moreira and Mendoza 2007). Within-agreement exports constituted 13 percent of total exports in 2014.

- PetroCaribe is an energy initiative launched in 2005 to supply Venezuelan crude oil to countries in the Caribbean region on discounted terms. Current members of PetroCaribe include Antigua and Barbuda, the Bahamas, Belize, Cuba, Dominica, Dominican Republic, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Saint Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines,

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)

Suriname, and República Bolivariana de Venezuela.³

The share of Venezuelan exports to PetroCaribe members has remained broadly unchanged since the inception of the initiative.

How large are the potential regional spillovers from Brazil and Mexico?

Brazil and Mexico are the largest economies in LAC. Together, these two countries account for 60 percent of regional GDP and trade, 50 percent of population, 75 percent of portfolio and 50 percent of FDI flows and 30–40 percent of tourism expenditures and remittance flows (Figure 2.3.1.7).

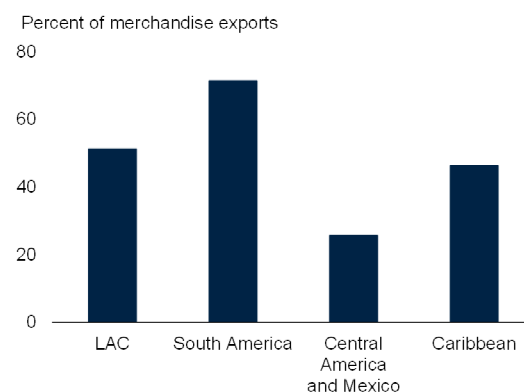
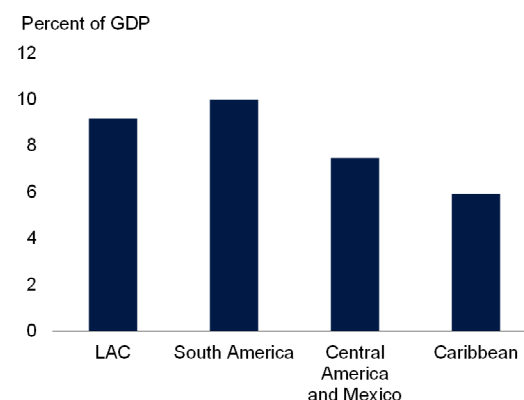
Business cycle co-movements can be indicative of intraregional spillovers. Correlations of quarterly growth suggest that business cycles of a number of LAC economies are positively correlated with those of Brazil and Mexico (Figure 2.3.1.8). South American economies tend to exhibit higher business cycle correlations with Brazil, and Central American economies have higher business cycle correlations with Mexico. These correlations appear to be driven mainly by relative trade shares, but they could also be indicative of economies responding together to a common external shock.

To examine the magnitude of spillovers from Brazil and Mexico to their Latin American neighbors, while accounting for common external factors, a series of country-specific Bayesian structural vector autoregressions (VARs) models are estimated. The VARs include G-7 growth, EMBI as a proxy for external financing conditions, growth in China (a major non-G7 trading partner for the region), growth in Brazil and Mexico as source countries of shocks, trade-weighted commodity prices, growth in each spillover destination country, and real effective exchange rates (see Annex 3.2 for details). The analysis includes 13 spillover destination countries in

³Under the PetroCaribe program, the member countries that purchase oil from República Bolivariana de Venezuela pay for a certain percentage of the oil (depending on world oil prices) within 90 days, and the remainder is paid over a period of 25 years with an interest rate of one percent annually. Part of the cost may be offset by the provision of goods or services. Recently, to secure external funds, the government of República Bolivariana de Venezuela has renegotiated repayment, at deep discounts, of commercial credits to the Dominican Republic, Jamaica and Uruguay.

FIGURE 2.3.1.5 LAC commodity exports

The LAC region's exports are heavily concentrated in primary commodities.

A. Primary commodity exports**B. Primary commodity exports**

Source: UN Comtrade Database 2015.
A. and B. GDP-weighted averages for 2013–14.

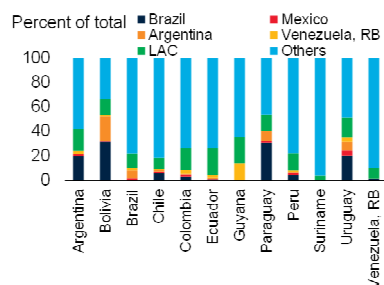
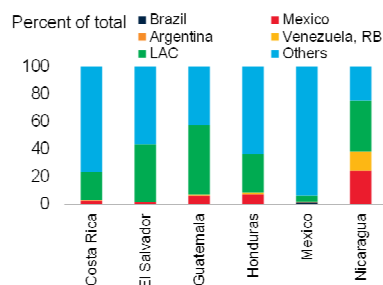
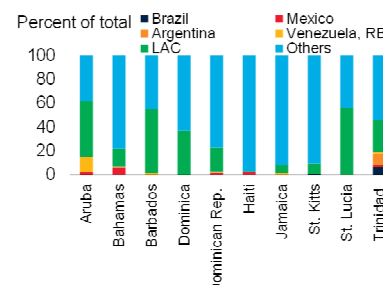
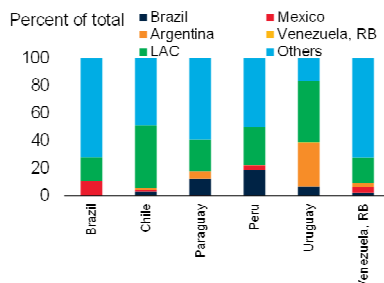
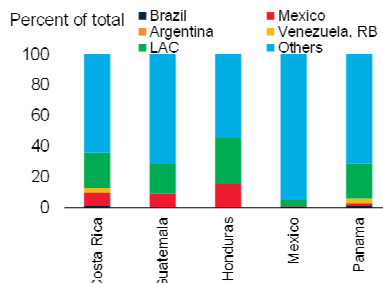
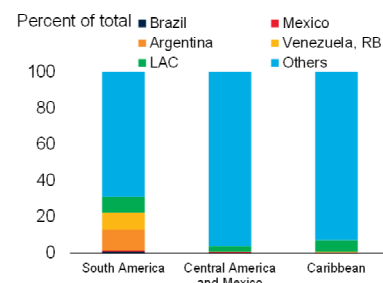
LAC.⁴ The data coverage is for 1998 Q1 – 2015 Q2, except for Colombia and Honduras where the data runs from 2000 Q2 – 2015 Q2, and Jamaica, where it 2002 Q2 – 2015 Q2. A dummy variable is included for the global financial crisis.

The results suggest that spillovers from Brazil to neighboring countries are moderate, while those from Mexico are negligible.

⁴Southern Cone countries include Argentina, Chile, Paraguay and Uruguay. Andean Community countries include Bolivia, Colombia, Ecuador and Peru. Central America and Caribbean economies include Belize, Guatemala, El Salvador, Honduras and Jamaica.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)**FIGURE 2.3.1.6 Within-region trade and FDI**

Brazil accounts for a significant share of trade and FDI to other South American countries, while Mexico only has significant FDI links. Remittances come predominantly from outside the region.

A. South America: Export destinations**B. Central America and Mexico: Export destinations****C. Caribbean: Export destinations****D. South America: FDI inflows****E. Central America and Mexico: FDI inflows****F. Remittances inflows**

Source: IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Bilateral Remittance Matrix 2014.

Notes: A-C. Data for 2014.

D-E. Data for average of 2010-12.

F. Data is for 2014.

- *Spillovers from Brazil.* In the estimation results, growth declines in Brazil tend to have measurable or statistically significant spillovers to its South American neighbors. A one percentage point decline in Brazil's growth tends to reduce growth in Argentina, after 2 years, by 0.7 percentage point, in Paraguay by 0.6 percentage point, in Ecuador and Peru by 0.3 percentage point, and in Chile and Colombia by 0.2 percentage point (Figure 2.3.1.9).^{5,6}
- *Spillovers from Mexico.* In contrast, spillovers from Mexico to Central America are negligible or not statistically significant (Figure 2.3.8). This result is in line with findings in other studies (Adler and Sosa 2014; Kose, Rebucci and Schipke 2005; Swiston 2010).

While there are measurable regional spillovers, particularly in South America, they are modest compared to those from the region's main external trade and financial partners. Over the two years following the growth decline, a one percentage point decrease in G7 growth lowers

⁵Brazil is Argentina's largest trading partner. In some sectors, such as automobiles, Brazil accounts for about 80 percent total exports. Spillovers from Brazil to Argentina play a big role in these sectors, and contracting economic activity in Brazil has adversely affected the auto industry in Argentina, spurring waves of production stoppages in major auto plants in 2015.

⁶The estimates from Adler and Sosa (2014) differ somewhat, partly because their sample time period includes the Tequila crisis of 1994.

Their results show that spillovers from Brazil are significant for Argentina, Bolivia, Paraguay, Peru, Uruguay, and the República Bolivariana de Venezuela, but less so for Ecuador.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)

growth by more than 1 percentage point in Brazil, Chile, Mexico, Honduras and Ecuador. This is broadly in line with Österholm and Zettelmeyer (2008) who find a roughly one-for-one response to a change in growth in the United States. Similarly, Izquierdo, Romero, and Talvi (2008) also find a pass through of 0.6 percentage point to LAC GDP growth in response in 1 percentage point increase in G7 industrial production.

As a result of deep trade and financial links, spillovers from the United States to the region are particularly strong. Peaks and troughs of industrial production in some of the largest LAC countries—especially Mexico—tend to coincide with those in the United States (Cuevas, Messmacher and Werner 2003; Mejía-Reyes 2004). U.S. growth and U.S. industrial production are significantly correlated with growth in Mexico and Central America (IMF 2007; Fiess 2007; Roache 2008).

In addition, these estimates also show sizable linkages with China. A one percentage point growth deceleration in China reduces growth in Argentina by about 1.9 percentage points, in Brazil, Peru, Paraguay and Uruguay by 0.5 percentage point, and in Ecuador, Chile, Bolivia, Honduras, Guatemala, Colombia, El Salvador, and Mexico by 0.2 percentage point.⁷ While larger than the estimated regional spillovers from Brazil and Mexico, the estimated spillovers from G7 economies to the LAC region are smallest among six World Bank regions of developing economies (see Box 3.4 and Figure 3.4.3), largely because the LAC region is more closed to the global economy than other regions. Overall, these findings are broadly in agreement with Boschi and Girardi (2011) and Caporale and Girardi (2012), who find that global factors are somewhat more important sources of output growth variability in LAC than regional factors.⁸

Conclusion

Despite a number of regional agreements, regional trade remains limited, partly reflecting the lack of an extensive

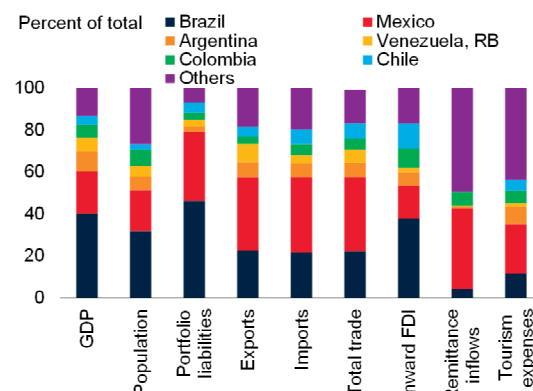
⁷Similar findings were reported in World Bank (2015n) and Cesa-Bianchi et al. (2012).

⁸A number of previous authors who have found that country-specific factors explain the majority of cyclical variation and output variability in LAC growth (Kose, Otrok and Whiteman 2003; IMF 2007; Loayza, Lopez and Ubide 2001; Boschi and Girardi 2011). On the other hand, other studies have also documented that external factors nevertheless do account for a significant share of growth variance of LAC economies (Izquierdo, Romero and Talvi 2008; Österholm and Zettelmeyer 2008; Aiolfi, Catão and Timmermann 2011).

FIGURE 2.3.1.7 The role of the largest economies in LAC

Brazil and Mexico are, by far, the largest economies in the region. In 2011-2014, these two countries accounted for 60 percent of regional GDP and trade, 50 percent of its population, 75 percent of portfolio and 50 percent of FDI flows, and 30-40 of tourism expenditures and remittance flows.

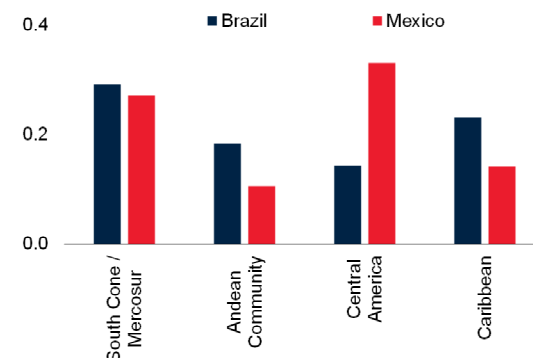
A. Share of regional total, 2011-14.



Source: IMF April 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.
Note: GDP, Exports, FDI inflows and Remittance inflows are average for 2011-14. Portfolio liabilities are average 2011-13.

FIGURE 2.3.1.8 Correlations with Brazil and Mexico

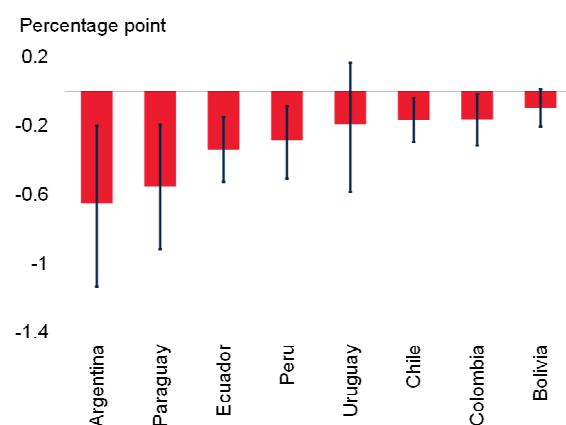
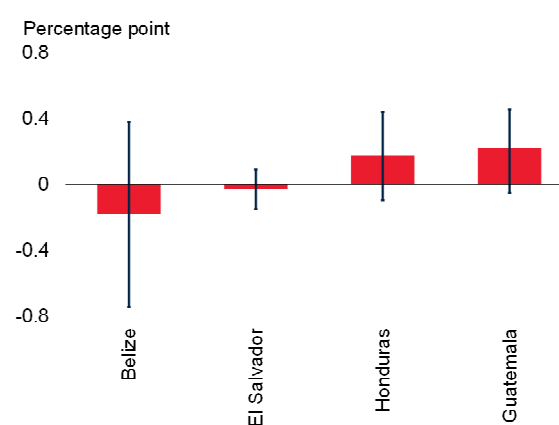
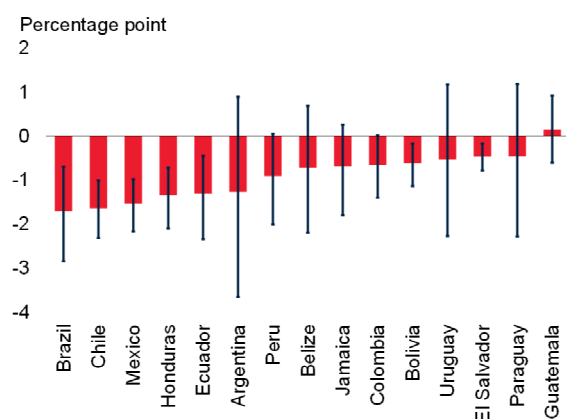
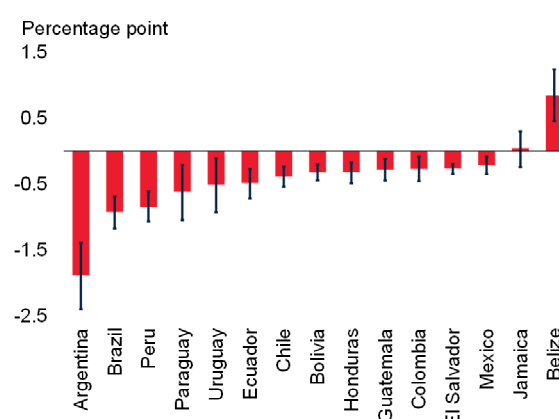
Business cycles of a number of LAC economies are positively correlated with cycles in Brazil and Mexico. Correlations tend to be larger for countries in close proximity.



Source: Haver Analytics and World Bank staff estimates.
Note: Cross-country average of contemporaneous correlations in each country's quarterly growth with that of Brazil or Mexico.

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)**FIGURE 2.3.1.9 Spillovers from Brazil, Mexico, G7 and China**

Growth shocks in Brazil have measurable spillovers to its South American neighbors - Argentina, Chile, Colombia, Ecuador, Paraguay and Peru. Estimated spillovers from growth shocks in Mexico are not statistically significant. Within-region spillovers are considerably smaller than spillovers from growth shocks in G7 countries or China.

A. Impact on growth of a 1 percentage point decline in Brazil's growth**B. Impact on growth of a 1 percentage point decline in Mexico's growth****C. Impact on growth of a 1 percentage point decline in G7 growth****D. Impact on growth of a 1 percentage point decline in China's growth**

Source: World Bank staff estimates.

Note: Spillover estimates derived from impulse responses after two years from a Bayesian structural vector autoregression estimated using quarterly seasonally adjusted GDP data. The maximum data coverage is 1998Q1-2015Q2; while coverage for some countries is shorter (from 2000Q2 for Colombia and Honduras and from 2002Q2 for Jamaica). The model is estimated for each spillover destination country and the variables include, in this Cholesky ordering: G-7 growth, EMBI, China growth, Brazil and Mexico growth, the country's trade-weighted commodity price growth, the country's real GDP growth, and the country's real effective exchange rate appreciation. Quarterly GDP data was downloaded from Haver Analytics on November 18, 2015. Bars represent medians, and error bars 33-66 percent confidence bands.

international value chain network and heavy reliance on commodity exports to external markets. The lack of economic diversification and narrow product base could be another contributing factor to the generally closed

nature of the region (IMF 2015h). Poor quality of regional transport networks and associated infrastructure further hinder within-region trade (World Bank 2012a; Figure 2.3.1.10). Intraregional trade linkages and FDI

BOX 2.3.1 Regional integration and spillovers: Latin America and the Caribbean (continued)

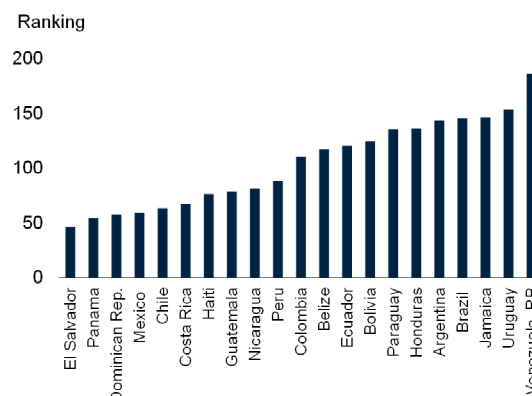
flows within Latin America are largely confined within sub-regions (De la Torre, Lederman and Pienknagura 2015). These linkages are stronger in South America than in Central America.

Reflecting these modest within-region ties, spillovers from growth decelerations in Brazil to some of its South American neighbors are estimated to be modest, while spillovers from Mexico are negligible. Spillovers from the region's main trading partners, however, tend to be considerably larger than within-region spillovers, albeit less than in other emerging and developing country regions.

Regional trade could strengthen in the medium term. With commodity prices expected to stabilize around current low levels, export baskets could shift towards a more diversified export product mix among regional commodity exporters, facilitating regional trade. Moreover, the sharp depreciations of regional currencies against the U.S. dollar may favor imports from intra-regional partners at the expense of those from the United States.

FIGURE 2.3.1.10 Ease of trading across borders

LAC economies are ranked low in terms of ease of trading across borders.

A. Rankings in Ease of Trading Across Borders, 2015

Source: World Bank 2015f.

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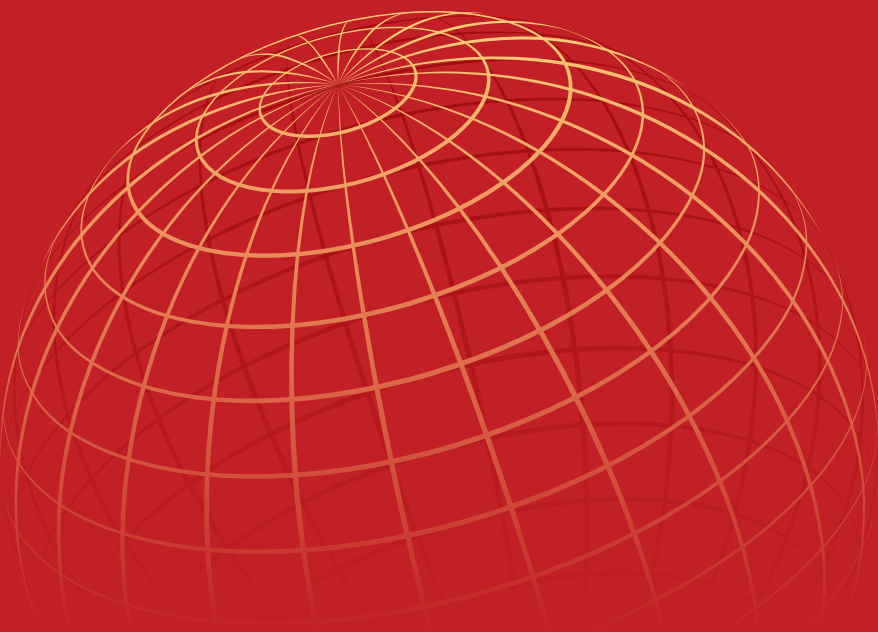
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REGIONAL INTEGRATION AND SPILLOVERS

Middle East and North Africa

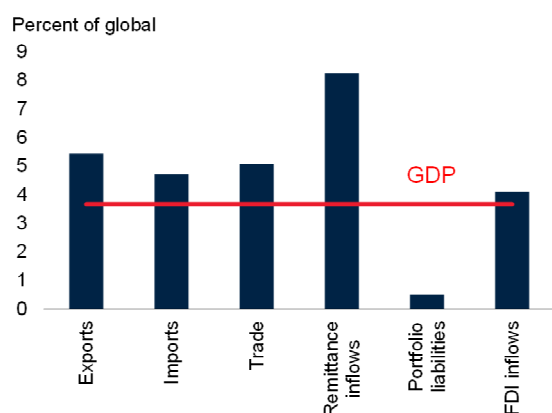
BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa

Most of the external trade and financial ties of countries in the Middle East and North Africa (MENA) region are with countries outside the region. Trade and financial flows between MENA countries are modest. As a result, within-region growth spillovers even from the largest developing countries in the region—the Arab Republic of Egypt—are small. Spillovers from a large neighboring developing economy—Turkey—are also limited. In contrast, spillovers from G7 countries and GCC countries are considerably larger.

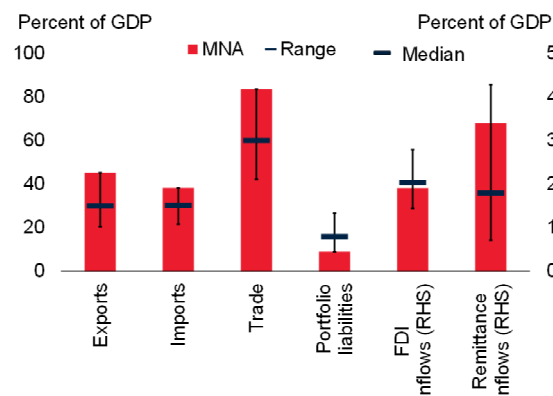
FIGURE 2.4.1.1 Cross-region comparison

The MENA region is one of the most open regions to global trade and remittances but receives limited financial flows by comparison with other developing regions.

A. MENA: Share of global activity, trade and finance, 2014



B. MENA: Trade and finance in regional comparison, 2014



Sources: IMF October 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.

B. The red bar denotes exports, imports, trade, remittance inflows, portfolio liabilities and FDI inflows in percent of GDP on average across MENA countries. The vertical line denotes the range of averages for all six developing country regions.

Introduction

The MENA region is highly open to trade and remittance flows (Figure 2.4.1.1).¹ Trade accounts for more than 60 percent of GDP for both oil exporters and oil importers in the region. There has, however, been a decline in economic integration with the rest of the world since the global financial crisis. Trade as a percentage of GDP has declined (Figure 2.4.1.2). Political uncertainty and falling commodity prices have contributed to a sharp fall in foreign direct investment (FDI) inflows to below 2 percent of GDP, about 1 percentage point below the average for other regions and considerably below the high FDI inflows pre-crisis. Remittance receipts in oil-importing countries have recovered only modestly after dropping significantly during the crisis.

With anemic growth in advanced economies, the pattern of MENA's trade and remittances links has shifted. Trade with other emerging markets, especially the BRICS (Brazil, Russia, India, China, and South Africa), has increased threefold compared to 2000 (Figure 2.4.1.3). Within-region trade and remittance flows have increased, but remain low. In addition to direct economic ties, confidence shocks, related to the recent conflicts and security issues in the region may also affect the economies of neighboring countries and are of increasing concern to policymakers.

This box addresses the following two questions:

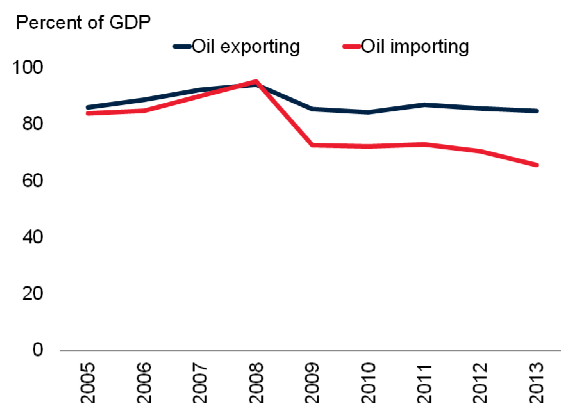
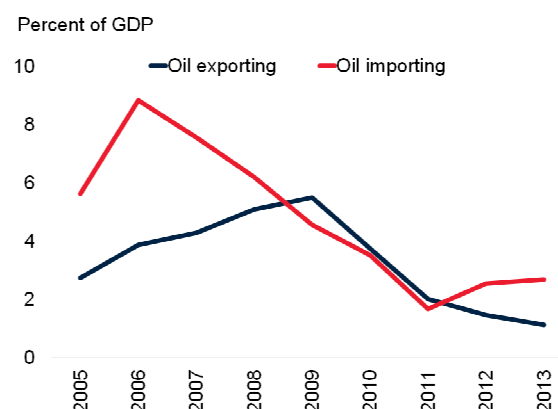
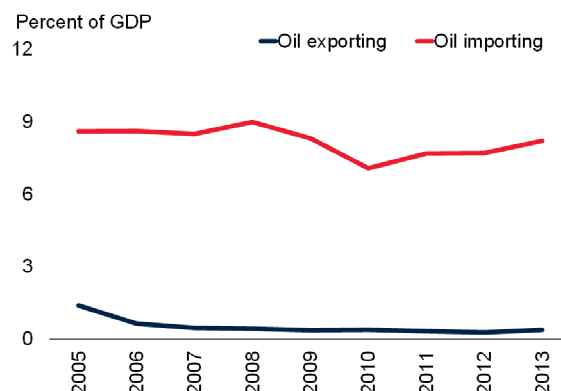
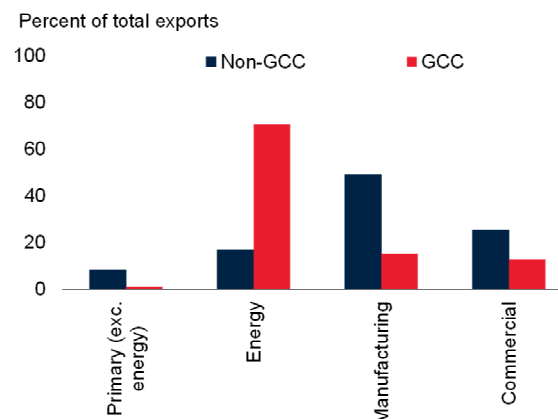
- How open is the MENA region to global and regional trade and financial flows?
- How large are the potential intra-regional spillovers from one of the region's largest developing countries,

Note: This box was prepared by Ergys Islamaj and Jesper Hanson.

¹Unless otherwise specified, the MENA region is defined to include oil-exporting countries (Algeria, Bahrain, the Islamic Republic of Iran, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates and the Republic of Yemen) and oil-importing countries (Djibouti, Egypt, Israel, Jordan, Lebanon, Morocco, Tunisia and West Bank and Gaza). GCC stands for Gulf Cooperation Council countries. For the purposes of this box, Israel is also included as a recipient country of shocks (although it is not part of the World Bank's definition of the geographic region) since it has substantial trade ties to some other countries in the region.

BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa (continued)**FIGURE 2.4.1.2 Trade, FDI, and remittances**

The MENA region is highly open to trade and remittances despite a decrease since 2008. FDI inflows have fallen steeply in both oil exporters and importers, partly as a result of political uncertainty and falling commodity prices.

A. Trade**B. Foreign direct investment****C. Remittances****D. Exports of GCC and non-GCC MENA countries, 2011**

Sources: World Bank World Development Indicators; IMF Balance of Payments Statistics; World Bank Export Value Added Database.

Notes: A., B. and C. Trade is defined as the sum of exports and imports. Oil-exporting countries include Algeria, Bahrain, Iraq, Islamic Republic of Iran, Kuwait, Libya, Oman, Qatar, Saudi Arabia, United Arab Emirates and Yemen. Oil-importing countries include Djibouti, Egypt, Jordan, Lebanon, Morocco, Tunisia and West Bank and Gaza. Data unavailable for Islamic Republic of Iran, Iraq, Libya, Qatar, and the United Arab Emirates. Lines show sums of all countries in each sample.

D. GCC countries include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates; non-GCC countries include Algeria, Djibouti, Egypt, Islamic Republic of Iran, Iraq, Jordan, Lebanon, Libya, Morocco, Tunisia, West Bank and Gaza, the Republic of Yemen. Data is unavailable for Algeria, Djibouti, Iraq, Jordan, Lebanon, Libya West Bank and Gaza, Yemen. Bars show unweighted averages.

Egypt, and from one of its largest neighboring developing countries, Turkey?

The empirical results suggest that the region is predominantly vulnerable to growth shocks originating from outside the region. Growth shocks from developing countries inside the region have negligible spillovers on other MENA countries. Potential spillovers from Gulf Cooperation Council (GCC) countries could be significantly larger, although data limitations prevent a

formal estimation. Other types of shocks—for example, of a political, security or financial nature—may also generate important spillovers that are not captured in the econometric analysis.

How open is the MENA region to global and regional trade and financial flows?

Trade and financial ties with countries outside the region far outweigh those within the region (Figure 2.4.1.3). On

BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa (continued)

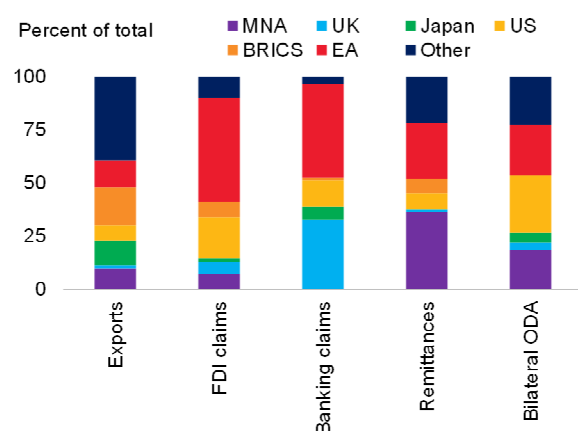
average across the MENA region during 2011-14, the United States, the Euro Area, and Japan combined accounted for 31 percent of exports, 69 percent of inward FDI, and 62 percent of banking claims on countries in the

MENA region. This average masks considerable cross-country heterogeneity, however. For many MENA countries, the Euro Area and the United States together account for more than 50 percent of export revenues and

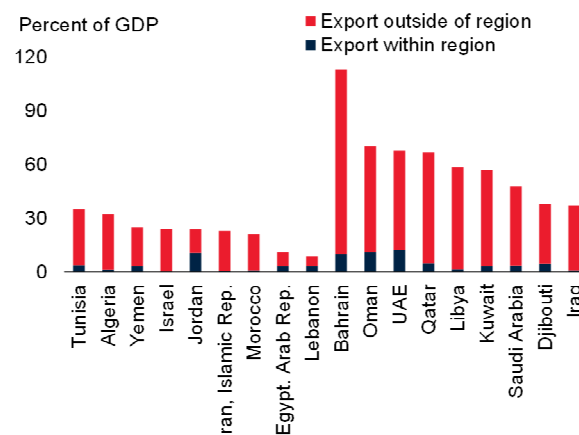
FIGURE 2.4.1.3 Openness inside and outside the region

The main economic partners of MENA countries are outside the region, although within-region remittance and official development assistance flows are important. Since 2000, ties with the United States and the Euro Area have weakened while those within the region and the BRICS countries have strengthened.

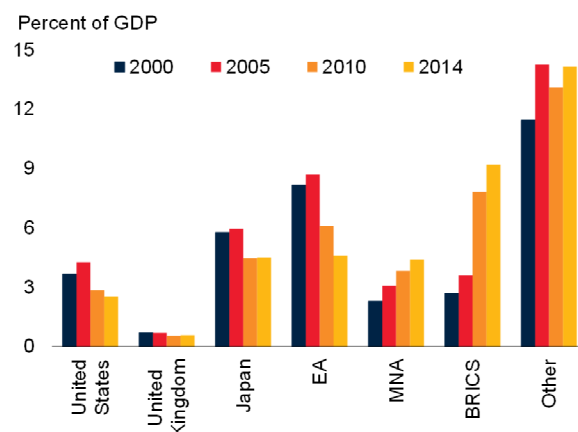
A. Trade, investment, remittances, and official development assistance in MNA region, average 2011-14



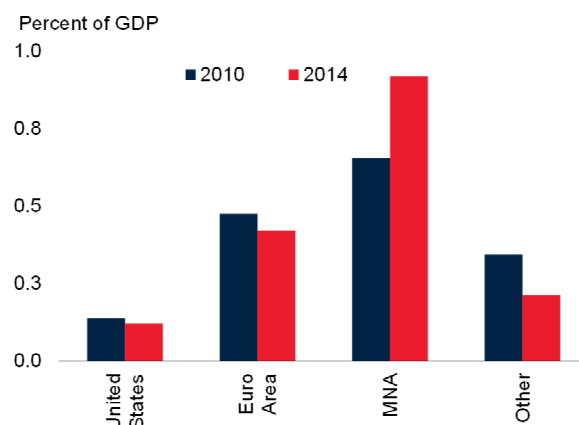
B. Trade within and outside the region, average 2011-14



C. Evolution of trade within and outside the region



D. Remittance Inflows



Source: IMF Direction of Trade Statistics (DOTS); IMF Coordinated Direct Investment Survey (CDIS); Bank for International Settlement (BIS) Consolidated Banking Statistics; World Bank Remittances and Migration database and WB country economists' estimates; OECD.

Notes: BRICS = Brazil, Russia, India, China, and South Africa; EA = Euro Area. Also see abbreviations above.

A. ODA = Official Development Assistance. Latest available data: 2014 for trade, remittances, BIS-reporting banks' consolidated foreign claims; 2013 for foreign direct investment and official development assistance. FDI claims from CDIS not available for China, and replaced with BBVA data. Data provided for Algeria, Bahrain, Djibouti, Egypt, Iraq, Islamic Republic of Iran, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Tunisia, United Arab Emirates, West Bank and Gaza, and the Republic of Yemen. Within-region FDI reported only for Kuwait. Within-region ODA includes Kuwait, Saudi Arabia and the United Arab Emirates.

B. Includes Algeria, Bahrain, the Arab republic of Egypt, the Islamic Republic of Iran, Jordan, Kuwait, Morocco, Oman, Qatar, Tunisia, Lebanon, Saudi Arabia, the United Arab Emirates, and Yemen.

BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa (continued)

FDI inflows. The openness of the region to global trade and finance is reflected in spillovers of global shocks to financial market activity. For example, equity returns in the MENA region move strongly with U.S. and European equity markets (Khalifa, Hammoudeh and Otranto 2013; Balli et al. 2015).²

Within-region remittance and official development assistance (ODA) flows remain significant and potentially constitute important channels for within-region spillovers. In contrast, within-region trade and financial links are modest by comparison with other regions. Given the proximity to the EU, one of the world's largest trading blocs, MENA countries trade predominantly with countries outside the region. Nevertheless, since they continue to face trade barriers in the EU, MENA countries trade more with each other than would be expected based on the size of their economies and transport cost (Freund and Jaud 2015). Limited within-region trade links also partly reflect close similarities in the export base of many energy-exporting countries in the MENA region.

Bilateral trade and official assistance flows from GCC to some oil importing countries have grown, but remain modest on average, with considerable heterogeneity. Since 2000, trade within the region has doubled, to an average of 4 percent of GDP. Remittances from GCC to other MENA countries have risen by one third, to 0.9 percent of GDP. Official development assistance from GCC countries to Egypt, Jordan and the Republic of Yemen increased from near-zero in 2000 to 2.7, 1.7, and 0.6 percent, respectively, of recipient government revenues during the 2011-2013 period. Since the Dubai World debt restructuring and the Arab Spring uprisings, comovement of GDP among MENA countries has increased somewhat (IMF 2013).

Two channels are particularly likely to generate within-region spillovers:

- *Remittances.* Remittance inflows ranged from 5 percent of GDP in Tunisia to close to 11 percent of GDP in Jordan during 2011-2014. More than three-fifths of these remittances were from GCC countries. While large remittances increase the risk of transmission of

negative shocks in GCC source countries to other countries in the region (IMF 2014d), remittances also help smooth consumption against unexpected variations in output in recipient countries (Balli, Basher and Louis 2013; World Bank 2015q; Abdih et al. 2012; IMF 2014d).

- *Official development assistance.* ODA from GCC to other oil-importing MENA countries was scaled up during the financial crisis of 2008 and the Arab Spring. It has remained high since then. GCC countries have provided or pledged loans and grants to Egypt, Jordan, Morocco, Tunisia and Yemen to finance infrastructure investment, balance of payments deficits, and commodity imports (Rouis 2013). ODA from Kuwait, Saudi Arabia and UAE represents more than 18 percent of total aid to the region, ranging from 4 percent of total ODA for Morocco to 72 percent of total ODA for Egypt. Historically, GCC aid to other MENA countries has varied with oil revenues (Talani 2014, Rouis et. al. 2010). The revenue losses associated with falling oil prices in GCC countries may make GCC assistance to the region less forthcoming.

Disruptions in trade and finance and displacements of large parts of the population during conflicts in parts of the region can also generate significant spillover effects to neighboring countries. These could be both positive and negative. Disruption of trade routes and trade disintegration lowers potential output. Migrants can occupy jobs previously held by low-skilled workers in the host country (Del Caprio and Wagner 2015). However, the domestic demand generated by large numbers of migrants or government expenditures related to migrants could stimulate activity. The net effect has been estimated to be positive for Lebanon—reflecting the large share of the migrant population—but negative or mixed for Turkey, Egypt and Jordan (Ianchovichina and Ivanic 2014, Cali et al. 2015, Del Caprio and Wagner 2015).

How large are the potential intra-regional spillovers from one of the region's largest economies, Egypt, and from one of its largest neighboring countries, Turkey?

Several countries in the MENA region have stronger ties with other MENA economies than others: the GCC countries and Egypt. Trade links are similarly sizeable with Turkey, one of the largest economies neighboring the MENA region.

²Khalifa et al. (2013) finds significant spillovers from U.S. equity markets to Saudi Arabia and UAE equity indices, while Balli et al. (2015) document spillovers from U.S. equity markets to all GCC countries and from European equity markets to Qatar and Oman.

BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa (continued)

- GCC countries account for more than half of remittance inflows to Jordan and Egypt (50 and 60 respectively).
- Egypt and Turkey are sizeable export markets for Jordan, Lebanon, Morocco and Tunisia.
- Turkey remains an important trading partner for Egypt and the Islamic Republic of Iran. Anecdotal and survey data suggest sizeable informal trade between the Islamic Republic of Iran and other countries in the region.

A sufficiently long time series of quarterly data is available to estimate growth spillovers only from Egypt and Turkey to several non-GCC economies in the MENA region. A Bayesian structural vector autoregression (VAR) model is estimated, using data for 1998Q1-2015Q2. The variables are: G7 average growth; JPMorgan's Emerging Market Bond Index; growth in the shock source countries (Egypt and Turkey); trade-weighted commodity prices; and growth and real effective exchange rates of the countries subject to the external shock. Figure 2.4.1.4 shows the cumulative response after four quarters of recipient-country growth to a 1 percentage point decline in growth in Egypt or Turkey.³

Growth spillovers from Egypt and Turkey appear to be modest, and, in most cases, not statistically different from zero, reflecting limited within-region ties.⁴ A 1 percentage point drop in Turkey's growth is associated with small or statistically insignificant growth effects across the region.⁵ A 1 percentage point decline in growth in Egypt is associated with a 0.16 percentage point decline in growth in Jordan and a 0.15 percentage point decrease in growth

in Tunisia by the end of the first year. A decline in growth in Egypt does not appear to have significant effects elsewhere. The correlation between shocks to Egypt's growth and growth in Jordan and Tunisia reflect trade and remittances ties between these countries, as well as proximity in the case of Tunisia. In a similar regression using Islamic Republic of Iran as source country of the shock, estimates suggest a negligible effect of a slowdown on Israel, Jordan, Morocco and Tunisia.⁶

Growth spillovers from outside the region are larger in magnitude than those within the region, but mostly insignificant, with the exception of Morocco. A 1 percentage point decline in G7 growth is associated with an average 1 percentage point decline in growth in countries in the MENA region.⁷

These results are broadly comparable to the few available studies by other authors. Using a global VAR, Cashin, Mohaddess and Raissi (2012) show that growth shocks from Europe and the United States have a modest, but negative effect on the output growth of countries like Egypt, Jordan, Morocco and Tunisia.⁸ Behar and Espinosa-Bowen (2014) suggest that non-oil trade in MENA countries would decline considerably following shocks to growth in Europe and the global economy.

Conclusion

The MENA region is highly open, but with fewer within-region ties than other regions. As a result, spillovers from the larger developing countries in the region and from neighboring Turkey are modest.

Although not estimated explicitly for lack of comparable data, spillovers from GCC countries to the rest of MENA region are likely to be significantly larger than spillovers from Egypt and Turkey, given large remittance and ODA flows from GCC to non-GCC countries in the region

³Quarterly GDP data are available from IMF's International Financial Statistics, Haver and Bloomberg for 1998Q1-2014Q4. Countries for which there were considerable differences amongst the three sources were dropped. The resulting unbalanced panel included Egypt, Islamic Republic of Iran, Jordan, Morocco and Tunisia. For Lebanon, quarterly energy production data was used as a proxy for output. For Egypt, the data starts in 2002Q2 and for Tunisia in 2000Q2.

⁴The results in Figure 2.4.4 include four lags. They are robust to alternative specifications: different Cholesky ordering, Bayesian priors, decay in the lag structure, correlation across variable lags, and number of lags.

⁵Shocks in Turkey seem to be inversely correlated with growth in Tunisia. This may reflect competition in key export sectors, especially tourism: when tourist arrivals to Tunisia declined during 2005-13, those to Turkey increased as tourists shifted their destinations during bouts of political uncertainty. Tourism has been a significant channel for the transmission of spillovers in Mediterranean countries (Canova and Dallari 2013). As expected, the estimated spillovers are smaller if the period after the Arab Spring (starting 2010Q4) is excluded.

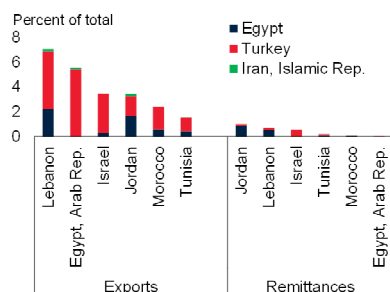
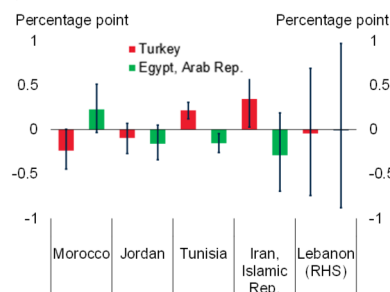
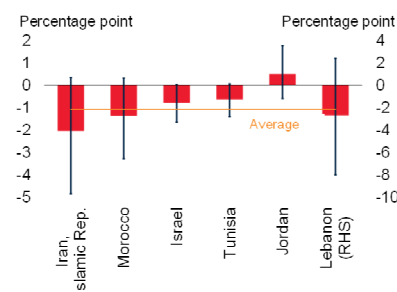
⁶The response of the non-GCC MENA countries' average growth rate to a one percentage point decline in Turkey and Egypt is also near-zero. Because of the higher volatility of industrial production (IP), measured spillovers from industrial production are somewhat larger: a 1 percentage point decline in IP growth in Egypt and Turkey is associated with 0.15 and 0.2 percentage point decline in growth in the other countries.

⁷Spillovers from a decline in G7 growth to electricity production growth in Lebanon could be sizable (shown on the right axis of Figure 2.4.1.4). Those to Egypt are not statistically significantly different from zero after 4 quarters.

⁸They find that the cumulative effect after four quarters of a 1 percentage point decline in growth in Europe is not statistically significantly from zero or on the order of 0.1-0.2.

BOX 2.4.1 Regional integration and spillovers: Middle East and North Africa (continued)**FIGURE 2.4.1.4 Spillovers from Egypt and Turkey**

Output spillovers between non-GCC MENA countries have been modest, reflecting the predominance of trade and financial ties of non-GCC MENA countries to economies outside the region.

A. Trade ties**B. Response to a 1 percentage point decline in Turkey's and Egypt's GDP growth****C. Response to a 1 percentage point decline in G7 growth**

Source: World Bank staff estimates.

Notes: B and C. Cumulative response of each country's growth after 1 year to a 1 percentage point decline in growth rates of Egypt, Turkey and World GDP, respectively. World GDP refers to average GDP growth in G7 countries. Energy production data used for Lebanon. Quarterly GDP data for Tunisia and Egypt are available from 2000Q2 and 2002Q2, respectively. All other series are available from 1998Q1. Bayesian VARs include Arab Spring dummies for Tunisia (2010Q4-2011Q4) and Egypt (2011Q1-Q4), financial crises dummy (2008Q2-2009Q2), a dummy for Turkey's financial crises (2001Q1), a dummy for conflict in Lebanon (2006Q1-Q4) and dummies for droughts in Morocco (2002, 2003, 2006 and 2012). Horizontal line represents MENA average response. Vertical lines show a one standard deviation confidence band. Solid bars represent medians and the error bands represent 33-66 percent confidence bands. Lebanon shown on the right axis.

(Cashin, Mohaddess and Raissi 2012, IMF 2012c). GCC economies may also have a significant effect on developing MENA countries through their investments in infrastructure, such as airlines, telecom and multi-country railway projects, as well as banking and financial ties (World Bank 2014b).

In addition, spillovers from political uncertainty, security concerns or spreading violence could also be sizeable.

Going forward, more stability in the MENA region will not only allow countries to benefit from deepening trade and finance, but will also alleviate some of the fiscal burden associated with creating infrastructure to help people displaced by conflicts. Continued turmoil will derail efforts to tackle problems of corruption, and prolong necessary reforms in the labor markets (World Bank 2015f).

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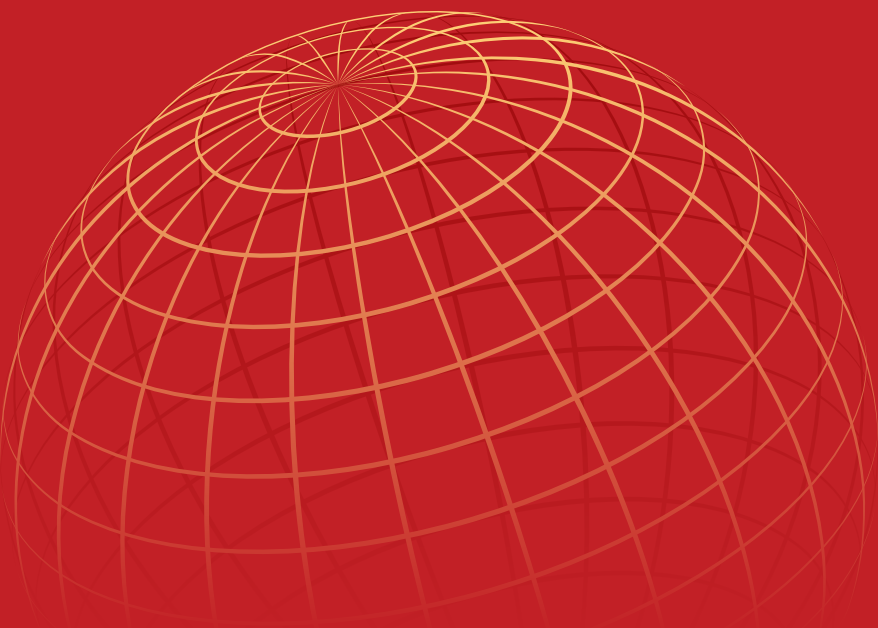
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REGIONAL INTEGRATION AND SPILLOVERS

South Asia

BOX 2.5.1 Regional integration and spillovers: South Asia

South Asia's integration with the global economy is low and integration within the region is even more limited. The ability to do business across borders is constrained by poor business environments and policies that have weighed on competitiveness, contributed to large-scale emigration and limited the ability to do business across borders. While this has reduced exposure to global shocks in the short-term, these very factors limit the potential of South Asian firms to fully benefit from the strengthening demand in the United States and Europe over the medium term. Over the long term, enhancing regional and global integration will be critical in raising productivity and growth, providing jobs and reducing poverty.

Introduction

South Asia is one of the least globally integrated regions (Figure 2.5.1.1), both in trade and finance. However, the degree of integration at the regional level, measured by flow in goods, capital and ideas, is even lower. This is despite shared cultural ties, extensive common borders, and high population densities with large populations living close to border areas (Ahmad and Ghani 2007; Kemal 2005; Palit and Spittel 2013).

This box takes a closer look at South Asia's openness to the rest of the world, and to countries within the region itself. It discusses the following questions:

- How open is South Asia to global and regional trade and financial flows?
- How large are the potential intra-regional spillovers from the region's largest economy, India?

The box documents that spillovers from global output shocks are generally small, but large for financial shocks (for India). Regional spillovers are also small. This implies that positive spillovers to the region from the strengthening economic cycle in the US and India to other large South Asian economies will likely be modest.

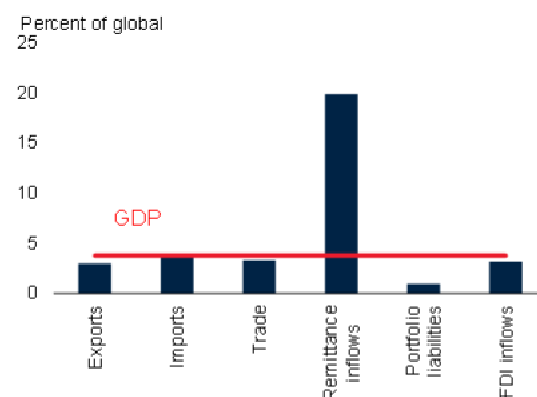
How open is South Asia to global and regional trade and financial flows?

Although economic linkages between South Asia and the rest of the world have deepened in recent decades, progress has been slow and uneven (Ahmad and Ghani 2007). High-income countries and China account for the bulk of exports earnings, portfolio investments, FDI and aid (Figure 2.5.1.2). Regional integration, meanwhile, has lagged considerably (Ahmad and Ghani 2008 and Ahmad et. al. 2010). A number of factors are at work: poor transport connectivity within South Asia and to global markets; poor trade facilitation policies and trade barriers

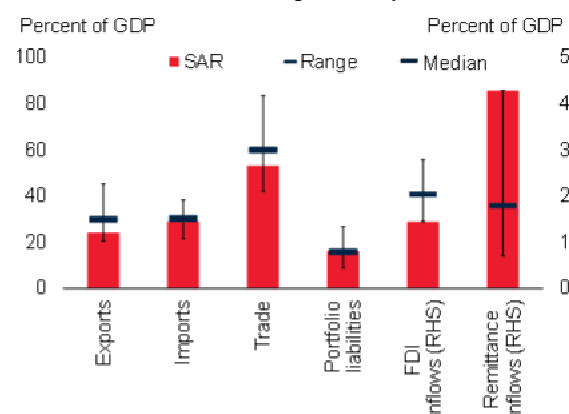
FIGURE 2.5.1.1 Cross-region comparison

South Asia is one of the least globally integrated regions, in terms of trade and finance. However, it absorbs a large share of global remittances.

A. SAR: Share of global activity, trade and finance, 2014



B. SAR: Trade and finance in regional comparison, 2014



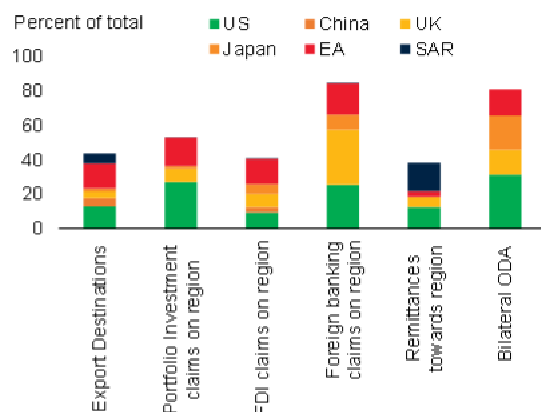
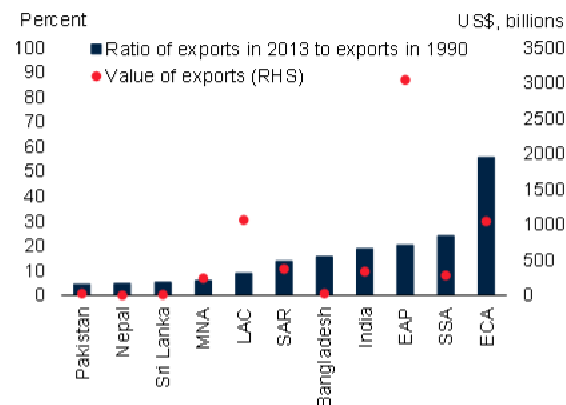
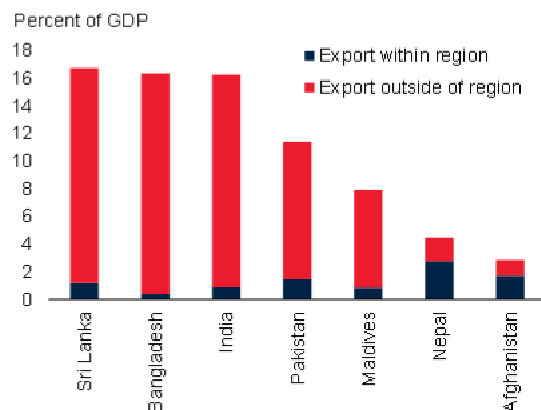
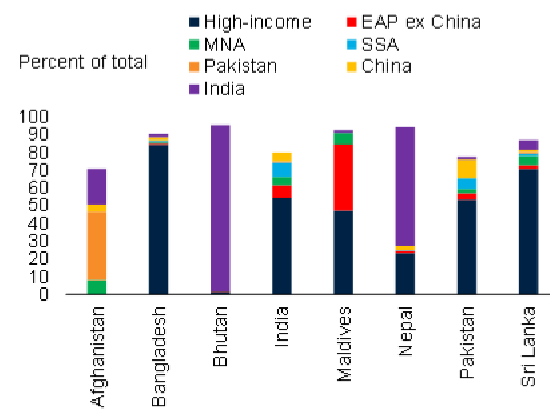
Sources: IMF October 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.

B. The red bar denotes exports, imports, trade, remittance inflows, portfolio liabilities and FDI inflows in percent of GDP on average across SAR countries. The vertical line denotes the range of averages for all six developing country regions.

Note: This box was prepared by Tehmina Khan, Jesper Hanson and Raju Huidrom.

BOX 2.5.1 Regional integration and spillovers: South Asia (continued)**FIGURE 2.5.1.2 Regional and global integration in South Asian countries**

Flows of goods and capital across borders are low compared to other regions. Exports have increased by much less over the past two decades than in other regions, and remain concentrated by destination.

A. Regional and global integration, 2014**B. Increase in exports since 1990****C. Trade openness, 2014****D. Exports by major trading partners, 2014**

Source: World Bank, BIS, IMF, OECD.

Notes: Weighted averages.

B. EAP stands for East Asia and Pacific. ECA stands for Europe and Central Asia. LAC stands for Latin America and the Caribbean. MNA stands for Middle East and North Africa. SAR stands for South Asia Region. SSA stands for Sub-Saharan Africa.

that have resulted in high costs of trading; and restrictions on doing business with countries within the region (De et al. 2013; Palit and Spittel 2013; Romero-Torres 2014; World Bank 2013b). The exception are within-region remittances: the Bangladesh-India migrant corridor, for instance, is the third largest in the world.

Trade: Unilateral trade liberalization measures introduced in the late 1980s and 1990s have led to rising trade flows between South Asia and the rest of the world (Ahmad and Ghani 2007). Still, the degree of integration remains much lower in South Asia than in other major developing regions, with exports amounting to a fifth, or

less, of GDP in most countries. Moreover, export flows tend to be highly concentrated, with the European Union and United States as major trading partners notwithstanding a recent shift of India and Pakistan toward East Asia and Sub-Saharan Africa.

As a share of GDP, intra-regional exports are smaller than anywhere else in the world (Palit and Spittel 2013). On average, India, Pakistan, Sri Lanka and Bangladesh's exports to each other amount to less than 2 percent of total exports. Average trade costs between country pairs in South Asia are 85 percent higher than between country pairs in East Asia (Kathuria et al. 2015) reflecting border

BOX 2.5.1 Regional integration and spillovers: South Asia (continued)

barriers, poor infrastructure and transport connectivity, and generally poor business environments. However, unofficial trade (in narcotics, but also illegal food trade in the Punjab) is reported to be significant (Fagan 2011). Estimates of the size of unofficial trade vary between countries (Taneja 2004), with recent studies placing the value of Indian exports to Pakistan at about \$1.8 bn (or nearly 1 percent of GDP, Ahmed et. al. 2014). While the larger countries in the region predominantly trade outside the region, India is the dominant trading partner for the smallest countries in the region: Bhutan (mainly hydro-electricity), Nepal (textiles, agriculture, tourism) and Afghanistan (for which, Pakistan too is a major trading partner).¹

Capital flows: Relative to GDP, capital flows to South Asia are lower than those to East Asia and the Pacific and Europe and Central Asia regions (Figure 2.5.1.3), reflecting underdeveloped capital markets as well as inflow restrictions in some countries (Romero-Torres et. al. 2013). They are dominated by banking sector flows, mainly from the United Kingdom. Financial integration is limited by restrictive domestic policies. For instance, in India, notwithstanding some gradual liberalization over the years, and in Sri Lanka non-resident holdings of government debt remain capped.

India receives over 90 percent of the region's FDI and portfolio inflows, a substantial share of which originates from Mauritius and Singapore (low-tax countries with which India has double taxation treaties).² In recent years FDI has tended to head into services rather than mining or industry (World Bank 2013a). China has made substantial investments into the region in recent years, in extractives in Afghanistan, renewable energy in Nepal, port construction in Sri Lanka, and manufacturing and infrastructure in Pakistan.

Within-region FDI accounts for only a small share of all FDI inflows. Bhutan, Nepal, Maldives and Sri Lanka do, however, receive non-negligible amounts of FDI from India. Cross-border investments from India have flowed into energy and public sector-linked investment in Nepal;

chemicals, food processing, banking and garments production in Bangladesh, and a similarly diverse range of sectors in Sri Lanka over the past decade (World Bank 2013a).

Remittances: South Asia's diaspora stock is the largest among developing regions, and remittances exceed 6 percent of GDP in Pakistan, Sri Lanka, Nepal and Bangladesh. India is the largest recipient country in the world in terms of value of remittances (about \$US 70 billion). By source, Gulf Cooperation Council (GCC) countries account for just over half of total remittances to the region, with the United States and United Kingdom also major source countries. Within-region migration flows are also substantial: the Bangladesh-India migrant corridor is the third largest in the world (after the Mexico-U.S. and Ukraine-Russia corridors), with more than 40 percent of Bangladeshi emigrants located in India. India also hosts large numbers of migrants from Bhutan, Nepal and Sri Lanka, and Pakistan from Afghanistan (World Bank 2015l).

Official development assistance: Although the bulk of aid flows to South Asia originate from OECD countries, among non-OECD countries both India and China are increasingly important sources of development finance (mixing grants, loans and project finance). The recently signed US\$46 billion China Pakistan Economic Corridor (CPEC) agreement should see rising investment in energy, port and transport infrastructure in Pakistan over the next few years. India, meanwhile, allocates nearly two thirds of its foreign aid budget to Bhutan, and significant amounts to Nepal, Afghanistan, Sri Lanka and Bangladesh (Piccio 2015).

How large are the potential intra-regional spillovers from the region's largest economy, India?

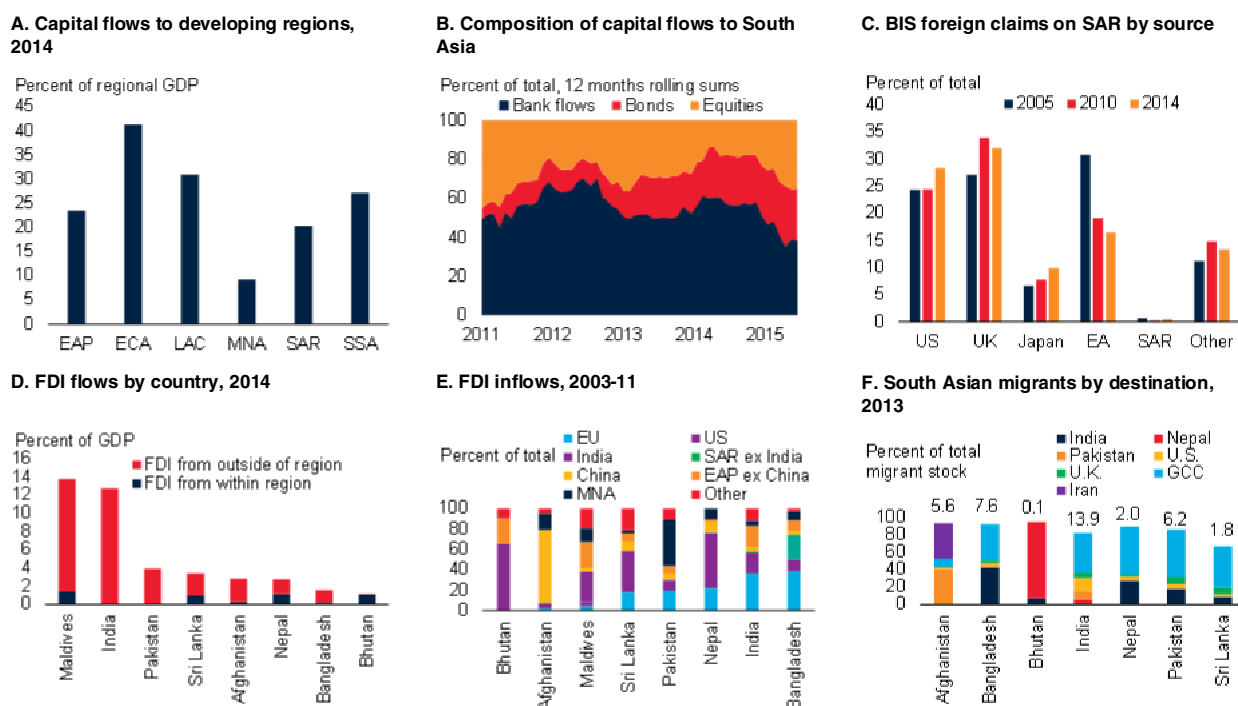
India's sizeable remittances and FDI flows to neighboring countries may give rise to spillovers. To analyze spillovers within the region, a Bayesian structural vector autoregression model is estimated using quarterly data to 2015Q2 from 1998Q1 (Bangladesh) 2002Q2 (Sri Lanka) or 2001Q3 (Pakistan), the only countries in the region with sufficient data. The model focuses on the short- and medium term effects of negative growth shocks in India on other countries in the region. The estimation includes G7 country growth, JP Morgan's Emerging Market Bond Index, India's growth, a trade-weighted commodity price index, and SAR country growth and real effective exchange rate. Data is available for Bangladesh, Pakistan, and Sri

¹Several countries run sizable merchandise trade deficits with India, including Nepal, Bhutan, Bangladesh and Sri Lanka. Large imports from India mainly reflect capital goods (in Bhutan, related to hydropower investments), other production-side inputs and food in the smaller landlocked countries. In Bangladesh, for instance, these comprise mainly cotton for the garment sector, food and other consumer goods.

²FDI inflows from Mauritius and Singapore may also, indirectly, originate in India.

BOX 2.5.1 Regional integration and spillovers: South Asia (continued)**FIGURE 2.5.1.3 Financial flows to SAR**

Relative to GDP, capital flows to South Asia are smaller than to other major developing regions, excluding MNA. They are dominated by banking sector flows, mainly from the United Kingdom. India receives over 90 percent of FDI inflows. South Asia's diaspora is the largest among developing regions, with a substantial number located in GCC countries.



Source: IMF, World Bank, BIS, UNCTAD.

Note: Weighted averages.

A.C.E. EA stands for Euro Area. EU stands for European Union. EAP stands for East Asia and Pacific. ECA stands for Europe and Central Asia. LAC stands for Latin America and the Caribbean. MNA stands for Middle East and North Africa. SAR stands for South Asia Region. SSA stands for Sub-Saharan Africa.

F. Number above columns indicate total number of migrants in millions of people. GCC stands for Gulf Cooperation Council.

Lanka. For Bangladesh and Pakistan, industrial production growth is used to proxy real GDP growth.

The estimates suggest that spillovers from a 1 percent negative growth shock in India result in a 0.6 percentage points decline in Bangladesh, and a 0.2 percentage points fall in Sri Lanka. There are no statistically significant spillovers for Pakistan (Figure 2.5.1.4). Other studies find positive, but modest, spillovers from India to Pakistan, Sri Lanka and Bangladesh (World Bank 2013b; IMF 2014e). Using a panel regression framework covering 1961-2009, Ding and Masha (2012) find that growth in India is useful in explaining overall growth in South Asia, but only after 1995, and that a 1 percentage point increase in India's growth is associated with a 0.37 percentage point increase for South Asian countries.

Estimated within-region growth spillovers are smaller than those from the rest of the world to the region. A 1 percentage point decline in GDP growth in G-7 countries causes growth in India to fall by 1.7 percentage points. This is broadly in line with earlier findings that external spillovers to India are smaller than those in other more open economies in East Asia (Chapter 3, Box 3.5). They are, however, larger than other results in the literature that find that a 1 percentage point decline in U.S. GDP is associated with a 0.12 percent fall below baseline in India's GDP (IMF 2014e). In Bangladesh and Sri Lanka, growth falls by 1.2 and 0.5 percentage points respectively in response to a 1 percent decline in global growth, and by 2 percentage points in Pakistan (although, as before, the last result is not statistically significant). This is consistent with World Bank (2013b) that finds that a positive impulse

BOX 2.5.1 Regional integration and spillovers: South Asia (continued)

from the US or other advanced economies tends to be associated with a one- to two- quarter initial increase in cyclical real GDP in India and the rest of South Asia. Financial shocks and rising global financial volatility reduce output and depreciate the exchange rate in India (IMF 2014e, 2015j).³

Conclusion

Limited global and regional economic integration in South Asia partly reflects business environments that have constrained the ability to do business across borders and policies that have weighed on competitiveness, growth and job creation (Palit and Spittel 2013, De et al. 2012). For instance, an improvement in South Asia's infrastructure to around 50 percent of East Asia's could improve intra-regional trade by about 60 percent (Wilson and Ostuki 2005). Although India is major source of spillovers for some economies, poor trade and transport connectivity in South Asia also implies fewer benefits to smaller economies in the region (relative to potential) from stronger growth in India.

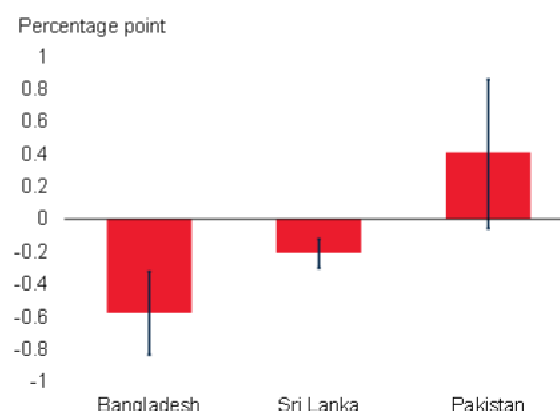
While the closed nature of the region (compared with other emerging market regions) has reduced exposure to large global shocks, it also limits the potential of South Asian firms to benefit from the strengthening of demand in the United States and Europe over the medium term. At the same time, the scope for negative spillovers from global financial market volatility may be rising as India increasingly integrates into global capital markets. This was evident during the “taper tantrum” of 2013, although vulnerabilities have since receded.

³Although India's capital account remains relatively closed, an active offshore derivatives market in the Indian Rupee may be a conduit for volatility in global markets to currency markets.

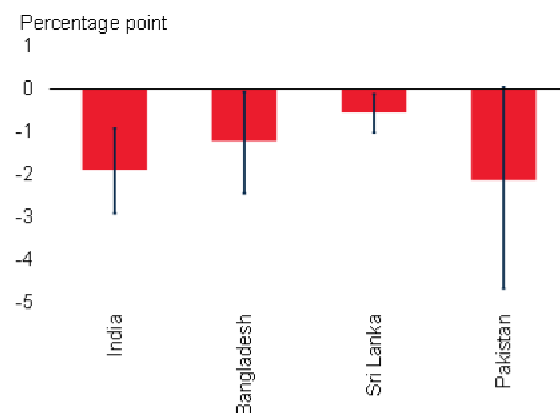
FIGURE 2.5.1.4 Global and regional growth spillovers

Spillovers from a growth shock in India are sizeable for Bangladesh, modest for Sri Lanka and statistically uninformative for Pakistan. Spillovers from large advanced countries are larger, reflecting greater integration with trading partners outside the region.

A. Impact of a 1 percentage point decline in India's growth



B. Impact of a 1 percentage point decline in G7 growth on growth



Source: World Bank.

Notes: Based on country-specific structural vector autoregressions (VARs) using the earliest possible data from 1998:1 to 2015:2 for India, Pakistan, Bangladesh and Sri Lanka; time series coverage for some countries is shorter. The country-specific VARs include G7 growth, the EMBI, a trade-weighted commodity price index, India's growth and country-specific growth of spillover source and recipients. For instance, when Pakistan is the spillover destination country, the variables include, in this Cholesky ordering: G-7 growth, EMBI, India's growth, Pakistan's trade-weighted commodity prices, Pakistan's growth, and Pakistan's real effective exchange rates. The model includes a dummy that captures the global financial crisis of 2008-09. Further details of the model, including the construction of the trade weighted commodity prices, are provided in Annex 3.2. Solid bars indicate medians and error bars indicate the 33-66 percent confidence bands.

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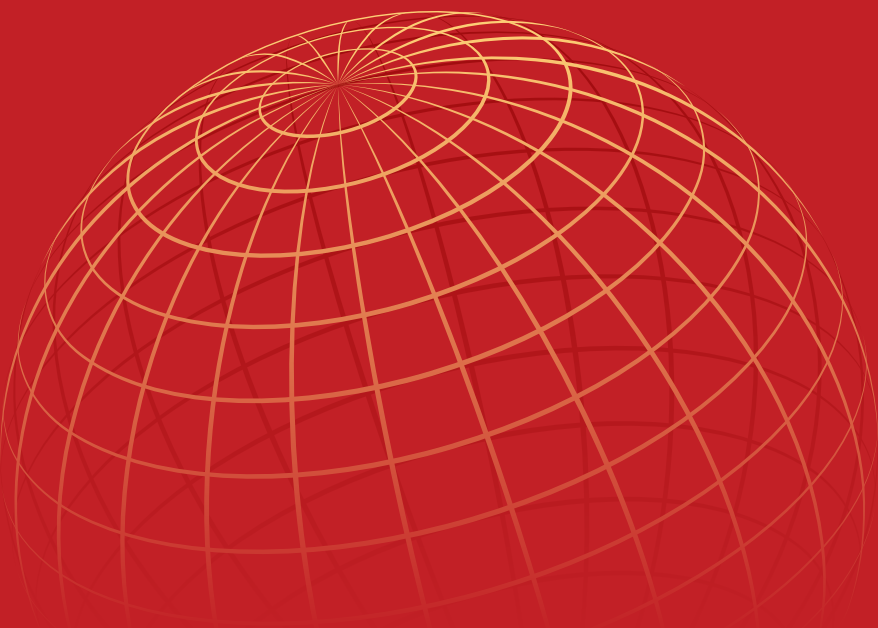
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REGIONAL INTEGRATION AND SPILLOVERS

Sub-Saharan Africa

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa

Over the past decade, regional integration in Sub-Saharan Africa (SSA) has expanded. Though still low, intraregional trade represents a growing share of the region's trade. Cross-border financing flows within Sub-Saharan Africa have increased rapidly. Nevertheless, shocks to growth in the two largest economies – Nigeria and South Africa – appear to have no measurable effects on other countries in the region.

Introduction

SSA is an open region, with diversified trade partners and sources of finance (Figure 2.6.1.1). Much of Sub-Saharan African trade takes place with countries outside the region. Advanced economies remain the largest destinations of Sub-Saharan Africa's exports. However, China and other developing countries in Asia are increasingly prominent. Intraregional trade and financial linkages within the region have expanded in recent years and look set to expand faster in the years ahead.

This box examines the extent of regional integration. In particular, it takes a closer look at linkages between SSA's two largest economies—Nigeria and South Africa—and the rest of the region to assess the potential significance of intra-regional growth spillovers. The box addresses the following questions:

- How open is Sub-Saharan Africa to global and regional trade and financial flows?
- How large are the potential intra-regional spillovers from the region's two largest economies, Nigeria and South Africa?

The region is highly open to the world economy, with a diverse group of trade and financial partners, and intra-regional ties have grown rapidly since the mid-2000s. Nevertheless, estimated growth spillovers from South Africa and Nigeria to the rest of SSA are statistically insignificant. This may reflect the globally diversified nature of SSA's global trade and financial partners. It may also reflect inadequate data for countries most closely integrated with South Africa and Nigeria.

How open is Sub-Saharan Africa to global and regional trade and financial flows?

SSA's integration into global trade networks has increased remarkably over the past three decades (UNCTAD 2013). Advanced economies remain the main trading partners for SSA. However, recent years have seen a fundamental shift in the direction of SSA trade towards China and away

from the traditional advanced country markets. The export exposure of SSA countries to advanced-economies has halved over the decade ending 2014. The fall in the share of the region's exports to the United States, to about 1 percent of GDP in 2014 from its peak of 8 percent in 2005, was particularly pronounced (Figure 2.6.1.2). This reflected in part a sharp decline in Nigeria's oil exports as U.S. oil shale production expanded. More broadly, the anemic recovery in Euro Area countries and other advanced economies following the global financial crisis underpinned the decline in the share of SSA's exports to advanced economies.

China's trade with Sub-Saharan Africa has been driven by China's fast growth of investment in capital goods that require intensive inputs of primary commodities, notably oil and metals (Drummond and Liu 2013). By 2012, China had become SSA's single largest national trading partner. Angola, Democratic Republic of Congo, Equatorial Guinea, Republic of Congo, and South Africa account for about 75 percent of SSA's exports to China (oil, metals, and mineral fuels). Similarly, Angola, Benin, Ghana, Liberia, Nigeria, and South Africa account for more than 80 percent of SSA's total imports from China (mainly machinery, chemicals, and manufactured goods).

Financial linkages between SSA and the rest of the world have grown considerably in the last decade, with some shift in composition towards flows into regional capital markets and direct investment.

- The stock of private external claims on SSA represented 40 percent of the region's GDP in 2013, slightly lower than its peak of 45 percent of GDP in 2010. Although most SSA countries have limited or no access to international capital markets, portfolio investment claims on the region—originating mostly from the U.S. and Euro Area—more than doubled between 2001 and 2010. South Africa, with its highly developed financial markets, has been the main recipient of portfolio investments. Cross-border banking claims on SSA, which before the global financial crisis had risen above portfolio claims, have since moderated. European banks have deleveraged and oriented their activities toward developing countries in Asia. Cross-border bank lending flows originate mainly from U.K. and Euro Area lenders,

Note: This box was prepared by Gerard Kambou and Jesper Hanson, with contributions from Raju Huidrom.

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)

with Angola, Botswana, Mozambique, Tanzania, and Zambia among the largest recipients. Foreign direct investments are the largest capital inflows to the region. FDI liabilities represented more than 15 percent of SSA's GDP in 2013. While the Euro Area remains an important source of FDI in the region, FDI flows from China have grown rapidly in recent years, and are mostly allocated to the natural resource and infrastructure sectors (World Bank 2015a).

- Remittances and official development assistance amounted to 2 percent and 1.5 percent of GDP in 2014 and 2013, respectively, lower than their levels in 2010. Official development assistance and remittances from advanced economies have been on a declining trend in recent years, reflecting weak growth and austerity budgets in these economies.

While most economic ties of SSA are to non-SSA countries, intraregional trade, foreign direct investment, cross-border banking flows, and remittances have risen in recent years (Figure 2.6.1.3). The number of Pan-African banking groups has increased rapidly across the region, partly influenced by rising trade flows (IMF 2015l). Furthermore, trade linkages between the region's largest economies (Nigeria and South Africa) and the rest of the region have been growing and look set to deepen.

Linkages between South Africa and the rest of the region

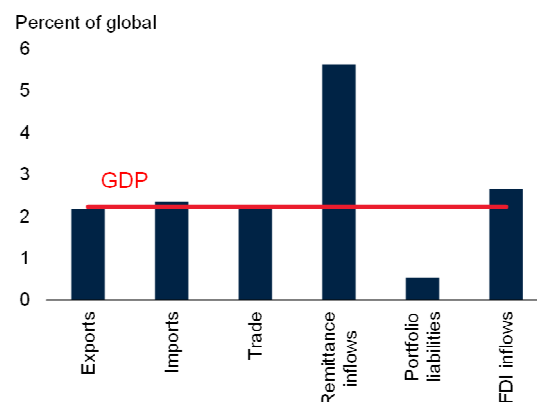
Trade linkages: South Africa, the region's second largest economy, accounting for 21 percent of its GDP, is an important export market for its immediate neighbors (Figure 2.6.1.4). In 2011, exports to South Africa accounted for over 80 percent of trade within the South African Customs Union, or SACU (Canales-Kriljenko, Gwenhamo and Thomas et al. 2013).¹ Exports to South Africa are particularly large for Swaziland (25 percent of GDP) and Lesotho (10 percent of GDP). Exports from SACU countries consist mostly of agricultural goods; they also include some manufacturing products, chemicals and metals. South Africa is also an important export market for countries in the 15-member Southern African Development Community (SADC) region, especially Mozambique (10 percent of GDP) and Zimbabwe (5 percent of GDP). Fuels dominate Mozambique's exports to South Africa, while Zimbabwe's exports consist mainly of agricultural goods and metals. By contrast, exports to

¹SACU member countries are Botswana, Lesotho, Namibia, South Africa, and Swaziland.

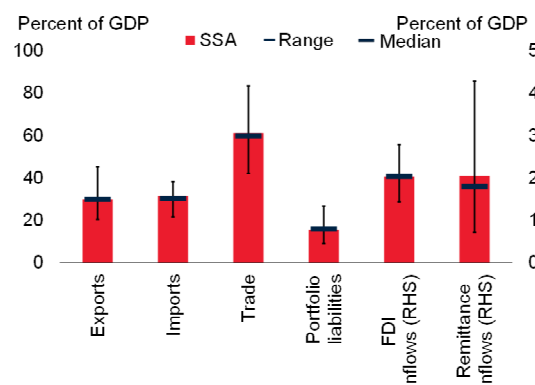
FIGURE 2.6.1.1 Cross-region comparison

The region is open to global trade and finance. It accounts for about 2 percent of global GDP and trade. In relation to GDP, the levels of external trade, investment, and remittances for the average SSA economy are similar to other developing regions.

A. SSA: Share of global activity, trade, and finance, 2014



B. SSA: Trade and finance in regional comparison, 2014



Sources: IMF October 2015 World Economic Outlook, IMF International Financial Statistics, IMF Direction of Trade Statistics, UNCTAD FDI/TNC database, World Bank Remittance and Migration Database, World Bank World Development Indicators.

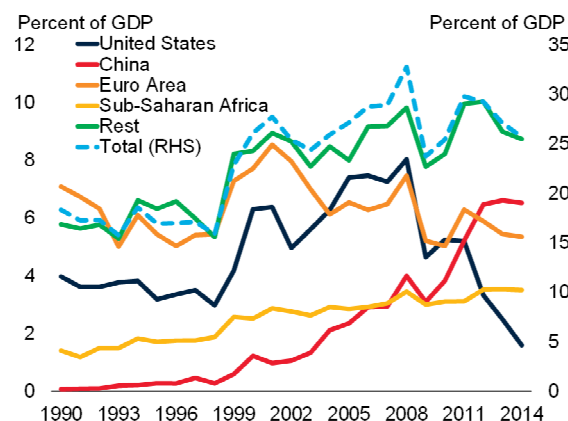
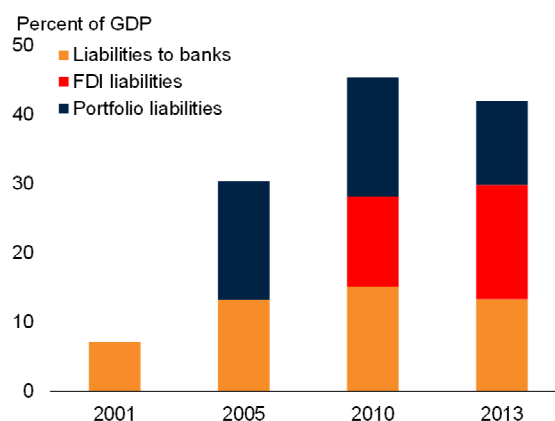
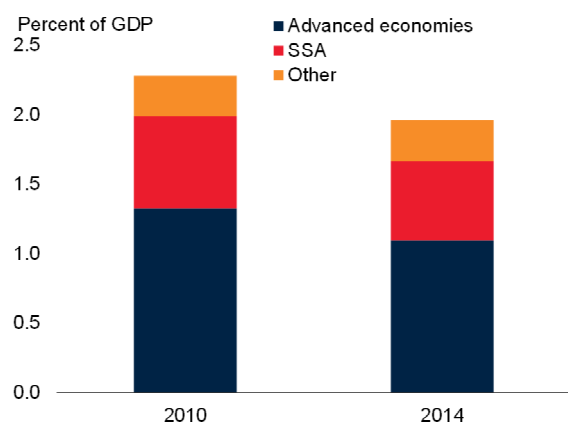
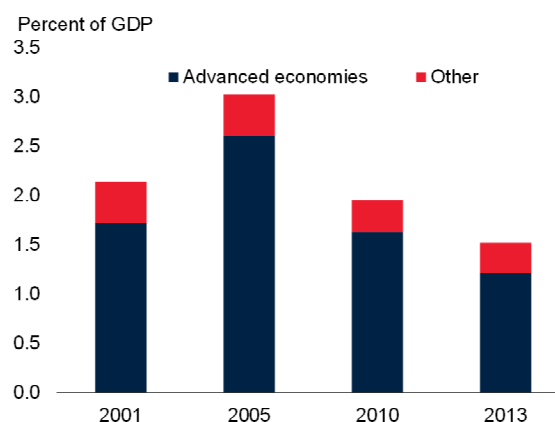
B. The red bar denotes exports, imports, trade, remittance inflows, portfolio liabilities, and FDI inflows in percent of GDP on average across SSA countries. The vertical line denotes the range of averages for all six developing country regions.

South Africa account for less than 5 percent of GDP in West African countries such as Ghana and Nigeria.

Financial linkages: South Africa is the largest source of foreign direct investment for Botswana, Lesotho, Namibia, and Swaziland (BLNS) (Figure 2.6.1.4), accounting for up to 80 percent of total inward FDI in these countries. South African firms (e.g. Massmart, Nampak, MTN Group) also have a strong presence in the SADC region

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)**FIGURE 2.6.1.2 Linkages between Sub-Saharan Africa and the rest of the world**

Countries in Sub-Saharan Africa increasingly participate in international trade. The region's trade has undergone a shift in direction towards China and away from traditional advanced country trading partners. Foreign direct investment liabilities have increased considerably, while remittances and official development assistance from advanced countries have declined. Relative to GDP, bilateral development assistance has halved over the last ten years to 1.5 percent of regional GDP.

A. Exports**B. Financial liabilities****C. Remittances by source country****D. Bilateral official development assistance**

Source: IMF Direction of Trade Statistics, Coordinated Portfolio Investment Survey, Coordinated Direct Investment Survey; Bank for International Settlements Consolidated Banking Statistics; World Bank Remittances and Migration database, OECD.
 B: Coordinated Direct Investment Survey (CDIS) is not available for 2001 and 2005; Coordinated Portfolio Investment Survey (CPIS) is not available for 2001. Liabilities to banks stand for claims of BIS-reporting banks on SSA countries. BIS stands for Bank for International Settlements.

(Mozambique, Zimbabwe), East African Community (Kenya, Uganda, and Tanzania) and countries in West Africa (Nigeria, Ghana). South Africa-based banks (Standard Bank, First Rand Bank, Nedbank) and other financial institutions are active across the continent, and are systemically important in neighboring countries, as gauged by deposit shares.² Remittances from South Africa to neighboring countries are also significant—for Lesotho,

they average more than 20 percent of GDP (2011-2014), reflecting the large number of migrant workers employed in South African mines.³

Institutional linkages: South Africa's monetary and exchange rate policies and the revenue sharing arrangements under SACU are significant sources of linkages.

²Operations are deemed systematically important if the share of their deposits in total banking system deposits exceeds 10 percent; or if their asset share exceeds 7 percent of GDP (IMF 2015).

³Though still sizeable, remittances to Lesotho have steadily declined in line with the long-term decline in South Africa's gold production.

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)

- South Africa's currency, the rand, circulates freely in the Common Monetary Area (CMA) formed by South Africa, Lesotho, Namibia, and Swaziland whose currencies are pegged to the rand. Through interest rate and exchange rate movements, policy actions in South Africa immediately affect economic conditions in the CMA.
- The revenue sharing mechanism in SACU has created strong linkages between South African imports and budget revenue in BLNS. South African imports account for more than 90 percent of total SACU imports, the taxes on which are a major source of SACU customs revenue. Customs revenues across SACU are pooled and allocated to members. About 85 percent of forecast excise revenues are distributed based on the share of each country in total SACU GDP, and the remaining is distributed according to a formula that favors countries with lower per capita GDP, typically with a lag of two years. Since imports tend to be more volatile than overall economic activity, the revenue sharing mechanism contributes to significant volatility in budgetary revenue in BLNS.

Linkages between Nigeria and the rest of the region

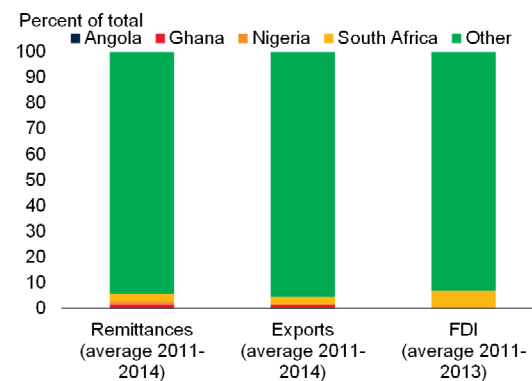
Trade linkages: Following the data revision of 2013, Nigeria has become SSA's largest economy, accounting for 31 percent of its GDP. It is also the region's largest oil exporter. Official data suggest that trade links exist between Nigeria and a number of West African countries, but are modest (Figure 2.6.1.5). Nigeria's share in exports to the Economic Community of West African States (ECOWAS)⁴ fell from an average of 7 percent in 2001-06 to 2.3 percent in 2010, but has been recovering (Chete and Adewuyi 2012). Nigeria is an important export market for agricultural or manufacturing goods from neighboring Guinea-Bissau (6 percent of exports), Côte d'Ivoire (3 percent of exports), and Niger (2.8 percent of exports). Implementation of the ECOWAS common external tariff, which became effective in January 2015, is expected to further boost sub-regional trade, including between Nigeria and the West African Economic and Monetary Union (WAEMU) member countries.⁵

⁴The ECOWAS member states are Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Nigeria, Senegal, Sierra Leone and Togo.

⁵WAEMU countries are Benin, Burkina Faso, Côte d'Ivoire, Guinea Bissau, Mali Niger, Senegal, and Togo. They share the same currency, the CFA franc, which is pegged to the euro.

FIGURE 2.6.1.3 Intra-regional linkages

Most of the region's economic ties continue to be with non-SSA countries. The region's largest economies are among its leading sources of intraregional trade.

A. Exports, FDI inflows, remittance inflows**B. Leading sources of intra-regional trade, 2014 (millions of US\$)**

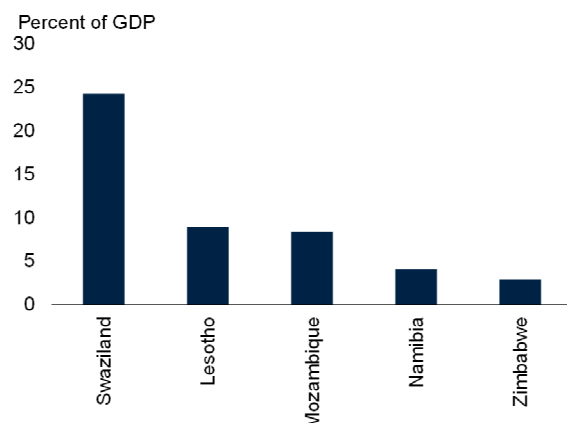
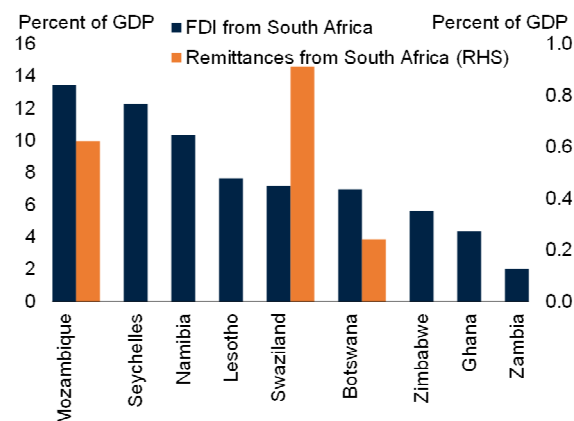
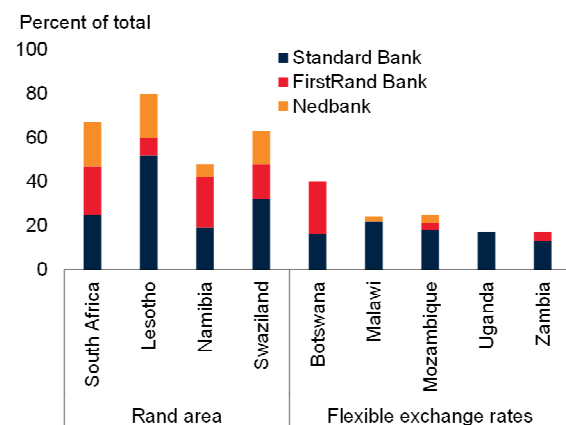
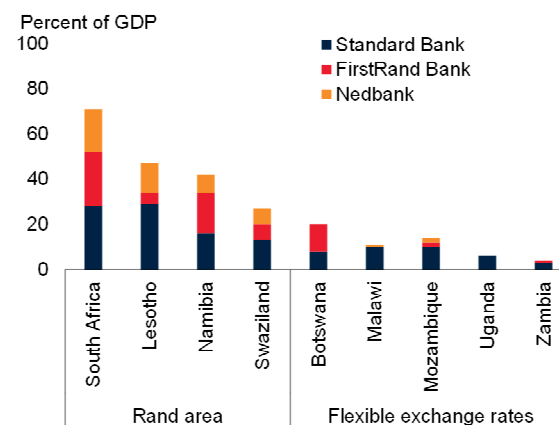
Exports to the Rest of Africa		Imports from the Rest of Africa	
Country	Value	Country	Value
South Africa	27,041	South Africa	12,504
Côte d'Ivoire	3,978	Botswana	5,985
Zimbabwe	2,782	Zambia	5,833
Zambia	2,170	Zimbabwe	3,388
Tanzania	2,161	Mozambique	3,121
Botswana	1,691	Côte d'Ivoire	2,954
Senegal	1,309	Cameroon	2,054
Congo, Rep.	1,247	Burkina Faso	1,873
Mozambique	1,198	Tanzania	1,496
Uganda	789	Malawi	1,153

Source: World Bank (remittances), IMF DOTS (exports), IMF CDIS (FDI), WITS. A. Data on FDI liabilities is not available for Angola, Ghana and Nigeria.

Financial sector linkages: Cross-border activity of Nigerian-based banks in SSA has expanded substantially, in part as Nigerian banks follow up on opportunities to finance trade between Nigeria and countries across SSA. The number of subsidiaries of Nigerian banks licensed in foreign jurisdictions increased from two in 2002 to 64 in 2013, operating in more than 20 countries across SSA. The United Bank for Africa, the largest pan-African bank from Nigeria, has a widespread presence in SSA, and is systematically important in several countries, with 19

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)**FIGURE 2.6.1.4 Linkages between South Africa and the rest of Sub-Saharan Africa**

South Africa is an important market destination for immediate neighboring countries, as well as for countries in the broader Southern African Development Community region. South Africa is the largest source of FDI for Botswana, Namibia, Lesotho, and Swaziland. It remains an important source of remittances for many countries in the Southern Africa region. South Africa-based banks are active across SSA and systematically important in neighboring countries.

A. Exports to South Africa, 2011-14**B. FDI inflows and remittances from South Africa, 2011-13****C. Selected South Africa banks: share of deposits by country, 2013****D. Selected South Africa banks: assets by country, 2013**

Source: IMF Direction of Trade Statistics, Coordinated Direct Investment Survey, World Bank Migration and Remittances Database, IMF staff reports.

Note: BNLS denotes Botswana, Namibia, Lesotho, and Swaziland.

A: Chart shows countries with exports to South Africa higher than 2 percent of GDP.

B: Chart shows countries with FDI from South Africa higher than 2 percent of GDP.

subsidiaries contributing 15 percent to total assets⁶. This rapid cross-border expansion increases the potential for financial sector shocks in Nigeria to be transmitted across the region. Other potential spillover channels appear limited. In particular, remittances from Nigeria to

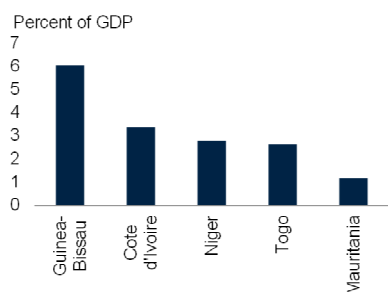
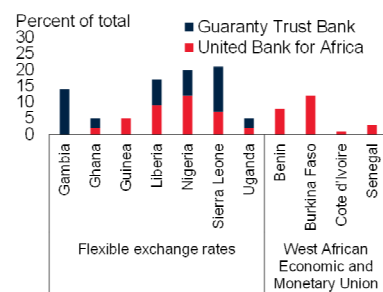
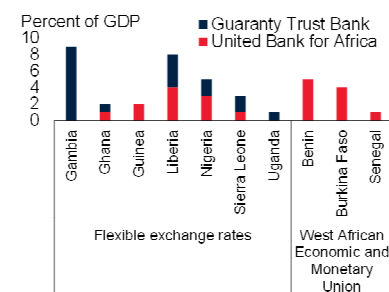
neighboring countries are small relative to GDP; and foreign direct investment from Nigeria in the region, outside the financial sector, is negligible.

Informal sector linkages: Strong informal cross-border trade links exist between Nigeria and neighboring countries that are only partially captured in official statistics. Estimates of informal cross-border trade in West Africa show that it could represent 20 percent of GDP in

⁶Ecobank, a full service bank based in Togo, is one of the region's largest pan-Africa Banks with operations in 36 African countries.

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)**FIGURE 2.6.1.5 Linkages between Nigeria and the rest of Sub-Saharan Africa**

Trade links between Nigeria and neighboring countries remain modest. Strong informal cross-border trade links exist between Nigeria and its neighbors that are only partially reflected in official trade statistics. Cross-border activity of Nigeria-based banks has expanded in recent years. United Bank for Africa and Guaranty Trust Bank, two Pan-African banks from Nigeria, have widespread presence in Sub-Saharan Africa. United Bank for Africa is systematically important in several countries.

A. Exports to Nigeria, 2011-14**B. Selected Nigerian banks: Share of deposits by country, 2013****C. Selected Nigerian banks: Assets by country, 2013**

Source: IMF Direction of Trade Statistics (DOTS) database; IMF staff reports.

Nigeria (Afrika and Ajumbo 2012). In particular, a significant share of trade in agriculture goods and petroleum products is unrecorded.

- Cross-border trade in grain and livestock has helped improve food availability in Benin, Cameroon, Chad, Ghana, Mali, and Niger.⁷
- Nigerian subsidies have kept fuel prices much lower than in neighboring countries, generating strong informal trade in fuel. It is estimated that three-quarters of the fuel consumed in Benin is imported through informal channels from Nigeria (World Bank 2014c). Changes in Nigeria's pricing policies for fuel products could have significant spillovers for neighboring countries.

How large are the potential intra-regional spillovers from the region's two largest economies, Nigeria and South Africa?

A Bayesian vector autoregression model is used to estimate growth spillovers from Nigeria, South Africa, and the rest of the world. Sufficient data exists for Botswana, Ghana, and Uganda, but only from 2007 Q2 to 2015 Q2. For each of these countries, the variables in the model include

own growth, South African growth, Nigerian growth, the real effective exchange rate, growth in the rest of the world (as exogenous variable), and a dummy that captures the global financial crisis of 2008-09.⁸ Figure 2.6.1.6 shows the estimated response of each destination country's output growth to a 1 percentage point decline in real GDP growth in Nigeria, South Africa, and the rest of the world.

The impulse responses suggest that global growth has a significant influence on growth in Sub-Saharan Africa. Growth in Nigeria or South Africa, in contrast, does not appear to have significant spillover effects on neighboring as well as geographically more distant countries. The two largest economies in SSA have insignificant spillovers to each other.⁹

These results are broadly in line with, and complement, those found by a number of previous authors. For example, using a global vector autoregression (GVAR) model, Gurara and Ncube (2013) found a significant growth spillover effect to African economies from both the Eurozone economies and BRICS. Kinfack and Bonga-Bonga (2015) employ a GVAR model and find that Africa's real GDP has a positive response to increases in GDP in the Euro Area and in China. Spillovers of growth shocks from Nigeria and South Africa to the rest of Sub-Saharan Africa were the focus of the studies by IMF

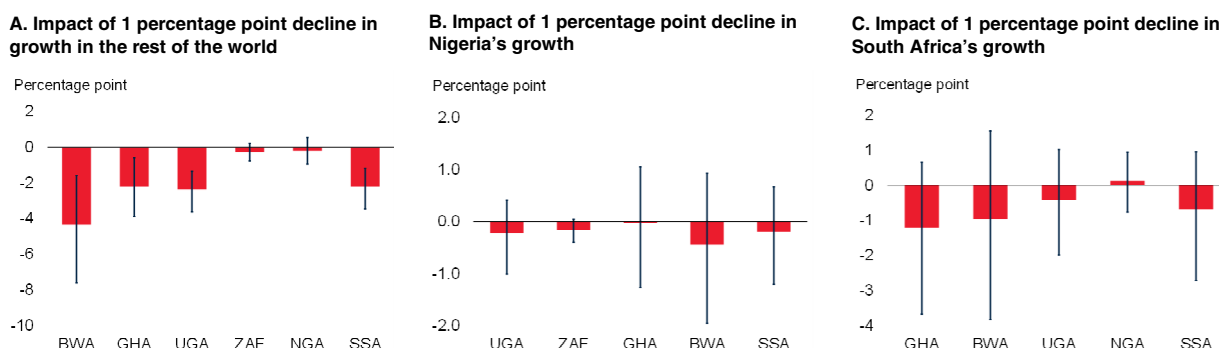
⁷Nigeria supplies about 60-70 percent of Niger's grain imports (mostly maize, millet, and sorghum), thereby contributing to food security in Niger.

⁸Further details on the model, including the construction of the rest of the world growth variable, are provided in Annex 3.2.

⁹For a comparison of within-region spillovers across regions, see Box 3.4.

BOX 2.6.1 Regional integration and spillovers: Sub-Saharan Africa (continued)**FIGURE 2.6.1.6 Regional spillovers in SSA**

Events that affect world growth spill over into SSA. Growth shocks in Nigeria and South Africa do not appear to have significant spillovers to neighboring countries.



Source: World Bank.

Note: The results show the cumulative change in growth after two years in response to 1 percentage point change in the rest of the world, Nigerian and South African growth based on Bayesian vector autoregression, using data for 2007Q2-2015Q2. Bars are the median estimates and the error bands represent the 33-66 percent confidence bands. SSA refers to the cross sectional median estimates across BWA, GHA, NGA, UGA, and ZAF. BWA = Botswana; GHA = Ghana; NGA = Nigeria; UGA = Uganda; ZAF = South Africa; SSA = Sub-Saharan Africa.

(2012b) and Canales-Kriljenko et al.(2013), with the latter focusing on the BLNS countries. Both studies used vector autoregression models. They find that shocks to South Africa's growth have no significant spillover effects on the BNLS countries, or the rest of the continent. Similarly, spillovers from Nigerian growth to neighboring countries were found to be insignificant, suggesting that Nigeria still has weak links with the rest of the region.

The finding that developments in Nigeria and South Africa have limited effects on growth in other countries in the region could be due to a number of factors. The first is the possibility that the economies of South Africa and those of the rest of SSA may have decoupled in the 1990s following the removal of international sanctions as apartheid ended and South Africa re-integrated into the world economy (Basdevant et al. 2014). As SSA countries integrated rapidly with the rest of the world during the 2000s, external shocks became the predominant cause of fluctuations in SSA activity (Kabundi and Loots 2007). Second, those countries that are most deeply integrated with Nigeria and South Africa—for example, Benin, Ghana, Lesotho, Namibia, Swaziland—do not have sufficiently long time series of data to estimate spillovers.

Conclusion and policy implications

While the region's main economic partners are outside the region, intraregional trade and financial links in Sub-Saharan Africa have expanded in recent years. Trade, financial, and institutional linkages between Nigeria and

South Africa, the region's two largest economies, and the rest of the region have been growing. Notwithstanding this development, the quantitative analysis suggests that growth in Nigeria and South Africa has negligible spillover effects on their neighbors as well as more distant countries.

While intra-African trade has increased in recent years, it remains low. Formal barriers to trade, including tariff and quotas, inefficient customs procedures, and the inadequate state of transport infrastructure within the region are among the major reasons for low trade flows between SSA countries (World Bank 2012b). These are several areas in which policy can make a difference. Reductions in tariff, streamlining customs procedures, and investments in infrastructure—especially for landlocked countries—would raise the prospects for mutually beneficial growth spillovers.

Policy actions are also needed to stem the rise of informality in the region by facilitating the transition of firms from the informal to the formal economy. This would require intensifying ongoing efforts to improve the business climate across the region, including simplified procedures for obtaining permits for business registration, simplified tax systems, and reduced compliance costs for laws and regulations. A strengthened capacity of government agencies to administer laws and to improve the quality and efficiency of regulations would help in making such reforms effective (World Bank 2015f).

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