

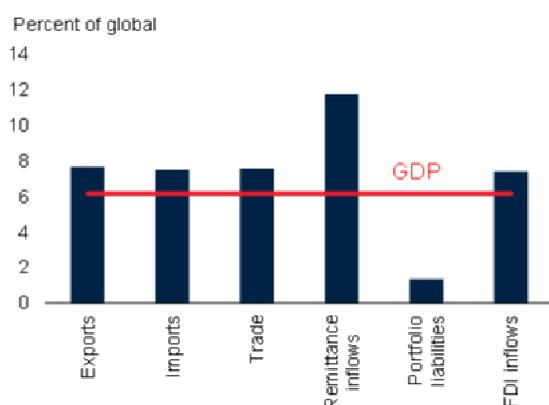
### BOX 2.2.1 Regional integration and spillovers: Europe and Central Asia

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.

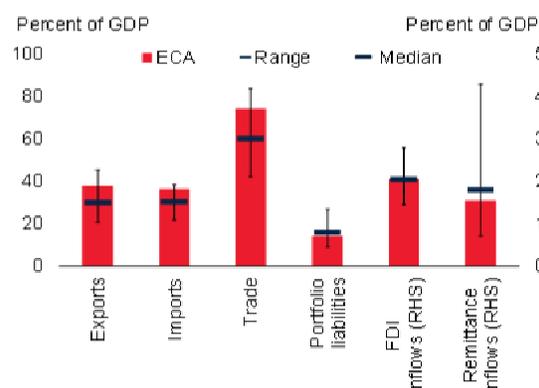
**FIGURE 2.2.1.1 Cross-region comparison**

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.

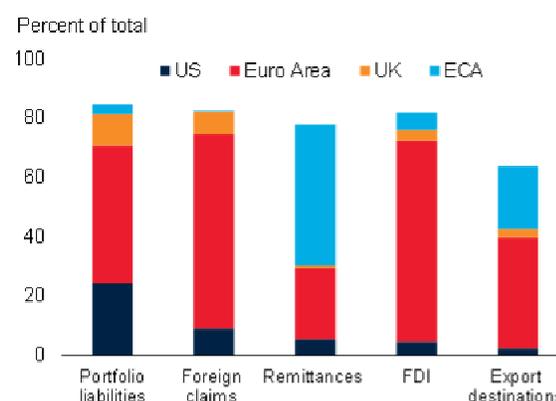
**Integration with the Euro Area.** ECA countries, like those in other developing regions, are predominantly linked to the major advanced countries in their proximity: the Euro Area is the single largest trading partner and source of financial flows to ECA. In addition to geographical proximity, interlinkages 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.

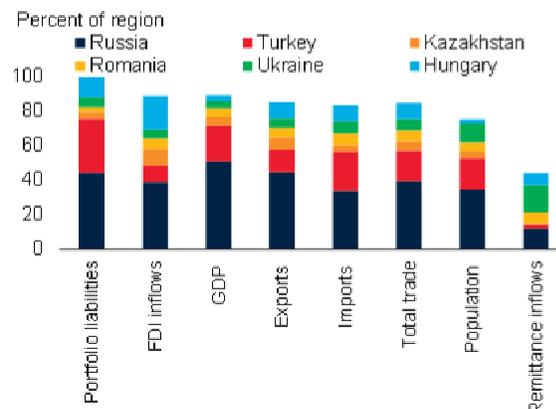
#### FIGURE 2.2.1.2 Main features of the ECA region

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.

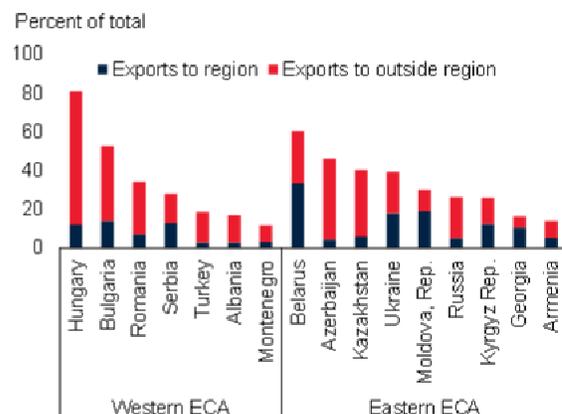
**Within-region ties.** Within-region ties to Russia are particularly strong regarding trade and remittance flows. Direct economic ties with other large economies in the region, which are predominantly trade-based, have grown rapidly from a low base. Thus, the share of exports to Turkey increased substantially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

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

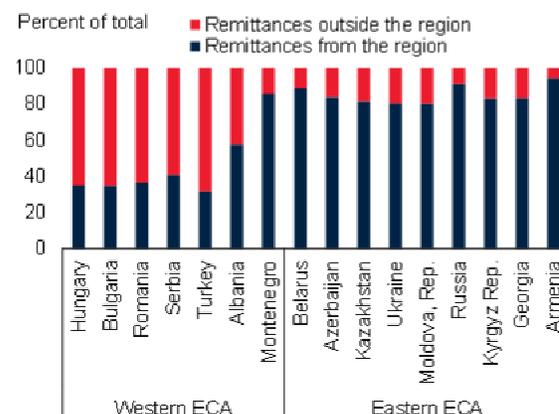
**FIGURE 2.2.1.3 Trade, remittances, and foreign direct investment**

*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.*

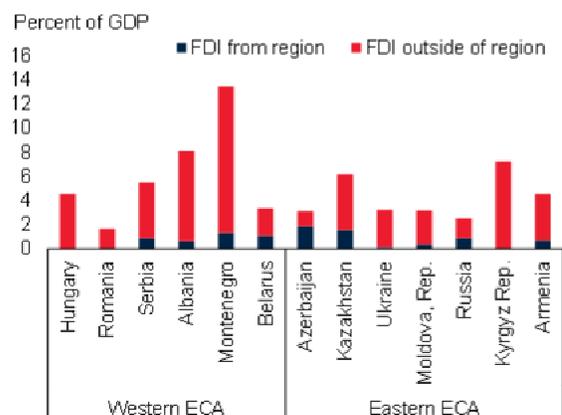
**A. Trade linkages, 2014**



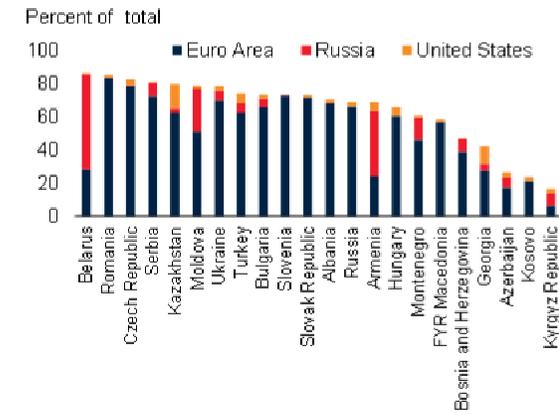
**B. Remittances, 2014**



**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).<sup>1</sup> This reflects the large size of the Russian economy and the legacy of

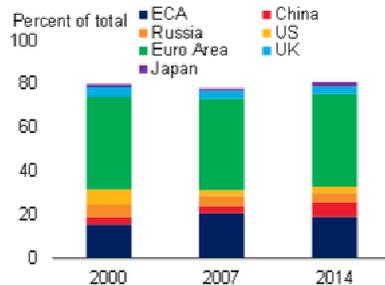
<sup>1</sup>In Central Asia, the share of exports to Russia was 15.4 percent of total exports in 2014. Exports to Russia account for about half of Azerbaijan’s non-oil exports, while for Armenia, exports to Russia, mostly food and brandy, constitute about 20 percent. Turkmenistan and Uzbekistan export 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)

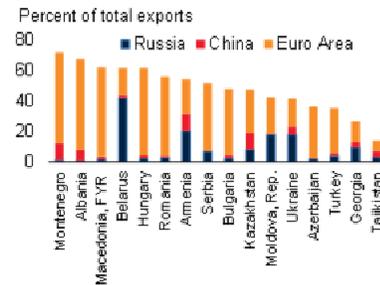
#### FIGURE 2.2.1.4 Main export markets

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.

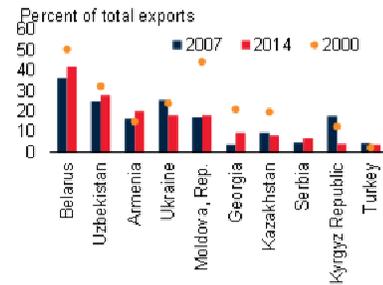
##### A. Exports to major economies, 2014



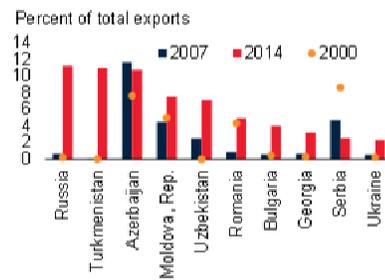
##### B. Exports to China, Euro Area and Russia, 2014



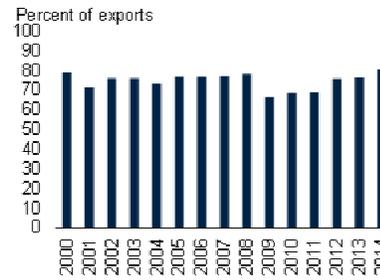
##### C. Exports to Russia



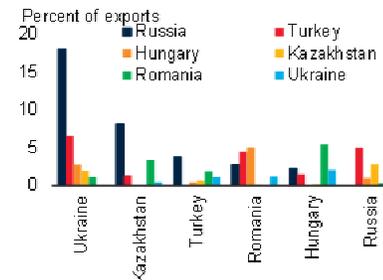
##### D. Exports to China



##### 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).<sup>2</sup> In 2015, these remittance flows and their real value dropped sharply with the steep recession in Russia and

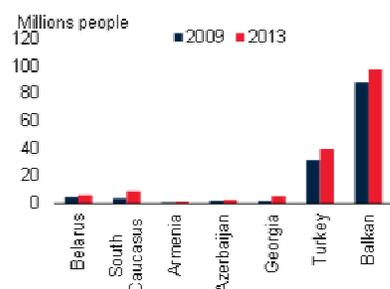
<sup>2</sup>In 2014, remittances from Russia accounted for about 43 percent of GDP in Tajikistan, 30 percent in the Kyrgyz Republic, and 20 percent in Armenia.

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

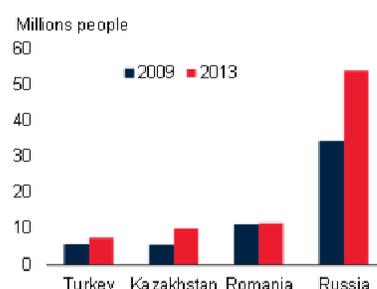
**FIGURE 2.2.1.5 Tourism and remittances**

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.

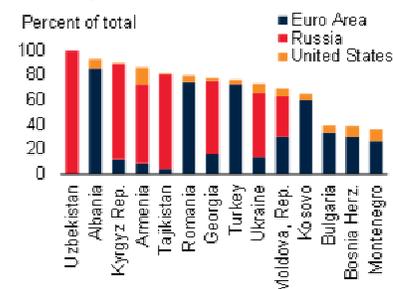
**A. Inbound tourism**



**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.<sup>3</sup> 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

<sup>3</sup>Hundreds 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).<sup>4</sup>

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 sizeable effects on growth in Belarus, Kazakhstan, and Tajikistan.<sup>5</sup> 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

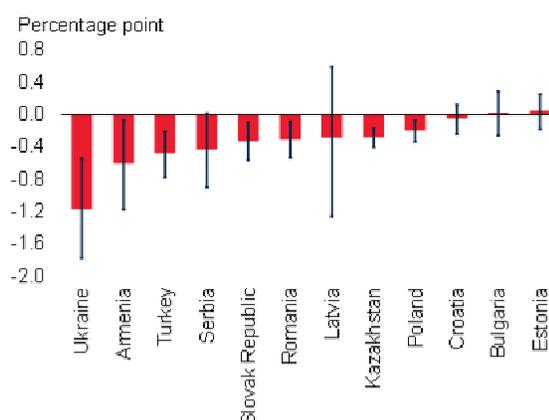
<sup>4</sup>To facilitate comparisons across models, responses are scaled by the cumulative change in the source country in the same quarter (1 percentage point, by definition), after one year and after two years. The estimations require quarterly data.

<sup>5</sup>The 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.

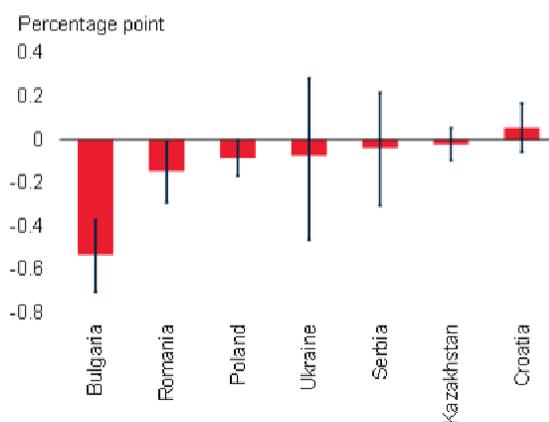
#### FIGURE 2.2.1.6 Regional spillovers

*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.

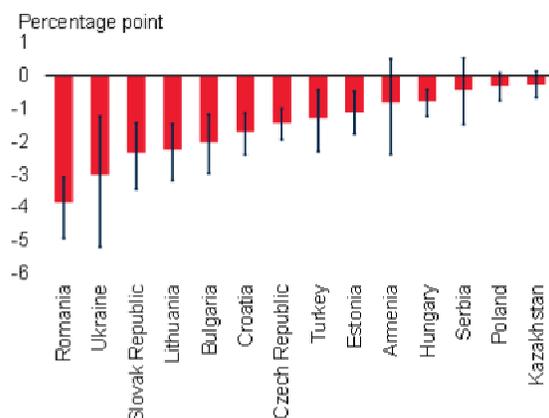
Note: Cumulative impact response after two years of each country's real GDP growth to a 1 percentage point decline in Russia's or Turkey's growth. Based on estimates of a structural VAR using data from 1998Q2-2015Q2.

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).