

EUROPE and CENTRAL ASIA



Regional growth is estimated to have decelerated to an estimated 3.1 percent in 2018 and is projected to further slow to 2.3 percent this year, mainly because of weakness in Turkey. Regional growth is expected to pick up modestly in 2020-21, as a gradual recovery in Turkey offsets moderating activity in Central Europe. The main risks to the region are weaker-than-expected investment due to heightened policy uncertainty, and a renewal of financial pressure in Turkey combined with possible contagion to the rest of the region.

Recent developments

Activity in Europe and Central Asia (ECA) is estimated to have slowed to 3.1 percent in 2018 from 4 percent in 2017, reflecting the marked weakness in activity in Turkey in the second half of the year. Excluding Turkey, regional growth remained unchanged at an estimated 2.9 percent in 2018, as slowing activity in countries in the western part of the region, such as Bulgaria and Romania, offset an acceleration in the eastern part of the region that benefitted from higher oil prices (Figure 2.2.1). Regional trade growth declined during 2018.

In Turkey, the lira declined around 30 percent over the course of 2018, reflecting capital outflows in response to accelerating inflation, a perceived delay in monetary tightening, and rising private sector debt. The country accumulated a sizable current account deficit and a large foreign currency-denominated debt load, leaving it vulnerable to shifting investor sentiment and currency depreciation. Output shrank by 1.1 percent from the second quarter to the third quarter amid plummeting consumer confidence and credit scarcity. Despite this contraction, strong growth in the first half of the year will bring Turkish growth to an estimated 3.5 percent for 2018.

Growth among the Central European economies slowed in 2018. Softening exports and labor shortages restrained growth in Bulgaria, Croatia, and Romania. In contrast, despite labor shortages, growth in Poland accelerated slightly because of strong consumption and investment. Robust domestic demand supported activity in the Western Balkans, except for Montenegro. In the Former Yugoslav Republic of Macedonia, growth rebounded in 2018 as the formation of a new government ended a prolonged political crisis and improved investor sentiment (World Bank 2018i).

The Russian Federation and other oil exporters in Central Asia maintained steady growth in 2018, supported by a rise in oil prices. Although economic sanctions tightened, Russia experienced relatively low and stable inflation and increased oil production. As a result of robust domestic activity, the Russian economy expanded at a 1.6 percent pace in the year just ended (World Bank 2018j). Higher-than-expected production in the Kashagan oil field and strong domestic demand supported growth in Kazakhstan. A stabilization in the financial sector and higher oil prices contributed to a slow recovery of growth in Azerbaijan in 2018.

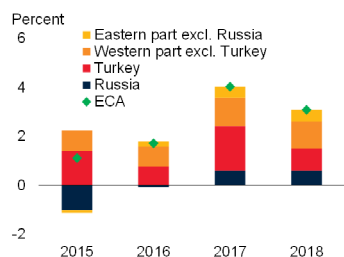
The stance of fiscal policy in the region varies. Turkey has committed to tight fiscal policy to help curb high inflation and currency depreciation. Romania's fiscal stance is mixed, with income tax reductions and increased public sector benefits offset by an increase in social contribution

Note: This section was prepared by Yoki Okawa. Research assistance was provided by Zhuo Chen and Mengyi Li.

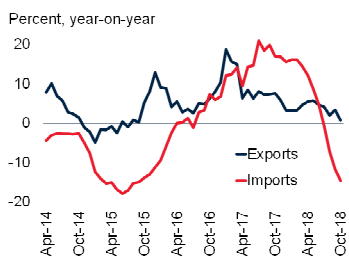
FIGURE 2.2.1 ECA: Recent developments

Regional growth is estimated to have slowed in 2018 reflecting financial stress in Turkey and weak regional trade. Financial stress in Turkey, which experienced a sharp depreciation and an increase in bond spreads, does not appear to have spilled over to other countries in the region. Slowing inflation in the eastern ECA region led to loosening in monetary policy, while a pickup in inflation from 2016 level in the western ECA has not yet led to monetary tightening. The fiscal stance in the region is mixed.

A. Contribution to regional growth



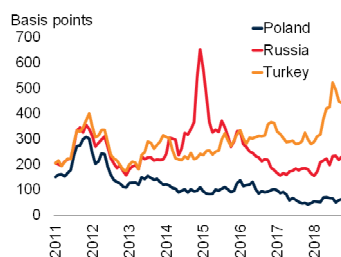
B. Trade



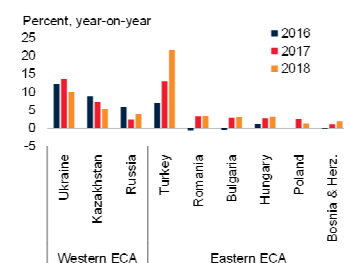
C. Currency movements in Turkey



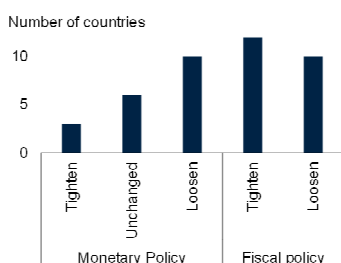
D. EMBI spreads



E. Inflation



F. Monetary and fiscal policy



Source: Haver Analytics, World Bank.

A. Aggregates growth rates calculated using constant 2010 U.S. dollar GDP weights.

B. Three-month moving averages of GDP-weighted trade volume indexes for Russia, Turkey, Poland, Ukraine, Kazakhstan, Hungary, and Armenia.

C. Cumulative change of exchange rate for 400 days from the starting date. Starting dates are February 1, 2001, May 2, 2013 and May 2, 2018 for 2001 crisis, Taper Tantrum, and 2018 crisis, respectively. Last observation for the 2018 crisis is December 19, 2018.

E. Last observation is November for each year.

F. Monetary policy tightening/loosening is defined as increase/decrease of the central bank's policy rate between January and November 2018. Fiscal policy tightening/loosening is defined as increase/decrease of primary balance in estimated 2018 values compared to 2017.

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revenue. Fiscal policy has become more procyclical in some Central European countries. In the eastern part of the region, the Russian government has implemented a new fiscal rule and is estimated

to have recorded its first surplus since 2012 in 2018. As fiscal stimulus measures are phased out, Kazakhstan has started to tighten its fiscal stance, resulting in improvements in its non-oil fiscal balance. Azerbaijan continues to rely on fiscal measures to support its economy.

For the majority of ECA countries, monetary policy is either stable or loosening. At the end of 2018, nine countries have policy rates lower than a year ago, while three countries have higher policy rates (Romania, Ukraine, Turkey). Inflation peaked at 25 percent in Turkey in October, significantly above the 5 percent target amid an overheating economy in the first half of 2018 and currency depreciation in the second. To ward off inflationary and currency pressures, Turkey's central bank increased the average cost of funding by more than 10 percentage points over the course of 2018. In Central Europe, tightening labor markets and increasing energy prices have pushed inflation up toward target, with monetary policy remaining stable in most countries. One exception is Romania, where robust domestic demand pushed inflation above the upper bound of the target band, prompting monetary policy tightening. Gradually accelerating inflation has also led to policy tightening in Ukraine. In the Western Balkans, Albania, FYR Macedonia, and Serbia have lowered policy rates amid stable and below-target inflation. For oil exporters, such as Azerbaijan and Kazakhstan, the stabilization of currency following the 2014-16 oil price plunge has resulted in lower inflation and looser monetary policy. In Russia, monetary policy was tightened in late 2018 amid pressures on the currency.

Outlook

The lingering effects of financial stress in Turkey are expected to further slow of regional growth in 2019. Growth is expected to slide to 2.3 percent, before recovering to 2.7 percent in 2020 (Figure 2.2.2). Excluding Turkey, regional growth is expected to average 2.6 percent during the forecast horizon, compared to 2.9 percent in 2018, with a gradual deceleration in Central Europe. This outlook is predicated on an orderly tightening of global financial conditions, oil prices averaging \$67 in 2019-2021, a gradual slowdown in the

Euro Area, and the absence of heightened geopolitical tensions.

While the outlook for Turkey is subject to considerable uncertainty, the country is expected to be weighted down by high inflation, high interest rates, and low confidence, which will dampen consumption and investment. Turkish growth is expected to slow to 1.6 percent in 2019 and begin to recover by 2020 through a gradual improvement in domestic demand and continued strength in net exports. However, this outlook assumes that fiscal and monetary policy successfully avert further sharp falls in the lira and, that corporate debt restructurings help avert serious damage to the financial system. A comprehensive stabilization package with consistent policy framework, clear milestones, and effective communication would help reduce risks and support recovery.

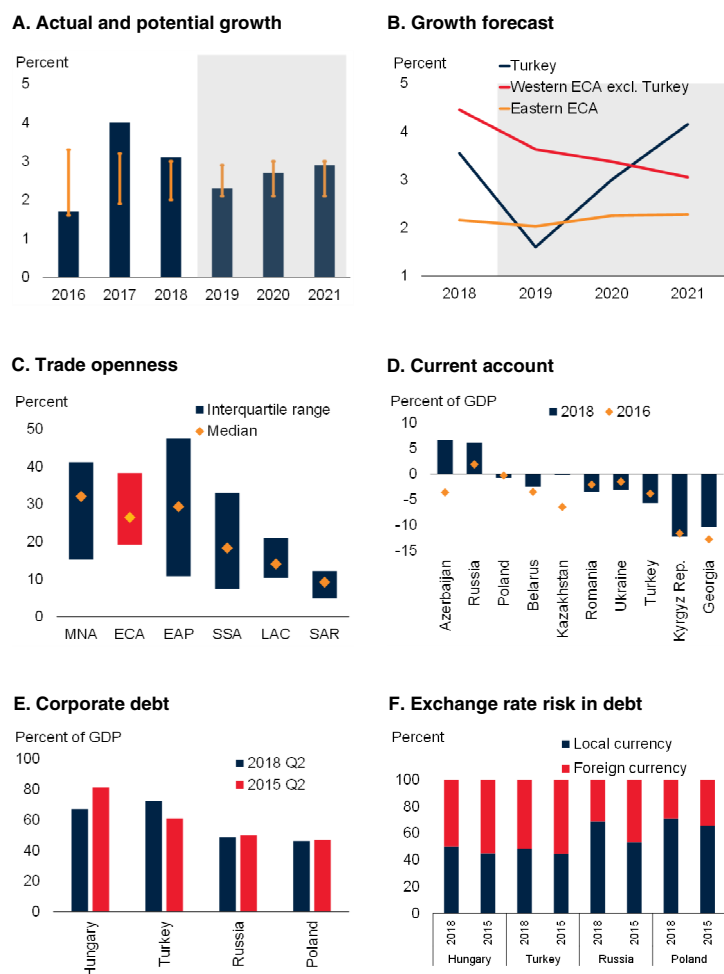
Spillovers from Turkey to the rest of the region are expected to remain modest, as trade and financial linkages are relatively limited. On the trade side, Azerbaijan has the largest exposure, as 9 percent of its exports are directed to Turkey. Financial linkages are also small—only Georgia receives meaningful amounts of FDI from Turkey, and foreign bank ownership of Turkish assets is limited in scale.

Growth in western ECA, excluding Turkey, is projected to gradually slow toward potential, driven by a slowdown in Central European economies. Domestic demand in this sub-region will be constrained by tight labor markets, while a continued slowdown in the Euro Area will limit export growth. Poland is expected to slow from 5.0 percent in 2018 to 4.0 percent in 2019, as Euro Area growth slows.

Growth in eastern ECA is forecast to slow in 2019, as the large economies including Russia, Kazakhstan and Ukraine decelerate. The VAT in Russia is expected to rise from 18 to 20 percent in 2019, weighing on near term growth. Kazakhstan’s economy is also expected to decelerate as oil production growth levels off and fiscal consolidation efforts continue (World Bank 2018k).

FIGURE 2.2 ECA: Outlook and risks

Regional growth is expected to slow notably in 2019 and gradually accelerate in 2020-21, partly reflecting a sharp decline and subsequent recovery in Turkish growth. A number of countries in the region appear vulnerable to shifts in investor sentiment, as reflected by their high current account deficits and corporate debt.



Source: Haver Analytics, Institute of International Finance, International Monetary Fund, World Bank. A. Blue bars refer to GDP-weighted average actual growth and vertical orange line show minimum-maximum range of potential growth estimates based on five different methodologies (production function approach, multivariate filter, IMF World Economic Outlook five-year-ahead forecast, Consensus Forecasts, and potential growth estimates in OECD Economic Outlook and OECD Long-Term Baseline Projections). A. B. Data in shaded area are forecasts. C. Share of exports as a percentage of GDP in 2016. EAP = East Asia and Pacific, ECA = Europe and Central Asia, LAC = Latin America and the Caribbean, MNA = Middle East and North Africa, SAR = South Asia, and SSA = Sub-Saharan Africa. D. Current account balance as a percentage of GDP. E-F. The data used are IIF end-of-period estimates of non-financial corporate debt as a percentage of GDP. [Click here to download data and charts.](#)

Risks

While there are some upside risks to the forecasts—for example, that stronger-than-expected energy prices may support activity in Russia and other

energy exporters—the balance of risks is increasingly tilted down. The most important downside risk is the possibility that the recent financial stress in Turkey worsens and triggers widespread bank failures. Turkish corporations carry significant debt, much of which is denominated in or linked to foreign currencies. Although many corporations are hedged against exchange rate risks, and corporate debt restructuring is on its way, falling domestic demand and forex exposure of the non-tradable sector pose risks. Currency depreciation and high interest rates could push corporate borrowers into bankruptcy and depleting banks' capital buffers. Renewed pressure in currency markets and increased uncertainty about the policy framework would increase the probability of a deepening crisis, implying a longer and more severe slowdown than currently forecast for Turkey (World Bank forthcoming). While direct linkages between Turkey and the rest of the region are small, an intensification of financial stress in Turkey or other EMDEs could also lead investors to re-evaluate their exposure in the region, which in turn could lead to capital outflows, currency depreciations, and rising borrowing costs.

The potential for financial stress is more elevated in countries with domestic vulnerabilities like Romania and Belarus, which have large current account deficits or large foreign-currency denominated debt. Public debt, which remains high despite recent declines, and private borrowing in foreign currencies makes Central European countries vulnerable to financial pressure. Public debt has also been trending up in Central Asia and the Western Balkans.

Increases in policy uncertainty could undermine confidence in the region and impact growth. A slowdown or reversal of ongoing structural reforms remains a risk in many countries in the region, especially in Armenia, Azerbaijan, Belarus, Ukraine, and Turkey. Tension concerning Syria or Ukraine could trigger new sanctions. Policy disagreements between the European Union and some Central European countries could deter international investors and reduce fiscal transfers. An escalation of trade restrictions between the United States and the Euro Area could have a negative impact on western ECA countries, as the Euro Area is the largest trading partner for all countries in the sub-region.

TABLE 2.2.1 Europe and Central Asia forecast summary

(Real GDP growth at market prices in percent, unless indicated otherwise)

Percentage point differences from June 2018 projections

	2016	2017	2018e	2019f	2020f	2021f	2018e	2019f	2020f
EMDE ECA, GDP¹	1.7	4.0	3.1	2.3	2.7	2.9	-0.1	-0.8	-0.3
EMDE ECA, GDP excl. Turkey	1.2	2.9	2.9	2.6	2.6	2.5	0.1	-0.2	-0.1
(Average including countries with full national accounts and balance of payments data only) ²									
EMDE ECA, GDP ²	1.6	4.0	3.0	2.3	2.7	2.9	-0.2	-0.8	-0.3
GDP per capita (U.S. dollars)	1.2	3.6	2.7	2.0	2.4	2.7	-0.1	-0.8	-0.3
PPP GDP	1.6	3.9	3.0	2.3	2.7	2.9	-0.2	-0.8	-0.3
Private consumption	1.2	4.8	3.0	2.4	3.2	2.9	-0.1	-0.8	0.1
Public consumption	2.9	2.1	1.9	2.5	2.2	2.1	0.4	1.1	0.9
Fixed investment	0.0	6.3	0.3	2.3	4.6	4.8	-4.9	-2.5	-0.1
Exports, GNFS ³	3.4	6.9	5.5	5.3	4.3	4.5	0.7	0.6	-0.4
Imports, GNFS ³	3.2	10.4	2.8	5.1	5.8	5.8	-2.7	-0.4	0.6
Net exports, contribution to growth	0.2	-0.7	1.1	0.3	-0.2	-0.2	1.1	0.3	-0.2
Memo items: GDP									
Commodity exporters ⁴	0.3	2.0	2.1	2.0	2.2	2.3	0.1	-0.3	-0.1
Commodity importers ⁵	3.1	6.0	4.0	2.6	3.2	3.6	-0.3	-1.2	-0.5
Central Europe ⁶	3.4	4.9	4.5	3.6	3.3	3.0	0.3	-0.1	-0.2
Western Balkans ⁷	3.0	2.5	3.5	3.5	3.8	3.8	0.3	0.1	0.0
Eastern Europe ⁸	0.8	2.6	3.5	2.9	3.1	3.4	0.2	-0.7	-0.4
South Caucasus ⁹	-1.6	2.0	2.5	4.0	3.8	3.4	-0.1	0.0	0.1
Central Asia ¹⁰	3.3	4.8	4.4	4.2	4.0	4.1	0.0	0.0	0.0
Russia	-0.2	1.5	1.6	1.5	1.8	1.8	0.1	-0.3	0.0
Turkey	3.2	7.4	3.5	1.6	3.0	4.2	-1.0	-2.4	-1.0
Poland	3.1	4.8	5.0	4.0	3.6	3.3	0.8	0.3	0.1

Source: World Bank.

Note: e = estimate; f = forecast. EMDE = emerging market and developing economy. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

2. Sub-region aggregate excludes Bosnia and Herzegovina, Kosovo, Montenegro, Serbia, Tajikistan, and Turkmenistan, for which data limitations prevent the forecasting of GDP components.

3. Exports and imports of goods and non-factor services (GNFS).

4. Includes Albania, Armenia, Azerbaijan, Kazakhstan, the Kyrgyz Republic, Kosovo, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

5. Includes Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Hungary, FYR Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, and Turkey.

6. Includes Bulgaria, Croatia, Hungary, Poland, and Romania.

7. Includes Albania, Bosnia and Herzegovina, Kosovo, FYR Macedonia, Montenegro, and Serbia.

8. Includes Belarus, Moldova, and Ukraine.

9. Includes Armenia, Azerbaijan, and Georgia.

10. Includes Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan.

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TABLE 2.2.2 Europe and Central Asia country forecasts¹

(Real GDP growth at market prices in percent, unless indicated otherwise)

Percentage point differences
from June 2018 projections

	2016	2017	2018e	2019f	2020f	2021f	2018e	2019f	2020f
Albania	3.4	3.8	4.0	3.6	3.5	3.5	0.4	0.1	0.0
Armenia	0.2	7.5	5.3	4.3	4.6	4.6	1.2	0.3	0.6
Azerbaijan	-3.1	0.1	1.1	3.6	3.3	2.7	-0.7	-0.2	0.1
Belarus	-2.5	2.4	3.4	2.7	2.5	2.5	0.5	0.0	0.0
Bosnia and Herzegovina ²	3.1	3.0	3.2	3.4	3.9	4.0	0.0	0.0	-0.1
Bulgaria	3.9	3.8	3.3	3.1	3.0	2.8	-0.5	-0.5	-0.6
Croatia	3.5	2.9	2.7	2.8	2.8	2.6	0.1	0.1	0.0
Georgia	2.8	4.8	5.3	5.0	5.0	5.0	0.8	0.2	0.0
Hungary	2.3	4.1	4.6	3.2	2.8	2.4	0.5	0.0	-0.2
Kazakhstan	1.1	4.1	3.8	3.5	3.2	3.2	0.1	0.2	0.4
Kosovo	4.1	4.2	4.2	4.5	4.5	4.5	-0.6	-0.3	-0.3
Kyrgyz Republic	4.3	4.6	3.1	3.4	3.9	4.0	-1.1	-1.4	-1.1
Macedonia, FYR	2.8	0.2	2.5	2.9	3.2	3.3	0.2	0.2	0.2
Moldova	4.5	4.5	4.8	3.8	3.5	3.2	1.0	0.1	0.0
Montenegro	2.9	4.7	3.8	2.8	2.5	2.5	1.0	0.3	0.4
Poland	3.1	4.8	5.0	4.0	3.6	3.3	0.8	0.3	0.1
Romania	4.8	6.9	4.1	3.5	3.1	2.8	-1.0	-1.0	-1.0
Russia	-0.2	1.5	1.6	1.5	1.8	1.8	0.1	-0.3	0.0
Serbia	2.8	1.9	3.5	3.5	4.0	4.0	0.5	0.0	0.0
Tajikistan	6.9	7.1	6.0	6.0	6.0	6.0	-0.1	0.0	0.0
Turkey	3.2	7.4	3.5	1.6	3.0	4.2	-1.0	-2.4	-1.0
Turkmenistan	6.2	6.5	6.2	5.6	5.1	4.9	-0.1	-0.7	-1.2
Ukraine	2.3	2.5	3.5	2.9	3.4	3.8	0.0	-1.1	-0.6
Uzbekistan	7.8	5.3	5.0	5.1	5.5	6.0	0.0	0.0	0.0

Source: World Bank.

Note: e = estimate; f = forecast. World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

1. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars, unless indicated otherwise.

2. GDP growth rate at constant prices is based on production approach.

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BOX 2.2.1 Informality in Europe and Central Asia

The share of informal output in Europe and Central Asia (ECA) is larger than the EMDE average, even after a decline from elevated 1995 levels, but informality in the labor market is below average and there is wide heterogeneity within the region. Informality in ECA has been associated with weak institutions, sizeable agricultural sectors, and large-scale migration as well as low productivity, fiscal revenue losses, and poor job prospects for youth. In some ECA countries, declines in informality have accompanied the simplification of tax systems and labor market reforms, as well as reforms to reduce corruption.

Introduction

Informal output accounts for a larger share of official GDP (36 percent) in Europe and Central Asia (ECA) than in the average EMDE (Figure 2.2.1.1).¹ However, despite a widely shared history of transition from centrally planned to market economies, there is significant variation in informality within the region, ranging from 22 percent to 56 percent.

Against this backdrop, this box examines the following questions.

- How has informality evolved in Europe and Central Asia?
- What have been the macroeconomic and social correlates of informality?
- What policy options are available to address challenges associated with informality?

Evolution and drivers of informality

Evolution of informality. With the collapse of centrally planned economies in the late 1980s, many firms chose to operate in the informal sector to avoid burdensome regulations, taxation, or corruption. Estimates based on electricity consumption suggest that the average size of the informal economy more than doubled during 1989-95 (Johnson, Kaufmann, and Shleifer 1997). While informality declined in most countries once they began to recover, there was considerable heterogeneity across countries. In the western part of the region, where institutions are stronger, informality has declined steeply.² Notwithstanding this decline, one in ten formal employees

in Central Europe still received “envelope wages” as recently as 2006, and the informal economy accounted for 10 percentage points of GDP more than in the more advanced EU19 economies in 1999-2007 (Fialová and Schneider 2011).³ In the eastern part of the region, the decline in informality has been considerably less pronounced, in part reflecting slower implementation of market liberalizing and other reforms, as well as persistently higher levels of corruption (Kaufmann and Kaliberda 1996).

Drivers of informality. Informality in ECA economies has typically been attributed to three factors:

- **Agriculture.** Higher labor market informality has been associated with a larger share of workers in the agricultural sector as they tend to be self-employed (Figure 2.2.1.2; Rutkowski 2006; World Bank 2011). A larger agricultural sector has also been correlated with greater informality in non-agricultural sectors (Atesagaoglu, Bayram, and Elgin 2017).
- **Remittances.** In countries with large diasporas, informal activity has been higher among workers in households that receive sizeable remittances (Chatterjee and Turnovsky 2018; Shapiro and Mandelman 2016). In Kazakhstan, FYR Macedonia, Moldova, Serbia, Tajikistan, and Ukraine, remittances provided the capital to establish small businesses, which tend to be informal, and the income support needed to accept less secure but often more lucrative informal work (Ivlevs 2016).
- **Institutions.** Institutional quality varies widely within the region. The east has considerably weaker institutional quality indicators than the west, which implemented substantial reforms in the context of the EU accession process (Figure 2.2.1.2; Kaufmann and Kaliberda 1996).⁴ In general, a favorable business

Note: This section was prepared by Yoki Okawa. Research assistance was provided by Zhuo Chen and Mengyi Li.

¹ The methodology of informality estimates is discussed in Chapter 3.

² The western part of the region includes Central Europe (Bulgaria, Croatia, Hungary, Poland and Romania) and the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, the Former Yugoslav Republic of Macedonia, Montenegro, and Serbia), and Turkey. The eastern part of the region comprises Eastern Europe (Belarus, Moldova, and Ukraine), South Caucasus (Armenia, Azerbaijan and Georgia), Central Asia (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) and Russia.

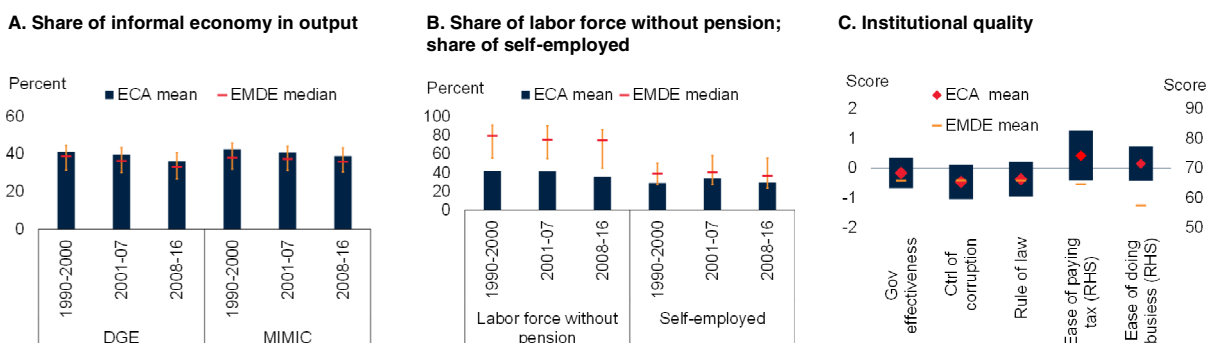
³ “Envelope wages” refers to the practice of paying a portion of wages in undeclared cash to avoid tax and social contributions (see, for example, Horodnic 2016, and Williams and Padmore 2013).

⁴ Institutional indicators include the World Bank’s Doing Business Indicators and World Governance Indicators of government effectiveness, control of corruption, or rule of law.

BOX 2.2.1 Informality in Europe and Central Asia (continued)

FIGURE 2.2.1.1 Informality in Europe and Central Asia

The share of informal output in the ECA region is higher than the EMDE median throughout the sample period, and it declined at the roughly same pace as in the other EMDE regions. However, employment informality is low, in part reflecting a low share of agriculture in some countries in the region. Institutional quality is on par with other regions, albeit with considerable heterogeneity within the region.



Source: Elgin et al. (forthcoming), World Bank.

Note: Blue bars show simple averages of the informal economy of the region. Red markers show the median average of all EMDEs and the vertical lines denote interquartile range of all EMDEs.

A. Both DGE and MIMIC estimates measure the informal output in percent of official GDP.

B. Labor force without pension is the fraction of the labor force that doesn't contribute to a retirement pension scheme, which is derived from the original data on pension coverage obtained from WDI. Self-employed is the share of self-employment in total employment.

C. All measures are taken from the latest year available. The first three institutional measures are taken from World Bank's World Governance Indicators (2017), with a higher value indicating better institutional quality in year 2016. The "Ease of doing business" (DB 2018) and "Ease of paying taxes" (DB 2017) are taken from World Bank's Doing Business database and measured as "Distance to Frontier", with a higher value indicating an easier environment for businesses.

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environment encourages firms to do business in the formal sector (Chapter 3). However, the transition from economies dominated by large state-owned enterprises to more private-business friendly economies sometimes created more informal employment and larger informal sectors (Earle and Sakova 2000).

Correlates of informality

Firm productivity. Some country-specific studies suggest that informal firms tend to be less productive than formal firms. In Turkey, for example, after controlling for firm characteristics, informal firms in the manufacturing and services sectors had 16 percent and 38 percent lower total factor productivity than formal firms, respectively, with the productivity gap attributed to restricted access to public services and formal markets (Taymaz 2009). By these estimates, shifting all informal firms in the Turkish manufacturing and services sectors into the formal sector could raise total output by 5 percent and 25 percent, respectively (Taymaz 2009). In Kyrgyz Republic, productivity in the informal sector has declined significantly since 2009, despite robust productivity

growth in the formal sector (Sattar, Keller, and Baibagsy Uulu 2015).

Fiscal revenues. Large informal sectors erode tax revenues and hamper governments' ability to provide public goods. However, the magnitude of foregone revenues due to informality remains a matter of debate. One estimate suggests that tax revenue losses from informality could have been as high as 7 percent of GDP in Central Asia and the Caucasus in 2004 (Grigorian and Davoodi 2007). However, estimates based on micro survey data suggest only modest potential revenues gains (0.03-0.07 percentage points of GDP) from turning informal workers into formal workers in a country such as Ukraine in 2009, as newly formalized are mainly low-skilled and subject to low tax rates (World Bank 2011).

Labor market prospects. Informal employment is more common among young, low-skilled, and female workers. Some studies suggest that informal employment can damage long-term career prospects and entrench income differentials (Taymaz 2009; World Bank 2007, 2011). However, informal employment can also be an income source when formal employment opportunities are scarce,

BOX 2.2.1 Informality in Europe and Central Asia (continued)

as well as help develop human capital that can lead to formal employment or self-employment, as has been found for Turkey and Russia (Guariglia and Kim 2006; Taymaz 2009).⁵ Better-paid informal activity may also encourage skilled professionals to forgo migration opportunities in highly regulated economies with large emigration, such as Tajikistan (Abdulloev, Gang, and Landon-Lane 2011).

Inequality. In some countries, the low wages paid to informal workers (the “wage penalty”) compared with formal workers have contributed to inequality. In Serbia, the wage penalty contributed to rising inequality between 2002 and 2007 (Krstic and Sanfey 2010). A similar wage penalty in Turkey was found for less educated workers (Taymaz 2009). However, in some cases informal workers have been found to earn a wage premium, e.g., in Russia, Romania, Tajikistan, and Ukraine (Lehmann and Norberto 2018; Shehu and Nilsson 2014; Staneva and Arabsheibani 2014; Zahariev 2003). In those countries, the informal wage premium may compensate for the lack of social security and lower job security (Lehmann and Norberto 2018; Marcouiller, de Castrilla and Woodruff 1997).⁶

Policy challenges

The impact of policies on informality can depend on country characteristics such as labor market flexibility, efficiency of tax collection or control of corruption. This underscores the importance of ensuring that reform efforts are carefully tailored to country circumstances to avoid unintended increases in informality.

Labor market policies. The impact of labor market reforms on informality has been mixed in ECA, and appears to have depended on the types of the reform. In a cross-sectional study of ECA countries, more restrictive employment protection legislation has been associated with a higher share of the informal economy (both in terms of GDP and labor force; Fialová 2011; Lehmann and Muravyev 2009). In contrast, there was no robust association of informality with more generous unemployment benefits or higher minimum wages

(Fialová and Schneider 2011; Lehmann and Muravyev 2009).

Fiscal policy. Several countries have changed tax rates or tax enforcement, but the impact on informality has varied. That said, reducing the tax compliance burden and subsidizing the transition to formal sectors have typically been accompanied by declines in informality.⁷

- **Flat tax.** A flat labor income tax rate has been introduced in several ECA countries (e.g., Bulgaria, Poland, Russia, and Romania). The flat tax reform in Russia was followed by a decline in informal employment and informal activity, especially in the top income bracket (Slonimczyk 2012). A simulation suggests that the Polish flat tax reform in 2004 could have led to a 48 percent increase in reported business income and 25 percent higher tax revenue, despite a lower average marginal tax rate (Kopczuk 2012). However, flat tax structures can be regressive and need to be balanced with poverty fighting initiatives.
- **Preferential tax schemes.** Certain preferential tax schemes for the self-employed and small firms can encourage movement away from the informal sector. One such scheme, indirect assessments of tax liabilities, has been shown to encourage entrepreneurship, help revenue collection from hard-to-tax sectors, and ease the transition from informal to formal work. However, such preferential schemes can also encourage formal workers to pursue the preferential status and may encourage firms to remain small (Packard et al. 2014).
- **Shift from labor to other taxation.** Shifting from labor income taxes, which constitute a wedge between informal and formal employment, to less distorting and more easily enforced taxes, such as value-added taxes and progressive real estate taxes, can shrink the informal economy (Packard, Koettl, and Montenegro 2012).
- **Subsidies.** A formal employment subsidy, such as the one introduced in Turkey, can increase the number of registered jobs by encouraging informal workers to

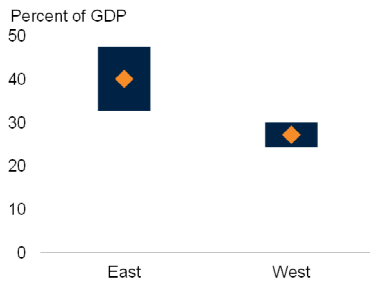
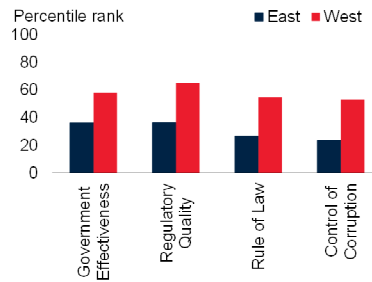
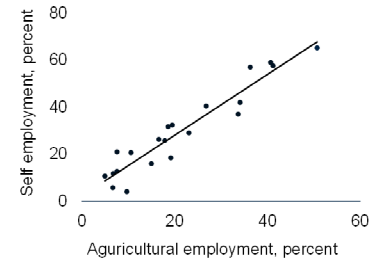
⁵This is consistent with the finding that informally employed youth have lower job satisfaction relative to their peers with formal jobs (Shehu and Nilsson 2014).

⁶Controlling for worker characteristics and selection bias, the absence of male-female wage differentials in the informal economy—in the presence of large differentials in the formal economy—has been interpreted as sign of lesser gender discrimination in the informal economy than in the formal economy in Turkey (Tansel 2000).

⁷On the one hand, higher labor tax rates encourage a move of labor into untaxed informal employment, especially for low-wage earners (Koettl and Weber 2012). On the other hand, higher labor tax rates have in some cases been associated with a lower share of informal employment, because higher revenue allow governments to provide better public goods that can only be accessed in formal employment (Fialová and Schneider 2011, Friedman et al. 2000).

BOX 2.2.1 Informality in Europe and Central Asia (continued)**FIGURE 2.2.1.2 Correlates of informality in Europe and Central Asia**

Informality as a percentage of GDP in the eastern part of the region is higher than the western part of the region, in part reflecting differences in institutional quality. Employment informality tends to be higher in countries with larger agricultural sectors.

A. Informality in output**B. Institutional quality****C. Labor market informality and agricultural employment**

Source: Elgin et al. (forthcoming), European Bank of Reconstruction and Development, World Bank.

A-B. Data are from the latest year available, usually 2016. The western part of the region includes Central Europe (Bulgaria, Croatia, Hungary, Poland and Romania) and the Western Balkans (Albania, Bosnia and Herzegovina, Kosovo, the Former Yugoslav Republic of Macedonia, Montenegro, and Serbia), and Turkey. The eastern part of the region comprises Eastern Europe (Belarus, Moldova, and Ukraine), South Caucasus (Armenia, Azerbaijan and Georgia), Central Asia (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan) and Russia.

A. Orange diamonds indicate subsample average and blue bars indicate one standard deviation range.

C. Agricultural employment and self-employment are shares of employment in agriculture or share of self-employed in total employment.

[Click here to download data and charts.](#)

transition to formal employment as well as provide better social protection (Betcherman, Daysal, Pagés 2010).

Control of corruption. Better governance and more effective tax authorities can reduce the size of the informal economy and increase tax revenue. Bureaucratic

corruption has been associated with greater informal activity in Poland, Romania, and Slovakia (Johnson et al. 2000). Conversely, better control of corruption has reduced the extent of informal activities in the countries that joined the European Union in the mid-2000s (Fialová and Schneider 2011).

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