

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.

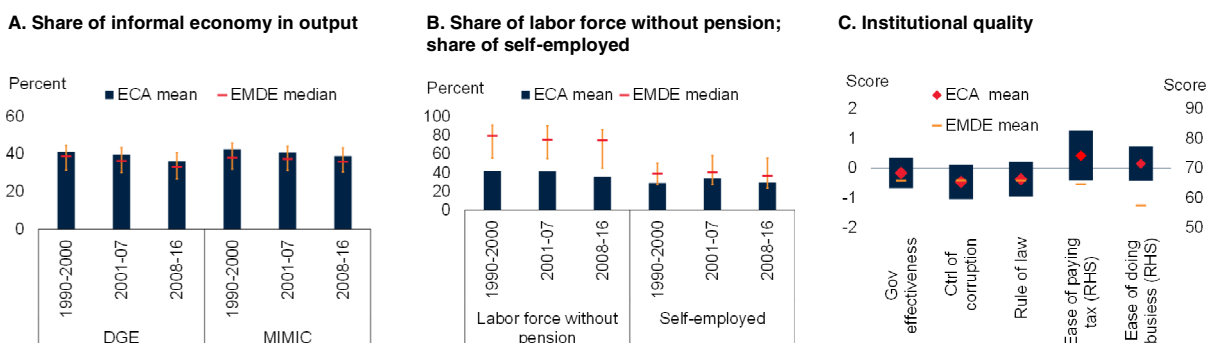
³ “Envelope wages” refers to the practice of paying a portion of wages in undeclared cash to avoid tax and social contributions (see, for example, Horodnic 2016, and Williams and Padmore 2013).

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).

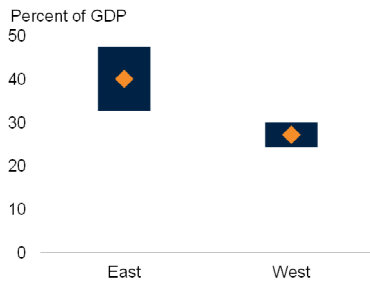
⁷On the one hand, higher labor tax rates encourage a move of labor into untaxed informal employment, especially for low-wage earners (Koettl and Weber 2012). On the other hand, higher labor tax rates have in some cases been associated with a lower share of informal employment, because higher revenue 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)

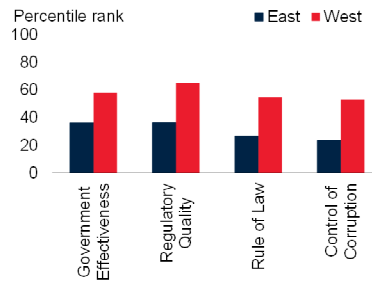
FIGURE 2.2.1.2 Correlates of informality in Europe and Central Asia

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.

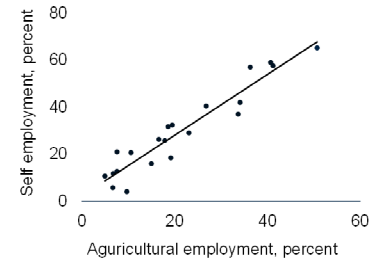
A. Informality in output



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.

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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).