BOX 3.2 Regional dimensions of informality: An overview

Informality, especially employment informality, is most prevalent in less developed EMDE regions. Together, South Asia and Sub-Saharan Africa account for nearly 60 percent of all informal workers in EMDEs. However, even in some wealthier EMDE regions, such as Latin America and the Caribbean and Europe and Central Asia, informality remains significant in part due to weak institutions and high levels of taxation and regulation. Both the drivers and implications of informality vary across and within regions, suggesting the need for tailored policy responses.

The informal economy accounts for a significant proportion of both employment and output across EMDEs. Around three-quarters of EMDE employment is estimated to be in the informal sector. Self-employment, which is relatively easy to measure and provides a lower bound estimate of informality, is 43 percent of total employment in the average EMDE, although this proportion ranges from 22 percent in the Middle East and North Africa (MENA), to 62 percent in Sub-Saharan Africa (SSA).[1]

Informality has both costs and benefits. It can provide an important source of income in EMDEs, often to those with few available alternatives. That said, informal employment is often associated with lower and more uncertain incomes for workers and lower revenues available for governments to fund their development objectives.

The regional disparities in the scale of informality depend on a wide range of factors. To summarize these regional distinctions, this box addresses the following questions:

- Where is global informality concentrated?
- What have been the correlates of informality across EMDE regions?
- What policy options are available?

Where is global informality concentrated?

Regional composition of EMDE informal sectors. One-half of the world's informal output and 95 percent of informal employment is located in EMDEs. Three EMDE regions alone accounted for one-third of the world's informal output in 2016: East Asia and Pacific (EAP), Latin America and the Caribbean (LAC), and Europe and Central Asia (ECA). They are also the largest EMDE regions by formal GDP, accounting for one-quarter of the world's formal output.

In terms of employment, almost half (42 percent) of the world's informal workers can be found in South Asia (SAR), although the region accounts for just 9 percent of the world's formal employment and 3 percent of the world's formal output (Figure 3.2.1). Sub-Saharan Africa (SSA) is also over-represented in its share of informal employment, accounting for 14 percent of the world's total, well above its share of the world's formal output (2 percent) or formal employment (5 percent).

Informal-sector productivity in EMDE regions. In all EMDE regions, the proportion of informal employment exceeded the share of informal output, reflecting a tendency for the informal sector to be less productive than the formal sector (La Porta and Shleifer 2014; Fajnzylber, Maloney, and Montes-Rojas 2011). This difference is particularly pronounced for SAR and SSA, where the informal *employment* share is approximately double the informal output share.

Trend decline in informality. In all EMDE regions, the informal sector has steadily declined in relative importance since the 1990s. On average, informality has fallen by 5 percentage points of GDP since the 1990s, partially driven by economic development and improvement in governance. The decline in relative importance was largest in EAP and SAR with informality falling by 8 percentage points in both regions. Faster-than-average formalization of the economy in these two regions is likely to in part reflect faster-than-average per capita GDP growth since the 1990s. Conversely, informality in the Middle East and North Africa (MENA) decreased only modestly amid persistently weak growth and entrenched weak governance.

Within-region heterogeneity. The regions with the widest per capita income heterogeneity were also those with the widest range of informality as a share of output or employment. Informality is significantly more prevalent in lower-income economies within EAP despite the relatively low share of informal output for the region as a whole. In MENA, the non-Gulf Cooperation Council (GCC) economies have elevated levels of informality while the share for MENA as a whole is the lowest of all EMDE regions (Box 2.4). In contrast, in SSA, where the variation

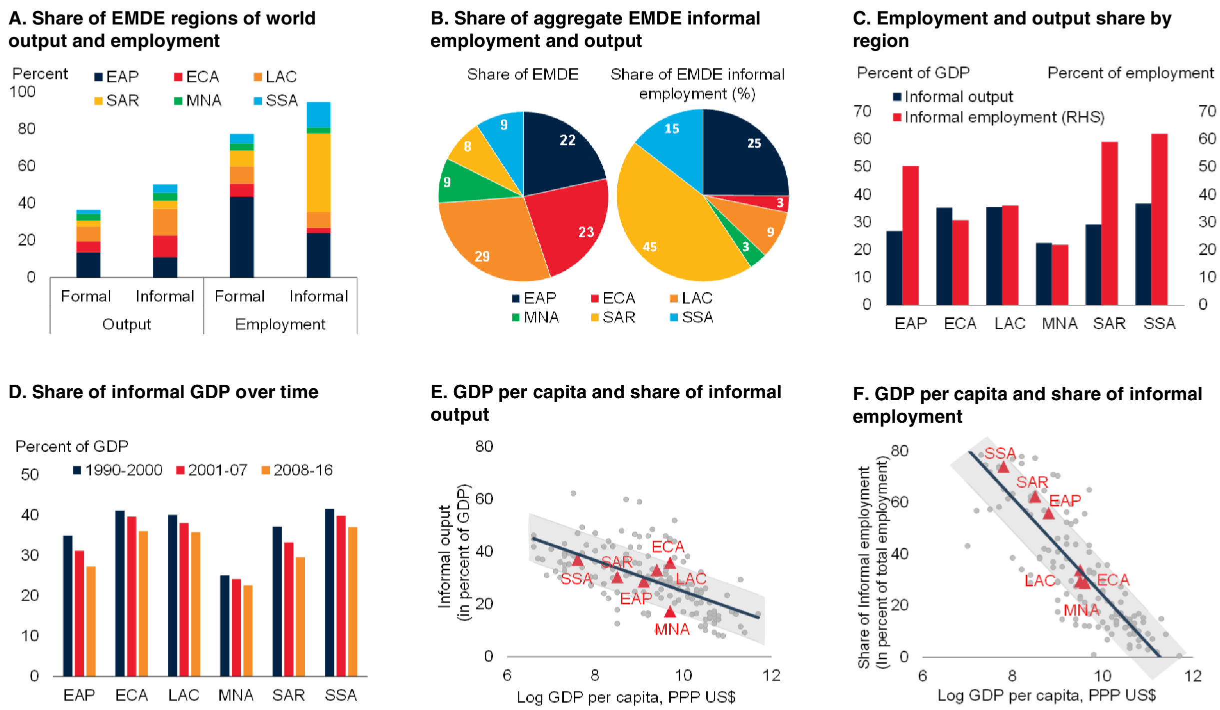
Note: This box was prepared by Gene Kindberg-Hanlon with research assistance from Jinxin Wu and Zhuo Chen. It summarizes six boxes on the regional dimensions of informality featured in Chapter 2.

[1] For the purposes of this box, informal employment is proxied by self-employment because of good data coverage, and the regional disparities identified in this box are robust to other measures.

BOX 3.2 Regional dimensions of informality: An overview *(continued)*

FIGURE 3.2.1 Informality in EMDE regions

Informality is pervasive across all EMDEs—although the share of informal output in GDP has been falling over time, its incidence is higher in the poorest regions.



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

Note: Data are between 2010 and 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.

A.B. DGE-based estimates of informal output in each region as a proportion of total estimated informal GDP. Estimates of self-employment shares are used to proxy informal employment. Formal output equals official GDP. Estimates are based on their respective average shares of output and employment.

C. Mean of informal output (DGE-based estimates, percent of official GDP) and employment estimate (self-employment, percent of total employment) in each region.

D. Average DGE estimate of informal output relative to total output in each time period.

E.F. Grey markers show average log GDP (2011 PPP $ - averaged 2010-16) relative to DGE/SEMP estimate of informal output/employment for 154 and 147 economies respectively, with the fitted lines shown in blue and the corresponding +1 and -1 standard errors shown in shaded gray areas. Regional markers show median GDP per capita and median informal output/employment in EMDE regions.

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of per capita incomes is one-fifth that of MENA (the EMDE region with the largest per capita income heterogeneity), informality amounted to over 30 percent of output and 39 percent of employment in three-quarters of countries.

What have been the correlates of informality across regions?

Informality is concentrated in countries which are less developed and suffer from a range of institutional weaknesses. Poverty and low human capital are strongly associated with those regions with the highest incidence of informality. In contrast, in wealthier regions such as LAC and ECA, institutional weaknesses and tax policy have contributed to elevated levels of informality.

Economic development. Informality is most prevalent in EMDE regions with low income per capita, reflecting the role of informality as both a driver and consequence of poverty (La Porta and Shleifer 2014). None of the regional shares of informal output or employment deviates statistically significantly from what might have been expected based on average per capita incomes alone (Figure 3.2.1).

Low human capital. Informality is also more prevalent where educational attainment is weak.[2] In SSA, where

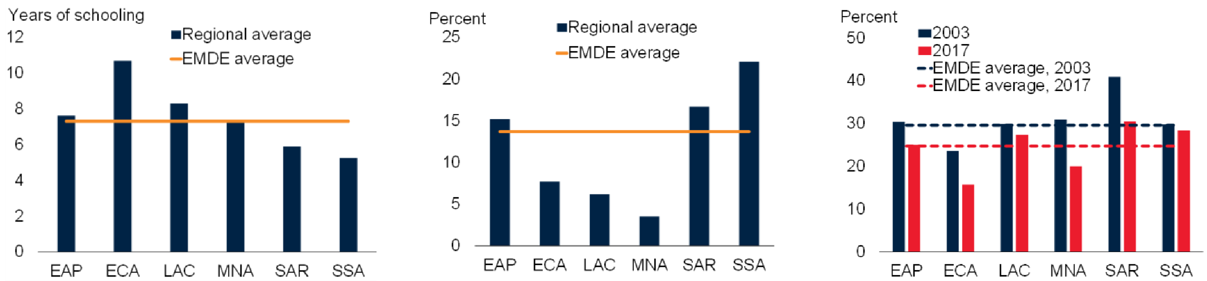
[2] Docquier, Müller, and Naval (2017) demonstrates that a sizeable informal sector that competes with the formal sector for low-skilled workers reduces the incentives to invest in human capital in the long run. In addition, weak educational attainment is a feature of lack of development, which contributes to informality (Loayza 2016).

BOX 3.2 Regional dimensions of informality: An overview *(continued)*

FIGURE 3.2.2 Regional correlates of informality

Informality is most prevalent in regions with poor educational attainment and large agricultural sectors. In some regions where tax avoidance is relatively easy, there is a strong relationship between the region's above-average tax rates and the level of informality.

A. Years of schooling, by EMDE region **B. Share of agricultural sector in total output, by EMDE region** **C. Corporate tax rates**



Sources: Barro and Lee (2013), Végh and Vuletin (2015), World Development Indicators, World Bank.

Note: 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.

A. Average years of schooling for those aged 15 and older, taken from Barro and Lee (2013).

B. Average agricultural output as a percentage of total GDP.

C. Corporate tax rates are constructed as regional averages using Végh and Vuletin (2015).

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educational attainment is the lowest on average among EMDEs, informal sector workers are much less likely to have completed primary education than those in the formal sector (Figure 3.2.2; Adams, de Silva, and Razmara 2013). Education levels have also been found to be an important correlate of informality in SAR, where attainment is also below the EMDE average.[3]

High regulatory and tax burdens. In LAC, several studies have found a strong relationship between the region's above-average tax rates and ease of tax avoidance, and the level of informality (Figure 3.2.2; Loayza 1996; Vuletin 2008; Ordóñez 2014). For ECA, labor market regulations that are more restrictive than elsewhere have been identified as drivers of informal employment (Fialová and Schneider 2011).

Weak institutions. Some economies in ECA have below-average institution quality, which may explain the region's slightly above-average degree of output informality despite ECA's relatively high per capita income. In non-GCC MENA economies, corruption has been cited among the biggest hindrances to firms which may increase incentives to operate informally (World Bank 2016).

Region-specific factors. A number of region-specific factors have contributed to informality.

- In ECA, a high share of informal output is partly a legacy of the collapse of the Soviet Union in the late 1980s and early 1990s as well large remittance inflows that have financed informal sector activity (Box 2.2).
- In some LAC economies, the trade liberalizations of the 1990s have been identified as contributors to growing informality, as formal firms that were unable to compete in a liberalized formal economy retreated into informality (Box 2.3).
- In MENA, although informality is particularly pronounced in non-GCC economies, in the GCC informality is low partly because of its heavy reliance on documented foreign workers and government employment (Box 2.4; World Bank 2018c).
- In SSA, large agricultural sectors help explain widespread informal employment as does the conflict and violence that have afflicted the region and forced people to earn their livelihoods in the informal economy (Box 2.6).

What policy options are available?

To mitigate the damaging effects associated with informality, policy responses can be tailored to the circumstances and drivers of informality in that economy. Policy options can be broadly split into several categories:

[3] Williams, Shahid, and Martinez (2016), Bahadur and Parajuli (2014), and Gunatikala (2008).

BOX 3.2 Regional dimensions of informality: An overview *(continued)*

Improving human capital. By investing in education and social services to improve human capital, policy makers can improve the productive capacity of workers that are currently uncompetitive in the formal sector. Training has been found to boost worker income and firm revenue in studies in the informal sectors of SSA and SAR (Verner and Verner 2005; Burki and Abbas 1991).

Improving access to public services and finance. Efforts to facilitate informal sector business can benefit informal sector workers and make them more competitive (Box 2.6; Sonobe, Akoten, and Otsuka 2011). For example, in SSA, providing informal traders public goods, such as a market to trade in or access to water and sanitation, has helped increase informal firm profitability and product quality. In SAR, a lack of access to financial resources is common for the self-employed (Ghani, Kerr, and O'Connell 2013; Box 2.5). Enabling access to microfinance has been found to increase investment and productivity in the informal sector (Likhi 2013; Donou-Adonsou and Sylwester 2017; Imai and Azam 2012).

Easing tax and regulatory burdens. Several studies in LAC have found that policies to reduce tax rates and simplify tax systems have incentivized firms to transition to the formal sector. Payroll or business tax cuts in Colombia, Brazil and Uruguay have been associated with higher formal employment and firm registration.[4] However, in regions where tax rates or tax compliance costs are not elevated, cutting taxes can be counterproductive in reducing informality. In ECA, where corporate tax rates are lower than the EMDE average, *higher* taxation was associated with increased formalization in some studies because of the lack of public goods provided in regions with insufficient tax revenue (Fialová and Schneider 2011; Friedman et al. 2000). Separately, less restrictive employment protection has been associated with a smaller informal economy (both in employment and output) in ECA countries (Fialová and Schneider 2011: Lehmann and Muravyev 2009).

Tightening enforcement. Enforcement that is economically and socially sensible can help reduce the presence of the informal sector (Loayza 2018). In LAC, policies such as labor inspections have been found to induce informal workers and firms to formalize (De Andrade, Bruhn, and McKenzie 2013; and Almeida and Carneiro 2012). Studies in ECA, SAR and EAP have also found that lower levels of enforcement are associated with higher rates of informality (Box 3.4). Regulatory and tax compliance rates increase more if increased labor or tax inspections are accompanied by other measures such as awareness campaigns (Rani et al. 2013).

Reducing corruption. In ECA, where informality rose considerably following the disruptions associated with the collapse of the Soviet Union, higher corruption has been linked with higher informality (Friedman et al. 2000). Economies in ECA that were slower to implement structural reforms and control corruption in the 1990s saw a smaller-than-average decline in informality (Kaufmann and Kaliberda 1996). Corruption is also a key disincentive to enter the formal sector in MENA according to firm surveys.

[4] See Fernández and Villar (2016), Fajnzylber, Maloney, and Montes-Rojas (2011), and Monteiro and Assunção (2012).

Causes and implications of informality

Causes of informality. Theoretical models present two major reasons for the emergence of informal activity: lack of development (Harris and Todaro 1970; Loayza 2016), and poor governance including burdensome regulations, corruption, or poor public services (de Soto 1989).

- **Lack of development**. Informality has often been attributed to under-development. This reflects an inability of an urban modern formal sector to absorb rural migrants during the urbanization process (Harris and Todaro 1970; Fields 1975; Loayza 2016). Development can further shrink the informal sector because households tend to shift away from agricultural and informal sector goods as their incomes grow (Saracoglu 2008). Finally, limited access to credit, often associated with less development, constrains informal firms' ability to overcome barriers to entry into the formal sector.[15]

[15] See Ferreira-Tiyaki (2008), D'Erasmo and Moscoso Boedo (2012), and Capasso and Jappelli (2013).