

### BOX 2.1.1 Informality in East Asia and Pacific

*The share of informal output in East Asia and Pacific (EAP) region is below the EMDE average while the share of informal employment is above average. Within the region, informality is particularly high in lower-income countries, which are also characterized by a lack of diversification, large rural sectors, and weak institutions. Nonetheless, even higher-income economies within the region have urban informality. This diversity within the region argues for tailored policy approaches to address challenges associated with informality. Higher-income countries can prioritize urban planning and providing essential social protection to informal workers. Lower-income countries can focus on policies that increase productivity, lower costs, and increase the potential benefits of regulatory compliance.*

#### Introduction

The share of informal output in East Asia and Pacific (EAP) is below the EMDE average.<sup>1</sup> Nevertheless, despite a downward trend over the past 30 years, informality remains high in the lower-middle-income economies, including Lao PDR, Myanmar, Cambodia. Higher-income countries in the region have made considerable progress in integrating rural migrants into urban labor markets, but face challenges related to urban informality, particularly in providing access to public services and essential social protection.

Against this backdrop, this box examines the following questions:

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

#### Evolution of informality

In the EAP region, informal output accounted for about 30 percent of GDP on average in 2010-2016, slightly below the EMDE median (Figure 2.1.1.1). However, at 47 percent of total employment, informal employment in EAP was above the EMDE average during the same period.<sup>2</sup> About 73 percent of the labor force in EAP lacked basic pension coverage during 2001-10.

Note: This box was prepared by Ekaterine Vashakmadze and Jinxin Wu.

<sup>1</sup>Informality is often defined as market-based legal production of goods and services that are hidden from public authorities for monetary, regulatory, and institutional reasons (Schneider, Buehn, and Montenegro 2010). Informal output is measured as a percent of total output in official GDP. In this box, informality is estimated based on the Dynamic General Equilibrium (DGE) model used in Elgin and Oztunali (2012) (for more detailed discussion see Chapter 3 and Annex 3.1).

<sup>2</sup>The most frequently used informal employment measure is the share of self-employment in total employment, which represents a lower bound of informal employment (La Porta and Shleifer 2014). Self-employed

workers are those workers who, working on their own account, with one or a few partners, or in a cooperative, hold the type of jobs defined as "self-employment jobs" (for more detailed discussion see Chapter 3 and Annex 3.1).

Informality in the EAP region has declined over the past two decades (Chapter 3; Schneider, Buehn, and Montenegro 2010). The share of informal output declined from 35 percent of official GDP to 27 percent between 1990-2000 and 2010-16—the fastest decline among EMDE regions. Survey-based measures of informality also suggest a moderate decline in acceptance and perception of informality.

The decline in informality has been accompanied by sustained growth, rapid industrialization, urbanization, and improvements in institutional quality (Loayza 2016; World Bank 2015). A large number of informal, mainly agricultural, workers in China have been successfully integrated into the formal labor force mainly by absorbing migrants into the urban labor market (World Bank 2014a). Total employment in China rose by about 250 million during 1990–2014, amid large-scale rural-to-urban migrant flows (Lam, Liu, and Schipke 2015). Between 1990-2000 and 2010-16, the share of informal output declined particularly rapidly in the fastest-growing countries, in part reflecting the effect of comprehensive reforms (Cambodia, Myanmar, Lao PDR). For example, the informal share of output has fallen by 33 percentage points in Myanmar (to below 30 percent in 2010-16) following broad-based liberalization measures.

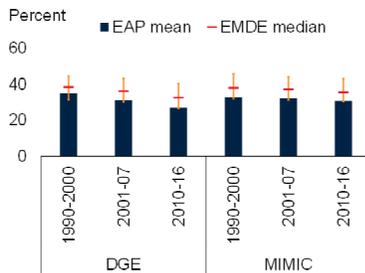
The region is characterized by significant cross-country heterogeneity in terms of institutional and socio-economic indicators (Figure 2.1.1.1). Per capita GDP levels vary widely across EAP, and those economies with higher per capita GDP generally have lower levels of informality (ILO 2018a; Loayza and Rigolini 2006). The share of informal output in higher income countries is about 30 percentage points less than in lower-middle-income countries (Lao PDR and Myanmar). The share of informal employment is also about one-quarter that of lower-

### BOX 2.1.1 Informality in East Asia and Pacific (continued)

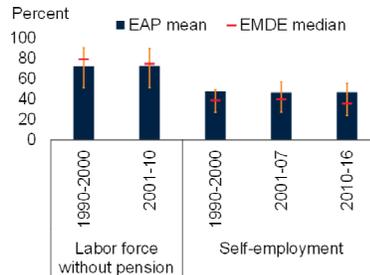
#### FIGURE 2.1.1.1 Informality in East Asia and Pacific

Compared with other EMDE regions, East Asia and Pacific (EAP)'s share of informal output is moderate whereas its share of informal employment is above average. Informality is particularly high in lower income countries, which are also characterized by stringent labor regulations and lack of enforcement.

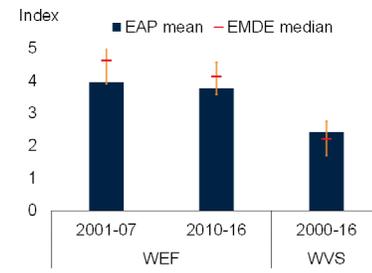
##### A. Informal economy as share of total economic output



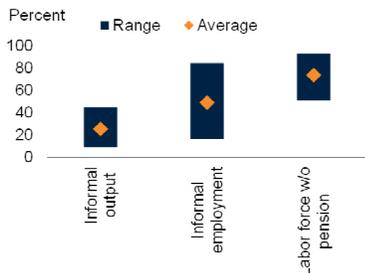
##### B. Share of labor force without pension; share of self-employed



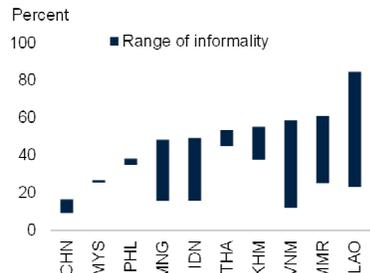
##### C. Perceived informal activities and attitudes towards informality



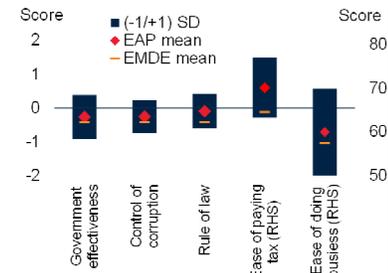
##### D. Informality by different measures



##### E. Cross country difference in informality



##### F. Institutional factors



Source: Elgin et al. (forthcoming), World Bank (Doing Business, World Development Indicators, World Governance Indicators), World Economic Forum, World Value Survey.

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

A. DGE = dynamic general equilibrium model. MIMIC = multiple indicators multiple causes model. The DGE model estimates the size of the informal sector as a percent of official GDP (see Elgin and Oztunali 2012). The MIMIC model is a structural equations model that considers multiple causes of informal activity and captures multiple outcome indicators of informal activity (see Schneider, Buehn, and Montenegro 2010). It also estimates the informal output as a percent of official GDP. DGE sample includes 12 EAP economies and 122 EMDEs; MIMIC sample includes 14 EAP economies and 124 EMDEs.

B. Labor force without pension is presented as the share of the labor force that does not contribute to a retirement pension scheme, derived from data on pension coverage obtained from WDI. Self-employed is presented as the share of self-employment in total employment. Labor force without pension sample includes 8 EAP economies and 103 EMDEs; self-employed sample includes 19 EAP economies and 134 EMDEs.

C. WEF = World Economic Forum. WVS = World Values Survey. WEF index is the average response at the country-year level to the question: "In your country, how much economic activity do you estimate to be undeclared or unregistered? (1 = Most economic activity is undeclared or unregistered; 7 = Most economic activity is declared or registered)." WEF index is inverted; a higher average at the country level indicates a larger informal economy. The index does not use data for 2004-05 due to inconsistency in survey methods. The WVS asks whether respondents can justify cheating on taxes (1 = never justifiable; 10 = always justifiable). The average responses at the country-year level are used as a measure of attitude toward informality (or tax morality; Oviedo, Thomas, and Karakurum-Ozdemir 2009). WEF sample includes 12 EAP economies and 114 EMDEs; WVS sample includes 6 EAP economies and 66 EMDEs.

D. Diamonds represent the average level of EAP region; bars denote the range of EAP countries in each measure.

E. The upper bound of bar indicates the share of informal employment in total employment. The lower bound indicates the share of informal output in official GDP based on the Dynamic General Equilibrium (DGE) model. For Malaysia, the level of informal output is higher than the level of informal employment.

F. All measures are taken from the latest year available. The first three institutional measures are taken from World Bank's World Governance Indicators (World Bank 2018e), with a higher value indicating better institutional quality in year 2016. The "ease of doing business" and "ease of paying taxes" are taken from World Bank's Doing Business database (World Bank 2018f) and measured as distance to frontier, with a higher value indicating a more favorable business environment. Sample includes 22 EAP economies and 149 EMDEs. An economy's distance to frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier.

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### BOX 2.1.1 Informality in East Asia and Pacific (continued)

middle income economies.<sup>3</sup> Informality is most pervasive in Lao PDR and Myanmar, at around 60-80 percent of total employment. Indonesia, Mongolia, and Vietnam have below average informal output shares, but their informal employment shares are above the EAP average (ADB 2010; Handayani 2016).

#### Drivers and implications of informality

Informality has been attributed to several drivers. These included large agricultural sectors, rapid urbanization, low human capital, and overly burdensome regulations.

**Size of agricultural sectors.** People living in rural areas are almost twice as likely to be in informal employment as those in urban areas, and agriculture is the sector with the highest share of informal employment (ILO 2018a). The agricultural sector still accounts for about 30 percent of employment in EAP on average, and these shares are particularly high in Lao PDR, Myanmar, and Vietnam (ADB 2010; Figure 2.1.2). Informal workers constitute the vast majority of employment in the agriculture sector in Cambodia and Thailand, in part because high compliance costs discourage formal-sector activity of agricultural small enterprises (ILO 2018a).

**Urbanization.** Rapid urbanization in EAP has supported large-scale rural-to-urban migration, stimulated growth, productivity, and formal and informal job creation (Ghani and Kanbur 2013). The urbanization process has coincided with the rapid structural transformation of China and other fast-growing East Asian economies and the shift of activity from agriculture to manufacturing and services (McMillan, Rodrik, and Sepulveda 2017; Rodrik 2015). In general, a larger non-agricultural sector is associated with a smaller informal sector, and informality in manufacturing is significantly lower than in services (Atesagaoglu, Bayram, and Elgin 2017). Although the growth of urban areas provides opportunities for many, urban expansion, if not well planned, can also contribute to rising urban informality and policy challenges. In China, for example, unequal access to public services between citizens with urban household registrations (*hukou*) and those without, although diminishing, has led to unregistered urban households that lack essential social protection (Park, Wu, and Du 2012; World Bank 2014a).

**Underinvestment in human capital.** In EAP, investment in human capital and higher levels of educational attainment have increased labor productivity and have been closely associated with a smaller share of the informal economy (Figure 2.1.1.2; ILO 2018a; Moscoso-Boedo and D'Erasmus 2012). Workers with higher education levels are also more likely to be formally employed. This is also evident in cross-country comparisons. For example, in Indonesia, the results of the 2009 Informal Sector Survey (ISS) in Yogyakarta and Banten suggest that persons who are informally employed tended to have lower levels of education than those with formal jobs (ADB 2010). Malaysia is among the countries with the highest educational attainment and the lowest share of informal employment (25 percent). In contrast, Lao PDR, Myanmar and Cambodia are characterized by low educational outcomes and high informality.

**Enterprise sector characteristics.** In China and Vietnam, informal economies arose amid economic reforms that began in the 1970s and allowed the emergence of a private economy in the form of unregulated micro-enterprises, family enterprises, and individual entrepreneurs (Park, Wu, and Du 2012). The informal economy comprises more than 90 percent of micro and small enterprises worldwide (ILO 2018b). In EAP, informal workers tend to be employed in small, low-productivity firms. For example, in Indonesia, most informal firms are very small (micro) firms with less than five employees. These firms tend to be less productive than larger firms and pay lower wages. Their operations tend to be local, predominantly supplying local markets, with little desire for expansion (Rothenberg et al. 2015).

**Taxes and labor regulations.** Informality is also a consequence of higher tax burdens, stringent labor regulations, limited enforcement capacity, and poor governance (World Bank 2014a). In EAP, informality is higher in lower-income countries with markedly weaker institutional quality, cumbersome rules and procedures, and pervasive lack of awareness or adequate enforcement (Lao PDR, Myanmar; Figure 2.1.1.2). Within Malaysia, the Philippines, Thailand, and Vietnam, informality has been associated with more rigid business regulations and ineffective law enforcement (Loayza and Rigolini 2006).

Informality has been associated with a number of adverse economic outcomes. These include urban poverty, household vulnerability to shocks and lower productivity.

**Urban poverty and income inequality.** EAP is the world's most rapidly urbanizing region, with an average annual urbanization rate of 3 percent (World Bank 2017a). The

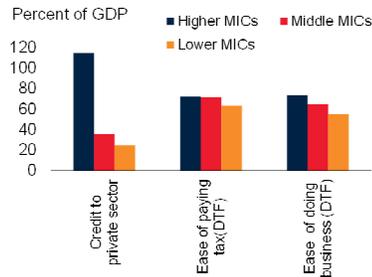
<sup>3</sup>Although the commonly observed link between income growth and informality generally holds in the EAP region, informality is nevertheless relatively high in Thailand despite its higher income status (Hassan and Schneider 2016).

### BOX 2.1.1 Informality in East Asia and Pacific (continued)

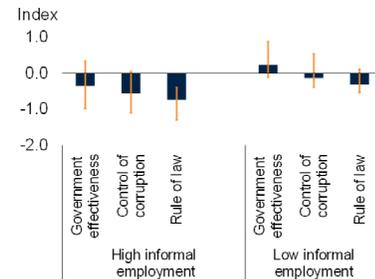
#### FIGURE 2.1.1.2 Drivers and implications of informality in East Asia and Pacific

Better institutions and business environments, industrialization, and rapid urbanization are associated with low informality in higher-income economies. Countries with a high share of informality have higher income inequality and lower levels of educational attainment.

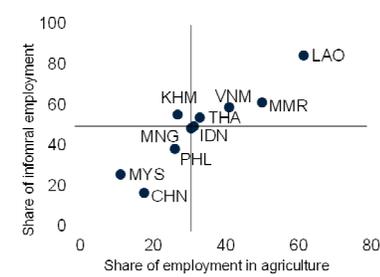
##### A. Informality and institutions



##### B. Institutional factors in countries with high and low informality



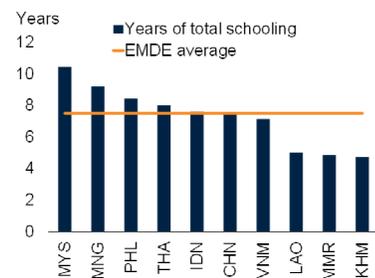
##### C. Employment in agriculture



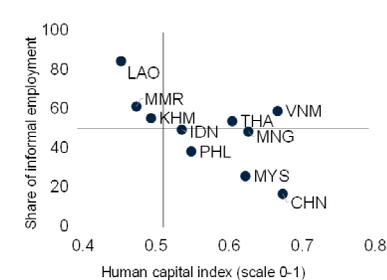
##### D. Urban population as percent of total population



##### E. Year of total schooling



##### F. Human capital index



Source: Barro-Lee (2013), Elgin et al. (forthcoming), World Bank (Doing Business, World Development Indicators, World Governance Indicators).

A. Higher MIC = China, Malaysia, and Thailand; Middle MICs = Indonesia, Mongolia, and the Philippines. Lower MICs = Cambodia, Lao PDR, Myanmar, and Vietnam.. The grouping of countries is based on GDP per capita.

B. 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. Error bars reflect all EAP countries.

C.-F. CHN = China, IDN = Indonesia, KHM = Cambodia, LAO = Lao PDR, MMR = Myanmar, MNG = Mongolia, MYS = Malaysia, PHL = Philippines, THA = Thailand, VNM = Vietnam.

C. The vertical and horizontal lines denote EMDE averages.

D. Latest data available is 2014.

E. Data are from Barro-Lee (2013). Average years of total schooling is the average years of education completed among people over age 15.

F. The HCI calculates the contributions of health and education to worker productivity. The final index score ranges from zero to one and measures the productivity as a future worker of child born today relative to the benchmark of full health and complete education. The vertical and horizontal lines denote EMDE averages.

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rapid growth of cities has created challenges that include the lack of affordable housing, resulting in increasing slums, poor provision of basic services, and widening inequality for urban dwellers. EAP hosts the world's largest slum population, many of them informally employed: around 35 percent of urban population (250 million people) live in slums. In Indonesia, 27 percent of the urban population do not have access to improved sanitation facilities (WHO and UNICEF 2015), followed by 21 percent in the Philippines (USAID 2017). The cities with the highest numbers of urban poor are in

China, Indonesia, and the Philippines, while the highest urban poverty rates are in the Pacific Island countries of Papua New Guinea, Timor-Leste, Vanuatu, and in Indonesia and Lao PDR (World Bank 2016b, World Bank 2017a).<sup>4</sup>

In China, the exceptional scale of rural to urban migration amplifies the challenges from informality. Many of these

<sup>4</sup> Approximately 75 million people in EAP region live below the US\$3.10/day poverty line.

### BOX 2.1.1 Informality in East Asia and Pacific (continued)

workers—approximately 120-150 million—are migrant workers who are not registered to work in cities, and therefore lack a number of formal protections (Jutting and Xenogiani 2007, Huang 2009). These urban migrants gain a large wage premium by migrating; yet both rural and urban migrants tend to work in informal jobs and lack adequate social protection (Gagnon, Xenogiani, and Xing 2011). In Thailand, informally employed workers systematically present lower earnings at all earnings levels, and the difference increases with level of earnings (ILO 2015).

**Household vulnerability to shocks.** Informality may impose significant economic risk and result in underinvestment in human capital of current and future generations (Oviedo, Thomas, and Karakurum-Ozdemir 2009). It is characterized by a lack of adequate social protection coverage, which increases household vulnerability to shocks. For middle and lower income countries in EAP region, pension coverage is extremely low (Figure 2.1.1.2). In China, formal casual workers report lower monetary and subjective well-being than employees and business owners (Liang, Appleton, and Song 2016).

**Low productivity.** Countries characterized by larger informal sectors are associated with lower shares of skilled workers and weaker total factor productivity. At the firm level, entering and operating in the formal sector is costly, but provides firms with better access to technologies, skilled workers, and access to capital (Figure 2.1.1.2; D’Erasmus, Moscoso Boedo, and Senkal 2014). There exists a sharp productivity difference between firms of the same size in the formal and informal sector when measured in terms of value added per employee, with formal firms being, on average, 30 percent more productive (Fajnzylber, Maloney, and Montes-Rojas 2011; La Porta and Shleifer 2014; Monteiro and Assuncao 2012; Perry et al. 2007). Despite a well-documented gap between the performance of formal and informal firms, less is known about how the allocation of low-productivity firms in the informal sector affects productivity over time. If by operating informally firms are able to cut costs and stay more productive, then a shift from the informal to the formal sector will not necessarily lead to an increase in productivity. Indeed, some recent studies find evidence that a shift into the formal sector does not necessarily lead to an increase in productivity for firms (De Mel, McKenzie, and Woodruff 2013; Demenet, Razafindrakoto, and Roubaud 2016; McKenzie and Sakho 2010). Overall, while individual motivations to become or stay informal may differ, the aggregate outcome can be characterized as low scale output and low productivity.

### Policy challenges

A tailored approach can help address the challenges associated with informality (OECD 2015; World Bank 2014a). Higher-income countries can prioritize providing essential social protection to informal workers; lower-income countries can focus on reforms to increase firm and worker productivity.

**Essential social protection.** In higher-income countries, essential social protection coverage can be expanded to shield informal workers from adverse shocks (Olivier, Masabo, and Kalula 2012). This would imply higher public expenditure on social protection to extend at least basic social protection coverage to all (ILO 2017).

**Reforms to improve urban planning.** Urban planning can help improve access to jobs, affordable housing, commercial services, public transportation, and health and education services to ensure equal opportunity for disadvantaged communities (World Bank 2015; Judy and Gadgil 2017). Examples of effective metropolitan governance include Beijing, Jakarta, Kuala Lumpur, Metro Manila Developments Authority (MMDA) and Shanghai (World Bank and DRCSC 2014; World Bank 2015).

**Reforms to increase firm productivity.** Agglomeration benefits can lower the unit costs of public service provision, enabling governments to extend access to basic services to more people (Ghani and Kanbur 2013; World Bank 2014a, 2018g). Policies to support small agricultural enterprises, which engage a large share of EAP’s workforce, and other micro, small- or medium-sized enterprises include improving access to services, decreasing red tape and corruption, facilitating access to financial services, and offering better education and training (OECD 2009; World Bank 2018h).

**Remove disincentives to formal employment.** Removing disincentives to formal employment could encourage a shift of informal workers into formal employment. Reform options include lower registration costs; shorter registration procedures; streamlined registration services, for example, through information and communication technologies; lower compliance costs by introducing simplified tax assessment and payment regimes; improved access to financial services; and improved access to training, skills development, and business development services (ILO 2016). As small firms have different motivations to stay small and informal, measures to lower cost and increase the potential benefits of regulatory compliance can be combined with a more effective enforcement regime.