Lao People's Democratic Republic
Lao PDR: Building an Economy That Works Again

May, 2021

POV
Lao PDR: Building an Economy That Works Again

Lao PDR is currently facing the phenomenon of jobless growth. This trend started in the early 2010s when non-farm job creation stagnated despite rapid growth in GDP. The labor market suffered from weak activity in the private sector, with all sectors apart from hospitality losing jobs. The discontinuation of businesses shed 4 percent of jobs each year between 2012 and 2018, accelerating from 2 percent between 2009 and 2012. Manufacturing, formerly an engine for job creation due to its size and labor-intensive nature, has shed jobs particularly rapidly. Young people have been severely affected: youth non-seasonal unemployment rose from 1.1 percent to 6.6 percent between 2012 and 2018. Rising unemployment has been accompanied by skills mismatches and greater spatial disparities in the labor market. Employment has become more concentrated in fewer provinces, while labor demand has shifted away from medium-skilled (secondary-educated) workers.

Reversing this trend of jobless growth is a critical challenge for the Government of Lao PDR. With intense competition in global markets amid meager demand due to the COVID-19 pandemic, mitigating job loss is proving difficult for policymakers. Limited fiscal space makes matters worse by preventing the provision of effective labor-market policies and social services. After nearly a decade of jobless growth, long-lasting “scarring effects” may take root, especially among young people. Preventing this, by rebuilding an economy with opportunities for all, requires policies with two broad aims:

1) Creating enabling environments for productive employment to spark a virtuous circle of sustainable, job-creating growth. A broad range of structural reforms is required to enhance productivity, thus reducing business closures and helping high-growth firms to become job-creating engines.

2) Mitigating spatial and skill mismatches to foster inclusive growth. Short-term measures to boost job creation in high-unemployment locations and skill groups should be combined with deeper reforms to increase labor mobility, improve education and foster relevant skills, especially among young people.

Policies to Confront Jobless Growth

<table>
<thead>
<tr>
<th>Policy area</th>
<th>Creating enabling environments for productive employment and job creation</th>
<th>Mitigating spatial and skills mismatches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business climate</td>
<td>Streamlining regulations, improving regulatory compliance, and encouraging formalization</td>
<td>Realigning FDI incentives and reforming SEZ policy to target a cluster of disadvantaged provinces</td>
</tr>
<tr>
<td>Connectivity and transportation</td>
<td>Improving access to larger product and input markets domestically and globally at a lower cost</td>
<td>Boosting connectivity to disadvantaged provinces and transportation to facilitate labor mobility</td>
</tr>
<tr>
<td>Education and training</td>
<td>Investing in higher education to support high-growth firms</td>
<td>Reskilling through high-quality technical and vocational education and training (TVET)</td>
</tr>
<tr>
<td>Public employment service</td>
<td>Creating recruitment and job-matching platforms in close collaboration with the private sector</td>
<td>Generating jobseeker profiles and offering career counseling</td>
</tr>
<tr>
<td>Self-employment and micro-entrepreneurship</td>
<td>Offering a comprehensive service package consisting of start-up capital, training, and follow-up visits</td>
<td>Targeting programs at vulnerable jobseekers and areas with limited labor demand</td>
</tr>
</tbody>
</table>

1 The note was prepared by Tanida Arayavechkit, Andrés M. César and Matías Ciaschi. The authors thank Liliana D. Sousa, Francesca Lamanna and Sandor Karacsony for their valuable comments and contributions.
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1. A period of jobless growth

**Lao PDR’s economic growth has been driven by the natural resource sector for decades.** Lao PDR has boasted strong economic growth since reforms in the late 1980s. Driven by the Government of Lao PDR’s (GoL) strategic vision of the country serving as the ‘battery’ of Asia, the natural resource sector has become the most vibrant component of the Laos economy and attracted sustained investment. Between 2010 and 2019, hydropower and mining accounted for 20 percent of total GDP and represented around 65 percent of the foreign direct investment (FDI) accumulated during this period.²

**Resource-based growth has created relatively few jobs.** The overall impact of the natural resource sector on employment was negligible. Even as the mining and hydropower sectors reached 20.7 percent of GDP in 2018–19, they contributed less than one percent of total employment. Moreover, stellar growth was not accompanied by rapid structural transformation. Over the last two decades, the manufacturing sector’s share of GDP stagnated at 9 percent, while the service sector’s share rose only moderately from 43 percent in 2002 to 54 percent in 2019. The result was few jobs being created in non-resource sectors and a large proportion of the workforce remaining engaged in agriculture.

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² Ministry of Planning and Investment, Government of Lao PDR. FDI includes both greenfield and brownfield investments.
sector jobs (Figure 3). By contrast, in the five years prior to 2012, when GDP grew by an annual average of nearly 8 percent, the economy created more than 250,000 non-farm jobs (World Bank, 2020).

Between 2012 and 2018, non-seasonal unemployment surged, especially among young people. This lack of non-farm job generation induced severe slack in the labor market. The non-seasonal unemployment rate soared from 0.6 percent in 2012 to 3.2 percent in 2018 (Figure 4). The joblessness rate was as high as 6.6 percent for young people, who faced uniquely high barriers to entering the labor market (Table 1).

Seasonal unemployment also increased, due partly to more extreme weather events and limited off-season jobs in the non-farm private sector. Many farm workers, who account for more than half of the Laos labor force, turn to the non-farm private sector to earn a living during the off-season period. Yet between 2012 and 2018, the seasonal unemployment rate rose from 3.5 to 12.5, constituting 80 percent of total unemployment in 2018. This sharp increase in seasonal unemployment can be attributed to several factors. First, more frequent and severe droughts and floods in recent years shortened the period of farming activities: the seasonal unemployment rate during the wet season (May to November) surged from 0.8 to 8 percent.

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3 This implies that the public sector created between 120,000 – 130,000 jobs during this period. Estimates based on the Economic Census 2012/13 and 2019/20 suggest that at least 105,000 jobs created by non-farm private businesses (excluding non-profit organizations) were shed between 2012 and 2019. See Section 2 for more detail.

4 The Labour Force Survey (LFS) shows worse labor market conditions in 2017. While the LECS sample is distributed over a 12-month period, the LFS was conducted between July and August 2017. The LFS yields the employment to population ratio of 58.8 percent and the non-seasonal unemployment rate of 1.4 percent, compared to the July-August estimates for LECS6 of 71.5 percent and 1.1 percent, respectively.

5 These workers reported that they had not worked during the past week but were waiting for the busy season to work.
Secondly, slack in the non-farm labor market limited employment opportunities during the off-season period, and discouraged workers from farming families from looking for jobs in the non-farm sector. As a result, many surplus rural workers were confined to agriculture and faced longer-term seasonal unemployment. The seasonal unemployment rate during the dry season (December to April) rose from 7.8 to 20.3 percent.

Table 1: Trends in labor market indicators (percent)

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th>2012</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working-age population</td>
<td>63.6</td>
<td>67.9</td>
<td>69.4</td>
</tr>
<tr>
<td>Labor force participation</td>
<td>84.4</td>
<td>84.6</td>
<td>72.1</td>
</tr>
<tr>
<td>Employment to population ratio</td>
<td>81.9</td>
<td>81.3</td>
<td>60.8</td>
</tr>
<tr>
<td><strong>Composition of the labor force</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment rate</td>
<td>96.9</td>
<td>95.9</td>
<td>84.3</td>
</tr>
<tr>
<td>Public sector wage worker</td>
<td>2.3</td>
<td>3.0</td>
<td>6.7</td>
</tr>
<tr>
<td>Private sector non-farm wage worker</td>
<td>10.4</td>
<td>12.3</td>
<td>8.5</td>
</tr>
<tr>
<td>Farm wage worker</td>
<td>0.4</td>
<td>1.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Non-farm self-employed</td>
<td>8.3</td>
<td>12.4</td>
<td>13.2</td>
</tr>
<tr>
<td>Farm self-employed</td>
<td>25.2</td>
<td>31.0</td>
<td>25.9</td>
</tr>
<tr>
<td>Non-farm unpaid family worker</td>
<td>9.5</td>
<td>6.5</td>
<td>5.2</td>
</tr>
<tr>
<td>Farm unpaid family worker</td>
<td>40.7</td>
<td>29.0</td>
<td>24.3</td>
</tr>
<tr>
<td>Unemployment rate</td>
<td>3.1</td>
<td>4.1</td>
<td>15.7</td>
</tr>
<tr>
<td>of which seasonal unemployment</td>
<td>2.3</td>
<td>3.5</td>
<td>12.5</td>
</tr>
<tr>
<td>of which non-seasonal unemployment</td>
<td>0.8</td>
<td>0.6</td>
<td>3.2</td>
</tr>
<tr>
<td>Youth unemployment rate</td>
<td>4.8</td>
<td>5.5</td>
<td>21.8</td>
</tr>
<tr>
<td>of which seasonal unemployment</td>
<td>3.4</td>
<td>4.4</td>
<td>15.2</td>
</tr>
<tr>
<td>of which non-seasonal unemployment</td>
<td>1.4</td>
<td>1.1</td>
<td>6.6</td>
</tr>
</tbody>
</table>

**Source:** LECS4, LECS5, and LECS6.

Note: The working-age population is defined as those aged 15 and over. For comparability across the three Lao Expenditure and Consumption Surveys (LECS), the definition of labor force participation and unemployment is different from that adopted by the 2017 Labour Force Survey (LFS). In this note, the unemployment rate is defined as the percentage of the labor force that is i) actively looking for work, or ii) not seeking work but waiting for reply or recall by an employer or for the busy season to work. Seasonal unemployment includes those who are not seeking work but waiting for the busy season to work. Own-use production workers are considered as employed. The reference period for employment is 7 days.

The decline in labor force participation suggests that the unemployment rate understates the share of out-of-work population in the labor market. The labor force participation rate fell from 84.6 percent to 72.1 percent between 2012 and 2018. The decline was more prominent among women (from 78.9 percent to 66.2 percent), young people (77.5 percent to 57.8 percent) and adults age 60 and over (88.5 percent to 76.9 percent). A higher proportion of women remained out of the labor force to take care of housework and childcare. Young people pursued higher education and stayed longer in school, while old adults were more likely to retire after age 60.
Jobless growth has prevented the Lao PDR economy from reaping its demographic dividend. Lao PDR’s workforce has grown sharply since 1993, with the ratio of the working-age population (those aged 15 to 64) to the non-working-age population rising from 1.1 to 1.7. In growing economies, surplus labor typically moves from the traditional agriculture or informal sectors to industrial, service, or formal sectors (Kuznets, 1973). In Lao PDR, however, this shift has been arrested as employment creation stagnated in recent years, and the employment-to-population ratio fell from 81.9 percent in 2012 to 60.8 percent in 2018. Although this estimate is on par with the average ratio of resource-rich peer countries (60.9 percent), it is lower than that of regional peers (71.5 percent). To take advantage of its demographic dividend in order to boost growth, a higher share of Laos’ working-age population needs to enter the workforce.

Reversing the decline in job creation is essential for fostering inclusive growth in Lao PDR. Jobs are key to inclusive growth. For ordinary households, engaging in the labor market is their primary means to participate in and benefit from economic growth. However, growth alone does not guarantee adequate job creation in Lao PDR, as the recent period of jobless growth has proved. Promoting inclusive growth requires both facilitating higher participation in the workforce along with continued investments in skills, as well as a greater creation of productive and rewarding jobs.

This note explores the factors associated with jobless growth in Lao PDR: deteriorating private sector conditions as well as skills and spatial mismatch in employment. The note focuses on non-seasonal unemployment and the lack of high-quality job creation in the non-farm sector: key labor-market issues that have hindered structural transformation. The structure of the note is as follows. Section 2 discusses the impact of the deterioration in private sector conditions on job creation and the constraints that have caused firms to downsize or exit the market. Section 3 explores the impact of job loss on workers of different skill levels, and in causing skills mismatch in the labor market. Section 4 examines the geography of jobs and the spatial dimension of employment. Section 5 concludes with policy recommendations, proposing measures to revive the private sector and restart the engine of job creation, as well as to reduce inter-regional disparities by better matching jobs to workers.

2. Deterioration in non-farm private sector conditions

The formal non-farm private sector is an important source of job creation. Non-farm private business units that were registered and interviewed in the Economic Census 2012/2013 employed about 638,000 workers (546,000 in for-profit business units and 92,000 jobs in non-profit organizations), accounting for half of total non-farm employment in that year. Despite

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6 Resource-rich peer countries include Botswana (46.6), Mongolia (55.6), Kyrgyz Republic (56.7), Ghana (59.5), Bhutan (61.6), Paraguay (66.6), Bolivia (66.7), and Peru (74.2). Regional peers include Cambodia (80.6), Vietnam (72.7) and Myanmar (61.2).

7 In this note, ‘formal’ and ‘registered’ are used interchangeably, referring to firms or business units that are registered with the government either at the village, district, provincial or central level.
constituting a small fraction of total employment (20 percent), the formal non-farm private sector is an important source of high productivity and good-quality jobs.

The number of businesses, and the jobs that they created, declined between 2012 and 2019. The latest available economic census, conducted in 2019/20, shows that there were around 133,000 registered business units in 2019, down from an estimated 163,000 units in 2012. The decline was accompanied by a drop in non-farm private sector formal employment of at least 105,000 jobs. This is consistent with household surveys, which suggest that nearly 150,000 non-farm private sector jobs, within both formal and informal enterprises, were shed between 2012 and 2018.

The analysis in this section draws on the World Bank Enterprise Surveys (WBES) conducted between 2009 and 2018, exploring dynamics of firms with 5 or more employees in the non-farm private sector. In the WBES, registered companies in the non-farm sector with 5 or more employees are targeted for interview, meaning that micro-enterprises are excluded. The survey comprises manufacturing, construction, wholesale and retail trade, hotels and restaurants, transport, storage and communications. According to the Economic Census 2012/13, firms captured by the WBES made up only 9 percent of formal firms in the non-farm private sector but contributed around one-third of jobs in this sector.

Figure 5: Contribution to change in employment (annualized, % of total employment in the base year), 2012 – 18

![Diagram showing contribution to change in employment](image)


Firms exiting the market eliminated 4.3 percent of non-farm jobs in the formal private sector each year between 2012 and 2018. Deterioration in the formal business sector has suppressed non-farm job creation in recent years. Approximately 7 percent of businesses discontinued their operations each year between 2012 and 2018, compared to 3 percent between 2009 and 2012 (Aga and Francis 2015). Firms failing and exiting the market eliminated 4.3 percent of non-farm jobs.

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8 Not all registered business units were interviewed in the Economic Census 2012/13. See Annex 1 for further details on the estimated numbers of business units and employment.

9 7 percent is the most conservative estimate. It is the annualized exit rate using the strict definition offered by Aga and Francis (2015). The weak definition yields the annualized exit rate of 12 percent and job destruction of 8 percent.
jobs in the formal private sector annually between 2012 and 2018 (Figure 5). This was a striking increase from 2 percent prior to 2012.

**Small and medium businesses generally had higher exit rates, accounting for approximately 80 percent of job elimination due to business failure.** About 7 percent of Lao small and medium enterprises exited the market each year (Figure 6, Figure 7). The exit rate among larger firms since 2012 was lower, at 3.7 percent. This is commonly observed in other emerging economies as large firms are more likely to be able to reap the benefits of economies of scale, attract qualified employees, access credit and markets, and diversify operations, thus reducing the likelihood of exit. Nevertheless, the exit rate among large Lao enterprises was relatively high compared to other emerging-economy peers.

Figure 6: Exit rate by size (annualized %), 2012 – 18

![Exit rate by size](image)

Figure 7: Job losses from firm exit by size (annualized, % of total employment in the base year), 2012 – 18

![Job losses from firm exit](image)

**Source:** WB enterprise survey 2012, 2016 and 2018.  
**Note:** Firm size as measured by the number of employees in the base year. Size category follows the stratification strategy of the WB enterprise survey. Survey weights applied.

**Growing medium enterprises were the main engine of private-sector job creation.** Small firms at the seed or expansion development stage typically create more new jobs than firms at other development stages. This was not the case for Lao PDR in recent years: instead, employment expansion stalled among surviving firms, both small and large. Only 24 percent of small enterprises increased their workforce between 2015 and 2018, a drop from 35 percent between 2009 and 2012 (Figure 8). Large labor-intensive enterprises also failed to add jobs to the economy, reflecting the fact that two-thirds of remaining businesses did not grow. Job creation was mainly driven by medium-sized firms. The share of medium firms that downsized their businesses dropped from 40 percent between 2009 and 2012 to 29 percent between 2015 and 2018. Overall, the number of private-sector jobs grew by 0.8 percent each year, solely driven by medium-sized firms (Figure 9).

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7.3 7.1 3.7 6.9
Small (<20) Medium (20-99) Large (>100) Total

0.8 1.6 1.9 4.3
Small (<20) Medium (20-99) Large (>100) Total

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**See Box 1: High-growth firms and job creation.**
New firms represented a significant source of job creation, but not enough to offset the sheer magnitude of job losses caused by firm exit. The contribution of new firms to job creation has increased over time despite a decline in the entry rate. New firms, on average, accounted for 1.4 percent of employment during 2012–18, a significant increase from 0.7 percent during 2009–12 (Figure 10). More than 80 percent of new firms were small between 2012 and 2018, and they constituted half of employment generated by firm entry. However, jobs created by small-firm entry and new hires by medium-sized firms could not offset job losses due to firm exit, resulting in annualized estimates of job loss of about 4.1 percent between 2012 and 2018 (Figure 5).

Figure 8: Share of firms expanding or downsizing

<table>
<thead>
<tr>
<th>Firm size at the beginning of the period</th>
<th>2009-2012</th>
<th>2015-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;20)</td>
<td>16/19</td>
<td>35/24</td>
</tr>
<tr>
<td>Medium (20-99)</td>
<td>40/29</td>
<td>43/50</td>
</tr>
<tr>
<td>Large (&gt;=100)</td>
<td>37/30</td>
<td>52/41</td>
</tr>
</tbody>
</table>


Note: Firm size as measured by the number of employees in the base year. Size category follows the stratification strategy of the WB enterprise survey. Survey weights applied.

Figure 9: Change in employment among surviving firms (annualized, %), 2012 – 18


Note: Firm size as measured by the number of employees in the base year. Size category follows the stratification strategy of the WB enterprise survey. Survey weights applied.

Figure 10: Job creation by firm entry (annualized, % of total employment at the end of the period)

<table>
<thead>
<tr>
<th>Entry rate</th>
<th>2009-2012</th>
<th>2012-2018</th>
<th>Job creation</th>
<th>2009-2012</th>
<th>2012-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small (&lt;20)</td>
<td>2.7</td>
<td>1.4</td>
<td>0.2</td>
<td>2.9</td>
<td>0.7</td>
</tr>
<tr>
<td>Medium (20-99)</td>
<td>0.3</td>
<td>0.5</td>
<td>0.7</td>
<td>1.7</td>
<td>0.7</td>
</tr>
<tr>
<td>Large (&gt;=100)</td>
<td>0.2</td>
<td>0.5</td>
<td>0.7</td>
<td>1.4</td>
<td>0.7</td>
</tr>
</tbody>
</table>


Note: Firm size as measured by the number of employees in the base year. Size category follows the stratification strategy of the WB enterprise survey. Entry of large firms was not observed. Results are weighted.
Recent literature identifies high-growth firms (HGFs) as a key source of job growth. Most of the evidence is consistent with the idea that new firms generally start small and grow significantly as they age. Moreover, firm age seems to be more important than firm size to predict growth rate: starts-ups and young survivors tend to expand more quickly. In a seminal paper, Jovanovic (1982) proposes a theory of selection with incomplete information, where firms learn about their efficiency as they operate in the industry. Efficient survivors expand quickly at first, and growth slows as firms approach their optimal size. Atkeson and Kehoe (2005) indicate that manufacturing plants grow with age as they accumulate organization capital, which relates to investing in new technologies, creating new products and expanding to new markets. Demand dynamics also play a critical role. Foster, Haltiwanger and Syverson (2016) point to the gradual process of building a customer base or demand accumulation as firms grow.

This note defines HGFs based on their employment growth. The various definitions of HGFs. The often-used OECD definition specifies HGFs as firms that (1) initially possess 10 or more employees or that has at least four times national per capita income in annual revenues, and (2) experience average annualized employment or revenue growth of greater than 20 percent over a three-year period. In the case of the United States, Decker et al. (2014) define HGFs as those having annual growth rates above 25 percent, with no lower bound on initial size. Reconciling between data constraints and firm performance in Lao PDR, HGFs are identified as those that have averaged annualized employment growth greater than 15 percent over a 3-year period. The share of high-growth firms in Lao PDR increased from 1.6 percent during 2013–2016 to 8.3 percent during 2015–2018, when half of net job creation by firm entry and expansion was attributable to high-growth firms.

In Lao PDR, high-growth firms tend to be young, medium-sized and to operate in the construction, manufacturing and hospitality sectors. About 57 percent of high-growth firms are between 5 and 9 years old, and more than 90 percent of high-growth firms are between 5 and 19 years old. The disappearance of young firms in recent years thus slowed employment creation. Firms in the construction and manufacturing sectors have higher potential to grow and contribute substantially to job creation than firms in retail and wholesale trade, hospitality, or other services. Medium-sized firms (with more than 20 employees) have been the focus of job creation since 2012. They are better-established than small businesses (who face a high risk of market exit) and have higher growth potential than large businesses. More broadly, high-growth firms with fewer than 20 employees had proportionally less job creation than high-growth firms with 20 or more employees.

High-growth firms are more constrained by tax rates, skills shortage, and inadequate transport infrastructure than their counterparts. High-growth firms in 2018 tended to report that tax rates, inadequately educated workforce and transport were the biggest constraint to their operations more often than regular firms. These factors directly impact firms’ ability to expand. Better transport infrastructure is needed to access larger markets, attract more customers, and recruit from a broader pool of employees. Skilled workers are required for their technical and management skills as firms adopt advanced technology and shift to a more complex organizational structure (Caliendo, Monte and Rossi-Hansberg, 2015). Many firms will be subject to the profit tax instead of the turnover tax when crossing the revenue threshold.

Manufacturing displayed a steady decline in wage employment due to firms downsizing and exiting. A decade ago, manufacturing was an engine for job creation thanks to its size and labor-
intensive nature. The sector contributed 56 percent of wage employment in 2009, but this fell to 38 percent in 2018. A large fraction of such firms went out of business between 2012 and 2018, leading to a net loss of wage jobs in these sectors (1.7 percent; \textit{Error! Reference source not found.}, \textit{Error! Reference source not found.}). In the “other services” sector, including transportation and communication, wage jobs also disappeared as firms exited the market, wiping out job gains posted in this sector in 2009–11. Retail and wholesale trade expanded their share of wage employment (from 15 percent to 34 percent) as more firms entered the market, but this was at the expense of self-employed local retailers.

Figure 11: Contribution to change in employment (annualized, % of total employment in the base year) by sector, 2012 – 18

Figure 12: Net change in non-farm private sector employment, 2012 – 2018

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure11.png}
\caption{Figure 11: Contribution to change in employment (annualized, % of total employment in the base year) by sector, 2012 – 18}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure12.png}
\caption{Figure 12: Net change in non-farm private sector employment, 2012 – 2018}
\end{figure}

\textit{Source:} WB enterprise survey 2012, 2016 and 2018. \textit{Note:} Employment created by firms interviewed by the WB enterprise survey: formal firms in the non-farm sector with 5 or more employees

\textit{Source:} LECS 5, LECS 6 \textit{Note:} Formal and informal firms of any size. Financial intermediation, real estate, public administration, education, health and social work are excluded to ensure comparability with the WB enterprise survey.

\textbf{Several factors contribute to firms failing to grow and exiting the market.} In developing countries, businesses tend to fail when demand weakens and there is a shortage of working capital (Mead and Liedholm 1998) or when manufacturing plants face strong competition from low-wage countries (Alvarez and Claro 2009).\textsuperscript{11} International evidence shows that in these countries most firms lack access to finance, and as demand falls and competition intensifies, firms become economically insolvent and exit the market (World Bank 2019). In Lao PDR, an unfavorable business environment and regulations, combined with a lack of qualified workers, add to these difficulties. The country has continuously slipped down the rankings of the World Economic Forum’s Global Competitiveness Index, from 81\textsuperscript{st} place in 2013 to 113\textsuperscript{th} place in 2019.

\textsuperscript{11} Similarly, firms providing services face unfair competition from informal businesses. In fact, SMEs in Lao PDR usually declare that the main growth-limiting factors are limited access to finance, the practices of informal competitors, and limited access to electricity (World Bank 2019).
reflecting persistently large deficits in infrastructure and skills, which hold back firms from growing and creating jobs.

Figure 13: Biggest constraint by firm size and employment growth, 2016 – 2018

Skill shortage is the main constraint for large firms in general (Figure 13). The lack of an educated workforce is considered by large firms that have exited the market or downsized their operations to be their biggest constraint. The problem of skill shortage is also common among exporting firms and foreign-owned businesses seeking to remain competitive in global markets. One-third of large firms cited an inadequately educated workforce as the major limitation for their businesses, with similar concerns reported by exporters (27.6 percent) and foreign-owned firms (26.9 percent). The demand for skilled workers among these firms is also reflected in their high skill premium. In manufacturing, the skill premiums of large firms, exporting firms and foreign-owned firms are 2.57, 1.90 and 2.04 respectively, compared to the average of 1.58 among all manufacturing firms.\textsuperscript{12} Labor regulations added to difficulties in hiring among large firms.

\textsuperscript{12} National Survey of Manufacturing Establishments 2016. The skill premium is defined as the ratio of the average wages of non-operative workers to operative workers.
Addressing skill shortage could benefit low-skilled and female workers. The potential benefits of addressing skill shortages go beyond business expansion. Exporting and foreign-owned firms in manufacturing employ a larger share of unskilled workers than their domestic counterparts (60 percent of their employees compared to 49 percent). They also create jobs for female workers (29 percent of their employees compared to 14 percent). These firms have significant potential to grow given their access to a larger market. They also tend to use more complex technologies, which require skilled workers to perform technical and managerial tasks.13 Given the weak business and employment climate among Lao enterprises, attracting and training better-skilled workers to stimulate the growth of large firms, exporting firms and foreign-owned firms could create a vast number of jobs for low-skilled and female workers.

Informality undermines competition in the Lao PDR’s private sector. There are four main types of problematic informality in Lao PDR’s business environment: inadequately registered enterprises; widespread tax evasion; irregular adherence to complex and burdensome regulations; and a culture of non-compliance with basic rules and standards (World Bank, 2017). Lao PDR’s business climate provides an enabling environment for informality. The country ranks 181st, 170th, 168th, 161st, and 157th out of 190 countries in terms of the ease of starting a business, protecting minority investors, resolving insolvency, enforcing contracts, and paying taxes, respectively (World Bank, 2020). Registered firms that adopt formal practices incur higher costs and feel unfairly targeted by authorities who are eager to collect revenue and fulfill their mandates. Unregistered or rule-evading competitors are alleged to escape the same level of scrutiny due to the difficulty of enforcement and the prevalence of petty corruption.

Medium and small firms cited the unfair practices of informal competitors as their biggest constraint. Poor compliance by informal firms with regulations, combined with inconsistent enforcement by the authorities, result in an unfair disadvantage for formal firms. The problem is more severe among medium firms that have exited the market or downsized their operations. Approximately 37 percent of medium firms that have exited the market consider informal competitors’ practices to be their main constraint, compared to 18 percent of those that remain in business. This share is around 26 percent among medium firms that have downsized their operations. Informal practices are likely to have a negative effect on formal employment and high-quality jobs, through formal firms either permanently closing down or reducing employment to establish themselves in the informal economy.

Access to finance is the main constraint among small firms. A lack of access to finance tends to be a major problem for small firms, especially those that have exited the market or downsized their operations. Approximately 19 percent of small firms that have exited the market consider a lack of access to finance to be their main constraint, compared to 11 percent of those that remain in business. This share is around 27 percent among small firms that have downsized their operations.

13 The complementarity between skilled workers and new technologies was first acknowledged by the theories of skilled-biased technical change (Katz and Murphy 1992; Bound and Johnson 1992; Card and Lemieux 2001). Recent theories argue that computers and new automation technologies substitute middle-skill workers performing repetitive, routine and codifiable tasks, and complement high-skill workers in occupations that involve creativity, problem-solving, adaptability and interpersonal skills (Autor, Levy and Murnane 2003; Acemoglu and Autor 2011).
operations. In recent years, the liquidity of the financial sector has dried up, intensifying the problem of inadequate access to finance.

**The tax administrative burden remains the main constraints among exiting large firms.** Around 25 percent of firms that have discontinued operations identified tax rates as the biggest obstacle for operations, compared to 18 percent of firms that remain operational. However, the share of enterprises citing tax rates as the biggest obstacle for doing business declined from 31 percent in 2008 to 10 percent in 2018: partly because the government continued to lower the corporate tax rate from 35 percent in 2009 to 28 percent in 2012, 24 percent in 2013, and to 20 percent in 2020. Nevertheless, tax compliance, especially post-filing tax compliance, remains burdensome. The tax audit and VAT return are particularly time-consuming and complicated. Administrative and compliance burden tend to be the main tax-related difficulty among large firms that have exited the market.

**Improving connectivity and transport will enable firms to grow further.** Growing firms are an important source of job creation. Small- and medium-sized firms recorded net job creation in recent years through firm entry and expansion. Several large firms, which normally provide employment opportunities for many low-skilled and female workers, have downsized or exited the market. Transport was named as one of the biggest constraints among large firms, while infrastructure was cited by growing firms of small and medium sizes. Improved transportation and logistics will enable these high-potential firms to access larger product and input markets at a lower cost. It will also allow firms to attract more customers, and recruit from a broader pool of employees.

3. **Skills mismatch in non-farm employment**

A lack of non-farm job creation in recent years generated employment polarization: medium-skilled workers were disproportionately affected by slack in the labor market. Notwithstanding the skill shortage identified by firms, between 2012 and 2018, non-seasonal unemployment rose significantly among secondary-educated and vocational workers (Figure 14a). These medium-skilled workers were disproportionately affected by a lack of non-farm job creation compared with low-skilled and high-skilled workers. The increase in unemployment was smaller among those with primary education or less, while tertiary-educated workers fared much better than the other groups. Business closures and downsizing, especially in manufacturing, thus hurt medium-skilled workers the most.

The polarization was similarly observed among the female labor force. The unemployment rate among female workers with upper-secondary education rose from 2.3 percent to nearly 13 percent between 2012 and 2018, and from less than 1 percent to 4.9 percent among vocational workers (Figure 14c). Primary-educated and tertiary-educated female workers experienced a smaller increase in unemployment, with the unemployment rate marginally increasing from 0.1 to 2 percent and 5.7 to 6 percent, respectively. In contrast to their male counterparts, the female

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14 Medium-skilled workers are those with secondary education or vocational training. Low-skilled workers are those with primary education or less. High-skilled workers are those with tertiary education.
labor force with lower secondary education were less affected than those with primary education or less, but their unemployment rate remained higher.

Figure 14: Non-seasonal unemployment rate by skill level

The experience for young people was different: highly educated workers were disproportionately affected. Between 2012 and 2018, non-seasonal unemployment notably increased among vocational workers (from less than 1 percent to nearly 20 percent) and tertiary-educated workers (from 7.4 percent to 23.9 percent). The increase was smaller among those with secondary education or less (Figure 14b).

Young people are twice as likely as adults to be unemployed, with this gap rising to 8 times among the tertiary-educated workforce, creating long-lasting “scarring effects”. Approximately 6.6 percent of the young labor force were unemployed due to reasons unrelated to seasonality in 2018, compared to 3.2 percent among the adult labor force. The gap, however, was significantly larger among educated groups. The non-seasonal unemployment rate among tertiary-educated young people stood at 23.9 percent, compared with 2.9 percent among their adult counterparts. There are two possible explanations. On the one hand, well-educated young workers are mainly active in non-farm labor markets, while low-educated young people are more likely to have the option to return to farming activities. On the other hand, high-skilled young
workers often choose voluntary unemployment while waiting for a quality job in the formal sector (World Bank 2020).

Figure 15: Changes in skill composition of employment and labor force, 2012 – 2018

(a) Total (age 15+)

(b) Youth (age 15 - 24)

(c) Female

Source: LECS5 and LECS6.

Note: A broad definition of the labor force is adopted, defined as working-age individuals excluding students and retired or disabled persons (and thus including potential discouraged workers). Services exclude construction and public employment.
A shift in the demand for skills in the non-farm sector drove this polarization. Non-farm employment shifted away from workers with upper secondary education and vocational training toward those with tertiary education, lower-secondary education and primary education (Figure 15a). Despite a growing share of tertiary-educated and primary-educated workers in the labor force, the non-farm employment share of these skill groups rose by more than other groups. Moreover, changes in the education composition of the labor force suggest that rather than obtaining intermediate-level skills from secondary education or vocational training, Lao workers were more likely to drop out of school after completing compulsory primary education or continued to higher education until they complete tertiary education. A lack of demand for intermediate-level skills might have driven this decision.

Manufacturing employment shifted towards low-skilled workers. Closures and downsizing of manufacturing plants affected employment among medium- and high-skilled workers to a larger extent. Employment, therefore, shifted towards primary-educated workers. Even as the share of primary-educated workers in the labor force grew, their share of manufacturing employment grew even more rapidly. As demand shifted towards low-skilled workers, real wage growth in manufacturing declined in line with skill levels. Between 2012 and 2018, the average wage for tertiary-educated manufacturing workers rose by 3 percent per year, compared with 11 percent among primary-educated workers (Figure 16b). The average returns on education in the manufacturing sector declined from 5.8 percent in 2012 to 4.4 percent in 2018 (World Bank 2020).

Non-government services sector employment shifted away from medium-skilled workers. Declining services activities affected medium-skilled workers. Jobs created in the hospitality and transport sector required both low-skilled (primary educated) and high-skilled (tertiary-educated) workers. At the same time, some high-productivity firms were created in the wholesale trade, transport and communication industries which demand high-skilled workers. Workers with upper secondary education or vocational training registered a large decline in their share of service sector employment (Figure 15a).

Tertiary-educated workers in the non-government services sector experienced the highest rate of real wage growth (8 percent per year, Figure 16c). The average rate of return on an additional year of education in the non-government services sector increased by 2 percentage points to 6.4 percent between 2012 and 2018, reflecting scarcity in the supply of highly educated workers in this sector. The growth of public sector employment and wages, as the public and private sectors competed for the same pool of workers, could have influenced this sharp increase. Between 2012 and 2018, public sector employment lead job creation in the non-farm sector, with the average real wage growing by 10 percent annually.15

15 A large increase in salaries and benefits for public employees was implemented in 2013, as part of the state plan to increase the compensation of public employees. The civil service salary index rose by 37 percent in 2013 and compensation of employees surged from 5.1 percent to 11.1 percent of GDP or from 21 percent to 38 percent of total fiscal expenditure. Despite efforts to contain the public sector wage bill in recent years, compensation of employees remained high at 7 percent of GDP or 32 percent of fiscal expenditure in 2017.
Shifts in the demand for skills in each sector mask differences across gender and age groups. Among the female labor force, manufacturing employment shifted towards tertiary-educated workers, while female service-sector employment shifted towards workers with lower-secondary education. This explains smaller increases in the female unemployment rate among these two groups (Figure 14c). Meanwhile, the service sector was least likely to employ women with upper secondary education or vocational training as well as highly educated young people, resulting in the persistently high unemployment rate among these groups.

Figure 16: Average real wage by skill level

Source: LECS5 and LECS6.
Note: Average wage per month for wage workers in 2018 constant kip. Estimate for manufacturing worker with vocational training is not available due to sample size limitation. Services exclude construction and public employment.

Box 2: Minimum wage and unemployment

The minimum wage increased over the past decade. Lao PDR has adopted a nationwide minimum wage policy since 1991. Wage negotiation is neither coordinated industry-wide nor powerful enough to influence wage increases nationwide (ILO 2015). The minimum wage surged over the past decade. In May 2018, the monthly minimum wage was raised to 1.1 million kip, a 22 percent increase from 900,000 kip in 2015 and a 3-fold increase from 348,000 kip in 2011, compared to a 20 percent increase in the average price level during 2011 – 2018. In 2018, the minimum wage was 61 percent of the mean wage and 52 percent of the median wage.
Evidence shows that the minimum wage is binding for low-skilled workers. As in DiNardo, Fortin and Lemieux (1996), Maloney and Nuñez (2004) and Kristensen and Cunningham (2006), kernel density estimates of the wage distributions are used to test if the minimum wage is binding. If the kernel density plot shows an extremely high concentration (“spike”) and the cumulative distribution becomes vertical (“cliff”) at a particular wage, and if that wage coincides with the minimum wage, there is a reason to believe that the minimum wage legislation is the factor behind the spike and the cliff. In Lao PDR, the minimum wage imposed in 2018 affects the wage distribution of low-skilled workers (Figure 17a,b). However, the round number effect seems to be present as the cliff is observed at 1.2 million kip per month or 40,000 kip per day rather than the minimum wage of 1.1 million kip or 36,667 kip per day.

While the minimum wage rise does not seem to explain a significant increase in unemployment observed among medium- and high-skilled workers, its impact on employment among low-skilled workers warrants further attention. The minimum wage does not generally affect the wage distribution of medium- and high-skilled workers. For this group of workers, the equilibrium wage is too high to be affected by the minimum wage, which appears not to be binding. The spike and the cliff for medium- and high-skilled workers do not occur around the minimum wage but rather at 1.5 million kip per month, approximately 25 percent higher than the level for low-skilled workers (Figure 17c,d). This “numeraire effect”, in which spikes arise at multiples of the minimum wage, has also been documented in other countries.

Figure 17: Kernel densities and cumulative distributions

(a) Kernel density: low-skilled

(b) Cumulative distribution: low-skilled

(c) Kernel density: high-skilled

(d) Cumulative distribution: high-skilled

Source: LECS6.

Note: As in Kristensen and Cunningham (2006), the sample includes all wage workers age 15 – 65 years old, who report working more than 30 hours per week. Public workers and workers who do not report wages and hours worked are excluded. Low-skilled workers are those with completed primary education or less.
4. Spatial disparities in non-farm employment

In recent years, new business creation has been concentrated in Vientiane Capital and the two northern provinces of Bokeo and Luangprabang (Figure 18, Figure 19). Bokeo, where non-farm businesses barely existed in 2012, has seen manufacturing and services accelerate due to increasing foreign direct investment. Nearly 900 firms registered with the Ministry of Industry and Commerce as beginning operations in Bokeo in 2019–20. Vientiane Capital maintained its status as the center of manufacturing activities, with approximately 8000 newly registered firms in 2019–20. While Luangprabang experienced stagnation in the entry of new manufacturing businesses, a number of service sector enterprises recently entered the local market, thanks partly to a boom in tourism. Signs of increasing manufacturing activity were also observed in other provinces, namely Phongsaly, Luangnamtha, Huaphanh and Xiengkhuang.

Meanwhile, several central and southern provinces have experienced a slowdown in firm creation and registration. In 2013, businesses were concentrated in Vientiane, Xayabury, Bolikhamxay, Khammuane, Savannakhet and Champasack. However, these provinces constituted a small share of newly registered firms in 2019–20, and the number of newly registered manufacturing and service sector enterprises declined considerably in Khammuane and Savannakhet. In Vientiane, Xayabury, Bolikhamxay, and Champasack, most of the decline or stagnation in new business activities occurred in the service sector.

Non-farm employment has therefore shifted towards Vientiane Capital and northern provinces, creating spatial disparities in the non-farm labor market. Northern provinces (Bokeo, Huaphanh, Phongsaly and Oudomxay) increased their share of non-farm employment between 2012 and 2018 thanks to the spillover effect of FDI on other industries' labor markets (Figure 20a). These provinces constituted a relatively small share of non-farm employment in 2012. Vientiane Capital maintained its status of the center of non-farm jobs in Lao PDR. In contrast, provinces in the central and southern regions (Champasack, Khammuane, Bolikhamxay, Attapeu and Savannakhet) lost their share of non-farm employment. In Champasack in particular, the provincial share of non-farm employment fell by 2 percentage points to 10 percent in 2018.

Manufacturing employment became highly concentrated in Vientiane Capital. Manufacturing employment shifted away from central and southern provinces (Khammuane, Savannakhet, Bolikhamxay, Vientiane and Champasack) toward Vientiane Capital and northern provinces (Huaphanh, Bokeo, Xiengkhuang, Phongsaly and Oudomxay). In 2012, about 25 percent of manufacturing jobs were found in Vientiane Capital, followed by Savannakhet (14 percent) and Khammuane (10 percent). The provincial share of manufacturing employment then rose significantly for Vientiane Capital while declining in the other two provinces (Figure 20b). In 2018, nearly 40 percent of manufacturing jobs were concentrated in Vientiane Capital while the shares

16 There is one SEZ in Bokeo (Golden Triangle Special Economic Zone) and one in Luangnamtha (Boten Beautiful Land Specific Economic Zone). Both were developed and operated by Chinese investors.
17 Out of 12 Special Economic Zones (SEZs) in Lao PDR, five are in Vientiane Capital. The rest are in Luangprabang (1), Bokeo (1), Luangnamtha (1), Khammuane (1), Savannakhet (2) and Champasack (1).
for Savannakhet and Khammuane fell considerably to less than 10 percent and 3 percent, respectively.

Service sector jobs were created from almost nothing in several provinces, while they became less common in Champasack – the province with the second largest services employment share. Service sector jobs were highly concentrated in the capital city, with Vientiane Capital accounting for nearly 35 percent of total service sector employment in 2012. This share did not grow between 2012 and 2018, however. Outside Vientiane Capital, services employment shifted toward Bokeo, Oudomxay, Saravane, Huaphanh, Luangprabang, Xiengkhuang and Vientiane, and away from Champasack, Attapeu, Bolikhamxay and Luangnamtha (Figure 20c). Champasack,
where services sector jobs were common in 2012, experienced a decline in the provincial share of service sector employment (14 to 10 percent). In contrast, service sector jobs became more prevalent in Bokeo and Oudomxay, which in 2012 constituted just 1 percent and 2.4 percent respectively to total service sector employment in the country.

Figure 20: Distribution of employment by province (percent of employment)

Population dynamics also contributed to spatial mismatch between demand for and supply of non-farm jobs. Demographic change and migration resulted in a greater supply of workers in Vientiane Capital and Khammuane, while the provincial share of the labor force declined in Vientiane and Champasack. Even as Vientiane Capital’s share of the national labor force grew, the city’s share of non-farm employment grew even more rapidly. In contrast, non-farm jobs

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18 A broad definition of the labor force is adopted, defined as working age individuals excluding students and retired or disabled persons, so it includes potential discouraged workers. Services exclude construction and public employment.
were shed in Khammuane. In Champasack, outmigration was not enough to compensate for the decline in non-farm employment.

5. Conclusions and policy recommendations

After almost a decade of jobless growth, Lao PDR’s labor market displays a stubbornly high unemployment rate. Agricultural employment has declined, and non-farm job creation is sluggish despite high GDP growth. This has led to a stagnation of overall employment in Lao PDR, driving up the unemployment rate. Private sector conditions have deteriorated, and many firms have downsized or exited the market. The manufacturing sector, which is deemed to be a key sector in absorbing surplus labor from the agricultural sector, has remained idle in terms of job creation, with the size of the manufacturing workforce even declining between 2012 and 2018. Retail and wholesale trade in the formal sector expanded their share of wage employment as more firms entered the market, but this was at the expense of self-employed local retailers.

The joblessness phenomenon has created spatial disparities in non-farm employment, and non-farm job polarization by skill level. Non-farm employment has shifted towards Vientiane Capital and northern provinces and away from central and southern provinces. Manufacturing employment became highly concentrated in Vientiane Capital. In Champasack, non-government services sector jobs became scarcer, and outmigration was not enough to compensate for this loss. At the same time, non-farm jobs shifted away from medium-skilled workers (secondary-educated and vocational workers) towards low-skilled (primary-educated) and high-skilled (tertiary-educated) workers.

Reversing this trend of jobless growth poses a critical challenge for the Government of Lao PDR. With intense competition on global markets for goods and services amid meager demand due to the COVID-19 pandemic, mitigating unemployment and creating jobs is even more challenging. Limited fiscal space makes matters worse by limiting the ability of government to expand the provision of effective labor market policies and social services. After six years of jobless growth, long-lasting “scarring effects” have been inflicted, especially among young people, and policy attention is urgently required to address this issue.

Rebuilding an economy with plentiful opportunities for all requires policies with two broad aims (Table 2):

1) Creating enabling environments for productive employment to spark a virtuous circle of sustainable, job-creating growth. A broad range of structural reforms is required to enhance productivity, thus reducing business closures, and helping high-growth firms to become job-creating engines.

2) Mitigating spatial and skill mismatches to foster inclusive growth. Short-term measures to boost job creation in high-unemployment locations and skill groups should be combined with deeper reforms to increase labor mobility, improve education, and foster relevant skills, especially among young people.
Improving the business climate to unlock firm growth

Streamlining regulations, improving regulatory compliance, and encouraging formalization would encourage fair competition, leading to productivity and employment growth. Unfair practices of informal competitors were cited as one of the biggest constraints among SMEs. Creating a one-stop business registration service to cut the burdensome registration process would increase enterprise registration. Meanwhile, eliminating and streamlining regulations for transparency and consistency in the tax and regulatory systems would curb informal practices adopted by registered firms. While formalization is necessary for firms to have access to finance, it is essential that alternatives to traditional collateral-based lending exist to enable SMEs to access the resources they need to operate their businesses.

Revamping of the Special Economic Zone (SEZ) policy can stimulate job creation in a cluster of disadvantaged provinces. SEZs have been the key strategy employed by the government to move towards market-based economic systems, urbanization, and infrastructure development through foreign direct investment. However, a retreat of the state’s role in the process of zone development, as full planning and regulatory authority is granted to zone developers, has undermined the ability of SEZs to generate economic and employment growth (Laungaramsri, 2017). In recent years, SEZs were not able to absorb excess labor supply in Khammuane and Champasack, and while they proved successful in creating non-farm employment in Bokeo and Luangnamtha, most jobs went to foreign workers. The Golden Triangle SEZ in Bokeo has 81 companies, with the highest number of foreign workers of all SEZs (7,963), while Boten SEZ in Luangnamtha has 2,520 foreign workers. The majority of foreign workers in these SEZs are Chinese (IOM, 2019). Aligning FDI incentives with the objective of maximizing SEZ impact on local employment is essential. Revamping the SEZ policy in Khammuane and Champasack could help alleviate the unemployment crisis in these provinces, as well as in the adjacent provinces of Bolikhamsay and Saravane. A comprehensive policy approach for these SEZs is required to facilitate backward linkages between SEZs and the domestic economy, including the government’s role in the process of zone development, tax incentives, infrastructure improvements, local employment promotion, labor skills development and the facilitation of labor mobility (e.g., relocation subsidies).

Improving connectivity and transport infrastructure to facilitate private sector investments and labor mobility

Transport and connectivity problems represent one of the main constraints for high-growth firms. Transport was named as one of the biggest constraints among growing firms of all sizes. Direct access to large markets, both domestic and international, is crucial for firms to achieve economies of scale, adopt better technologies and expand. Given that Lao PDR is a small

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19 The empirical literature expresses some doubt regarding the effects of SEZs on job creation in developed countries. For example, Gobillon et al. (2012) found these special zones made only a small and temporary impact on employment in France; and Neumark and Kolko (2010) finds no effects of a Californian SEZ on job creation. However, Wang (2013) reports that SEZs have increased productivity and wages in China. However, there is some evidence albeit scarce suggesting that tax incentives represent a useful tool to promote job creation and increase local wages (Busso et al., 2013; Chaurey, 2017).
landlocked country, connectivity with neighboring countries where consumption demand is strong is essential. Boosting infrastructure is especially important for small and medium firms, which are less likely to survive in the face of fluctuating, seasonal demand in the local market.

**Improving connectivity and transport infrastructure will enable firms to grow.** Improved transportation and logistics will enable high-potential firms to access larger product and input markets at a lower cost. They will also allow firms to attract more customers, and recruit from a broader pool of employees. As the empirical literature suggests, infrastructure improvements in terms of access to electricity (Dinkelman, 2011) as well as railways and roads (Akee, 2006) are an important component in lifting employment, particularly among women, low-skilled individuals and rural workers. The China–Laos railway scheduled to open in 2021 is expected to boost connectivity and promote businesses in provinces along the railway. Transport cost and time are expected to be lower and regional trade connectivity is also expected to improve, provided logistics and cross-border services are integrated to facilitate the transport of goods by rail. To capitalize on this major development in regional connectivity, transport infrastructure that links the railway with the rest of Lao PDR is also essential.

**Improved transport services can facilitate labor mobility which will become increasingly important as the economy grows.** An adequate connection between provinces can alleviate the spatial mismatch in employment as workers move from areas where labor demand is weak to those with a greater supply of jobs. Better transport services are also important for workers who commute. As the economy grows, economies of agglomeration would play a key role in promoting growth (World Bank, 2009). Economic concentration and spatial disparities in employment creation will become more likely. Labor mobility allows a quick adjustment of labor markets in bringing people to jobs, ensuring growth is inclusive. However, good transport services alone are not sufficient: their affordability for workers is also essential. Cross-country empirical evidence shows that transport subsidies and access to public transport help to increase employment opportunities (Franklin, 2017; Hernandez et. al, 2020). These policies can narrow provincial unemployment gaps as workers are more able to move from provinces with few jobs with to provinces with better labor market conditions.

**Improving skills matching through higher education and training opportunities**

**Higher education is vital to supporting high-growth firms.** Skilled labor shortages were cited as major impediments to the expansion of firms, despite an increasing pool of tertiary-educated workers. The lack of an educated workforce was considered by medium and large firms that have exited the market to be their biggest constraint. It also prevents large firms from expanding their operations. The problem of skill shortage is also common to exporting firms and foreign-owned businesses seeking to remain competitive in global markets. In addition, well-educated people are more likely to start a new business. Moreover, cross-country empirical evidence shows that firms created by highly educated entrepreneurs tend to perform better (Bosma et al. 2009), and that enrolment in tertiary education also has a positive effect on the number of fast-growing enterprises at the national level (Teruel and De Wit, 2011).
Reskilling and upskilling of secondary-educated and vocational workers through high-quality technical and vocational education and training (TVET) can help them reenter the market. Business closures in recent years resulted in extensive job losses among secondary-educated and vocational workers who had previously experienced lower unemployment rates than other groups. Despite a scarcity of job offers, some sectors have experienced a surge in demand, including food and beverage manufacturing and services, transportation, and financial services. As Lao PDR looks to redirect unemployed adults towards sectors facing increasing demand, matching the skills requirements of growing employment sectors with the skills of jobseekers in a more granular way is crucial. This could be complemented with targeted workplace-based training opportunities.

**Investing in public employment service capacity**

A key function of public employment services (PES) is to improve the matching of labor supply and demand by facilitating access to labor market information. The lack of information about job offers can represent a significant source of unemployment, especially when jobs are not available locally. One inexpensive way to resolve this is a job-matching platform operated by public employment services to bridge employers and jobseekers nationwide. Empirical studies have found that attendance at job fairs (Beam, 2016), access to recruiting services (Jensen, 2012) and better job accessibility (Anderson, 2018) also improves formal job finding, especially among rural, young and low-paid workers. On the firm side, recruitment and job-matching platforms can alleviate the skill shortage problem, which is one of the main reasons explaining firm exits. This can be especially relevant for small firms, which tend to have less information or experience in recruitment compared to large firms.

PES capacity also needs to be able to respond to multiple—often overlapping—employment barriers. While evidence in the EAP region on jobseeker vulnerabilities is relatively limited, international evidence indicates that certain vulnerable groups – including young people, and especially young women – are relatively more likely to be unemployed than others (ILO, 2018). European evidence further demonstrates that people who are unemployed, inactive, or precariously employed make up a highly diverse group, and employment barriers – e.g. low skills, limited work experience, care responsibilities – tend to occur simultaneously (Vandeninden et al., 2018). This in turn necessitates investments in PES functions focusing on identifying vulnerable jobseekers through jobseeker profiling, as well as building capacity for intensive job search assistance or career counseling. Close engagement with employers could further support mentoring or follow-up assistance in the critical early period of employment.

**Investing in programs aimed to facilitate self-employment and micro-entrepreneurship among vulnerable jobseekers**

Interventions supporting micro entrepreneurship activities can boost the incomes of vulnerable groups on the labor market. Self-employment is the predominant form of economic activity and source of jobs in low- and middle-income countries (Ayyagari and Demirguc-Kunt, 2014; Haltiwanger et al., 2013). While most of these self-employment activities do not grow
beyond subsistence size, they can represent the main source of income for the poor and vulnerable and, in some cases, a first step to evolve into growing businesses.

**Entrepreneurship support programs that address both financial and nonfinancial constraints can help support vulnerable jobseekers.** Global evidence shows that entrepreneurship programs addressing multiple constraints can have strong impacts on business start-up and profitability among vulnerable and informal workers: for example, those combining business and technical skills development with financial support (in the form of either microloans, cash, or in kind transfers) and complementary support services (Cho and Honorati, 2014; Blattman and Ralston, 2015 and Kluve et al., 2016). These instruments address labor market constraints related to limited labor demand and can also address financial and nonfinancial constraints impeding their economic inclusion. Evidence from Chile and Mexico further demonstrates that providing a comprehensive service package consisting of start-up capital, training, and follow-up visits has positive impacts on entrepreneurial firm productivity, the number of employees of firms, and wage employment of the self-employed in the long run (Bruhn et al., 2018 and Martínez et al., 2018).

Table 2: Summary of policy recommendations

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<td>Realigning FDI incentives and reforming SEZ policy to target a cluster of disadvantaged provinces</td>
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<td><strong>Connectivity and transportation</strong></td>
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<td><strong>Education and training</strong></td>
<td>Investing in higher education to support high-growth firms</td>
<td>Reskilling through high-quality technical and vocational education and training (TVET)</td>
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<td><strong>Public employment service</strong></td>
<td>Creating recruitment and job-matching platforms in close collaboration with the private sector</td>
<td>Generating jobseeker profiles and offering career counseling</td>
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<tr>
<td><strong>Self-employment and micro-entrepreneurship</strong></td>
<td>Offering a comprehensive service package consisting of start-up capital, training, and follow-up visits</td>
<td>Targeting programs at vulnerable jobseekers and areas with limited labor demand</td>
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20 Financial constraints include prohibitively high interest rates and collateral requirements for vulnerable groups, while nonfinancial constraints encompass the absence of business knowledge, practices, and management capital, and limited access to markets (value chains), networks, and mobility.
Annex 1: Data sources

The analysis in this note draws on various data sources. Piecing them together allows one to observe a more complete picture of the labor market situation in Lao PDR. Nevertheless, because each has different coverages and focuses, results need to be interpreted with care.

1. Economic Census

The Economic Census was conducted in 2006, 2013 and 2020 by the Lao Statistics Bureau (LSB). The Economic Census 2013 covers all registered firms, regardless of whether they maintain accounting books or not. It does not cover household agricultural entities, businesses that operate at the owner’s residence or do not have a permanent office, international organizations and representative offices, schools, hospitals, and other primary economic units located inside military camps and police departments. Therefore, unregistered businesses, most self-employed persons and household businesses are excluded. Business entities located in villages with fewer than 10 business units were counted but not interviewed. In total, there were 178,577 business units registered in 2013, of which 137,577 units, or 75 percent, participated in the interview. Out of all interviewed units, 124,873 were for-profit business units and 9,704 were non-profit organizations.

The Economic Census 2019/20 collects data of all registered business units but excludes non-profit organizations. In total, there were 133,997 units in 2019/20, of which 56 percent or 75,307 units were interviewed. The census for all three years collects information about ownership, registration, employment, compensation, income, expenditure, etc. Table 3 shows the estimated numbers of business units and employment in 2012 and 2019.

Table 3: Registered business units and employment, 2012 – 2019

<table>
<thead>
<tr>
<th>Economic Census</th>
<th>2012</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interviewed units</td>
<td>Registered units*</td>
</tr>
<tr>
<td></td>
<td>Number of units</td>
<td>Employment</td>
</tr>
<tr>
<td></td>
<td>Employment</td>
<td>(lower bound)</td>
</tr>
<tr>
<td>Total</td>
<td>124,873</td>
<td>573,475</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2,188</td>
<td>25,176</td>
</tr>
<tr>
<td>Public administration</td>
<td>15</td>
<td>2,494</td>
</tr>
<tr>
<td>Non-farm private units</td>
<td>122,670</td>
<td>545,805</td>
</tr>
<tr>
<td></td>
<td>257</td>
<td>9,244</td>
</tr>
<tr>
<td>Mining</td>
<td>15,573</td>
<td>120,811</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>289</td>
<td>8,087</td>
</tr>
<tr>
<td>Construction</td>
<td>642</td>
<td>15,910</td>
</tr>
<tr>
<td>Wholesale/retail trade</td>
<td>78,407</td>
<td>247,014</td>
</tr>
<tr>
<td>Transport</td>
<td>3,509</td>
<td>15,958</td>
</tr>
<tr>
<td>Hotel and restaurants</td>
<td>14,549</td>
<td>64,378</td>
</tr>
<tr>
<td>Other services</td>
<td>9,444</td>
<td>64,403</td>
</tr>
</tbody>
</table>

Note: Non-profit organizations are excluded.
*The Economic Census 2012/13 collected data of all registered business units including non-profit organizations. There were 178,557 units, of which 75 percent or 134,577 units were interviewed. 43,980 units that were not
interviewed were located in the villages that had fewer than 10 registered business units. Out of all interviewed units, 124,873 were for-profit business units and 9,704 were non-profit organizations. The total number of registered business units excluding non-profit organizations is thus approximated at 165,700 units. Non-interviewed units are assumed to be proportionately distributed across sectors and to have one employee. Therefore, the number of employment is the lower bound of total employment created by all registered business units.

2. World Bank Enterprise Survey

The World Bank Enterprise Survey is a firm-level survey of a representative sample of an economy’s private sector. It targets registered companies in the non-farm sector with 5 or more employees for interview, meaning that micro-enterprises are excluded. The survey comprises manufacturing, construction, wholesale and retail trade, hotels and restaurants, transport, storage, and communications, but excludes mining and quarrying, electricity, gas and water supply, financial intermediation, real estate, and education. Its geographical coverage comprises Vientiane Capital, Champasack, Luangprabang, Luangnamtha, Khammouane and Savannakhet. The survey collects information about the characteristics of establishments, infrastructure, sales and supplies, competition and innovation, capacity, land and permits; security, finance, business-government relations, labor, and business environment. The survey was conducted in 2009, 2012, 2016 and 2018. The sample frame was updated for 2016 and 2018 based on the Economic Census 2013 (Figure 21, Figure 22).

3. Lao Expenditure and Consumption Survey (LECS)

This nationally representative household survey has been conducted at a five-year interval since 1992 by the LSB to monitor progress in poverty reduction, and regularly assess the living standards of the population. The latest three rounds, i.e. LECS 4, LECS 5, and LECS 6, were conducted in 2007/08, 2012/13 and 2018/19 respectively. The survey was carried out over a 12-month period. It collects a core set of demographic and socio-economic information including education, employment, health, agricultural production, household businesses, consumption and income.

4. Labour Force Survey (LFS)

The LFS was conducted between July and August 2017. It was administered by the LSB in collaboration with Ministry of Labour and Welfare (MoLW). The survey is nationally representative, collecting a core set of demographic and labor market information.
Figure 21: Share of firms by size

<table>
<thead>
<tr>
<th>Size</th>
<th>Economic Census</th>
<th>Enterprise Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>86.2%</td>
<td>67.9%</td>
</tr>
<tr>
<td>5-9</td>
<td>13.8%</td>
<td>30.6%</td>
</tr>
<tr>
<td>10-99</td>
<td>32.3%</td>
<td>1.5%</td>
</tr>
<tr>
<td>100 and more</td>
<td>1.5%</td>
<td></td>
</tr>
</tbody>
</table>


Figure 22: Share of employment by size

<table>
<thead>
<tr>
<th>Size</th>
<th>Economic Census</th>
<th>Enterprise Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5</td>
<td>50%</td>
<td>27.9%</td>
</tr>
<tr>
<td>5-9</td>
<td>50%</td>
<td>42.7%</td>
</tr>
<tr>
<td>10-99</td>
<td>29.1%</td>
<td>29.4%</td>
</tr>
<tr>
<td>100 and more</td>
<td>29.4%</td>
<td></td>
</tr>
</tbody>
</table>

Annex 2: Estimation of firm exit using World Bank’s Enterprise Surveys

To estimate firm exit using the World Bank’s Enterprise Surveys (ES), the definitions proposed by Aga and Francis (2015) are adopted.\(^2\) ES (https://www.enterprisesurveys.org) are conducted in several countries every 4 to 5 years and cover several topics, including firm characteristics, firm performance, infrastructure, finance, and business environment. In the case of Lao PDR, the survey was conducted in 2009, 2012, 2016 and 2018. The universe of inference includes formal/registered private-sector firms with at least 5 employees, operating in manufacturing, construction, wholesale and retail, hotels and restaurants and transportation. All estimates are weighted in order to be representative of nationwide firm in the formal/registered private sector.

ES provide information on the operating (eligibility) status of all firms interviewed in the previous wave, including those that have stopped operations. Importantly, a firm’s eligibility status is determined in an initial screening phase, before the full interview, and independently of current-round survey design or a firm’s willingness to participate (see discussion in Aga and Francis 2015).

The ES methodology uses 20 options to categorize previously surveyed firms during the screening process of the new survey. For instance, another firm purchased the closing establishment, a firm moved and changed its contact information, or a firm stopped operations. The definition of firm exit adopted by Aga and Francis (2015) depends on “positive confirmation” variables and assumes that firms previously operating continue to exist unless there is direct evidence confirming that they have exited the market. Firms are considered as strictly exiting the market if:

1. the screening process confirms that the firm is now out of operation;
2. it is confirmed that the firm or its available contact information now corresponds to an ineligible activity or status (e.g. fully state-owned, out-of-universe activity, moved abroad, no longer registered); or
3. the listed contact information leads to a dead or non-operating phone line, with all other efforts to obtain contact information exhausted.

Firms are considered as exiting the market according to the weak definition if they meet conditions (1) – (3) or (4) their contact information is incorrect, and no new records are available.

Importantly, firms included in the 2012 survey with missing eligibility status in 2016 are assumed to remain operational in 2016. This treatment yields the most conservative estimate of the exit rate for the period 2012-2016. There are 66 out of 275 firms interviewed in 2012 that strictly exited the market in 2016.

This situation does not appear in the eligibility variable for 2018, which corresponds to firms surveyed in 2016, as this variable does not contain missing values. There are 43 out of 367 firms

\(^2\) The authors provide estimates of firm exit and its associated job losses for 47 economies, concluding that firms’ labor productivity and age are robustly and negatively related to exit probability. They show that there are mitigating factors like bank financing and limited liability. Their estimates of job losses arising from firm exit amount on average to 3-4 percent of private sector employment per year.
that strictly exited the market during 2016-2018, according to the reasons listed in items (1) to (3). Table 4 shows the annualized exit rates according to the strict and weak definitions for different sub periods.

Table 4: Annualized exit rate

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strict definition</strong></td>
<td>3%</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Weak definition</strong></td>
<td>3%</td>
<td>8%</td>
<td>16%</td>
</tr>
</tbody>
</table>

References


