

Linking Laos, Unlocking Policies

Lao PDR Country Economic Memorandum

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Abbreviations

ASEAN	Association of Southeast Asian Nations	MPI	Ministry of Planning and Investment
BOL	Bank of the Lao PDR	MSME	Micro, Small, and Medium Enterprise
BRI	Belt and Road Initiative	NT2	Nam Theun 2 Hydropower Project
CSG	China Southern Power Grid	NSEDP	National Socio-Economic Development Plan
DB	Doing Business	NBT	Nature-Based Tourism
DIMEX	Department of Imports and Exports	NPL	Non-Performing Loans
EBA	Enabling the Business of Agriculture	NTFPs	Non-Timber Forest Products
EDL	Electricité du Laos	NTM	Non-Tariff Measures
EGAT	Electricity Generating Authority of Thailand	OECD	Organisation for Economic Cooperation and Development
FDI	Foreign Direct Investment	PBOC	People’s Bank of China
GDP	Gross Domestic Product	PPA	Power Purchase Agreement
GSP	Generalized System of Preferences	PFA	Production Forest Area
GVC	Global Value Chain	PTA	Preferential Trade Agreement
ICT	Information and Communication Technology	RCEP	Regional Comprehensive Economic Partnership
IMF	International Monetary Fund	REER	Real Effective Exchange Rate
IOM	International Organization for Migration	SCD	Systematic Country Diagnostic
IPD	Department of Investment Promotion	SEZ	Special Economic Zone
IPP	Independent Power Producer	SOE	State Owned Enterprise
IPR	Intellectual Property Rights	SPS	Sanitary and Phytosanitary
KPI	Key Performance Indicator	SME	Small and Medium Enterprise
LDC	Least Developed Country	TaxRIS	Tax Revenue Information System
LDR	Lao Development Report	TBT	Technical Barrier to Trade
LECS	Lao Expenditure and Consumption Survey	TVET	Technical and Vocational Education and Training
LPI	Logistics Performance Index	UNCTAD	United Nations Conference on Trade and Development
LSB	Lao Statistics Bureau	UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
MES	Manufacturing Establishment Survey	WBES	World Bank Enterprise Surveys
MFN	Most Favored Nation	WDI	World Development Indicators
MOF	Ministry of Finance	WDR	World Development Report
MOIC	Ministry of Industry and Commerce	WEF	World Economic Forum
MOLSW	Ministry of Labour and Social Welfare	WTO	World Trade Organization
MONRE	Ministry of Natural Resources and the Environment		

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OVERVIEW

Linking Laos, Unlocking Policies

Over the past 20 years, the Lao People's Democratic Republic ("Laos") has achieved impressive growth and significant development gains. Its economy has been one of the fastest growing in the world, with average annual growth of around 7 percent, mostly driven by the capital-intensive resource sector (mining and hydropower) and supported by infrastructure development. However, this model of growth is showing its limitations. It has not been particularly inclusive, with the rate of job creation lagging behind the fast rate of growth in output. Although poverty has decreased, it has done so at a slower pace than in other fast-growing economies in the region, while inequality has risen.¹

Growth has also not been sustainable from a macroeconomic or environmental perspective. Stocks of natural capital have been depleting, albeit at a slower rate since 2015, and many of the country's forests and water resources remain vulnerable. Public debt has increased to critical levels due to weak revenue collection, a sharp increase in debt-financed investments in the electricity sector, the accumulation and subsequent clearance of spending arrears, and valuation effects associated with kip depreciation. The resulting debt service burden is crowding out public spending on critical services and could lead to disruptive fiscal and external adjustments if left unaddressed. At the same time, economic growth has been declining since 2018, following devastating floods, while the impacts of the COVID-19 pandemic saw Laos record its lowest GDP growth in three decades in 2020. There is now a risk that the progress achieved so far will be reversed, with the largest impacts on the most vulnerable, particularly women and poor rural households.

This report examines the reasons why Laos' recent growth has not resulted in greater improvements to socio-economic conditions for most of its population. One issue is the country's dependence on natural resource exports, the production of which tends to be capital rather than labor intensive. Together with associated large resource-related rents and capital inflows, this has exposed the economy to macroeconomic risks, including volatile commodity prices. Up until 2017, this led to an appreciation in the value of the kip which, combined with rising wages, undermined the competitiveness of the export-oriented non-resource sectors and constrained their growth. Public investments in hydropower have also reduced fiscal space, with less resources available for investments in agriculture, education, healthcare, and other public services, all of which could have increased labor productivity and promoted more sustainable, inclusive growth. Laos' dependence on the resource sector has also increased returns to rent-seeking behavior and reduced the incentives for fiscal rigor.

Another issue is the limited push for implementation of policy reforms. Policy reforms are carefully designed and structured around the five-year National Socio-Economic Development Plans (NSEDPs). However, policy change remains slow, reflecting the country's still weak capacities, institutions, and governance structures. In 2019, Laos ranked in the bottom 20 percent in all dimensions of the Worldwide Governance Indicators except for political stability. The domestic business environment remains unpredictable and restrictive, with significant bottlenecks in the labor market, adding to the

already tough constraints associated with the small size of the domestic market. Combined, these create formidable obstacles for businesses aiming to compete at regional and international levels. The government needs to make significant strides to improve the business environment so that productive foreign businesses will invest and expand, and efficient new firms will enter and grow.

At the same time, Laos has many advantages over other landlocked countries that have experienced natural resource booms and have restrictive business environments. While transport costs are high, the new railway and road infrastructure should help to ease this problem. And unlike other landlocked countries, Laos has the advantages of considerable natural wealth, a young population, and a strategic location. Laos is endowed with significant natural capital, including forests, biodiversity, and abundant water, land and mineral resources. The government has increasingly recognized that the value of environmental protection is greater than the value derived from uncontrolled resource extraction, and that achieving inclusive economic growth over the longer term requires a more sustainable use of these natural resources. Laos also has one of the youngest populations in the region, giving it the potential to reap a substantial demographic dividend in coming decades.

Laos' geographic location is also a huge asset, with its neighbors including some of the world's fastest growing economies. This position could help Laos boost overall growth and diversify its economy away from mining and power generation through increased trade and investment. Laos shares borders with five countries that together account for more than 17 percent of global GDP, and more than a fifth of the world's population. Most of these countries are rich, with open trading systems, booming markets and strong demand for labor and goods. They are also heavily involved in global value chains (GVCs), both as participants and leaders. This means that demand for Lao exports, plus cheap sources of imports, along with GVCs and foreign direct investment (FDI) opportunities, are right at the country's door-

step. Laos is already reaping some of these benefits. Recent investment in export-oriented manufacturing special economic zones (SEZs) has facilitated exports in the electronics, telecommunication, and electrical equipment sectors, and in the food industry.

The government is aware of the potential benefits of its strategic location, focusing its economic and social development strategies around trade, investment and establishing Laos as a bridge country within the region (the land-linked vision). Substantial investments are already being made in railway and road infrastructure to realize this vision. However, regulatory reforms need to occur in tandem with connective infrastructure investment to ensure the country benefits from new trade opportunities and diversifies from natural resources. In this respect, Laos is more policy-locked than land-locked. Rather than developing new regulations, it is more important that the government sets priorities among existing ones and ensure they are fully and effectively implemented. Importantly, trade can be leveraged to lock in domestic structural reforms that achieve more equitable wealth distribution and greater poverty reduction. Global evidence shows that deep forms of integration that encompass policy areas beyond traditional trade policy can drive institutional and policy reforms with positive impacts on the business and investment regime.

In this context, this report provides a set of policy recommendations. The immediate priority is to restore the country's macroeconomic stability, as this is a precondition for the success of future structural reforms. The report then outlines ways in which the government could further leverage its strategic location and natural capital to improve the socio-economic conditions of the young and growing population. Laos could continue moving toward upper-middle income status by sustainably capitalizing on its natural resources and diversifying the economy toward job-creating, export-oriented sectors (including agri-food, light manufacturing and services), thereby ensuring that the benefits of growth are shared more broadly.

The report consists of an overview and four thematic chapters. The overview sets the context and summarizes the report’s main findings and policy recommendations. Chapter 1 analyses Laos’ precarious macroeconomic situation and offers a pathway to restore stability. Chapter 2 examines how the country’s

natural capital could be leveraged for sustainable growth. Chapter 3 discusses constraints to private sector productivity growth and job creation, and the means to address them. Finally, Chapter 4 focuses on recent trade performance and the potential to further diversify the economy away from power generation and mining.

The limits of natural resource driven growth are now becoming apparent

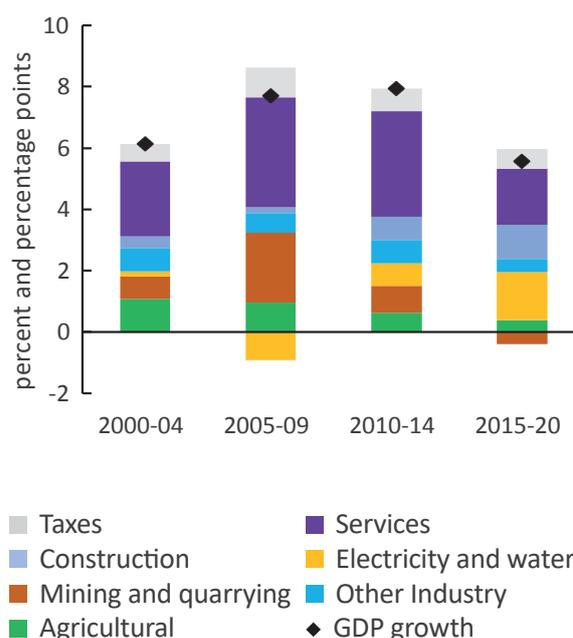
Over the past two decades, Laos’ rapid economic growth has been driven by accumulation of physical capital, extraction of natural resources, and a significant increase in fiscal risks.

Since the early 2000s, investment in the natural resource sector has been the main driver of growth, spurring growth in construction and services. Growth in Laos accelerated rapidly in the early 2000s, reflecting a buoyant global economy and a surge in resource-related investment. GDP grew at an average of 7.2 percent each year from 2012 to 2018. While the mining sector was the key driver of growth until 2010, the opening of the Nam Theun 2 power plant in 2010 marked the rapid development of the hydropower sector, particularly from 2015 onwards (see Figure O.1). Investment in dams, mines, and transport infrastructure also led to a boom in the construction sector. While forestry has historically been an important driver of economic growth and exports, the depletion of forest resources and stricter enforcement of regulations have recently moderated this sector’s contribution to growth.

During this boom period, Laos recorded one of the world’s highest rates of growth in capital stock, with much of this growth attributable to public-private partnerships (PPPs). Total capital stock (public and private) grew from an estimated \$22 billion in 2000 to \$122 billion in 2017 (constant 2011 dollars),² a pace of growth on par with that of South Korea and Taiwan when they were at similar income levels. In the past ten years, electricity generation and mining have captured 67 percent of domestic and foreign private

Figure O.1
Natural resources and related investments have been a major driver of growth

GDP growth and sectoral contributions to growth



investment and 60 percent of public capital investment. In 2017, 30 percent of the capital stock was created under PPPs — the highest proportion in the world. While these PPPs largely involve the construction of hydroelectric dams and transmission lines, more recently they have included projects such as the Hongsa thermal power plant and the Laos-China railway. Laos has also approved several new hydropower projects to achieve its vision of exporting around 20,000 megawatts of electricity by 2030.

While much of this investment has had limited positive impact on government revenues so far, it has brought a substantial increase in fiscal risks. In the electricity sector, the state-owned utility, Electricité du Laos (EDL), has undertaken substantial investment to expand generation and transmission capacity since 2014, financed by public or publicly-guaranteed debt. The associated appraisal and approval processes have been weak, leaving the government exposed to the financial risks of these investments. At the same time, EDL has been locked into power purchase agreements (PPAs) with private investors who benefit from ‘take or pay’ clauses that guarantee payment for supply even if surplus to actual power demand.³ These PPAs have become a significant contributor to EDL’s negative operating margins, increasing the need for government financial support. Given the prices contracted under these PPAs, EDL would need to charge rates significantly above the prevailing domestic and export tariffs in order to break even.⁴ In addition, while most privately-run power projects have been profitable, they have benefitted from significant tax incentives and exemptions, further limiting the net benefits to government.

Despite their potential benefits, current transport infrastructure projects also carry significant risk. The government’s investments in Belt and Road Initiative projects amount to \$7 billion, or roughly 39 percent of Laos’ GDP, a much greater proportion than among any of its East Asian peers. The risk that such investments may exacerbate Laos’ existing debt vulnerability is significant, even if only small parts of these projects are financed through debt instruments (and on concessional terms).⁵ Even if implemented as PPPs, they create liabilities for the government.⁶ This would add to the risks for the government, which may have to pick up the bill for operations, maintenance, and debt servicing if traffic volumes and revenues prove insufficient and the concession holder

abandons the project. A similar threat may exist with the expressway road network being built from Vientiane to the Chinese border. Careful management of these risks is necessary to ensure that Laos realizes development gains from these projects without suffering undue costs.

Some of the macro-fiscal risks associated with Laos’ capital-intensive, debt-driven growth have recently materialized (see Chapter 1).

Even prior to the advent of the COVID-19 pandemic, Laos’ macro-fiscal situation was deteriorating. While recurrent spending, including expenditure on critical public services, has remained relatively modest over the past decade, total public spending – including that undertaken by state-owned enterprises (SOEs), particularly EDL – has been much higher. The expansion of electricity investments has been responsible for much of the increased spending. EDL’s debt is estimated to have increased from around 18 percent of GDP in 2015 to 25 percent of GDP in 2020, accounting for around half the total increase in total public and publicly guaranteed debt over that period. At the same time, revenue mobilization has fallen in recent years, from an already low base. In the four years up to 2019, general government revenues stood at an average of 16 percent of GDP, lower than the average level of 20.5 percent recorded for regional and structural peer countries. Since then, the COVID-19 pandemic has further worsened the situation. As a result, public debt associated with government (i.e., non-SOE) spending has also accumulated rapidly, with fiscal deficits averaging around 5 percent of GDP between 2015 and 2020. Together, these developments have led to a high risk of debt distress, elevated debt service requirements, higher external borrowing costs, and most recently, a lack of access to external markets. Total PPG debt is estimated to have reached 88 percent of GDP in 2021.⁷ External PPG debt-service requirements, even excluding those associated with

EDL's debt, have been estimated as averaging close to \$1 billion per year between 2022 and 2025, implying annual financing needs equivalent to about a third of total government spending in 2020.

If these emergent fiscal and external financing gaps are left unaddressed, they could lead to severe downward adjustments in public spending, imports, and the exchange rate, as well as intensified pressure on the financial sector. Foreign currency reserves are low, at just over two months of import cover as of end 2021. There are ongoing pressures in the foreign exchange market, with a sharp kip depreciation in 2021 and the gap between official and parallel market exchange rates widening from already elevated levels. While the depreciation of the kip could help to boost the competitiveness of Laos' non-resource sector, it has also added to external debt service costs, increased inflationary pressures, and exacerbated currency mismatches on banking sector balance sheets. State-led infrastructure expenditure has also contributed to the increased fragility of the banking sector, with a growing proportion of non-performing loans in certain bank portfolios. Banks are heavily exposed to fiscal risks through their holdings of government bonds and their loans to SOEs, the central bank, and government contractors.

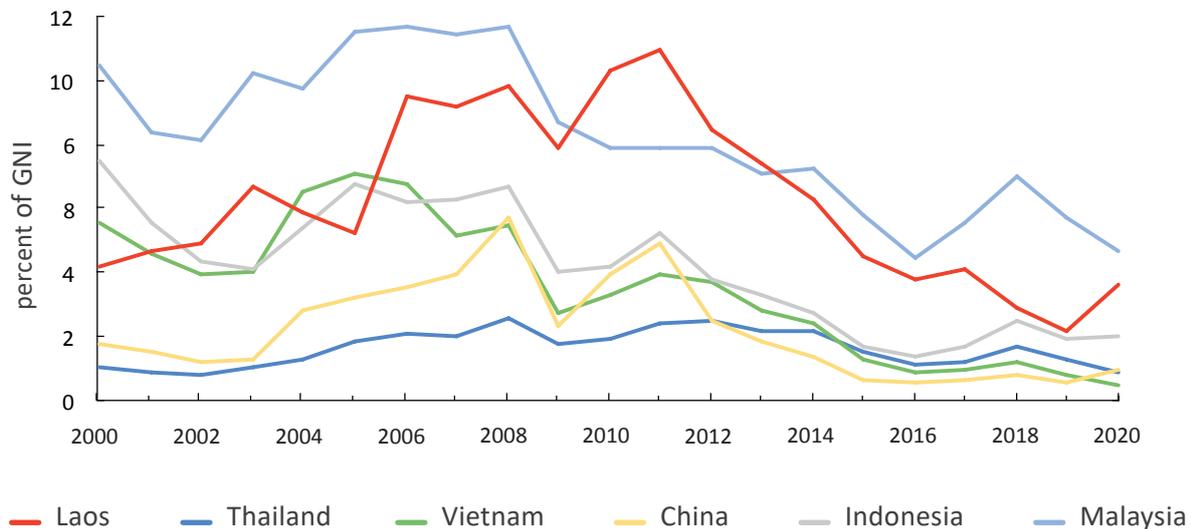
The pandemic has exacerbated long-standing structural vulnerabilities, resulting in a further decline to domestic revenues, additional pressure on the balance of payments, and the increased vulnerability of the financial sector. While Laos has been relatively less affected by the pandemic than many of its regional peers, the crisis has still resulted in it recording its lowest GDP growth rate in three decades, with the rate declining to 0.5 percent in 2020, down from 5.5 percent in 2019. While growth is expected to have increased in 2021, to an estimated 2.2 percent, this is still lower than the pre-pandemic level. Movement restrictions

on travel and tourism have hit the services sector particularly severely. The private sector also suffered from disruption to manufacturing global value chains, with lower levels of both imports and exports. With its fiscal space highly constrained, the government has struggled to implement measures to mitigate the impact of the pandemic.

The resource-driven growth model has also not been environmentally sustainable, although in some areas management of natural resources has improved (see Chapter 2).

With the rapid depletion of natural capital over much of the past two decades, the sustainability of the extractive natural resource sector is facing limits. Laos' material intensity of output (volume of resources used to produce each unit of GDP) has been increasing since 2005, in contrast to most of its regional and structural peers, whose material intensity has fallen steadily. In Laos, this trend reflects the earlier rapid increase in copper mining and, to a lesser extent, the extraction of forest resources. Forest cover declined by 2.9 percent between 2000 and 2015 (approximately 680,000 ha), with the quality of remaining forests degraded. The construction of hydropower plants has altered river flows, significantly impacting fisheries, biodiversity, and downstream agriculture. But in more recent years, mining operations have diminished due to the depletion of existing identified resources and a lack of new projects. Similarly, the economic contribution of forestry has also declined, with Laos moving to a more sustainable plantation-oriented model. While hydropower capacity continues to grow, further expansion is increasingly constrained by the limits to the amount of power technically recoverable from the Mekong and its tributaries. There are also significant environmental risks associated with further dam development, which would have potentially negative impacts on vulnerable communities, both within Laos and in downstream countries.

Figure O.2
The depletion rate of natural resources has slowed in recent years
 Natural resource depletion



Source: World Development Indicators.

The government has implemented a range of measures to improve resource sector management in recent years, with the rate of natural resource depletion decelerating (see Figure O.2). The two largest mining operations have been well run, with good management of environmental risks and with the operators making significant contributions to state revenues. In recognition of environmental and other issues in small-scale mining in particular, the government imposed a moratorium on new mining concessions in 2012. In principle, mining legislation adheres to international standards, although there are often major implementation gaps. In forestry, Laos is moving away from an unsustainable resource extraction model toward more sustainable management of natural forests and an emerging plantation forest economy. This shift is consistent with recognition that the long-term value of forest-based ecosystem services — including to the economy and livelihoods — considerably exceeds the potential gains from extracting natural forest timber. With stepped-up policy implementation, the government has grad-

ually curtailed illegal logging, contained the uncontrolled expansion of plantations, and introduced more sustainable forest management practices. However, it could still do more to achieve its ambitious 70 percent forest cover target. Laos has also achieved success in expanding both its power generation capacity and access to electricity, with the associated policy environment gradually improving and with greater emphasis being placed on environmental considerations in project decisions. But while Laos has achieved impressive rates of electrification, the development of transmission and interconnection infrastructure has not kept pace with rapid growth in generation capacity, limiting Laos' ability to meet domestic and regional demand. Moreover, the cumulative environmental and social impacts of previous hydropower developments are severely constraining the viability of additional dams. If realized, recent plans to develop new coal plants will also have adverse environmental effects and could significantly reduce Laos' ability to market its existing hydropower capacity as a relatively clean source of energy.

Growth has not been sufficiently inclusive, with sub-optimal gains in employment and poverty reduction and rising inequality.

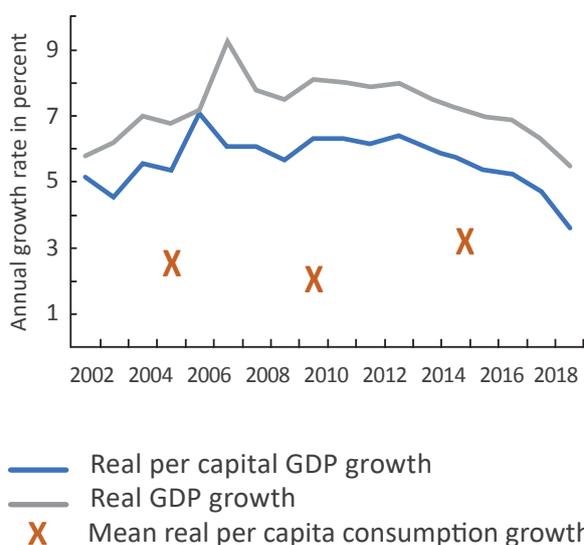
Strong GDP growth rates have not been matched by proportionate reductions in poverty. On average, increases in incomes have not matched the overall rate of GDP growth (see Figure O.3 panel a). While the poverty rate fell from 46 percent in 1992 to 23 percent in 2012 and then to 18 percent in 2018, these improvements were mostly driven by rising farm incomes and migrant remittances, rather than by off-farm job creation. Increasing regional demand for cassava, coffee, tea, and cardamom has encouraged farming households to diversify from subsistence rice cultivation toward commercial cash crops (World Bank, 2020a). Over the 2012-18 period, the elasticity of poverty to GDP growth was low at -0.67 (a 1 percent increase in GDP per capita was associated with a 0.67 percent decline in the poverty rate), half of the impact Vietnam

experienced at similar levels of GDP growth.

Inequality also increased over this period due to a widening consumption gap within regions and increased concentration of consumption at the top end of income distribution. The Gini coefficient increased from 36.0 in 2012 to 38.8 in 2018, above that of regional peers, Vietnam (35.7), Thailand (37.0) and Indonesia (37.7). Despite declining urban-rural and between-province gaps, a widening consumption gap drove this increased inequality. The gap between the very rich and the very poor widened, with the ratio of top quintile to bottom quintile increasing from 5.8 in 2012 to 6.6 in 2018, and the average consumption per capita of the richest decile being ten times larger than that of the poorest decile in 2018. While consumption growth has been historically lower than GDP growth, the consumption growth of the bottom 40 percent has been particularly stagnant (see Figure O.3 panel b).

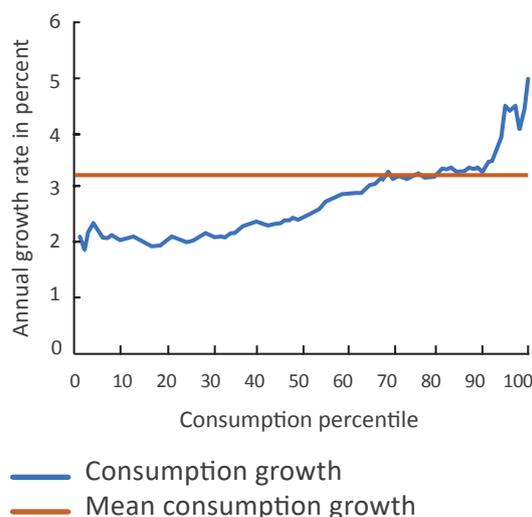
Figure O.3
The growth model has not been inclusive

(a) Real per capita GDP and household consumption growth



Source: World Bank, Poverty Profile in Laos 2018/19.

(b) Consumption growth has been skewed towards rich households



Source: World Bank, Laos Poverty Assessment.

Laos remains a highly agrarian economy. Sixty percent of all workers are engaged in the primary sector, with services dominating the rest of employment. These sectors are characterized by very low productivity levels (see Figure O.4 panel a). Due to their capital-intensive nature, mining and power generation are the most productive sectors by far, accounting for a combined 22 percent of value added. However, they contribute to only an infinitesimal share of employment (0.4 percent each). In 2017, electricity, gas, steam, and air conditioning supply directly generated around 10,000 jobs, less than 1 percent of the total number of jobs generated in that year, with a heavy bias towards employment of men. While construction is the most productive service sector, it did not add to net employment creation in the period 2012-18, contributing only 4 percent to overall employment in 2018 (120,000 workers). This sector's limited job creation may

in part reflect its reliance on foreign workers, with anecdotal evidence suggesting that in 2012, an estimated 100,000 skilled workers from Vietnam, China, and Thailand were employed on building large hydropower and transport infrastructure projects (MOIC, 2012).

Unlike in many comparator countries, in Laos there has been no development of a sizable productive manufacturing base. Despite recording average annual growth of 5.2 percent from 2012 to 2018, the manufacturing sector (excluding mining) shrank in terms of share of value added, going down from 10 percent in 2012 to just below 9 percent in 2018. The sector's share in total value added is well below the average 20 percent for regional peers.⁸ In 2018, the sector employed 5.6 percent of the workforce, down from 7.2 percent in 2012. This suggests some consolidation around more productive subsectors, particularly textiles and electrical equipment.

Figure O.4
High growth but low job-creation in Laos, 2012 and 2018

(a) Total employment growth, value added per worker and share of employment by sector, 2012-18

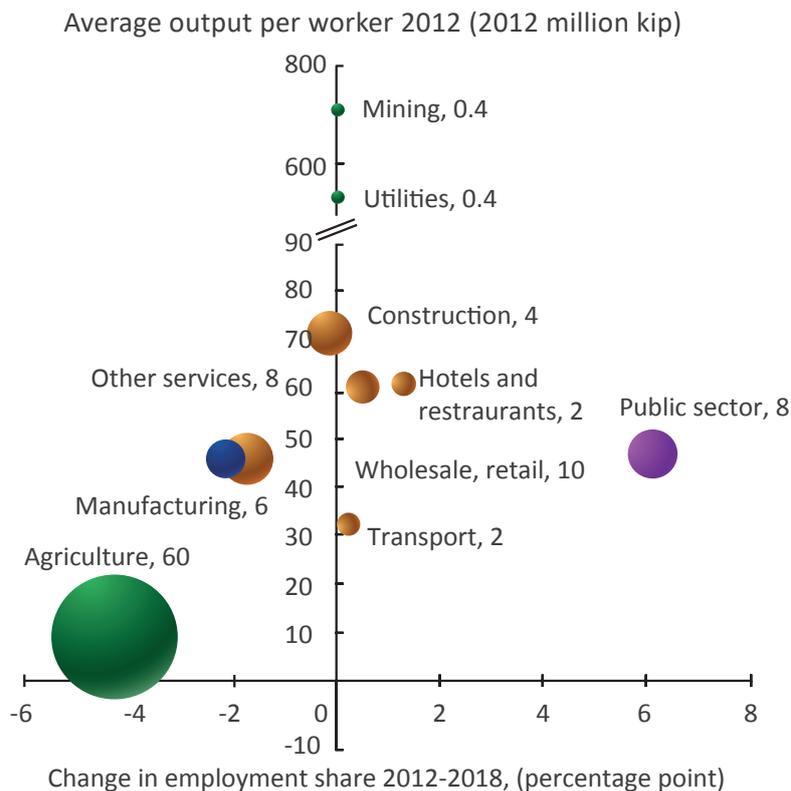
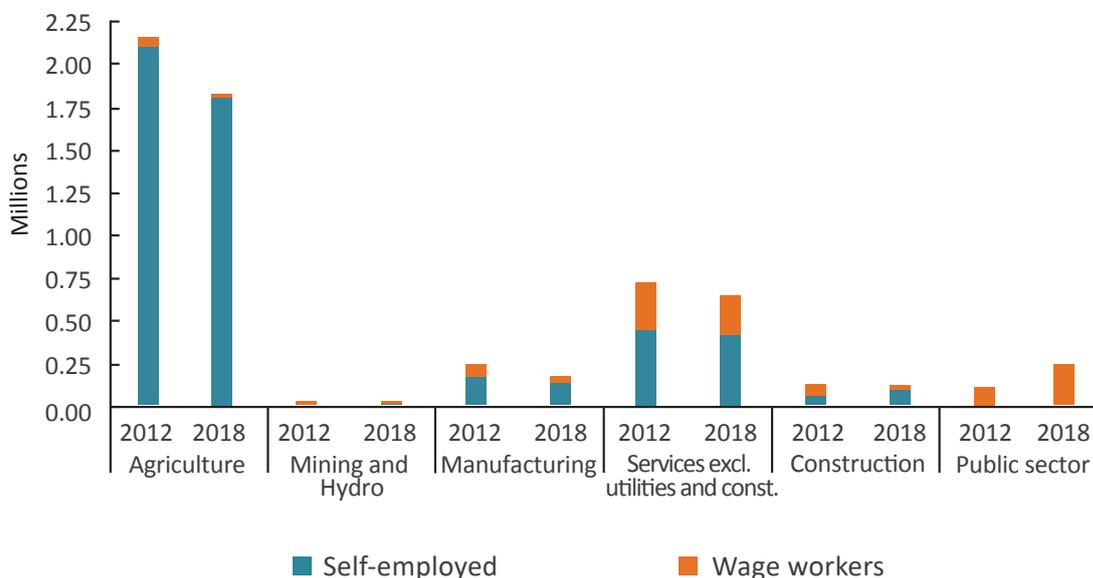


Figure O.4, continued

(b) Wage and non-wage employment by sector: 2012-18



Source: Lao Bureau of Statistics for GDP data, LECS 2012 and LECS 2018 for employment.

Note: Bubble size reflects sectoral employment shares in 2018 and is given by the number next to the industry in the label. The public sector refers to public administration and defense as well as compulsory social security. In panel b, services exclude construction.

The lack of off-farm job opportunities has led to increasing unemployment, despite the strong GDP growth. Apart from the public sector, only a handful of sub-sectors in industry and services created net jobs, with these insufficient to absorb the surplus agricultural workforce (see Figure O.4). Between 2012 and 2018, around 390,000 workers moved out of full-time farm employment (see Figure O.4 panel b).⁹ In fact, only a small proportion of workers transitioned out of the sector, reflecting both a lack of opportunities in domestic off-farm markets and inadequate education and skills. Instead, many switched to seasonal farming, substituting non-farm employment with remittances or informal jobs in neighboring Thailand between growing seasons. Over this period, most net job creation occurred in the public sector (126,000 wage jobs). About 74,000 workers exited the manufacturing sector, more than half of whom were wage workers. Services, hospitality and, to a lesser extent, transport created some jobs, but not enough to offset the jobs lost in wholesale and retail. Thus, the services sector overall lost close to 77,000 workers, contributing to an increasing unemployment rate, which rose from 4.1 percent in 2012 to 15.7 percent in 2018 (including seasonally unemployed).

The COVID-19 pandemic has placed further pressure on an already fragile job market, and could reverse recent years of progress towards poverty reduction. A sharp drop in tourism demand has led to job losses in retail trade, transport, and hospitality, which together account for 11 percent of total employment. Workers have been pushed into informality, with no access to social protection. The slowdown in non-agricultural sectors has led to increasing unemployment, with the rate estimated at 23.4 percent in 2020. Remittances have also declined, with more than 200,000 migrant workers having returned from abroad. At the same time, rising inflation, partly driven by the depreciation of the kip, has eroded household purchasing power. The poverty rate is estimated to have surged by 4.4 percentage points in 2020 relative to a pandemic-free scenario. Of the new poor, 86 percent consist of those above the poverty line who fell into poverty because of the pandemic, while the remainder are those who would have escaped poverty had there been no pandemic, but who now remain below the poverty line.

The manufacturing sector remains small due to low productivity, while investment in the agriculture sector has declined.

The formal private sector remains small and dominated by micro-enterprises. As in many developing countries, a large proportion of Lao workers are employed in the informal sector, with the sector accounting for 83 percent of total employment, compared to 7 percent in the formal private sector and 10 percent in the public sector (ILO, 2018). In the formal sector, 90 percent of the 134,000 registered businesses have five or fewer employees (LBS, 2021). Most businesses operate in the wholesale and retail sector (63 percent), followed by manufacturing (14 percent) and hospitality (11 percent). The average business size fell from 4.2 employees in 2013 to 3.7 employees in 2020 (LSB, 2015 and LSB, 2021). The decline was even more pronounced in manufacturing, with the average number dropping from 7.8 to 5.9 employees. The predominance of micro-firms is not surprising, given the small size of the domestic market and the associated constraints on scale. However, compared to peers at similar levels of income, Laos appears to lack large businesses at the top of the distribution, with only 0.17 percent of businesses, mostly in manufacturing, construction, and other services, employing more than 100 workers. The share of large businesses has declined slightly over recent years, falling from 0.25 percent in 2012.

Lao manufacturing businesses have one of the lowest levels of labor productivity in the region, being on average 22 percent less productive than those in Cambodia and 65 percent less than those in Vietnam. From 2009 to 2018, the average labor productivity of Lao manufacturing businesses remained stable, with the median growing slowly, at 2 percent per year. While businesses in the services sector are on average more productive than those in manufacturing, this is driven by a few large foreign companies operating in the wholesale, transport, and telecommunication sectors. The overall low levels of productivity are partly due to limited access to quality inputs, to technology and know-how, and to markets for outputs. They also reflect bottlenecks in labor markets, with Lao businesses having difficulty accessing both unskilled and, to an even greater extent, skilled labor.

The undersupply of both unskilled and skilled workers contributes to low productivity levels in the manufacturing and services sectors. The labor shortage is driven in part by the ease with which workers can migrate to find readily available jobs in Thailand. An estimated 300,000 documented Lao nationals currently work in Thailand, although the number could be much higher. The limited creation of jobs in Laos has been a contributing factor and wages in Thailand are significantly higher, even for the least skilled workers, such as agricultural day laborers. Thailand's minimum wage is about 300 baht per day (equivalent to \$10 or 130,000 kip per day at current exchange rate), more than twice the Lao minimum wage. The labor shortage in Laos may also reflect poor working conditions. In garment factories, for example, long working days and mandatory overtime are common, often for untrained rural female workers.¹⁰ Worker dissatisfaction contributes to a high staff turnover rate (estimated at between 3.5 and 6 percent per month, depending on business size). Many garment workers regard factory work as an interim strategy to build savings before they establish their own small business or find a better job elsewhere (World Bank, 2012). Importantly, the high turnover contributes to low-capacity utilization and low employer investment in workforce skills and training, both of which have a negative impact on productivity.

While agricultural productivity has improved, it remains low. From 2000 to 2019, growth in the agricultural sector averaged about 2.9 percent per year, lower than in Cambodia (3.4 percent) and Vietnam (3.2 percent). Growth was driven primarily by expansion of the land area under cultivation, rather than by productivity improvements. Most of Laos' 650,000 farming households are engaged in subsistence cultivation, with only 30 percent primarily engaged in commercial farming. There were significant improvements in the yields of some crops, including rice (now higher than in Thailand, Myanmar and Cambodia), and roots and tubers, now the second most important crop by weight. However, overall agricultural productivity remains low. Value-added per hectare stands at only \$578, 60 percent of that in Thailand (\$994) and 40 percent of that in Vietnam (\$1,338).

While the development of the Laos-China railway has spurred investments in agriculture in the north of the Laos, overall investment in the sector remains limited. Despite the potential for capital deepening to boost labor productivity in agriculture, the share of the sector in total capital stock has fallen from more than 15 percent in 2000 to less than 6 percent in 2017. This contrasts with regional peers (with the exception of Myanmar), where the ratio has either held steady or increased slightly. To put this in perspective, with investments in capital formation standing at \$5,100 per capita (constant 2010 prices) over the period from 2000 to 2014, only \$480 of this was invested in agriculture. Credit to the agricultural sector is relatively low, at an average of only 8 percent of total credit. In addition, weak enforcement of chemical and pesticide regulations constrains farmers' ability to meet quality standards and access export markets.

In recent years, there has been a noticeable diversification into manufacturing other than garments, with some wage job creation.

Laos is strategically located next to a number of major global economies, creating opportunities for trade. While Laos is small, mostly mountainous and landlocked, it has an open economy and is strategically located among major global trading nations, including China, Cambodia, Thailand and Vietnam. With these countries deeply integrated into global value chains, both as participants and leaders, there is strong potential and actual demand for Lao exports. These countries are also a source of cheap imports, FDI and opportunities for deeper integration into GVCs. Recent empirical evidence suggests that when developing countries participate in GVCs, this can accelerate inclusive growth. The fragmentation of production within GVCs makes it possible for businesses in developing countries to enter foreign markets at lower costs, to benefit from specialization in niche tasks, and to gain access to larger markets. Even smaller businesses can benefit from higher returns to scale. Businesses in the developing country can also access cheaper and better inputs, productivity-enhancing technologies, and improved management practices developed elsewhere, and thus grow at a faster rate, contributing to the creation of better, higher-

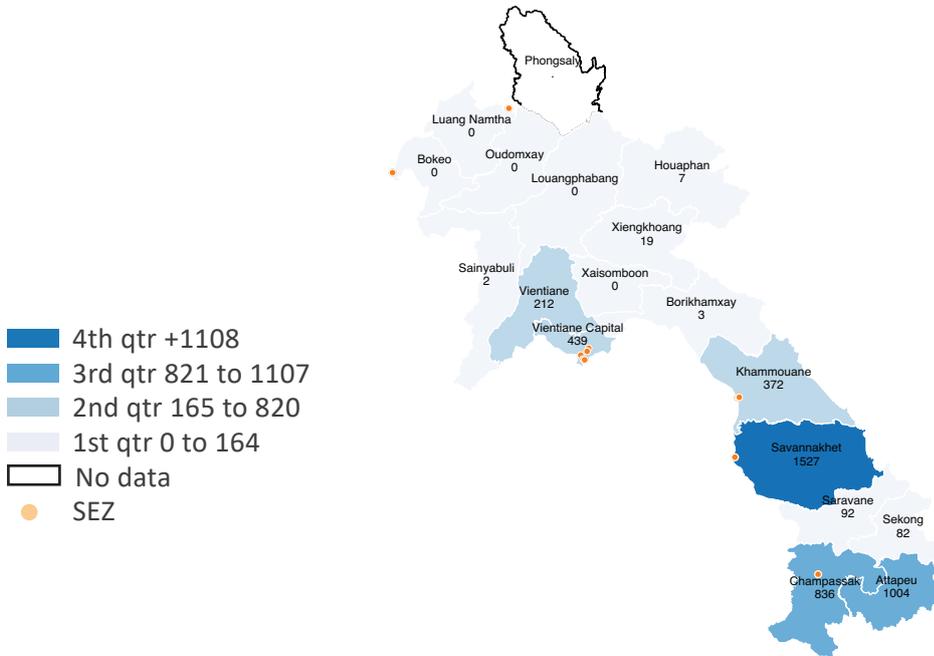
paying jobs. Thus, Laos could reap significant benefits from greater participation in GVCs.

While Laos has historically participated mostly in commodity GVCs, since 2013 it has increasingly diversified its exports into light manufacturing, primarily electronics, and electrical components. Laos' participation in regional commodity GVCs (power generation, copper ore, rubber and raw agriculture produce) reflects its endowment in natural resources and location. However, its small domestic labor market, high labor and transportation costs, and often opaque and cumbersome regulations put it at a competitive disadvantage in terms of participation in light manufacturing GVCs. Despite this, in recent years, the government has offered generous tax incentives to export-oriented manufacturing companies, channeled through SEZs, supporting the country's participation in global production networks. The activities of Thai-based Japanese investors have driven increased exports of electronics and electrical equipment (primarily video displays, recording and broadcasting accessories), with these now accounting for more than 10 percent of its total exports, up from 1 percent in 2013. Supported by Thai investments, food and beverage exports have also expanded significantly, accounting for 10.4 percent of exports in 2019, up from 5.8 percent in 2013, and contributing to a notable diversification of Laos' export portfolio. The garment sector has shown a high degree of resilience, maintaining stable export volumes, mostly through the Generalized System of Preferences to the EU and Japanese markets. This shows the potential of these markets if constraints on the domestic environment and labor markets were eased.

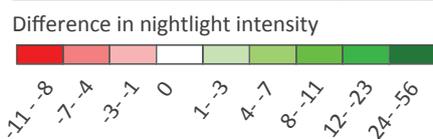
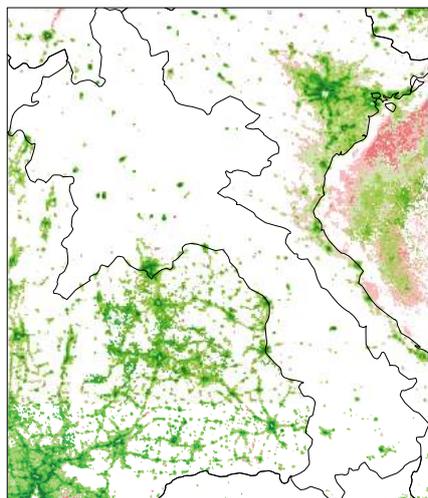
Preliminary evidence suggests that foreign investment in export-oriented manufacturing SEZs is positively associated with economic development at the regional level (see Figure O.5). Areas close to SEZs with a high share of export-oriented manufacturing and close to the Thai border experienced a greater increase in economic activity, as evidenced by the increase in night-light intensity between 2003 and 2020. Between 2012 and 2018, the electrical, machinery and transportation equipment sector was one of the three manufacturing sectors that recorded a net positive job creation, albeit on a limited scale.

Figure O.5
Economic development linked to export-oriented manufacturing FDI, 2003-20

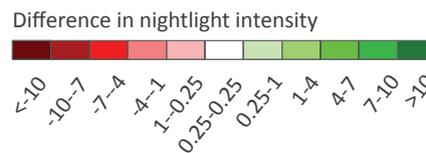
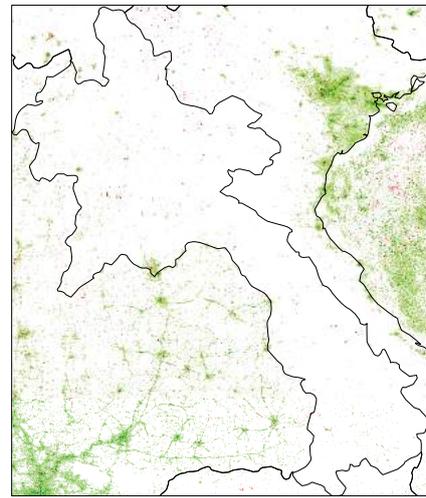
(a) Total FDI in manufacturing since 2003, in million USD



(b) 2013-2003 difference



(c) 2020-2014 difference



Source: fDi Markets. 2003 and 2013 data from the DMSP-OLS F15 Stable Lights Cloud Free; 2014 and 2020: VIIRS vcm annualized. Image and data processing by Earth Observation Group, Payne Institute for Public Policy, Colorado School of Mines. DMSP data collected by US Air Force Weather Agency. Note: Spots colored from green to red mark night lights of increasing intensity. A change in the satellite in 2013, makes the comparison of maps and scales between 2003-2013 and 2014-2020 non-comparable. The seemingly brighter map for the period 2003-2013 is a result of this change.

While the evidence suggests that at least some SEZs have been successful, there is a need for more careful evaluation of their impact on employment, productivity, and exports. If the government is to continue with its policies to leverage SEZs to drive export diversification and job creation, it is important to know what works and what does not in order to prioritize investment, particularly when fiscal space is tight. SEZs are often established to jumpstart manufacturing production and exports when getting the conditions right on a national scale to attract FDI is costly and takes time. However, evidence for their success is mixed (Farole, 2011). In many countries, SEZs have become white elephant projects, attracting businesses seeking tax-benefits, but failing to generate substantial employment or quickly losing their attraction when labor costs increase. Even highly successful, labor-intensive SEZs in Bangladesh and Vietnam accounted for only 5 percent and 19 percent of national employment respectively in 2014, with backward linkages to the rest of the country generally remaining weak. Successful SEZs are those that can leverage the comparative advantages sought by investors, such as location, labor cost, skills and infrastructure, but also that display the good management and flexibility needed to adapt to an industry's needs. In Laos, anecdotal evidence suggests that not all SEZs have successfully driven job creation for the local population, particularly given the high proportion of foreign workers they employ. In 2018, of the roughly 20,000 workers employed in Laos' 12 SEZs, close to 55 percent were foreign workers.

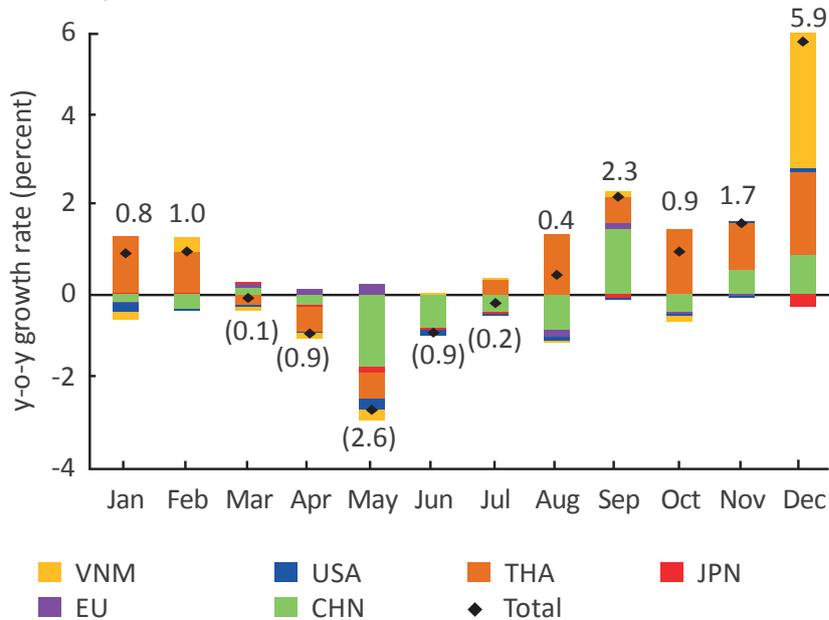
The potential for Laos to expand its agricultural and food exports is significant, and could make a substantial contribution to poverty reduction. Between 2012 and 2018, poverty declined more rapidly in Lao farming households close to borders in the north and south, indicating the potential of agricultural commercialization and expanded cross-border trade to drive pov-

erty reduction. While Laos already participates in global and regional agricultural value chains, there is strong potential for further expansion. Expanding regional agricultural value chains would also help secure jobs in agriculture and formalize employment in the sector, while raising productivity through capital deepening. However, constraints on production limit the scale and ability of farmers to join supply value chains. The development of new highways and the Lao-China railway will create opportunities to develop cross-border trade and to link the more isolated rural areas with industrial agglomerations and nearby international markets. For this to take place, constraints in logistics infrastructure and services need to be addressed to ensure that trade development along those corridors results in greater spread of economic activity and inland rural development.

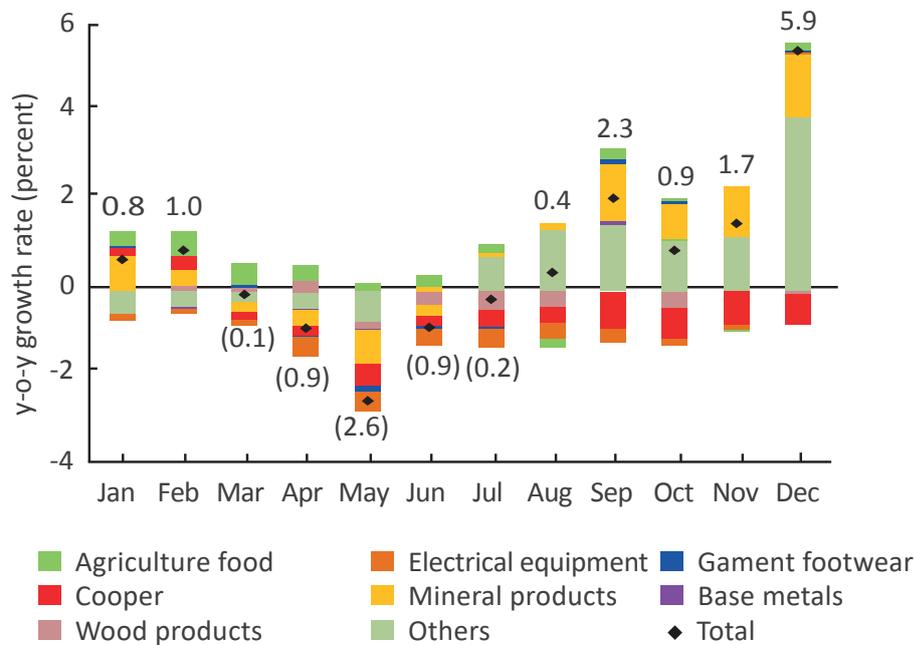
The Laos-China railway could boost Laos' agricultural production and increase its exports to China by improving connectivity. The expected gains vary between commodities, depending particularly on their current mode of transportation and sectoral competition. The railway, which connects Vientiane with the Chinese border town of Boten and was officially opened in December 2021, is a viable alternative to current modes of transport for agricultural exports to China. However, there is a trade-off between shipping times and transport costs (World Bank, 2020b). Moreover, transport costs represent only a share of total shipping cost, with the rest arising from logistics and border procedures. For example, the railway could substantially reduce transport costs for banana and cassava, which are currently exported to China by road. However, this gain could be more than offset by the longer waiting time at rail freight terminals. On the other hand, while the railway could reduce the shipping time for rice by almost half compared to the current sea route through Thailand, it would result in higher costs if no competitive pricing strategy is introduced.

Figure O.6
Tracking the impact of COVID-19 on lao monthly trade

(a) Lao exports to selected countries



(b) Lao exports by product categories



Source: Monthly Customs data China, Thailand, USA, EU, Japan. Year-on-year growth rate computed between same month in 2019 and 2020.

It is important that the railway development also supports export diversification. High growth, driven by the capital-intensive resource sector and supported by infrastructure development, has not been sufficiently inclusive. Thus, a key issue for the government is to ensure that the development of the Laos-China railway not only connects Lao businesses to end-markets in China, further boosting exports of raw commodities, but also serves to reach markets in the region and overseas, including OECD markets where demand for services and for manufacturing and agricultural processed goods will help to diversify Lao exports away from commodities and to support job creation and poverty reduction more effectively.

To reap the optimal benefits from the Laos-China railway, it is vital to implement adequate supporting policies to enhance logistics, competition, production sustainability and also more generally to improve the business environment. Efforts to improve the last-mile infrastructure; to standardize and advance custom clearance; and/or to provide complementary facilities for the transit of commodities, including cold chain storage, would further reduce trading costs. To facilitate the entry of new exporters, measures are needed to improve access to credit and to lower export license barriers, thereby increasing competitiveness. Finally, improved access to the large Chinese consumer market could foster the modernization of agriculture practices and the adoption of enhanced environmental and inputs regulations.

Lao agri-food exports have been more resilient to the impact of the COVID-19 pandemic than light manufacturing exports. Throughout the pandemic, agri-food exports have maintained positive year-on-year growth in almost all months, unlike those of cooper and electronic

and electrical equipment, which have been severely affected, with only timid signs of recovery since late December. This is consistent with the disruption to the electronic and electrical supply chain, as seen in the declining imports of sector inputs. Electricity exports were also higher than in the previous year, with demand in the second half of 2020 driven by Thailand (see Figure O.6). After July, exports of natural rubber to Vietnam and China, and precious metals and stones (mostly gold to Thailand) increased significantly compared to the same period in 2019, contributing to the positive export trend.

Laos appears to have fewer large manufacturing and GVC firms than most of its lower-middle income peers. These firms are important, as they make a disproportionate contribution to export diversification and job creation. In total, Laos has 2,889 businesses outside the services sector that exported at least once between 2015 and 2020. However, survival is a major issue, with more than a third of exporting businesses ceasing to sell abroad after one year, and with 87 percent ceasing after three years. While the share of GVC firms (those that both export and import foreign inputs) is high in proportion to the total number of trading firms, at 20 percent compared to an average of 15 percent in a large sample of countries, they contribute a smaller share of total trade. The high share of GVC firms also reflects the small domestic market size, with businesses needing to source their inputs outside Laos. Rising wages and labor shortages also mean that manufacturing firms need to improve profitability and productivity through improved quality and capital substitution. Having greater access to cheaper and better quality inputs, both domestic and imported, could improve the quality of output, productivity and profitability of Lao enterprises.

Challenges to competitiveness in the non-resource sector

Laos' capital intensive and resource driven growth model has undermined the competitiveness of labor-intensive sectors.

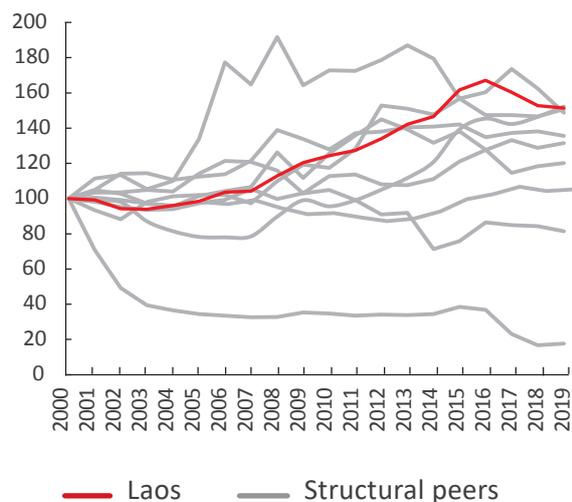
Dependence on natural resource exports and associated large resource-related rents and capital inflows have led to appreciation of the kip (see Figure O.7). The real effective exchange rate (REER) has appreciated by about 50 percent since 2005, when major investments in mining and hydropower began, with copper prices surging by more than 200 percent over the same period. The REER has appreciated to a greater extent in Laos than in structural peers (see Figure O.7 panel a). Nevertheless, after peaking in 2016, the REER declined, largely due to depreciation in the nominal exchange rate against trading partners (IMF, 2019). Despite this, 2019 estimates still put the real exchange rate at 14-23 percent above levels consistent with medium-term fundamen-

tals. Compared with peer countries, inflation in Laos has been moderate over the past two decades, with the appreciating nominal exchange rate exerting downward pressure on the local-currency prices of imported goods.

There is strong evidence regarding the inhibiting effect of overvalued currency on business entry, export expansion, and diversification into new products and markets.¹¹ In Laos, the appreciation of the kip since 2005 has reduced the competitiveness of manufacturing and agriculture exports in international markets, although trading businesses may have also benefited from lower costs of imported inputs. But evidence from interviews suggests that a high proportion of manufacturing businesses stated that the appreciation of the kip had a negative overall impact on their performance, with garment and agro-processing businesses reporting the strongest impact (Nolintha and Jajri, 2015).

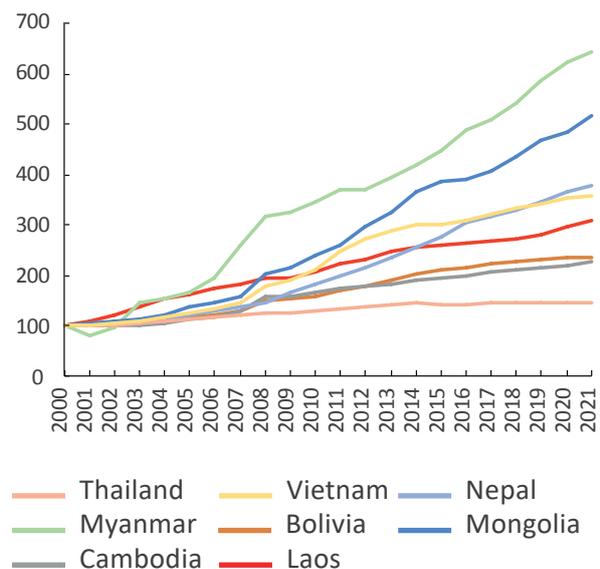
Figure O.7
Real effective exchange rate and inflation in Laos and comparators

(a) Real effective exchange rates, Laos and peer countries, 2000-19 (index, 2000=100)



Source: Darvas (2012).

(b) CPI, Laos and peer countries, 2000-21 (index, 2000=100)



Source : IMF WEO.

Wages in Laos increased significantly between 2012-18, reflecting an increased minimum wage and the impact of the investment boom in the natural resource sector. The minimum wage in Laos increased more than threefold between 2010 and 2018, rising from 348,000 kip per month in 2010 (\$42) to 900,000 kip in 2015 (\$110), and to 1 million kip in 2018 (\$127). While the primary objectives of this increase were to protect low-income workers and correct labor market distortions, it also served to keep up with the rising cost of living and to counter higher wages in neighboring Thailand and the associated shortage of workers in Laos. Real median monthly incomes also grew significantly in all sectors (see Figure O.8 panel a). Real incomes in the manufacturing sector recorded one of the highest growth rates, at 83 percent, after the power and construction sectors. The sharp increase in the public sector median wage, which more than doubled over the same period, is also likely to have had demonstrative effect. In nominal terms, average manufacturing wages increased by almost 50 percent between 2010-17, going up from around \$195 per month to about \$285, roughly in line with the REER over the same period.

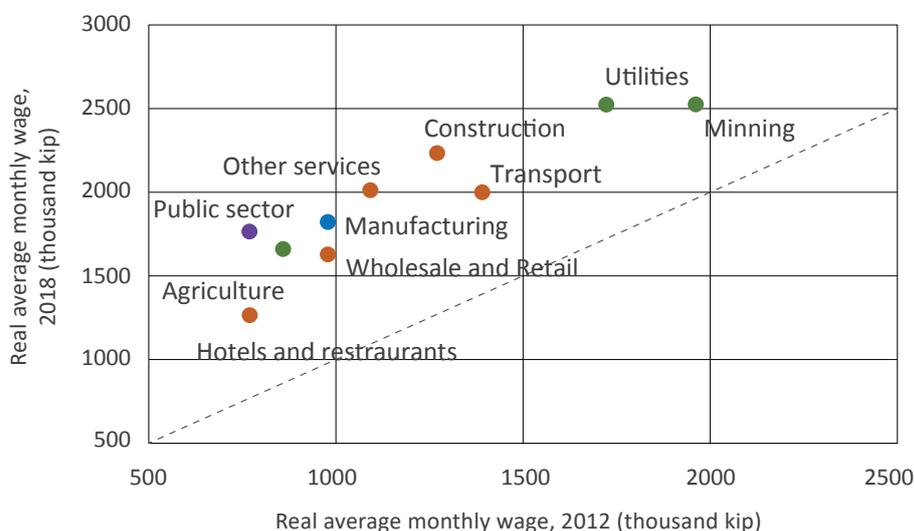
evidence suggests that they have increased significantly over the past two decades due to massive inflows of foreign capital in the north of the country. However, they seem to be on a declining trend since 2015, due to a tightening of capital outflows and lower demand.

The decreasing proportion of workers in wage jobs may also indicate the eroding competitiveness of Lao businesses. With labor costs increasing between 2012 and 2018, businesses in many sectors seem to have substituted wage workers with self-employed workers (see Figure O.8 panel b, lower right quadrant). While the data does not enable a distinction between self-employed and informal workers, empirical evidence suggests that in countries with large informal sectors, increased minimum wages may result in the displacement of workers from formal to informal jobs. The textile and apparel sector’s contribution to employment grew marginally in net terms (about 2,500 new workers), but with around half of its wage workers substituted with self-employed/informal workers. Most Lao businesses record lower levels of productivity than do counterparts in regional neighbors, which means that even with lower wages, the labor cost to produce one unit of good (unit labor cost) may be higher in Laos. For example, the unit labor cost in Laos is on average 20 percent higher than in Vietnam (WBES, 2018).

Laos’ recent growth and investment boom have also driven up other factor prices. While data on land prices is not readily available, anecdotal

Figure O.8
Rising wages and labor demand in Laos, 2012-18

(a) Change in real median earnings by sectors, 2012 and 2018

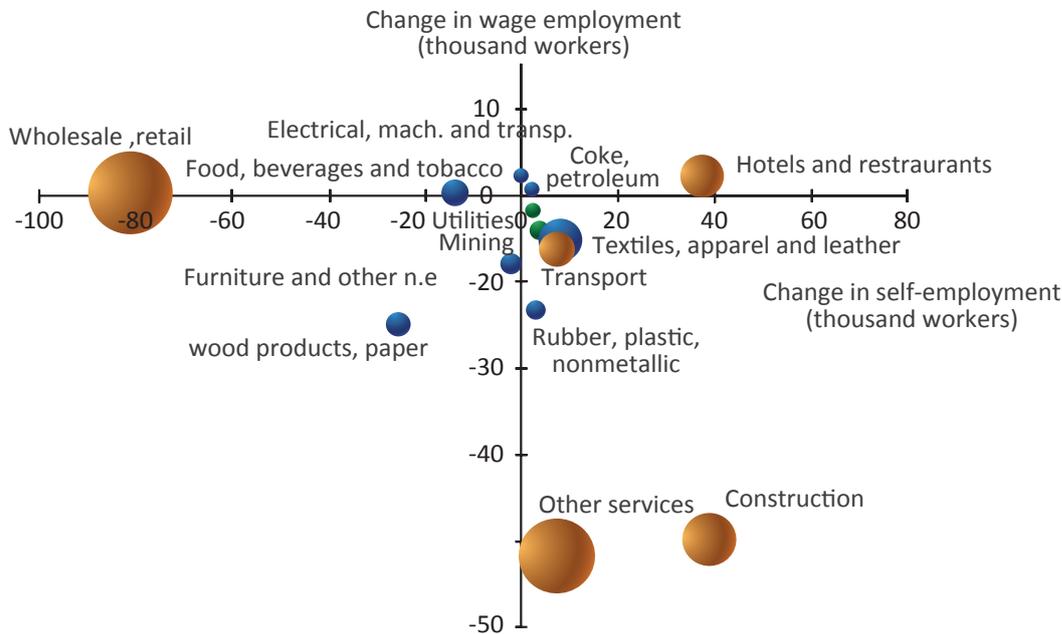


Source: LECS 2012, 2018.

Note: Sample includes workers working 30 hours a week or more.

Figure O.8, continued

(b) Wage and non-wage labor dynamics by sector, 2012-2018



Source: LECS 2012, 2018. The size of the bubble is the share of the sector in total 2018 employment (wage and non-wage). For visibility the figure excludes agriculture and public sector.

Businesses operating outside SEZs face greater constraints. For historic reasons, most garment and footwear manufacturing facilities are located outside SEZs, which were created after the textile/garment industry expanded in the 1990s. They tend to face relatively high transportation and logistics costs, with an unfavorable tax regime for sub-contractors. As wages have increased, businesses in this sector may have attempted to remain competitive by reducing labor costs, firing wage workers and rehiring them as independent and possibly informal workers. This contrasts with businesses in the electronic and electrical equipment sector, which mostly operate from SEZs. As these businesses have expanded, they have created almost exclusively formal wage jobs. This is consistent with businesses in SEZs benefiting from lower operating costs due to their access to better infrastructure, proximity to borders and markets, and incentives in the form of duty and tax exemptions. It may also be that firms in SEZs are in stricter compliance with national minimum wage regulations and international labor standards.

The eroding competitiveness of the Lao manufacturing sector has been accompanied by a shift in employment away from skilled workers. The closure and downsizing of manufacturing plants have affected the employment of medium- and high-skilled workers more than of low-skilled workers. Between 2012 and 2018, the share of primary-educated workers in the manufacturing sector increased, while the share of those with secondary education and vocational training decreased, with this trend being stronger in manufacturing than in other sectors.

For Laos to remain competitive, increases in wages need to be matched with increases in labor productivity and therefore skills. If Lao workers are to compete regionally and internationally, the average level of labor productivity needs to increase significantly. Even if wages for unskilled work remain competitive, there are non-wage factors that affect labor productivity, including both cognitive and noncognitive skills. Business managers

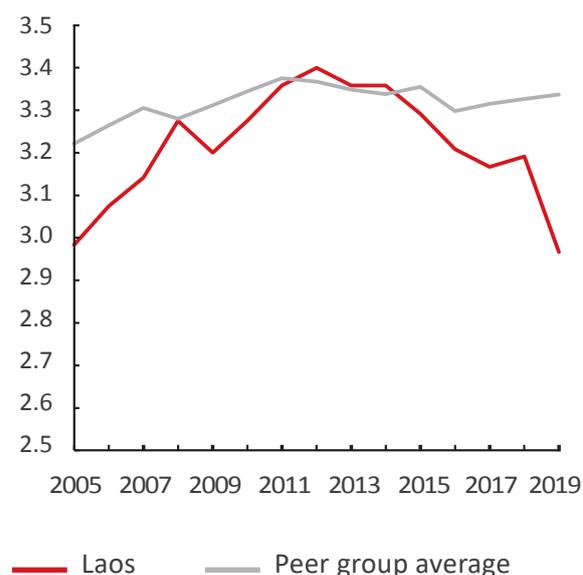
responding to surveys identify the lack of soft skills as a significant constraint on performance, even among highly skilled workers. The acquisition of workplace skills is also essential to improving business productivity and competitiveness. Addressing the skills gap is critically important to improving productivity and competitiveness, especially among small and medium enterprises, which are less able to provide training to their workers directly.

To address the skills gap, investments in education and health services need to be prioritized. Laos has in recent years shown strong commitment to building human capital through measures to improve nutrition and access to health and education. However, evidence suggests that public investments in mining and power have reduced the fiscal space for investment in these and other public services. Stunting rates remain stubbornly high; access to quality health care remains low; learning needs to be improved at all levels of education; and skills and employment services remain insufficient. The Human Capital Index shows that a child born in Laos will only achieve 46 percent of the productive potential she would attain if she enjoyed complete education and full health. This is lower than the average for the East Asia Pacific region and for lower middle-income countries. While the data is sporadic, it appears that Laos has made insufficient investments in schooling, despite some recent progress with enrolment and student retention rates. The latest available data shows that government spending on education amounted to 2.9 percent of GDP in 2014, significantly lower than the regional average (4.7 percent), and the average for countries at similar income levels (4.5 percent). A range of surveys found that low levels of human capital are widely perceived as being a major constraint on doing business, with the World Economic Forum's Executive Opinion Survey showing that an inadequately educated workforce was the most problematic obstacle, with close to 17 percent of Lao firms citing it as the most significant constraint on their operations (WBES, 2018).

Weak institutions and the slow pace of policy reform have also contributed to eroding competitiveness in the non-resource sector.

Laos has a long history of implementing policy reforms with quantifiable targets and indicators to determine their degree of success. Policy reforms are carefully designed and structured with reference to the Five-Year National Socio-Economic Development Plans, which act as a guide to government policymaking at all levels. However, implementation remains slow. Available data under the Seventh NSEDP (2011-15) and Eighth NSEDP (2016-2020) enables an assessment of the degree to which economic and public finance targets have been met. Laos achieved approximately one in three of the targets articulated in these plans between 2011 to 2015, most of them in the areas of economic structure, public finance and control of inflation and exchange rate fluctuations, and one in four targets between 2016 to 2020. These results are likely indicative of an endogenous adjustment to government priorities and aspirations in the face of mounting economic challenges since the 2010s.

Figure O.9
Slowing pace of reforms, 2005-19
Overall CPIA score, 2005-19 (scale 1-5)



Source: World Development Indicators. Peer group includes regional and structural peers for whom CPIA scores are available.

The overall performance of reform initiatives has deteriorated since 2012 relative to peers (see Figure O.9). This trend largely reflects a failure to fully implement existing policies and decrees. The business environment provides a good example of the challenges facing all sectors and corresponding line ministries. While there is strong political will to improve the business climate, especially in the context of the pandemic, a lack of effective coordination across implementing agencies and monitoring systems constrains the progress of reforms. Action plans with clear and time-bound tasks, with systematic monitoring and reporting on progress and issues to the decision-making level, would result in a higher level of accountability and stimulate reform progress. Resistance to reform from public officials, and a lack of awareness of changes from the private sector, also result in implementation gaps. In the area of economic management, the decline in performance reflects the deteriorations in fiscal and monetary policy (see Figure O.9). Restrictions on the buying and selling of foreign exchange, the widening gap between official and parallel rates, the lack of a consistent and sustainable fiscal strategy, the breaching of a number of fiscal regulations, the worsening debt situation, and an ongoing shift to more expensive non-concessional borrowing explain these declines.

This failure to fully implement policy reforms constrains competitiveness. Laos dropped 17 places in the Global Competitiveness Index, going down from 81st place out of 137 countries in 2013 to 98th place in 2017. It also lags behind its regional peers in infrastructure, macroeconomic environment, health and primary education, higher education training, and technological readiness, with these gaps increasing over time.

The still complex and unpredictable business environment discourages new enterprises from entering the non-resource private sector. The most problematic regulatory constraints to doing business in Laos relate to starting a business, protecting minority investors, resolving insolvency, enforcing contracts, and paying taxes. As a result, more than half of informal businesses choose to remain informal to avoid the cost and difficulty of registration. Those that register do so to increase their access to finance, inputs and customers, and to avoid petty corruption. For trading businesses, inputs need to arrive on time and undamaged at the production line, while outputs need to be packaged, quality controlled and delivered to markets. These processes require roads, efficient and reliable customs processes, plus good banking, telecommunications, logistics and other supporting services, most of which remain weak. Combined with the deleterious effects of an uncompetitive currency and rising labor costs, these are formidable constraints on the ability of Lao businesses to remain competitive in international markets.

To address these constraints, the government has acted to promote FDI, including through the development of SEZs that aim to provide investors with better infrastructure, commercial facilities, and generous tax incentives. However, stringent requirements and administrative burdens relating to screening, limited ownership equity, and high minimum capital continue to hinder the entry of general businesses. These burdens limit investment, especially in manufacturing. Moreover, the prevalence of informal deals and the discretionary enforcement of regulations discourage productive investments outside the more shielded SEZs. Adopting a more transparent regulatory framework, with clear information on steps and procedures plus greater coordination between government agencies, would accelerate investment processes and help prevent regulatory capture.

Laos is not a typical landlocked country

While Laos is landlocked and has high transport costs, it has the advantage of a highly strategic location.

A common assertion from the literature is that being landlocked is a barrier to economic development. With a few exceptions in Western Europe, most of the world's 43 landlocked countries are indeed among the least developed. However, being landlocked is not in itself the cause of these nations' poverty. Rather, the problem lies in being landlocked with poor neighbors and/or being located far from large or fast-growing markets.¹² This is not the case for Laos.

Laos' geographic location is a huge asset that could be further leveraged to drive inclusive growth. The country shares borders with some of the world's fastest growing economies, which could pull its growth and help diversify its economy from mining and power generation through trade and investment. The five countries with which Laos shares borders account for more than 17 percent of global GDP and over a fifth of the world's population.

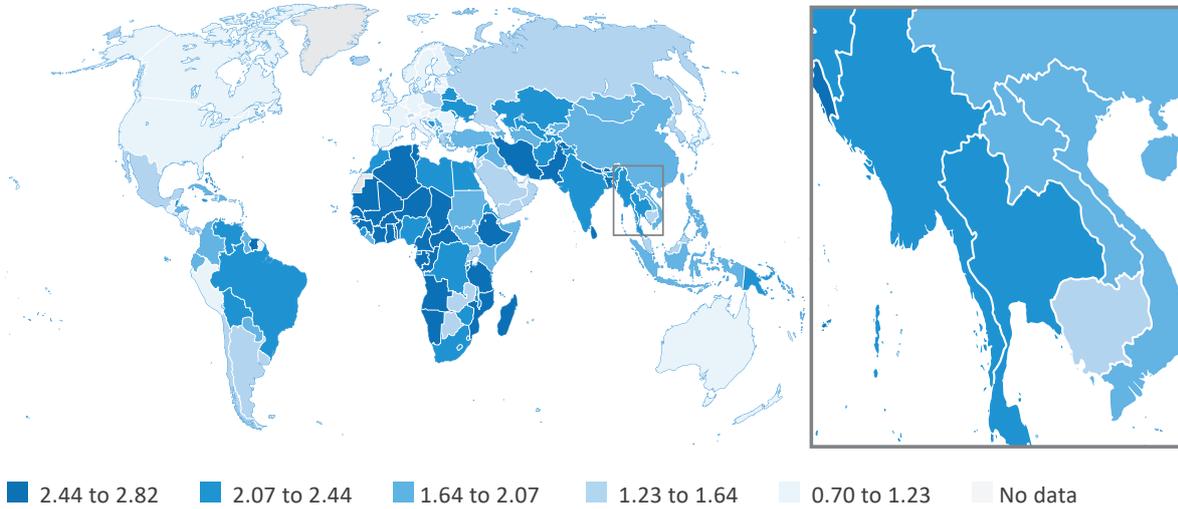
Laos can benefit from the efficient trading infrastructure and services of its large, export-oriented neighbors, partially compensating for its own less efficient trading systems. In addition, participating in regional trade agreements will not require foregoing competitive sources of imports due to the so-called "trade diversion effect." Rather, this would create trade, given that Laos' preferential trade agreement (PTA) partners are among the most efficient and low-cost producers in the world.

As such, Laos' borders appear to be relatively more open than those of other landlocked countries (see Figure O.10). This reflects the country's aspiration of becoming a land bridge between its coastal neighbors, to be achieved through infrastructure investment (including through the Belt and Road Initiative), pragmatic border agreements (ASEAN, ASEAN bilateral agreements, PTA with Thailand) and improved cross-border logistics management.

Bilateral trade costs are also lower than in other landlocked countries in Asia. Figure O.11 maps bilateral trade costs between any two countries, with thicker borders indicating a relatively larger wedge between producer prices in the exporting country and consumer prices in the importing country. Laos' border with Thailand is thinner than those it shares with China, Myanmar and Cambodia, suggesting the benefits of Thailand's achievements in logistics, border management and connectivity have spread into Laos. These include efficient trans-border transport and logistics services and infrastructure, with good highway-port connections west to Bangkok. This also shows in Laos' ranking in the Logistics Performance Index. In 2018, Laos scored better across all components (customs procedures, international shipments and logistics quality and competence) than all other landlocked comparator countries and better than two of its ASEAN peers, Cambodia and Myanmar (neither of which is landlocked). Even so, organizing supply chains in Laos remains more time consuming and costly than in either Thailand or Vietnam.

Figure O.10

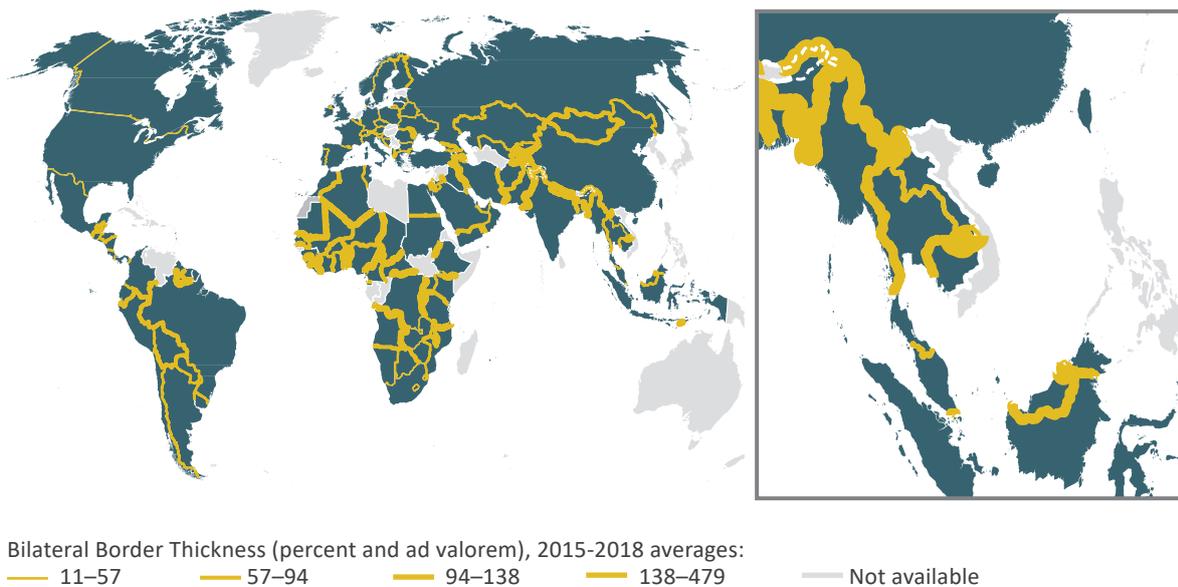
Lao borders are relatively more open than those of other landlocked countries, 2019



Source: Adapted from WDR 2009 index of border thickness. Note: The index sums up four indicators representing restrictions to the flow of goods, capital, people, and ideas: (1) average tariffs (World Bank data), (2) capital openness (Chinn and Ito financial openness updated for 2018), (3) mobility score that represents the total number of countries that can be easily accessed with a given passport (Arton Capital), and (4) press freedom index (Reporters without Borders for Press Freedom 2019). All indicators were normalized and rescaled from more open to more closed borders and summed. The darker the country, the more restrictions it imposes on the flow of goods, capital, people, and ideas with all other countries.

Figure O.11

Mapping bilateral trade costs, 2015-2018



Source: The World Bank and United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) database 2015-2018 averages. Note: The figure maps the bilateral trade costs between any two countries using WB-UNESCAP trade cost data. The thicker the border, the larger the wedge between producer prices in the exporting country and consumer prices in the importing country. The estimated trade costs capture all factors from trade policy measures (tariffs and NTMs) to behind-the-border measures such as the quality of trade facilitation services or inland transport costs, impossible to quantify on a large-scale.

Laos is more policy-locked than landlocked. While the government clearly understands the benefits of its strategic location, the implementation of strategies to leverage these benefits has not been optimal.

The Lao government well understands the benefits of the country's strategic location. Historically, towns near bridges have thrived as centers of commerce, often benefiting from low taxes and special measures to ensure ease of doing business. Thus, the government has rightly focused its economic and social development strategy around establishing Laos as a bridge country within the region to facilitate trade and investment (the *land-linked* vision).

However, for Laos to reap the benefits of hard infrastructure investments, it needs to intensify its implementation of regulatory reforms. The newly-opened Laos-China railway is expected to reduce transport and logistics costs by 30-40 percent from the end of 2021,¹³ although estimates based on a gravity model are more conservative, suggesting that weighted trade costs would be reduced by only 0.61 percent for exports, the second lowest among East Asian comparators, and by 2.5 percent for imports.¹⁴ Exports could increase by up to 27 percent, but only if tariff reduction and trade facilitation reforms are implemented to reduce border costs and delays. Without such reforms, the gain declines to 1.5 percent. FDI flows to Laos could be increased by 6 percent, in line with the average East Asia peer, but less than in Thailand, Malaysia and Vietnam.

The government is aware of the benefits of openness and actively promotes market-oriented regional integration. Trade can be leveraged to lock in domestic structural reforms for more equitable wealth distribution and broad poverty reduction. Global evidence shows that deep forms of integration which encompass policy areas beyond traditional trade policy can drive institutional and policy reform to improve the climate for business and

investment. Laos' regional trade policy commitments have deepened over time. It joined ASEAN in 1997, with this economic association gradually deepening its commitments through agreements with more advanced economies, including Japan in 2008, and New Zealand, Australia, and South Korea in 2010. The Regional Comprehensive Economic Partnership (RCEP), which became effective on January 1, 2022, consolidates long-term commitments reached among its 15 members. These relate to rules of origin, anti-dumping duties, technical barriers to trade, sanitary and phytosanitary standards (SPS) and procurement provisions, amongst others. As such, it creates opportunities for Laos to lock in important behind-the-border reforms.

By securing permanent preferences, Laos should also mitigate the impact of losing Least Developed Country (LDC) preferential status in 2026. Laos currently benefits from its LDC status, with extended rules of origin provisions under the Everything but Arms European Initiative; access to IDA grants; aid for trade under the Enhanced Integrated Framework; and waivers on World Trade Organization agreements (ban on export subsidies, intellectual property rights). Moreover, Generalized System of Preference treatments are reviewed by the advanced country and can be terminated unilaterally. As such, by deepening its trade integration through PTAs, Laos is preparing for its transition from LDC status.

While the government has formed a coherent strategy to leverage its strategic location for greater inclusive growth, the challenge is to ensure it is carefully prioritized, well-coordinated, and fully implemented. More than new policy measures, the government needs to prioritize its existing policies and follow these through so that changes materialize on the ground. An effective strategy requires a small set of shared objectives, with clarity regarding which agencies hold the mandate for implementation and who is responsible for success or failure.

Except in cases where the central party apparatus intervenes, ministries often function as autonomous entities, with limited inter-coordination and cooperation. It is often the case that too many actors are involved in the implementation of private sector development, trade and investment policies, so that action

plans are not systematically applied. Systematic monitoring and reporting on progress would keep stakeholders accountable and stimulate reform progress. There is urgent need not only for coordination, but also for consolidation: a single entity should be responsible for a given policy.

The way forward: priority and implementation

For Laos to achieve its objective of a more inclusive and sustainable growth path particularly in the context of the pandemic, policymakers should strive to:

- Engineer a return to macro-fiscal stability;
- Ensure the use of natural capital is socially and environmentally sustainable;
- Make domestic markets work for job creation;
- Leverage strategic location to diversify away from natural resources;
- Build knowledge for effective reforms.

The government recognizes the need for action on each of these fronts, as evidenced by the ninth five-year national socio-economic development plan (NSEDP), and the more recent National Agenda on Addressing Economic-Financial Difficulties. The ninth NSEDP includes outcomes and outputs related to strengthening macroeconomic management; enhancing the efficiency and effectiveness of SOEs; ensuring natural resources are sustainably used and managed; improving job diversification, security, and income opportunities; and promoting connectivity and regional trade and investment integration. The National Agenda on Addressing Economic-Financial Difficulties focuses on dealing with some of the root causes of macro-financial vulnerability in Laos, including by improving the business and investment environment, including along domestic and regional economic corridors; boosting revenue collection; enhancing productivity of state investments; addressing foreign and domestic debt issues; and strengthening financial institutions. The recommendations below are con-

sistent with these broad policy directions, while prioritizing those specific measures that are needed to promote more inclusive and sustainable economic growth.

Engineering a return to macro-fiscal stability

As of 2021, Laos' macro-fiscal situation has become critical, with urgent steps required to restore stability. The rapid buildup of debt over the last decade has resulted in substantial public debt service obligations, which the government is now struggling to finance. Without remedial action, this situation could result in i) a sharp reduction in government spending, with severe implications for public service delivery (if debt service is financed through domestic resources); and/or ii) diminished access to financing over the longer term (in the event of default). Fiscal pressures are exacerbating pre-existing external and financial sector weaknesses, increasing the likelihood of disorderly exchange rate movements and foreign currency shortages, and potentially reducing the private sector's ability to access credit.

The most pressing priority is to alleviate the fiscal burden of medium-term debt service requirements. These debt service needs will be difficult to finance in the absence of some combination of new external concessional borrowing, debt restructuring, and asset/equity sales. As a step in the right direction, the government has already committed to limit non-concessional borrowing only to service existing market term borrowing. The

government should also expedite ongoing debt negotiations with key lenders. Reducing debt service obligations over the next five years, and lowering the net present value of all future debt service requirements, would allow the government time to resolve issues related to EDL's loans, to implement reforms consistent with fiscal sustainability, and to regain access to international markets. However, to credibly improve the macro-fiscal outlook, the terms of any restructuring should be clearly defined and transparently communicated. One-off asset or equity sales are another option the government could adopt to help pay debt, but careful due diligence is required, given the risks that such sales could result in revenue losses and/or additional cash flow pressures over the longer term.

Over the medium term, fiscal consolidation is necessary to bring public debt to more sustainable levels. This consolidation should be driven by revenue mobilization. Fiscal consolidation has so far been driven by expenditure restraint, with significant implications for service delivery. In the short to medium term, further progress is needed on the revenue side. Revenues could be increased by rationalizing tax incentives, increasing collections from the resource sector, and improving the efficiency of revenue administration, with a particular focus on large taxpayers where leakages are significant. Moreover, rather than a sharp adjustment to primary surpluses, it may be prudent to target a more measured pace of consolidation, in order to protect expenditure on the delivery of critical services, the provision of public infrastructure, and the response to the pandemic, including during the recovery period. The introduction of a credible medium-term fiscal framework with consistent and clearly defined targets for the fiscal balance and public debt levels would play a strong positive role in providing a clear and easily monitored pathway toward debt sustainability.

Fiscal consolidation can also be achieved through a more selective approach to public investment and PPPs. Improved public investment management and strengthened project selection and appraisal processes, both in government and in state-owned enterprises, are critical to preventing further build-up of unsustainable debt-financed capital spending. Investment projects should be consistent with priorities in national development plans, selected following solid analysis of social, economic, and environmental impacts, and financed at the most favorable terms available. The ongoing maintenance needs associated with new investments should be factored into these cost-benefit analyses. Fiscal risks and contingent liabilities associated with SOEs and PPPs need to be carefully assessed prior to approval of new projects. These improvements will require stronger capacity at the Ministry of Planning and Investment (MPI) and closer coordination with the Ministry of Finance (MOF) on budget planning and implementation.

In the financial sector, balance sheet vulnerabilities at state-owned banks need to be resolved and their role in the provision of credit to the government and to SOEs reassessed. Over time, it is important that the dependence of the government on state-owned bank credit (both directly, particularly with respect to foreign currency loans, and indirectly, through arrears to the construction sector) is reduced. On the one hand, the resulting distortions in credit allocation impair the balance sheets of state-owned banks, due to the higher rate of non-performing loans to government and SOEs. On the other hand, they limit the provision of credit to the private sector. There is a need to pursue more aggressive strategies to strengthen state-owned banks' transparency and governance, and to improve their competitiveness.

Further reforms are also needed to safeguard financial sector stability more generally. Even in the absence of a financial crisis, the banking sector is likely to emerge from the pandemic with weakened balance sheets, which will further limit its ability to finance a private sector-led economic recovery. In the short term, forbearance policies introduced in response to the pandemic need to be carefully unwound, while over the medium term it will be important to strengthen the regulatory framework, improve banking supervision, and bolster financial sector safety nets.

Ensuring the use of natural capital is socially and environmentally sustainable

Laos' power, mining, and forestry sectors face significant challenges related to social and environmental sustainability. In the power sector, supply outstrips demand and sales prices are often lower than purchase prices, putting the financial sustainability of the state utility company, EDL, at risk. At the same time, the cumulative environmental impacts of dam development are mounting. The contribution of the mining sector to the economy continues to fall, due to declining ore levels and ongoing constraints on new investment, some of which are policy-induced, such as the domestic processing requirement imposed on foreign investors. The activities of smaller-scale operators are associated with significant environmental and social risks. Despite recent policy improvements, deforestation and forest degradation continue, driven mainly by agricultural expansion and encroachment, and infrastructure development. In the agriculture sector, the intensive mono-cropping practices of industrial rubber, banana and coffee plantations raise concerns regarding deforestation, soil erosion, and water pollution related to the intensive use of chemicals. Moreover, climate change increases the vulnerability of natural resource-based economies, with

flooding, storms, and drought the top three natural hazards in the country. It is estimated that by 2030, an additional 40,000 people may be at risk of river floods annually due to climate change. Increased temperatures and changes in rainfall patterns are likely to increase the frequency of forest fires and pest and disease infestations.

Natural resource endowments can continue to contribute to economic growth, even given greater efforts to preserve the natural environment and the ecosystem services and livelihood benefits it provides. However, to achieve these aims, good governance is critical. Policymakers could build on recent efforts to improve resource management to achieve good governance more generally throughout the natural resource sector. To mitigate the cumulative negative effects associated with resource extraction, there is a need for an overarching and comprehensive development strategy in and across these sectors. Such a strategy could also serve to clarify and manage trade-offs and opportunities between various land uses.

Laos also needs to maintain and improve social sustainability. Global businesses involved in light manufacturing are increasingly monitoring labor conditions and health standards in production facilities. Compliance with health and labor standards is becoming increasingly important to gaining market access and winning consumer acceptance. Measures to increase Lao businesses' awareness of core labor, worker health and environmental standards, and to ensure their compliance with these standards, would enable them to be more competitive in international markets.

Despite a significant build-up of debt in the electricity sector, Laos can still achieve its aspiration of becoming the battery of Asia. Hydropower is a relatively clean source of energy that could generate sustainable economic benefits, becoming a net contributor to government finances rather than a drain.

Over the longer term, the regional demand for electric power is likely to remain strong. As interconnectors between regional grids are developed, exports to more distant countries may become more feasible. Given that the construction of new dams is associated with significant environmental and social impacts, Laos now needs to focus on transporting and selling the power produced by the large generation capacity that it has already developed, including by developing transmission and interconnection infrastructure, and by exploring the potential for renewables to offset the seasonality of hydropower supply.

In the short term, the government needs to implement measures to put the sector on a more stable and sustainable footing. EDL is currently burdened with unsustainable debt and declining cash-flow. To improve operating margins, options should be explored to ensure the financial sustainability of EDL's payments to IPPs, and adjust electricity tariffs to better reflect EDL's costs. In the short term, a solid financial recovery program is required, with debt restructuring and/or asset sales likely necessary to restore EDL's financial sustainability. At the same time, institutional fragmentation and a weak regulatory framework have contributed to sub-optimal sector planning and project selection. Investment appraisal processes need to be improved. Tax incentives for IPPs should be reviewed to ensure that the state receives an adequate share of financial gains while a least-cost expansion plan should be developed to meet electricity demand at a specific level of reliability and at the lowest possible cost.

The mining sector is unlikely to be as important a driver of growth in the near future as it has been in the past, although rising copper and gold prices may provide some support in the short- to medium-term. Reserves of the existing major mines have been depleted,

while there are ongoing constraints on new investment, with little information available on the project pipeline. While rules for the fast-track approval of proposed investments in iron ore mining are being piloted, the implications for production, government revenue, and environmental safeguards remain unclear. Despite severe fiscal pressures, it is important that financial, environmental, and social safeguards are not loosened to encourage a resumption of otherwise unviable operations. Over the longer-term, the government could take several steps to encourage new exploration and promote more sustainable mining sector activity.

In forestry, given the invaluable livelihood and ecosystem benefits that forests provide, the priority should be to restore forest cover to meet the government's 70 percent forest cover target. At the same time, plans to establish commercial plantations hold economic promise and are consistent with the achievement of this target. If these plantations are established in degraded areas, and socially and environmentally sound practices are applied, they could substantially contribute to reducing pressure on native forests while providing sources of income and government revenue. As a means of capitalizing on environmental protection efforts, nature-based tourism also has good potential for creating jobs and supporting livelihoods. Innovative funding sources, such as payments for ecosystem services and results-based carbon finance, could be further leveraged to generate revenue streams from the preservation and expansion of forests.

Making domestic markets work for job creation

Creating an environment in which both domestic and foreign productive enterprises can invest and thrive is essential to achieving greater broad-based job creation and more inclusive growth. Measures to make business

▼ Overview

registration easier would help limit informality. Measures to ensure a more transparent regulatory framework, with clear information on steps and procedures and greater coordination between government agencies, would also accelerate investment processes and mitigate regulatory capture. To attract more FDI, it is necessary to ensure investor protection, including the protection of intellectual property rights and improved contract enforcement. While the investment law of April 2017 has simplified and streamlined screening and approval processes, and has liberalized entry conditions for domestic and foreign investors, more can be done to facilitate and simplify business and trade operations.

Closing the skills gap will require the government to intensify efforts to improve education outcomes at all levels. In particular, there is a need to focus on expanding education access in remote areas, increasing enrollment rates so that completion of secondary education becomes the norm, reforming curricula to better align graduates' skills with the demands of the private sector, and upgrading the quality of teaching. The most effective way to address the competitiveness challenges facing a country with low levels of human capital is to focus on basic education and to partner with the private sector to build industry-specific skills.

While Laos has established some technical and vocational education training (TVET) programs to address the skills shortage, these may not have the scale to have much impact. The share of the Lao workforce with relevant TVET qualifications is low and employers seldom recruit personnel from TVET institutes. Promoting skill retraining and geographically targeted employment incentives could also foster employment in disadvantaged areas. Introducing youth internships and employment incentives, such as tax allowances or wage subsidies, could play a critical role in introducing target groups,

including youth workers, to the labor market and in enabling enterprises to recover their productive capacity rapidly in the post-pandemic context.

Employment services are insufficient. Establishing services to help employers to find workers and workers to find jobs could increase the efficiency of the labor market. Active labor market policies implemented in other countries include the provision of employment information services, pre-service training for new labor force entrants, job centers that help employers and employees create good matches, and policies to increase labor mobility. In Laos, labor market information systems and active labor market programs remain underdeveloped and inadequate. Stakeholders are thus not able to make informed choices regarding issues related to job searching, career planning, skills upgrading, hiring, migration policies, skills investment, or policies designed to meet future demands.

Remittances could be leveraged to support productivity growth. Prior to the pandemic, about 300,000 documented Lao workers were working in Thailand (Department of Employment, Thailand).¹⁵ This is a significant figure, equivalent in employment terms to the total number of workers in the Lao services sector. Evidence also shows that international remittances channeled by migrants are a source of livelihood for nearly 9 percent of Lao households (World Bank, 2020a). To enhance the productivity benefits of migration outside the country, the government could facilitate knowledge and financial transfers to the domestic economy, including through lowering the cost of remittances and/or improving access to financial services for itinerant workers. Enabling remittances to be used in local public investment projects, as determined by the migrants, could also help to increase productivity in agriculture, particularly when access to finance is minimal and public investment has lagged.

Leveraging strategic location to diversify away from natural resources

The government and public authorities will need to take on new roles to successfully leverage Laos' strategic location and diversify the economy. The government could take advantage of the forces of geography, with agglomeration forces at borders, especially the Thai border, to concentrate consumers, workers, producers and traders. It could let the private sector determine where to locate infrastructure such as warehouses or a dry port. The government could support this process by simplifying and rationalizing rules and processes such as business entry, investment, customs procedures and inspection. It could also leverage efficient lead GVC firms, requiring that the downward services or technical training they establish also benefit other exporters or products. Lead firms could be more systematically asked to participate in technical training centers, helping design the curriculum and providing equipment and/or teachers. Good examples of this are already in place at the Phu Bia mine and NT2 hydroelectric dam. Technical centers should have a significant quota for women. The GVC firms would have a direct interest in the success of these technical centers, which could provide them with future employees. Their participation in these initiatives would also help raise the technical skills of labor at other enterprises.

The government needs to redefine its relationship with the private sector, moving away from a command-and-control role, to one in which it ensures fair competition and supports market-friendly policies. While significant progress has been made since the late 1980s toward privatizing SOEs, they continue to be prominent in the finance, energy, and telecommunications sectors. In the banking system, the share of state-owned banks (including joint ventures) has declined only marginally over the past decade, from 64 percent in 2014 to 59

percent in 2021. Through these SOEs, the state continues to play a substantial role in allocating resources across the economy, leading to inefficiency and/or inequity risks. With its scarce resources, the government may decide to implement measures to further level the playing field, so that all entrepreneurs have equal opportunities, instead of allocating too many resources on specific enterprises. Moving away from ex-ante control to ex-post monitoring would also ensure that scarce government resources are allocated where they are most useful. For example, developing and implementing an integrated risk management framework and joint risk-based inspection system at borders would ensure that customs agents focus on risky shipments, while expediting the clearance of imports, exports, transits, and other trade transactions without compromising safety.

The areas around the border with Thailand could then be developed to attract business by establishing clusters of production (agricultural and industrial zones) and wholesale markets. Attracting FDI by increasing openness, investor protections and stability, and by promoting a favorable climate for business and investment, would help to remedy the scarcity of capital, technology, and management skills. Lowering the barriers to entry by streamlining administrative procedures would ensure greater competition between businesses. Facilitating the development of strong backward linkages between foreign-owned enterprises in SEZs and local firms could help increase their productivity and competitiveness. Experiences from Singapore and Malaysia show that setting up secondary industrial zones for local suppliers, either in geographical sites adjacent to the major SEZs or through changes to legal status, can facilitate the creation of foreign-domestic linkages (Moran et al., 2018). Ensuring that SEZ regulations do not discriminate against local suppliers is also important. The movement of workers from foreign to local businesses can also spread knowledge and skills, with positive

effects on productivity. Lead foreign enterprises could be leveraged to support domestic businesses by providing training and management coaching, and by helping to establish production lines, quality control systems and skill training centers.

To improve profitability and productivity, Lao businesses need to increase their quality of output. The small domestic product and labor markets make it difficult for businesses to exploit economies of scale to raise profit and productivity. Moreover, the limited quality of outputs means that businesses operate with small profit margins, which limits their ability to provide higher wages and to retain workers when Thai competitors can offer better compensation. Policies that improve businesses' access to larger markets for inputs and outputs and that encourage the adoption of the standards required to reach higher-end markets would help to increase both their productivity and market shares, especially in agriculture.

Greater participation in agricultural and food value chains could boost exports and poverty reduction, but domestic production needs to expand. This would require land titling, access to seeds and fertilizers, agricultural extension, information on prices and markets, and collective action in producer organizations. Access to credit by agricultural enterprises could also be widened through innovative systems to enable these enterprises to establish a credit record, using features such as tracking of transaction history, accepting sales contracts with large formal firms as collateral, or leveraging remittances. Quality improvements are also necessary. At present, non-tariff barriers, including sanitary and phytosanitary standards requirements and voluntary standards on destination markets, constrain agri-food exports. Finally, given that agriculture needs downward services, lowering barriers to entry into logistics and transport services would help to expand agricultural production and to improve quality.

Building skills and capacity for effective reforms

Laos needs to build the human skills and capacity required to implement reforms effectively. Measures to develop education and skills in the workforce are critical not just to improving private sector productivity, but also to establishing a strong public sector. Effective implementation of this report's recommendations depends on the capacity of public servants to make sound policy decisions and to implement policies already in place. Thus, enhanced education and training are necessary to ensure better informed environmental regulation, improved project selection and appraisal processes, and more robust negotiations with foreign investors. Laos needs improved capacities to evaluate and screen new public investment and PPP proposals in all sectors, notably in mining, forestry and power. In particular, there is a need for skills related to conducting cost-benefit analyses that integrate the cost of maintenance of roads and other infrastructure, and not only the cost of construction, poverty assessments and environmental analysis. Development of these skills depends on adequate training, and is vital if Laos is to sustainably leverage its natural capital and strategic location to achieve greater inclusive growth.

Access to reliable data is also essential to a successful development strategy. While public access to statistical information has improved, significant issues remain regarding the quality and coverage of available statistics. As specific examples:

- i) Fiscal and public debt statistics remain weak and reliant on sometimes inconsistent sources, with no reliable data on budget execution;
- ii) There is little transparency regarding the operation of state-owned enterprises or PPP contracts;

- iii) There is an urgent need for more disaggregated national account data to distinguish measurement errors from real GDP trends;
- iv) There are significant gaps in trade data, with mismatches between the amounts reported by Laos (direct exports) and the amount reported by its partners (mirror exports). Informal trade is significant and missing from statistics, especially for trade in agri-food, rubber and wood, making trade diagnostics and associated recommendations less accurate;
- v) The lack of information on tax incentives precludes a robust evaluation of their effectiveness in attracting FDI, creating exports and jobs. Such assessment should also account for the possible impact on local firms: investors authorized by IPD to enter Laos at conditions more beneficial than locally established investors and thus disrupting competition.
- vi) There are no reliable data on the country's natural resource reserves or quality controls on the reporting of exploration data.
- vii) Energy statistics could be improved to help track energy production and consumption over time.

Resolution of these data issues could improve decision-making in both public and private sectors.

The government should strengthen its communication and feedback loop related to reforms. Resistance to reform from public officials, and lack of awareness of changes in the private sector, result in implementation gaps. Ministry-specific communication campaigns, with the introduction of mechanisms to receive feedback related to reforms from the public and private sectors, would help to change perceptions regarding service delivery, to inform the private sector of changes, and to increase the accountability of public servants. Finally, leveraging the private sector could increase the pace and sustainability of reforms. Improving the ability of the Lao Business Forum to build strong technical cases for issues would help to balance the public-private dialogue. For example, in 2019, the Lao Business Forum contributed to the government decision to remove interest rate caps.

Policy matrix

Policy recommendations are presented in detail in each chapter of the report. Recommendations are summarized in Table O.1 below, and prioritized as short, medium or long-term. As previously noted, several of these recommendations are already being pursued by government, and are closely related to targeted outcomes in the Ninth NSEDP (2021-2025) and the National Agenda on Addressing Economic-Financial Difficulties. The link with the government’s policy agenda as per the Ninth NSEDP are also reported in Table O.1.

Table O.1
Main policy recommendations for high and inclusive growth

Objective	Timeline for implementation	Responsible ministry or agency	Link with NSEDP 9 (outputs)
I. ENGINEERING A RETURN TO MACRO-FISCAL STABILITY			
1. Explore sources of external financing but limit new commercial borrowing to the amount necessary to service existing market term borrowing.	Short term	MOF	Outcome 1 (2)
2. Finalize ongoing debt negotiations with large creditors, giving appropriate consideration to debt sustainability and transparency.	Short term	MOF	Outcome 1 (2)
3. Strengthen due diligence and approval processes for new public investments, on-lending arrangements, issuance of public guarantees, and PPP proposals.	Medium term	MOF, MPI	Outcome 1 (2,3,5)
4. Mobilize domestic revenue by improving administration of large taxpayers, reviewing tax incentives and concessions (particularly for resource sector projects), and reducing the scope for discretion in taxation and revenue-sharing arrangements.	Medium term	MOF	Outcome 1 (2)
5. Consider the adoption of a medium term fiscal framework to ensure that budget settings and new PPG borrowing plans (including SOE borrowing) are consistent with public debt sustainability.	Medium term	MOF	Outcome 1 (2)
6. Resolve balance sheet vulnerabilities in state-owned banks and reassess their role in the provision of credit to government and SOEs.	Medium term	MOF, BOL	Outcome 1 (2)
II. ENSURING THE USE OF NATURAL CAPITAL IS SOCIALLY AND ENVIRONMENTALLY SUSTAINABLE			
7. Review options to ensure the financial sustainability of EDL’s payments to IPPs, and adjust electricity tariffs to ensure EDL’s cost recovery, while protecting customers with less capacity to pay.	Short term	EDL, MEM, MOF	Outcome 1 (5)

Table O.1, continued

Objective	Timeline for implementation	Responsible ministry or agency	Link with NSED 9 (outputs)
8. Optimize hydropower system planning and reorient new investment toward improving transmission and interconnection systems with neighboring countries.	Medium term	EDL, MEM, MPI	Outcome 1 (5) and outcome 5 (1)
9. Develop the potential to firm electricity supply through renewables rather than coal.	Medium term	MEM	Outcome 4 (2) and outcome 5 (2)
10. Resolve ongoing constraints to new mining investment, including by implementing the mineral licensing system and reviewing the beneficiation policy, while prioritizing the minimization of environmental impacts.	Medium term	MEM, MONRE	Outcome 1 (1,3)
11. Clarify and standardize licensing and land allocation processes and the legal framework to improve certainty for investors in environmentally-sustainable tree plantations and nature-based tourism.	Medium term	MAF, MONRE, MICT	Outcome 4 (1,2)
12. Prepare strategic environmental assessments to identify the cumulative longer-term effects of resource sector projects and manage trade-offs between different land uses.	Medium/long term	MONRE	Outcome 4 (1)
III. MAKING DOMESTIC MARKETS WORK FOR JOB CREATION			
13. Deepen business climate reforms to facilitate the entry and expansion of domestic and foreign firms.	Short term	MOIC, MPI	Outcome 1 (3,4)
14. Implement one-stop business registration service to cut the burdensome process and encourage formalization. Eliminate and streamline regulations for transparency and consistency in the tax and regulatory systems to curb informal practices.	Short term	MOF, MOIC, MPI	Outcome 1 (3,4)
15. Leverage remittances to support investment in agriculture and manufacturing. Allow remittances to be used in local public investment projects, decided by the migrants for their home village.	Short term	MAF	Outcome 1 (3)
16. Strengthening labor laws and enforcement to protect workers, male and female without jeopardizing firm competitiveness.	Medium term	MOES, MOLSW	Outcome 2 (2,3)
17. Strengthen vocational training and employment services that allow qualified workers to find suitable jobs. Involve the private sector especially lead GVC firms.	Medium term	MOES, MOLSW	Outcome 2 (2,3)

Table O.1, continued

Objective	Timeline for implementation	Responsible ministry or agency	Link with NSEDP 9 (outputs)
18. Promote skill retraining and geographically targeted employment subsidies to foster employment in areas more at risk.	Medium term	MOES, MOLSW	Outcome 2 (2,3)
IV. LEVERAGING STRATEGIC LOCATION TO DIVERSIFY AWAY FROM NATURAL RESOURCES			
19. Advance trade policy reforms, with a focus on non-tariff measures to support quality upgrades in businesses.	Short term	MOIC, MOF	Outcome 5 (2)
20. Assess the effectiveness of SEZs and related investment incentives in attracting FDI, encouraging export growth and diversification, and creating jobs.	Short term	MPI, MOIC	Outcome 1 (5) and outcome 5 (4)
21. Facilitate SEZ backward linkages with domestic firms to help raise productivity, competitiveness, and resilience. Develop win-win deals with foreign lead GVC firms to develop downward services or training centers that also benefit other exporters or products.	Medium term	MOIC, MPI	Outcome 1 (5) and outcome 5 (4)
22. Improve the ability of businesses to satisfy core labor, environmental and governance standards to anticipate the increasing focus on social and environmental issues among buyers in overseas markets.	Medium term	MOIC, MAF	Outcome 5 (2)
23. Improve infrastructure and governance and promote competition in transport and logistics.	Long term	MPWT	Outcome 5 (1,3)
V. BUILDING SKILLS AND CAPACITY FOR EFFECTIVE REFORMS			
24. Improve data and knowledge to support effective policy making.	Short term	All	Outcome 6
25. Develop comprehensive and inclusive communication strategy within each lead ministry and leverage feedback mechanism from stakeholders.	Medium term	All	Outcome 6

Note: Ninth NSEDP outcomes are as follows: Outcome 1: Continuous quality, stable and sustainable economic growth achieved; Outcome 2: Improved quality of human resources to meet development, research capacity, science and technology needs, and create value-added production and services; Outcome 3: Enhanced well-being of the people; Outcome 4: Environmental protection enhanced and disaster risks reduced; Outcome 5: Engagement in regional and international cooperation and integration is enhanced with robust infrastructure and effective utilization of national potential and geographic advantages; Outcome 6: Public governance and administration is improved, and society is equal, fair, and protected by the rule of law. Outputs are in parenthesis next to the corresponding outcome.

Notes

- 1 World Bank (2010, 2017).
- 2 IMF Capital Stock database, available at <http://data.imf.org/ICSD>.
- 3 Under such agreements EDL agrees to buy a pre-negotiated quantity of electricity at a contracted price, irrespective of whether there is actual domestic or foreign demand for such electricity.
- 4 World Bank (2017)
- 5 OECD Business and Finance Outlook 2018 © OECD 2018.
- 6 The Laos-China railway total project cost of \$5,950 million involves a \$3,570 million loan from China and a \$2,380 million equity investment. The debt portion of \$3,570 million is financed by the China EXIM Bank (CNEXIM) and used LCRC's assets as the loan collateral. Commitment for the financing of the loan is distributed between the Chinese state-owned enterprises and the Lao National Railway Enterprise (LNRE) according to the shareholding ratio 70/30. The government, through the LNRE, holds about 30 percent of the equity investment. This share is financed by debt (\$480 million) and the government's own budget (about \$234 million).
- 7 The PPG stock would rise to about 90 percent of GDP in 2021 if an existing currency swap arrangement is classified as contingent public debt.
- 8 This is in part driven by mining and utilities. Estimated using World Bank enterprise surveys, the share of manufacturing in value-added dropped from 11.6 percent to 7.4 percent between 2009 and 2018.
- 9 World Bank (2020a).
- 10 World Bank (2012).
- 11 See among others (Hausmann, Pritchett and Rodrik, 2005; Rodrik, 2008; Berman, Martin and Mayer, 2012; Chatterjee et al, 2013; Freund and Pierola, 2012; Asprilla et al, 2019).
- 12 World Bank (2009).
- 13 World Bank (2020b).
- 14 World Bank (2020b).
- 15 The majority of Lao nationals living abroad are in Thailand (UNDESA, 2019).

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CHAPTER 1

Engineering a Return to Macro-Fiscal Stability

Key messages

- **Government revenues have declined in recent years from an already low base.** This has resulted in high fiscal deficits, averaging around 5 percent of GDP between 2015 and 2020, despite only modest current expenditure on critical public services.
- **Laos' debt situation has also worsened over the past decade.** Public and publicly guaranteed debt has risen sharply due to persistent fiscal deficits; publicly guaranteed off-budget borrowing by EDL; the accumulation and subsequent clearance of government spending arrears; and kip exchange rate depreciation. With much of the recent debt contracted on non-concessional terms, the government is currently facing substantial public debt service obligations.
- **Fiscal deterioration has also exerted pressure on financial sector balance sheets, particularly for state-owned banks.** Policy makers will need to resolve the vulnerability of state-owned banks and to reassess the role of these banks in providing credit to the government and state-owned enterprises.
- **An immediate priority is to alleviate the fiscal burden of near-term debt service obligations.** The government is already pursuing debt restructuring and asset/equity sales, while limiting its reliance on new external non-concessional borrowing.
- **Over the medium term, fiscal consolidation is required to return public debt to more sustainable levels.** This should be achieved by increased revenue mobilization, with sufficient fiscal space reserved for adequate investment in human capital.

Introduction

There has been a pronounced increase in Laos' macroeconomic vulnerabilities over the past decade. Fast rates of economic growth have been capital-intensive and debt-driven. The government has facilitated the construction of large hydropower and infrastructure projects, funded by external finance, and often with generous tax concessions. However, the government has yet to derive significant revenue from these projects, with the investments led by state-owned enterprises (SOEs), particularly EDL, having resulted in a substantial buildup of public debt and significant fiscal risks. In proportion to GDP, tax revenue mobilization has been declining from an already low base, resulting in relatively high fiscal deficits even though overall government expenditure has been contained. Additionally, expenditure arrears have been used as an unofficial form of deficit financing, with recent efforts to clear these arrears adding further to the stock of public debt. Foreign currency reserves are insufficient as a buffer against economic shocks, and there are ongoing pressures in the foreign exchange market.

By 2021, Laos' macro-fiscal situation has become critical, with urgent steps required to restore stability. High public debt service requirements are likely to crowd out essential spending on public services unless remedial action is taken. Given its debt situation and the current economic outlook, the government faces increased borrowing costs and increased difficulty accessing external financing from private markets. If left unaddressed, external financing gaps could lead to severe adjustments to imports and to the exchange rate. The impact of the COVID-19 pandemic has exacerbated Laos' long-standing structural vulnerabilities, causing domestic revenues to decline further, exerting additional pressure on the balance of payments, and increasing the vulnerability of the financial sector.

Over the longer term, macro-fiscal stability is critical to Laos' achievement of sustainable and

balanced economic development. A stable, sustainable macroeconomic framework and fiscal trajectory reduces uncertainty, lowers borrowing costs, enables return expectations for investments, and increases business confidence—all of which are important conditions for the achievement of sustainable long-term economic growth. By increasing its collection of revenue from domestic sources, the government could build the fiscal space necessary to ensure adequate funding for health, education and training, which in turn are critically important to increase the productive capacity of the economy. In this context, public and publicly funded investments need to be carefully screened and prioritized to ensure that they produce a positive economic return and that they are financed in a manner consistent with the maintenance of fiscal sustainability.

This chapter presents both short-term policy recommendations, to facilitate a return to macro-fiscal stability, and medium-term recommendations, to support the emergence of a more credible, sustainable, growth-promoting macroeconomic environment. It begins with an analysis and description of the current situation, focusing on the manner in which low domestic revenues and electricity investments have contributed to the high levels of public debt. Turning to policy priorities, it identifies a number of immediate priorities, including measures to: a) improve revenue administration and policy (particularly by reviewing and rationalizing tax incentives and exemptions); b) make the future debt service profile more manageable; and c) identify new sources of external financing, capped at the level necessary to meet debt amortization requirements, as per existing policy. Over the medium term, the government needs to implement measures to: a) further boost revenue mobilization, including collections from the resource sector; b) improve public investment management, particularly in the area of processes related to project appraisal, selection and costing; and c) develop a medium-term fiscal framework, with credible targets for the fiscal balance and

for SOE financing that are consistent with a return to debt sustainability. In the financial sector, policy makers need to resolve balance sheet vulnerabilities in state-owned banks (SOBs) and to reassess their role in the provision of credit to government and SOEs. Over time, the government must strive to reduce its dependence on SOB loans (both directly,

particularly with respect to foreign currency loans, and indirectly, through arrears to the construction sector). To better manage financial sector vulnerabilities more broadly, the government also needs to strengthen the regulatory framework; to improve banking supervision; and to bolster financial sector safety nets.

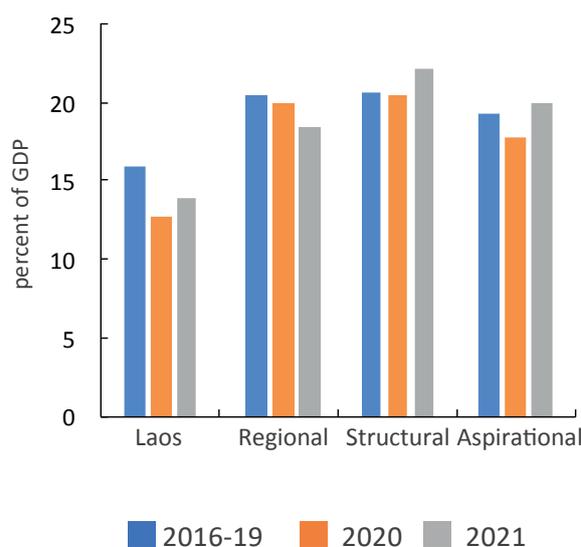
Government revenues

Revenue mobilization is low and has declined in recent years, with COVID-19 a further negative shock.

Revenue collection is low in Laos compared to its peers (see Figure 1.1). In the four-year period to 2019, Laos’ general government revenues stood at an average value of 16 percent of GDP, compared to an average of 20.5 percent for regional and structural peer countries.¹⁶ Moreover, Laos’ revenues have been declining in proportion

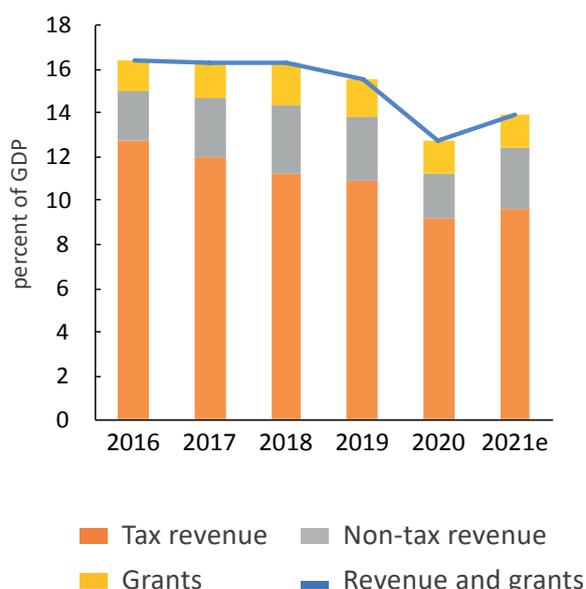
to GDP over this period, falling further behind cross-country revenue mobilization benchmarks. Excluding grants, revenues have fallen by about 1.5 percentage points of GDP over this four-year period, mainly due to declining tax revenue (see Figure 1.2). The impact of the COVID-19 pandemic has exacerbated this downward trend, with revenues falling significantly in 2020 from already low levels, and this decline significantly greater in proportion to GDP than in the case of peer countries (see Figure 1.1 and Figure 1.2).

Figure 1.1
General government revenues, compared with peers



Source: IMF WEO Database, April 2022. 2020 and 2021 Laos data are based on WB estimates.

Figure 1.2
Revenue and grants



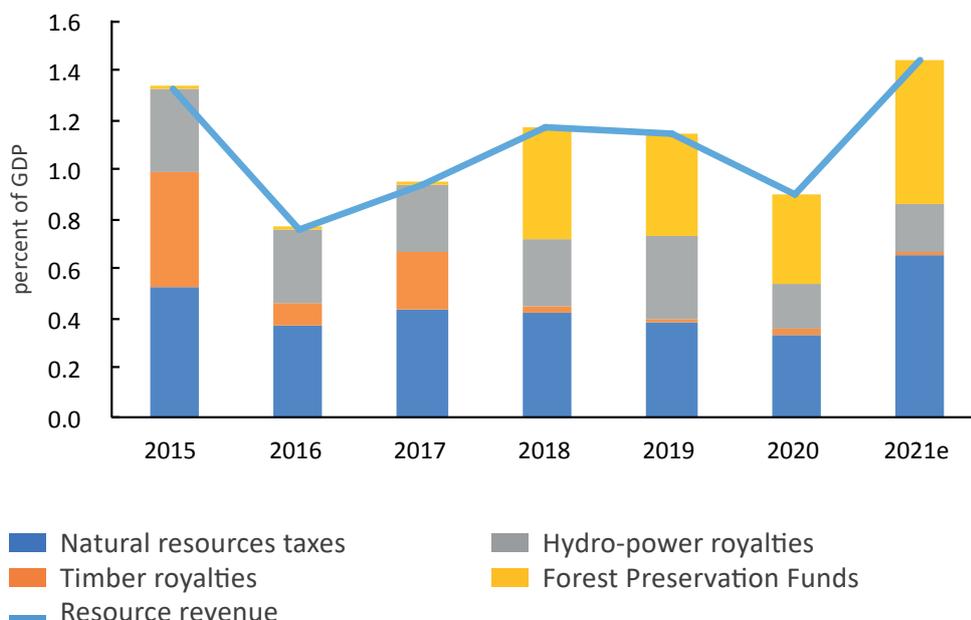
Source: MoF.

While the government has recently introduced several measures to improve tax administration, revenue gains have been limited by significant leakages, particularly with respect to large taxpayers. The government’s recent measures to improve administration have included the rollout of the Tax Revenue Information System (TaxRIS) and electronic payment systems. However, large taxpayers continue to be able to evade their tax obligations, indicating persistent issues with audit and enforcement. Analysis conducted by the IMF shows that Laos’ potential profit tax revenue is about 80 percent higher than the actual revenue collected, implying an average revenue gap of around 4.5 percent of GDP (IMF, 2019). Although Laos’ profit tax rate is comparatively high, at 24 percent, the total tax rate (estimated at around 26 percent) is well below the EAP average (34 percent) and the lower-middle-income country

average (38 percent). While most taxation is levied on consumption, there has also been a reduction in import duties (estimated to cost around 0.4 percentage points of GDP), as required by Laos’ participation in the ASEAN Free Trade Agreement.

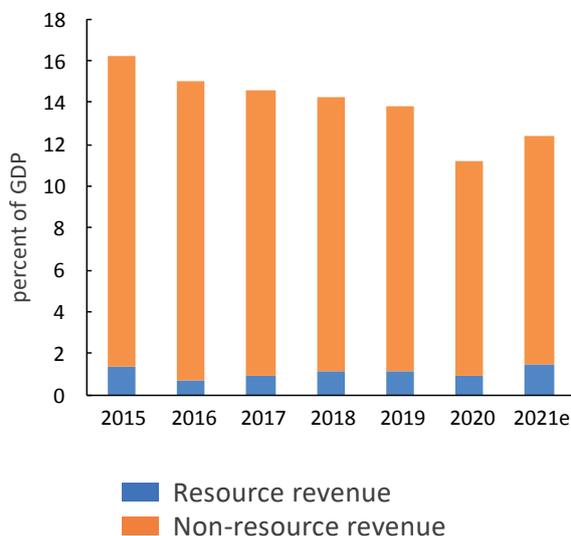
The government captures a relatively small proportion of value-added in the resource sector. While the state receives natural resources taxes, timber royalties, hydropower royalties and forest preservation funds (see Figure 1.3), these account for a relatively small proportion of overall government revenues. Non-resource revenues averaged 13.1 percent of GDP over the 2015-20 period, while resource revenues averaged just 1 percent of GDP (see Figure 1.4). Revenues are a significantly smaller proportion of resource-sector value-added than of non-resource sector value-added (see Figure 1.5).

Figure 1.3
Resource revenue decomposition



Source: MoF.

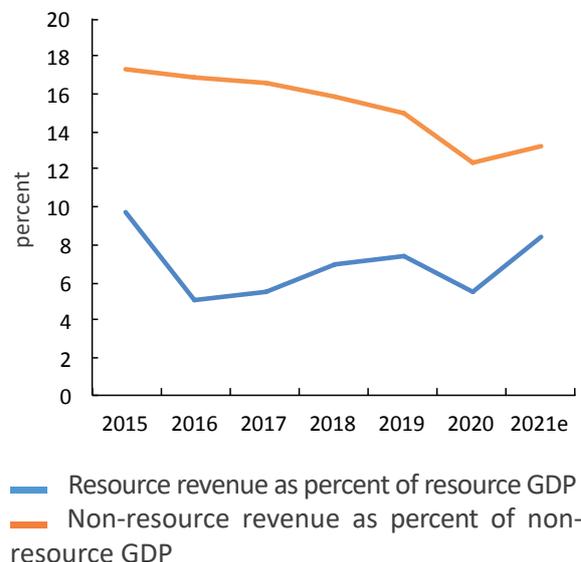
Figure 1.4
Resource and non-resource revenues



Source: MoF.

Low domestic revenue collection is in part due to the widespread application of tax exemptions. The 2009 Law on Investment Promotion established a range of tax exemptions intended to attract foreign investment in selected sectors, including mining and power generation. These exemptions included import duty waivers on production machinery, equipment, and raw materials, together with profit tax holidays for a specified period. While the calibration of these tax holidays depended on the investment activity, its location within Laos, and the size of the investment, power generation projects typically benefit from profit tax exemptions and a reduced royalty rate for the first 5-10 years of their operations. In the case of operations based in special economic zones (SEZ), the duration of the tax holidays is negotiable. The law was revised in 2017 to reduce the degree of discretion in application of the law and to provide greater clarity for business operators. However, it is not clear how strictly this new law is being implemented, with little attempt to monitor revenue foregone from tax exemptions or to conduct reviews to determine whether they are serving their intended purpose.

Figure 1.5
Revenues as a proportion of value added



Source: MoF.

Note: Resource GDP includes hydropower and mining. Non-resource GDP includes all other sectors. The sum of both is GDP at factor cost.

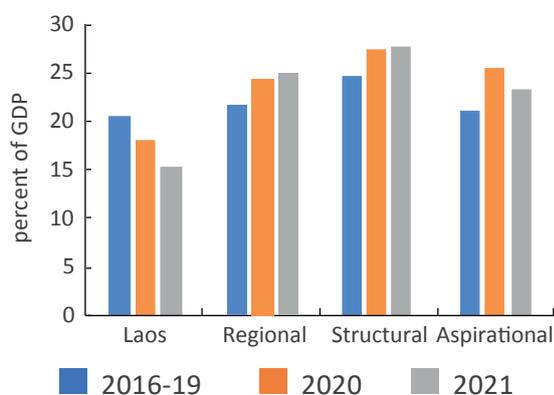
The high level of informality in the private sector also constrains revenue mobilization. Most businesses operate outside the formal system, with indications that the extent of informality has increased in recent years. The proportion of firms that reported business constraints arising from competition with unregistered or informal businesses increased from 42 percent in 2012 to 77 percent in 2016 (World Bank Group, 2017a). Informality (defined in terms of the share of workers not contributing to the social security fund) has further increased due to the impact of the COVID-19 pandemic on the non-farm private sector, with the number of waged jobs decreasing substantially in sectors such as hospitality and transportation. The presumptive taxation regime (where a lump-sum payment based on turnover is made in lieu of all tax obligations) in place for small companies — together with limited capacities to accurately assess turnover — also results in the significant under-declaration of revenues and acts as an ongoing disincentive for small businesses to formalize.

Government spending

While recurrent spending remained relatively modest over the past decade, prior to COVID-19 total government spending was broadly aligned with peers.

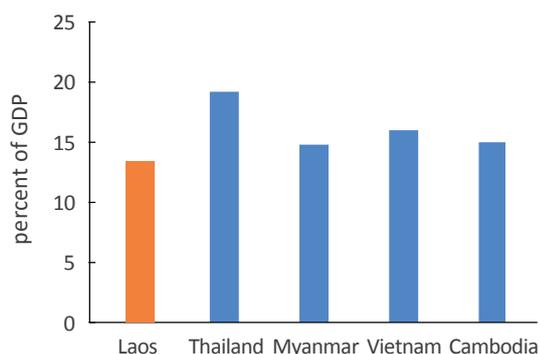
Prior to the advent of the pandemic, Laos’ overall government spending was below cross-country benchmarks. General government expenditure stood at an average of 21.0 percent of GDP in the four-year period to 2019, slightly below the average for regional peers (21.8 percent), and much lower than that of structural peers (24.7 percent) (see Figure 1.6). Despite the increased needs associated with the pandemic response, in contrast to peer countries, the Lao government’s expenditure fell sharply in 2020 and 2021, due to weak revenue collection and limited fiscal space.

Figure 1.6
General government spending, compared with peers



Source: IMF WEO database, Apr 2022.
Note: 2020 and 2021 Lao PDR data are based on WB estimates.

Figure 1.7
Current spending, 2016-19 average

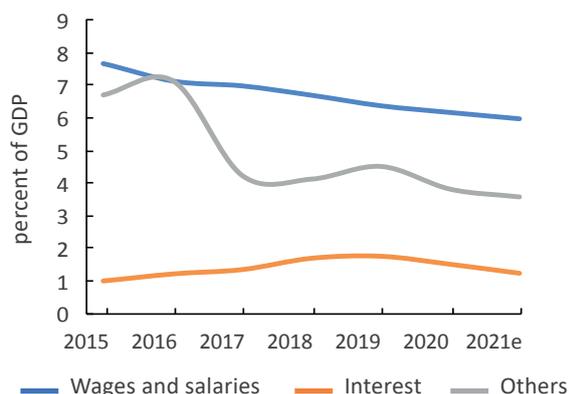


Source: IMF Article IV reports.
Note: Using FY (Oct-Sep) for Myanmar and Thailand data.

Current spending is particularly low, with debt service obligations accounting for an increasingly large proportion of total government expenditure. Laos’ average current spending for the 2016-19 period stood at 13.4 percent of GDP, significantly lower than in regional peers (see Figure 1.7). Expenditure on wages and salaries accounted for just over half of total current spending on average over this period, but declined gradually over the period in proportion to GDP, reflecting efforts to reduce the recruitment of civil servants (see Figure 1.8). On the other hand, interest payments have risen, mainly driven by external debt service obligations.

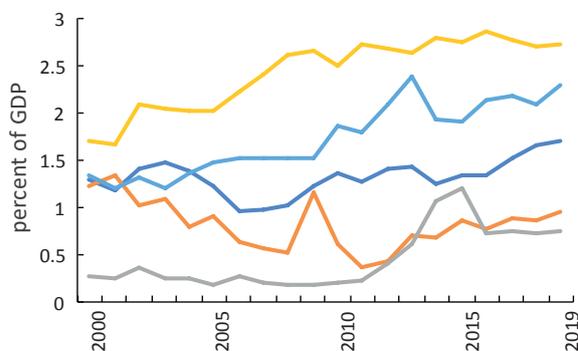
As a result of the constrained expenditure envelope, spending on critical public services remains inadequate. Government health expenditure has averaged less than 1 percent of GDP in recent years, much lower than that in most neighboring countries, and significantly less than the interest bill (see Figure 1.9). The available evidence also suggests that public spending on education is well below global and regional benchmarks¹⁷ (see also Figure 1.10), though the shortfall is less than in the health sector. This is likely to be at least partially responsible for relatively low secondary school completion rates and for low levels of human capital more generally.

Figure 1.8
Current spending decomposition



Source: MoF.

Figure 1.9
General government health spending

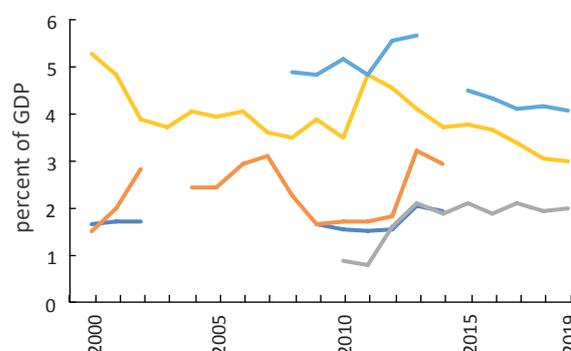


— Laos — Cambodia — Myanmar
— Vietnam — Thailand

Source: April 2022 WDI database.

On the other hand, the Lao government’s capital spending has been more closely aligned with regional peers. Capital spending stood at an average value of 7.3 percent of GDP over the 2016-19 period (see Figure 1.11), close to the levels recorded in Myanmar and Cambodia, and reflecting the large domestic infrastructure needs in each of these economies. Capital spending increased by more than 50 percent in 2017, driven in part by national contributions to large infrastructure projects in transport and

Figure 1.10
General government education spending

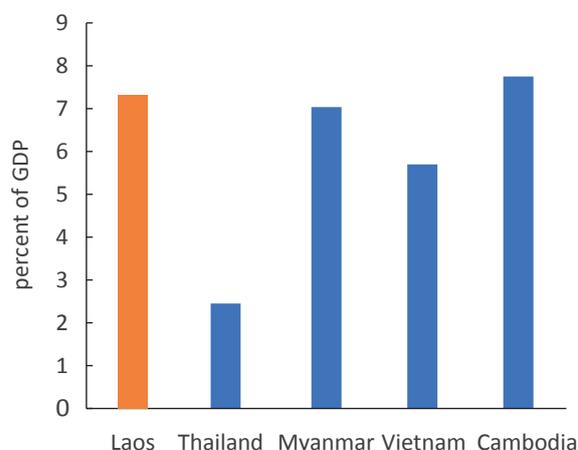


— Laos — Cambodia — Myanmar
— Vietnam — Thailand

Source: April 2022 WDI database.

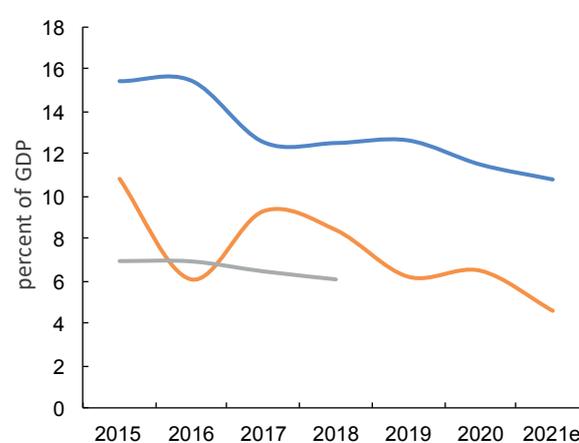
energy (many of which were implemented through PPP arrangements). However, since 2017, government capital spending has declined markedly (see Figure 1.12). After severe flooding and the collapse of a dam in 2018, new investment projects were temporarily suspended, at which point a reassessment of the economic benefits of some on-going projects was conducted to enable the better prioritization of capital spending (IMF, 2019). Following the review, some spending was reallocated to support reconstruction efforts.

Figure 1.11
Capital spending, 2016-19 average



Source: IMF Article IV reports
Note: Using FY (October-September) for the Myanmar and Thailand data.

Figure 1.12
Current and capital expenditure



— Current expenditure — Capital expenditure
— Capital expenditure (EDL)

Source: MOF, EDL Financial Statements 2014-18.
Note: EDL capital expenditure is proxied by capacity expenditure from EDL financial statements. EDL capital spending is not part of the budget.

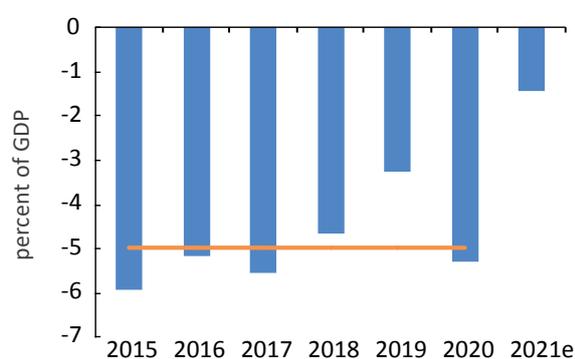
Public and publicly guaranteed debt: trends and risks

Public and publicly guaranteed debt has risen sharply due to persistent fiscal deficits; debt-financed spending by EDL; the accumulation and subsequent clearance of government spending arrears; and kip exchange rate depreciation.

Total PPG debt has risen sharply in recent years to an estimated 88 percent in 2021, of which the vast majority is owed to external creditors (see Figure 1.13). Most of the increase over the five years to 2020 was attributable to a combination of fiscal deficits – averaging around 5 percent of GDP between 2015 and 2020 (Figure 1.14) – and EDL debt accumulation (see below). But a further pronounced rise in 2021 occurred due to a sharp exchange rate depreciation (which increased the kip value of foreign currency denominated debt) and as government settled its accumulated spending arrears via domestic bond issuance, with the result that these arrears became explicitly recognized as government debt. As of 2021, Laos

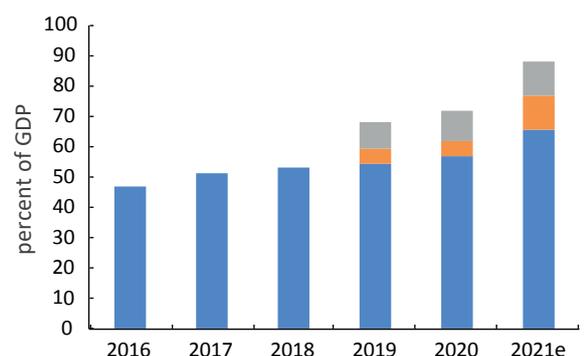
had among the highest levels of PPG debt in the region (see Figure 1.15). High nominal GDP growth rates (averaging 8.5 percent per annum between 2016 and 2019) prevented debt from increasing even faster in proportion to GDP.

Figure 1.14
Fiscal deficit



— Average 2015-2020
Source: World Bank staff estimates, April 2022

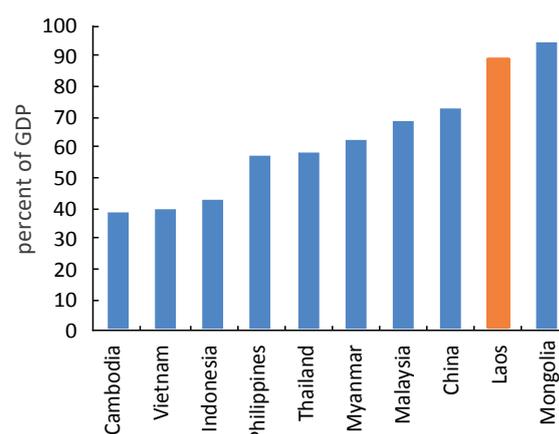
Figure 1.13
Total PPG debt



■ External public debt ■ Domestic public debt ■ Publicly guaranteed debt

Source: MoF
Note: Preliminary estimate for the 2021 data as of March 2022. External (public) debt includes on-lending to SOEs. If the disbursement of the currency swap agreement between the BoL and the PBoC is included, total PPG debt in 2021 would rise from 88 to 90 percent. Data on publicly guaranteed external debt (which includes direct borrowing by SOEs) and public domestic debt is not available prior to 2019, so there is a break in the series at that point.

Figure 1.15
PPG debt, 2021



Source: International Monetary Fund, World Economic Outlook Database, April 2022.
Note: The 2021 data are estimates except for Indonesia, Mongolia and Philippines. The 2021 Lao PDR data is based on WB estimates.

EDL's capital investments, which are not captured in government spending or fiscal deficits, have made a large contribution to the increase in PPG debt. EDL's financial statements indicate that expenditure to expand generation capacity stood at 6-7 percent of GDP in the period between 2015 and 2018.¹⁸ This implies that EDL's capital spending was equivalent to around 75 percent of total government capital spending for that period (see Figure 1.16). While the investment spending of EDL is not included as part of the government capital spending discussed above, this spending on expansion in hydropower generation capacity has resulted in large debts that are ultimately the responsibility of the state. The EDL borrowings have either been a) on-lent by the government, therefore directly contributing to public debt; or ii) directly lent to EDL, in which case they are covered by a sovereign guarantee and are considered as publicly-guaranteed debt. Thus, all EDL debt can be categorized as public or publicly-guaranteed (PPG) debt. In 2020, 60 percent of EDL's estimated \$4.4 billion debt stock (25 percent of GDP) was on-lent by the government, with the remainder borrowed directly by EDL from creditors (with a government guarantee). It is estimated that the increase in EDL debt between 2015 and 2020 has accounted for around half of the increase in total PPG debt over that period.

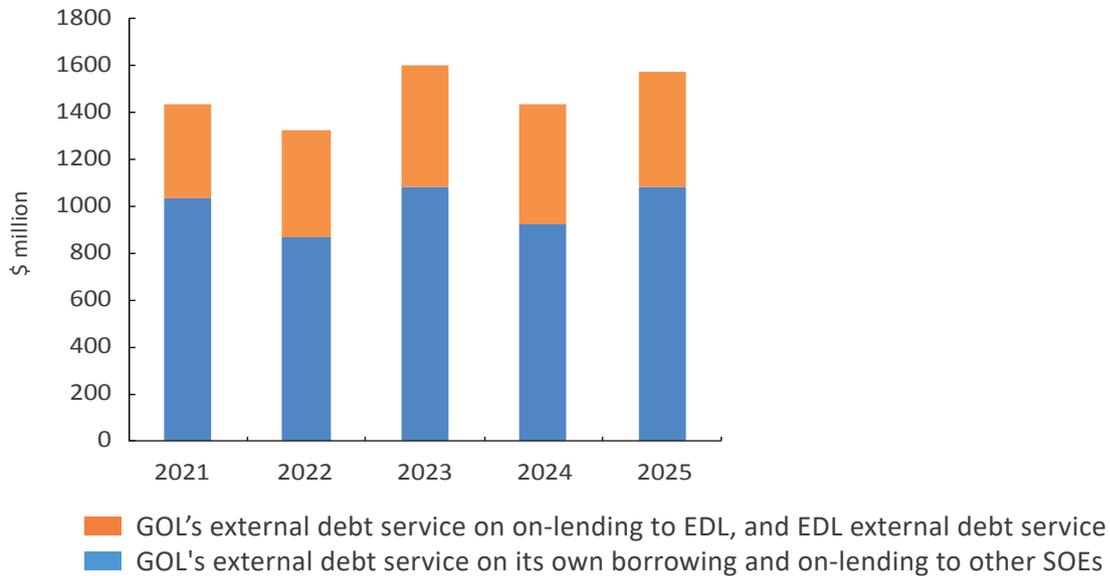
The increase in debt has been reflected in correspondingly high debt service obligations, exacerbated by recent interest rate and exchange rate movements and reduced access to external markets.

The debts accumulated by EDL have led to significant debt service commitments, which will be difficult to meet without financial support. As of 2020, the scheduled principal and interest payments associated with govern-

ment on-lending and direct borrowing by EDL stood at an average of almost \$500 million annually over the next five years, or close to two thirds of EDL's current revenue. In addition, EDL has run substantial operating losses, due to increasing power purchase costs, inflexible purchase contracts, and low domestic and export tariffs, with domestic tariffs having recently been further reduced temporarily as a response to the pandemic (see Chapter 2). While an upfront payment associated with the recent signing of a concession agreement to operate the power grid may help EDL to meet debt service and cashflow obligations in the short term, it will create further cashflow pressures in the medium-term.

There is a risk that government may be forced to assume some part of EDL's debt service obligations, adding to its own already heavy debt service burden. Total government debt service obligations have risen sharply since 2015. In 2020, the government's external debt service obligations – excluding the servicing of EDL's debt – were estimated as averaging around \$1 billion annually between 2021 and 2025, close to 6 percent of 2020 GDP, or around a third of government spending. Without significant new financing, meeting these obligations would require a significant contraction in spending in other areas, placing the provision of basic public services at risk. If EDL is unable to finance its debt service obligations on its own, the burden on the government budget could rise even further (see Figure 1.16). A debt renegotiation with China, which involved the suspension of principal repayments in 2020 and of principal and interest payments in 2021 (the impacts of which are not included in the chart), helped reduce immediate debt service pressures. However, in the absence of further concessions, the suspension has the potential to result in higher debt service obligations over the medium term.

Figure 1.16
Total PPG external debt service projections

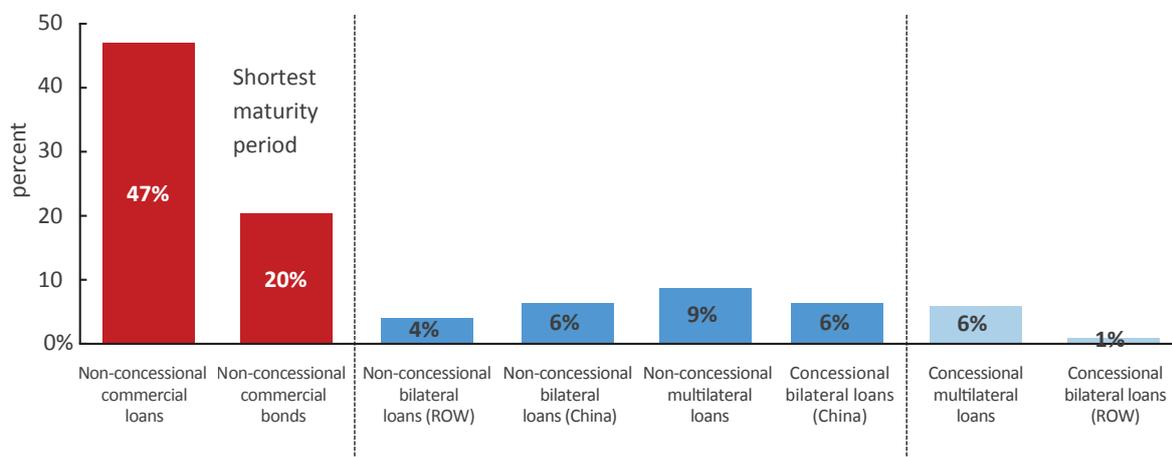


Source: Data is based on MoF and World Bank staff estimates.
Note: Excludes impact of suspension of principal and interest payments to China in 2021.

The high levels of debt service obligation currently falling due are partly attributable to the short maturity periods and high interest rates attached to recent commercial borrowing. Non-concessional commercial bonds and loans comprised around 22 percent of the total public external debt stock in 2019, but accounted for half of all amortization payments due in 2020 (see Figure 1.17). The maturity periods for com-

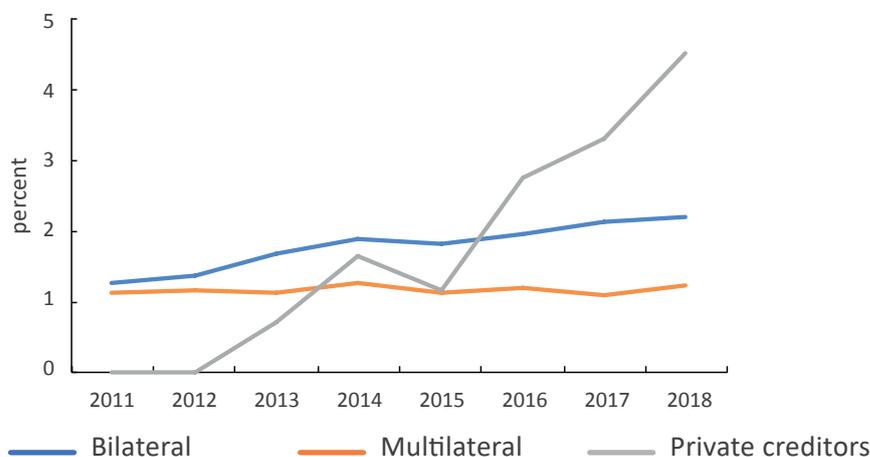
mercial debt tend to be very short, with interest rates having risen sharply in recent years, in part due to the increased risk of debt distress associated with the rapidly growing stock of debt. Concessional bilateral and multilateral loans comprised around 57 percent of Laos' total public external debt, with the maturities associated with these loans tending to be longer, and the interest rates lower (see Figure 1.18).

Figure 1.17
Debt service requirements by concessionality, creditor and instrument
(ratio of amortization by instrument in 2020 to stock of debt by instrument in 2019)



Source: WB calculation based on MOF inputs.

Figure 1.18
Average interest rates by creditor type, 2011-2018 (percent per year)

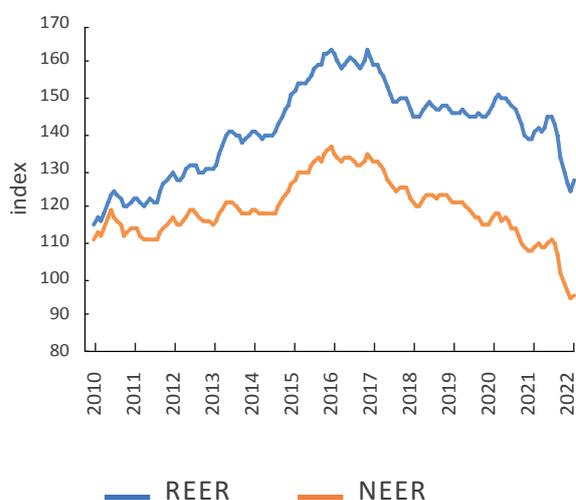


Source: International Debt Statistics 2021.

The depreciation in the value of the kip since 2017 has also increased the value of external debt and debt service requirements in the local currency. Most of Laos' public debt is denominated in US dollars. Over the 2010-2017 period, the value of the kip appreciated steadily, reflecting Laos' strong growth in mining and electricity exports over this period, helping to contain increases in the local currency value of foreign debt. However, since 2017, the value of the kip has declined as a result of balance of payments pressures (including increased demand for imports) and the strength of the

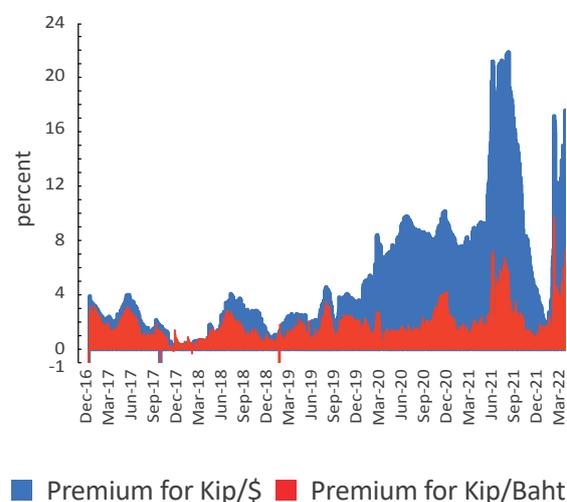
US dollar, with this depreciation accelerating in 2021 (see Figure 1.19). There is also evidence that the official exchange rate remains above market-determined levels, with the gap between the official and parallel market US dollar exchange rates increasing through 2020 and widening even further in 2021 (see Figure 1.20) (World Bank, 2021b). While this depreciation increases the competitiveness of the non-resource sector, it has also added to external debt service costs, driven up inflation, and exacerbated currency mismatches on banking sector balance sheets.

Figure 1.19
Nominal and real effective exchange rates



Note: An increase in the index indicates appreciation of the kip against a basket of trading partners' currencies.

Figure 1.20
Parallel market premia



Source: IMF International Financial Statistics.

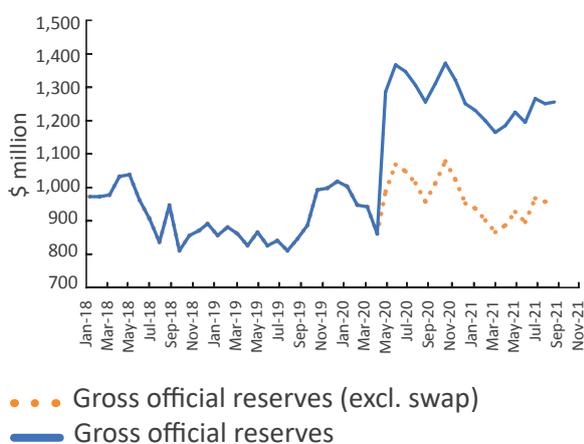
The government had struggled to roll over its debts or to attract new financing from international markets to meet its debt service obligations, but experienced more success issuing in the Thai market in 2022. Several attempts at issuing dollar bonds in 2020 and 2021 were cancelled or postponed. Laos’ sovereign credit rating has been downgraded by Moody’s, Fitch, and TRIS, with a negative outlook based on the view that financing pressures are unlikely to abate, at least in the short-to-medium term. However, in 2022 the government successfully issued bonds in Thailand for 5 billion baht (about \$149 million), with apparently strong appetite from high-net-worth investors.

Laos’ underdeveloped capital market and the limited capacity of its domestic banking system mean that the government has traditionally struggled to meet its financing needs through the domestic market, although public domestic debt increased in 2021. Local currency bonds have also become less attractive to non-state financial institutions in recent years due to the ongoing depreciation of the kip. Nevertheless, while domestic debt remains low overall, it rose to 11 percent of GDP in 2021 as the government issued bonds to banks to clear the debts of government

contractors (see below). The banking sector’s claims on the government doubled to 14 percent of GDP by the end of 2021, reflecting an increased reliance on short-term commercial borrowing and domestic bonds to meet liquidity needs for debt servicing.

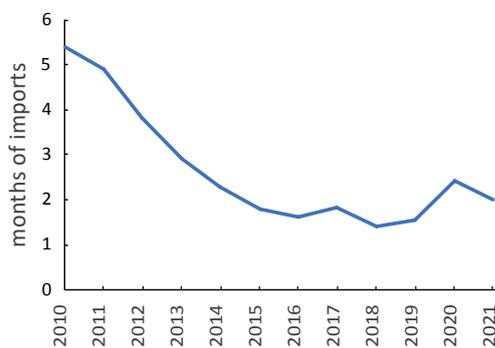
The Bank of the Lao PDR’s (BOL) reserves of foreign exchange are running low, exacerbating external financing risks. In addition to constraining the government’s ability to finance its external debt service obligations, low reserve buffers also limit the BOL’s ability to support the currency. The BOL’s recorded gross reserves increased in July 2020, supported by the extension of a RMB 6 billion (\$900 million) swap line by the People’s Bank of China (PBOC), and remained broadly stable over the subsequent period but only covered just over 2 months of imports of goods and services as of end 2021 (see Figures 1.21 and 1.22).¹⁹ BOL continues to contract foreign currency loans directly from commercial banks at commercial rates to assist the government to meet its external debt service obligations and to support foreign exchange reserves. This has the potential to crowd out credit to the private sector and to limit banks’ ability to provide foreign exchange to non-government customers.

Figure 1.21
Foreign exchange reserves



Source: BoL, WB staff estimates.

Figure 1.22
Import cover of foreign exchange reserves



Source: 2010-2020 data is from WDI, 2021 data is based on WB staff estimates.

Financial sector development and vulnerabilities

Already significant financial sector vulnerabilities have been exacerbated by the COVID-19 pandemic and rising macro-fiscal risks.

Laos already faced significant financial sector vulnerabilities prior to 2020, which have been exacerbated by COVID-19. While the banking sector is relatively well-capitalized overall, weaknesses are concentrated in two SOBs that have recently been restructured.²⁰ At the same time, the capital adequacy ratio of the largest commercial bank, which is also state-owned, declined markedly in 2020-2021. The economic downturn and response measures associated with the pandemic have further increased these vulnerabilities. As a result, it is likely that NPLs will increase in the most affected sectors. Moreover, at the onset of the pandemic, measures were enacted to increase liquidity in commercial banks and to encourage a continued flow of credit throughout the pandemic. These included lowering reserve requirements and the introduction of regulatory forbearance measures, such as credit moratoria; restructuring loans to reduce interest rates and extend maturities; and freezing loan classifications (which creates the risk that banks are not adequately provisioning for expected losses). Banks could potentially face capital shortfalls as they recognize losses once these regulatory forbearance measures are unwound. While officially reported NPLs are low, at 2.2 percent at the end of 2021, this figure is believed to understate the associated risks because of the implementation of forbearance measures, as well as longer-term issues around the weak enforcement of regulatory standards and the ever-greening of problem loans. Moreover,

performance in terms of return-on-equity and return-on-assets indicators has declined recently, with concerns related to the impact of macroeconomic instability, policy responses to the COVID-19 pandemic, and exchange rate pressures on banks' balance sheets.

Due to the large role of the state in the Lao economy, fiscal issues have the potential to quickly transmit to the banking sector. Banks are exposed to risks as a result of their holdings of government bonds and their issuance of loans to SOEs, the central bank, and government contractors. A further deterioration in government and SOE finances would therefore exacerbate ongoing financial sector weaknesses. The persistent recurrence of NPLs to SOEs has historically been attributable to the absence of a repayment culture, state interference in pricing and lending decisions, and protracted weaknesses in operations. The high level of government arrears to private contractors involved in public projects has also been a significant problem. Most of these arrears were reportedly cleared by the end of 2021, via the issuance of domestic government bonds to compensate banks for the loans that contractors took on to compensate for late government payments.²¹ But the government's current fiscal challenges create risks that arrears will re-emerge and further damage bank balance sheets. While SOBs are most directly vulnerable to these fiscal risks, other commercial banks, including joint-venture banks and foreign branches, also appear to be vulnerable due to their involvement in co-financing state-led public investment projects, and indirectly through their financing of contractors engaged on public infrastructure projects financed by government and FDI.

Policy recommendations

As of 2021, Laos' macro-fiscal situation has become critical, with urgent steps required to restore stability. The rapid buildup of debt over the past decade has resulted in substantial debt service obligations, which the government is now struggling to meet. This is likely to result in either a) a sharp reduction in government spending, with severe implications for public service delivery and the provision of public infrastructure; or b) a sharp reduction in access to financing over the longer term (in the event of default). Fiscal pressures are exacerbating pre-existing external and financial sector weaknesses, increasing the likelihood of disorderly exchange rate movements and foreign currency shortages, and potentially reducing the ability of the private sector to access credit.

Macroeconomic stability is a critical precondition for the achievement of sustainable and balanced economic development in Laos. It is particularly important for the development of the non-resource sector, which has the potential to act as a more inclusive driver of economic growth. It is necessary for the government to rebuild fiscal space to ensure adequate funding for public infrastructure and human capital investments, which are critical complements to private sector investments in the manufacturing and agriculture sectors. A more stable macro-financial framework would also serve to reduce uncertainty, to lower borrowing costs, to anchor return expectations for investments, and to increase business confidence — all of which are important conditions for the achievement of sustainable longer-term economic growth.

The immediate priority is to alleviate the fiscal burden of Laos' medium-term debt service obligations. Addressing these obligations will likely require some combination of the following: a) drawing on the existing revenue envelope; b) raising new external financing; c) enacting asset/equity sales; and/or d) restructuring existing debts to establish a more realistic debt service profile. Relying predominantly on the

first of these options is problematic, given that fiscal space is already severely limited. As discussed above, it would probably require a further sharp reduction in government spending which would harm future growth and thereby erode Laos' long-term repayment capacity. Moreover, even if space could be carved out in the budget, Laos' low levels of foreign exchange reserves are likely to act as a constraint.

Thus, it is likely that a combination of new external borrowing, restructuring of existing debts, and asset / equity sales will be required. But limited access to international capital markets will continue to constrain efforts to raise new external financing. As a step in the right direction, the government has already committed to borrow only to service existing market borrowing. In parallel, the government should expedite ongoing debt negotiations. Lowering debt service over the next five years and reducing total debt service obligations in NPV terms would provide the government with some space to resolve the issues related to EDL's debts; to implement reforms consistent with fiscal sustainability; and to regain reliable access to international markets. Finally, an expected payment associated with the recent signing of a concession agreement to operate the power grid (through EDL-T) could help the government to meet debt service and cashflow needs in the short term. There may be other opportunities to raise funds through such means, particularly in the electricity sector. However, a rigorous evaluation of such proposals is required: under the terms of the agreement, the EDL-T transaction will create additional cashflow pressures in the medium-term, illustrating the risks associated with arrangements of this type. In general, the future costs to the state of further asset or equity sales should be carefully accounted for and weighed against the upfront benefits of cash injections.

Over the medium term, a revenue-led fiscal consolidation is necessary to return public debt to more sustainable levels. Fiscal con-

solidation has so far been driven by expenditure restraint, with significant implications for service delivery. In the short to medium term, further progress is needed on the revenue side. Moreover, rather than a sharp adjustment to primary surpluses, it may also be prudent to target a more measured pace of consolidation, in order to protect expenditure on the delivery of critical services, the provision of public infrastructure, and the response to the pandemic, including during the recovery period. The introduction of a credible medium-term fiscal framework with consistent and clearly defined targets for the fiscal balance and public debt levels would play a strong positive role in providing a clear and easily-monitored pathway toward debt sustainability.

The government could improve revenue mobilization through a number of means, including measures to rationalize tax incentives, to increase collection from the resource sector, and to improve the efficiency of revenue administration. The adoption of a rules-based tax incentives system, informed by a comprehensive review of existing tax incentives, could raise tax productivity, while at the same time improving the predictability of the investment environment. As a first step, the review should quantify forgone revenues from tax incentives and report this cost as part of the national budget, thus creating greater transparency and accountability. While collections are likely to improve as concessions granted to hydropower projects expire, more could be done to rationalize the exemptions offered to investors and to limit the level of discretion in project-level tax agreements in both the hydropower and mining sectors (see Chapter 2). In tax administration, immediate priorities should be to strengthen the capacity of tax administration institutions; to improve the monitoring and management of large taxpayers; to increase the efficiency of tax collection (including by expanding the coverage of electronic payments systems); and to

enhance risk-based audits and inspections to reduce tax evasion.

Improved public investment management and strengthened project selection and appraisal processes could play a critically important role in preventing a further build-up of unsustainable debt-financed capital spending. Investment projects should be consistent with the priorities expressed in country development plans; selected after a careful assessment of social, economic, and environmental impacts; and financed at the most favorable terms available. Debt-funded projects should only be approved if they can be shown to have strong potential to produce positive economic returns and if their financing requirements are consistent with the achievement and maintenance of overall fiscal sustainability. The estimated value of the public capital stock has grown quickly over the past 20 years (from 25 percent of GDP in 2000 to over 75 percent in 2019), to a level which is comparatively high for a country at Laos' income.²² This raises questions as to whether these investments have achieved positive returns sufficient to cover the associated debt service obligations and to how rigorously screening processes have been implemented. Energy sector investments should be guided by a least-cost expansion plan to guide the prioritization of new generation investments, which is based on realistic demand forecasts, and which is accompanied by a well-formulated transmission and distribution expansion plan (see chapter 2).

The ongoing maintenance costs associated with infrastructure investments should be an integral part of the cost-benefit analyses upon which project selection processes are based. Growth in the public capital stock necessitates an increase in the resources allocated for maintenance. Applying a standard 6 percent per year depreciation rate, Laos would need to allocate funds to a value of 4 percent of GDP

annually to adequately maintain the public capital stock, equivalent to approximately half of Laos' expenditure on new public infrastructure in recent years. If the maintenance of PPP assets is factored in, this increases to more than 8 percent of GDP, the highest level in a group of comparator countries. The magnitude of these costs illustrates the importance of incorporating maintenance needs into the cost-benefit analysis for any given project and of the need for solid analysis of the project's effects on overall fiscal sustainability.

Fiscal risks and contingent liabilities associated with SOEs and public-private partnerships need to be carefully assessed and managed. The viability of the proposed project; the financial position of the SOE and the risks it faces; and the terms of the proposed financing should be evaluated against clear criteria before any on-lending or government guarantees are approved. The government should also continue to strengthen its capacity to manage indirect contingent liabilities in PPPs, to ensure that risks and obligations are efficiently distributed between government and private sector stakeholders. The enhancement of investment protection mechanisms; the harmonization of legal issues relating to PPP contracts; and the establishment of appropriate procurement arrangements are all vitally important in this context.

To address the weaknesses in the financial sector, steps should be taken to resolve balance sheet vulnerabilities in SOBs and to reassess their role in the provision of credit to government and SOEs. Over time, it is important for the government to reduce its dependence on SOB loans (both directly, particularly with respect to foreign currency loans, and indirectly through arrears to the construction sector). The distortions to credit allocation that result from this dependence include impairments to

the balance sheets of SOBs, due to the non-performance of loans to government and SOEs, and the crowding out of credit to the private sector. With the poor performance of previous reform efforts, there appears to be a need to pursue more aggressive strategies to improve the competitiveness of SOBs and to strengthen their transparency and governance.

Ongoing structural reforms will be required to restore and maintain the stability of the financial sector. The banking sector is likely to emerge from the pandemic with weakened balance sheets, which will limit its ability to finance an economic recovery into the future. The impacts on performance of commercial banks need to be closely monitored, with forbearance policies being unwound cautiously. While the financial sector's regulatory and supervisory capacity have been improved through a number of legal reforms,²³ the development of the necessary secondary regulations has been slow and implementation and enforcement has been inadequate. Institutional weaknesses in banking supervision continue to pose risks to financial stability. Amongst the reforms necessary to strengthen the resilience of the financial sector, there is a need to develop and implement various secondary regulations, including early intervention and problem bank resolution, to transition to Basel II standards to increase capital buffers; to implement risk-based supervision systems; and to enact a number of measures to increase transparency. The deposit insurance system also remains untested. The BOL has only limited capacity to act as a lender-of-last-resort due to high level of financial dollarization and low levels of foreign exchange. In this context, it is vital to develop systems to prevent and mitigate the impacts of financial crises, including through the establishment of a formal, inter-agency crisis management framework.

Notes

- 16 Regional peers include Cambodia, Myanmar, Thailand, and Vietnam. Structural peers include Bhutan, Bolivia, Ghana, Kyrgyz Republic, Mongolia, Nepal, Uzbekistan, Papua New Guinea, Zambia, and Zimbabwe. Aspirational peers include Botswana, Kazakhstan, Paraguay, and Peru. The data for Bhutan, Bolivia, Mongolia, Botswana, and Kazakhstan are not available.
- 17 IMF (2019), Lao PDR Article IV Consultation, August 2019.
- 18 Data is not currently available for 2019 or 2020.
- 19 Gross reserves include the partial disbursement of the currency swap agreement between the BoL and the PBoC.
- 20 The restructuring of the two-state owned banks was completed in 2021, and appears to have improved financial performance of the two SOBs, as reflected in an improvement in reported financial soundness indicators. However, the limited disclosure of transaction details precludes a complete assessment of the impact on financial stability.
- 21 Prior to 2021, these arrears were not included in the estimates of domestic public debt presented above. In 2021, the government issued domestic debt to banks to clear these arrears.
- 22 Adding in the physical assets of EDL raises this ratio to over 110 percent, and including PPPs brings the total to over 180 percent.
- 23 The Commercial Banking Law (2019) provides BOL with broad legal authority to enforce prompt corrective actions, the legal mandate to impose higher capital requirements, and sufficient capability to conduct supervision at a consolidated level. The amended BOL Law which was passed in 2018 is an improvement over its predecessor in terms of distinguishing Emergency Lending Arrangement, Lender of Last Resort, and funding for systemically important banks.

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CHAPTER 2

Ensuring the Use of Natural Capital is Socially and Environmentally Sustainable

Key messages

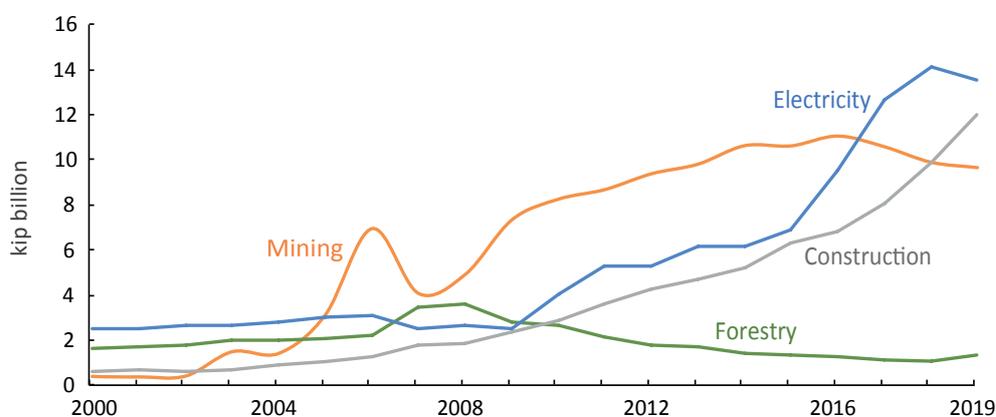
- **For the hydropower sector, the critical short-term priority is to establish a financial recovery program for Electricité du Laos and to reduce its debt service obligations.** Project selection and procurement methods need to be strengthened, and EDL should review options to ensure the financial sustainability of its payments to IPPs, while recalibrating tariffs so that they cover costs.
- **Achieving Laos' longer-term aspiration of becoming the “battery of Asia” will require an integrated approach to the construction and maintenance of transmission and interconnection infrastructure,** which has not kept pace with growth in generation capacity. This causes system losses and power outages, constraining ability to meet regional demand.
- **Cleaner renewable alternatives to coal are needed to offset the seasonality of hydropower supply,** together with concerted efforts to manage the cumulative social and environmental impacts of hydropower dams.
- **Investment in mining has declined due to restrictions on new operations and a lack of clarity in the overall regulatory framework.** More could be done to encourage new investment by responsible operators, including through measures to limit discretion in licensing decisions, to reduce domestic value-adding requirements, and to ensure clear and enforceable expectations for concession holders, especially regarding fees and revenue-sharing arrangements.
- **Limiting the negative environmental impacts of mining operations should be a top priority.** Despite severe fiscal pressures, it is important that financial, environmental, and social safeguards are not loosened to encourage otherwise unviable mining operations.
- **Laos is shifting away from extraction-based forestry towards the more sustainable management of natural forests, with an emerging plantation forest economy.** But more could be done to restore forest cover and to ensure the protection and sustainable use of existing forested areas, including by enabling a greater role for village-based forest management.
- **Investment and licensing processes for the plantation industry should be standardized and aligned with the sustainable carrying capacity of the land.** Land classifications should be reviewed, with competing land uses resolved and land allocation decisions made more transparent. For nature-based tourism to realize its potential as a source of support for rural livelihoods, constraints on investment need to be addressed.

Introduction

Over the past two decades, Laos' rapid economic growth has been largely driven by the capital-intensive resource sector and supported by infrastructure development, but these drivers of growth are now facing structural constraints. While the mining sector was the key driver of growth until 2010, since then growth has been increasingly driven by the hydropower sector. In 2010, operations commenced at the Nam Theun 2 hydropower plant (NT2), signaling the beginning of this transition, which accelerated from 2015 onwards (see Figure 2.1). With associated major investments in dams, mines, and other

infrastructure, this led to a corresponding boom in the construction sector. While the general population has benefited from improved access to electricity services, there have been only limited spillovers to jobs creation. At the same time, the contributions of the hydropower and mining sectors to fiscal revenue have been quite limited, at least partly due to the prevalence of tax exemptions used to incentivize investment. In addition, investments in the power sector have resulted in an unsustainable build-up in public and publicly guaranteed debt, posing significant threats to overall macroeconomic sustainability.

Figure 2.1
Resource sector contributions to GDP (2012 constant prices)



Source: <https://seadelt.net/Documents/?of=1&os=d>

Moreover, hydropower development, agricultural expansion, and previous mining and logging operations have all resulted in the rapid depletion of Laos' natural capital. Proven mineral reserves had depleted to the extent that a number of major mines were planning to close operations, at least before the recent rise in gold and copper prices. Over the 2000-2015 period, net accumulated deforestation stood at 2.9 percent (approximately 680,000 ha), and the quality of remaining forests was

degraded. Deforestation has been driven primarily by the expansion of sedentary and shifting agriculture and the construction of hydro-dam reservoirs and transmission lines, new mining sites, and other infrastructure. In 2015, forest cover stood at 58 percent, well below the National Forest Strategy target set at 70 percent for 2020. In addition, the increase in hydropower projects has resulted in altered river flows, negatively impacting fisheries, biodiversity, and downstream agriculture.

Following this depletion of forests and mineral resources, the contribution of the logging and mining sectors to economic growth is now declining. Until recently, the mining sector was expected to contract rapidly over the next five years, with the closure of a number of large operations and with no new major projects in the pipeline. The forestry sector has been in decline since 2008, and particularly after 2013, when Laos was subject to a logging ban applying to natural timber in production forests. This measure was followed by an export ban imposed in 2016. With the decline of forest resources and the stricter enforcement of regulations, the logging sector's contribution to Lao's overall growth has declined significantly. The sector is further threatened by the ongoing conversion of forest lands for agriculture and other purposes.

While Laos has successfully developed the capacity to generate hydro-electricity both for export and to meet domestic needs, this growth in capacity has been marred by a lack of coordination in sector planning; the limited use of competitive procurement practices; and weak institutional oversight. Exports have grown quickly, and domestic access to electricity has rapidly increased. But sub-optimal investment planning, unfavorable power purchase terms, and uncompetitive procurements have had a negative impact on the operational and financial sustainability of the national power utility, Électricité du Laos (EDL), leading to the accumulation of large debts and persistent operating losses. These are now causing extreme fiscal stress. System stability challenges will require the adoption of new technologies and additional investments to enable the use of cleaner energy sources than coal to offset the seasonality of hydropower. Furthermore, the use of inadequate transmission systems means that EDL is unable to evacuate its facilities' full generation capacity. This, together with

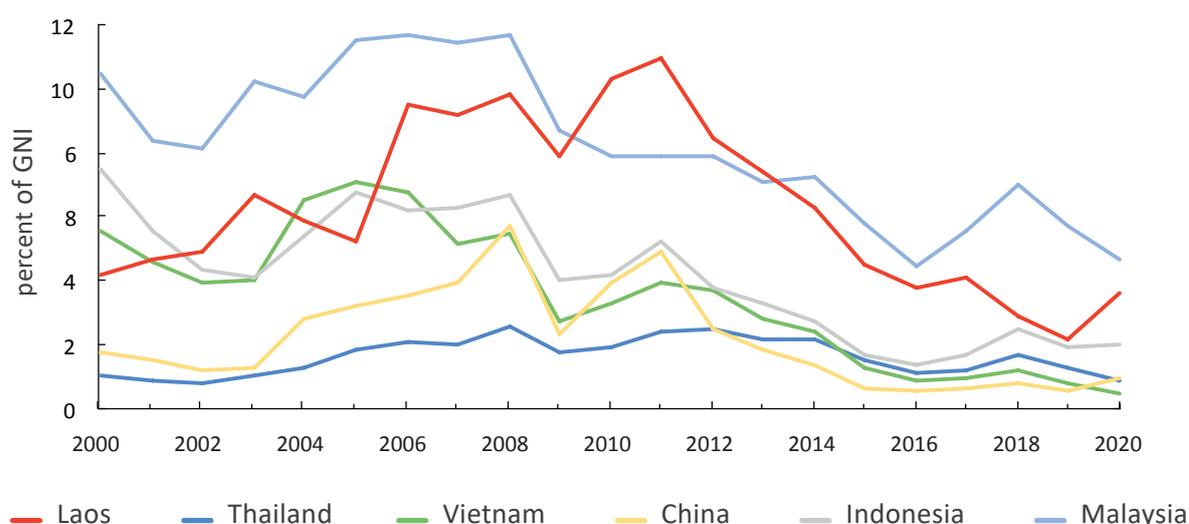
tariffs that are below cost recovery and the high costs of power purchases are all factors that threaten the financial viability of this sector, and constrain it from reaping its full potential as a future driver of growth. At the same time, the cumulative impacts of dam development are rising, while the management of water resources is lacking in some areas. The increasingly severe effects on downstream ecosystems and communities mean that the environmental sustainability of the sector is also at risk.

Overall, resource sector management has improved in recent years, though implementation capacity remains weak. The rate of natural resource depletion has slowed over the past decade (see Figure 2.2). The two largest mining operations have been well run, managing their environmental risks in accordance with international best practice and largely self-regulating through audits conducted by accredited independent consultants. The large mines pay a relatively high proportion of mining revenues to the state, although the Ministry of Finance (MOF) has experienced challenges in its efforts to obtain accurate accounts of revenues and payments of royalties from small and medium-sized mining operations. The government imposed a moratorium on new mining concessions in 2012 to address the issues involving smaller operators, with the Ministry of Energy and Mines (MEM) introducing an improved mining law to ensure the more sustainable management of the sector, although implementation on the ground remains incomplete. The government has implemented initiatives to ensure more sustainable forest management, including through the development of a sustainable plantation economy, with measures to reduce unsustainable logging practices and the conversion of natural forests to non-forested land. The government has acted to encourage sustainable plantation forest production; to control the expansion of unregulated planta-

tions; and to introduce more sustainable participatory natural forest management practices, based on a recognition that these practices can play a positive role in facilitating the sustainable production of wood and forest products. There have also been gradual improvements in environmental and social policy in the hydropower sector, including the development of the Policy on Sustainable Hydropower Development (PSHD) in 2015 and the revised Electricity Law in 2017, which provide detailed standards to ensure the safety of hydropower plants and associated facilities. These policies built on the experience of Nam Theun 2, an early-stage

export-oriented hydropower project, which included mechanisms to pay for ecosystem services provided by other sectors (World Bank, 2019a). However, a recent evaluation found that the project was largely unable to protect the biodiversity offset in the Nakai-Nam Theun National Protected Area watershed, due to ineffective institutional arrangements, limited capacity, inadequate monitoring, and unrealistic targets (World Bank, 2021). Overall, while official policies based on international best practices exist in law, gaps remain in the capacity to ensure and monitor their implementation.

Figure 2.2
Natural resource depletion



Source: World Development Indicators.

Ten years ago, the World Bank's Lao PDR Development Report (2010) cautioned that for the presence of natural resource wealth in a country to facilitate the achievement of inclusive, sustainable growth, a number of conditions must be met. In particular, the report focused on the need to ensure that benefits are broadly distributed; that natural capital is

transformed into productive physical capital; and that the macroeconomic, social and environmental risks arising from the exploitation of these resources are well-managed. It also pointed out the risks associated with a growing governance gap between the demand for natural resources and the capacity of the government to manage them sustainably.

Several of these risks have materialized in the decade since the publication of this report, although there have also been some improvements in natural resource management. Consistent with the global evidence presented in the report, challenges in managing Laos's natural resource endowment have grown in line with the scale of the resource rents that have been received and the number of projects that have been initiated, in an environment where capacity to manage and monitor projects is limited. Investment in a number of resource projects has been accompanied by a substantial increase in fiscal risks, with relatively little positive impact on government revenues to date. At the same time, there have been recent improvements in the assessment and mitigation of environmental and social risks, supported by development partners including the World Bank.

With further improvements to the environmental and economic management of Laos's natural resources — building on recent progress — a more sustainable contribution to growth and livelihoods is possible. With measures to put the hydropower sector on a more stable and sustainable financial footing, Laos has the potential to achieve its aspirations of becoming the “battery of Asia,” capitalizing on the growth in the demand for electricity in the region. But further policy reforms and efforts to bolster implementation are needed to ensure that the country can sustainably deploy its full clean energy potential and find alternatives to coal to offset the seasonality of hydropower. In the medium term, the mining sector is unlikely to continue to be as important a driver of future growth as it has been in the past. While some major existing mines are approaching exhaustion, the government

could implement a range of measures to encourage new explorations. At the same time, it is important that environmental and social safeguards are maintained, despite pressures to allow the resumption of marginal or environmentally damaging operations. In the area of forestry, the priority should be to ensure the achievement of the government's target of restoring 70 percent of forest cover, with the timeframe for this target having been extended to 2030, from the previous target date of 2020. Recent plans to establish commercial plantations have strong economic potential, while being fully consistent with the government's reforestation target. Improvements to the protected area management system could also help to boost Laos' nature-based tourism potential, enabling it to capitalize on its globally unique biodiversity.

In all these subsectors, good governance is critically important to strengthen project selection and approval processes; to mitigate any cumulative negative effects resulting from resource extraction; and to clarify and manage trade-offs and opportunities between various land uses. At present, land-use planning processes in Laos tend to involve the granting of single land use rights and the allocation of exclusive concession areas. The development of a multiple-land use system that enables the coexistence of different land uses and that provides compensation for loss of pre-existing rights would help to ensure that development decisions are based on considerations of the best economic use of land. However, this would require close coordination and data sharing between agencies and departments, and the extensive use of geographical information systems as a key planning tool.

Hydropower

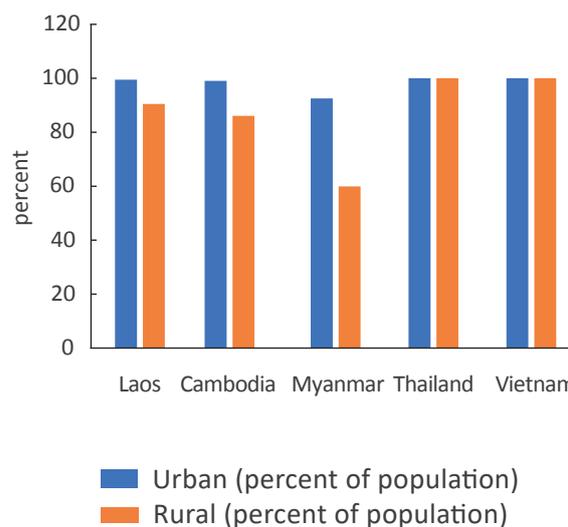
An expansion in hydropower generation capacity has led to high domestic electrification rates.

Starting from a mere 15 percent electrification rate in the mid-1990s, Laos has now achieved near-universal electrification in urban areas and a very high rate in rural areas. With an electrification rate of about 90 percent in rural areas, Laos has the best access to electricity among low-income countries in the region (see Figure 2.3), with levels comparable to its upper income neighbors, Thailand and Vietnam. However, the quality of these services is variable. In 2019, transmission and distribution losses stood at 12 percent of total power generated, significantly higher than the regional average. This rate has increased over time, rising from 10 percent in 2015, indicating a deterioration in the quality of the country's transmission and distribution network.

Over the past two decades, installed generation capacity has increased more than 15-fold. While Laos had only 640 megawatts (MW) of installed capacity in 2000, by the end of 2020, this had increased to 10,076 MW, around 80 percent of which consisted of hydropower.²⁴ Over the last five years the country's installed capacity doubled, due largely to hydropower investments. Since 2015, the use of coal was introduced to: a) offset power supply shortages during the dry season resulting from the seasonality of hydro generation; and b) ensure the constancy of the supply of the hydropower exported to neighboring countries. In 2020, coal-generated electricity accounted for around 19 percent of the total installed capacity. The government has plans to develop additional thermal capacity, utilizing both domestic and imported coal, which would undermine Laos' efforts to present itself as a provider of clean energy for the region.

While hydropower generation capacity is planned to grow, this growth faces structural and environmental limitations. Based on the

Figure 2.3
Access to electricity in Laos and neighboring countries



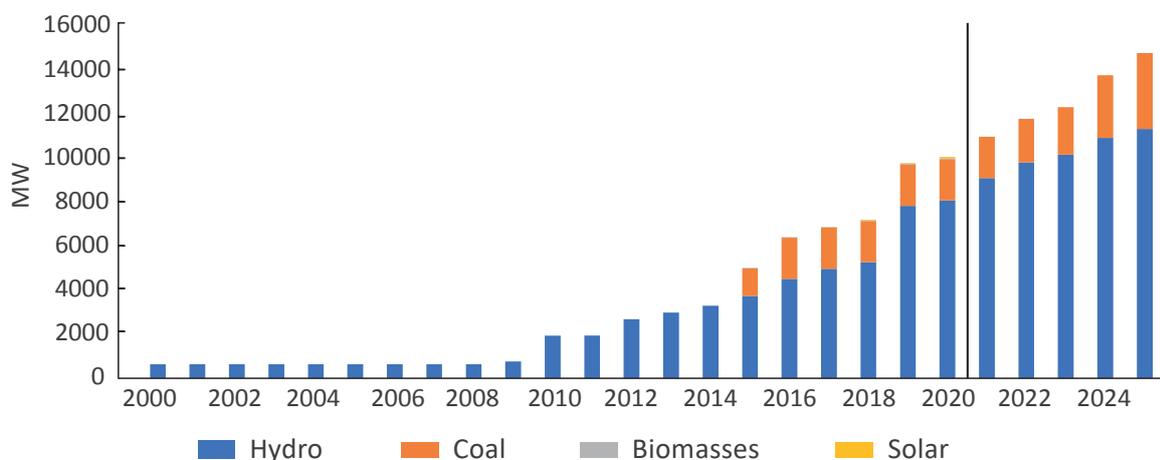
Source: WB Sustainable Energy for All (SE4ALL) database, 2020.

targets in the National Power Development Plan, installed capacity is projected to increase by almost 50 percent over the next five years, to 14,800 MW (see Figure 2.4), with hydropower accounting for around two thirds of this increase. While hydropower is a renewable source of energy, further development is limited by the extent of natural endowments and considerations related to ecosystem sustainability. Based on Laos' annual water discharge, its hydropower potential is estimated at 25,000 MW, out of which about 18,000 MW is technically exploitable. The government's plans imply that around 60 percent of this technical potential will be exploited by 2025. However, for future hydropower development to be economically viable, structural power system issues need to be addressed. Since most Lao hydropower plants are run-of-river facilities that channel flowing water from a river through a canal or penstock to spin a turbine, their power generation output varies significantly between the dry and wet seasons, creating issues related to grid stability and oversupply during the wet season. The need to diversify the energy mix

and find alternatives for base load generation are constraining the economic viability of further hydropower development. Moreover, the environmental sustainability of any planned developments will depend on sound water

resource management planning, in coordination with a wide range of stakeholders throughout the broader Mekong region, with the implementation of robust environmental standards to safeguard natural ecosystems.

Figure 2.4
Installed power capacity: historical and projections



Source: MEM data.

The power sector has contributed significantly to the economy, but this growth has not been particularly inclusive and has come with substantial environmental costs.

While the contribution of the power sector to GDP has increased steadily over time, this has not been reflected by proportionate increases in employment. The contribution of the power sector to national GDP has been increasing steadily, rising from 3 percent in the mid-2000s to more than 10 percent in 2017 and 2018 (see Figure 2.5). However, its contribution to employment has remained modest. In 2017, around 10,000 workers were directly employed in jobs related to electricity, gas, steam and air conditioning supply, accounting for less than 1 percent of total jobs generated in that year and with a heavy bias toward the employment of men.

Some of this contribution to GDP has also come at the expense of natural capital. In several areas, hydropower projects have altered river flows, significantly impacting fisheries, biodi-

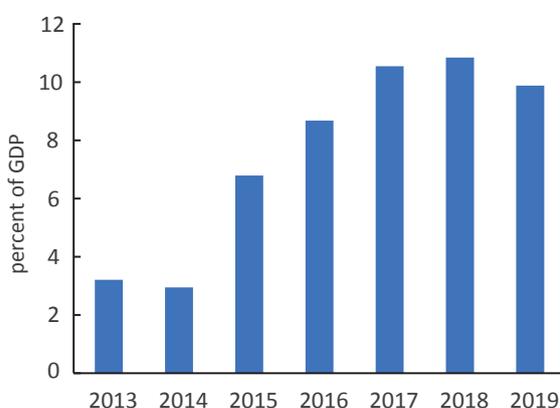
versity, and downstream agriculture. They have also resulted in the losses of forest resources, which otherwise could have been used to produce a wide range of forest products (wood and non-wood) and ecosystem services, including watershed management, climate change mitigation, disaster risk reduction and the conservation of biodiversity.

While the power sector’s contributions to government revenues have also been relatively modest, this situation may improve over the next few years as government incentives to developers are phased out. The state earns royalties, collects taxes, and in some cases receives dividends from private-sector independent power producers (IPPs), who account for around 90 percent of the country’s generation capacity and for around 94 percent of its power exports. While royalties have fluctuated in recent years, they have been on an increasing trend, with their proportionate contribution to total government revenues increasing from 1.3 percent in 2010 to 2.4 percent in 2019

(see Figure 2.6). While information on the collection of other forms of revenue (taxes, dividends, dividend tax, in-kind payments) is not available, the MOF estimates that the total revenues attributable to the power sector stand at less than 10 percent of total fiscal revenues. This relatively modest contribution is mainly due to power generation projects benefiting from government

incentives (profit tax exemptions, low royalty rates, and other incentives) during the first five to ten years of their operations, with these incentives provided to stimulate private-sector investments. As the operations of these IPPs mature and these incentives are phased out, government revenues from the sector could increase substantially over the next five to ten years.

Figure 2.5
Power sector value added

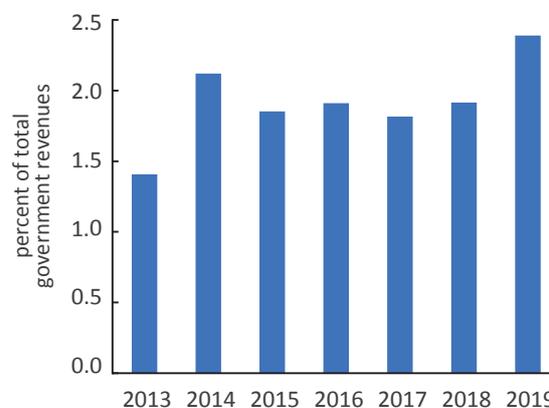


Source: LSB.

With the government’s push to become the “battery of Asia,” Laos has become a significant exporter of electricity to neighboring countries.

Since the 1990s, Laos’ abundant hydropower resources have been recognized as a key natural asset with significant investment potential. As a result, the number of individual dams on the Mekong and its tributaries has increased from 12 to 65 since 2000. The expansion in hydroelectric power generation capacity was initially driven primarily by foreign direct investment, with the outputs intended principally for export. Several hydropower projects exported directly to Thailand, sometimes also supplying small volumes of power to Laos’ domestic grid. These projects involved private, foreign financing, backed by long-term power purchase agreements (PPAs) with the Electricity Generating Authority of Thailand (EGAT).

Figure 2.6
Power sector royalties



Source: WB calculations based on MOF Fiscal Reports.

This arrangement enabled developers to gain access to long-term affordable financing without requiring state guarantees. Under these arrangements, Laos could benefit from increased construction-sector activity and some employment creation, along with a steady inflow of foreign exchange deriving from electricity royalties and a share of the profits, while Thailand received a reliable source of renewable energy. Nam Theun 2 is an illustrative example of an early-stage export-driven project, developed as a public-private partnership (PPP) between the Lao government and a consortium of private investors. This large, complex project was developed with minimal cost and time overruns, with attention paid to social and environmental management. Many power development and financing features of the NT2, such as the PPP approach and project agreements, have served as models to structure subsequent hydropower investments in the country.

Laos now exports more electricity than any other country in Southeast Asia and ranks in the top 20 electricity exporters in the world. In 2019, export-oriented IPPs accounted for approximately 69 percent of Laos' total installed capacity, with these IPPs selling the majority of the power they produced directly to neighboring countries through bilateral PPAs and captive transmission lines. These IPPs accounted for more than 90 percent of Laos' total exports of around 25,900 GWh in 2019, with the state-owned operator EDL accounting for the remainder. Thailand is the largest purchaser of the electricity produced in Laos, accounting for around 95 percent of Lao's power exports and approximately three quarters of the 32,400 GWh total power supplied cumulatively by EDL and IPPs.²⁵ However, Laos also imports power from Thailand during the dry season, with EDL importing approximately 1,300 GWh in 2019.²⁶

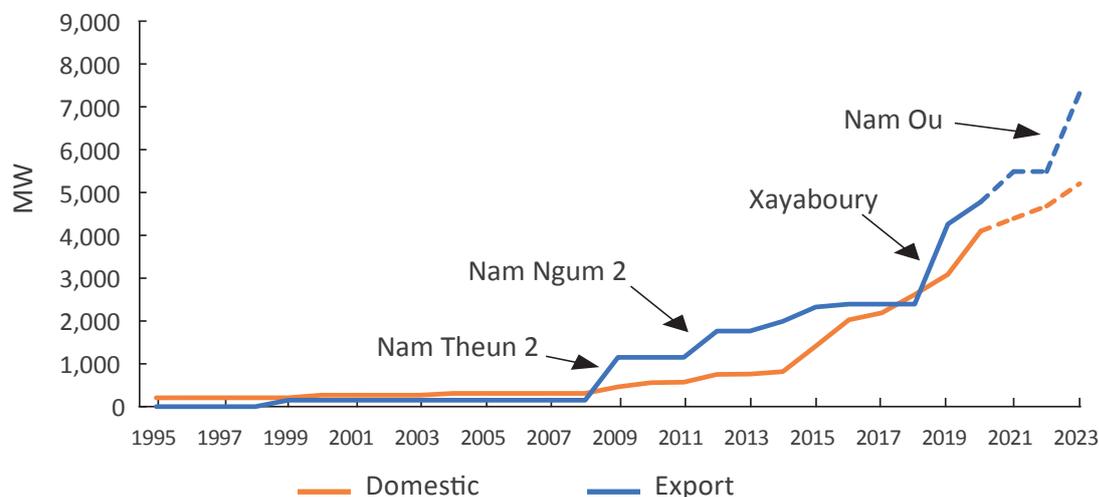
But hydropower operations have multiplied without robust planning and institutional oversight, contributing to a sharp rise in public and publicly guaranteed debt.

In recent years, the number of power plants operating in Laos has increased rapidly, financed through both private and public sources. Since 2015, a number of new hydropower projects have been constructed throughout the country (see Figure 2.7). Alongside the export-oriented power plants, new small and large-scale IPPs have been developed to cater to domestic demand, with EDL as the only off-taker. IPPs have negotiated favorable PPAs with EDL, securing stable revenue streams as capacity charges have been exempt from demand risk. At the same time, the terms of these PPAs have contributed to the financial vulnerability of EDL (see below). In parallel, EDL and its 75 percent-owned subsidiary, EDL-Gen, have financed

an increasing number of power plants themselves. EDL's 2018 annual report, published in October 2020, describes a vast investment program involving the addition of more than \$8 billion of new plants and property for the 2014-2023 period, equivalent to 43 percent of annual GDP. A large part of EDL's financing has been sourced from Chinese lenders, backed either directly or implicitly by government guarantees. EDL-Gen is a publicly listed company, with 25 percent of its shares held by private investors. Since its establishment in 2010, it has raised significant private financing by issuing corporate bonds (debentures) to Thai investors. Most of the power generation assets financed by EDL have been gradually transferred from EDL to EDL-Gen, although the process and conditions of the asset transfers have not been entirely transparent.

The substantial scale-up in hydropower resource development has not been accompanied by robust system planning, resulting in a mismatch between generation capacity and the adequacy of the transmission grid. While significant investments have also been made in constructing transmission lines, the inadequacy of the domestic transmission network resulted in system imbalances and inefficiencies, with excess supply during the wet season. As of 2020, domestic generation capacity is already far greater than domestic consumption demand, with this gap set to widen as additional capacity comes on stream. While EDL's excess capacity could potentially be exported, its ability to do so is currently limited by constraints in transmission and interconnection capacity and by an inability to provide a firm power supply due to the seasonality of hydropower. This has made it more difficult to negotiate an acceptable price with potential purchasers, and severely limits the opportunities for Laos' hydropower to be absorbed by the regional demand for clean electricity.

Figure 2.7
Hydroelectric generating capacity, historical and projected



Source: EDL, Asian Development Bank.

The sub-optimal development of the sector has resulted in EDL building up very large debt obligations, the risk of which is ultimately borne by the government. EDL and EDL-Gen's combined borrowings increased from \$1.5 billion in 2013 to \$7.7 billion in 2018, or from 13 to 42 percent of GDP, with EDL's debt alone amounting to around 27 percent of GDP. The resulting increase in annual debt service requirements is expected to significantly exceed EDL's repayment capacity.²⁷ As outlined in Chapter 1, EDL's entire debt stock is considered to be public or publicly-guaranteed debt, either being directly lent to EDL with a sovereign guarantee or on-lent by the MOF. The fiscal risks associated with the increase in EDL's debt are of a magnitude that significantly outweighs the revenues generated by the sector.

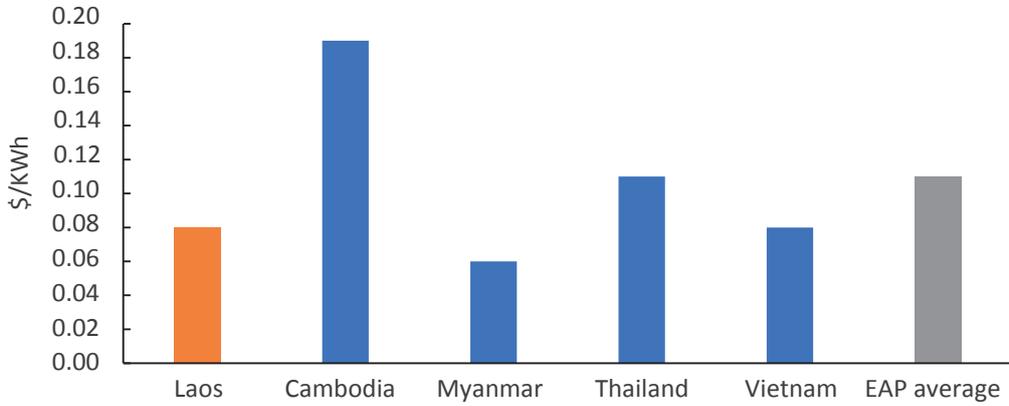
EDL has negative operating margins, due to unfavorable power purchase agreements and tariffs below cost recovery.

The long-term viability of EDL is being further undermined by high power purchase prices and inflexible contracts. Solely responsible for transmission and distribution functions, EDL acts as the single buyer for the electricity generated by the domestically oriented IPPs and by EDL-Gen. IPPs have benefited from power purchase agreements (PPAs) that include generous

purchase prices and favorable take-or-pay clauses that guarantee payment for available generation capacity, even if it is surplus to actual power demand. Moreover, with EDL continuing to enter into take-or-pay agreements, there is an ongoing risk that it is purchasing more electricity than it will ultimately be able to sell, further increasing operating losses. Based on preliminary estimates, some 50 percent of EDL's current power purchase cost relates to excess capacity. While EDL does not have a clear market for this power, the PPAs' take-or-pay clauses require it to make payments for capacity charges.

Domestic electricity tariffs are currently below cost recovery levels, further reducing EDL's financial viability. EDL's main sources of operating revenues are derived from domestic and export power sales. The current average domestic tariff is well below the average for the region (see Figure 2.8). While it is higher than the average purchase price of electricity from IPPs, it is below the true cost recovery level, which accounts for all the costs of providing electricity, including depreciation, interest, income tax expenses, and the provision of a sufficient return on assets.²⁷ Far from increasing tariffs to enable more efficient cost recovery, in May 2020, the government took the decision to reduce tariffs by 3 percent, as a relief measure in response to the COVID-19 pandemic.

Figure 2.8
Average domestic electricity tariffs

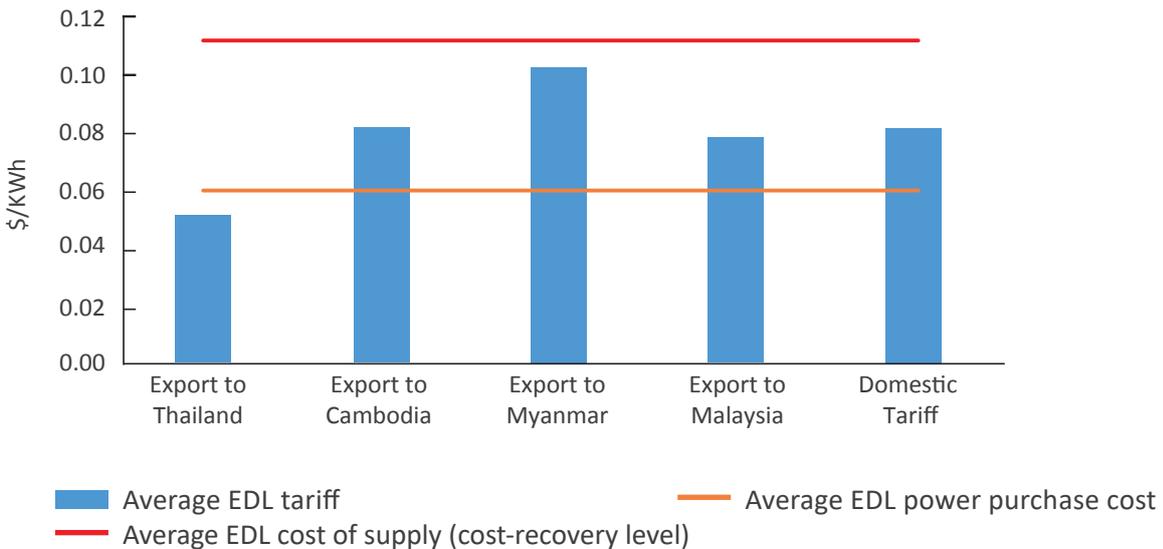


Source: EDL Electricity Statistics Report 2019 for Laos, WB RISE database for other countries.

EDL’s export tariffs are also low, mainly because EDL is unable to provide a firm power supply. Around 90 percent of EDL’s exports are to Thailand, but the average export tariff to this market is well below the average cost of purchasing power from domestic IPPs (see Figure 2.9). The low tariff levels negotiated with

Thailand are partly due to the fact that EDL is unable to make firm supply commitments on its exports. Rather, it exports only its surplus after meeting domestic demand requirements, and needs to import power from Thailand during the dry season, when its own production capacity is limited (see below).

Figure 2.9
Average EDL domestic and export tariffs



Source: EDL Electricity Statistics Report (2019) for tariffs, EDL Financial Statements (2018) for power purchase cost, and PWC (2017) for cost of supply.

In an attempt to address these issues, the Lao government has negotiated the participation of a private operator to invest in and operate the national power transmission grid. In March 2021, the government signed a concession agreement with Electricité du Laos Transmission Company Limited (EDL-T), a new joint venture between China Southern Power Grid (CSG) and EDL. According to the agreement, EDL-T will operate the 230 kV and above power transmission assets according to the standards required by the Lao government and make additional investments to develop new domestic transmission and interconnection projects between Laos and its neighboring countries. An upfront payment associated with the concession is expected to help EDL to meet its debt service and cashflow needs in the short term. However, in return for the usage of the transmission system, from 2022 onwards, EDL will have to pay a recurrent wheeling charge, further adding to its cashflow pressures in the medium-to-long term. Whether the transaction will be beneficial for Laos in the long term will depend mainly on two factors. First, it will depend on whether EDL is able to capitalize on the industry management experience brought in by CSG to improve the efficiency of Laos' power sector's system planning and operations. Secondly, it will depend on the actual capability of EDL-T to bring in the required financing to make the much-needed transmission grid and interconnection investments.

Laos' weak transmission network reduces the reliability of power supply, while the use of coal has the potential to undermine its clean energy competitive advantage.

The mismatch between investments to expand generation capacity and the lack of investment in the construction and maintenance of transmission and distribution systems has resulted in system losses and power outages. Most large hydropower plants are in the north and the south of the country, while the largest load is in the center, which experiences a deficit due to

the poor quality of the domestic grid. Transmission capacity lags behind installed generation capacity, leading to overloading of transmission lines, transformers, and the distribution network, and resulting in increased losses and reduced reliability of electricity supply. Almost 80 percent of companies in Laos experienced electrical outages in 2018, up from around 50 percent in 2016 and higher than the regional average, which stands at less than 60 percent. System instability and limitations in the interconnections between the domestic transmission system and neighboring countries' systems are also severely constraining export capacity.

The seasonality of hydropower generation acts as a further constraint on reliable supply, with measures involving the use of coal for baseload undermining Laos' clean energy competitive advantage. The seasonality of hydropower generation has left the domestic market vulnerable to the limited availability of power supply, especially during the dry season. In certain areas, electricity imports are required. Climate change will lead to longer dry seasons accompanied by more severe water shortages, affecting the network of dams and their power generation capacity. This situation has led the government and EDL to consider the development of new coal power plants to improve base-load generation and to diversify the energy mix. However, the increased role of coal in Laos' energy mix will undermine its image as a comparatively clean source of power, which has historically been one of its competitive advantages. Furthermore, any new coal investment exposes the country to increased risks due to the diminishing bankability of coal power plants among both public and private international financiers.

So far, EDL has made only limited progress towards the use of other renewable sources of energy. Other renewables could potentially be utilized to offset the seasonality of hydropower generation, but their development has been limited by EDL's financial constraints and

by weak system planning and the absence of a feed-in tariff scheme. Laos' Renewable Energy Development Strategy 2011–25 aims to increase the use of other renewables to produce 30 percent of total energy consumption by 2025. However, while the strategy includes financial incentives such as reduced import duties and tax incentives and a legal framework to support the development of renewable energy, the deployment of renewable sources of energy involving new technologies has so far been limited, mainly due to EDL's constrained capacity to invest in renewables and the lack of a plan to integrate the renewable sources of energy into the system without exacerbating the risk of increasing surplus capacity. The absence of a feed-in tariff scheme involving long-term contracts with a cost-based purchase price and guaranteed access to the grid may also have constrained the development of renewables. These limitations could be overcome through a combination of innovative technologies, robust planning, and policy reforms, enabling Laos to fully realize its renewable energy potential through the use of sustainable alternatives to coal to balance the seasonality of hydropower.

Governance issues - many of which are related to institutional fragmentation - remain significant.

Institutional fragmentation has contributed to sub-optimal sector planning. It has proved difficult for Laos to integrate and optimize the investments made by both private and public actors involved in the generation, transmission, and distribution functions. There is a lack of agreement regarding the specific tasks mandated to the different ministries and departments, with an inadequate exchange of technical, economic, financial, and contractual information between sector stakeholders. Other sectors have a weak voice in hydropower investment decisions, making it less likely that economic considerations are appropriately balanced against the environmental and social consequences related to the depletion and loss of natural resources, including forests.

Unclear divisions of responsibility between the finance and planning ministries have resulted in a lack of prudent oversight and coordination of EDL's highly ambitious investment strategy. The roles of system planning and policy, system regulation, and operation are not clearly separated. For example, EDL participates in setting sector strategy and power development plans while at the same time acting as a major operator, with provincial authorities also fulfilling both regulatory and mini-grid operator roles.

Many hydroelectric projects funded by the government or backed by public equity have been selected on the basis of unsolicited proposals, with no competitive process. The design and award of these contracts does not comply with good competition and transparency practices, limiting the benefits from opening up power generation to private investors and increasing the exposure of the state to fiscal risks.

There are also concerns related to the manner in which EDL's PPAs are negotiated. While the Electricity Law and the Investment Promotion Law establish a reasonably well-established legal framework, with incentives for IPPs to participate, in practice there is a lack of transparency and competition in how PPAs between EDL and the private sector are negotiated. These negotiations are generally conducted on a project-by-project basis, without adherence to a common framework based on factors such as contract size, tenor, and price (Tokyo Electric Power Company Holdings et al, 2017). As noted, in many cases, these PPAs have locked EDL into unfavorable terms.

While policies have been developed to mitigate the environmental impacts of hydropower, capacity for implementation remains weak.

Although considered to be a form of clean energy, hydropower poses significant environmental and social risks. Dams have substantial impacts on local ecosystems, including rivers and surrounding land and forests. Evidence shows that hydropower dams affect fish migrations, river hydrology, and sediment

transfers, with negative impacts on riparian communities up to 1000 km away. In that context, the transboundary and cumulative impacts of dams on biodiversity, fish migration, and affected communities require increased attention (Soukhaphon et al, 2021). Moreover, dam construction often requires the displacement of populations. In determining compensation in such cases, the social impacts and the costs of lost land and assets are often underestimated.

The NT2 project – which has been used as a model for social and environmental policies in Laos – had mixed results. A recent evaluation found that this project emphasized environmental management aspects, with some aspects managed successfully, such as restoration of construction sites, stabilization of fisheries, and water quality after inundation. But other results were mixed. In particular, the evaluation found that the project was largely unable to protect the biodiversity offset in the Nakai-Nam Theun National Protected Area watershed, due to ineffective institutional arrangements, limited capacity, inadequate monitoring, and unrealistic targets (World Bank, 2021).

Evidence suggests that environmental and social policies approved subsequently – such as the 2015 PSHD – have been applied inconsistently, although there has been some progress on implementation. The PSHD requires project developers and government agencies to conduct a due analysis of all technical, economic, engineering, financial, environmental, and social considerations on hydroelectric projects with a generation capacity greater than 15 MW. It also requires strategic environmental assessments to be undertaken prior to the development of policies, strategic plans, and programs within the power sector. The PSHD is not legally binding, and the NT2 evaluation indicated that capacity constraints hinder the government’s ability to monitor and enforce environmental and social compliance of such policies in practice (World Bank, 2021). On the other hand, the PSHD’s environmental aspects can be made

enforceable through the terms of concession agreements, which are legally binding and which are monitored by MEM together with line agencies, including the Ministry of Natural Resources and Environment. Moreover, the revised 2017 Electricity Law strengthens some of the PSHD’s provisions by requiring hydropower planning at the basin level, which requires several environmental criteria (including related to forest and water management) to be explicitly considered in project selection.

Safety incidents demonstrate the clear need to improve capacity to implement standards. The revised Electricity Law outlines detailed standards related to the safety of hydropower and other facilities, with compliance with these standards mandatory for the owners and operators of hydropower plants. But inconsistency in compliance was demonstrated in July 2018, when an auxiliary dam constructed as part of the Xe Pian-Xe Namnoy hydropower project collapsed, resulting in the flooding of homes and villages in surrounding areas, resulting in 49 deaths and the displacement of thousands of people. Following the incident, two committees were established to review and monitor water management and hydropower development nationwide, with particular reference to all hydropower projects established through the National Emergency Dam Safety Inspection process. Although inspections to date have not revealed crucial safety problems that require immediate emergency actions, MEM continues to work with dam owners to implement recommendations to improve dam safety (Ministry of Energy and Mines, 2020).

To ensure the sustainability of Laos’ hydropower sector, it is critically important to develop a financial recovery program for EDL.

In order to become financially sustainable and to reduce the sizable fiscal risks borne by the government, EDL needs to reduce both its debt burden and its debt service obligations. In 2020, EDL reduced its debt commitments substantially by cancelling its

commitment to draw down debt under previously signed investment projects. However, its annual debt service obligations were expected to average almost \$500 million over the next five years, representing close to two-thirds of its current revenue. In the absence of debt restructuring, it is therefore difficult to see EDL achieving a more sustainable financial footing (see Chapter 1). The upfront payment associated with the establishment of EDL-T should be used strategically to address the most urgent financing needs and to buy time to implement further reforms.

EDL also needs to improve its operating margin. To be sustainable over the long term, it needs to generate sufficient operating revenues to cover not only the costs of purchasing power from generation plants, but also the cost of developing, operating and maintaining its transmission and distribution network. This implies that EDL needs to: (a) generate more revenue by establishing tariffs that better reflect costs and by tapping the export demand for excess capacity; and (b) reduce the costs of purchasing power from the IPPs, both by reducing the quantity purchased and the prices paid:

- **Tariff adjustments:** To ensure the sector’s financial sustainability, a program to gradually restructure tariffs at least to cost recovery level is required. The evidence suggests that tariffs could be adjusted without placing undue burdens on households. Research conducted in 2017 found that 80 percent of households were paying less than 3 percent of their total expenditure on electricity, which may be considered an acceptable affordability ratio for all user categories. It was estimated that only 23 percent of consumers would require some form of subsidized tariff, with this involving targeted subsidies to the poorest households or a life-line tariff cross-subsidy provided by the wealthiest 15 percent

of users (PWC, 2017). This suggests that the current tariff structure could be revised to increase overall revenues while at the same time ensuring the protection of vulnerable households, although further studies are needed to assess the economic and social impacts of any such revision. Over time, a formal tariff regulatory framework should be established, possibly involving an independent regulator, to provide clear guidelines for the setting tariffs, including for lifeline customers, and to monitor and report on matters related to affordability, economic impact and financial viability of utilities.

- **Review options to ensure the financial sustainability of EDL’s payments to IPPs:** This is particularly important given the considerable excess capacity that is being generated and paid for at relatively high unit prices. More generally, greater transparency and competition should be introduced into process of agreeing future PPAs between EDL and the private sector, with adherence to a common framework for aspects such as contract size, duration, and price.

For Laos to become the “battery of Asia,” it needs to develop its transmission infrastructure and its ability to capitalize on regional power demand.

Without adequate power transmission infrastructure in place, Laos will continue to have significant excess capacity, resulting in financial burdens both for EDL and the country more generally. Instead of developing new dams, the government should develop its ability to transport and sell the power produced through the large generation capacity that has been developed over the past ten years. The establishment of EDL-T and the success (or otherwise) of its concession agreement to invest in, construct and operate transmission and interconnection infrastructure will have

significant implications for EDL's ability to realize its full power sales potential. In particular, improvements in this area hinge on:

- Strengthening the transmission network within Laos, particularly between the North Region and Central 1 Region;
- Strengthening transmission interconnections with systems in neighboring countries: Since domestic demand growth is ultimately limited by the small size of the domestic population, power interconnections with neighboring countries are needed to evacuate and sell power to other markets.

While the demand for electricity remains strong in the region, Laos' ability to meet this demand is constrained by the undeveloped state of its interconnections with its neighbors. For EDL to increase its sales of surplus power, increased exports within the region are the key path. There are opportunities to expand into already established markets, including both Thailand and Cambodia as the most obvious targets. However, exports to Thailand are currently constrained by the weak interconnection between central and southern Thailand and by the limited capacity of the EGAT-TNB interconnector. Similarly, in Cambodia, the realization of the terms of existing agreements are pending due to the need to construct the required interconnectors. There are also opportunities to expand into other markets, including Vietnam, Myanmar, and Malaysia, with which PPAs have already been signed. An experimental regional electricity trading system known as the Laos-Thailand-Malaysia-Singapore (LTMS) Power Integration Project creates additional opportunities to expand the markets for Laos' power.

Over the longer term, there should be an increasing focus on investment in transmission and distribution, rather than on increasing generation capacity. It is estimated that

investments of around \$1.2-1.7 billion are required to develop domestic transmission and interconnection facilities to fully utilize all the surplus power currently generated. Given its current financial constraints, it is not feasible for EDL to make these investments in the short term. However, if its measures to restore its financial viability are successful, carefully prioritized investments in transmission and distribution should be considered, underpinned by sound cost-benefit analyses.

Investments to ensure that supplies of power remain firm in all seasons could enable EDL to increase export tariffs. As discussed above, the export tariff to Thailand is below the average cost of purchasing power from domestic IPPs, largely because of the seasonality and variability of power supplied. An interconnection project with Vietnam has not progressed due to an apparent mismatch in tariff expectations. Laos' neighbors, including Myanmar, are also investing heavily in expansion of generating capacity, which may result in downward pressure on regional prices. In this context, Laos should explore opportunities to firm the electricity supply that it can offer for export, such as through power bank arrangements with neighboring countries. New investments in coal capacity, on the other hand, may jeopardize Laos' reputation as a leader in the production of clean energy, ultimately reducing the extent to which it can access financing and take advantage of export markets.

To balance the seasonality of hydropower, renewable technologies could play a more important role in Laos' energy strategy. Other sources of renewable energy, such as solar, have the potential to complement the shortfalls of hydropower during the dry season and to offer a more sustainable alternative than adding coal capacity for baseload. The abundant supply of water surfaces in Laos, including from dam reservoirs, has the potential to enable the development of floating solar, or

photovoltaic floating facilities. Opportunities to harness this potential depend not only on financial capacities to make the required investments and their attractiveness, but also on EDL's capacities to plan and implement the investments required to integrate other renewable sources of energy into the domestic power system. In particular, a key condition for this is the strengthening of the domestic transmission grid. In addition, it would be necessary to strengthen the policy framework to promote private sector participation in the solar investment space (for instance, through the introduction of a feed-in tariff scheme or tax incentives) and to explore the viability of new technologies for power storage, such as batteries and green hydrogen. Harnessing these opportunities will be critical if Laos is to maintain a low-carbon energy footprint.

Project selection processes need to be reviewed to optimize system planning, and the regulatory framework strengthened.

The suboptimal selection of investment projects is largely responsible for the current supply-demand imbalances and the congestion in the transmission system. The current practice is for IPP developers and investors to select and plan projects and then propose them to MEM for approval, without paying sufficient attention to whether the overall power grid system is able to integrate these IPPs. This process is not consistent with best practice, which would involve MEM establishing optimal planning for both generation and transmission based on robust evidence, well-formulated strategies, consideration of the availability of plants, and demand projections, and then soliciting developers and investors through a competitive procurement process for specific projects.

To improve the investment project selection process, plans for generation, transmission, and distribution facilities should target meeting

demand at the lowest possible cost and at adequate levels of reliability. A least-cost expansion plan should guide the prioritization of new generation investments, based on demand forecasts underpinned by realistic assumptions and sensitivity analysis. A transmission and distribution expansion plan for the domestic system and for transmission lines to neighboring countries connected to the domestic grid should be formulated to guide the connection of generation plants and demand locations at the lowest possible cost consistent with the achievement of defined levels of reliability and security. These plans should be developed through close collaboration with a wide range of stakeholders in all affected sectors.

A robust legal and regulatory framework is required to promote the overall sustainability of the electricity sector and ensure that benefits from the unbundling of various functions within the sector are realized. The partial unbundling of the generation function in 2010 to EDL-Gen and the more recent moves to establish EDL-T would typically require substantial preparatory regulatory and institutional reforms, including the provision of clear mandates to the agencies tasked with oversight, with clarifications regarding the roles and functions of all stakeholders in the power sector. The use of tools such as centralized databases with consultative and analytical functionalities could facilitate the exchange of information between multiple stakeholders and improve the coordination of decision-making processes. The Electricity Law could be updated to mandate the application of the economic principles of cost efficiency, fair rates of return, and optimal use of resources. Regulations related to licensing and concessions, and associated tariffs, could also be strengthened to promote the principles of transparency and competition.

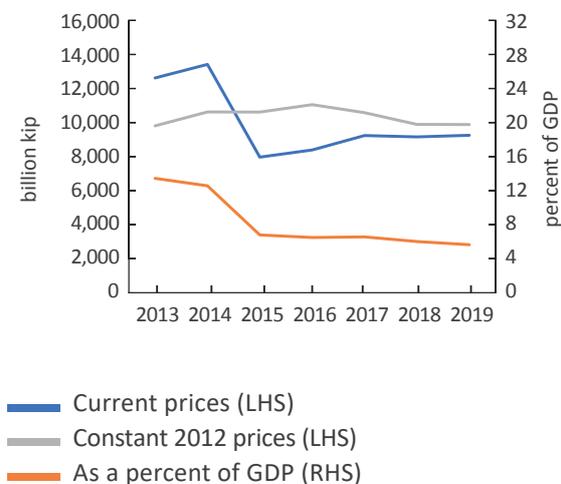
Mining

Mining production is expected to decline in coming years.

During the 2002-2016 period, the mining sector was a key driver of Laos' economic growth. The boom period commenced in 2003 with the opening of the Sepon mine (copper cathode and gold), followed by the commissioning of the Phu Kham mine (copper-gold concentrate) and the nearby Ban Houayxai mine (gold-silver). However, the contribution of the mining and quarrying sector to GDP has been declining in recent years (see Figure 2.10). The global commod-

ity price boom in 2010 and 2011 led to a further surge in investments in the mining sector, including the development of phosphate production facilities in Vientiane and Khammuan provinces. In 2012, prior to the global commodity price slump, the mining sector accounted for 16 percent of current price GDP and 43 percent of total exports, which were dominated by copper ore and refined copper (see Figure 2.11). Foreign investment inflows in the sector accounted for about 30 percent of total FDI in Laos over the past 10 years, with most of this investment coming from China, Thailand and Vietnam.

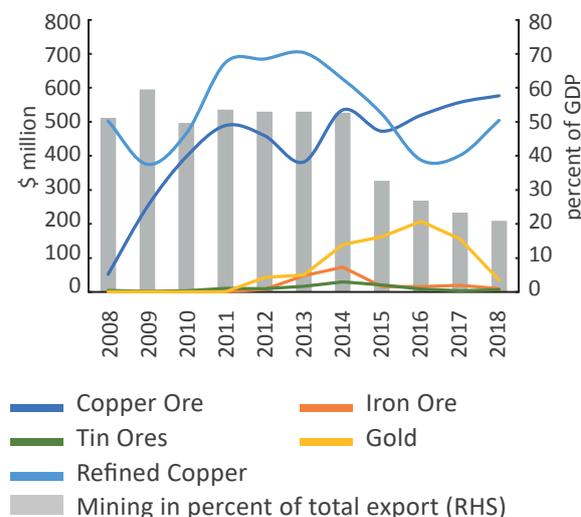
Figure 2.10
Value added in the mining and quarrying sector



Source: LSB.

However, growth in the mining sector has since reached a plateau, due to declining demand and prices and to the maturation of the operations of the two big mines. With the decline in commodity prices since 2012 and the gradually shrinking production of the two major mines, the contribution of the mining sector to GDP and exports have both fallen steadily, with the

Figure 2.11
Mining exports



Source: Observatory for Economic Complexity, Comtrade. Trade partner mirror data is presented. Note: Mining includes copper ore, iron ore, tin ores, gold and refined copper.

sector contributing to 6 percent of GDP and to 21 percent of total exports in 2018.

Barring the commencement of significant new mining operations, the projected closure of the three major mines was previously forecast to result in a sharp contraction in mining sector activity over the next few years. In April 2020,

the ASEAN+3 Macroeconomic Research Office reported that the three biggest mines in Laos (Sepon, Phu Kham and Ban Houayxai silver) were scheduled either to close or scale down operations over the next few years (ASEAN+3, 2020). Together, these mines contributed to the production of 84 percent of Laos' total copper and gold output in 2019, with copper and gold mining accounting for around 90 percent of the total value of the mining sector's output in that year. On that basis, the total production value of the mining sector was projected to shrink by around half in the next few years.

However, the more recent increase in copper and gold prices has resulted in a re-evaluation of previous closure plans. With the rise in commodity prices over the past couple of years, resources that were previously considered non-viable have become recoverable, thus extending the potential lives of Laos' large mines. Thus, no firm closure dates have been set for Phu Kham and Sepon, and the latter has announced plans to develop a large underground mining operation on a significant gold resource that was previously deemed uneconomic. At the same time, new pilot rules for iron ore mining may also have an impact on future production (see below).

Enforcement of environmental and social standards has been lacking in some cases, and linkages with the rest of the economy weak.

The costs and benefits from existing mining operations, particularly smaller scale operations, have not been equitably distributed. Generous tax concessions have been granted to some operators, limiting revenue flows to the state, while the capital- and import-intensive characteristics of the sector means that mining activities have weak linkages with the rest of the economy. Moreover, the enforcement of environmental and social standards has been weak in the case of the smaller operators. In 2017, a study of tin mining in the Hinboune District of Khamouane Province examined the environmental impact of 100 years of small-scale tin mining (Earth Systems, 2019). It showed that crushed mine waste ends up washing into the river system,

resulting in both the river and adjacent soils carrying high levels of elevated arsenic and other heavy metals, compromising local food supply. A study on tailings dam management, undertaken by the World Bank in 2018, demonstrated that apart from Sepon, Phu Kham and Ban Houayxai, most mines have tailings dams that are too small or that have been built without reference to engineer-designed plans (Earth Systems and GHD, 2018). Amongst others, these issues have resulted in the authorities extending the moratorium on the issuance of new licenses to enable MEM to review operators' compliance with environmental, social, and other contract requirements and to develop the appropriate regulatory controls.

New investments in the mining sector have declined due to restrictions on new investors and a lack of clarity and predictability in regulations.

While the moratorium on new mining concessions remains in force, some licenses are being granted, and new streamlined approval processes are reportedly being developed. Concessions were granted relatively freely in 2010 and 2011, when mining sector investments surged. However, a number of concession holders recorded only limited progress in exploration and/or extraction activities, with poor compliance on environmental, social, and other contractual requirements. In 2012 the government announced a moratorium on new mining concessions while it made efforts to improve the concession granting system. A review of existing licenses by MEM found significant shortcomings in the performance of concession holders, with the authorities reporting recommendations to revoke around 50 licenses. While the moratorium restricted new exploration investment in the sector, some existing concession holders were still able to advance to the feasibility and mining phases, and new concessions have also been granted to preferred investors. Moreover, new rules for the approval of investments in iron ore mining have recently been piloted whereby companies are expected to make a lump-sum payment for the concession upfront and then begin production within a limited time period.

The government's policy to increase domestic value-added through local refining and processing requirements also appears to have disincentivized new investments. This approach, which has been reiterated in successive national development plans, does not appear to have been particularly successful for copper, with the value of refined copper exports falling below those of copper ore since 2015 (see Figure 2.11). This policy has also acted as a disincentive on foreign investment, given that foreign investors are often looking for new supplies of ore to process in underutilized refineries or smelters in their home countries. An obligation to establish new processing plants in Laos increases investment risks for potential investors and reduces the incentive for large-scale investments.

The government has made little progress in limiting the level of discretion in project-level tax agreements, reducing predictability for potential investors. As has been the case for a number of years (see World Bank, 2010), although the effective tax rate, at around 50 percent, is in line with international best practice, the existing fiscal regime suffers from a number of drawbacks. In particular, the government has a high level of discretion in determining the regime that applies to specific mines, which increases the scope for rent-seeking behavior and is likely to reduce the amount of rent that is ultimately captured from the projects. Moreover, as in the hydropower sector, the government takes an obligatory stake in all projects, which creates unnecessary risks. The capacity of the authorities to monitor and enforce the fiscal regime in the mining sector continues to be affected by a low level of skills in the labor force, a fragmented institutional framework, and a lack of forecasting capacity. This lack of forecasting capacity within the MOF has led to difficulties in estimating production and tax revenue generation and reconciling forecasted earnings against reported returns, probably resulting in the underreporting of royalties, profits and profit taxes by smaller operators. This can be seen by the very high share (over 90 percent) of mining revenues deriving from the largest two operators (Sepon and Phu Kham/Ban Houayxai), with most

other mines making very limited contributions. In addition, the government has struggled to enforce the collection of fees for license rentals.

Apart from the uncertainty related to taxation, several other factors have reduced the ability of the sector to attract responsible investors. These include a lack of security related to the tenure associated with the mining title and to rights to minerals discovered as a result of exploration activity. The complexity of the approvals process has resulted in rent seeking and acted as a disincentive for experienced mining companies that place a high priority on clarity and the even-handed application of laws and processes. There are no reliable data on the country's natural resource reserves and no quality controls on the reporting of exploration data, resulting in a severely limited understanding of the country's geology and mineral resource base. As a result of these constraints, investment in exploration has remained persistently low.

While the importance of mining as a driver of economic growth may decline, it is possible to encourage responsible investment and exploration.

Despite the recent increase in gold and copper prices, which has extended the life span of major existing mines, Laos' mining sector is unlikely to be as significant a driver of economic growth in the near-term future as it has been in the past. Although the forecast depletion of copper-gold ore at the Phu Kham mine has been pushed back (and closure plans put on hold), production is likely to continue to trend lower. Sepon recorded a 40 percent drop in copper output in 2020, and although there are plans to reorient production towards gold, the total value of output and revenues accruing to government could decline substantially further in coming years. Otherwise, only patchy information is available on the project pipeline, and on progress in developing potential opportunities in bauxite and iron ore. As noted above, rules for the fast-track approval of proposed investments in iron ore mining are reportedly being piloted, but the implications for production, government revenue, and environmental safeguards remain unclear.

Over the medium-term, the government could implement several measures to encourage new exploration and to promote sustainable mining sector activity. Taken together, these measures could encourage the re-entry of investment in exploration and mining activities by experienced operators that could potentially replicate the overall success of the Sepon and Phu Bia projects. These measures include the following:

- **Concessions and licensing:** In the short term, Laos must address ongoing constraints on new investment resulting from the moratorium and the delayed implementation of the mineral licensing system. Unclear and overlapping roles within the mineral sector need to be resolved. The Ministry of Planning and Investment should relinquish its powers over existing mining concession agreements to allow MEM to regulate the sector. The licensing system should be based on the new provisions stipulated in the 2017 Law on Minerals, with full powers to manage previously granted concessions issued through the Ministry of Planning and Investment and to cancel the licenses of expired or non-compliant operators. The content and implementation of relevant regulations needs to be improved to ensure clear and enforceable expectations for concession holders, particularly with respect to their environmental obligations (see below). If such regulatory improvements are made, and licensing processes are simplified and made more transparent, the moratorium on new concessions need not be reimposed, as this has precluded new exploration and the replacement of existing major mines.
- **Beneficiation policy:** Given its disincentivizing impact on foreign investment, the government should conduct a review of the policy requiring mining companies to invest in value-added smelting and refining facilities in the country. Given that Laos has demonstrated a lack of comparative advantages in these value-adding activities, it would be better to concentrate on ensuring that Lao captures a fair and appropriate proportion of the value derived from extracted and exported ores.
- **Fiscal regime:** Measures to reduce or eliminate the scope for discretion on a project-by-project basis and to ensure the implementation of a transparent and standardized set of fees and revenue-sharing arrangements would enable the government to boost the revenue flows derived from mining projects. A clarification of the fiscal regime would also increase certainty and may ultimately improve the appetite for investment from socially responsible investors.

But limiting environmental impacts should be the highest priority.

Despite the severe fiscal pressures the government is currently experiencing, it is important that financial, environmental, and social safeguards are not loosened to encourage the resumption of otherwise unviable mining operations. The government's immediate need for foreign exchange earnings could create pressure to increase ore exports and to push for a rapid expansion in exploration activity. However, unless it strengthens its licensing and concession system, there is a risk that opaque mining deals continue with only weak enforcement of environmental standards, which could carry significant long-term costs.

To mitigate the negative impacts on the environment, the government should implement an overarching strategy for the development of the mining and hydropower sectors. Mining activities have the potential to negatively impact forests, protected areas, the biodiversity base, agricultural lands and people's livelihoods. To address this, strategic environmental assessments that identify the cumulative longer-term effects of all proposed major activities should be required. While a number of specific requirements have been imposed to manage impacts on host communities and to ensure environmental protection, the agencies mandated with their oversight lack the capacity and resources for implementation, creating ongoing challenges.

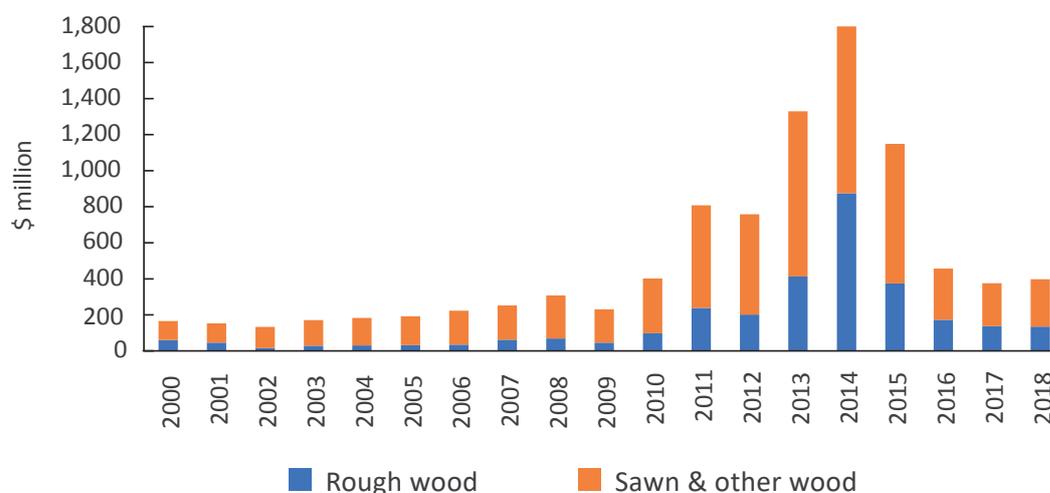
Forestry²⁹

Laos is shifting from an extraction-based forestry industry toward more sustainable management of natural forests, with an emerging plantation forest economy.

While Laos' forestry policies have always acknowledged the need for the sustainable management of native forests in principle, in practice implementation has been weak. In Laos, forest cover declined by 2.9 percent between 2000 and 2015, with remaining forests experiencing significant degradation. In recognition of this situation, in 2013 the government imposed

a temporary logging ban, followed by a ban on the export of logs and unfinished timber in 2016, with both these bans remaining in force. Since their imposition, the government appears to have succeeded in gradually curtailing illegal logging and in introducing more sustainable forest management practices. However, forest conversion for economic investments viewed as strategically important has continued as a legal (though unsustainable) source of wood products. Moreover, if the trade data is accurate, rough wood exports have continued even after the export ban was imposed (see Figure 2.12).

Figure 2.12
Wood exports

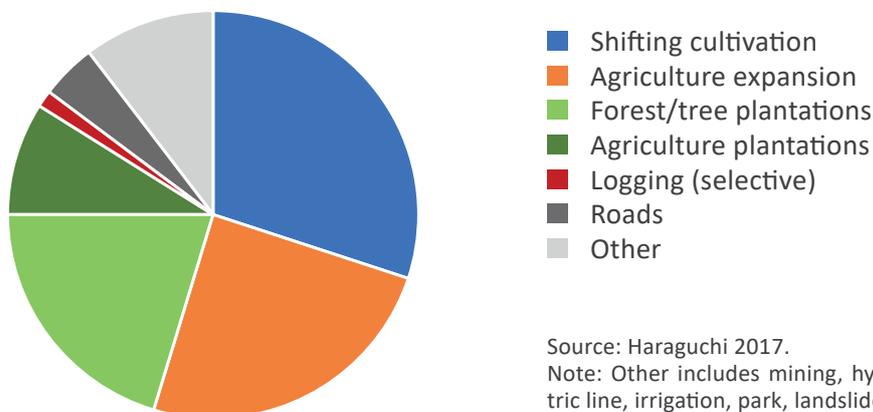


Source: Observatory for Economic Complexity, Comtrade. Trade partner mirror data is presented.

Deforestation and forest degradation have been driven mainly by agricultural expansion and encroachment. It is estimated that in 2017, the cost of deforestation and forest degradation amounted to \$464 million, or 2.7 percent of GDP (World Bank, 2020b). Haraguchi (2017) identified agriculture, including shifting cultivation, small-scale agricultural expansion, and agricultural plantations, as the driver of around two-thirds of the total deforestation and degradation over the decade to 2015 (see Figure 2.13). Rubber plantations were also identified as a major driver of this process (categorized separately as forest/tree plantations in Figure

2.13, with rubber plantations accounting for almost 90 percent of the deforestation in this category). While mining and hydropower development can be locally significant drivers, their overall impact has been limited (1 percent). The government has recently taking a more critical stance toward hydropower projects with projected negative impacts on protected areas, with two hydropower projects cancelled and one being developed under strict conditions related to its geographical imprint. Logging, commercial or otherwise, was estimated as accounting for only 1.3 percent of total deforestation.³⁰

Figure 2.13
Drivers of deforestation and degradation



Source: Haraguchi 2017.
Note: Other includes mining, hydropower, grazing, electric line, irrigation, park, landslide, flood, and others.

The contribution of the forestry sector to GDP peaked in 2008, declining thereafter due to the logging ban and the degraded state of production forest areas (PFAs). Partner trade data shows wood exports rapidly increasing to almost \$1.5 billion in 2015 (11 percent of GDP), in part due to an increase in international prices for hard logs over the same period.³¹ However, since the 2016 initiatives to halt the uncontrolled expansion of land concessions and to impose a moratorium on log and unfinished timber exports, exports of wood products have fallen sharply.

The government has received only a small fraction of the value of timber exports as royalties. While the total value of timber exports amounted to almost \$6 billion cumulatively over the period from 2009 to 2018, the royalties accruing to government for this period stood at only \$209 million.

Over and above their contribution to GDP and government revenues, forests are a major source of wealth for the country. The value of timber and non-timber forest products is estimated at \$10,740 per capita, with forests accounting for more than half of Lao’s estimated natural resource endowment. Despite widespread degradation, Laos still has one of the highest portions of forest cover among countries in the region, at 58 percent of its total land area,³² with some of the world’s biologically richest ecosystems and

most endangered species, and an extensive network of protected areas. Lao forests are also vital for the mitigation of natural disasters such as flooding, drought, and erosion.

Forest products provide direct benefits to vulnerable rural communities, while ecosystem services from forests support key economic sectors, including energy, agriculture, industry, and tourism. Forests and downstream industries create important job and livelihood opportunities, including in the production of wood products and in nature-based tourism (World Bank, 2020c). Forested watersheds are particularly important for Laos’ power sector, playing an important role in reducing sedimentation and thereby increasing the lifetime of reservoirs.

The contribution of forests to safety nets and poverty alleviation has been significant, especially during the COVID-19 crisis (World Bank, 2020a). Two-thirds of Laos’ population lives in rural areas and relies on forests for food, fuel, fiber, and medicine. More than 39 percent of rural family incomes are derived directly from non-timber forest products (NTFPs). The economic value of the subsistence consumption of NTFPs has been estimated at \$489 per year per household and at \$204 per year per household for cash income. Forests also continue to be an important (although unsustainable) source of household energy, with about 91 percent of the population continuing to use solid biomass for cooking and heating.

Recent policy improvements have helped to ensure the protection of forests.

In recognition of the benefits derived from forests, the government has adopted an ambitious reform agenda that includes new legislation and implementing regulations, policies, strategies and plans to promote economic development through socially and environmentally sustainable forest management, to be implemented in partnership with the private sector and communities living in and around forests. The government has thus adopted a more holistic approach to policy development, with a greater recognition of the trade-offs between forestry and other sectors and with improvements to cross sectoral coordination.

The government's drive to improve policies and governance in these areas has already resulted in notable successes. Many measures have been introduced to ensure the more sustainable management of Laos' forests, with the efficiency of forest administration enhanced by consolidating the responsibility for the management of all forest areas under the Department of Forestry, within the Ministry of Agriculture and Forestry. While the new policies mandate environmental and social impact assessments, forest-specific provisions are still missing, and companies have struggled to comply with templates that were originally designed for the hydropower sector. Work to address these issues is currently ongoing. Notable policy successes in recent years include:

- **Containing the uncontrolled expansion of land concessions:** Prime Minister's Order No. 13 (2012) suspended a number of land concessions, including some rubber plantations, many of which had been established through the conversion of foreign lands, resulting in serious environmental and social issues. While the regulation was slow to take effect and it has been implemented imperfectly, it has achieved the goal of reducing the forest area lost to agricultural plantations. In the 2015-2019 period, the average annual

area of forest cleared for plantations was estimated to be about 40 percent lower than in 2005-2015, with the actual decline in the area cleared probably significantly greater (Department of Forestry, 2020).³³ Evidence from various provincial-level assessments indicates that the decline has continued.

- **Reducing illegal logging:** Another significant policy success relates to the introduction of the ban on timber exports (under Prime Minister's Order No. 15), which resulted in a 75 percent reduction in the volume of illegal logging in a single year (Kukkonen and Langer 2017), with the success of this measure being due to the effective action taken by the government to improve governance, particularly in regards to enforcement operations.
- **Increased political will for forest conservation:** The government established its first two national parks in 2019, with a third in 2020 and two more in 2021. As a result of this action, Nam Et-Phou Louey and Nakai-Nam Theun are now the two largest protected areas in Indochina, while Hin Nam No, the third national park, is being considered for World Heritage designation. In addition, over the past five years, the government has cancelled two hydropower projects that would have negatively impacted the Nam Et-Phou Louey National Park and placed strict conditions on the construction of a reservoir that would flood 5 percent of the area of Dong Hua Sao National Park. Nature-based tourism has become a high government priority.

The Lao government also participates in international initiatives related to climate change mitigation through improved forest management and land use. Forest management, land use, and the REDD+ approach figure prominently in Laos' nationally determined contribution. Improved forest management and land use, including via the implementation of the National Land Use Master Plan 2018, will also enable the government to manage climate risks and generate co-benefits by reducing flooding, drought, and erosion and by improving water quality (World Bank, 2020d).

The government’s reform agenda also recognizes the important economic potential of commercial forest plantations.

Following the example of other countries in the region, including Thailand, Vietnam, Indonesia, and Malaysia, Laos has implemented policies to promote the establishment of forest plantations to compensate for the reduced availability of natural forest timber. The 2019 Forestry Law opened up degraded lands in the state’s PFAs to establish industrial forest plantations. The government subsequently identified 600,000 hectares of degraded forestlands for potential investments in commercial forest plantations. If these plantations apply socially and environmentally sound practices as mandated, they will both support the sustainable management of natural forests and contribute to the creation of sustainable jobs and livelihoods.

However, unclear allocation and licensing procedures and competing land uses are disincentivizing new investors. While plantation companies and local farmers have expressed a strong interest in participating in forest plantation investments, restrictive policies and procedures to secure rights over land have limited their opportunities. First, while no clear guidance has been provided on how land inside PFAs is allocated, discretion appears to play a significant role, with poor coordination between different government ministries and with onerous and unclear licensing requirements acting as a further constraint. Competing land uses also constrain investments, with reports of project proposals being rejected in areas currently under mineral sector exploration and survey concessions, which cover more than 44 percent of Lao territory (Ingalls 2019). Moreover, the demand for plantation land may have already exceeded its availability. The actual area available is much smaller than it appears to be on maps, as it is constrained by villagers’ de facto tenure or other limiting environmental factors. Although villagers have no formal land rights inside PFAs, they often have customary claims to areas they cultivate for subsistence purposes.

While the tree plantation industry is also faced with significant environmental challenges, there is limited management capacity within small and medium enterprises and communities involved in the industry to address them. In particular, poorly designed and managed plantations can result in large-scale monocultures and/or encroachment into forested areas. However, an increasing range of safeguards has been put in place to prevent these outcomes.³⁴

Value-adding in the wood product industry remains low.

With the exception of a few recent large-scale investments in select industries, value-added industries remain largely underdeveloped, with these activities dominated by individuals and small and medium enterprises that tend to rely on outdated technology, inadequate processing capacities, and low-skill labor. Lao wood product exports have historically been dominated by unprocessed and semi-processed products. While there are a few enterprises with a capacity to export finished goods, such as parquet and tabletops, their production volumes are small. Between 2006 and 2018, the number of processing units shrank from more than 2,100 to less than 1,150, largely due to the limited supply of wood and the closure of a large number of unregistered and illegal operators. The COVID-19 crisis has further compounded the challenges faced by these operators, with reduced demand (particularly from China, which accounted for two-thirds of the value of wood and furniture exports in 2017) and constraints on supply due to manufacturing and trade disruptions.

With Laos’ rich biodiversity and forest landscapes, nature-based tourism has potential as a sustainable source of support for rural livelihoods.

Nature-based tourism (NBT) also has the potential to be an important source of livelihoods, particularly for rural households and for women. Laos’ natural endowments

include lush forest landscapes and globally significant biodiversity. With increased political will to conserve forests, there is an opportunity to create green jobs through the development of NBT. NBT could help to spur the development of Laos' wider tourist economy, creating jobs and supporting rural livelihoods. Modelling based on regional comparisons indicates that with investments in NBT, the direct contribution of tourism to GDP could double to more than 8 percent over the next 10 years (World Bank, 2019b).

Despite Laos' wealth of natural capital, its nature-based tourism potential has been restricted by barriers to business investment. For this reason, despite recognition of the potential, some stakeholders have been reluctant to invest in the development of nature-based tourism products and markets. Key barriers include: (a) a lack of basic services; (b) inadequate legal frameworks, procedures, and transparency; (c) weaknesses in the management of protected areas; (d) limited institutional and human capacity; (e) insufficient infrastructure (rural roads, water supply, and institutional support); and (f) underdeveloped tourism products and offerings. Without significant improvements to the business environment for the private sector, investment to develop demand-led tourism activities is likely to remain limited.

More could be done to achieve the forest cover target of 70 percent, to ensure the protection and sustainable use of forested areas, and to promote the plantation industry.

It is now widely recognized that the long-term value of forest-based ecosystem services considerably exceeds the value of natural forest timber. Since the 1990s, the government has maintained a highly ambitious target of expanding forest cover to 70 percent.³⁵ However, the government's recent implementation of policies to control the expansion of land con-

cessions, to reduce illegal logging, to establish and protect national parks, and to mandate environmental and social assessments, all indicate a new level of commitment to protecting the country's significant environmental assets and to ensuring the sustainability of the broad range of ecosystem services provided by forests. The Forestry Strategy 2035 and Vision 2050 are also important markers of the government's commitment in these areas.

While the measures implemented to date are a step in the right direction, the government could do more to achieve its forest expansion target. The most viable means to achieve this target include: (a) expanding environmentally, socially, and financially sustainable industrial forest plantations on degraded lands; (b) facilitating natural forest restoration through assisted natural regeneration and forest protection from encroachment, illegal logging, fire, insects, and diseases; (c) operationalizing village forest management in line with the 2019 Forestry Law and developing mutually beneficial partnerships between the villages and plantations; (d) equipping smallholders to participate in the timber market sustainably; and (e) allocating resources to the large protected area network, prioritizing areas with the highest biodiversity and sustainable tourism values.

To restore degraded areas within protection forest areas and to facilitate adequate access to land for use by the private sector operations, the government could consider allowing sustainable, effectively regulated commercial activities in selected protection forest areas. At present, forest land is classified into three separate categories: Production Forest Areas, Protection Forest Areas, and Protected Areas (ranging from least to most protected). As a first step, the delineation of these categories could be redefined to optimize land use, taking into account and balancing watershed, resilience, and biodiversity objectives. Good examples can be found in neighboring countries, where less sensitive areas have been

successfully opened up for sustainable commercial activities, generating revenue and employment and making a significant contribution to forest restoration and environmental protection.³⁶ However, before commercial activities in protection forest areas are permitted, a fully functional safeguard system should be established, starting with strengthened safeguards for production forest areas (where commercial activities are already allowed). This system should include safeguards to prevent negative impacts on local communities and measures to improve the framework for monitoring compliance and sanctioning noncompliance.

Village-based forest management could play a vital role in many of these interventions. Land and forest tenure arrangements in forestland areas should be clarified to enable villagers to sustainably harvest timber from forestlands allocated to their villages. Extension and market services should be provided in a manner that accounts for local communities' specific needs. The ongoing logging ban could be reviewed as it may constrain the potential for villagers to engage in commercial activities,

including timber harvesting in production forest areas, as envisaged by the new Forestry Law.

To improve the prospects of the plantation industry, policymakers should implement measures to streamline and standardize key investment and licensing processes; to assess the carrying capacity of landscapes before making licensing decisions; and to promote environmentally and socially sustainable practices more generally. Inconsistencies, overlaps and gaps in the legal framework for land management and forest plantations should be eliminated, with the establishment of clear criteria for their social and environmental sustainability. To improve investor certainty, the process of allocating land should be made more transparent, with systems to address issues related to competing land uses. Strengthening and formalizing the framework for timber tracking and the certification of the timber value chain would demonstrate a strong commitment to the achievement of sustainability. By improving the regularity of domestic supply, these measures to develop plantations could also help boost the potential of value-added wood industries.

Notes

- 24 MEM data, informally provided to the World Bank.
- 25 This includes power sold in 2019 by EDL (both domestically and export) and export sales realized by IPPs directly with Thailand and Vietnam.
- 26 Sources: EDL Electricity statistics for EDL imports and exports, data on IPP total exports to Thailand were calculated from Thailand Custom Office website: http://www.customs.go.th/statistic_report.php?show_search=1
- 27 No audited financial statements have been produced after 2018.
- 28 Estimated in PWC (2017) at LAK 918/KWh (approximately USD 0.11/KWh) in 2017 based on the Annual Revenue Requirement (ARR) which includes: O&M expenses (including power purchase cost), depreciation, interest, income tax expenses, return on assets.
- 29 The forestry analysis in this CEM draws heavily on World Bank (2020a).
- 30 These results were estimated through large-scale driver analysis comprising disturbed areas with a minimum size of 20 ha. A complementary assessment where the minimum size of disturbance was reduced to 5 ha was conducted in selected "hotspot" areas. The results of this analysis were somewhat different suggesting that the proportion of the area disturbed by shifting cultivation was 16 % of the total area disturbed, by small-scale agricultural expansion 19%, agricultural plantations 14%, forest/tree plantations 7%, roads 15% and selective logging 11% (Haraguchi 2017).

- 31 Partner trade data are likely a better reflection of true trade flows than national data, but still may underestimate total log exports.
- 32 Differing definitions of forest cover lead to differing estimates, with the range of publicly available estimates of forest cover ranging from 40 percent to 70 percent (Food and Agriculture Organization FAOSTAT). These differing estimates are in part explained by differing definitions on canopy cover, and to what extent plantations are included in the calculations.
- 33 The remote sensing technology used in the assessment is unable to detect young plantations. Thus, some of the plantations that were detected to have been established during 2015–2019 had probably already been established in the previous observation period 2005–2010. Since the actual figure in the first period is higher than the one estimated, and in the second period it is lower, the drop in plantation establishment from the first period to the second is likely to be much more significant than the figure produced by the assessment.
- 34 Including social and environmental impact frameworks, Best Practices Guidelines, FSC/PEFC forest certification, private sector shareholder expectations of meeting social and environmental safeguards, and the Equator Principles.
- 35 The origin of the 70 percent target was a discussion at the national forest conference in 1989. The Lao government took the decision based on the country’s original historic forest cover. Since that date, the target has not changed.
- 36 This would require an amendment to Decree 333, which states that PtFAs shall be divided into two zones—a strictly protected core zone and a controlled use zone designed for ‘traditional’, noncommercial practices.

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CHAPTER 3

Making Domestic Markets Work for Job Creation

Key messages

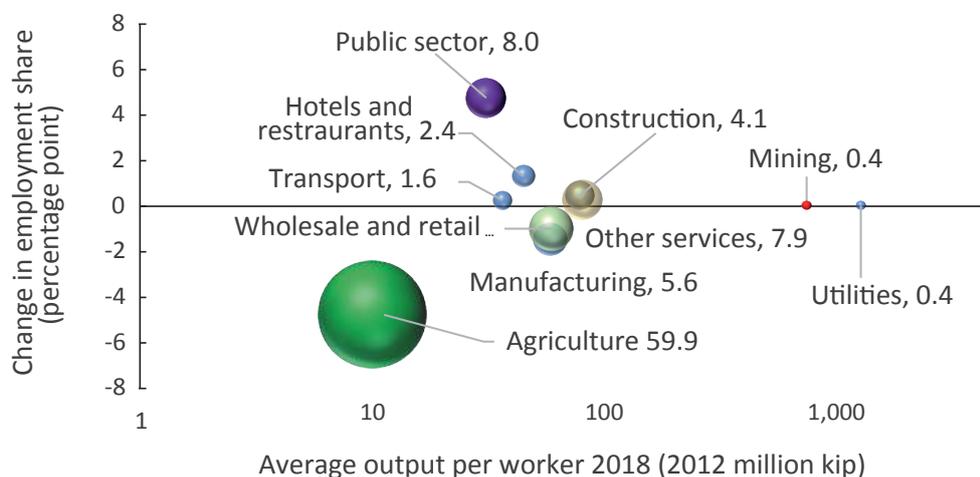
- **The competitiveness of Lao businesses has eroded since the early 2010s.** In manufacturing, labor costs have increased more rapidly than productivity gains, reducing profitability and stalling employment. Most service businesses remain small. In some subsectors, a few businesses have raised profitability and productivity following increased domestic demand.
- **Between 2012 and 2018, overall private-sector employment declined.** A few subsectors, including textiles, electrical equipment, and hospitality, recorded net job creation. A shift from wage employment toward self-employment was observed in the textile and construction sectors, reflecting rising labor costs and increased competition in global markets.
- **There was a shift in the skill composition of employment away from secondary-educated workers, creating a skills mismatch in the labor market.** In manufacturing, the shift was largely towards primary-educated workers. In non-government services, the share of both tertiary-educated and primary-educated workers increased.
- **The COVID-19 pandemic has affected an already weak labor market.** The pandemic had severe effects on hospitality and transport, previously the largest non-farm, job-creating sector. Job losses were also widespread in the manufacturing sector, following a contraction in exports. Agriculture has been more resilient, acting as a buffer by absorbing workers laid off in other sectors.
- **The ability of Lao businesses to grow and create jobs requires a conducive business climate and fluid labor market.** Ensuring a level playing field, curbing informal practices, investing in skills, and improving job matching would support private sector development and ensure more inclusive participation in the growth process.

Introduction

Laos' economic growth has been largely driven by its natural resource sector, which has created only a limited number of jobs. Following reforms in the late 1980s, the natural resource sector has become the most vibrant sector in the economy. However, due to its capital-intensive nature, this has created few jobs.

From 2012 to 2018, the hydropower sector, which grew by an average of 17.8 percent per year, had only a limited impact on overall employment. The mining and hydropower sectors accounted for 20.7 percent of GDP in 2018/19, but these sectors contributed to less than 1 percent of total employment (see Figure 3.1).

Figure 3.1
Employment and value added by sector, 2012–18



Source: World Bank staff estimates based on GDP data, LECS 5 and LECS 6.

Note: Bubble size reflects sectoral employment shares in 2018 (percent). The public sector refers to public administration and defense as well as compulsory social security.

Resource-driven growth has not resulted in strong private sector development in the non-resource sectors, constraining its impact on employment. Only 35 percent of foreign direct investment (FDI) over the past ten years has been drawn to the non-resource sector.³⁷ In the Eighth National Socio-Economic Development Plan (NSED) (2016–2020), the Lao government acknowledged the need to diversify the economy beyond the natural resource sector to ensure greater sustainable growth and job creation. To attract FDI to prioritized non-resource sectors, including agriculture, manufacturing, handicraft, and services, the government has introduced a range of policies, including the establishment of special econom-

ic zones (SEZ) across the country, with these zones providing infrastructure, commercial facilities and generous tax incentives to attract specific industries. Despite these efforts, barriers to attracting FDI remain, with the overall business climate still poor. The non-farm private sector remains weak, contributing to only 26 percent of total national employment and 56 percent of wage employment in 2018.

With its dependence on the natural resource sector, Laos has experienced jobless growth. As with other resource-based economies, Laos is vulnerable to macroeconomic distortions that adversely affect employment dynamics and weaken productivity both within and

across sectors. An inability to leverage natural resource revenues to generate stronger domestic demand and an increase in productive activities in the non-resource sector sustains a vicious cycle of jobless growth. From 2007 to 2018, the non-seasonal unemployment rate increased from 0.8 percent to 3.2 percent, with seasonal unemployment surging from 2.3 percent to 12.5 percent.³⁸ Moreover, to the limited extent that job creation has occurred, it has been driven primarily by the expanding public sec-

tor. Despite the government's efforts to curb corruption and to improve the investment climate, the unfavorable business environment and the prevalence of rent-seeking behavior make it difficult for investors to gain access to certain business sectors. Cumbersome tax rates and regulations; high barriers to business entry; the prevalence of a deals-based approach to business activity; and the poor enforcement of regulations continue to constrain private-sector development (see Chapter 4; World Bank 2017b; WEF 2017).

Private sector

The competitiveness of manufacturing businesses has eroded, with unit labor costs increasing significantly, while most businesses in the services sector remain small and unproductive.

Laos' private sector is fragmented, with a large proportion of small and medium-sized businesses. Conducted in 2019/20, the latest available economic census shows that around 99.8 percent of registered businesses consisted of small, and medium enterprises (SMEs), with less than 100 employees, with 90 percent employing one to five workers.³⁹ About 80 percent of enterprises operated in three sectors (wholesale and retail trade, hotel and restaurant, and manufacturing).⁴⁰ Among surveyed businesses, the average number of employees fell from 4.2 in 2013 to 3.7 in 2020 (LSB, 2015 and LSB, 2021). This was led by a decline in the manufacturing sector, with the average number of employees dropping from 7.8 to 5.9. The share of large businesses (more than 100 employees) declined slightly over the same period, going down from 0.25 percent to 0.17 percent.

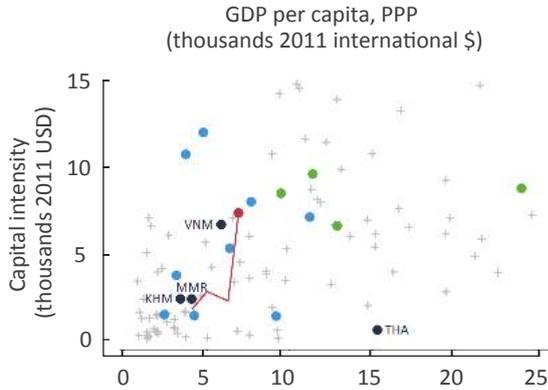
Laos manufacturing businesses are less productive than those in Cambodia and Vietnam, making Laos a less attractive FDI destination.

According to the World Bank Enterprise Surveys (WBES), the median level of labor productivity of Lao manufacturing businesses is around \$4,090, comparable to that of most structural peers.⁴¹ Compared to neighboring countries, the median Lao business is slightly more productive than the median business in Myanmar, but 61 percent less productive than in Vietnam.

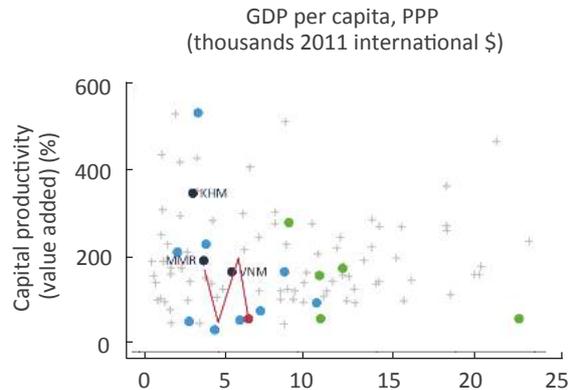
During the past decade, while Lao manufacturing businesses have become more capital intensive, there has been no corresponding efficiency improvement in the use of capital (see Figure 3.2). The median level of capital intensity, as measured by capital per worker, surged from \$1,820 in 2009 to \$7,059 in 2018, surpassing the level in Vietnam (\$6,915 in 2015).⁴² During the same period, investment in manufacturing businesses' fixed assets increased from an average of \$600 per worker to \$940 per worker, or from \$1,900 per worker to \$2,900 per worker among businesses that made any investment in such assets. However, the more intensive use of capital has not been accompanied by greater efficiency in use of capital, with capital productivity (which measures the amount of value added produced per unit of capital) declining over the period.

Figure 3.2
Trends in the manufacturing sector, 2009-18

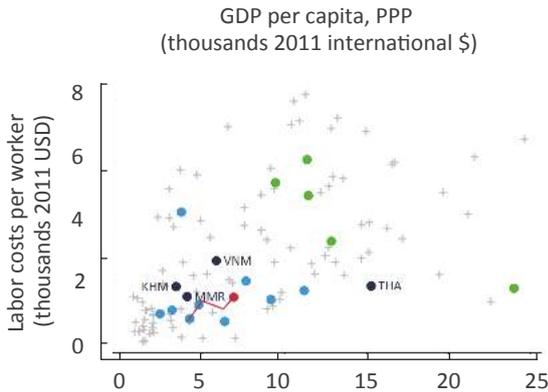
Firms became more capital intensive



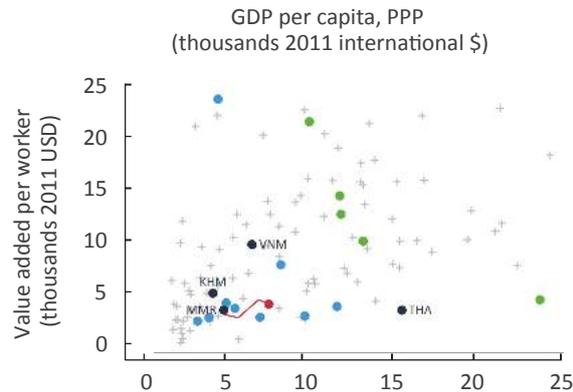
...but the use of capital was not productive



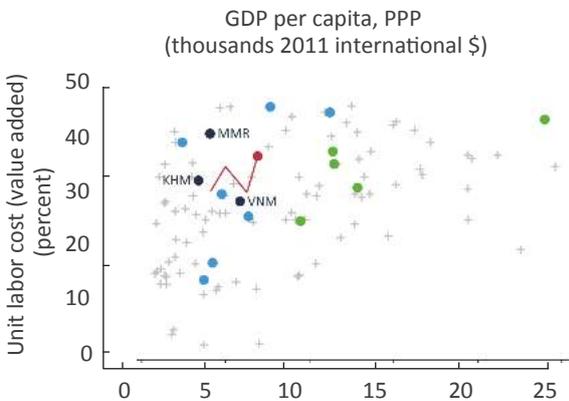
At the same time, labor costs increased despite no significant change in skill levels,



... resulting in low labor productivity growth,



...and rising unit labor costs, eroding the competitiveness of manufacturing firms.



Source: Staff analysis using WBES, various years.
Note: The chart comprises the latest median values from WBES surveys conducted in 120 countries and previous surveys (2009, 2012, 2016, 2018) conducted in Laos. Firms with negative value added are dropped. Outliers above the 95th percentile on the y-axis were excluded from the chart. Countries with greater than \$25,000 in GDP per capita, PPP (2011 international dollars) are not shown. Survey weights applied. Structural peers (and the year of their most recent WBES) comprise: Bhutan (2015), Bolivia (2017), Ghana (2013), Kyrgyz Republic (2019), Mongolia (2019), Nepal (2013), Papua New Guinea (2015), Uzbekistan (2019), Zambia (2019), and Zimbabwe (2016). Aspirational peers comprise: Botswana (2010), China (2012), Kazakhstan (2019), Paraguay (2017), and Peru (2017). Regional peers are neighboring countries: Cambodia (2016), Myanmar (2016), Thailand (2016), and Vietnam (2015).

Latest observation:

- Laos: 2009-2018
- Structural peers
- Aspirational peers
- Laos
- Regional peers

The competitiveness of manufacturing businesses has eroded, with unit labor costs increasing significantly. From 2009 to 2018, the average labor costs per worker more than doubled, going up from \$708 to \$1,444. This increase was likely the result of the wage demonstration effect stemming from expanding public sector employment; high wages in the resource sector; and rising minimum wages, rather than from an improvement in skills levels. The skill composition of waged workers in the manufacturing sector barely improved between 2008 and 2018. In fact, the share of workers who had completed secondary education or higher declined from 45 percent in 2008 to 37 percent in 2018. Unit labor costs (labor costs divided by value-added) increased, with higher labor costs not fully matched by rising productivity. Lao businesses were trapped in a vicious circle. On the one hand, they could not afford to deploy expensive skilled workers because of their low productivity. On the other hand, without skilled workers, including skilled managers, they were unlikely to become productive.

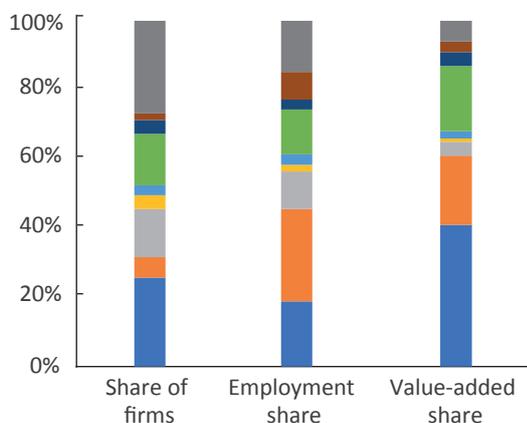
In the services sector, while average labor productivity grew due to the establishment of a small number of high-productivity enterprises, most businesses remain small and unproductive. Between 2009 to 2018, the average level of labor productivity of businesses in the services sector increased by 17 percent per year, compared to 6.8 percent for the median firm. This suggests that the increase was driven by a small number of high-performing enterprises, most of which operated either in the wholesale and retail trade or the transport and communication sectors.⁴³ Nevertheless, most businesses in the services sector remain small. According to the 2019/20 economic census, there are fewer than 100 service businesses with more than 100 employees, and fewer than 250 with more than 50.

Some manufacturing subsectors have the potential to create more productive employment, particularly food, beverage, and tobacco; textiles, apparel and leather; and rubber, plastic, and non-metallic minerals

Manufacturing production is concentrated within a few subsectors. The Manufacturing Establishment Survey (MES, 2016) enables further examination of the sector, although analysis of industry dynamics over time is constrained by the lack of repeated survey rounds.⁴⁴ According to MES 2016, three subsectors (food, beverage, and tobacco; textiles, apparel and leather; rubber, plastic, and non-metallic minerals) account for around 80 percent of value added and 60 percent of employment (see Figure 3.3). A further examination shows that food, beverage, and tobacco accounts for 41 percent of value added in the manufacturing sector, while textiles, apparel, and leather manufacturing account for 27 percent of employment.

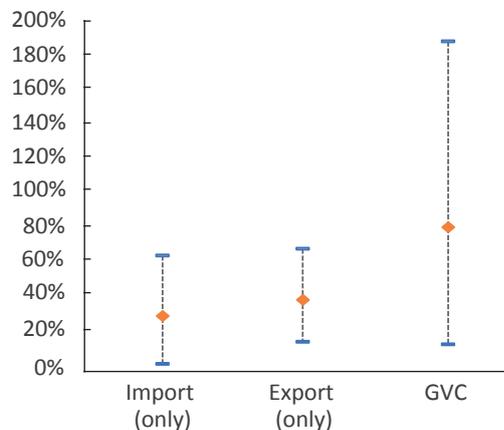
Businesses that engage in exports and/or that are integrated in global value chains (GVCs) have generally higher levels of productivity. On average, exporting businesses are 41 percent more productive than domestic manufacturing businesses, with the productivity premium increasing to 82 percent for businesses integrated in GVCs (see Figure 3.4). Trade integration augments market size, which is a key limitation to businesses' expansion in the country. Foreign consumers demand higher quality products, creating incentives for manufacturers to improve output quality to access these markets. Increased imports of capital goods and the adoption of new technologies also increase productive efficiency (Bustos, 2011). Deeper integration into GVCs is thus essential for Lao businesses in the manufacturing sector to expand and increase their productivity (See Chapter 4).

Figure 3.3
Composition of the manufacturing sector



- Furniture and others
- Electrical, machinery, transp.
- Metals
- Rubber, plastic, non-metallic
- Chemicals
- Coke and refined petroleum
- Wood, paper and printing
- Textiles, apparel, leather
- Food, beverages, tobacco

Figure 3.4
Productivity improvement by GVC participation



Source: Manufacturing establishment survey (2016).
 Note: Coke and refined petroleum is mainly the manufacture of coke oven products. Other manufacturing is ISIC code 32 (Rev.4), including manufacture of jewelry, musical instruments, sports goods, games and toys, medical and dental instruments, and n.e.c. GVC firms are those that import raw materials and export products. Productivity is measured by revenue productivity as in Hsieh and Klenow (2009). The 1% tails of the distribution of revenue productivity relative to the industry average revenue productivity are excluded, resulting in 897 observations included in the regression analysis. Impact on productivity is based on coefficients from regression analysis that controls for sector, region, foreign ownership, government ownership and capital to labor ratio. The estimates show a percentage increase in the productivity level compared to domestic firms with 95% confidence interval.

The textiles, apparel, and leather subsector is the largest contributor to manufacturing employment and has the potential to create more productive employment. Despite constituting only 6 percent of businesses in the manufacturing sector, this subsector contributes to 27 percent of manufacturing employment and to 20 percent of manufacturing value added. Around 40 percent of businesses in the subsector participate in GVC, accounting for more than half of manufacturing businesses involved in GVC

(MES, 2016). It also records the highest level of industry average productivity, largest share of female employment, and the largest share of operative (mostly low-skilled) workers (see Figures 3.5 and 3.6). Although there is evidence that trade integration leads to a greater allocation of labor towards the formal sector, government efforts to expand formal employment and to strengthen labor regulations and their enforcement are still important to the protection of low-skilled and female workers.⁴⁵

Figure 3.5
Productivity and employment share

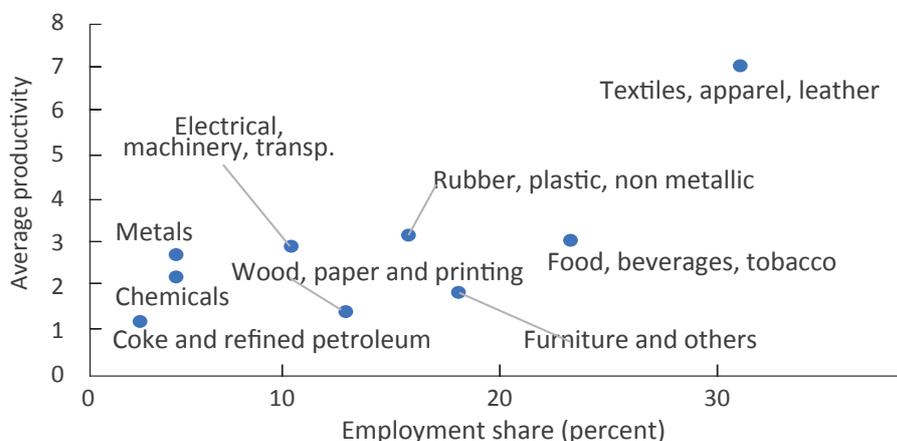
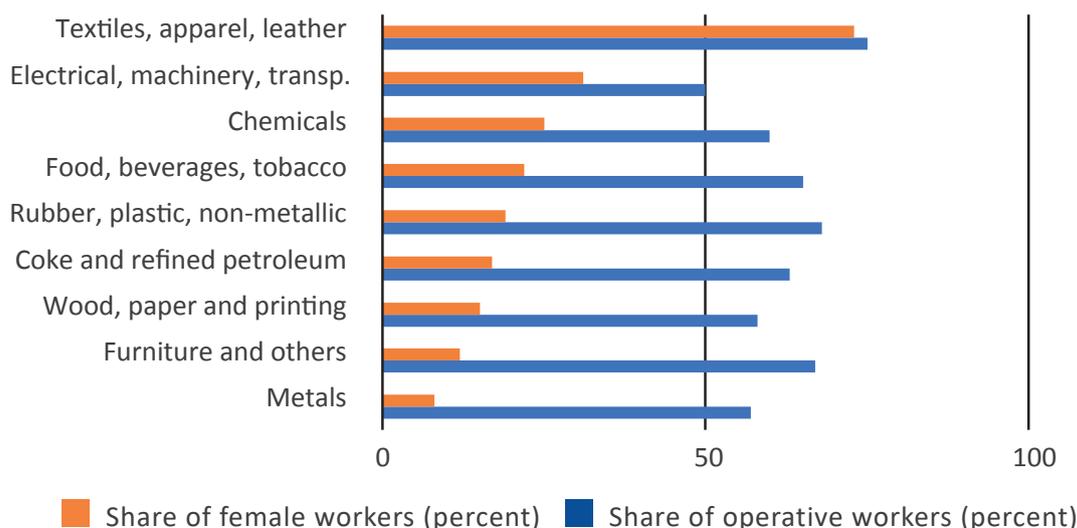


Figure 3.6
Worker composition by subsector



Source: Manufacturing establishment survey (2016).

Note: Coke and refined petroleum manufacturing is mainly the manufacture of coke oven products. Other manufacturing is ISIC code 32 (Rev.4), including the manufacture of jewelry, musical instruments, sports goods, games and toys, medical and dental instruments, and n.e.c. Average productivity is measured by the industry average revenue productivity as in Hsieh and Klenow (2009). The 1 percent tails of the distribution of revenue productivity relative to the industry average revenue productivity are excluded. The share of operative workers and the share of female workers are the averages across firms in each industry.

The agro-processing industry could be leveraged to create a greater number of productive jobs, with spillovers for agriculture. One-quarter of manufacturing firms are agro-processing businesses (food, beverages, and tobacco). Of these, only a quarter export and only 3 percent participate in GVC. While the sector

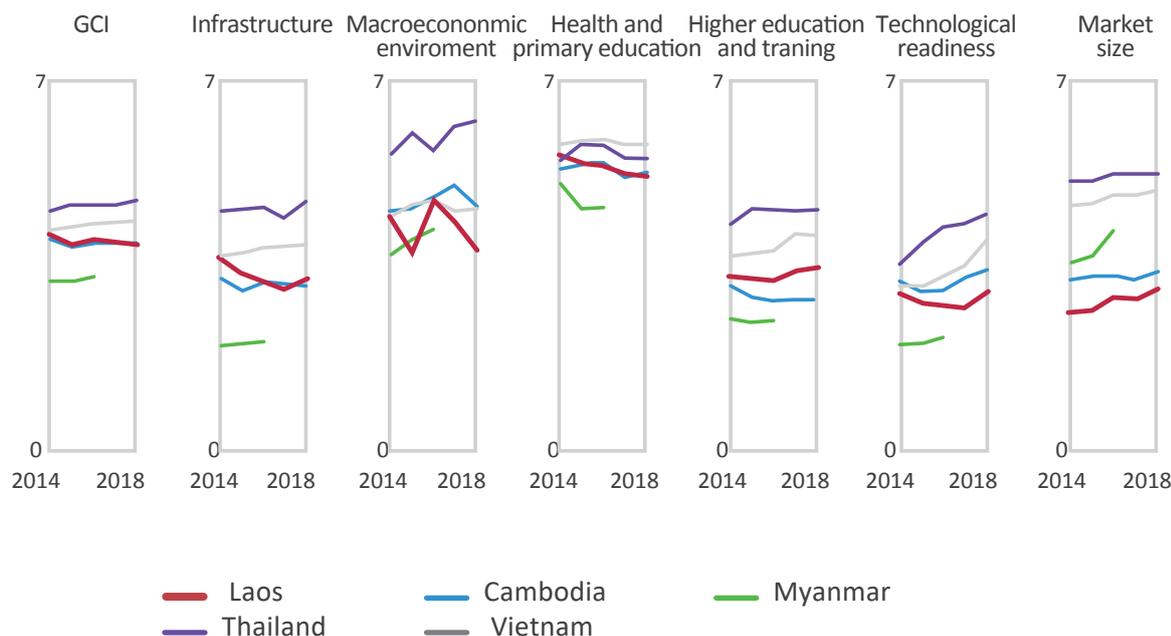
contributes to only around 2 percent of total employment, it has strong linkages with the agricultural sector, which employs more than half of Laos’ labor force. The sector records a moderate level of industry-average productivity, with high wage growth from 2012 to 2018 (see Figures 3.5 and 3.6). Despite a growing food and beverage

industry in the region, agricultural value chains still suffer from underinvestment in processing. Improved access to affordable credit and targeted public investment would support productivity gains and the emergence of modern value chains, generating more high-quality jobs.

The five most significant constraints on business expansion are a lack of access to finance; unfair practices of informal competitors; skills shortages; burdensome tax regulations and compliance requirements; and inadequate infrastructure.

Laos' competitiveness eroded between 2013 to 2017, mainly due to declines in infrastructure, the macroeconomic environment, and basic human capital. The country's ranking in terms of the Global Competitiveness Index went down by 17 places, from 81st place in 2013 to 98th place in 2017, out of 138 countries (WEF, 2017). Laos lags behind its regional peers in a number of areas, including infrastructure, macroeconomic environment, health and primary education, higher education training, technological readiness, and market size (see Figure 3.7).

Figure 3.7
Global competitiveness index and selected pillars (0=low to 7=high)



Source : WEF.

According to the World Bank Enterprise Survey (2018), the five most significant constraints on doing business in Laos are lack of access to finance; competition from informal businesses; skills shortages; burdensome tax rates and regulations; and inadequate infrastructure. Lack of access to finance was

most often cited as the most significant constraint (27 percent), followed by competition from informal businesses (17 percent); skills shortage (12 percent); tax rates (10 percent); inadequate electricity supply (10 percent); and inadequate transport infrastructure (6 percent).⁴⁶

In recent years, the liquidity of Laos' financial sector has declined dramatically, intensifying constraints on access to finance. The share of enterprises citing lack of access to finance as the most significant constraint on doing business declined from 21 percent in 2008 to 4 percent in 2016, before surging to 27 percent in 2018, when financial sector liquidity dried up. A lack of access to finance is a major constraint for low-productivity businesses, often SMEs. Among businesses in the bottom productivity quartile, nearly 20 percent said inadequate access to finance was the most pressing constraint on their business operations, compared to 10 percent of firms in the top productivity quartile.

Informality is prevalent in Laos, relating both to the practices of informal or unregistered businesses and the informal practices of formal businesses. There are four main types of informality practices in Laos business environment: i) inadequately registered enterprises; ii) widespread tax evasion; iii) irregular adherence to complex and burdensome regulations; and iv) a culture of non-compliance with basic rules and standards (World Bank, 2017a). A complex business environment does not incentivize businesses to formalize. In 2020, Laos ranked in 181st place out of 190 countries in terms of ease of starting a business; 170th place in terms of protecting minority investors; 168th place in terms of resolving insolvency; 161st place in terms of enforcing contracts; and 157th place in terms of paying taxes (World Bank, 2020a). Registered businesses that adopt formal practices incur higher costs and feel at a disadvantage compared to rule-evading competitors who they claim do not experience the same level of scrutiny from officials.

Problems related to informality appear to have worsened over time. The share of business managers reporting informal practices of competitors as the biggest constraint on their business increased from 8 percent in 2008 to 17 percent in 2018.

Among businesses in the top productivity quartile, 27 percent cited this as the biggest obstacle, compared to 18 percent of businesses in the bottom productivity quartile.

While concerns regarding tax rates have declined, issues related to tax compliance remain. The proportion of survey respondents stating that tax rates were the most pressing issue affecting their business declined from 31 percent in 2008 to 10 percent in 2018. This is in part due to the government lowering the corporate tax rate during this period, from 35 percent in 2008 to 28 percent in 2012, and then to 24 percent in 2013. Effective as of February 2020, the rate has been further reduced to 20 percent. Nevertheless, tax compliance, especially post-filing, remains burdensome, with processes such as tax audits and VAT returns remaining time-consuming and complicated.

Despite significant improvements in workers' levels of educational attainment, skills shortages continue to drag on Laos' competitiveness. The proportion of survey respondents citing skills shortage as the most significant constraint on doing business went down from 21 percent in 2008 to 12 percent in 2018. This reflects an improvement in average levels of educational attainment over the past decade, with the gross enrollment ratio for lower secondary education increasing from 54 percent in 2008 to 77 percent in 2018. In the case of upper secondary education, the gross enrollment ratio increased from 34 percent to 54 percent over the same period, while for tertiary education, it increased from 44 percent to 67 percent. Nevertheless, nearly 20 percent of firms in the top productivity quartile cited an inadequately educated workforce as the most significant constraint on their business operations in 2018. Laos also has lower levels of human capital than its regional peers, including Myanmar, Cambodia, Vietnam, and Thailand, making it less attractive for FDI and reducing the country's competitiveness.

Improving connectivity and transport is essential to achieve higher levels of trade integration and to increase the competitiveness of Laos’ manufacturing sector. In the survey, the poor quality of transport infrastructure was cited as one of the most significant

constraints among enterprises seeking to expand their business. Improved transportation and logistics would enable firms to access larger product and input markets at a lower cost, both domestically and regionally (see Chapter 4).

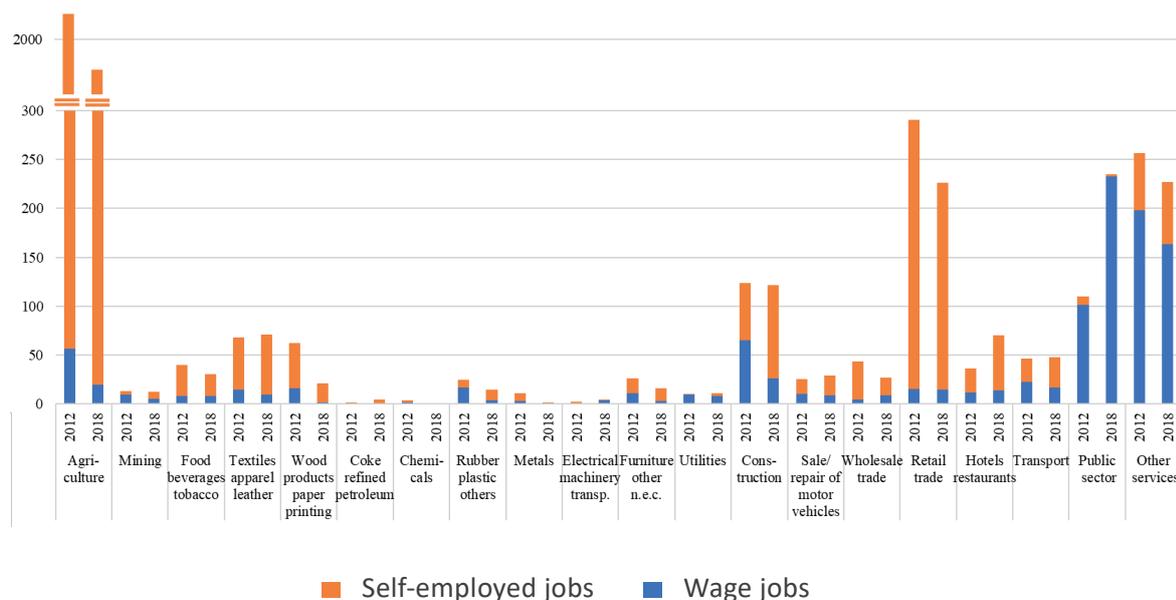
Impact on employment creation

The overall private-sector employment declined. Nevertheless, a few subsectors recorded net employment gains, including textiles, apparel, and leather; electrical, machinery, and transportation equipment; manufacture of coke oven products; hospitality; and transportation.

half of which were wage jobs. Wood product manufacturing alone accounted for 40,000 job losses. The wholesale and retail trade sector shed the most workers, at about 77,000 in total, almost all of whom were self-employed (see Figure 3.8). While some of these workers might have found new jobs in the hospitality sector, in which employment increased, many have left the workforce. As a result, the industry and services sectors were not able to absorb the surplus agricultural workforce.

Between 2012 to 2018, the number of jobs in Laos’ non-farm private sector declined by nearly 150,000. The number of jobs in manufacturing went down by almost 75,000, more than

Figure 3.8
Trends in employment by sector (thousand, 2012-18)



Source: LECS5 and LECS6. Survey weights applied.

The non-farm sector's failure to generate more jobs resulted in a severe slack in the labor market, with non-seasonal and seasonal unemployment increasing and labor force participation declining. The non-seasonal unemployment rate soared from 0.6 percent in 2012 to 3.2 percent in 2018. The unemployment rate stood at 6.6 percent for youth, who faced uniquely high barriers to enter the labor market (World Bank, 2021a). Seasonal unemployment also increased, partly due to more extreme weather events and to the limited availability of off-season jobs in the non-farm private sector. Many farm workers, who account for more than half of Laos' labor force, turn to the non-farm private sector for employment during the off-season period. In the 2012-2018 period, the seasonal unemployment rate increased from 3.5 percent to 12.5 percent, contributing to 80 percent of total unemployment in 2018.⁴⁷ The labor force participation rate fell from 84.6 percent to 72.1 percent over the same period, suggesting that the unemployment rate

understates the true share of the out-of-work population in the labor market.

Jobless growth has prevented the economy from reaping a demographic dividend. Laos' workforce has expanded sharply since 1993, with the ratio of working-age population (those aged 15 to 64) to non-working-age population increasing from 1.1 to 1.7. In expanding economies, surplus labor typically moves from traditional agriculture or informal sectors to industrial, service, or formal sectors (Kuznets, 1973). In Laos, however, this shift has been halted, with employment creation stagnating in recent years and with the employment-to-population ratio declining from 81.9 percent in 2012 to 60.8 percent in 2018 (see Figure 3.9). Although this estimate is roughly equal to the average ratio for resource-rich peer countries (60.9 percent), it is lower than that of regional peers (71.5 percent). For Laos to reap the benefits of this demographic dividend, a higher share of the working-age population needs to enter the workforce.

Figure 3.9
Trends in the labor market (million, 2012-2018)



Laos' public sector was the leading contributor to job creation between 2012 to 2018, adding around 125,000 jobs. In 2018, the public sector employed 6.7 percent of the labor force, a substantial increase from the 3 percent recorded in 2012, accompanied by a decline in private-sector wage jobs. Although public-sector employment adds to overall job

creation, it may crowd out jobs and investments in the private sector by exerting upward pressure on reservation wages and attracting scarce human resources away from private businesses. The average real public sector wage rose by nearly 10 percent each year during this period, higher than in almost all other sectors (see Figure 3.10).

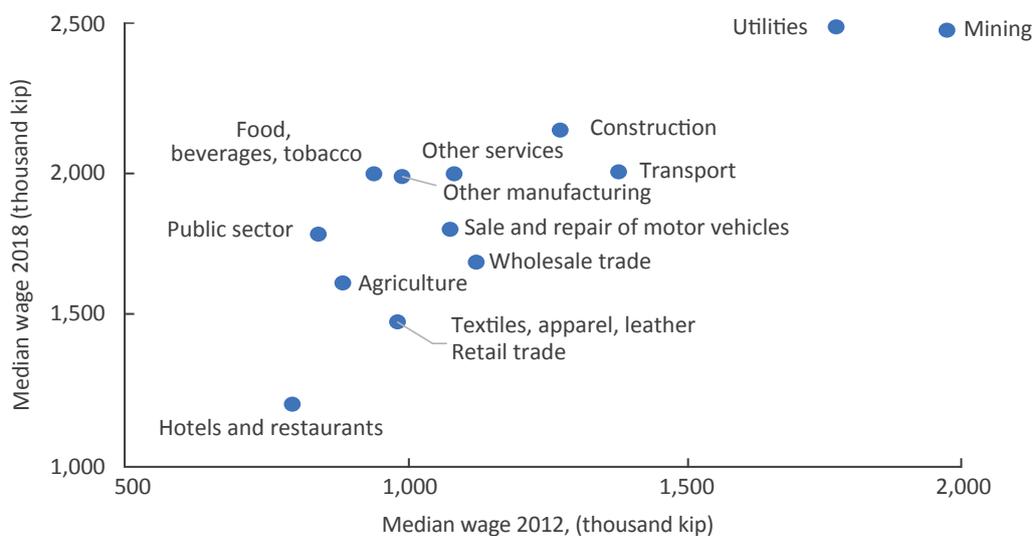
Despite the overall decline in employment, a few subsectors recorded net employment gains. Manufacturing subsectors that recorded net job increases included: a) textiles, apparel, and leather; b) electrical, machinery, and transportation equipment; and c) coke oven products. Despite this net job creation, the textile and rubber industries experienced a shift from wage jobs towards self-employed jobs. This could be attributed to firms cutting formal employment due to increased competition in global markets, and to an increase in the minimum wage from 620,000 kip in 2011 to 1.1 million kip in 2018. Hospitality and transportation also recorded net job creation due to increases in tourism and FDI-related activities. Together, these sectors created around 35,000 almost exclusively self-employed jobs, mostly in Vientiane and the northern region, where large infrastructure projects were being implemented.

Agro-industry created some wage jobs, with the sector also experiencing relatively high wage growth. Despite an overall net job loss, agro-industry recorded an increase in wage employment over this period. The food sector experienced stronger wage growth than other sectors (see 3.10), with the median real

wages of full-time paid employees in agro-industry increasing by an average of 13.5 percent each year over the 2012-18 period, compared to the all-sector average of 10.6 percent.

Over this period, despite a decline in agricultural jobs due to increased seasonal unemployment, economic returns on commercial agriculture improved. For agricultural wage workers, most of whom work in large-scale farming, the median wage increased by 10.6 percent per year between 2012 and 2018 (see 3.10). For family farmers, market trends have encouraged adjusted crop choices in response to changing demands and prices, and a shift toward higher value crops (World Bank, 2020b). Increasing demand for cassava from Thailand and Vietnam and for cardamom from China, South Korea, and Vietnam has led to more farmers growing these crops and adopting improved production methods. This increased commercialization has resulted in an almost 20 percent rise in farm productivity among these farm households. Nevertheless, more than 70 percent of farm households continue to engage in subsistence agriculture, mostly rice-based, with their productivity barely improving.

Figure 3.10
Trends in wages (thousand kip, 2012-2018)



Source: LECS5 and LECS6. Survey weights applied.
Note: Median monthly wage of wage employees who reported more than 30 hours worked per week expressed in thousands constant 2018 kip. Some manufacturing subsectors are grouped together due to small sample size.

The pandemic hit the hospitality and transport sectors particularly hard, while placing additional pressure on the already-weak manufacturing sector. Hospitality and transport were among the first sectors to be affected by the pandemic, due to travel restrictions and the decline in tourism. It is estimated that about 50 percent of workers employed in hospitality before the pandemic had either lost or changed their jobs by the end of Q2 2020 (World Bank, 2020c). A year into the pandemic, international borders remained closed, with all tourist visas and most international flights still suspended. Hospitality and transport workers have continued to suffer greatly. Not only had relatively few workers in the sectors managed to return to employment by the end of Q1 2021, this sector was still shedding jobs in Q2 2021 (World Bank, 2021b). Supply chain disruptions and a contraction in external demand have led to a decline in trading volumes between Laos and its major trading partners (see Chapter 4). The adverse impact on manufacturing employment has also persisted.

Between Q2 2020 and Q2 2021, the manufacturing sector also experienced widespread job loss, following a contraction in the sector's exports. Nevertheless, the manufacturing sector showed some resilience, with most workers who had lost their jobs managing to return to employment or to move to other sectors.

Agriculture has been relatively resilient to the pandemic and has acted as a buffer, absorbing workers laid off in other sectors. With over three-quarters of households holding a family farm, in Q1 2021, 94 percent of these households were able to continue to operate their family farm normally. Anecdotal evidence shows that farmers tended to change their crop choices in accordance with changing demands and prices during the pandemic (e.g., shifting from cabbage to cassava). Moreover, a large share of workers who lost their jobs in manufacturing, construction and services as a result of the pandemic have moved back to the agricultural sector (World Bank, 2021b).

Box 3.1

Special Economic Zones and local employment and local employment

The Lao government has established SEZs as part of its strategy to shift towards market-based economic systems by attracting FDI. In order to establish a business in a SEZ, companies need to apply for a license. Applications are reviewed on a case-by-case basis, with government approval required. The terms of the investment depend on the type, size and location of each SEZ. A range of SEZs have been established with specific facilities to attract businesses in targeted sectors, including electronics, scientific and new technology research, tourism infrastructure, organic products, and a number of others. Incentives include tax exemptions for importing equipment and raw materials for infrastructure construction, and reduced income tax and value added tax. There are currently 12 SEZs in Laos, with approximately 388 companies from Laos and overseas, with a total registered capital of \$8 billion (IOM, 2019)

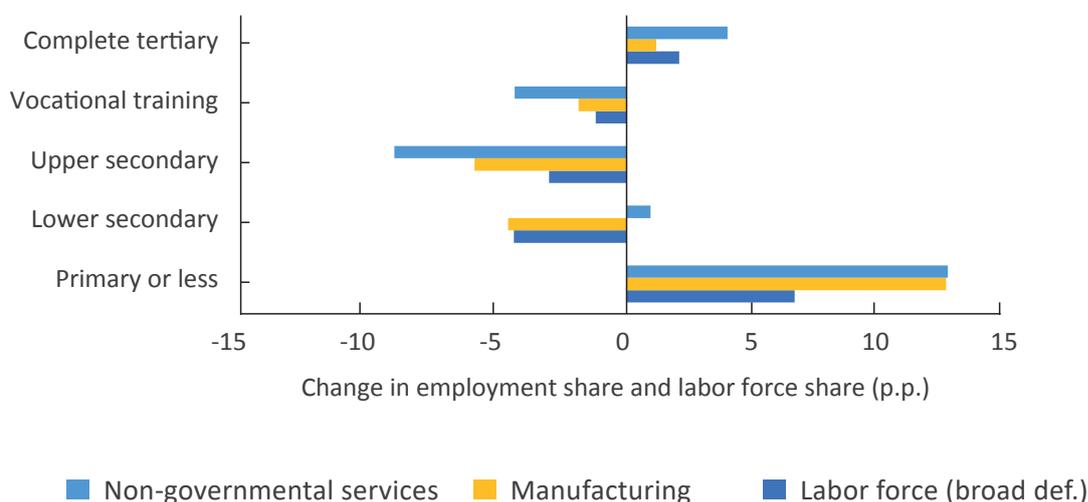
The impact of SEZs on local employment is limited. In these zones, the state has largely relinquished its zone development role, granting full authority over planning and regulation to zone developers. This may have undermined the potential of SEZs to generate economic and employment growth (Laungaramsri, 2017). In 2018, the total number of workers employed in the 12 SEZs stood at 24,982, constituting 7 percent of non-farm private sector employment. However, almost two thirds of these were foreign workers, with 16,031 foreign workers and 8,951 were Lao workers. Language barriers and a lack of professional skills were identified as key constraints to local recruitment. The unattractive social welfare and wages offered to Lao workers also discourage them from taking up jobs in the SEZ (NERI, 2018). For low-skilled work in SEZs in the northern region, Lao workers are discouraged by migrant laborers from Myanmar, who are willing to accept relatively low wages (Laungaramsri, 2017).

The dynamics of the non-farm private sector have created a skills mismatch in the labor market.

With the decline in the competitiveness of the manufacturing sector, businesses have shifted their employment largely towards low-skilled workers. Between 2012 and 2018, the proportion of workers in the manufacturing sector who had completed secondary school

dropped, with a corresponding increase in the proportion of workers who had only completed primary school and a slight increase in the proportion of those who had completed tertiary education (see 3.11). With labor demand shifting towards low-skilled workers, the average rate of return to an additional year of education in the manufacturing sector declined from 5.8 percent in 2012 to 4.4 percent in 2018 (World Bank 2020b).

Figure 3.11
Changes in skills composition of employment and labor force



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, so it includes potential discouraged workers. Service sector employment excludes public employees.

In the services sector, there was a decline in the proportion of workers with secondary-level schooling and increases in the proportion of primary-educated and, to a lesser extent, tertiary-educated workers. In particular, the emergence of a few major high-performing service providers created jobs for tertiary-educated workers. While the services sector continued to support the employment of primary-educated workers, the sectoral share of workers with upper secondary education or vocational training declined (see Figure 3.11). The information and communications subsector recorded a one-way shift in employment

towards the relatively skilled group (upper secondary- and tertiary-educated workers), with the median real wage increasing by 12.6 percent per year, compared to 7.7 percent for the non-government service sector overall. In contrast to manufacturing, the average rate of return to 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 a scarcity in the supply of highly-educated workers in this sector.

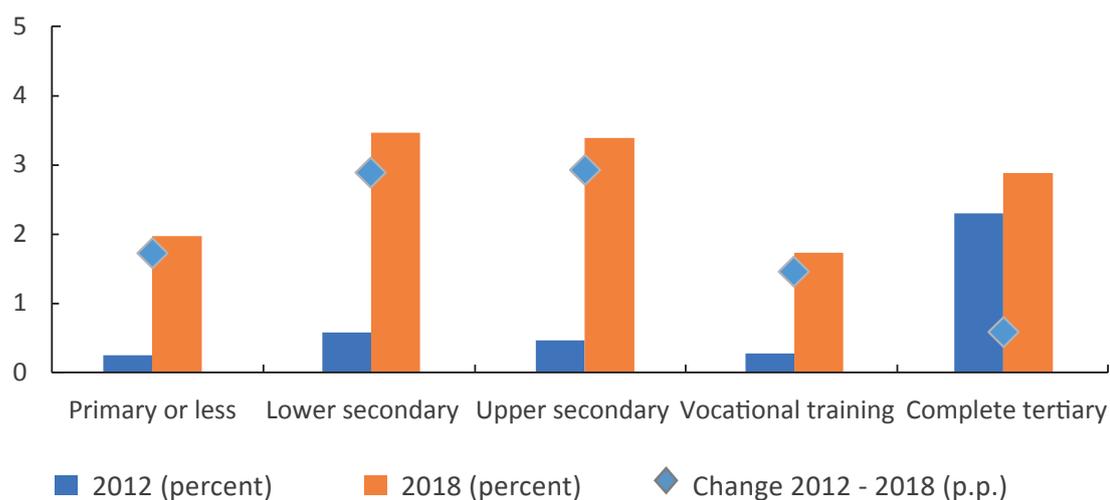
In the case of youth workers, there was a shift away from those with higher levels of

educational attainment. From 2012 to 2018, the non-seasonal unemployment rate increased dramatically, going up from 7.4 percent to 23.9 percent among tertiary-educated youth and from 0.9 percent to 19.8 percent among those with vocational training, with the rate marginally increasing, from 2.3 percent to 2.9 percent, among tertiary-educated adult workers (see Figure 3.12). This suggests that young workers face a significant barrier entering the non-farm labor market. The service sector was the biggest contributor to the loss

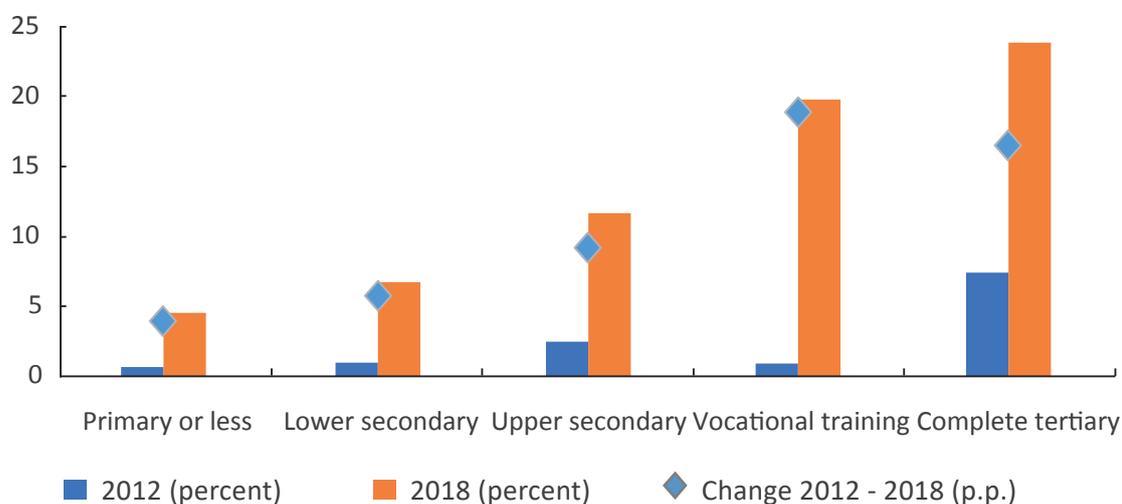
of jobs among highly-educated young people, resulting in a persistently high unemployment rate among this group. Unlike low-educated youth, who are more likely to have the option of returning to farming activities, well-educated young workers are primarily active in non-farm labor markets, with many choosing voluntary unemployment while waiting for a quality job in the formal sector. Overall, 6.6 percent of the young labor force were unemployed due to reasons not related to seasonality in 2018, creating long-lasting scarring effects.

Figure 3.12
Non-seasonal unemployment rate by skill level

(a) Adult (25+)



(b) Youth (age 15 - 24)



Source: LECS5 and LECS6.

Conclusion and policy recommendations

Laos faces challenges common to many countries that have adopted a resource-based growth model. Since the early 2010s, Laos' tradable non-resource sector (manufacturing) has experienced increased labor costs due to a number of factors, including expanding public sector employment, high wages in the resource sector, and rising minimum wages. However, the weak business environment has meant that productivity has not risen in proportion to the increase in wages. This has negatively impacted manufacturing businesses' profitability and productivity and stalled employment. This phenomenon is also associated with the shift within the manufacturing sector away from secondary-educated workers, mainly towards primary-educated workers, although understanding the factors behind this adjustment warrants further investigation. In the non-tradable sector (services), increased domestic demand has resulted in increased profitability in certain subsectors, with expansion and productivity gains driven by a small set of businesses. However, most enterprises in this sector remained small and unproductive. Employment polarization has also occurred in the services sector, with the share of tertiary-educated and primary-educated workers in non-government services employment increasing and that of primary-educated workers decreasing between 2012 to 2018. The economy has been trapped in a *low demand–low productivity–low job* creation cycle, despite high rates of growth. A strong private sector and a vibrant labor market are crucial to achieving greater job creation and more inclusive growth.

The development of a strong private sector requires a regulatory environment that ensures a level playing field and that curbs unfair competition and informal practices. Measures to achieve this include: a) deepening business climate reforms and trade integration to

enhance productivity, especially in industries with the potential to create productive employment (e.g. agro-industry; textiles, apparel and leather; electrical, machinery and transportation equipment; hospitality; and transportation); b) establishing a one-stop business registration service to reduce burdensome processes and encourage formalization; c) eliminating or streamlining regulations to ensure transparency and consistency in the tax and regulatory systems to curb informal practices; d) aligning FDI incentives to ensure that these investments maximize the impact on local employment and facilitate backward linkages between SEZs and the domestic economy; e) improving access to finance and electricity to enable small and medium enterprises to achieve their potential; and f) improving domestic and regional connectivity to augment market size and to facilitate labor mobility.

Investing in skills and ensuring a well-functioning labor market are also important to ensure more inclusive participation in Laos' growth process. Currently, labor market conditions do not support broad-based job growth. Measures to build the skills required by potential industries and their auxiliary services would help reduce mismatches in the labor market. As a result of the decline in employment opportunities in the manufacturing sector, there are now greater opportunities in the services sector for tertiary-educated workers. Going forward, it will be necessary to build the pool of workers with high-level skills to restore the competitiveness of the manufacturing sector and to support growth in the services sector. Importantly, even when jobs do exist, employers are often unable to find appropriately-skilled workers domestically. Employers rarely recruit personnel from TVET institutes. The matching and intermediation services that would enable qualified

individuals to find suitable jobs are still largely undeveloped and would need to be built up to increase productivity and to incentivize businesses to recruit domestic workers. Promoting skill retraining and geographically targeted-employment incentives could result in increased employment opportunities in areas at greater risk. Introducing youth internships and employment incentives such as tax allowances or wage subsidies could play a

positive role in introducing target groups such as youth into the labor market, while also assisting enterprises to recover their productive capacity as rapidly as possible following the pandemic. Lastly, it is important to strengthen labor laws and their enforcement to increase labor protection and to improve the bargaining power of low-wage workers, ensuring that vulnerable workers are protected and their remuneration is commensurate with their contribution.

Key Policy Options organized over the short and medium term are detailed below:

Short term:

- **Deepening business climate reforms to enhance productivity** especially in industries with strong potential to create productive employment (agro-industry; textiles, apparel and leather; electrical, machinery and transportation equipment; hospitality; and transportation).
- **Encouraging formalization** through the use of a one-stop business registration service to reduce burdensome processes. In addition, streamlining regulations to ensure transparency and consistency in the tax and regulatory systems and thereby to curb informal practices.
- **Leveraging remittances to support investment in agriculture and manufacturing:** Measures should be implemented to enable remittances to be used in local public investment projects, as determined by the migrants for their home village.
- **Aligning FDI incentives with the vision of maximizing the impact on local employment:** Measures should be implemented to facilitate backward linkages between SEZs and the domestic economy.

Medium to long term:

- **Strengthening vocational training and employment services:** These services should be designed to enable workers to find suitable jobs, with customized services for vulnerable groups such as women and young people.
- **Creating demand-driven skills training by strengthening coordination with the private sector,** in particular, lead GVC firms and those in other industries that have good potential to contribute to employment creation.
- **Promoting geographically targeted employment incentives** to facilitate employment creation in areas with limited jobs and to facilitate labor mobility to improve job matching.
- **Strengthening labor laws, with improved enforcement through** measures to improve the bargaining power of low-wage workers and labor protection without jeopardizing business competitiveness.

Notes

- 37 Ministry of Planning and Investment, Government of Lao PDR. FDI includes both greenfield and brownfield investments.
- 38 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. The reference period for employment is seven days.
- 39 The Economic Census 2019/20 collects data of registered firms from all sectors (excluding non-profit organizations).
- 40 The Laos manufacturing production is concentrated in a few subsectors: i) food, beverage, and tobacco; ii) textiles, apparel and leather; and iii) rubber, plastic, and non-metallic minerals.
- 41 World Bank Enterprise Surveyd collect the data of registered firms with five or more employees. 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. Labor productivity is estimated by subtracting raw materials and intermediate inputs from sales and dividing that amount by the number of full-time permanent workers. All values reported are expressed in constant 2011 international \$.
- 42 The analysis considers the 2009–2018 period due to a small sample in 2012 after dropping firms with missing and negative value-added data.
- 43 World Bank Enterprise Surveys 2009 and 2018. The service sector includes wholesale and retail trade, hotels and restaurants, transport, storage, and communications.
- 44 The survey was conducted in 2016 by the Department of Industry and Handicraft (DoIH), The Ministry of Industry and Commerce (MoIC). It was designed to collect data of all large and medium manufacturing establishments and to randomize the sampling on small and micro-manufacturing establishments located in 18 provinces throughout the country. The survey collects information about ownership, employment, compensation, income, expenditure, assets, production, etc. Results in this section are unweighted as survey weight is not accessible for this dataset, so they should be treated with some caution.
- 45 McCaig and Pavcnik (2017) suggest that trade integration between Vietnam and the US led to labor reallocation towards the formal sector, especially for younger cohorts in more internationally integrated regions.
- 46 World Bank Enterprise Surveys ask if “practices of firms in the informal sector” is the main obstacle for operating business. However, based on interviews with business owners and managers, World Bank (2017a) concludes that informality problems in Laos involves both practices of informal or unregistered firms and informal practices of formal firms.
- 47 Seasonal unemployment includes those who are not seeking work but waiting for the busy season to work.

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CHAPTER 4

Leveraging Strategic Location to Diversify Away from Natural Resources

Key messages

- **Laos is not a typical landlocked country with high transport costs.** It has the advantages of a strategic location surrounded by booming economies, and a growing interregional transportation infrastructure. The country needs to leverage these to benefit from new trade opportunities regionally and globally.
- **Laos is mostly integrated in commodity global value chains, although its participation in light manufacturing chains has recently increased.** Since 2013, exports have become increasingly diversified, largely due to foreign investment in light manufacturing, primarily in electronics and electrical components. This investment is concentrated in special economic zones and has created some jobs.
- **Laos has the potential to expand agricultural and food exports, both regionally and overseas.** Doing so would substantially contribute to poverty reduction, especially given the opportunities created by the Lao-China railway and the relative resilience the sector has shown to the COVID-19 crisis.
- **Laos needs more productive, internationally-oriented companies to drive exports, boost productivity and create jobs.** With increasing wages and persistent labor shortages, manufacturing businesses need to improve the quality of their outputs to raise their profitability and productivity.
- **The private sector faces structural and policy-induced constraints.** The limited number of large, export-oriented manufacturing businesses reflects structural constraints and insufficient implementation of trade and business climate reforms. In that respect, Laos is more *policy*-locked than *land*-locked.

Introduction

While Laos is a small, landlocked country, it is strategically located, with major global trading partners as its neighbors. With its open economy, it has recorded one of the highest rates of economic growth in Southeast Asia over the past two decades. This growth has been largely driven by trade and investment in natural resources (mining and power). Over the 2000-2018 period, Laos' real GDP growth averaged 7.5 percent a year, with trade growing at the average annual rate of 17 percent. However, Laos' economy is highly dependent on commodity exports for revenue. Lower commodity prices, together with large public investments that have not brought about a sufficient

deepening of infrastructure for trade, a still restrictive business environment, and the COVID-19 crisis, have all exerted pressure on Laos' fiscal and external balances, with debt rising to critical levels. In this context, measures to boost non-resource exports are an urgent priority.

This chapter presents an analysis of Laos' recent trade performance, with a focus on its participation in global value chains (GVCs). It looks at successes and examples of resilience that could be replicated and scaled up and seeks to identify remaining trade policy challenges that, if overcome, would enable Laos to harness trade as an engine to drive inclusive growth.

Laos is not a typical landlocked country

While Laos is landlocked with high transport costs, it is strategically located among major global trading partners.

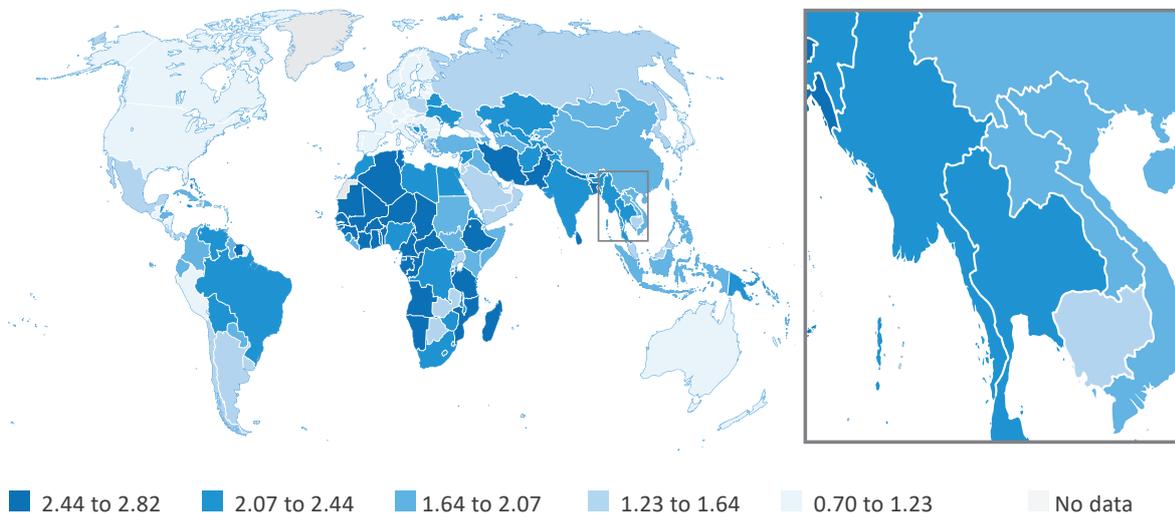
A common assertion from the literature is that being landlocked is a barrier to economic development. With a few exceptions in Western Europe, most of the world's 43 landlocked countries are indeed among the least developed. However, being landlocked is not in itself the cause of these nations' poverty. Rather, the problem lies in being landlocked with poor neighbors and/or being located far from large or fast-growing markets (WDR, 2009). This is not the case for Laos, which is open and strategically located, sharing borders with major global trading nations, including China, Thailand, and Vietnam.

Laos' geographic location is a great asset that can be further leveraged. The five countries with which Laos shares borders account for more than 17 percent of global GDP and over a fifth of the world's population. Most have relatively highly developed, open economies, with booming markets, a high demand for labor and

goods, and a high level of integration in global value chains, both as participants and as leaders. Laos could benefit from a strong demand for its exports, from cheap sources of imports, from greater participation in global value chains and from opportunities for foreign investment, right at its doorstep. These can help to pull its growth and to diversify its economy away from mining and hydropower. Indeed, Laos is already reaping some of these benefits, particularly in its textile/garments and electrical equipment sectors.

Laos can benefit from the efficient trading infrastructure and services of its large, export-oriented neighbors, partially compensating for its own less efficient trading systems. In addition, Laos is unlikely to suffer detrimental effects associated with foregoing competitive sources of imports when signing a regional trade agreement — the so-called trade diversion from participation in a preferential trade agreement (PTA). As its PTA partners are already some of the most efficient and low-cost producers in the world, Laos will experience only trade creation.

Figure 4.1
Laos borders are relatively more open than those of other landlocked countries, 2019



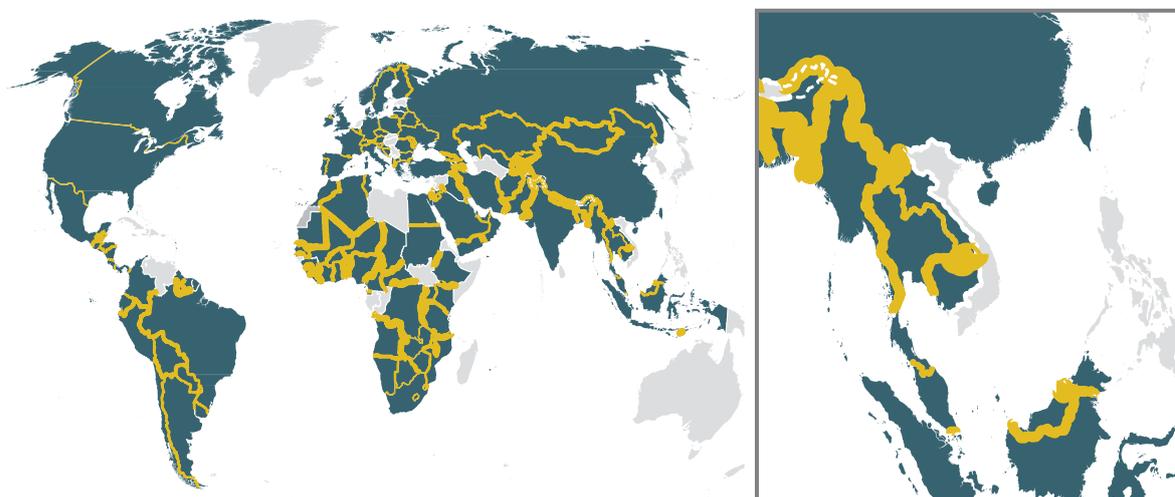
Source: Adapted from WDR 2009 index of border thickness. Note: The index sums up four indicators representing restrictions to the flow of goods, capital, people, and ideas: (1) average tariffs (World Bank data), (2) capital openness (Chinn and Ito financial openness updated for 2018), (3) mobility score that represents the total number of countries that can be easily accessed with a given passport (Arton Capital), and (4) press freedom index (Reporters without Borders for Press Freedom 2019). All indicators were normalized and rescaled from more open to more closed borders and summed. The darker the country, the more restrictions it imposes on the flow of goods, capital, people, and ideas with all other countries.

As a result, Laos’ borders appear relatively more open than those of other landlocked countries in Asia (see Figure 4.1).⁴⁸ This in part reflects the country’s strategy of serving as a land bridge between its coastal neighbors, through infrastructure investment (including the Belt and Road Initiative, or BRI, projects); pragmatic border agreements (ASEAN, subsequent ASEAN bilateral agreements, PTA with Thailand); and measures to improve cross-border logistics management. In short, Laos benefits not only from its own openness but also from its neighbors’ openness and trade policies.

Laos’ bilateral trade costs also appear lower than in other landlocked countries in Asia. Figure 4.2 maps bilateral trade costs between any two countries, with thicker borders indicating a larger wedge between producer prices in the exporting country and consumer prices

in the importing country. Laos’ border with Thailand is thinner than those it shares with China, Myanmar and Cambodia, suggesting the benefits of Thailand’s achievements in logistics, border management and connectivity have spread into Laos.⁴⁹ These include efficient trans-border transport and logistics services and infrastructure, good highway-port connections west to Bangkok (World Bank, 2020a). This is reflected by Laos’ relatively better ranking in the Logistics Performance Index (LPI) than in comparator landlocked countries. In 2018, Laos scored better across all components (customs procedures, international shipments and logistics quality and competence) than comparator landlocked countries, and better than Cambodia and Myanmar (neither of which are landlocked). Still, the organization of supply chains in Laos remains significantly more costly and time-consuming than in either Thailand or Vietnam.

Figure 4.2
Mapping bilateral trade costs, 2015-18



Bilateral Border Thickness (percent and ad valorem), 2015-2018 averages:

— 11–57 — 57–94 — 94–138 — 138–479 — Not available

Source: Arvis et al (2020). The World Bank and UNESCAP database 2015-18 averages.

Note: The figure maps the bilateral trade costs between any two countries using WB-UNESCAP trade cost data. The thicker the border, the larger the gap between producer prices in the exporting country and consumer prices in the importing country. The estimated trade costs capture all factors from trade policy measures (tariffs and NTMs) to behind-the-border measures such as quality of trade facilitation services or inland transport costs, which are impossible to quantify on a large-scale.

An export strategy for development

The Lao government clearly understands the benefits of openness and of its strategic location.

The Lao government has astutely focused its national strategy for economic and social development on trade, particularly by establishing Laos as a bridge within the region. Laos' Eighth National Socio-Economic Development Plan (NSED) focused on positioning the country as the “clean battery of Asia,” boosting power exports to the region. Building on this, the forthcoming Ninth NSED aims to deepen economic diversification and regional integration through measures to transform Laos from a land-locked to a land-linked country, leveraging its strategic location to partake in the Asian growth (IMF, 2019). Current investments in rail and road under the BRI amount

to \$7 billion, or roughly 39 percent of GDP, a proportionally much larger investment than is the case for any of its East Asian peers.

With the Lao government's commitment to openness, it actively promotes market-oriented regional integration. Trade can be leveraged to lock in domestic structural reforms and to achieve more equitable wealth distribution and broader poverty reduction. Global evidence shows that deep forms of integration that encompass policy areas beyond traditional trade policy can drive institutional and policy reform that improves the business and investment regime. Laos' regional trade policy commitments have deepened over time and it now participates in nine trade agreements notified to the World Trade Organization (WTO, 2019).⁵⁰ The country joined ASEAN

in 1997, with this association deepening its commitments through subsequent agreements with more advanced economies, notably Japan in 2008 and New-Zealand, Australia and South Korea in 2010.⁵¹ Laos entered the recent Regional Comprehensive Economic Partnership at the end of 2020, the outcome of negotiations to consolidate long-term commitments reached between the 15 members, especially relating to rules of origin, anti-dumping duties, technical barriers to trade (TBT), sanitary and phytosanitary standards (SPS), and procurement provision. As such, it offers an opportunity for Laos to lock in important behind-the-border reforms.

Securing permanent preferences should also alleviate the impact of losing the least de-

veloped country (LDC) preferential status in 2026. With its current LDC status, Laos enjoys trade preferences according to the extended Rules of Origin provision in the European Union's Everything But Arms Initiative, along with access to international development association grants, aid for trade under the Enhanced Integrated Framework, and waivers for the implementation of WTO agreements (ban of export subsidies, intellectual property rights, or IPR) (WTO, 2019). By deepening trade integration through more permanent PTAs, Laos is wisely preparing for its transition out of LDC status. This should be an advantage in the long term, as General System of Preference treatments are generally reviewed by the more advanced trading partner and can be terminated unilaterally.

The risks ahead

Laos is at a turning point, with the limits of the current growth model now apparent.

Laos' strong economic growth over the past two decades has been driven largely by the country's capital-intensive resource sector and by infrastructure development. However, this growth has not resulted in significant private sector job creation, nor has it driven poverty reduction to the extent recorded by other rapidly-expanding economies in the region (SCD 2017, LDR 2014 and 2010). In addition, Laos' growth has not been sustainable from a macroeconomic or environmental perspective. Since 2017, debt has risen to critical levels, with the economy now showing increasing signs of macroeconomic instability. At the same time, its stock of natural capital has been depleting since the early 2000s.

The less than proportionate increase in jobs and reduction in poverty is in part due to its over-reliance on natural resource exports and to the associated large resource-related rents and capital inflows. These factors have exposed the economy to macroeconomic risks

related to volatile commodity prices and driven an appreciation in the value of the kip. With increasing wages, this has made the export-oriented non-resource sectors less competitive and constrained their growth. The too timid implementation of trade and business climate reforms has also resulted in the domestic business environment remaining unpredictable and restrictive. Combined, these have created formidable obstacles for Lao businesses aspiring to compete at the regional and international levels. In order to attract investment from productive foreign companies and to encourage efficient new businesses to enter the non-resource sectors and grow, policy makers need to make significant strides in terms of improving the business environment.

The COVID-19 crisis has placed additional pressures on Laos' fiscal and external balances and intensified constraints on its competitiveness. In this context, measures to boost trade and investment outside the resource sector are critical to support Laos' economic recovery and to drive long-term inclusive growth, as expressed in the Ninth NESDP. Given that 83

percent of Laos' workforce is currently self-employed or employed as informal domestic labor, a diversification away from natural resource exports would also support formalizing employment and raising productivity, provided that the educational system could be improved to enable it to deliver the skills demanded by the market.

In the context of the COVID-19 crisis, Laos has recorded its lowest GDP growth rate in three decades, with a significant risk that progress achieved so far will be reversed, especially for women and poor rural households.

While measures to contain the COVID-19 pandemic may have been generally effective, they have come at a high economic cost. Laos closed its borders on March 13, 2020, 11 days before its first case of COVID-19 was confirmed, with only cargo planes and trucks exempt, and only major international border crossing remaining open. A nationwide lockdown was implement-

ed in the same month, remaining in force until mid-May. Compared to its peers, Laos mandated relatively light restrictions during the initial lockdown (see Figure 4.3) but a second wave of the virus in 2021 saw further measures brought in from April 2021 until the end of the year (OxCGRT). From mid-December 2021 the number of cases reported daily began to fall, only to spike again briefly in late March 2022 with the arrival of the omicron variant. Cases declined from mid-April and the country reopened its borders to vaccinated travelers on May 9, 2022.

By the time the country opened again first dose vaccinations had reached 79 percent of the eligible population, and second dose vaccinations 68 percent. According to the United Nations Population Fund, vaccination coverage in major tourism cities such as Vientiane, Vang Vieng, and Luang Prabang was over 99 percent. As of May 8, 2022 a total of 208,939 COVID-19 cases had been recorded in Laos, resulting in 751 deaths.⁵²

Figure 4.3

The impact of COVID-19 on services in Laos and in comparators

(a) Average severity of pandemic response restrictions (January 1 to September 30 2020)

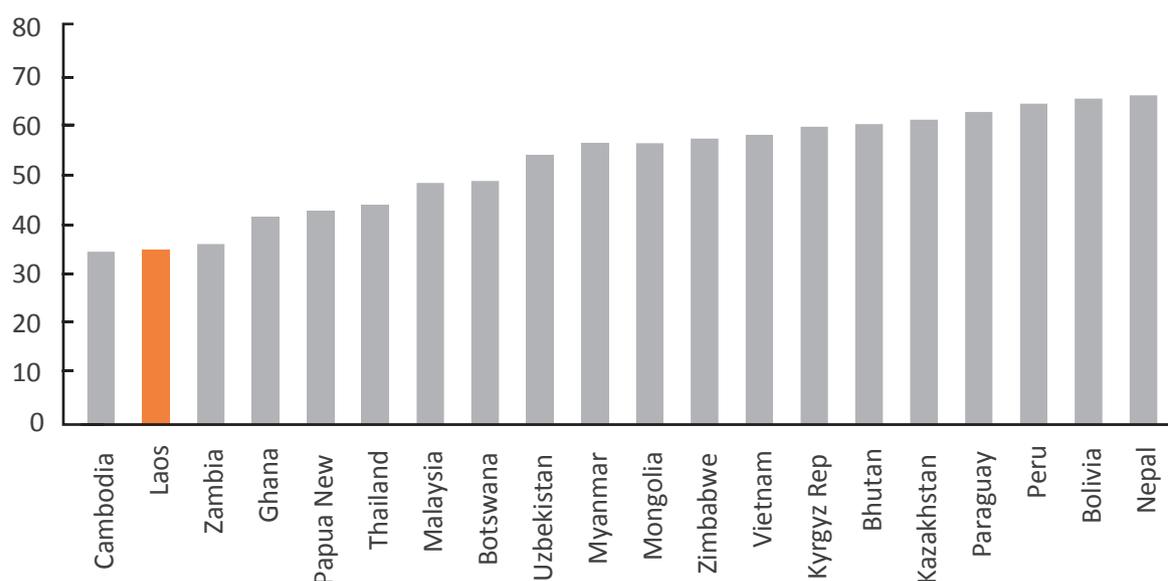
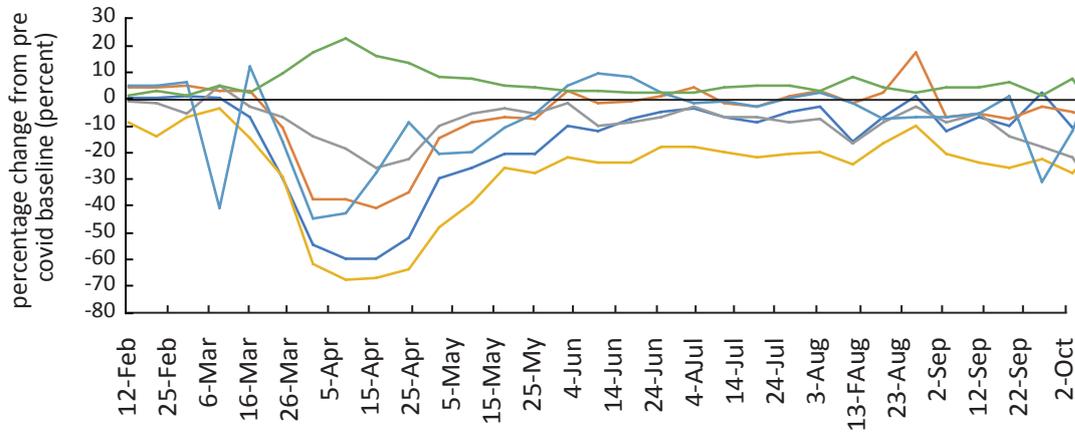
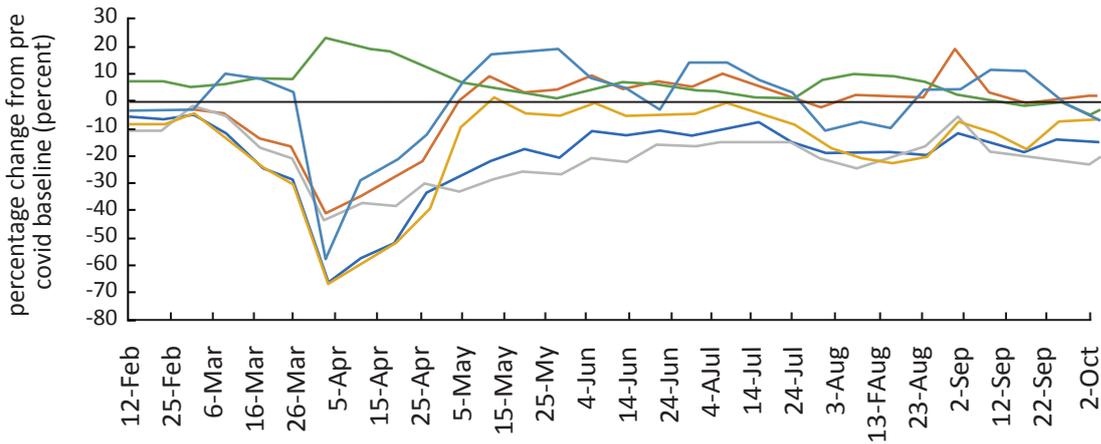


Figure 4.3, continued

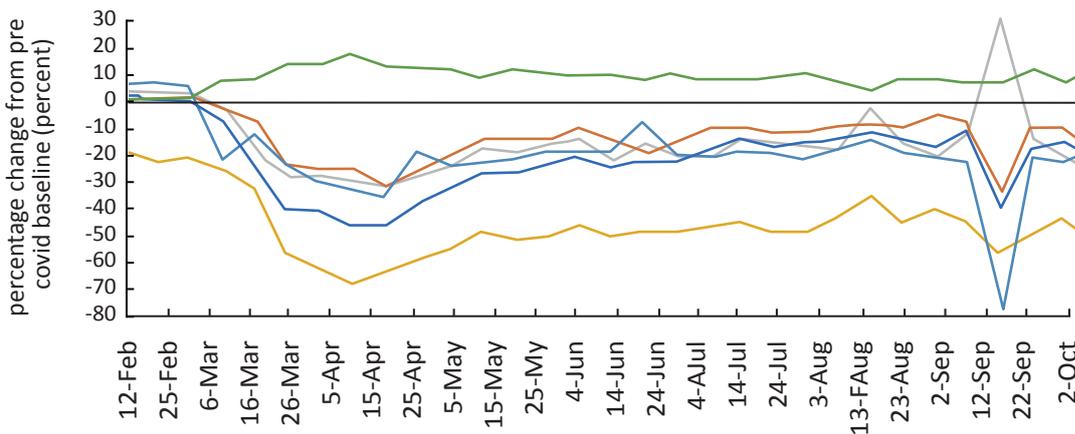
(b) Laos



(c) Vietnam



(d) Cambodia



■ Retail & recreation ■ Grocery & pharmacy ■ Parks
■ Transit stations ■ Workplaces ■ Residential

Source: Oxford Covid-19 Government Response Tracker (panel a). Google/covid19/mobility. Note: One week moving average. Retail and recreation include places like restaurants, cafes, shopping centers, theme parks, museums, libraries, and movie theaters. Grocery and pharmacy include places like grocery markets, food warehouses, specialty food shops, drug stores, and pharmacies. Transit stations include places like public transport hubs such as subway, bus, and train stations.

With the COVID-19 pandemic, Laos recorded its lowest GDP growth in three decades. GDP growth declined to 0.5 percent in 2020, from 5.5 percent in 2019. The pandemic has also placed further pressure on an already fragile job market, risking a partial reversal of the recent progress in terms of poverty reduction. The unemployment rate increased to 23.4 percent in 2020, up from 15 percent at the end of 2018, with poverty expected to increase by at least 1.5 percentage points in 2020 and by 2.4 percentage points in 2021, compared to a non-COVID-19 scenario.

In 2020, Laos' fiscal deficit deteriorated, with public debt increasing significantly. In 2020, the fiscal deficit rose to 5.2 percent of GDP and is expected to decline to 4.7 percent in 2021 public debt to 64 percent of GDP; and external debt-service payments will amount to more than \$1 billion per year over the next five years. The unprecedented fiscal challenges that the government is facing have severely constrained its ability to respond to the crisis. Many Lao enterprises have either been forced to close or are at risk of doing so, or have reduced their activity, with households linked to those businesses at risk of falling into poverty.

The impact of the restrictions on the services sector has been particularly severe. Anonymized data on users' locations collected by Google from telephones enables an examination of the extent to which travel restrictions and social distancing measures have affected services. Figure 4.3 shows the change in frequency and duration of consumers' visits to different outlets relative to a baseline in the pre-COVID-19 period.⁵³ These data show a 60 percent decline in attendance at hotels and restaurants over the period from 7 March to 18 April, with the figure standing at 70 percent for transport and transit. The declines are comparable to those recorded in Vietnam, with a V shape, with a recovery to pre-pandemic levels by early summer 2020. Both Laos and Vietnam are doing better than Cambodia, which has not yet recovered to its pre-pandemic levels.

In Laos, trade has been impacted relatively mildly by the crisis compared to neighbors, with both imports and exports having started to recover, albeit slowly and with significant variation across sectors (see Figure 4.4). Imports were most severely affected in April 2020, declining by 2.14 percent compared to April in the previous year, driven largely by a drop in imports of fuel and electrical equipment from Thailand and Vietnam. However, by May, imports from China were already recording positive year-on-year growth. With exports, the most significant decline occurred in May, due to a drop in demand from China and Thailand, with recovery commencing in July with Thailand, and in September with China and Vietnam.

Agri-food and electricity exports were more resilient to the pandemic than light manufacturing exports, including garment and electrical equipment. Agri-food exports maintained a positive growth year-on-year for almost all months throughout the period. Exports of electricity (under mineral products) were higher than in the previous year from the second half of 2020, driven by strong demand from Thailand. After July, exports of natural rubber and precious metals and stones (gold mostly to China), in the "Others" category, increased significantly compared to the same period in 2019, contributing significantly to the positive trend for Lao exports. Exports of copper and electronic and electrical equipment declined considerably, showing only tepid signs of recovery in the case of the latter in December. This is consistent with disruptions to global electronic and electrical supply chains, as also seen by the decline in imports of sector inputs. From September, exports of garments also increased compared to the same month in the previous year.

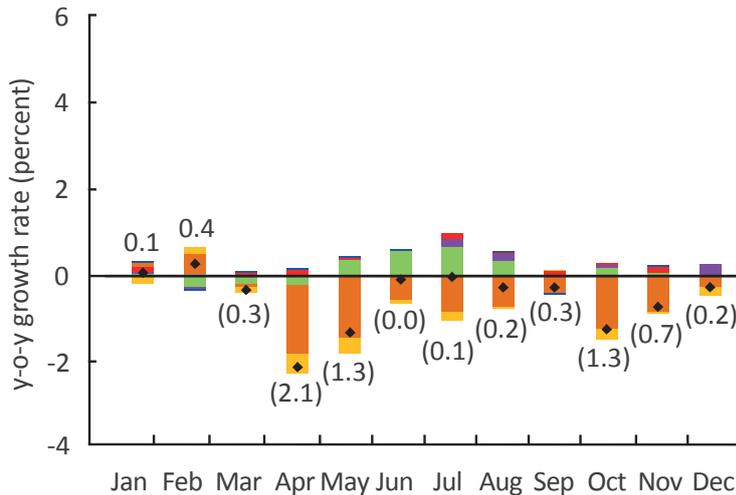
Recent customs data show that the number of trade transactions, number of businesses, and trade volumes declined when the first lockdown was in force, compared to the same months in the previous year (see Figure 4.5). A breakdown across the three important GVC sectors (agri-food, electrical equipment, and

garments) shows that agri-food was the least affected. Garments was the most affected, with a steep decline in the number of transactions and businesses engaged in exports in the April-May period. Evidence also suggests that GVC businesses in the electrical equipment and garment sectors may have diversified their export portfolios in response to the crisis. This is consistent with anecdotal evidence suggesting that garment exporters have increased their production and export of healthcare items

such as face masks and uniforms. Some tourism businesses are attempting to shift to providing hospitality services for the domestic market, although this is unlikely to compensate for the losses they have experienced. An example of this is a business that has developed an app to provide food and groceries services for people in quarantine in state designated hotels. More generally, local online services have been expanding their offerings to cater for the increased demand due to the pandemic.

Figure 4.4
Tracking the impact of COVID-19 on Laos monthly trade

(a) Lao imports from selected countries



(b) Lao exports from selected countries

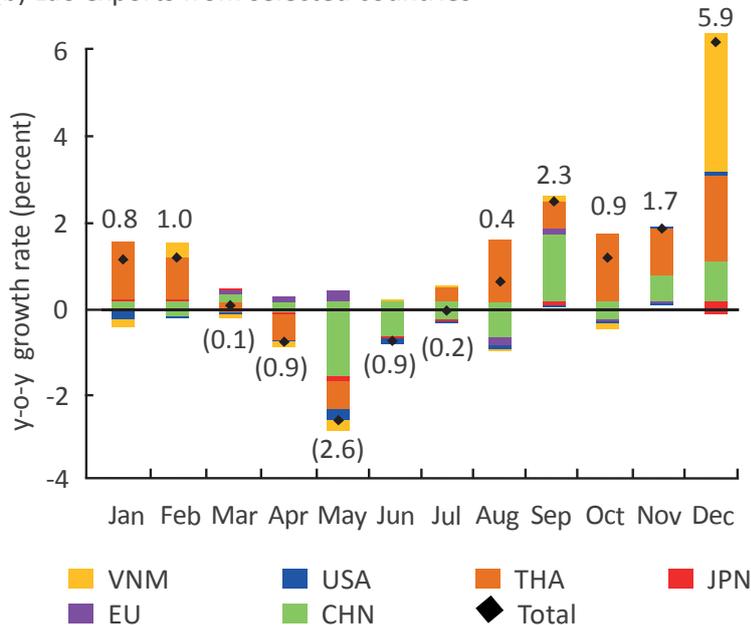
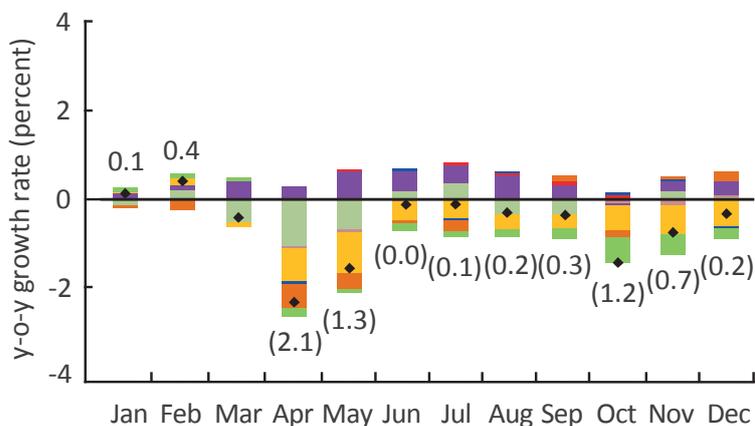
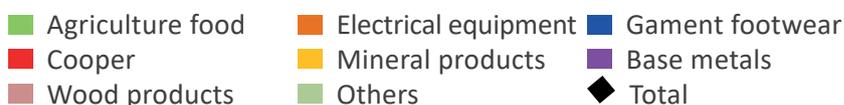
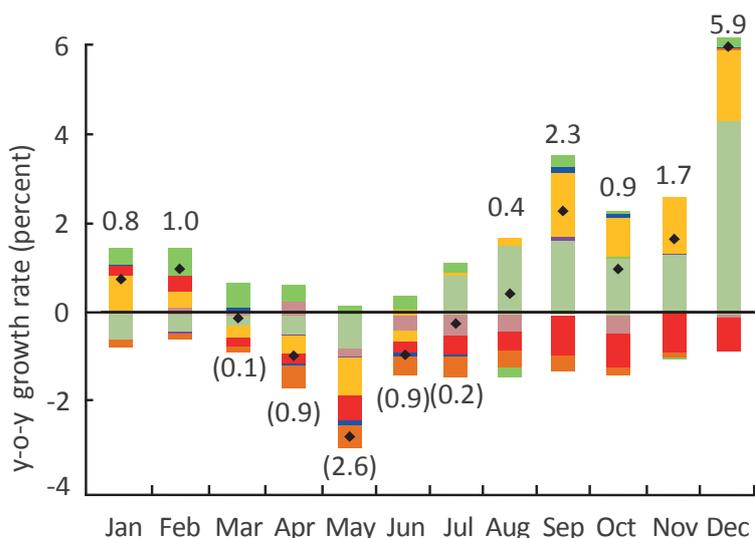


Figure 4.4, continued

(c) Lao imports by product categories



(d) Lao exports by product categories



Source: Monthly Customs data China, Thailand USA, EU, Japan.

The COVID-19 crisis has had a particularly severe impact on the tourism sector. Laos' tourism industry is an important driver of private sector growth and a major provider of employment, especially for women. This sector has been hit more severely than any other by the pandemic, with tourism receipts expected to decline by more than \$500 million in 2020. With international borders closed, the

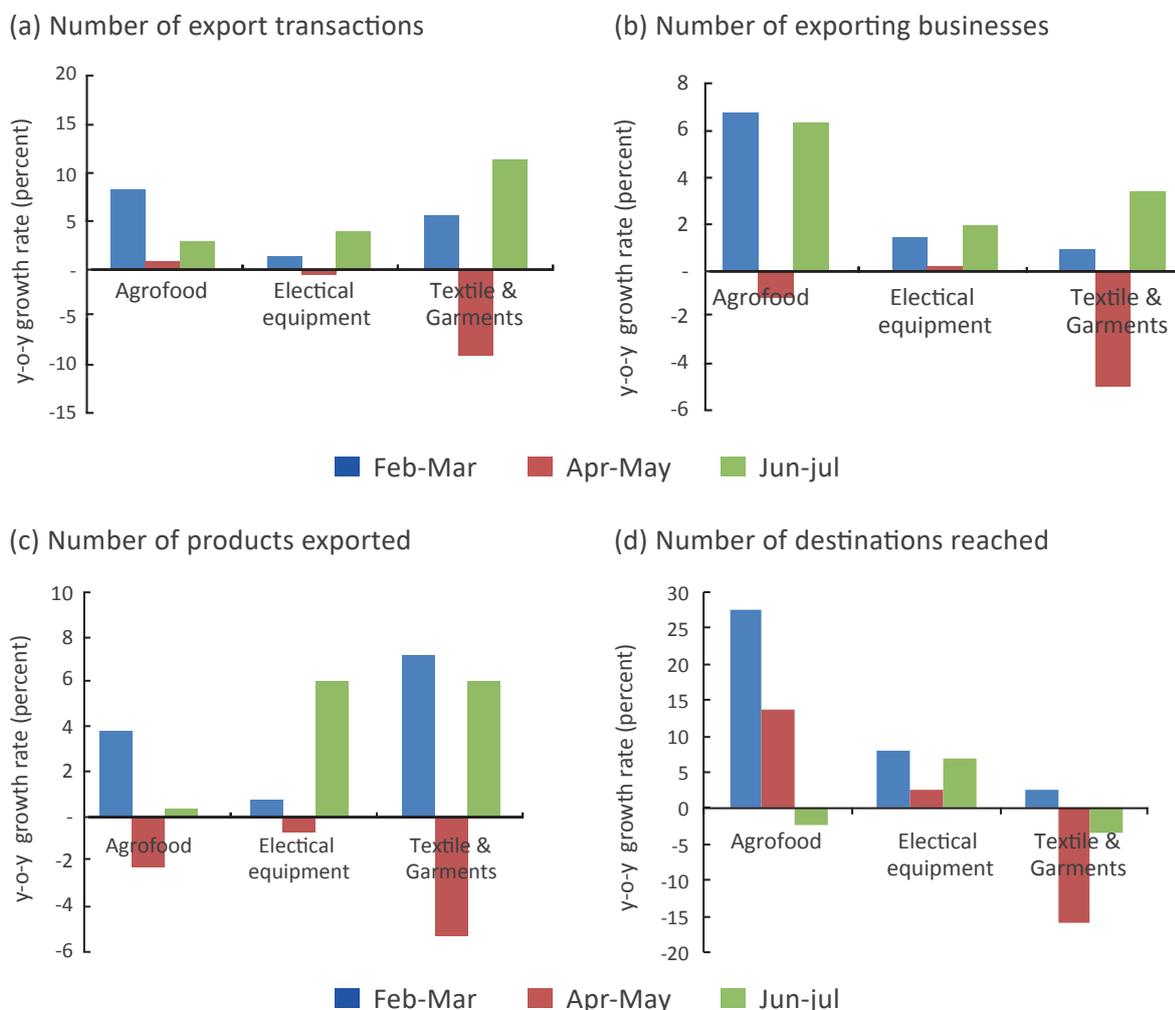
hospitality and transportation sectors have experienced extensive job losses. In addition, declining foreign and domestic demand have battered the construction and manufacturing sectors, with one-third of workers in the sectors losing their jobs by July 2020, with informal workers, who lack social protection, having been the most affected. By contrast, the livelihoods of farming households

have been only moderately affected by the pandemic, although floods and storms have posed a significant risk to farming activities.

While the COVID-19 crisis has created an opportunity for the government to adopt measures to increase local processing and thereby to reduce dependence on imports, trade may be part of the solution by reducing the cost of food and other products that the poorer households con-

sume heavily and by coordinating regional access to medical services and goods. For instance, in the context of a common crisis, ASEAN countries may decide to remove the need for licenses for products that pose minimal risk to human health, environmental safety, or consumer protection. They could also support collaboration between national agencies to waive or at least accelerate clearance for medical goods, food products, and farming inputs (Brenton and Chemutai 2020).⁵⁴

Figure 4.5
COVID19 impact on Laos exports: business-level evidence, 2020



Source: Laos customs data. Results for each sector are weighted by the initial share of the sector in total exports of Laos excluding minerals in 2019.

At a global level, the COVID-19 crisis has accelerated the trend towards the digitalization of trade procedures and money transfers. Evidence from the past three decades shows that the adoption of new technologies typically occurs in bursts, particularly in the wake of economic shocks (Jaimovich and Siu 2018; Mauro et al. 2020; WDR 2016). The COVID-19 crisis appears to be accelerating the transition to automation and the adoption of digital technologies in some industries. In particular, the automation of trade and transport facilitation processes and documents will ensure effective, COVID-19-sensitive movements along the supply chain.

The pandemic could result in major transformations to GVCs, potentially with a net positive impact on Laos. Although there is a risk that the COVID-19 crisis may lead businesses participating in GVCs to relocate some activities closer to their headquarters, the effect in net for Laos is likely to be positive because of the types of GVCs in which Laos participates. Laos is mostly involved in commodity GVCs with investors needing direct access to raw materials, making it less likely for them to relocate. In the case of the manufacturing GVCs in which Laos has started to participate, its position along the chain is mostly downstream. For example, in the case of textiles, Laos is mostly involved in assembling clothing

rather than manufacturing cloth. While this potentially exposes it to decisions by lead GVC businesses to substitute cheap labor-intensive assembly production with robots (see Garicano and Kaplan 2001; Chen and Wu 2018), in practice this does not appear to be happening yet. In addition, Laos may be able to capture some of the export-oriented manufacturing foreign direct investment (FDI) that has begun to relocate outside of China, even before the pandemic.

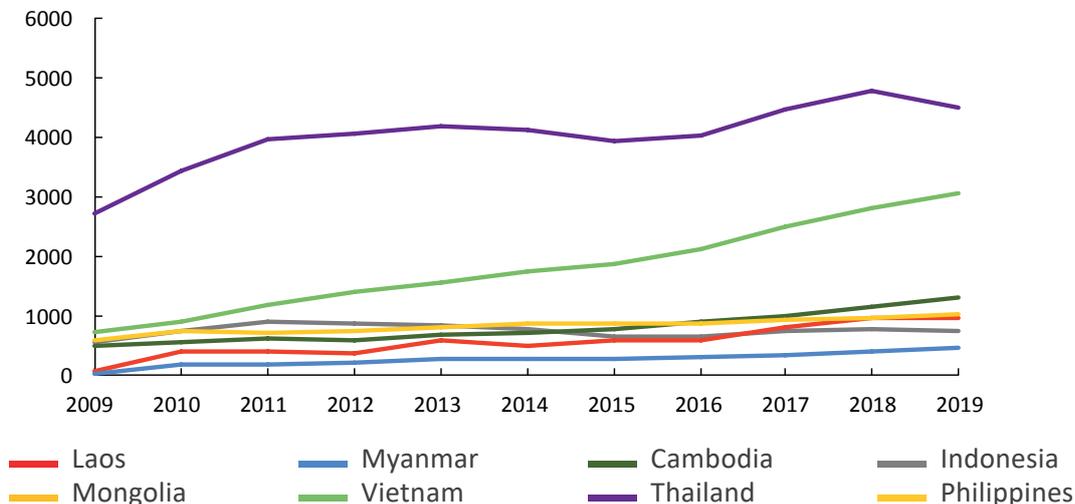
To achieve more inclusive growth, Lao policy makers need to make greater efforts to ensure social and environmental sustainability. This means that natural resources cannot be exploited in the same manner as in the past. In terms of social sustainability, GVCs in light manufacturing are increasingly monitoring labor conditions in factories, where a large proportion of the workers are often young women. Moreover, industrial rubber, palm oil or coffee plantations must address concerns related to deforestation, soil erosion due to intensive mono-cropping, and water pollution related to the intensive use of chemicals. However, the transition to a more sustainable growth model also creates new opportunities for increased participation in sectors that could drive inclusive growth. For example, Laos could build on its measures to preserve the environment in order to promote eco-tourism.

The potential of international value chains

While trade has become more important to Laos' economy over the past decade, there is still strong potential for further growth. Since 2013, the value of merchandise trade in proportion to GDP has increased, going up from 19.0 percent in 2013 to 31.5 percent in 2019 with exports, and from 25.5 percent to 34 percent with imports over the same period. By contrast, both service exports and imports have decreased, reaching 5 and 6 percent of GDP respectively in 2018, although the services balance has improved in absolute terms. This was largely due to increased receipts for transport and travel services, reflecting a

significant increase in tourism activity in the country. Trade in services accounted for 15 percent of total exports and 16 percent of all imports in 2019. However, Laos still lags behind its comparators in terms of exports per capita and as a share of GDP (see Figure 4.6). For example, Vietnam's economy now generates nearly \$2,700 of exports per capita, more than three times the figure recorded by Laos, in Cambodia that figure is at \$1,200. Laos' export base is very small compared to regional comparators, with only 928 products exported in 2018, roughly the same number as ten years ago, and considerably less than the 3,793 products exported by Vietnam.

Figure 4.6
Exports of goods and services per capita (\$ current per capita)



Source: Own calculations using Comtrade data.

There is global evidence that developing countries’ participation in manufacturing GVCs can accelerate economic development. Businesses that participate in GVCs do not need to produce an entire product. Instead, they specialize in the production of simpler parts which enable them to exploit their comparative advantages. The fragmentation of production makes it possible for even small businesses to enter foreign markets at relatively low cost. Thus, they can obtain access not only to cheaper and better-quality inputs, but also to capital, productivity-enhancing technologies and improved management practices. In turn, this boosts domestic income and employment,

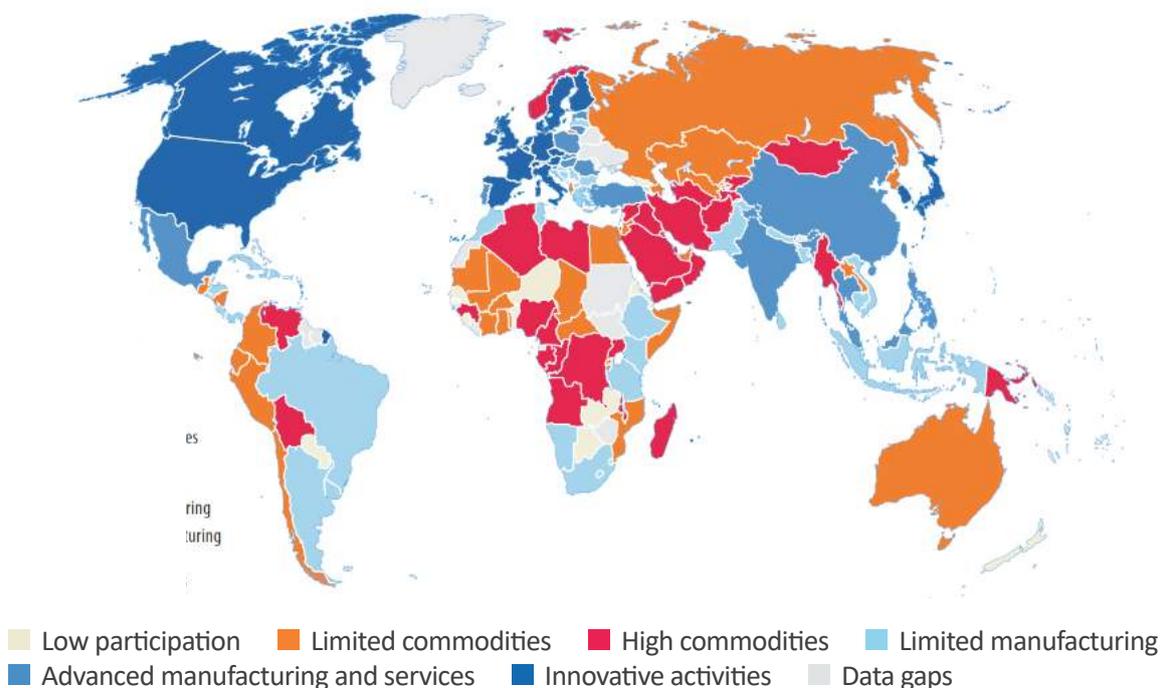
even when exports have lower domestic content. These features make GVC trade a more powerful force than traditional trade in terms of supporting growth and poverty reduction (WDR, 2020) even small ones, to enter foreign markets at lower cost. They can get access not only to cheaper and better-quality inputs, but also to capital, productivity-enhancing technologies and improved management practices developed elsewhere. This in turn contributes to raise domestic income and employment even when exports have lower domestic content. These features make GVC trade a more powerful force than traditional trade in supporting growth and poverty reduction (WDR, 2020).

Laos GVC integration is shifting towards light manufacturing, primarily electronics

Unlike most countries in East Asia, Laos still mainly participates in commodity GVCs through forward linkages. The East Asia region dominates the production segments of GVCs in both the textile and garment sector and the electronics and machinery and transport equipment sector. Most countries in the region are engaged in limited or advanced manufacturing through backward linkages, sourcing

parts and components from abroad for their export-oriented businesses (see Figure 4.7). In contrast, Laos is mostly integrated in commodities GVCs through the export of natural resource-related products and agricultural commodities (electrical energy, mining, agriculture, rubber, and wood) that serve as inputs for other countries’ exports (*forward participation*).

Figure 4.7
Laos participates in limited commodity GVCs, 2015



Source: WDR2020. See WDR2020 for a definition of the different GVC types.

How countries participate in GVCs matters for their economic development. Recent evidence from a cross section of countries shows that growth in backward GVC participation is associated with higher income growth, with these gains stemming from the productivity effects of GVCs. In general, trade reduces poverty primarily through growth, with the effect of GVCs on income being twice that of trade in final goods. Thus, through their effect on productivity, employment, and income, GVCs support poverty reduction to a greater extent than conventional trade (World Bank, 2020b).

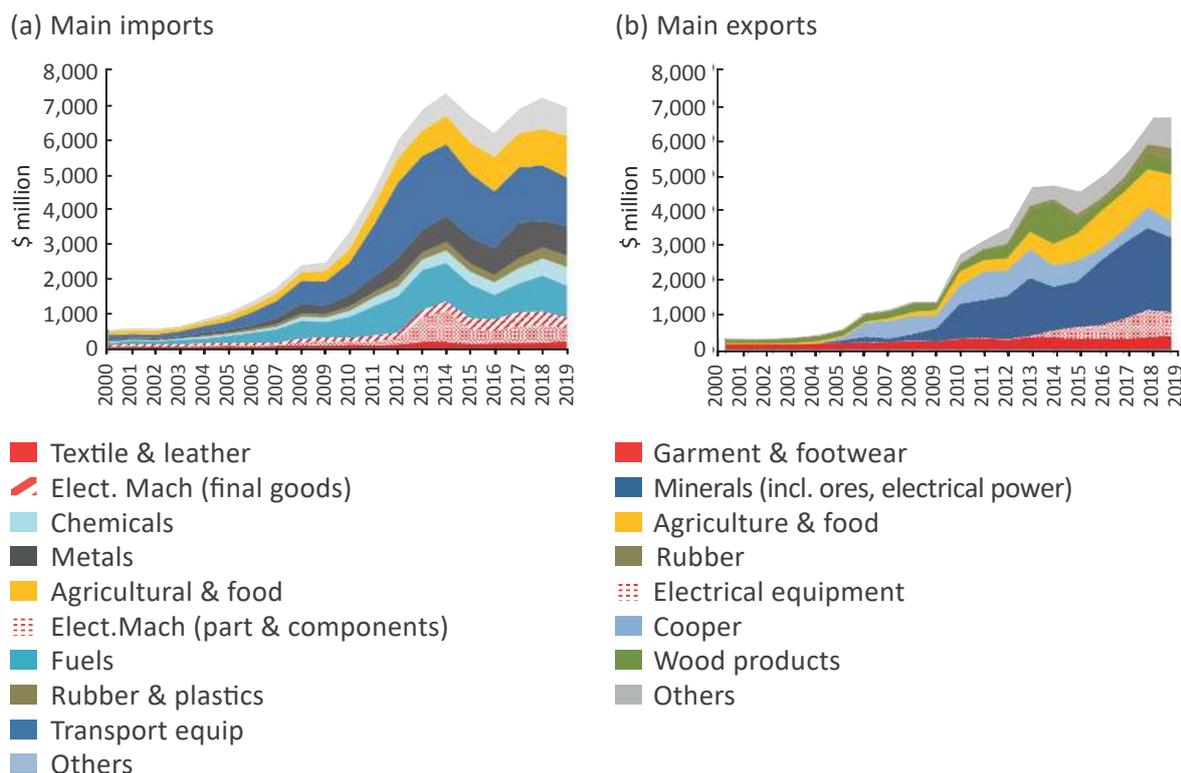
Since 2013, there has been a marked diversification of Lao merchandise exports away from natural resources and towards light manufacturing. In 2019, natural resource exports, including exports of hydropower energy, copper ores, copper articles, and precious metals, still accounted for 44 percent of exports (\$2.9 billion), almost the same value in levels as recorded in 2013 (\$2.8 billion), but much less in proportion to the total value of exports (61 percent in 2013). Power exports to Thailand rose

due to increased installed capacity and higher demand, while mining exports (copper ores and articles) remained steady despite lower output due to the firming up of copper prices. Over the same period, manufacturing exports have increased three-fold, reaching \$2 billion, or 37 percent of total merchandise exports, in 2019. These increases were largely driven by exports of electronics and electrical equipment from special economic zones (SEZs) and by food and beverages exports.⁵⁵ Agricultural exports also grew strongly, up from \$208 million in 2013 to \$624 million in 2019. This increase was mostly driven by exports of fruits and vegetables (\$383 million, or 6 percent of 2019 exports, mostly consisting of bananas, cassava, coffee and corn), followed by rubber (\$292 million, or 4.4 percent) and wood products (\$172 million, or 2.6 percent). Over the same period, rubber exports to China and vegetable exports to Thailand moderated, partly due to falling rubber and coffee prices. The export of bananas to China declined after 2016, following the imposition of tighter controls on pesticides use and the suspension of new plantations in the north of the country.

Laos' export diversification has been largely due to increased participation in GVCs in light manufacturing, particularly for electronic and electrical equipment. The increase in exports of electronics and electrical products has been met with a parallel increase in the import of intermediate inputs to the sector (see Figure 4.8). While part of the increase was also due to increased capital investment in the power sector and infrastructure, it also reflects the increased sourcing of intermediate inputs used for further processing and export. Laos also participates in apparel GVCs, although on a much smaller scale than neighboring Vietnam and Cambodia. The contribution of garments and footwear exports

to Laos' total exports decreased to 6 percent in 2019. However the sector, which flourished in the 1990s and early 2000s, has managed to maintain steady export values in absolute terms, suggesting significant resilience despite fierce competition from Vietnam and Cambodia, the appreciation of the kip, and rising production costs. Imports of fabric and cloth, which are used as inputs in apparel factories, are low but stable, consistent with the low yet resilient level of integration in these garment GVCs. In the past two years, exports of safety clothes and equipment (construction helmets, clothes and boots, fire protection clothing etc.) have increased owing to Japanese investment in SEZs.

Figure 4.8
Lao merchandise import and export structure, 2000-2019

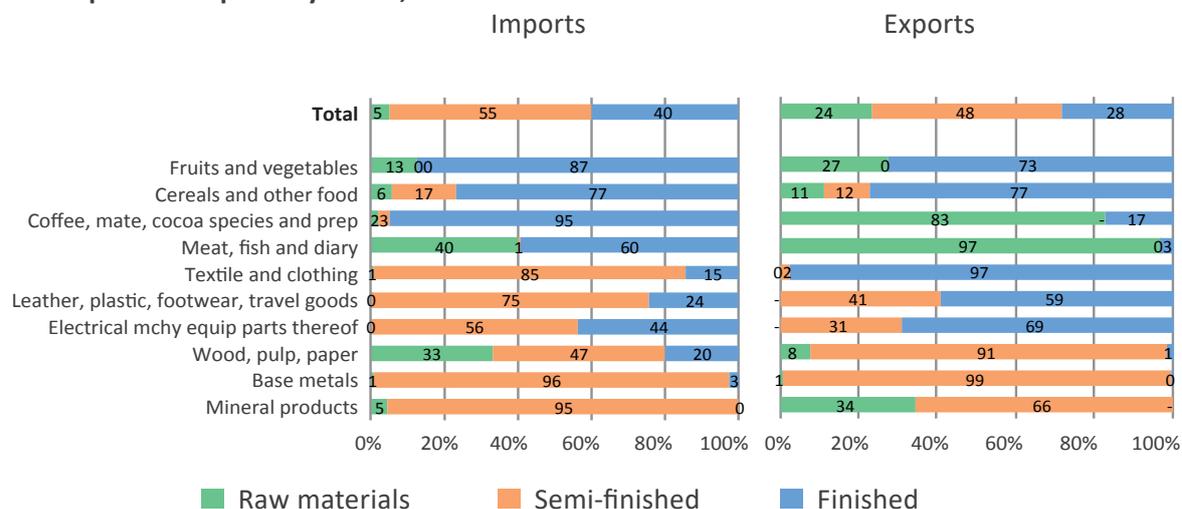


Source: BACI data.

The move towards light manufacturing GVCs is also seen in the lower share of unprocessed primary commodities in total exports, at 24 percent in 2019 compared to 39 percent in 2010, and the higher share of intermediate inputs in imports (55 percent in 2019 compared to 44 percent in 2010) (see Figure 4.9). This is particularly apparent in the garment and

electronics and electrical equipment sectors in which, consistent with Laos' position in the final assembly stages, the share of semi-finished products in imports is high while most exports are final goods. Sectors such as fruit and vegetables, coffee, and food products are mostly integrated forward, with exports mainly consisting of unprocessed produce.

Figure 4.9
Lao imports to exports by sector, 2019

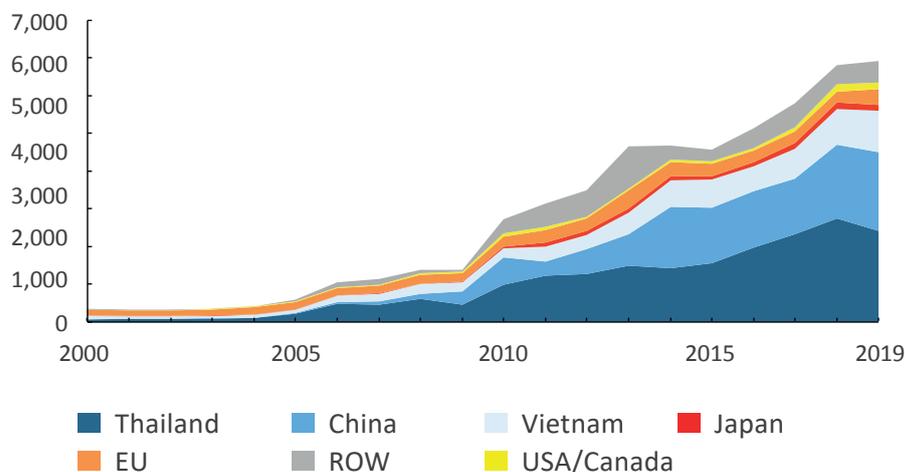


Source: Baci data and BEC rev 4 classification.

Laos is most integrated regionally through minerals, agriculture and food exports, consistent with its endowments in natural resources and its location (see Figure 4.10). Overall in 2019, Laos’ largest market was Thailand (\$2.4 billion, or 36.1 percent of total 2019 merchandise exports), followed by China (28.2 percent) and then Vietnam (16.2 percent). Lao exports to Thailand are dominated by electrical energy (60 percent); followed by copper articles (16 percent); and electronics and electrical com-

ponents (15 percent). Exports to China (\$1.9 billion) are dominated by copper ores and articles (33 percent); followed by agricultural and food products (20 percent, mostly bananas, corn and processed cereals); wood pulp and paper (14.8 percent); and rubber (11.5 percent). Exports to Vietnam mostly consist of foodstuff and agricultural produce (58 percent, primarily flavored drinks, live cattle, sugar, and coffee); rubber (11.3 percent); electrical energy (10.5 percent); and processed timber (5.3 percent).

Figure 4.10
Lao trade and GVC integration is concentrated on few countries



Source: BACI data. Laos’ merchandise export, by destination markets (\$ million), 2000-19.

Exports to OECD markets mostly consist of light manufacturing (garment and electronics products) or higher-end products such as coffee (see Figure 4.9). Europe accounts for 7.8 percent of total Lao exports, at a value of \$521 million, mostly to Germany and Switzerland and dominated by garments and footwear. This is followed by Japan (\$164 million, or 2.5 percent), with 50

percent of these exports consisting of garment and footwear and 16.5 percent of electronics. Exports to the USA (2.2 percent) are dominated by electronics and electrical equipment (60 percent) and garments (11 percent). These patterns reflect foreign investors' incentives to gain access to European, North American and Japanese markets duty under GSP preferences.⁵⁶

Services exports are expanding but remain below potential

Over the past decade, exports of services have tripled, while imports have increased tenfold. However, the contribution of services to total exports has decreased from 35 percent in 2000 to 17 percent in 2019. The contribution of services to total imports has varied over the years, increasing from 5 to 26 percent over the 2000-2013 period, before declining to reach a plateau at 17 percent in 2019. Business services accounted for 29 percent of all foreign greenfield investment projects over the 2000-2020 period, which is comparable to the number of projects supported by foreign investments in manufacturing, but representing 10 percent of their total outstanding value (fDi Markets database). Laos' distribution of tradable services remains largely concentrated in traditional services, with 80 percent of exports concentrated in travel (mostly tourism) and with only 3 percent in modern services, largely driven by telecommunication, computer and information services.⁵⁷ In South-East Asia exports of modern services account on average for 18 percent of services exports.

Beyond manufacturing, services (including business services and tourism) create further opportunities for Laos to integrate within GVCs. Manufacturing and natural resource-focused GVCs are highly service-intensive. The expansion of ICT and business services such as finance, accounting, and legal services supports growth in industries that rely on these inputs. Travel and tourism are labor-intensive export sectors, with many female jobs. Facilitating trade and investment in these sectors would promote GVC participation, increase incomes and improve employment opportunities. Research shows that Laos' ability to diversify its exports is constrained by the quality of services, with evidence that changes in the quality of

transportation and electricity services would have the most significant effect on economic performance and GVC participation (Hollweg, Gomez-Mera and Varela 2019).

Prior to the COVID-19 crisis, while the tourism sector had grown rapidly over the preceding decade, it remained relatively small compared to other countries in the region, particularly Vietnam and Thailand. In 2019, international tourist arrivals increased by 14.4 percent, reaching an all-time peak of 4.79 million, with international tourist receipts increasing even faster (ADB, 2020). Recent estimates indicate that tourism directly contributes to 4.6 percent of GDP and supports 54,000 jobs, with 63 percent of these involving female workers (World Trade and Tourism Council, 2018). Despite being low-skill and low-paid, these jobs are often a critical source of income for rural or urban low-income households. It also offers opportunities for rural communities to participate in tourism value chains.

Despite significant growth over time (albeit from a very low base), Laos has one of the lowest levels of ICT availability and penetration in Southeast Asia, with only 61 adults out of 100 having a mobile cellular subscription, compared to levels close to 100 and above in other Southeast Asian countries. The rate of internet penetration is also among the lowest in the region, with only 25 percent of the population connected, compared to 50 percent on average for the EAP (WDI). The presence of high-quality ICT infrastructure plays a vital role in supporting other sectors in the economy, including not only modern services but also manufacturing. A relatively poor ICT infrastructure is also likely to contribute to higher trade costs (OECD, 2017).

Foreign direct investment supports GVC integration and job creation

After remaining steady since 2013, FDI inflows started to decline in 2017. Laos has a relatively liberal investment regime, with the Law on Investment Promotion of 2016 providing a legal basis for the provision of generous incentives to foreign investors in various sectors, although certain activities continue to be restricted. With the promulgation of this law, FDI inflows increased from \$427 million in 2013 to over \$1.7 billion in 2017 before declining to \$557 million in 2019 (UNCTAD, 2019 and 2020). Despite this decline, in 2019, Laos achieved a stock of inward FDI of more than \$9.9 billion, or 55 percent of GDP in 2019, catching up with Vietnam (at 62 percent of GDP) and exceeding Thailand (at 45 percent of GDP).

While the majority of FDI is in the resource sector, investments from Thailand and some OECD countries have supported light manufacturing exports. Over the 2003-2019 period, in terms of the number of projects, the greatest proportion of greenfield investments were in the manufacturing sector (29 percent of the total);

the power generation sector (28 percent); and infrastructure (18 percent) (see Figure 4.11). Manufacturing accounted for 63 of all newly approved FDI projects in this period, or 28 percent of the total number. A significant share of these were in light manufacturing subsectors, including materials (18 percent); food processing (6 percent); and, more recently, electronics and electrical equipment (2 percent) and apparel (1.5 percent). In recent years, Laos has also been receiving FDI from a more diversified set of source countries. While FDI inflows have traditionally been dominated by China and Vietnam, since 2011, Thailand, Japan, a number of European countries, and the USA have also been investing, particularly in manufacturing. From 2011 to 2020, Thai investment surged, accounting for 47 percent of the total number of greenfield investments, largely driven by investments in the renewable energy (31 percent); manufacturing (28 percent); and infrastructure sectors (26 percent). In 2019, FDI from Japan in manufacturing accounted for 69 percent of total inflows.

Figure 4.11
Foreign direct investment inflows by source and activity, 2003-2020

(a) Receiving activity (No. of projects)

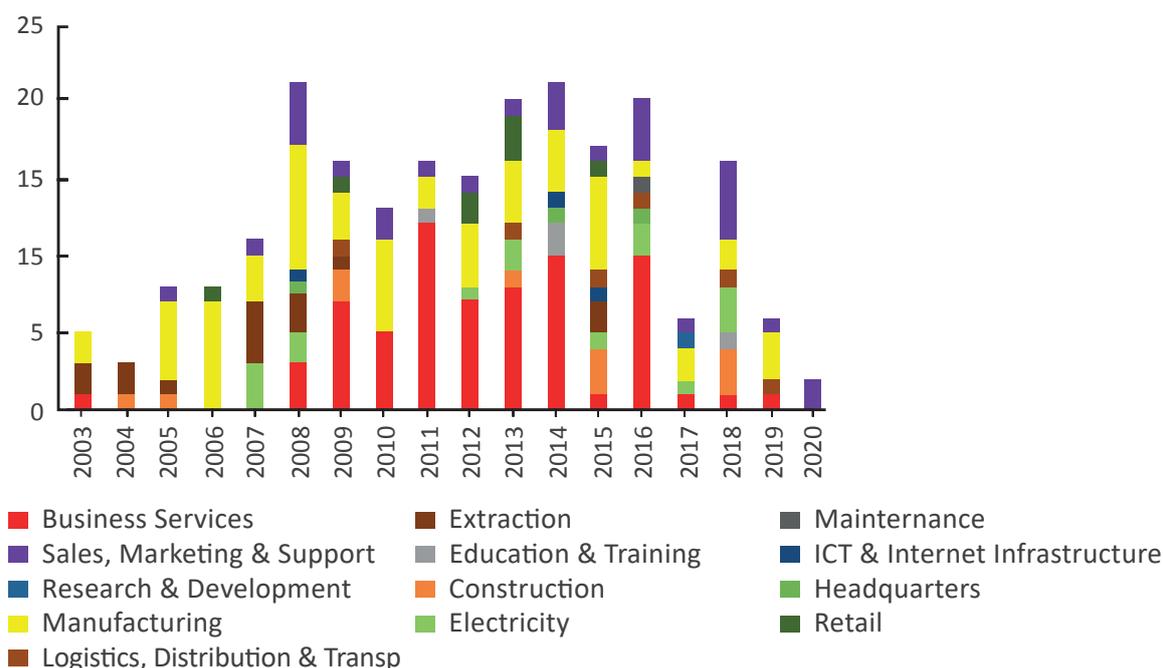
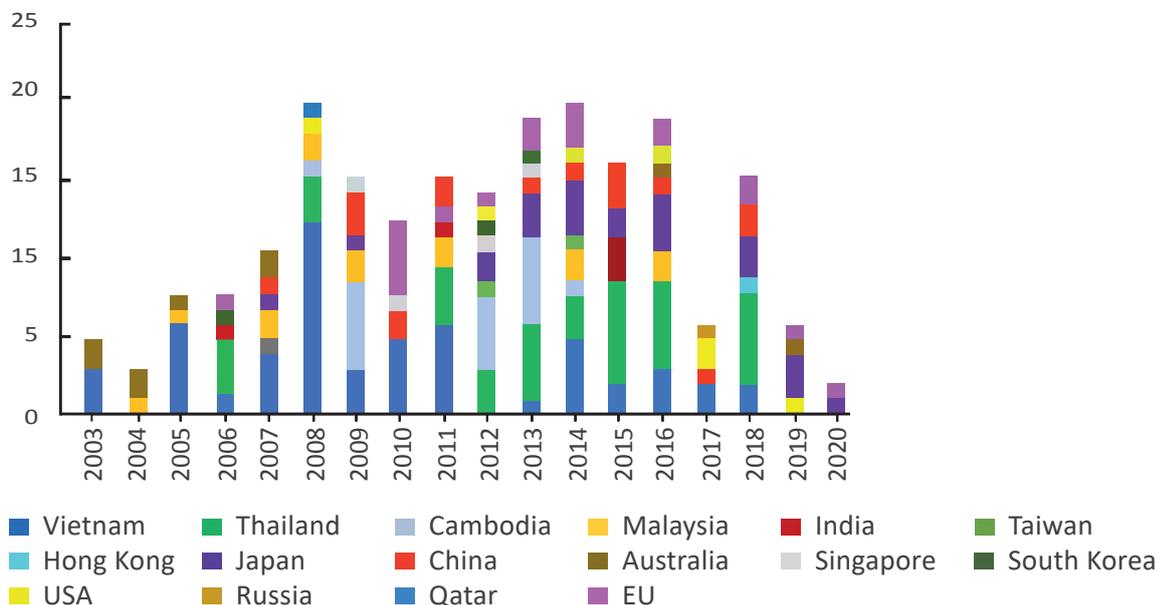


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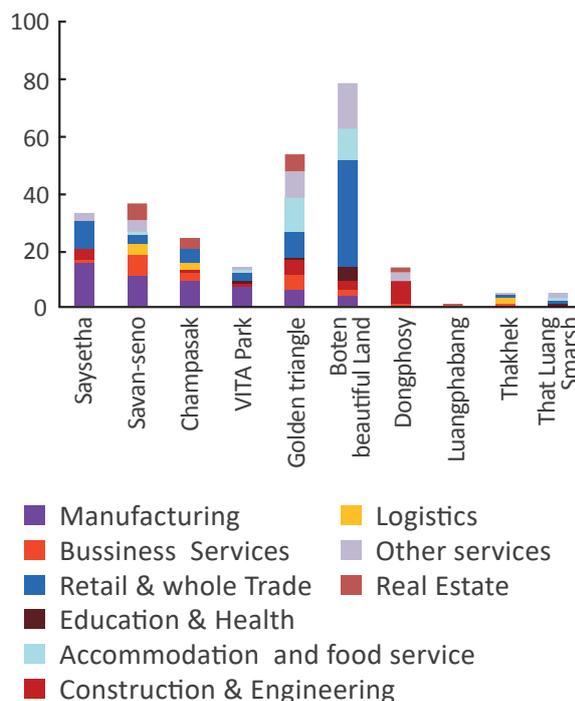
(b) Source country (No. of projects)



Source: fDi Markets. Note: The Financial Times database tracks announcement of investment projects that correspond to “greenfield FDI in a new physical project or expansion of an existing investment creating new jobs and capital investment”, covering all countries and sectors worldwide. Announcements are collected from publicly available sources, such as media, industry and investment promotion agencies, or market search. It does not include mergers and acquisitions or other equity-based or non-equity investments. *2020 data until August only.

Most FDI in manufacturing exports, other than garment, was channeled through SEZs. The nearly three-fold increase recorded in manufacturing exports since 2013 has been driven by the exports of electronics, telecommunication and electrical equipment from SEZs, and of food and beverages (with some of these also from SEZs). Currently, 12 SEZs operate in Laos, with a range of different focuses in terms of the industries they facilitate and the level of incentives granted. Of these SEZs, four have a high proportion of businesses engaged in light manufacturing, with facilities such as electrical appliance manufacturing, electronics parts assembly, and agro-processing plants (see Figure 4.12). In Laos, garment and footwear manufacturing facilities are mostly located outside SEZs, mainly due to the fact that many of these operations were established in the 1990s, before the first SEZs were established, in 2003 (Nolintha, 2016).

Figure 4.12
Number of registered businesses by SEZs and sector, 2016-2018



Source: Lao Special Economic Zones committee.

Preliminary evidence suggests that foreign investment in export-oriented manufacturing SEZs is positively associated with economic development at the regional level (see Figure 4.13). While the lack of data at the enterprise level does not allow a direct evaluation of the impact of SEZs on employment and poverty, one way to examine this relationship is through the use of night-light data, which serves as a proxy indicator for local economic development. Based on recorded night-light intensity levels in the period from 2003 to 2020, areas in proximity to SEZs with a high share of export-oriented manufacturing, particularly those close to the Thai border, experienced a higher increase in economic activity than areas elsewhere.

While these results suggest that at least some SEZs may have played a positive role in economic development, there is a need for more careful evaluation of their impact on employment, productivity and exports. If the government is

to continue to leverage SEZs to drive export diversification and job creation, it is crucial that policymakers have a strong understanding of what and does not work so that they can effectively prioritize investment, particularly given that fiscal space is tight. SEZs are often established as a second-best solution to jumpstart manufacturing production and exports when getting the conditions right to attract larger amounts of FDI is costly and takes time. However, evidence of their effectiveness is mixed (Farole, 2011). In many countries, SEZs appear to have become white elephant projects, attracting enterprises that take advantage of the tax-benefits, but failing to produce substantial employment or quickly becoming unattractive once labor costs increase. Even the highly successful and labor-intensive SEZs in Bangladesh and Vietnam accounted for only 5 percent and 19 percent of national employment respectively in 2014, with backward linkages to the rest of the country most often weak.

Figure 4.13

Lao economic development was linked to export-oriented manufacturing FDI, 2003-20

(a) Total FDI in manufacturing since 2003, \$ million

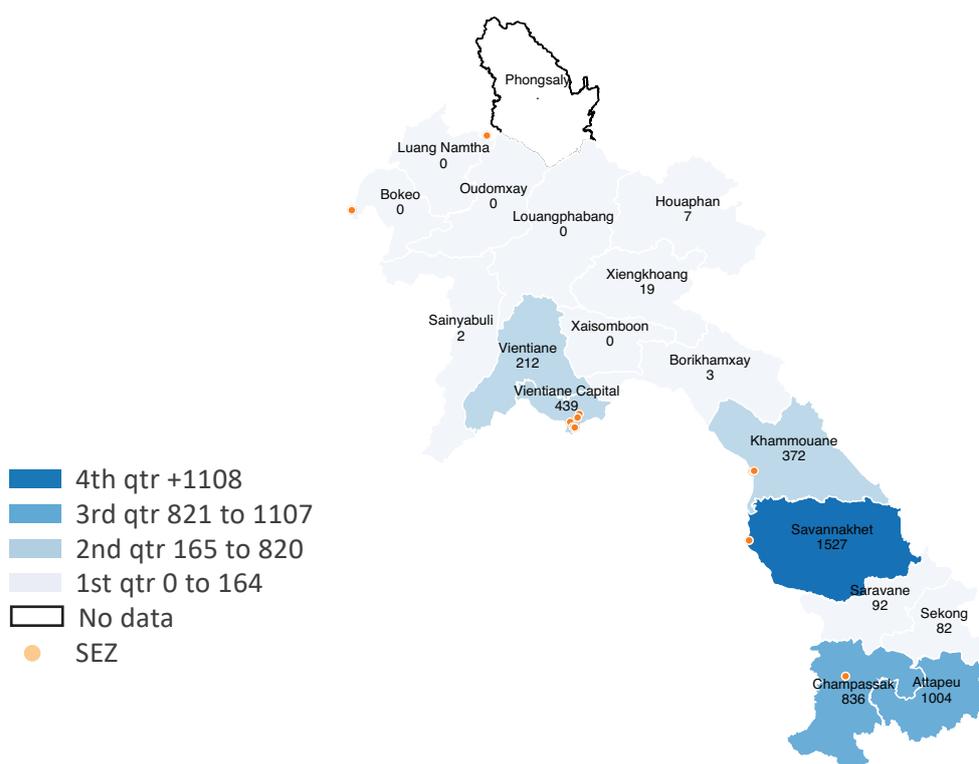
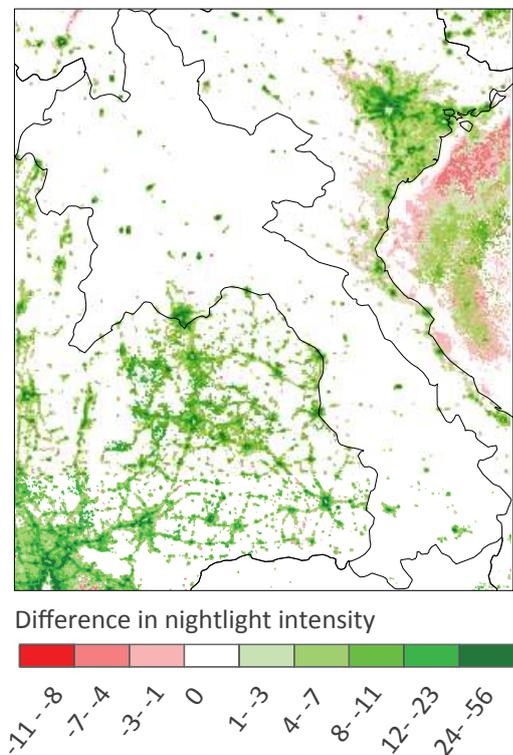
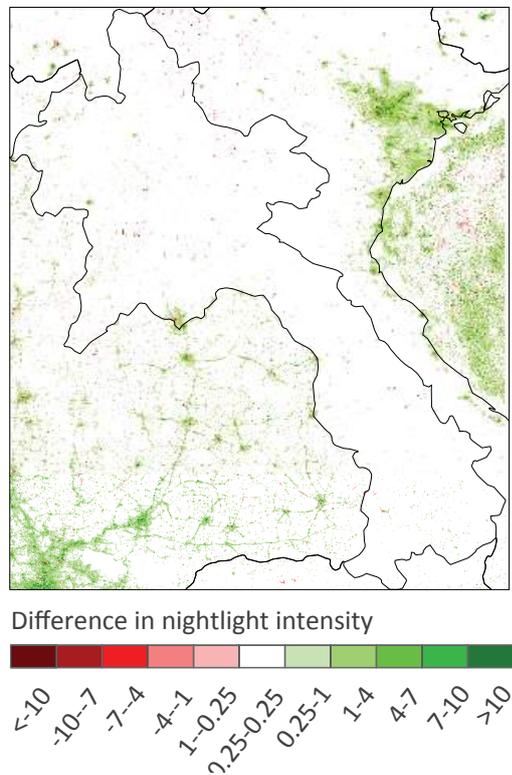


Figure 4.13, continued

(b) 2013-2003 difference



(c) 2020-2014 difference



Source: fDi Markets. 2003 and 2013 data from the DMSP-OLS F15 Stable Lights Cloud Free; 2014 and 2020: VIIRS vcm annualized. Image and data processing by Earth Observation Group, Payne Institute for Public Policy, Colorado School of Mines. DMSP data collected by US Air Force Weather Agency. Note: Spots colored from green to red mark night lights of increasing intensity. A change in the satellite in 2013, makes the comparison of maps and scales between 2003-2013 and 2014-2020 non-comparable. The seemingly brighter map for the period 2003-2013 is a result of this change.

Successful SEZs are those that are able both to leverage the comparative advantages sought by investors (such as location, labor cost advantages, skills capabilities and infrastructure) and display good management and flexibility to adapt to the industry’s evolving needs (Farole, 2011). In Laos, there is anecdotal evidence to suggest that not all SEZs have been successful. In 2018, SEZs accounted for 67 percent of all manufacturing wage workers and 8 percent of all wage workers. However, out of the roughly 20 thousand workers employed in the 12 SEZs, close to 55 percent were foreign workers (IOM, 2019). In recent years, the government’s involvement in SEZs has also receded. Two SEZs in the north (Bokeo and Luang Namtha) are run by Chinese investors.

Over the 2012-2018 period, the electrical, machinery and transportation equipment sector was one of the three manufacturing sectors that created jobs, although on a small scale. In terms of employment, the biggest contributor remains agriculture (60 percent of all workers), followed by services (26 percent); manufacturing (5.7 percent); and mining and hydropower (0.8 percent). Between 2012 and 2018, total employment declined from 3.3 million jobs to 2.9 million, mostly driven by a decrease in non-wage jobs in agriculture. Most employment was created in the public sector, with this sector accounting for 234,000 jobs in 2018, followed by hotel and restaurants (7,000 workers), and some manufacturing subsectors, including textiles/garment (71,000 workers) and electrical equipment (4,400 workers in 2018, twice as many as in 2013).

Laos has the potential to expand value chains in agriculture and food

Expanding agricultural value chains could boost Lao exports and drive poverty reduction. In 2019, agriculture (including forestry and fisheries) contributed to 16.7 percent of GDP and 60 percent of employment, higher than for most landlocked, lower-middle income peers. Since 2013, many agricultural smallholders have transitioned from subsistence rice cultivation towards the commercial production of cash crops, including cassava and coffee, much of which is exported to regional and global markets. Many of these producers operate under cross-border contract-farming arrangements with traders from Thailand and Vietnam. Industrial plantations financed by Thai or Chinese investors have also expanded, especially to produce sugar cane and bananas. As a result, farm incomes have increased and poverty rates have declined, especially for the poorest rural households. Between 2013 and 2018, the national poverty rate declined from 24 percent to 18 percent (LECS 2012 and 2018). In parallel, exports of agriculture-related products have increased, with their value reaching \$624 million in 2019. There is also evidence that between 2012 and 2018, poverty declined faster in farming households close to the border in the north and south, highlighting the significance of agricultural commercialization and the expansion of cross-border trade as drivers of poverty reduction (World Bank, 2020b).

Agricultural value chains can be either global or regional. GVCs are built around a lead international investor, producing cash crops in large plantations (the so-called modern revolution). On the other hand, regional value chains incorporate fewer formal markets, are built around a domestic or regional investor and produce staple crops in smaller-scale farming systems (the quiet revolution). These two types of value chains do not require the same degree of public intervention. The former is coordinated by a lead firm, with little need for public investment,

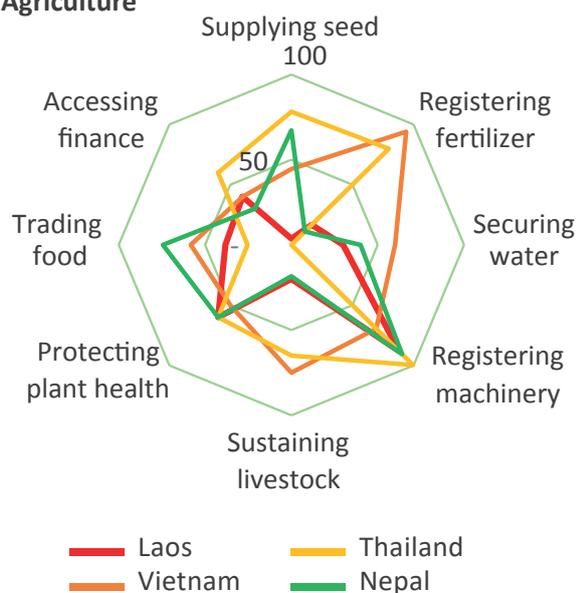
the government needs only to ensure that the development impact diffuses to the general population. For the latter, the government has a more active role to play in terms of coordination and measures to lower transaction costs.

In Laos, there is potential to expand both global and regional value chains. Exports of agriculture-related products are quite diverse in terms of crops and market characteristics. In 2020, major agri-food exports include:

- I. **Fruit and vegetables:** Plantains and bananas (28.3 percent of agri-food exports), watermelons, produced in large plantations in the northern and central regions following Chinese investment.
- II. **Tubers and cereals:** This includes cassava and cassava starch (27 percent) and maize, produced mostly by smallholders under contract farming arrangements and exported primarily to Thailand, Vietnam and China. Rice accounts for more than 70 percent of cultivated area. Productivity remains low and most of the output is sold domestically, with exports averaging around 3.5 percent of agri-food exports due to government national stock policy.
- III. **Higher value arabica coffee:** Coffee beans (10.4 percent) are mostly produced on the Southern Bolaven plateau. However, 90 percent of the production is exported unroasted to Vietnam, Japan, Thailand, and Europe (Belgium and Germany), where roasting and value-addition takes place.
- IV. **Sugar products (6.7 percent):** Sugarcane is mostly cultivated on large plantations in Savannakhet run by Thai investors and processed by two large Thai-owned factories for export to the EU market (69.3 percent), to Vietnam (13.7 percent), and to China (5.1 percent).

The small scale of agricultural operations in Laos prevents farmers from joining supply value chains. Agricultural value chains continue to be dominated by small-scale operators who lack organization and who are poorly capitalized, limiting their capacity to invest in modern production infrastructure or processing equipment such as efficient rice milling, coffee roasting, or cold storage for perishables. In addition, commercial relationships between value chain actors are mostly informal, limiting the knowledge transfers that play a vital role in improving quality and productivity. Food-processing and other added-value processing is underdeveloped, consisting primarily of food preservation practices implemented by farming households. The lack of compliance with technical quality, sanitary and phytosanitary standards also limits agricultural exports to neighbors. Thus, only a few small formal food processing agribusinesses are located along the Thai border and intended to serve neighboring markets.

Figure 4.14
Laos' performance in Enabling Business for Agriculture



Source: World Bank's EBA (2019). Note: The radar chart provides a visual comparison of the countries' performance in the 8 topics scored in EBA19. Higher scores represent a larger number of good practices observed in the laws and regulations measured by each EBA topic.

Barriers to expansion are partly related to production processes. Scaling up operations is constrained by lack of land titling; limited access to seeds and fertilizers; lack of access to agricultural extension services; lack of information on prices and markets; and limited options to sell together within a producers' organization. Thus, Laos ranks below Vietnam and Thailand in all dimensions of the Enabling Business for Agriculture (EBA) index, and only slightly better than Nepal in terms of access to finance (see Figure 4.14), highlighting the extent of the reforms needed to support the sector. Laos lacks regulations to ensure quality seeds compliance, nor does it have a reliable catalogue listing registered varieties. As a result, it imports almost all seeds for horticulture production from Thailand and Vietnam. Registering fertilizers remains a lengthy process, with the registration only valid for two years, while importing fertilizers requires a new license for each shipment. The lack of access to credit for farmers constrains mechanization, the purchase of inputs, and certification, all of which limit productivity growth. The proportion of credit going to the agricultural sector is also relatively low, averaging 8 percent of the total. Innovations could be implemented to address these issues, including measures to help farmers to build credit records, such as by tracking their transaction history or accepting as collateral their sales contracts with a large formal buyer.

Organizing supply chains in Laos remains considerably more costly and time consuming than in Thailand or Vietnam. Supply-chain efficiency depends on the quality of tangible and intangible components, including transport infrastructure as an example of the former and administrative procedures as an example of the latter. There is indeed room to improve infrastructure connectivity in Laos at both the domestic and regional levels (see Box 4.1).

By improving connectivity, the Laos-China railway that connects Vientiane to China through Laos' northern border at Boten has the potential to boost sustainable agricultural production and to increase exports to China. The expected gains vary by commodities, depending particularly on their current mode of transportation and the level of sectoral competition. While the railway is a viable alternative to other modes of transport for Lao agricultural exports to China, there is a trade-off between shipping time and transport cost. Moreover, transport costs constitute only a portion of the total shipping cost, with the remainder associated with the cost of logistics and border procedures. For example, while the railway could substantially reduce the cost of transporting banana and cassava, which are currently exported to China by road, this gain could be more than offset by the longer waiting time at rail freight terminals compared to that for trucks. The railway can reduce the transport time of rice by almost half, compared to the current sea route through Thailand, but at a higher cost if no competitive pricing strategy is adopted.

It is important that the rail-way development also supports the country's export diversification. Laos' high growth, mostly driven by the capital-intensive resource sector and supported by infrastructure development has not been sufficiently inclusive. Thus, a key issue for the government is to ensure that the development of the Laos-China railway not only connects Lao businesses to end-markets in China, further boosting exports of raw commodities, but that it also serves to reach markets in the region and overseas, including OECD markets where demand for services and for manufacturing and agricultural processed goods will enable Laos to diver-

sify exports away from commodities and to support job creation and poverty reduction more effectively.

To reap optimal benefits from the Laos-China railway, it is vital to implement adequate supporting policies to enhance logistics and competition, but also to improve the business environment more generally. Efforts to improve the last-mile infrastructure; to standardize and advance custom clearance; and/or to provide complementary facilities for the transit of commodities, including cold chain storage, would further reduce trading costs. To facilitate the entry of new exporters, measures are needed to improve access to credit and to lower export license barriers, thereby increasing competitiveness. Finally, improved access to the large Chinese consumer market could foster the modernization of agriculture practices and the adoption of enhanced environmental and inputs regulations.

There is also scope for Laos to capture market shares for organic products. At present, the share of cropland dedicated to organic farming in Laos is still small. However, Laos' endowment in pristine soil and water resources and its relatively limited use of chemicals could create opportunities to respond to the growing demand for organic food, including high-quality rice in China and Vietnam, organic feed maize in Thailand, and organic vegetables in fast-growing urban centers in Laos. Organic farming also has strong linkages with agro-tourism. Tourists' spending tends to be price-inelastic for quality food and accounts for a significant share of tourists' expenditures. However, since the pandemic in 2020, the flow of tourists has dropped almost to zero and the outlook for agro-tourism is currently uncertain.

Box 4.1**Why does connectivity matter?**

Investment in infrastructure connectivity within and between countries matters not only for supply chain efficiency, but also for economic growth (by making labor market more efficient and productive) and for improved resilience (by improving quality and diversifying trade routes). Poor transport and logistics infrastructure and a lack of quality services result in higher costs and longer delays in delivering produce. The benefits of better infrastructure are usually reaped across the board. Improved connectivity can facilitate the movement of merchandises along trade corridors, which is particularly important for sensitive or perishable goods, such as medical supplies or agro-food products. Improved connectivity can also support the development of trade in services, particularly in the tourism sector.

Conversely, poor transport and logistics infrastructure and services imply higher costs and longer delays in getting produce delivered. Poor road quality, especially outside Vientiane, continues to act as a major constraint, resulting in loss of fragile produce. At present, there is no dedicated refrigerated transport or cold storage, nor is there a drying area for agricultural products at border crossings or airports. Transport prices remain high compared to those of neighboring countries, largely driven by low vehicle utilization and a lack of competition between transport service providers. In 2018, prices for full container loads were around \$0.11 per ton-km, and \$0.37 per ton-km for partial loads. This compares to 5 cents per ton-km in Thailand (World Bank, 2020a). Transport costs also vary across routes, with southern routes being cheaper than northern routes. All these constraints increase the final consumer price, squeeze the margins of producers, and affect the competitiveness of Lao agricultural products.

The development of the Laos-China railway is expected to reduce transport and logistic costs by 30-40 percent from the end of 2021. However, the challenge is not only to connect Laos to the dynamic markets in China, Thailand and overseas, but also to connect remote areas within Laos to trade corridors (World Bank, 2020a). Beyond linking up industrial areas with foreign markets through trade, it will be important to make a coherent effort to link local and remote areas with industrial agglomerations and nearby international markets. This requires a coherent approach to reduce hard and soft bottlenecks in logistics infrastructure.

To reap the benefits of hard infrastructure investments, infrastructure development and regulatory reforms need to occur in tandem. Estimates based on a gravity model suggest that Laos's weighted trade costs would be reduced by only 0.61 percent for exports, the second lowest among East Asian comparators, and 2.5 percent for imports (World Bank, 2020; Constantinescu et al, 2020). Exports of goods and services could increase by up to 27 percent, but only if tariff reduction and trade facilitation reforms reduce costs and delays at the border. Without those reforms, the gain drops to 1.5 percent. As for FDI flows to Laos, those could be increased by 6 percent, in line with the average East Asia peer, but less than in the case of Thailand, Malaysia and Vietnam.

Source: World Bank (2020a).

Deepening regional integration

Laos could further leverage its proximity to booming economies, especially to clusters at the border with Thailand. Historically, towns near border crossings have thrived by attracting business and people, often incentivized by low taxes and ease of doing business. The border with Thailand could be developed to attract business by establishing clusters of production (agricultural and industrial zones) and wholesale markets. Attracting FDI through openness, investor protections, stability, a favorable business climate and, in some cases, investment promotion could contribute to developing the capital, technology, and management skills of the businesses that operate there. Further liberalizing trade while negotiating trade liberalization in destination markets would alleviate the constraints of a small domestic market. Improving customs and border procedures and promoting competition in transport and logistics services would also need to occur in tandem to limit behind-the-border trade costs.

Further reducing manufacturing tariffs would also facilitate greater participation and upgrading in GVCs. Global evidence indicates that in countries that upgraded their participation in GVCs, FDI, manufacturing tariffs and deeper trade integrations are important. In countries that have shifted from primarily exporting commodities to exporting light manufactures, net FDI inflows picked up substantially in the five-year period before the transition, and then continued to increase afterwards. Countries that made this transition also implemented significant reductions to manufacturing tariffs, with lower tariffs positively correlated with improved access to imported inputs and to increased backward integration. Countries participating in limited manufacturing GVCs also have more preferential trading partners than those primarily engaged in the export of commodities. Compared to other countries in East Asia, Laos has relatively high manufacturing tariffs and a similar number of preferential trading partners (see Figure 4.15, panel a).

Increased participation in more advanced GVCs is positively correlated with the depth of countries' engagement in preferential trade agreements (PTA). Deep PTAs, proxied by the number of provisions they cover, contribute to increasing GVC-related trade, with stronger effects for trade in intermediate goods and trade in services (Laget et al, 2019). This is because deep PTAs go beyond simple market access and national treatment to include commitments related to the substance of behind-the-border policies and to their enforcement. Deeper forms of integration that encompass policy areas that extend beyond traditional trade policy can play a positive role in facilitating institutional and policy reform and disciplining the national policies required to facilitate operations fragmented across borders. Deep PTAs cover legal and regulatory frameworks, harmonize customs procedures and establish the rules related to intellectual property rights. All of these contribute to reducing the risks associated with GVC investment and facilitate the establishment of flexible networks of firms required for GVCs to thrive.⁵⁸

Figure 4.15
Manufacturing tariffs and preferential trading partners across GVC types 2006-15

(a) Average across GVCs types

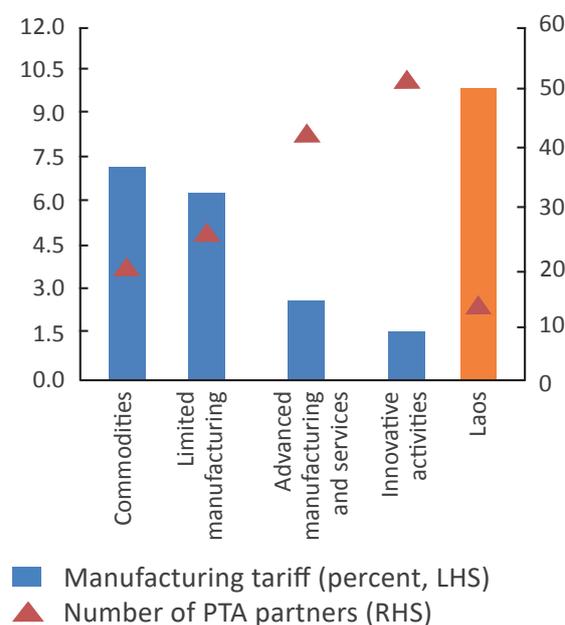
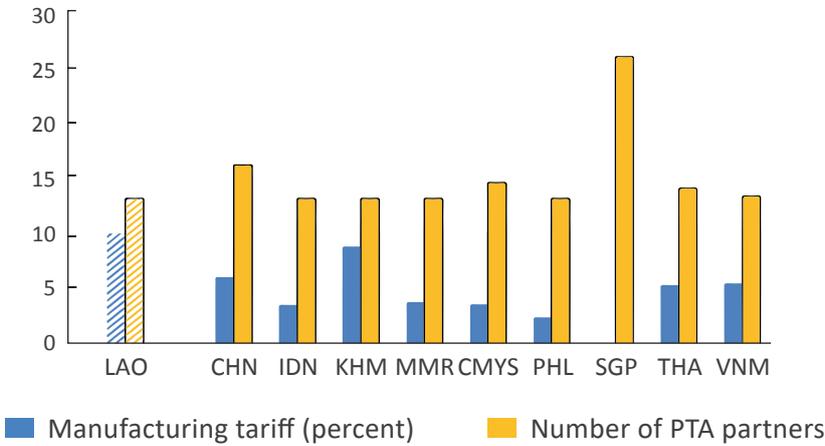


Figure 4.15, continued

(b) Comparator countries



Source: Adapted from WDR 2020 using World Bank WDI and Deep Trade Agreements databases and GVC taxonomy 2011. Notes: The left axis shows weighted average manufacturing applied import tariffs and the right axis the average number of PTA partners. Averages are computed over 2006-15.

In 2019, Laos’s tariffs are relatively low, consistent with a strategy to enhance GVC participation, but in 2019, while Lao tariffs were relatively low, additional simplification of the tariff system would further support participation in GVCs. At 8.5 percent, Laos’ simple average MFN tariff is higher than in Myanmar (6.5 percent); the Philippines (6.2 percent); and Mongolia (5.2 percent), but lower than in Vietnam (9.5 percent) and Cambodia (11.2 percent). The structure of MFN tariffs in Laos varies considerably from that of other countries in the region, with more than half of its tariffs set at rates between 3 and 5 percent.

In addition, with the exception of Mongolia, Laos has the smallest proportion of zero tariff lines of these countries. A frequent complaint regarding these low-rate tariffs, sometimes referred to as ‘nuisance tariffs,’ is that the cost of collection may easily exceed the revenue raised. These costs relate not only to the resources required to administer them, but also, and more importantly, to the opportunity costs related to foregone trade facilitation gains. The administration of these tariffs can result in customs resources being diverted away from more risky shipments and processing times taking longer.

Figure 4.16
Preferential market access 2018: Laos and comparators

(a) Preference margins granted by Laos and comparators, 2018

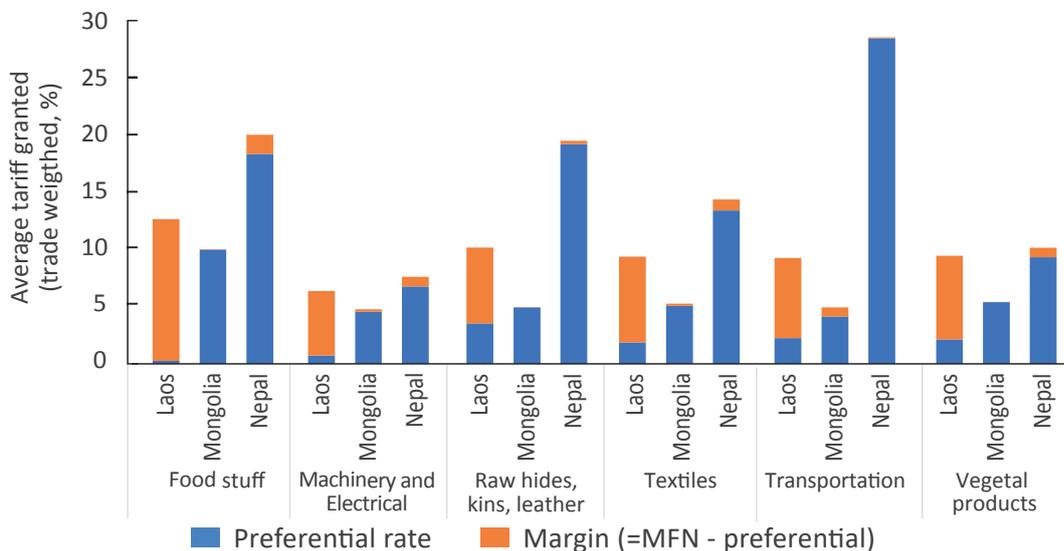
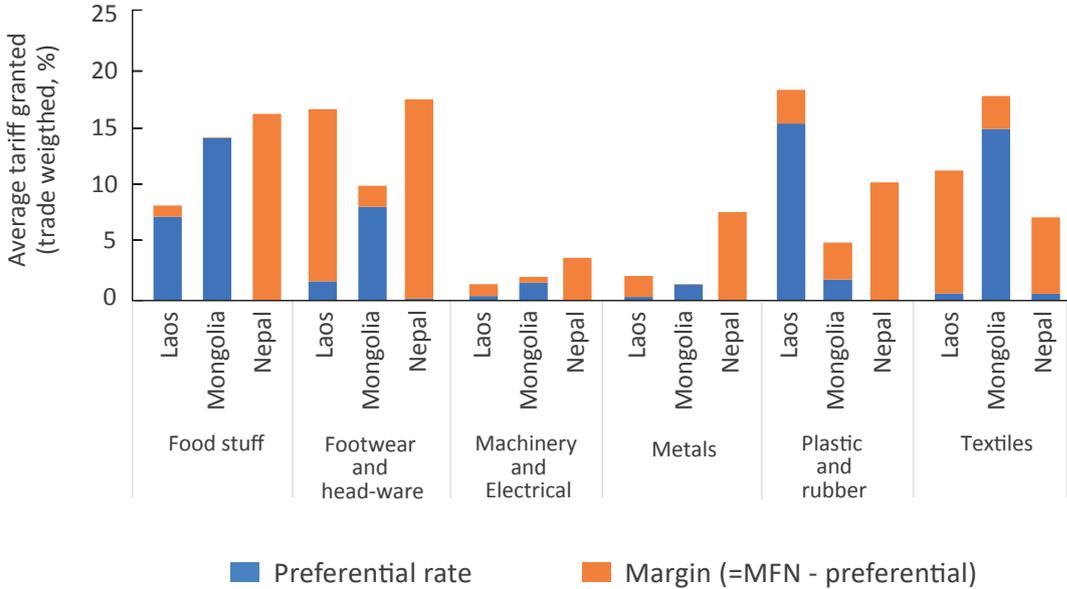
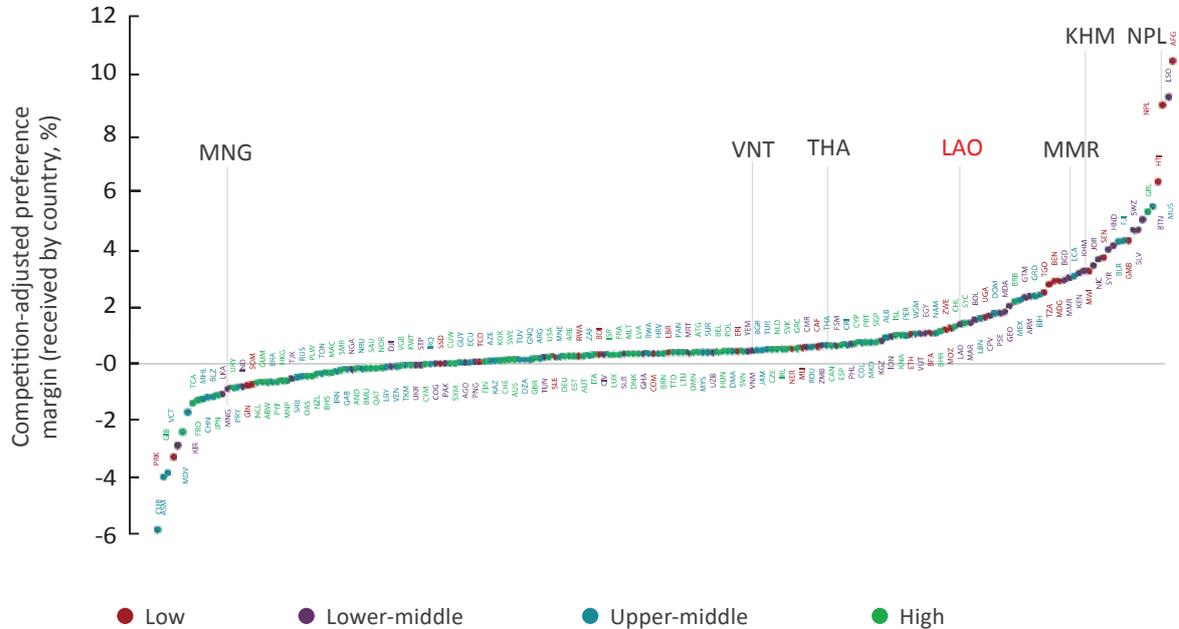


Figure 4.16, continued

(b) Preference margins received by Laos and comparators, 2018



(c) Competition-adjusted preference margins (received by country)



Source: Deep Trade Agreements handbook 2020.

Notes: Competition-adjusted preference margins are calculated as the percentage difference between the weighted average tariff rate applied to the rest of the world and the preferential rate applied to the beneficiary country where weights are represented by trade shares in the preference-granting market. A negative value indicates that in a specific market, a certain country faces worse market conditions than its trade competitors.

Laos’ preferential advantage is significant, although less than Cambodia’s or Myanmar’s. As a result of its participation in trade agreements, Laos grants preferential access to its domestic market to its trading partners and benefits from favorable market access to its destination markets. On the import side, Laos grants relatively high preference margins to its trading partners compared to the average for landlocked countries. On the export side, Laos’ preference margins to access foreign markets reflect non-reciprocal tariff schemes with advanced countries (see Figure 4.16 panels a and b).⁵⁹ Given the proliferation of PTAs, the advantage conferred by a preferential tariff to a given exporter does not depend only on the difference between the MFN tariff and the preferential rate, but also on the tariffs imposed on competing suppliers in the same destination market. Accounting for this, Laos still has significantly better market conditions than some of its trade competitors, including Vietnam and Thailand, but worse than Myanmar or Cambodia. About 1.6 percent of Lao trade benefited from a preferential advantage, compared to 8.9 percent for Nepal, with Mongolia paying 1 percent higher tariffs on their exports than the competition-adjusted levels (see Figure 4.16, panel c).

While tariffs in Laos have dropped, non-tariff measures (NTMs) have increased and remain highly prevalent, as is the case across the ASEAN region. As of 2021, Laos implements 520 NTMs, an increase from the number of 371 recorded in 2015. These NTMs cover the entire range of Laos’ imports, with all products covered by at least one NTM. Laos is no outlier, with coverage ratios remaining high throughout the region (see Figure 4.17). In terms of their composition, the majority of NTMs implemented in Laos have little or nothing to do with product safety. Rather, they act as export restrictions (33 percent of NTMs); quantity control measures (15 percent); or price control measures (11 percent), suggesting that they are implemented as non-tariff trade-protection instruments rather than to ensure product safety (Ly, de Cordoba,

Cadot, 2015). TBT account for 27 percent of NTMs, while SPS measures account for 11 percent (TRAINS). By contrast, the increase in NTMs in Thailand was driven by the increased imposition of SPS measures and TBT. A breakdown of the number of measures by product category shows that the most heavily-regulated products (three or more NTMs) include not only products that are sensitive from a public-health perspective (animal products, foodstuffs, chemicals), but also products where the rationale for state regulation is less clear (mineral products, transport, wood products or textile). The lack of transparency, harmonization and mutual recognition in SPS measures and TBT also make it difficult to trade key inputs, especially for agricultural inputs such as seeds, fertilizer and pesticides (see Figure 4.17).

Figure 4.17
NTMs in Laos and ASEAN, 2018

(a) NTMs by type and by country, 2018

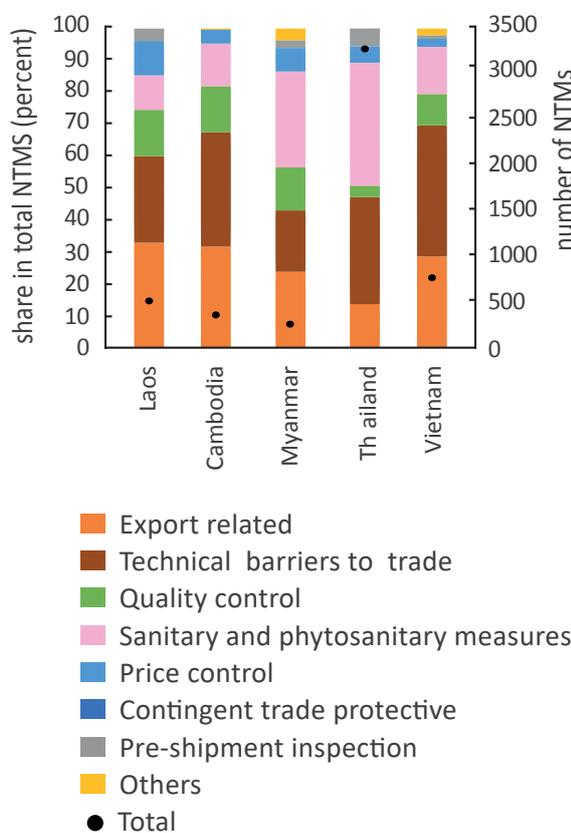
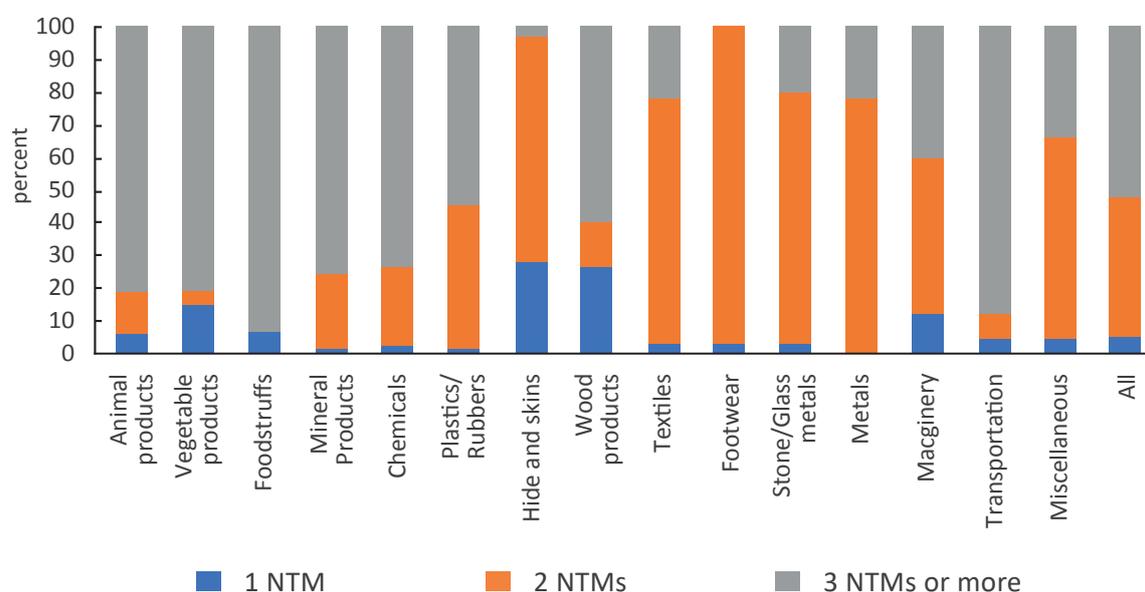


Figure 4.17, continued

(b) Tariff lines in each product group affected by one or more NTM in Laos, 2018



Source: Trains 2012, UNCTAD-NTM 2021 and Ly, de Cordoba, Cadot (2015).

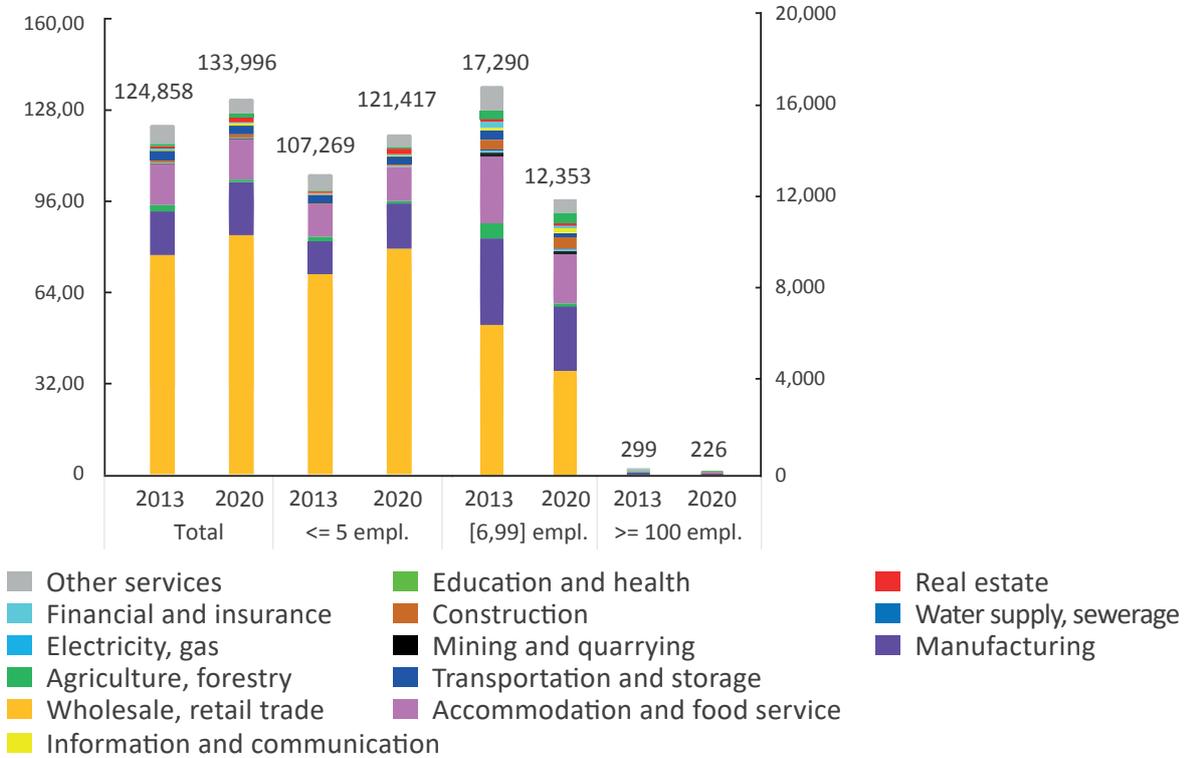
Constraints faced by Lao exporters

Laos' formal private sector is small and has experienced only limited growth since 2013 (LBS, 2013, 2020). Informality is prevalent, with the informal sector accounting for 83 percent of employment in 2017, compared to the formal sector's 7 percent and the public sector's 10 percent. In 2020, there were about 134,000 registered private businesses in Laos, only slightly more than the 124,000 recorded in 2013 (see Figure 4.18). In terms of number of workers employed, the average firm size decreased from 4.2 employees in 2013 to 3.7 in 2020, driven by an increase in the number of micro and small businesses and a decline in the number of large businesses. However, the increase in the number of micro-businesses should be interpreted with caution, as it also reflects changes to company size categories between the 2013 and 2020 economic censuses.

Laos appears to have fewer large manufacturing

and GVC firms than most of its lower-middle income peers. Excluding micro-businesses, only 2 percent of Lao businesses (225 businesses) employ more than 100 workers, with most of these in manufacturing (43 percent in food processing, electronics and apparel companies); construction (10 percent); and agriculture and forestry (8 percent). This is slightly less than seven years ago, in 2013 (LBS 2013 and 2020). In 2018, just over 12 percent of businesses in the manufacturing and service sectors with more than five employees were either partially or fully foreign-owned. In addition, a relatively small number of enterprises in Laos engage in importing or exporting, with about 23 percent of manufacturing companies with more than five employees importing; 15 percent exporting; and 5 percent engaging in both (WBES 2018). This is considerably lower than the average for countries with similar income levels (see Figure 4.19, panel b).

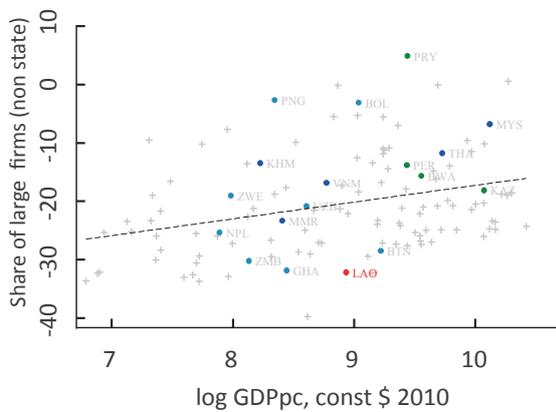
Figure 4.18
Distribution of registered businesses by sector and size, 2013 and 2020



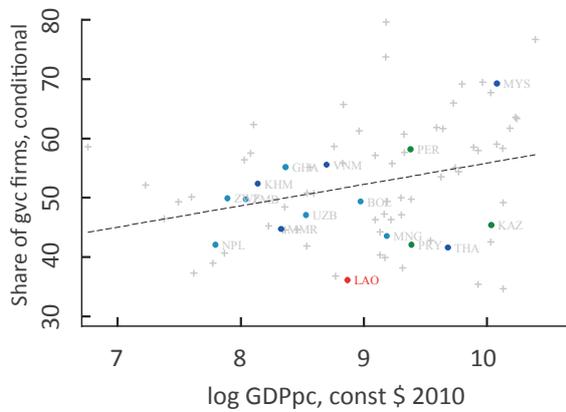
Source: Laos economic census 2013 and 2020. Note: Between 2013 and 2020 firm size categories size. In 2013, micro businesses include businesses with less than 5 employees, while in 2020 they include businesses with 5 or less employees.

Figure 4.19
Laos lacks heavyweights at the top of the distribution, 2018

(a) Share of large firms



(b) Share of GVC firms



● Regional peers ● Structural peers ● Aspirational peers --- Fitted line

Source: World Bank Enterprise surveys latest available year for each country. 2018 data for Laos. Note: Sample includes manufacturing firms with more than 5 employees. Large firms defined as businesses with 100 or more employees and GVC firms defined as businesses that both import and export. The relationship shown uses regression to control for population and the share of resource rents in GDP. The share of businesses shown on the vertical axis is the share of businesses adjusted for the effect of size and resource endowment.

Who are Laos' exporters?

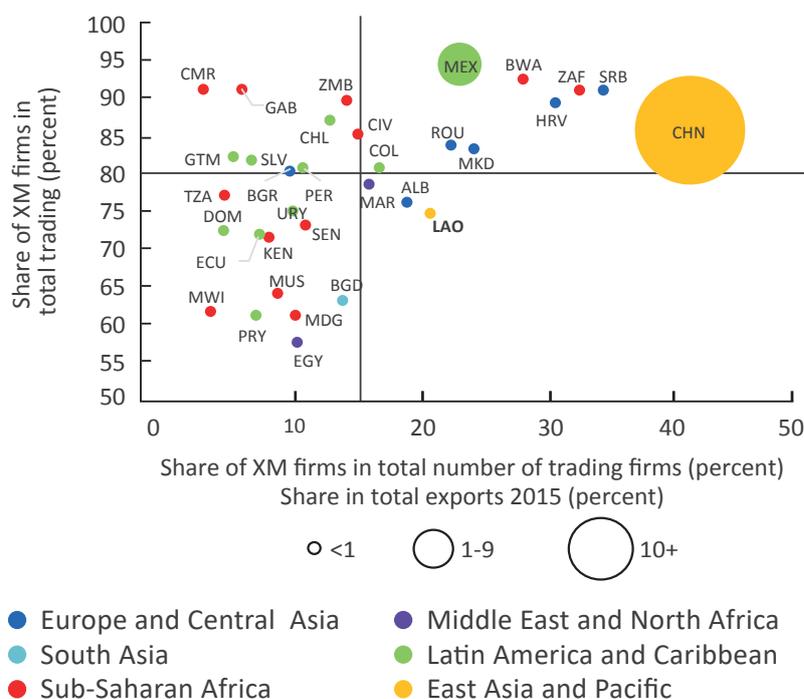
New customs data enables a closer examination of the profile and dynamics of Laos' trading firms. Excluding mineral exports, there were 6,448 active trading firms in Laos between 2015 and 2020, with 2,889 of these having exported at least once during this period. In proportion to population, this represents 40 exporting businesses per 100,000 inhabitants, considerably lower than in Thailand (53 per 100,000 in 2015). On average in any given year, 1,073 firms export, with about half of these also importing. Thus, in any given year, about 20 percent of all firms involved in international trade are GVC firms (businesses that both import and export), with the exact number fluctuating from year to year with the exit and entry of businesses. Although the data for 2020 only cover the first seven months of the year, the number of trading firms during the COVID-19 crisis declined by 41 percent compared to the same period in 2019, with the number of exporting-only firms declining by 43 percent; of importing only firms by 41 percent;

and of GVC firms by 36 percent consistent with their larger size, greater productivity, and more durable connections to international markets.

In Laos, while the number of GVC firms is high, they concentrate a smaller share of total trade than in comparator countries. In Laos, the percentage of businesses that export and import foreign inputs stands at 20 percent, compared to an average of 15 percent for a large sample of comparator countries (see Figure 4.20). This reflects Laos' small market size and its landlocked geographical situation, with most exporting firms in Laos needing to source their inputs outside the country. The 20 percent of trading firms that engage in both importing and exporting accounted for 75 percent of the country's total manufacturing trade over the 2014-2020 period, indicating their significance in shaping the country's trade and GVC integration. However, this figure is lower than the average of 80 percent recorded for the sample, suggesting a smaller average size for GVC firms in Laos.

Figure 4.20

Businesses that both import and export dominate GVC participation



Source: Adapted from WDR2020.

Note: The figure plots the share of GVC firms (businesses that both import and export in a given year) in total number of trading firms against their share in a country's total trade value (imports plus exports). In each country, the average of each measure is computed over 2005–15 for the largest available sample of countries. For Laos, available years were from 2015 to 2020. The black lines mark the average across countries for each measure on the x-axis and y-axis.

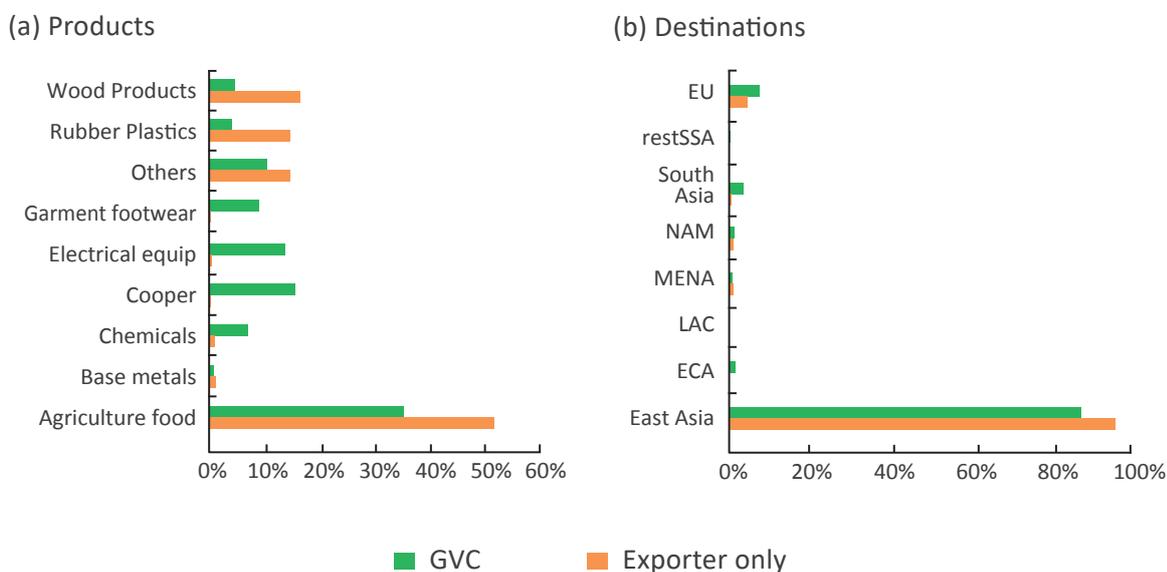
GVC firms tend to be significantly larger and more diversified than one-way traders. In Laos, firms that only engage in exporting are concentrated in terms of their destinations and products, reflecting the small overall scale of their operations. In 2019, such firms exported on average two products to one destination, compared to an average of four products to two destinations for GVC firms. GVC firms imported a greater number of products from a wider range of source countries (an average of 29 products from three source countries) than importers-only (15 products from two source countries). The large average size of GVC firms' product import portfolio is partially driven by the presence of large distributors serving the Lao market. If these are excluded from the sample, the average size of the import portfolio for GVC firms declines to seven products from two source countries, and to four products from one source countries for importers only.

GVC firms also tend to operate in different sectors and to serve different markets than one-way traders. Of the total number of exporting-only firms, 22 percent specialize in the wood industry, with another 22 percent specializing in agriculture and food. By contrast, GVC firms mostly operate in agri-food (14 percent), followed by light manufacturing (apparel and electronics), at 7 percent. The

export mix of GVC firms is more diversified than for exporters-only, which tend to specialize in wood and food exports (see Figure 4.21, panel a). Exporters (including both exporters-only and GVCs) predominantly serve the regional market, although GVC firms have a stronger presence in EU markets. GVC firms also send a larger share of their exports to countries in the South Asian region and to the USA (see Figure 4.21, panel b). In terms of import patterns, GVC firms resemble importers-only, reflecting the need for a wide range of foreign products for both production and consumption purposes (see Figure 4.22, panel a), with these products sourced almost entirely from regional partners (see Figure 4.22, panel b).

Lao manufacturing firms have one of the lowest levels of productivity in the region, being 22 percent less productive than those in Cambodia and 65 percent less than in Vietnam. Over the 2009-2018 period, the average level of labor productivity of Lao manufacturing firms remained stable, with the median growing slowly at 2 percent per year. This is partly the result of limited access to quality inputs technology and know-how, and to the high cost of access to markets for their outputs. It also reflects the constraints on Lao firms in accessing other factors of productions, including labor and trade-related services.

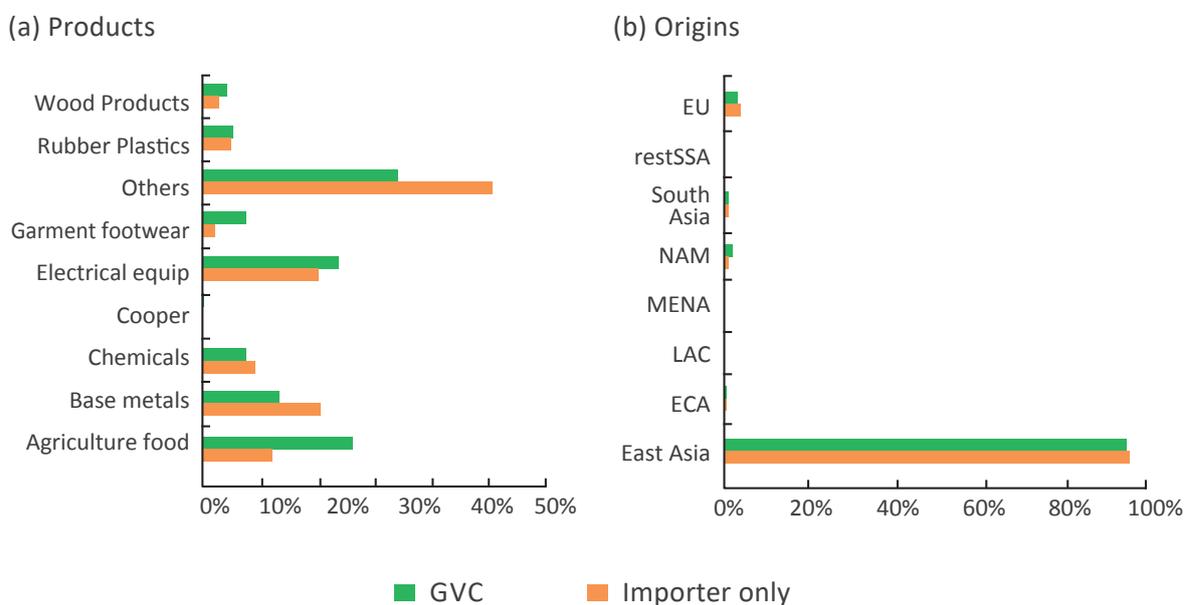
Figure 4.21
Product and destination mix of GVC firms versus simple exporters



Source: Calculations based on Laos Customs data.

Note: The sum of allocation of total exports of GVC firms (resp. simple exporters) by products (destinations) equals 1.

Figure 4.22
Product and origin mix of GVC firms versus simple importers



Source: Calculations based on Laos Customs data.

Note: The sum of allocation of total exports of GVC firms (resp. simple importers) by products (destinations) equals 1.

GVC firms tend to be more productive and capital intensive and to employ more workers than one-way traders and non-trading firms. Evidence from a number of developing countries suggests that even though production is becoming more capital-intensive and less job-intensive, firms that participate in GVCs have higher levels of productivity, which allows them to expand output. This scale effect more than offsets the negative effect of using labor-saving technologies for production. In net, GVCs create more jobs. This holds true for Laos. Controlling for capital, GVC firms engaged in manufacturing record higher levels of labor productivity than businesses that do not trade, by about 40 percent (see Figure 4.23, panel a). They are also more capital-intensive and hire more workers than appeared non-trading firms. On average, two-way traders utilize 80 percent more capital per worker than non-trading firms, with a 102 percent difference for export-only

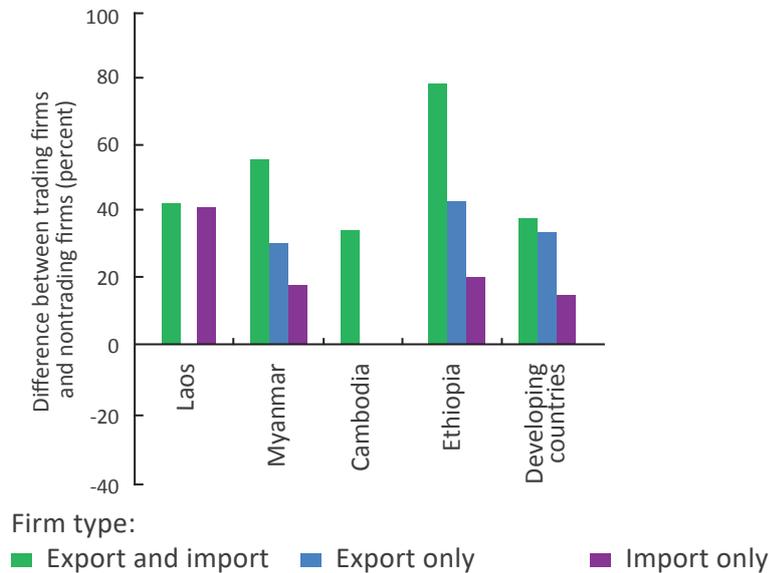
firms and a 19 percent difference for import-only firms. In addition, two-way traders increased their labor force at a rate 19 percent faster than non-trading businesses (see Figure 4.23).

To improve profitability and productivity, Lao manufacturers need to increase the quality of their output. The small size of domestic product and labor markets makes it difficult for businesses to exploit economies of scale to raise profit and productivity. Moreover, the limited quality of outputs means that businesses operate with small profit margins, which limits their ability to provide higher wages and to retain workers when Thai competitors can offer better compensation. Policies that improve businesses' access to larger markets and that encourage the adoption of the standards required to reach higher-end markets would help to increase both their productivity and market shares (Asprilla et al, 2019).

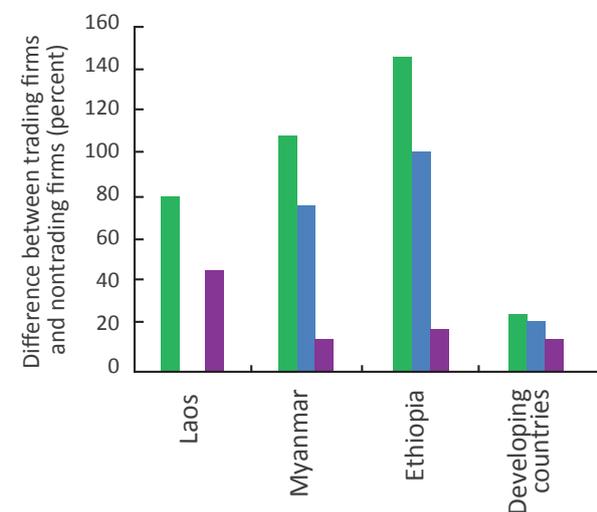
Figure 4.23

Firms that export and import are more productive, capital intensive and create more jobs

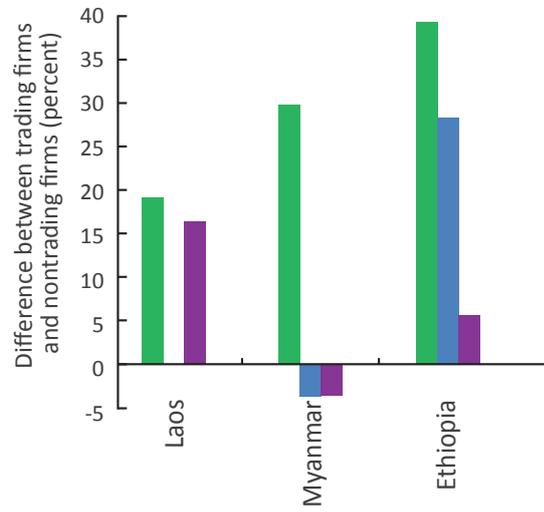
(a) Labor productivity



(b) Capital intensity



(c) Employment growth



Firm type:
■ Export and import ■ Export only ■ Import only

Sources: WDR 2020 and World Bank’s Enterprise Surveys data for Laos (2018), Myanmar (2016) see Jaud et al., (2020). Results for Cambodia from Cambodia Economic Update 2020, for Ethiopia from Choi, Fukase, and Zeufack (2019) and from WDR2020 for the 81 developing countries. Notes: Labor productivity is log sales per worker, Capital intensity is log K per worker. Employment growth is the delta log N employee within firm. For Laos, GVC and exporters only are combined due to the lack of observations for GVC firms in the WB enterprise survey data. Lack of observations precludes including results for Laos for exporters only.

Laos' private sector faces both structural and policy-induced constraints

Laos' highly-capital resource-driven growth model has undermined the competitiveness of labor-intensive sectors.

Laos' dependence on natural-resource exports and the associated large resource-related rents and capital inflows have led to a sustained appreciation in the value of the kip. The real effective exchange rate (REER) has appreciated by about 50 percent since 2005, when major investments in mining and hydropower began, with copper prices surging by more than 200 percent over the same period. After reaching a peak in 2016, the REER has since declined by, largely due to a depreciation in the nominal exchange rate against trading partners. In 2019, it stands at between 14 and 23 percent above the level consistent with medium-term fundamentals (IMF, 2019).

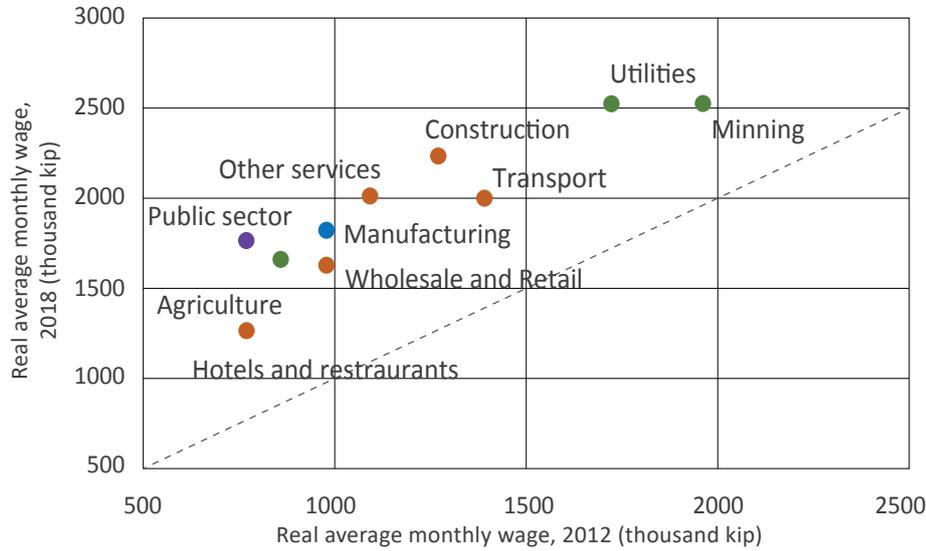
There is abundant evidence of the inhibiting effect of overvalued currency on business entry, expansion of exports, and diversification into new products and markets.⁶⁰ In Laos, the appreciation of the kip since 2005 has resulted in higher costs for trading firms engaged in manufacturing and agriculture, because even if most companies receive revenue in US dollars or baht, they use kip for local payments, including for local inputs, wages, utilities, and other local services. From interviews with Lao manufacturing business managers, it is clear the appreciation of the kip had a negative impact on their performance, with those in the garment and agro-processing sectors reporting the strongest impact (Nolintha and Jajri, 2015).

Laos also has a severe under-supply of both unskilled and skilled workers. The labor shortage is driven in part by the ease with which workers can migrate to Thailand to seek better-paid jobs. It is estimated that between 200,000 to 300,000 Lao nationals currently work in Thailand, although the number could be higher, given that accurate measurement is difficult (IOM, 2019). Wages in Thailand are much higher than in Laos, even for the least skilled workers, such as agricultural day laborers. The minimum wage in Thailand is about 300 baht per day (equivalent to \$10 or 130,000 kip per day), more than twice the rate in Laos. Lao migrant workers in Thailand are predominantly employed in domestic work, construction, manufacturing, agriculture, and entertainment work, mainly in neighboring border provinces and larger cities.

The attractiveness of Thai wages is even greater given the lower cost of living in Thailand. Laos' prices are inflated in part due to the high transportation costs resulting from its landlocked position. The recent growth and investment boom has also driven prices higher. Figure 4.24, panel a, shows that earnings in all sectors grew significantly over the 2013-2018 period, with real income in the manufacturing sector recording one of the highest growth rates (83 percent). This reflects increases to the minimum wage, which rose more than threefold over the period, going up from 348,000 kip (\$42) per month in 2010 to 900,000 kip in 2015 (\$110), and to 1.1 million kip (\$127) in 2018. While the primary objective of these increases was to protect low-income workers and to correct labor-market distortions, they also served to increase the cost of living.

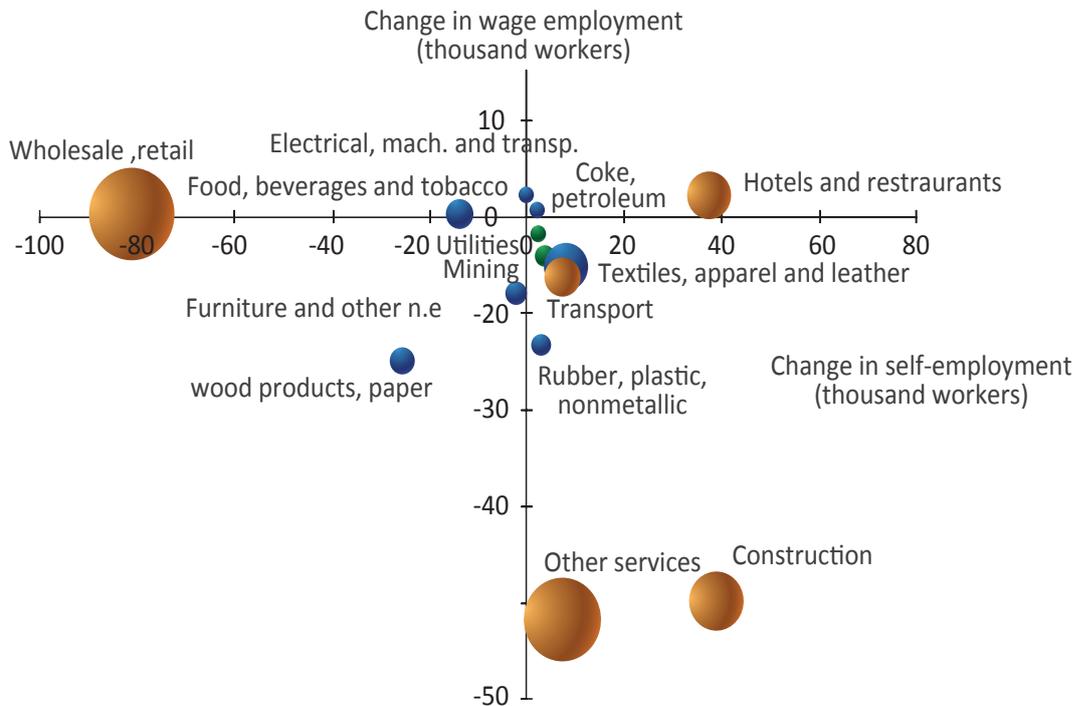
Figure 4.24
Rising wages and labor demand in Laos, 2012-18

(a) Change in real earnings by sectors, 2012 and 2018



Source: LECS 2012, 2018.

(b) Wage and non-wage labor dynamics by sector, 2012-2018



Source: LECS 2012, 2018. The size of the bubble is the share of the sector in total 2018 employment (wage and non-wage). For visibility the figure excludes agriculture and public sector.

The increasing proportion of Lao workers employed in non-wage jobs is indicative of the eroding competitiveness of Lao businesses and of the constraints they face when operating outside SEZs. Over the 2012-2018 period, with rising labor costs, businesses in many sectors substituted wage workers for self-employed staff (see 83b, lower right quadrant). The textile and apparel industry grew marginally in net terms (with about 2,500 new workers), but substituted half of its wage workers with self-employed/informal workers. Most garment and footwear factories are located outside SEZs, which were created after the expansion of the textile/garment industry in the 1990s. They tend to face high transportation and logistics costs, with an unfavorable tax regime for sub-contractors. As wages increased, businesses might have attempted to remain competitive by reducing labor costs, firing wage workers and rehiring them as independent or informal workers. More analysis on this would be necessary. This contrasts with the electronic and electrical equipment sector, which mostly operates from within SEZs, where employment has expanded, almost exclusively through the creation of formal wage jobs. This is consistent with businesses in SEZs having lower operating costs due to their access to better infrastructure; proximity to borders and markets; and the provision of tax and non-tax incentives in the form of duty and tax exemptions. It may also be that businesses in SEZs comply more closely with national minimum wage regulations and international labor standards.

Building skills will support the diversification of the economy by building up the stock of human capital. While Laos' educational attainment rates have improved significantly, additional measures are needed to improve access to educational services in remote areas and to provide technical and vocational education and training (TVET) more generally. TVET programs attempt to address the skills shortage, but have

not been implemented on a scale sufficient to have a major impact (see Chapter 3). Further investment in skills is crucial, especially if Laos is to develop the modern services deemed essential to support competitive manufacturing production. This will only be achieved through the sustained implementation of long-term policies to strengthen basic education and to facilitate strategic changes to meet market demand and to achieve a better alignment between vocational training with private sector needs.

The complex and unpredictable business environment also limits the ability of new companies, both domestic and foreign, to enter the export-oriented agricultural or manufacturing sectors.

Laos is more policy-locked than land-locked. The slow pace of domestic policy reforms is the greater constraint. Despite strong political commitment, the implementation of trade and business reforms has lagged, reflecting the lack of well-coordinated and coherent institutional mechanisms. While it has recently become easier to start a business and to secure construction permits, Laos still ranked in 154th place of 190 countries in the 2020 World Bank Group Doing Business Index, with a score of 50.8 out of 100. The administration's extensive licensing and approval requirements mean that businesses wanting to invest in the country need to obtain permits and authorizations from a number of different agencies, a costly and time-consuming process.

More than new reforms, it is important to ensure that existing reforms are fully implemented. In Laos, there is too often a gap between the letter of reform measures and their implementation. For example, considering the time to clear exports through customs, a comparison of the data from the Ease of Doing Business survey (which show the time the process should take) and from the World

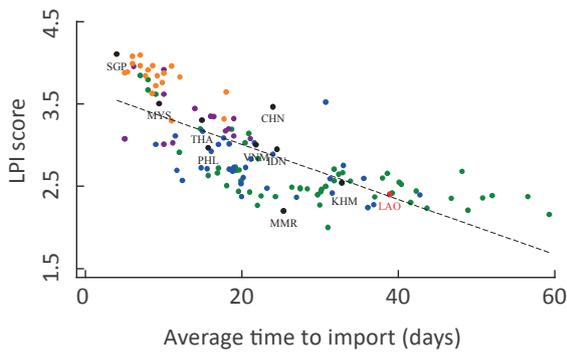
Bank Enterprise Survey (which show the time it actually takes, as reported by entrepreneurs) shows that while Laos performs relatively well in terms of the de jure requirements compared to other East Asian countries and even to middle-income peers, in practice there is much larger variability in implementation than in high income or efficient export-oriented peers such as Thailand (see Figure 4.25).

FDI can play a major positive role in addressing the scarcity of capital, technology, and management skills, but attracting these investments requires an open, transparent and dependable investment climate for foreign and domestic businesses alike. Investors require protection including protection of intellectual property rights contract enforcement to reduce risk related to GVC investments. While

the new investment law that came into effect in April 2017 has simplified and streamlined the screening and approval process for projects and liberalized entry conditions for domestic and foreign investors, more needs to be done to facilitate and simplify business and trade operations. Foreign investors still face stringent requirements and administrative burdens, including screening, limited ownership equity, and high minimum levels of capital. Moreover, the prevalence of informal deals and the discretionary enforcement of regulations discourage productive investments outside the more shielded SEZs. Adopting a more transparent regulatory framework, with clear information regarding the required steps and procedures and with greater coordination between government agencies, would accelerate investment processes and help to prevent regulatory capture.

Figure 4.25
GVCs thrive on predictable business environments

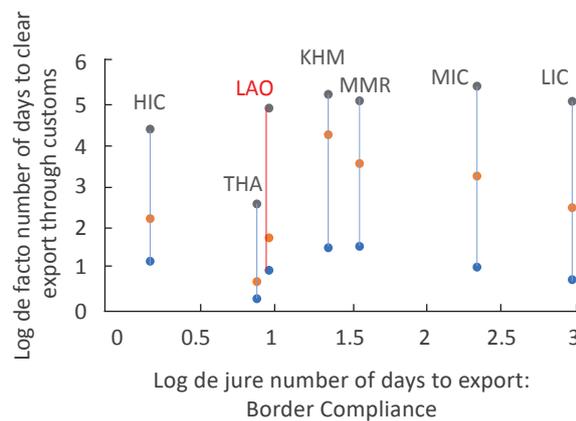
(a) Logistics and connectivity matter for manufacturing GVC integration



- Commodities
- Innovative activities
- Advanced manufacturing and services
- Limited manufacturing
- Laos

Source: WEF and WDI data and WDR2020 GVC taxonomy. Notes: LPI score is the overall score. The index varies from 1= extremely poor to 5= extremely good.

(b) And consistent policy implementation



- 10th percentile
- 50th percentile
- 90th percentile

Source: Enterprise Survey data latest available year (2018 for Laos, 2016 for Thailand, Cambodia and Myanmar). Doing business indicator data latest available year. Note: Figure plots the 10th percentile, median, and 90th percentile de facto log policy implementation time in a given country-year reported by entrepreneurs surveyed by the World Bank Enterprise Surveys against the amount of time it should take according to the DB.

Tax exemptions are widely used to attract investment, supported by the Law on Investment Promotion 2009 and 2017. This is especially the case for mining and power generation, which have received the bulk of total FDI inflows to date. Exemptions include import duty waivers on production machinery, equipment, and raw materials, and profit tax exemptions for a certain period depending on the investment activity, its location within Laos, and the size of the investment.

An assessment of the impact and effectiveness of these interventions is necessary to determine whether or not investment and employment creation would have taken place *had the enterprise not benefitted* from tax incentives, signaling the existence of a market failure (profitable projects could not be financed because of credit market imperfection). Such an assessment is difficult but feasible, requiring the collection of longitudinal data related to beneficiary businesses and possibly also to businesses that have applied to the Department of Investment Promotion (IPD) and been rejected. Without such an evaluation, it is not possible to determine whether the IPD is responding to a market failure, thereby justifying a costly public intervention, or whether businesses have just seized the opportunity to implement at a lower cost an investment that they would

have made anyway. Moreover, exemptions are only justified if they target businesses whose projects are profitable in the long run, after the exemptions are phased out. A telltale sign of the latter would be in cases where current beneficiaries do not request an extension once the initial exemption period is over.

In the post-COVID-19 context, investors may consider investing differently, assessing potential partner countries with new eyes. Investors may decide to increase the number of their suppliers, diversifying the source countries, including the domestic supply for critical items, moving away from lean production and building up higher levels of inventory. Inventory is a buffer against shocks and while it mostly stays within-firm it can be spread across businesses within the chain. Investors may also consider shortening the chains and regrouping several stages of production in fewer, more central locations. They may also decide to integrate vertically rather than to outsource to retain control over the process and to limit contractual issues that may be exacerbated by unexpected shocks such as the COVID pandemic. In the context of this process of reassessment, the quality of countries' legal systems and institutions is likely to become an even stronger determinant in investors' choice of location.

The way forward: implementation and setting priorities

The government and public authorities will need to take on new roles to successfully leverage Laos' strategic location and diversify the economy. The government can bet on the forces of geography, particularly agglomeration forces at the border, especially with Thailand, which will concentrate consumers, workers, producers and traders. It can let the private sector determine where to locate useful infrastructure, including facilities such as warehouses and dry ports. The government can support market forces by smoothing rules and processes, such as business entry, and investment regulations, customs procedures and inspection.

The government will need to redefine its role with the private sector, shifting from command-and-control to ensuring a level playing field and supporting market-friendly policies.

While significant progress has been made toward privatizing Laos' state-owned enterprises since the late 1980s, they continue to be prominent in the finance, energy, and telecommunications sectors. With scarce resources, the government might consider measures to level the playing field further, so that all entrepreneurs have equal opportunities, rather than allocating resources to benefit specific businesses. Moving away from ex-ante control to ex-post monitoring would also ensure that the government's limited resources are allocated to where they are most useful. For example, developing and implementing an integrated risk management framework and joint risk-based inspection at borders would enable customs to focus on risky shipments, expediting the clearance of imports, exports, transits, and other trade transactions, without compromising safety.

Successfully promoting trade growth and diversification and facilitating job creation will depend on the government’s ability to foster an environment in which productive businesses, both domestic and foreign, can invest and thrive. Beyond the economy-wide issues of enhancing infrastructure (energy, telecoms, transport), measures to improve logistics; to address constraints on the business environment; and to enhance competitive advantage through investments in skills and worker health, welfare and safety, the following subsection outlines a set of more specific trade and investment-related policy issues that need to be addressed, articulated over the short and medium terms.

Short-term policy recommendations

A. Deepen business climate reforms to facilitate the entry of domestic and foreign businesses (the Ministry of Industry and Commerce [MOIC]; the Ministry of Planning and Investment [MPI]; and the Ministry of Finance): There is a clear rationale for betting on large businesses to ensure the government’s export strategy is effective. To successfully export, businesses need good access to credit; knowledge of foreign market and technology; and autonomy to decide on investment and hiring. This is the case of firms from industrialized countries or emerging Asian countries with global experience rather than state-owned enterprises or small regional businesses. Measures to achieve this objective include:

- **Further simplify business entry** with a focus on streamlining processes to obtain operating licenses and other permits and to register property.
- **Adopt a more transparent regulatory framework:** with improved coordination and exchange of information between agencies to accelerate processes and limit regulatory capture. For example, there is room to improve coordination between customs (Ministry of Finance) and the Department of Import and Export (the Department of

Import and Export, under the MOIC) for the issuance and acceptance of import/export documentation and between DERM (MOIC) and IPD (MPI) for investment processes. There is also a need for improved coordination in the area of land use planning (between agriculture, industry, tourism).

- **Leverage the ASEAN Comprehensive Investment Agreement** to facilitate investment reforms to liberalize entry conditions; to streamline ex-ante screening; and to improve investor protection and contract enforcement.
- **Communicate reforms and create a feedback mechanism to ensure that changes respond to the needs of businesses.** Leveraging the feedback from the private sector will help accelerate the pace of reforms. The MOIC, MPI and Tax Department would need to play a lead role in this initiative.

B. Advance trade policy reforms, with a focus on NTMs to support improvements to the quality of businesses’ outputs (the Department of Import and Export at MOIC): Measures to achieve this objective include:

- **Continue to simplify the tariff structure.** Eliminating nuisance tariffs would help simplify trade procedures and reduce the cost burden of implementing the tariff policy.
- **Enhance trade facilitation reforms** to further reduce requirements for import and export permits and licenses and increase the use of electronic procedures within customs and other agencies to expedite border clearance. The government should also consider implementing an integrated risk management framework and joint inspection regime and expand the use of the existing Lao National Single Window beyond vehicle and petroleum to other goods that require import/export permits, certificates, and licenses. These measures would require close cooperation between the Ministry of Finance, with support from the Ministry of Industry and Commerce and the Ministry of Agriculture and Forestry.

- **Streamline and modernize domestic regulations for technical standards and SPS** in line with regulations of trading partners and international standards; increase conformity assessment; and assist businesses to improve quality and compliance with both technical regulations and private standards for a wider range of goods that can be exported to fast growing regional markets and to the OECD, especially for agriculture.

C. Improve data and knowledge to support an effective export strategy: The formulation of an effective export strategy requires a good understanding of the global context and the ability to accurately assess the strengths and weaknesses of Laos' participation in trade and investment. Measures to achieve this objective include:

- **Improve customs data collection and sharing:** Despite the efforts of Customs and DIMEX, information related to trade flows is still incomplete, with a mismatch between the values reported by Laos (direct exports) and those reported by its partners (mirror exports). These discrepancies are significant due to the valuation of insurance and costs of transport, hinting at systematic undervaluation by Lao exporters and generating foregone fiscal revenues to the government.
- **Improve knowledge related to informal cross border trade:** Only formal trade is reported to Customs. The volume of informal trade is significant, and improved knowledge related to the informal trade of food products, rubber and wood is especially important.
- **Improve and harmonize FDI data:** At present, information related to FDI inflows is collected through three agencies, IPD (concessional FDI), DERM (general business FDI) and SEZ committee (FDI in SEZ), and is not harmonized into a single dataset, making it difficult to obtain an accurate picture of investments.
- **Assess the cost and benefits of Laos generous tax incentives on attracting FDI, creating exports and jobs.** This assessment

should also account for the possible impact on local businesses. Investors authorized by IPD, enter Laos under more beneficial conditions than those applicable to local investors, thereby disrupting competition.

Medium to long term policy recommendations

A. Facilitate backward linkages between SEZs and domestic economy to help raise the productivity and competitiveness of Lao businesses (MPI and MOIC). Establishing strong backward linkages from FDI into the local economy allow SEZs to spearhead rather than substitute for broader business climate reforms. Measures to achieve this objective include:

- **Enable domestic businesses to compete with foreign entrants,** as well as gain knowledge through imitation and learning to raise their productivity and competitiveness.
- **Ensure that SEZs regulations do not discriminate against local supplier relationships:** Evidence from Singapore and Malaysia shows that establishing secondary industrial zones for local suppliers, either within geographical sites adjacent to the major SEZs or through legal status, can facilitate the creation of foreign-domestic linkages (Moran et al., 2018).⁶¹
- **Facilitate worker movements from foreign to local businesses:** This will encourage the dissemination of knowledge and skills, with positive impacts on productivity.
- **Encourage the provision of direct assistance from foreign to domestic businesses:** This assistance could take the form of training; assistance with setting up production lines; management coaching, quality control etc. Alternatively, the government could implement measures to ensure that the downward services lead firms establish benefit other exporters and producers.
- **Encourage lead firms to participate in and support the development of technical training centers,** by participating in the design of the curriculum and providing part of the necessary equipment and teachers. These

centers should have a significant quota for women. Lead firms have a direct interest in the success of these technical centers, as they may provide them with future employees. Through their participation, they will also play a positive role in improving the technical skills of labor for other businesses.

B. Improve and enable businesses to comply with core labor, environmental and governance standards to anticipate the increasing focus on social and environmental issues among buyers in overseas markets (MOIC, the Ministry of Labor and Social Welfare, the Ministry of Natural Resources and Environment, and the Bank of the Laos):

While Laos' graduation from least developed country status in the next few years reflects the significant progress it has made, it will also create challenges related to the loss of trade preferences. Following graduation, Laos will need to comply with increasingly demanding labor, environmental and health standards to remain competitive as such standards are becoming increasingly important for market access and in consumer purchasing decisions. Raising awareness of core labor and environmental standards and draw attention to the importance of workers' health is also key. Measures to achieve this objective include:

- **Review laws and regulations** to ensure consistency with international standards and norms.
- **Assess private and public sector enterprises' degree of compliance with core international labor (including worker health), environment and governance standards,** and their capacity for achieving compliance in the future.
- **Help Lao businesses increase their level of compliance with core standards,** including through the provision of advisory services and increased access to finance to facilitate investments.
- **Support the provision of services for compliance** and conformity assessment with

international standards and norms for labor rights, environmental standards and workers' health.

C. Improve infrastructure and governance and promote competition in transport and logistics.

The dynamics of regional and global trade are expected to change following the completion of the railway connecting Vientiane to Kunming in December 2021. The railway will create economic opportunities for Laos, with the potential to transform the country from land-locked to land-linked and to diversify exports away from commodities. Measures to achieve this objective include:

- **Promote the investments required to close the remaining infrastructure gaps.**
- **Promote foreign investment to modernize the local transport and logistics industry and to increase competition.**
- **Complement investments with policy reforms** to facilitate the achievement of Laos' trade and export potential through seamless cross-border transit, and improved logistics and value chains (see policy actions A and B).
- **Improve road connectivity,** particularly along the National Road 2 corridor and through the development of access roads to major agriculture production areas.

D. Improve resilience within global value chains:

- **Support domestic producers to improve the quality of their outputs,** to allow foreign owned GVC businesses to source more inputs locally.
- **Engage with the private sector and potential investors the potential to develop enlarged warehousing capacity,** including bonded warehouses, to allow GVC firms to access larger inventories.
- **Provide support to Lao businesses to enable them to develop more long-term relationships with buyers in overseas markets.**

Notes

- 48 Afghanistan, Armenia, Azerbaijan, Bhutan, Kazakhstan, Kyrgyzstan, Mongolia, Nepal, Tajikistan, Turkmenistan and Uzbekistan
- 49 The trade costs are obtained using the Novy (2012) “inverse gravity” approach, which consists of inverting the gravity equation to infer trade costs from observed patterns of production and trade across countries (Arvis et al., 2016).
- 50 As a member of ASEAN Laos ratified the Regional Comprehensive Economic Partnership in November 2020. It became effective on January 1st 2022 but notification to the WTO has not yet occurred.
- 51 With its agreement with China, the ASEAN community expanded market access towards agricultural goods and established trade provisions such as anti-dumping and countervailing measures. The PTA signed with India covers some most frequent provisions in PTAs including customs procedures, use of export taxes, regulations for TBT and SPS, plus provisions on trade in services (TRIMS and GATS). PTAs signed with developed economies such as Japan, South Korea, Australia, and New Zealand are more ambitious. Part of the new generation of PTAs they qualify as “deep” agreements as they expand trade-related commitments outside the mandate of the WTO. They cover important areas for business activities including competition policy, investment, IPR, visa and asylum but also cultural ties such as education and training, technology, cultural cooperation.
- 52 <https://covidtracker.bsg.ox.ac.uk/>
- 53 Changes for each day are compared to a baseline value for that day of the week. The baseline is the median value, for the corresponding day of the week, during the 5- week period Jan 3–Feb 6, 2020.
- 54 Regulation on the importation of seeds is particularly strict. For instance, it took 4 years for a processor who wanted to import higher-quality seed to receive authorization.
- 55 Exports of electronics, telecommunication, and electrical equipment (primarily video displays, recording and broadcasting accessories) grew 19-fold reaching \$669 million or 10.1 percent of 2019 exports up from \$35 million and 1.0 percent in 2013. Food and beverages export also grew significantly accounting for \$694 million and 10.4 percent of exports in 2019 up from \$285 million and 5.8 percent in 2013.
- 56 In the electronics and electrical equipment sector, Laos imports \$508 million of intermediate inputs (55 percent of all electronics and electrical equipment imports) sourced primarily from Thailand (52 percent), China (32 percent), Japan (5.2 percent) and Vietnam (2.7 percent) and export \$241 million of semi-finished products (31 percent of the sector exports) to mostly Thailand (28.2 percent) and Japan (1.7 percent), while final goods (\$528 million, 69 percent of the sector exports) are directed primarily to Thailand (35 percent of the sector exports) and US (11 percent of the sector exports). In garments, Lao factories operate mostly under the cut, make and pack model (CMP) importing pre-cut fabric or leather from China, Thailand, Japan, that they assemble into clothing, footwear and bags later exported to Europe (72 percent of total apparel and accessory exports), Japan (13 percent) and the US (3 percent) duty free due to Laos LDC status.
- 57 Modern services are services that can be traded across borders without the buyer and seller being in the same place. Delivery of these services is less dependent on physical infrastructure and more dependent on telecommunications and electric supply than is the supply of traditional services, which require face to face interaction. Examples of modern services include communications, banking, insurance, business, and remote access services; transcription of medical records; call centres; and education. Modern services tend to create higher-skilled and better-paid jobs than traditional services. Many modern services subsec-

- tors have relatively low employment intensity and require relatively high educational levels, however. (Hollweg and Saez, 2019)
- 58 Examples of policy areas covered include regulating custom procedures, TBT, SPS measures, investment rules, IPR protection, provisions on competition policy, labor and environmental standards, anti-corruption.
 - 59 The most common way to measure the advantage given by preferential access is through preference margins, calculated as the difference between the MFN applied rate and the preferential tariff.
 - 60 See among others (Hausmann, Pritchett and Rodrik, 2005; Rodrik, 2008; Berman, Martin and Mayer, 2012; Chaterjee et al, 2013; Freund and Pierola, 2012).
 - 61 In Malaysia the government established secondary industrial zones alongside its major SEZs, with databanks containing information on foreign businesses' needs—especially in terms of skills—as well as suppliers' characteristics and facilitated the match between FDI businesses and suppliers.

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