This paper discusses policy priorities to realise Timor-Leste’s socio-economic potential on its path to middle-income status, focusing on fisheries, agriculture, and tourism as key sectors for economic transformation and analysing the role of infrastructure investment, financing frameworks, and digital innovation in making this possible.

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# LIST OF ABBREVIATIONS

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<tr>
<td>DFI</td>
<td>Development Finance Institution</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GRFE</td>
<td>Guide for Economic Reform and Growth</td>
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<td>ICT</td>
<td>Information &amp; Communication Technology</td>
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<td>IPA</td>
<td>Investment Promotion Agency</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<tr>
<td>MCAE</td>
<td>Minister of Legislative Reform and Parliamentary Affairs interim Coordinating Minister of Economic Affairs</td>
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<td>MPCM</td>
<td>Minister of the Presidency of the Council of Ministers</td>
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<td>OSS</td>
<td>One Stop Shop</td>
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<td>PAR</td>
<td>Public Administrative Reform</td>
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<td>PF</td>
<td>Petroleum Fund</td>
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<td>SDP</td>
<td>Strategic Development Plan</td>
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<td>SEZ</td>
<td>Special Economic Zone</td>
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<td>SME</td>
<td>Small and Medium Enterprise</td>
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<td>SWF</td>
<td>Sovereign Wealth Fund</td>
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PREFACE

This document focuses on the imperative of developing a dynamic and coherent economic policy to promote long-term national development and to transform Timor-Leste from a low-income to a middle-income economy. It provides a insightful and independent analysis of Timor-Leste’s growth opportunities and defines the role of the private sector and the state in unlocking this potential.

Towards a long-term sustainable economic development strategy

Timor-Leste’s pathway for development requires further definition, given that the Guide for Economic Reform and Growth (GRFE) expired in 2017 and the Strategic Development Plan was presented over a decade ago in 2011, when global conditions for growth were quite different than they are now. A renewed long-term vision and strategy, adopting a clear and appropriate model of development, is required to guide the nation’s economic transition over the medium and long-term.

Timor-Leste’s economic challenges began prior to 2020, and the nation has suffered an economic recession in three of the last four years. The economy is still struggling to recover and has not returned to a sustainable growth path. The COVID-19 crisis has greatly exacerbated this situation, making it imperative to take decisive policy action.

The post-crisis recovery needs to be founded on credible policy analysis, of which this document initiates. The policy interventions outlined in this report leverage government’s active role in the country’s development, guide Timor-Leste into the future, and address the wide range of economic challenges the nation faces. These are sequenced appropriately. They prioritize productive job creation and curb unemployment, underemployment, and informality. They focus on value addition that boosts the private sector’s growth and production, closely in line with the country’s comparative advantages. They push export growth. They create the conditions for diversification that will generate and sustain private sector productivity, shifting away from oil dependence. They specify the government’s central role in making effective strategic investments that create multiplier effects and catalyse inclusive development and increased productivity, resulting in better paid jobs and technological progress.

Several countries in Asia, Latin America and Africa have achieved development because they solved their structural challenges, including large shares of unskilled workers and entrepreneurs, incomplete infrastructure for development, the private sector’s barriers for technological learning and business development, a precarious industrial and services sectors, missing government capacities to coordinate a strategic vision, and weak collaboration and dialogue with the private sector. The research presented here implies that transformational structural changes will be critical for long-term development. The economic policy framework proposed draws on the most significant barriers to growth and advances an analysis of the central roles played by a modern ecosystem of firms, technological change, economies of scale and specialization, learning and knowledge spillovers, and active economic policy interventions from government for a shift towards new growth-led, sustainable, and inclusive development.
Findings and insights

In analyzing Timor-Leste’s past and present development and economic experiences, this paper identifies key constraints and emerging challenges that must be addressed in any new agenda for development and growth. It presents responses and policy options based on existing country conditions and established empirical evidence with a focus on lessons from successes and failures. It builds upon existing government plans and strategies. It suggests that improved multipurpose infrastructure, investment in skills and technology, and the development of a functioning system of firms are crucial not only in terms of poverty reduction, economic productivity and employment, they are also crucial in terms of development and stability. This can serve as guidance for public policy as Timor-Leste aspires to industrialize. It highlights the choices available for transformative action and how to enable a new economic landscape to achieve development.

Achieving sustainable and equitable growth requires the private and public sectors to work together in creating a successful Timorese model of development. Most significantly, this involves a capable, organized, and visionary state that is able to set the direction—a vital development stage that Timor-Leste cannot leapfrog before achieving the needed progress and transformational change. In such a process, state economic institutions responsible for planning, financing and supporting development and structural transformation develop the capacity to substantially improve people’s livelihoods and speed up the economy’s transition. The active role of state institutions and agencies is a significant characteristic featured in the paper that needs to be encouraged for fast and meaningful development. This working paper ultimately provides a conceptual basis through which a new development model and ambitious new policies can be formulated and envisioned, and a strengthened public sector can be organized and nurtured for greater progress.

This paper presents complementing and reinforcing insights to support the government’s formulation and implementation of the second stage of the Economic Recovery Plan (ERP) up to 2022. It also expands the diagnosis, addressing new structural challenges and providing alternative options which remain rooted in Timor-Leste’s existing plans. This will extend and strengthen the path to growth beyond the timeframe of the ERP. The report constitutes a more detailed and comprehensive strategy to develop the private sector.

Several sections offer constructive views that differ from conventional beliefs regarding economic development. The report looks analytically at new features to consider for viable development such as firm ecosystem, financing, infrastructure, and technology. This paper provides an important point of reference to policymakers and can be helpful for government ministries asked to identify and present promising solutions to enhance and fulfill Timor-Leste’s economic development. The work is meant to act as a catalyst for enriched discussion about the principles for promoting development and describes where government policy needs to start and where it can achieve more gains for all Timorese. Hopefully this work makes a contribution in answering some crucial questions that remain unanswered and helps guide policy development to change the current economic model.
History of this paper and next steps

This working paper is the product of three institutions, the London School of Economics-Oxford University’s International Growth Centre (IGC) which brought its cutting-edge research in reducing state fragilities and expertise in development economics, the Ministry of the Presidency of the Council of Ministers with its focus on public sector reform, and the Office of the UN Resident Coordinator in Timor-Leste. In July 2020, the then Minister of Legislative Reform and Parliamentary Affairs and interim Coordinating Minister of Economic Affairs (MCAE) and now Minister of the Presidency of the Council of Ministers (MPCM) requested the IGC to support in identifying the challenges and solutions for sustainable development. The collaboration was supported by the United Nations and the IGC brought together a team of international scholars.

PCM’s interest has been to strengthen center-of-government institutions, enabling them to better develop policies and set and implement priorities, as part of the Public Administrative Reform (PAR) program. The PAR identified the need to strengthen economic coordination and facilitate private sector development across the economy. It also identified the need to establish a Delivery Unit in the Prime Minister’s Office to ensure priorities are closely monitored and results are realized. A new and expanded GRFE, including a private sector development strategy, were seen as an important policy tool to promote economic coordination. These reforms were to be facilitated by the PCM, but were to be led and implemented by MCAE and the Prime Minister’s Office.

As implied by the breadth of policies detailed in this report, the state will need an active coordinating and innovative role to lead the development process and adopt a whole-of-government approach to steering economic change and private sector growth as a means of ensuring the Timorese people achieve their social aspirations. To do this, and using this report and the ERP as crucial inputs, the state may produce a new and longer term Guide for Economic Reform and Growth. It must simultaneously review the national strategic development plan to create coherence of economic policies and economic governance.

Though in the age of COVID, Timor-Leste faces a new wave of challenges, persistent development issues still need to be solved creatively. This IGC study presents an easy-to-understand framework that can support strategic thinking about these matters with a view to improve the country’s policy agenda and development efforts.

March 2021

Fidelis Manuel Leite Magalhães
Minister for the Presidency
of the Council of Ministers
Democratic Republic of Timor-Leste

Jonathan Leape
Executive Director
International Growth Centre
Executive summary

In July 2020, the IGC, following a request from the Minister of the Presidency of the Council of Ministers, H.E. Fidelis Leite Magalhães, facilitated by the United Nation Resident Coordinator, Roy Hemansu Trivedy, agreed to conduct a study on potential drivers of growth and sectoral transformation in Timor-Leste. This paper aims to outline evidence and provide policy recommendations that can guide government policies towards achieving greater economic diversification away from oil, and setting the country on a more sustainable development path. This study hopes to inform the government’s forthcoming medium- and long-term development strategy and to support the 2021 state budget debate.

Timor-Leste faces significant challenges that hold the country back from embarking on a sustainable and inclusive economic development and growth trajectory, notwithstanding the significant progress achieved since the 2002 restoration of independence. These include the excessive dependence of public spending on oil wealth, a limited non-oil domestic revenue base, a weak private sector, incomplete regulatory frameworks, large gaps in socio-economic indicators such as nutrition and literacy, and the socio-economic impacts of COVID-19.

Thanks to sizable financial resources provided by the Petroleum Fund, a youthful and growing population, unique geographic characteristics, and recently attained political stability, Timor-Leste now has a window of opportunity to develop and implement a renewed growth and development strategy that could lay the foundations of medium- and long-term development for the country. To succeed, such strategy should be practical, realistic, flexible to changes, and centred around one main objective: decent job creation, which is a critical driver to escape fragility. The Government’s actions should also aim to deliver quick and visible benefits to the population in a way that builds trust and support, thus creating the space for wider reforms. Ultimately, the strategy should promote a forward-looking common purpose in which everyone in society has a stake.

We argue that agriculture, fisheries, and tourism are the sectors with the greatest potential to drive structural transformation of the economy and to generate jobs at scale. However, significant investments to grow and upgrade these sectors are urgently needed. Economic development policies should pursue two overarching goals: on one hand, to reduce reliance on imports for products that could be realistically produced at home, but are currently imported such as vegetables, meat, fish, and dairy; and on the other, to develop value
chains for niche, high-premium export products and services, particularly coffee and other spices, artisanal goods, and eco-tourism.

**Large and modern private sector firms** will be the pivotal element of such transition because of their unique ability to realise economies of scale and specialisation, promote innovation, generate jobs at scale, and link with global markets. Large firms are also associated with positive spillover effects to the wider national economy, such as through the creation of backward linkages with local producers in the value chain, training of workers, or imitation.

While the Timorese private sector ecosystem is dominated by small, informal businesses, government policy can help address key barriers that hold back their growth. Policy options include large investments in workers’ skills through high quality vocational training schemes or creating a class of ambitious entrepreneurs via mentoring exercises, among others. In addition to investment targeting domestic firms directly, attracting foreign direct investment (FDI) should be at the forefront of Timor-Leste’s development strategy. By attracting FDI in strategic sectors and ensuring that the conditions are in place for foreign firms to integrate into and engage with local markets, FDI can produce significant, transformative impacts on the private sector and build the national stock of industrial capabilities. Some policy tools that can attract and retain these investments that the government should consider include investment promotion agencies, local content units, special economic zones, and publicly available supplier databases.

Timor-Leste’s development strategy should be designed alongside a **financing framework** that identifies the resources needed to finance implementation and plans for their mobilisation. This paper focuses on four key options: oil wealth from the Petroleum Fund, domestic revenue, development finance and private investment, and remittances.

Sectoral transformation and private sector development also need to be supported by a reliable and modern supply of **physical and soft infrastructure**. Investment decisions should prioritise basic, multipurpose, and connective infrastructure that supports access to markets, productivity, and income generation, including well-functioning agricultural markets, road construction and ongoing maintenance, flight connectivity, electrical reliability, and high-speed internet connectivity. Additionally, investing in **digital innovation** could offer the opportunity to leapfrog technological stages, allowing the country to make greater gains more quickly. Areas for policy intervention involve developing a national digital strategy, and investing in skills, knowledge, and the supporting infrastructure.

In terms of policy sequencing and prioritisation, efforts to achieve sound public financial management and fiscal sustainability are essential. The challenges posed by the COVID-19 pandemic in attracting FDI and tourists offer the government a window of opportunity to undertake the ground work of creating an enabling environment that can set the country on the path to better integration into global markets in the recovery phase of this crisis and beyond. Government efforts should also aim to scale
up regional Development Finance Institutions (DFIs) operations in the country, which are currently limited. Investments should also target local firms’ development, for example through worker upskilling schemes, and key infrastructure constraints, especially internet connectivity and digitalisation, as well as ongoing maintenance of the energy supply and the national road network.

Given the importance we attribute to both evidence and research in formulating policy, the arguments made in the paper are supported by a wealth of practical examples from developing countries that have been facing similar challenges, as well as recent evidence from frontier academic research.
1 Introduction

Timor-Leste has made impressive gains in socio-economic development and stability since the restoration of independence in 2002.¹ Four democratic elections have taken place since then, with decreasing episodes of violence. Poverty has fallen by over 10% between 2007 and 2014 to approximately 41.2%.² 80% of the population has now access to the electricity network that had been severely damaged in the last stages of Indonesian occupation, and investments are underway to complete the national road network and water and sanitation systems.

However, considerable challenges persist and hold back Timor-Leste’s development and integration into global markets. Following a positive trajectory in the aftermath of the 2002 independence and the 2006 civil crisis, Gross Domestic Product (GDP) growth rates have fallen into negative territory since 2017 due to a prolonged political impasse. Moreover, the economic impact of COVID-19 in 2020 is expected to drive the greatest GDP contraction (~6.8%) since independence.³ These trends show that Timor-Leste is off track from the government’s target of 7% year-on-year growth, with an increasingly diverging GDP per capita from that of the lower-middle income countries (LMICs), a group that the Timorese government aspires to join (Figure 1).

Figure 1: GDP per capita, 2000-2019 (constant 2010 US$)

Economic growth in Timor-Leste has been mainly driven by public sector spending, especially in construction, rather than private sector activity. Moreover, government budgets have been fiscally unsustainable. Most public finances are sourced from the Petroleum Fund (PF), and are expected to be depleted by 2031 at current spending rates. Revenue from tax, fees, and charges is the second largest budget source, but has consistently made up less than 10% of the total budget envelope and has been on a downward trend since 2016. The remainder of public expenditure is financed through multilateral concessional loans and grants.

Timor-Leste’s weak economic performance results from severe structural challenges, including poor human capital, weak infrastructure and institutions, and incomplete and burdensome regulatory frameworks. This has contributed to a small and unproductive private sector, which remains largely informal and dominated by micro and small enterprises. With a few exceptions, FDI is limited and dependent on government demand in the construction sector.

Timor-Leste is also at a pivotal moment in its history: first, pre-existing complexities and underlying vulnerabilities have deepened since the outbreak of COVID-19. In addition to the nearly unprecedented GDP contraction, a recent UN study estimates that one in four households has had one family member lose their job; further, half of surveyed micro, small, and medium enterprises have opted for indefinite closure, and 80% reported financial losses. Indicators of gender disparity and food security also appeared to have worsened. Second, unless new oil fields are developed and oil prices recover, the PF will begin to face rapid depletion. Third, the workforce is expanding due to a growing young population who will demand decent jobs and incomes. Finally, the country has finally achieved a good level of political stability after a few turbulent years, which offers momentum for positive change.

Given these circumstances, there is an urgency to achieve a sustainable and inclusive economic development transition, as well as the political stability needed to make this possible. The government needs to act swiftly to ensure strong economic recovery and build back more resiliently and inclusively post-COVID-19. Critically, by maximising the development potential of its PF, leveraging its geographic characteristics, and providing productive jobs to a growing workforce, the country has the opportunity to improve its socio-economic development trajectory.

### 1.1 Development strategy and policy prioritisation

State building – a key factor for economic development in Timor-Leste – is a process that requires trust to reinforce and sustain it. Trust is a critical driver to move states out of fragility. Governments worldwide, especially in resource-rich countries, are experiencing marked declines in trust from their electorates because of their tendency to over-promise and under-deliver, as well as to pursue grand visions rather than address the practical needs of their populations. This has tended to generate unrealistic expectations and trigger dissatisfaction and frustration among citizens who do not see change. To avoid this and secure public trust and support,

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the government needs to deliver on people’s demands through an inclusive strategy, which guides government policy, forming the basis for the formulation of ministerial and sectoral strategies and actions plans, providing the critical benchmark against which government decisions are assessed, and obtaining buy-in across all levels of society. To be effective, such a strategy should be:

— **Practical** and supported by a step-by-step approach;

— **Realistic** in its objectives and underpinned by the necessary resources to achieve sound implementation;

— **Adaptive** to future challenges and circumstances, capable of learning and adjusting as it goes. Given the uncertainty that an economic transition involves, the government should recognise that its plan can never be perfect, but that it must start somewhere and improve its plans and approaches over time;

— **Capable of delivering visible benefits** relatively quickly to the population;

— **Wise**, by blending expert, research-based knowledge with practitioner knowledge;

— **Job-based**, because income-generating jobs offer agency to people by enabling them to contribute productively to society. The strategy should move away from policies that promote citizens’ dependence on the state (e.g., by over-relying on fiscal transfers).

Additionally, the strategy should enjoy bi-partisan support so that it can outlive changes in the political cycle without losing its relevance, and be reflected in budget allocations and sectoral spending. Ultimately, such a strategy should promote a forward-looking common purpose that the entire population can buy into and that is clearly communicated as such by trusted leaders.

### 1.2 The role of this paper

This paper aims to outline a set of evidence- and research-based policy options that can inform government thinking in developing such strategy, while reinforcing and complementing existing government strategies and policy documents (Table 1).

The remainder of the paper is structured as follows. **Section 2** lays out the key economic principles underpinning the advice provided in this paper. **Section 3** provides an overview of the sectors in the Timorese economy that have the greatest potential for economic growth and diversification. Main tools and approaches to transform economic sectors are described in **Section 4**. Required supporting investment and policy efforts in financing frameworks, infrastructure, and digital technologies are discussed respectively in **Sections 5, 6 and 7**. **Section 8** discusses policy priorities and provides some concluding reflections.
Table 1: The gaps this paper aims to fill

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<td>Building on the SDP, this paper focuses more on short-to-medium term private sector development policies with a strong reliance on data and relevant country-level examples.</td>
<td>This paper hopes to build on the expired GRFE developed by the 16th constitutional government. In particular, it focuses on the GRFE’s Reform Area 7 – Private Sector Development and Reform, and provides the current administration with tools, reflections, and options that can feed into its medium-term development plan and related sectoral policies.</td>
<td>This document aims to complement, explore, and reinforce key messages highlighted in the recently approved Economic Recovery Plan, but with a narrower and shorter-term focus on private sector development policy.</td>
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2 Guiding Principles

To get back on a positive and sustained growth track that moves away from a dependency on unsustainable government budgets, Timor-Leste needs a strategy that prioritises private sector development through inclusive and sustainable policies. Such a strategy should be guided by a series of overarching aims, described as follows:

— **Job creation** – Timor-Leste has one of the youngest populations in the world, with declining but still very high fertility rates. Currently, firms’ demand for formal jobs falls short of a growing workforce supply, intensified by internal migratory flows towards the capital, Dili. The economic transition strategy must place productive job creation at its forefront, and curb unemployment, underemployment, and informality. Aside from economic implications, jobs are also essential to sustain social cohesion and peace, and failure to provide them could undermine much of the progress achieved.

— **Value addition** – Fierce regional cost-based competition, high production costs, remoteness, and limited scale and agglomeration economies reduce Timor-Leste’s chances of entering low value-added, export manufacturing industries, at least currently. Instead, focusing on niche processed goods targeted at foreign markets and high-quality services could be a source of more sustainable foreign exchange earnings and growth. These include coffee and spices as well as eco-tourism. Competitive advantage in these sectors has to be built through investment aimed at upgrading and extending domestic value chains.

— **Diversification** – Oil wealth continues to be an important resource for the economic development of the country. However, falling global demand, declining prices, and the exhaustible nature of existing reserves signal an urgency to reduce economic dependency on fossil fuel revenue and to kickstart the development of the non-oil private economy. Oil wealth should be strategically deployed in productive and sustainable investments that support this transition.

— **Catalytic investment** – Government interventions should not view investments and sectors as self-contained, but aim to trigger market-wide direct and indirect multiplier effects, such as through the creation of interconnected economic clusters (the spatial agglomeration of similar firms) and the development of production webs along industry value chains.

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**Box 1: State fragility, economic development, and the role of jobs**

Notwithstanding its progress, Timor-Leste is still, under certain lenses, a fragile context: it is highly vulnerable to economic and environmental shocks, suffers from a very weak private sector environment, and security threats and violence still take place around election times (albeit more and more sporadically). Despite large resources, state capacity remains weak in terms of service delivery, especially in remote areas. Since fragility is a complex syndrome of multiple, interlocking forces, sustaining progress is hard and requires multiple, tailored interventions.

Achieving higher standards of living for the population and higher incomes in both absolute and per capita terms has historically been associated with marked reductions in fragility levels. A central pillar to this is **job creation** by private sector firms: rapid expansion of productive jobs gradually stabilises a society. Such jobs are created primarily by the modern firms in the private sector.

In fragile states, firms are scarce and people are stuck in low productivity jobs that leave them in poverty. Fragile states have few modern firms because these exist only where they can thrive. Without firms and jobs, societies will remain fragile because jobs are a critical ingredient for stabilising societies. Fortunately, this trap can be broken through development policies that deliver on job creation, as discussed below in greater detail.
3 Sectoral overview

Agriculture, fisheries, and tourism are the three sectors with the greatest potential for economic growth in Timor-Leste, especially in the short to medium term, as also recognised in the 2020 Economic Recovery Plan.9

3.1 Agribusiness and fisheries

Agriculture and fisheries are critical sectors for poverty reduction and employment generation in Timor-Leste. Currently, they capture 60% of the labour force, half of which is composed of subsistence farmers (Figure 2). Moreover, these sectors carry relatively large economic weight, making the largest contribution to non-oil GDP (if we exclude value added from the public sector) (Figure 3).10

Figure 2: Employment by sector as of 2016*

Nonetheless, the sector performance remains poor, with the value of agricultural production stagnating and underperforming relative to comparable countries (Figure 4). This is due partly to the country’s geographic characteristics such as rugged, mountainous, and infertile lands, which limit yields and prevent the development of large scale agriculture, and partly to the widespread adoption of rudimentary and subsistence agriculture techniques and the lack of skills that contribute to poor productivity. As a consequence, domestic production of food crops is unable to satisfy the small domestic demand for basic products, driving up import dependence. Excluding information and communication technology (ICT), agriculture made up 25.5% of total imports between 2010 and 2018, with cereals, dairy, and meat forming a large portion of the food import basket (Figure 5).

With specific reference to fisheries, the sector is poorly developed due to a combination of cultural norms that discourage fishing as a livelihood and limited technological development and know-how, resulting in low participation in the sector, at only 5% of the population. It is estimated that 27% of catch is lost, on average.

Figure 3: Value added by industry, 2000-2019 (constant million $US)

Figure 4: Value of agricultural production per hectare

13 With few regional exceptions, Timorese regard the sea as a wild, unknown entity. In addition, seafood consumption is forbidden among certain groups. This has led a preference towards land-based livelihood strategies.
3.2 Tourism

Timor-Leste’s untouched coral reefs, marine wildlife, white sands, scenic mountains, and unique cultural traditions exemplify the potential of the tourism sector. However, the industry remains extremely underdeveloped. According to official sources, formal employment in tourism does not exceed 300 people.\(^\text{17}\) Tourism flows grossly underperform relative to regional trends, especially for small Pacific islands such as Fiji, Vanuatu, or Samoa, and neighbouring Indonesian islands.\(^\text{18}\) The reliability of tourism statistics for Timor-Leste is also weak and likely offers an overly optimistic picture of the state of the sector.\(^\text{19}\)

High regional competition, a lack of outside knowledge of Timor-Leste, and misconceptions about its safety due to past events have contributed to a very low demand for touristic services. This, in turn, has resulted in low competition and high costs. For example, the one-hour Dili-Darwin flight is five times more expensive than the longer Bali-Sidney route, as shown in Figure 6. On the supply side, strong regional competition, lack of infrastructure and skills, and absence of a far-reaching, coordinated branding strategy are key obstacles to the sector’s take-off.

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\(^{19}\) Official statistics are likely to overestimate actual flows as few people visit the country solely for touristic purposes. Currently, all foreign visitors, including workers, can only enter the country with a touristic visa obtained on arrival.
Looking realistically at the near to medium term, prospects for the tourism industry are bleak because of the negative impacts of COVID-19 on the global economy. As a consequence, other sectors and policy areas should appear higher on the government’s list of priorities. However, this period of transition and recovery offers an opportunity to policymakers to undertake much needed investment on both the demand and supply side to “launch” Timor-Leste as a unique touristic destination once the industry picks back up.

**Figure 6: Regional aviation costs**

![Figure 6: Regional aviation costs](image)

### 3.3 The way forward

Timor-Leste faces significant structural challenges to develop the non-oil part of its economy, as discussed above. However, sectors such as agriculture, fisheries, and tourism hold significant potential for transformative change. A first-order policy consideration for the government to strategically develop sectors is to examine whether to pursue export-led and/or domestic demand-led growth.

Focusing exclusively on domestic demand as a source of growth cannot lead to sustained economic development because of the structurally limited size of the local economy. Indeed, a domestic market that cannot grow beyond a given size is an impediment to fully realising firm-level gains from scale and specialisation.

Tapping into international markets is essential to expand the demand base. Trade with higher income markets is an especially powerful channel to expand the economy, catalyse development, and generate positive spillovers on human capital, productivity, and product quality, as explored further below.

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21 Ibid.
Box 2: Is there a case for large-scale manufacturing?

Timor-Leste is less likely to find economic growth opportunities in low value-added manufacturing exports, at least in the short term. First, fierce cost-based competition from regional peers significantly reduces the potential of boosting domestic production. Moreover, the size of the local economy limits the scope of economies of scale and agglomeration, necessary to reduce costs. Additionally, remoteness, weak infrastructure, and low domestic demand imply elevated trade costs, which further hurt Timor-Leste’s competitiveness. Finally, a consequence of COVID-19 is the contraction of global value chains, which could reduce Timor-Leste’s ability to tap into these systems through intermediate input production, at least in the near future.

Low manufacturing rates and limited potential are not unique to Timor-Leste; they are challenges shared by several low-income economies, especially in sub-Saharan Africa. These trends have contributed to a re-thinking of the conventional structural transformation narrative that views manufacturing as an essential “stepping stone” to economic transition. Instead, a renewed appreciation for services, agro-industry, and horticulture as drivers of structural transformation has gained ground recently. An successful example of this is the island of Fiji, whose tourism sector dominates the market in the South Pacific region and contributes to 34% of its GDP.

A wealth of empirical evidence backs these claims up. First, it has been shown that the positive relationship between industrialisation and growth does not imply causality. Moreover, both agro-industrial processing and services share many of the growth-enhancing characteristics that are commonly attributed to “smokestack” industries such as manufacturing, including tradability, high value added, standardisation, economies of scale and specialisation, and technological change.

Notably, Timor-Leste’s development strategies and plans, as well as numerous reports and studies by academic institutions and development organisations, converge around these arguments, acknowledging that the greater potential for medium-term growth lies in sectors such as tourism or agriculture, rather than low value-added manufacturing.

24 But excluding agro-industrial production and horticulture.
At the same time, the domestic market should not be ignored as maintaining an active strategy that targets local demand and production bears important benefits, including:

— **Lowering reliance on imports**: Boosting domestic production for product categories that are sourced from abroad, but have the potential to be produced at home can reduce import dependence and improve the trade deficit while creating jobs and stimulating firm growth.

— **Offering learning and growth opportunities in the transition to internationalisation**: Capturing international markets is a slow and complex process, often requiring quality standards that domestic firms do not initially meet. The local economy can offer firms an opportunity to test market appetite for different products, and to learn, innovate, upgrade, and grow as they prepare for an outward transition that targets foreign demand. However, this mechanism could be limited, especially in the beginning, when the gap in quality standards required for international exports relative to domestic production is large.

Therefore, a **tailored approach based on the type of product and sector at hand** is needed when thinking about domestic demand-led versus export-led growth. The former is to be preferred for low-complexity products that can substitute imports effectively and relatively quickly since their production does not require accumulation of advanced skills and can be scaled up incrementally without requiring large start-up investment costs. Examples include dairy, meat, soy, and cereals.

It must be noted that foreign imports of rice and soya, among others, outcompete Timorese products in both price and quality. In addition, the current government policy of subsidised imported rice contributes to the low competitiveness of the domestic produce. Implementing import substitution through strict import controls such as higher tariffs would likely have distortionary, inefficient, and unpopular outcomes with more expensive, lower quality goods available to consumers. Boosting production and demand for domestic products requires targeted efforts aimed at improving domestic product competitiveness, including upgrading production techniques to drive down costs and increase quality, offering public incentives to both consumers and producers, and crafting an effective branding strategy. Moreover, public subsidy policies towards foreign products should be reviewed to ensure they do not confer an unfair advantage to importers.

An export-based growth strategy should focus on those categories of products for which Timor-Leste has a potential competitive advantage at a global scale, including:

— **Niche agricultural and artisanal products** – Timor-Leste’s natural habitat is especially favourable to the cultivation of high-premium cash crops such as coffee, vanilla, candlenut, and turmeric. Current exports, dominated by coffee, are low, unstable, and poor in value added. Through investments that extend the domestic value chain and improve production techniques, and by using an informed international marketing strategy, exporting niche Timorese
products could become a critical source of foreign exchange earnings and firms’ growth and development. Similar considerations apply to the rich and unique artisanal work that characterises Timorese culture, although to a lesser extent because of the limited global demand.

- **Tourism** – The natural wealth and cultural heritage of Timor-Leste make it an ideal location for the development of eco-tourism once the worst of the COVID-19 pandemic has passed and the sector begins to recover. Eco-tourism presents multiple benefits. First, it aims to preserve the environment, thus contributing to sustainable development for the country. Second, by targeting high-end customers, it can improve foreign exchange earnings. Third, compared to mass tourism locations such as Bali (Indonesia), Thailand, or Malaysia, Timor-Leste offers a unique and more accessible alternative to more remote Pacific islands. Finally, tourism can serve as a source of direct and indirect multiplier effects, including employment creation and skills upgrading.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Suggested strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-complexity imports (especially agriculture)</td>
<td>Domestic-led growth</td>
</tr>
<tr>
<td>Artisanal products</td>
<td>Export-led growth</td>
</tr>
<tr>
<td>Niche agricultural products</td>
<td>Export-led growth</td>
</tr>
<tr>
<td>Tourism</td>
<td>Export-led growth</td>
</tr>
</tbody>
</table>

### 4 Tools and approaches needed to transform sectors

To develop the sectors that hold the greatest potential in Timor-Leste, to support the country onto a sustained path of structural transformation, and to turn the incumbent subsistence economy into a market-based one, a robust and productive fabric of modern, growing firms is critical. In addition, enabling elements, including conducive financing frameworks, high-quality infrastructure, and technological investments are needed. However, Timor-Leste currently lacks these components and holistic government policies will be needed to address this, as discussed below.

#### 4.1 An overview of the formal private sector in Timor-Leste

Formal sector employment (excluding the public sector) makes up less than 5% of total employment in Timor-Leste and has stagnated since 2004. By contrast, the informal sector is highly pervasive; declining slowly in recent years, it continues to capture nearly 60% of total employment. The remainder is represented by employment in public administration. If we exclude agriculture, informal workers mainly operate small street vending activities, often of subsistence nature, in Dili and other municipalities.
According to the World Bank Enterprise Survey (WBES), the formal sector has been persistently dominated by small and medium firms, which represent 98% and 95.24% of all firms surveyed in 2009 and 2015 respectively (Figure 7).<sup>27</sup>

**Figure 7:** Distribution of firms by size, 2009 and 2015

From an ownership perspective, firms fully owned by private domestic individuals and companies increased from 82.67% to 86.51%, while female ownership grew from 43.3% to 61%. In 2015, only 4.76% of all firms had internationally recognised quality certification.

**Figure 8:** Distribution of firms by sector, 2015

From an ownership perspective, firms fully owned by private domestic individuals and companies increased from 82.67% to 86.51%, while female ownership grew from 43.3% to 61%. In 2015, only 4.76% of all firms had internationally recognised quality certification.

In terms of sectoral composition, most firms surveyed (43%) belonged to manufacturing (particularly furniture and food) in 2015, followed by retail and other services (wholesale, hotel and restaurants, and service of motor vehicles). From an employment perspective, construction and retail and wholesale represented the largest shares (Figure 8).

The lack of private sector growth in terms of both employment share and firm size is a clear policy challenge for the Timorese government, whose ambitious strategy aims for a yearly increase in private investment by 10% and the creation of at least 60,000 new jobs. Identifying the key constraints to firm performance should be at the centre of government actions to address these issues. According to the WBES, the biggest obstacles reported by firms in 2015 were:

— **Access to finance** – This was the biggest obstacle for a relatively constant share of firms in 2009 and 2015. Most firms’ working capital is financed by internal funds and retained earnings, while non-bank financial institutions like microfinance institutions and credit cooperatives play a minor role in financing small and medium enterprises (SMEs) (Figure 9).

— **Insufficient collateral** is a key challenge that limits access to finance. Since property rights remain uncertain and often cannot be used as collateral, pledging movable property (such as equipment) as loan security can be an important alternative. However, this option remains ineffective in the absence of special legislation on secured transactions.

— **Low business and management skills**, such as keeping ordered financial accounts and complying with regulatory requirements, were cited by local banks as an important factor in limiting firms’ borrowing capacity.

**Figure 9: Sources of funding, 2009 and 2015**

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29 Ibid.
— **Political instability** – This grew significantly as an obstacle between 2009 and 2015. Indeed, its likelihood of being the largest obstacle for a firm rose by over 90% during this time. It is likely that the firms’ perceptions of political instability emerged from the government’s inability to pass budgets, which in turn affects firms through the lack of awarding of government procurement contracts, and translates into lower profits.

— **Corruption** – The high prevalence of corruption as an obstacle highlights the importance that institutional reform could play in firms’ day-to-day business. Notably, nearly 90% of firms claimed that they were expected to give gifts to government officials to “get things done”. This is a higher proportion than for regional peers, with the exception of Papua New Guinea and Vietnam.  

Notably, both political instability and corruption are both becoming increasingly important constraints than they were in the past (Figure 10).

Figure 10: Biggest obstacles facing firms, 2009 and 2015

— **Informality** – Informality appears to disproportionately affect smaller firms. In 2015, about 61% of small firms mentioned that they compete against unregistered firms, compared to 51% and 33% of medium and large firms respectively. Over half of the respondents across all firm sizes viewed informality as an obstacle.

— **Electricity** – The proportion of firms identifying the lack of electricity as a problem dropped significantly from 30% in 2009 to 2.4% in 2015. However, losses due to electricity shortages remain a major impediment. This data highlights both the impressive improvements in electrification that the government has achieved since the restoration of independence, but also the large investment gaps in maintenance. Investing in maintenance is critical because ensuring reliable electricity supply can be leveraged for productive uses (Figure 11).


31 Percentages indicate the share of firms identifying an obstacle as being the biggest.
Notably, the proportion of firms identifying finance, electricity, and transport as major obstacles was higher than the regional average in 2015 (Figure 12).

**Figure 11:** Annual losses due to electricity outages, 2009 and 2015

**Figure 12:** Proportion of firms that considered electricity, transport, finance, education and land access in the East Asia and Pacific region

### 4.2 How do key obstacles affect firm performance?

The obstacles discussed above, as well as others, are not only perceived as relevant by entrepreneurs, but they appear to be significantly affecting firms’ performance. In particular:

— Firms that view access to **land, finance, electricity, tax administration (and tax rates), and crime** as a major challenge show lower levels of employment growth and labour productivity growth.

— **Finance** – Firms that rely more heavily on bank financing for investments exhibit higher employment growth and higher total factor productivity levels.
— **Infrastructure** – The higher the losses a firm reports due to electrical outages, the lower its productivity is. Firms experiencing at least one water shortage incident in a year tend to be less productive.

— **Bureaucracy** – Cumbersome import and business regulations and bribes seem to undermine firm performance. The longer a firm takes to obtain an import license, the weaker its employment growth rate is. The longer the delay in obtaining an operating license, the lower the firm’s productivity and the weaker its employment growth rate is.

— **Skills and education** – The higher the proportion of unskilled employees in the firm, the lower its productivity and employment growth rates are. While firms in Timor-Leste that offer formal training are not significantly more productive than firms that do not, the higher the proportion of employees that received training, the higher the firm’s labour productivity levels are.

The data presented paints a challenging picture for the development of the Timorese formal economy, which appears to be small and poorly dynamic. Further, the sector underperforms relative to its regional peers in terms of productivity and of productivity growth. A host of challenges drive these trends, ranging from poor access to finance, cumbersome bureaucracy, lack of skills, unreliable infrastructure, endemic corruption, to the lack of stable governments. Government strategies should aim to directly address key constraints to firm growth because of the significant contribution that an ecosystem of larger, more dynamic, and productive businesses could make to Timor-Leste’s long-term development.

### 4.3 Large firms matter

Modern and large firms are the crucial engine of economic growth and development for a variety of reasons, including:

— **Economies of scale** – Larger firms tend to be more productive. At greater scale, firms are able to attain efficiency gains or lower per unit cost of production. This core economic process is realised because fixed costs of production are spread over a larger output base. The source of these economies can stem from technological innovations, skills, purchasing agreements, and so forth.

— **Economies of specialisation** – Scale enables firms to specialise. In larger establishments, each worker can focus on a given set of tasks in the production process, and through a mechanism of *learning by doing*, they can progressively master them, completing tasks in less time and to higher quality standards. This, in turn, increases the amount and value of output produced by each worker, i.e. their productivity.

— **Jobs, wages, innovation, exports** – Large enterprises tend to be associated with a set of direct economic benefits that smaller establishments cannot rival. First, their net employment impact is larger: small firms are undeniably important engines of job creation in developing countries, but also exhibit higher rates of failure and exit. The stable wage employment generated
by larger firms allows labour to transition towards a middle-class status.\textsuperscript{32} Moreover, small firms tend to underperform in terms of wages – an important indicator of job quality. Evidence from Africa shows that businesses with 100 employees tend to pay 80\% higher salaries than a five-worker firms, conditional on skill levels.\textsuperscript{33} Large firms, due to achieving greater profits, are also able to make desirable investments including skills training or infrastructure development, as well as innovate more and boost worker value addition. Finally, excess production driven by growing scale can encourage firms to venture into export markets, which can further expand firm size and profits, and generate foreign exchange.

-- **Backward and forward linkages** -- Large firms can produce sizable market-wide impacts by encouraging the creation of backward and forward linkages with SMEs. On the one hand, they can generate large enough demand to support the establishment of new input suppliers and encourage specialisation of incumbents, on the other – but to a lesser extent in poorly industrialised markets – production at scale requires a network of distributors and retailers, as well as providers of accessory services such as marketing or distribution companies that can populate the downstream segment of the value chain. Both types of linkages can have positive impacts in terms of indirect job creation, knowledge spillovers, profits, and so forth.

-- **Clusters** -- Profitable firms attract competitors: both established foreign firms and domestic firms that learn and replicate productivity-enhancing processes pioneered by large enterprises. Same-sector firms and firms in related value chains tend to locate close to one another within economic clusters. Co-location has been linked to productivity growth through economies of agglomeration: for instance, it improves matching between firms and workers, suppliers and consumers, reduces transport and search costs, and enables knowledge spillovers, imitation, and learning across competitors.

-- **Domestic revenue** -- Large firms represent, under an adequate taxation system, an important source of corporate and personal income taxes, and thus provide government budgets with a sustainable revenue flow. Conversely, the pervasive informality and limited profits of micro or small firms limit their contribution to public finances.

### 4.4 Policy considerations for developing an ecosystem of productive and growing firms

A development strategy aimed at building a modern market populated by large and productive firms converges towards two overarching and mutually reinforcing policy strategies:

-- Supporting and growing incumbent micro, small and medium enterprises

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4.4.1 Addressing barriers to growth in domestic small firms

Small, informal, subsistence firms are pervasive in the Timorese economy, as they are in most low-income contexts. Their persistence and inability to grow are a central impediment for these economies to set on a structural transformation trajectory. The key constraints to firm growth tend to be grouped around access to capital and labour. 34

With respect to capital, and against conventional belief, the impact of credit (or loans) on growth rates of small businesses in developing contexts appears to be limited or null. In contrast, grant finance (which does not require repayment) has more positive impacts, but is clearly more expensive for the provider (as it cannot be recovered), and is thus less viable. Part of the reason for this difference lies in the fact that loan-taking entrepreneurs show less willingness to undertake riskier, higher-return investments, compared to grant-taking entrepreneurs. 35

On the other hand, labour can play a more pivotal role than capital in the growth of micro and small businesses. In what follows, we discuss the role of workers in firm performance under two lenses: workers’ skills and the availability of entrepreneurs.

Workers’ skills – As shown above, higher skills are associated with higher firm employment and productivity. Moreover, low education levels in the workforce are recognised as a major constraint to worker performance. 36 Currently, a large proportion of the working-age population in Timor-Leste has not received formal education, and both quality of teaching and learning outcomes of students are poor, especially compared to regional peers. 37

Developing human resources and addressing skill gaps are particularly relevant for the economic transformation of sectors that hold the greatest potential. For instance, evidence shows that human capital investments drive the quality and competitiveness of the tourism sector. 38,39 Moreover, the widespread use of obsolete practices in both agriculture and fisheries highlight that training in modern

techniques could provide quick wins in terms of productivity and scale. Over a long period of time, these investments are necessary to ensure that production attains the level of quality sought by international demand.

To up-skill workers, evidence shows that vocational training leads to greater employment outcomes, when compared to workers receiving training within their own firms. This could be because vocational education provides a less specific and more widely recognised and applicable skill-set, thus making more job opportunities available to workers.\textsuperscript{40}

Public investment in skills training should rely on a constant dialogue with private sector stakeholders who can offer key insight on critical skills gaps and shortages. For instance, the government in Mauritius has set up a Human Resources Development Council tasked with providing a forum for constant dialogue and consensus-building among stakeholders on all matters relating to human resource development, including a Training Needs Analysis.\textsuperscript{41} Finally, overseas educational and professional schemes in high quality institutions should be scaled up and focused on the most strategic sectors and skills.

Investment in skills level should be undertaken in schools as well. The government must ensure that school and vocational institute curricula are developed in accordance with national development strategies to equip the labour force with skills that key sectors require. In Timor-Leste, this includes enhancing the supply of high-quality courses in hospitality management, agri-business, agronomy, zoology, business management, or entrepreneurship.

Identifying and investing in entrepreneurs – Research highlights that a lack of managers with entrepreneurial skills is a frequent impediment to the development of small firms in low-income markets, whereby owners of the smallest firms are neither interested in nor prepared for sustained growth.\textsuperscript{42} This is a relevant issue in Timor-Leste where business owners are often foreigners, even within low-skill sectors such as wielding or automobile repair. While identifying individuals with entrepreneurial talent is challenging, there exist policy tools that can help develop an entrepreneurial mentality in business owners. These include group-training programmes and peer interactions and mentoring.

However, considerable evidence points to the poor effectiveness of group-training programmes on business performance on firm growth. This is not a reflection on the quality of the training and instead is, in part, because enterprise owners fail to implement the business practices that they receiving training for. Notably, training in entrepreneurial psychology has proved to have larger effects on both sales and profitability.


Mentoring exercises also yield positive effects on firm-level outcomes (sales, profits, management practices) by providing firm owners with more tailored and customised information than larger-scale training programmes. These effects are larger when the firms (mentors and mentees) share certain characteristics such as products or suppliers. Individualised consulting appears to be highly effective too, but has much higher cost requirements than small firms alone can normally bear.

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**Box 3: The role of trading firms**

IGC research has pointed to the role of traders as seedbeds for the take-off of the national industrial sector including agribusiness, manufacturing, and construction in several sub-Saharan countries. There, the bulk of the leading industrial firms today share a common origin: they started off as trading companies.

Trading activity endowed firms with deep knowledge of domestic markets and enabled them to move horizontally from trading to manufacturing products for the domestic market. Surprisingly, their crucial capability has not been identified in technological know-how, which in certain sectors can be relatively easy to master, but in critical knowledge about local and international markets, and about global and domestic supply chains. Such knowledge allows traders to identify products that have the potential of becoming import substitutes and to understand the type of investment needed to harness such opportunities.

Additional success factors include the fact that, unlike most incumbents, traders control sufficient financial resources resulting from their commercial activity, and tend to begin life as mid-sized firms. In particular, small domestic manufacturers appeared not to possess the characteristics needed for a successful transition into mid-to-large size manufacturers. Traders, on the contrary, have the initial scale of operations needed for the shift, regardless their sectoral focus.43

Timor-Leste’s heavy reliance on imports, matched with a widespread scarcity of medium-sized manufacturers and poor access to finance, might suggest that important lessons can be drawn from the story of trading firms in sub-Saharan Africa. Consequently, government strategies should consider strategies to support import firms in Timor-Leste to undertake horizontal sectoral shifts into manufacturing and agribusiness.

**Generating demand** – In addition to supply elements such as capital and labour, demand factors can also stimulate firm growth. Attaining lower transportation costs allows the linking of markets, and of the firms and consumers within them. As firms capture more consumers, and competition allows the most efficient among

them to survive, profits and productivity can rise. This makes a strong case for governments to ensure that infrastructure networks are developed to maximise firm performance and private sector growth, as detailed below. Moreover, establishing strong information flows on product quality and prices for consumers and across producers has traditionally impacted firm-level productivity positively.

**Box 4: Learning by exporting**

An IGC study on Egyptian rug manufacturers shows that firms who are given the opportunity to export to higher income markets produce higher quality products than firms who are not, but use exactly the same materials and specifications for the in production. Quality gains appear to be linked to knowledge flows between foreign buyers, intermediaries, and producers.\(^{44}\)

### 4.5 Attracting foreign direct investments

Developing a modern ecosystem of domestic firms demands time and investment to accumulate the required level of skills, technology, knowledge, and capital stock. This is especially true for Timor-Leste, the baseline conditions of which reflect poorly on these aspects. Attracting FDI to the domestic market can play an important role in speeding up this process.

FDI offers an opportunity to developing countries to deepen industrial capabilities, upgrade product and process quality, and support industrial diversification. FDI’s positive impacts on the local economy, firms, and workers – in terms of productivity, quality, and value-added – are both direct and indirect in nature, and include:

**Stronger human capital** through employee training and specialisation

**Knowledge spillovers** from the foreign firm to same-sector domestic firms or, to an even greater extent, to input suppliers through industrial backward linkages

**Greater FDI-driven intra-sector competition**, which stimulates indigenous businesses to become more efficient, and forces the least efficient firms to exit

**Export portfolio upgrading**, which is a proven driver of economic development.\(^{45,46}\) Higher export value can be achieved because (1) foreign firms produce and export better products than the host country was able to


before their arrival, and (2) knowledge spillovers benefit local, exporting firms by upgrading products and production processes. Expanding and improving Timor-Leste’s export base is even more essential because of limited domestic demand that cannot sustain a large private sector.

Markets in countries at very initial stages of industrialisation such as Timor-Leste are often not ready to attract FDI that requires a basic minimum level of infrastructure, skills, technology, streamlined regulation, and a functioning system of firms with which to develop backward and forward linkages. The scarcity of these, in addition to geographic characteristics, can contribute to keeping foreign firms away from the domestic market.

**Box 5: Publicly available supplier databases**

Achieving stronger linkages between domestic and foreign firms should be the key objective of FDI attraction policy. Such connections are beneficial because they represent productivity channels from foreign to domestic firms and because they act as powerful signals to attract new FDI, which might be more likely to arrive if a system of local suppliers is already in place.

However, due to a variety of factors, large and mostly foreign firms often end up relying on imported inputs that have the potential to be produced locally. In the context of Timor-Leste, the widespread scarcity of suppliers is drives this dynamic. One of the reasons identified for this is that anchor firms lack knowledge on the reliability and expertise of local suppliers.

Developing a supplier database of local firms can help address the information constraints that larger firms face, and facilitate backward linkages between small and large companies. Such a database would present information such as company name, sector, location, contacts, quality certification, and years of activity, among other things. In addition, if registration to the database is made conditional on firm registration and on sharing financial information such as firms’ transaction or tax history, additional side benefits can be pursued simultaneously, including formalisation and access to finance, as banks might be more likely to issue loans when given access to financial records of individual firms.

Establishing a company database represents a low-cost policy option for the government that can generate considerable economic benefits, especially the fostering of inter-firm linkages.\(^{47}\) It also serves to boost local sourcing in a non-distortionary way.

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Attracting FDI in completely premature markets creates the risk of FDI becoming “white elephants”. Notably, Timor-Leste’s only FDI, a 300-worker Heineken factory, has fallen short of expectations: it produces for the local market only, has had limited spillover effects on the local economy (such as establishment of local breweries), and has failed to catalyse new foreign investors. While we lack evidence on the causes, limited worker skills, political instability, and underdeveloped local market may have played a relevant role in this failure. The factory also benefits from generous tax exemptions, which were probably central in attracting the investment in the first place.

This example highlights the need for government strategies to simultaneously pursue FDI attraction policies and efforts to promote domestic firm growth, bearing in mind these two reinforce each other. FDI is more likely to arrive and be impactful in an existing ecosystem of firms, while such an ecosystem can thrive and grow through the direct and indirect impacts of FDI.

With specific reference to FDI attraction, active and targeted policy tools can be useful in maximising FDI impacts on the development of the local market, and can prove to be more effective and efficient than tax holidays. These include

- Investment Promotion Agencies (IPAs)
- Local Content Units
- Special Economic Zones (SEZs)
- Publicly available supplier databases

### Policy steps to attract and retain FDI

1. Reduce reliance on tax incentives as a tool to attract FDI because they are generally not a determining factor in investors’ decision, are very costly, and carry a risk of incentivising short-lived investments. When used, it is vital that incentives are administered in a very transparent manner.

   a. The [Jordan Investment Commission](#) has developed a user-friendly website which publishes all incentives available as well as the procedures to apply for them.

   b. To minimise discretion in the awarding of incentives from investment agencies, the governments of Costa Rica, Pakistan, and Sri Lanka have all created official legislation on practices and requirements for granting incentives.

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2. Prioritise the creation of a reliable investment environment by (i) lowering the cost of doing business through improving the provision of services such as utilities and streamlining procedures, and (ii) having transparent and enforced laws and regulations that protect and incentivise investors.


   b. **Rwanda** made a conscious effort to focus on improving their World Bank Doing Business indicators as a benchmark to improve their investment environment. In 2017, they ranked 158, and are currently ranked at 38.

3. Set up a high-quality and accessible IPA to attract and retain investment from multinational companies. This requires staff to be trained and skilled, especially in relationship building and communicating with and supporting foreign companies.

   a. **Singapore**’s successful model is based on their investment agency prioritising relationship-building with companies.

   b. **Ethiopia**’s reforms in 2017 led to a similar approach being adopted with a sector focus by the Ethiopian Investment Commission. Among other activities, the Commission stimulates supply chain development by hosting dialogue forums, which bring together potential domestic and foreign business partners.

   c. **Rwanda** started with an investment strategy that highlighted the type of investment they wanted to attract, which provided a great foundation for such a goal.

4. Increase domestic capabilities. The workforce must increase their productivity through education and obtaining technical and managerial know-how. This will provide investors with a ready workforce that can meet labour demands and support opportunities.

   a. **Rwanda** made improving human capital a primary objective in their 2006 Investment Policy Reform, giving education a central role in building a long-term knowledge-based economy and attracting FDI.
4.6 Special Economic Zones and the role of industrial parks

SEZs have been increasingly used by policymakers in developing countries as a way to promote industrialisation, attract FDI, create jobs, and boost exports. Over the last two decades, the number of SEZs in the world has increased six-fold, from about 900 zones in 1998 to 5,400 in 2018. However, its results have not always lived up to expectations – for example, in most sub-Saharan countries, SEZ policy has failed to generate significant upticks in investment, exports, or job creation in recent years.

The establishment of geographically delimited areas where government can provide improved infrastructure, reliable utilities, incentives, and other support aims to overcome context-specific economic distortions that cannot be addressed through wider national reforms. As such, the decision to establish a zone should be backed by evidence that demonstrates what the market failure is and why SEZs constitute an appropriate form of policy intervention for this identified market failure.

SEZs require strong government support and coordination and need to form a part of long-term national development strategy. Hence, it is important for the planned industrial park project in Timor-Leste to be aligned with national economic and industrial policies. Furthermore, to fully benefit from the programme, government and zone management need to consider the local comparative advantages as they target priority sectors. Timor-Leste’s planned industrial park is aimed at servicing the logistics and warehousing sectors due to its unique position on key economic corridors. Other sectors supported in the zone include recycling plastic, tires, scrap, furniture assembling, injection moulding for plastic products and precast concrete to serve the domestic construction market. The identification and selection of the sectors should be based on their ability to service the goals behind the industrial park, such as value addition and economic diversification, which in turn should be aligned with broader economic and industrial strategy.

Given that attracting large firms to manufacturing and export-led low-skill sectors has a low potential for Timor-Leste’s growth, the thinking around the zone can be more directed towards a logistic hub that focuses on reducing high trade costs, given its advantageous location.

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54 Successful experiences of diversification include Mauritius and the Dominican Republic. In both countries, SEZs were used to encourage diversification beyond the dependency on primary commodities (sugar and bananas) through focusing on high value-add manufacturing (Healy, 2018).
The location of Timor-Leste’s industrial park is in proximity to the Port of Timbar, which is also located 10 kilometres west of Dili, in Tibar Bay in the town of Liquica. Its location can also support the Trilateral Economic Zone between Indonesia, Timor-Leste, and Australia, as well as help firms to form complementary relationships with their peers in the Northern Territory of Australia. Given the closeness to a major and strategic port – currently under construction – the location of the industrial park appears to be appropriate.

4.6.2 Are financial incentives that important?

Although financial incentives play an important role in the value proposition of any zone, they do not always provide a key to success. Farole (2011) documents that the provision of financial incentives is not correlated with SEZ outcomes. By contrast, laws and policies aimed at improving the business climate matter significantly more in explaining zone performance. Therefore, instead of focusing on tax incentives and competing with other zones in the region, policymakers should focus on identifying the market failures in Timor-Leste, designing and implementing specific policies to alleviate these market distortions, and addressing business climate shortcomings facing firms relocating to the zone.

Timor-Leste has undertaken considerable business regulatory reforms, especially in the area of business start-ups, through reducing the paid-in minimum capital requirement, creating a one-stop shop, and eliminating requirements for approvals by the national authority responsible for land registration. However, more reforms are still needed in other areas, notably around resolving and enforcing contracts, getting credit, registering a property, and accessing electricity; Timor-Leste ranks below the regional average of East Asia and the Pacific on these elements.

Even when many of the country-specific conditions dictate that SEZ policy would be an appropriate instrument for economic development, a decision to establish an SEZ should ultimately be based on a cost-benefit analysis.

4.6.3 Cost benefit analysis

A holistic overview of the costs and benefits associated with an SEZ/industrial park project is essential. A sustainable development impact assessment of SEZs should consider their direct and indirect economic contributions, fiscal and financial sustainability, technology and skills contributions, social and environmental impacts, support to regional integration, and policy experimentation and learning opportunities, as seen in the figure below.

57 Ibid.
### SEZ sustainable development ‘profit and loss statement’

<table>
<thead>
<tr>
<th>Cost-benefit areas</th>
<th>Key elements</th>
</tr>
</thead>
</table>
| **Direct economic contributions** | • Attraction of FDI  
  • Job creation  
  • Export growth  
  • Foreign exchange earnings |
| **Indirect economic contributions** | • Supplier linkages beyond the zones  
  • Indirect and induced job creation |
| **Combined economic impact** | • Additional GDP growth |
| **Net cost/revenue from zones** | • Investment expenditures  
  • Operating costs  
  • Foregone revenues and subsidies  
  • Income from zones |
| **Fiscal/financial viability of zones** | • Payback time of zone investment  
  • Fiscal burden |
| **Dynamic economic contributions** | • Technology dissemination  
  • Skills and know-how transfers  
  • Industrial diversification and upgrading  
  • Enhanced regional economic cooperation |
| **Social and environmental impacts and externalities** | • Labour conditions  
  • Environmental impact  
  • Appropriation or misuse of land  
  • Illicit flows |
| **Policy learning and broader reform impact** | • Pilot function of zones  
  • Catalyst function for reforms  
  • Reduced motivation to reform |
| **Overall sustainable development impact** | • Evolution of the role of zones in the economy  
  • Long-term zone transformations |
4.6.4 Spillovers

SEZs can help establish linkages with the local economy, thus creating spillover effects. Hyun & Ravi (2018) show that SEZs in India significantly increased economic activity in areas around the zones, promoting structural change by encouraging movement into a larger and more productive formal sector – which have also been identified as a priority need for the Timorese economy. Nightlight data also confirms that cities bordering SEZs benefit from the zone’s presence. SEZs can support important economic spillovers through facilitating buyer-supplier relationships between firms inside the zone, many of which tend to be foreign, and domestic companies outside. The presence of FDI provides new market opportunities for local firms to increase their sales, provided they can achieve the quality requirements needed. Business interactions can also generate productivity gains for domestic suppliers. Therefore, governments and zone management should actively facilitate these linkages through policies that, for example, strengthen supply chain linkages or encourage sub-contracting relations. Hence, it is essential for the government of Timor-Leste to assess the local private sector capabilities around Vatuvou and the rest of the Liquica municipality and provide investors and companies relocating to the zone with lists of firms to trade with. The supplier database described previously presents a relevant tool for this purpose.

4.6.5 Monitoring and evaluation, and policy experimentation

Effective monitoring and evaluation (M&E) measure the performance of the zone against its objectives, informs decisions to improve on SEZ policy, and supports policymakers in enforcing regulations, such as environmental standards. Establishing an M&E unit at any potential industrial park in Timor-Leste will be essential for tracking the performance of the zone against its main objectives like job creation, value addition, economic diversification, and attracting FDI.

The industrial park can also play a role in testing what policy interventions can further these objectives in Timor-Leste. The optimal policies for a country’s context may be unknown before the policy is actually implemented, so a successful policy trial inside a zone can identify dynamics that could trigger change for the rest of the economy. Zones can also test the effects of more liberal legal and regulatory...
frameworks. Some newer generation zones are even becoming the drivers of green development and eco-industrial cities.

### 4.6.6 Legal and institutional frameworks for effective management

The first pillar in ensuring that industrial parks are properly managed is the establishment of a transparent regulatory framework. In most low-income countries, SEZ laws or regulations are absent or out-of-date, and many investment arrangements are done on an ad hoc, Memorandum of Understanding basis. Such practices lack transparency, blur the much-needed clarity of roles and responsibilities of various parties, and often put investments at great risk.

Once a country has decided to establish an SEZ programme, it must examine how to set the correct incentives for private sector developers, private investors, and public regulators to ensure that an SEZ legal framework delivers results, success and impact. In reality, this involves three levels of inquiry and action:

1. A country considering SEZs should ask itself whether the need for a legal framework is the same thing as the need for an SEZ law.
2. It should ask itself what political, transactional, and commercial incentives can drive effective legislative change.
3. It should reflect upon how the SEZ legal and regulatory framework should be structured to get the right kind of investment reaction from the private sector (and/or the public sector, if they are involved in the SEZ development and/or operations).

In January 2018, Timor-Leste enacted a new private investment law (Law No. 14/2011) with the intent of modernising and consolidating the previous private investment legal regime. The favourable treatments of new investments include a special investment agreement that grants special benefits related to leasing state land, exemption of corporate income, sales, and service tax for nine or 10 years, and exemption of import duties for five, eight, or 10 years. The established system of benefits and subsidies follows a simple scale of geographical investment areas in order to favour economic development of the Special Zones defined by this legislation. Article 9 of the law specifies that the state shall grant more advantageous benefits and incentives to Special Zones outside urban areas of Dili and Baucau. Therefore, it should be assessment whether the existing regulatory framework is enough to ensure that planned industrial parks will follow a demand-driven and a targeted approach.

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Box 3: South Africa SEZ M&E Unit

In South Africa, a central SEZ Advisory Board is responsible for overseeing the M&E of SEZs and feeding these metrics back to the Department of Trade and Industry to inform future policy decisions. This oversight, and the transparency of the performance information gathered, helps put pressure on individual SEZ management boards to deliver on targets. The M&E framework established by the SEZ Act sets out a large list of indicators to be tracked, including costs, which is a rarely considered element among SEZs worldwide. The indicators tracked for each zone can be grouped under three categories:

**Management indicators:**
- Business plan and financial statements
- Progress reports on key performance targets
- Progress reports on specific SEZ programmes (e.g. setting up a one-stop shop)
- Infrastructure reports

**Output indicators:**
- Investments brought in the zone
- Jobs created
- Land allocated
- Revenues raised from land sales and rental income
- Exports

**Input indicators:**
- Operating staff costs against target
- Infrastructure capital costs and timeframes against targets
- Top structures/factories’ costs and timings
- Operational costs against target

Another important pillar in effective management of SEZs is the institutional framework under which zones are developed and administered. Typically, there are four main stakeholders in the institutional framework: owner, developer, operator, and regulator (Table 3). The best practice to avoid conflict of interest is to separate the regulatory role as much as practically possible from the roles of owner, developer, and operator. As part of this process, it is important for SEZ policy to clearly outline the specific responsibilities of the different actors. The government, through the Ministry of Tourism, Commerce and Industry will develop the park in Vatuvou (Liquica municipality). According to presentation by the MTCI, due to constraints in the business environment and economies of scale related to the size of the industrial park, the public investment option where the park is established and managed by the government is more feasible. Currently, it is not clear what the establishment institutional framework is, and whether the planned zone will be managed and regulated by independent and autonomous agencies.

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69 Department of Trade and Industry’s ‘SEZ Performance M&E Framework’.
Table 3: Stakeholders of SEZs institutional framework

| Regulator | Generally, a government body with oversight authority, the regulator ensures the regulatory environment of SEZs is more streamlined and efficient than the national environment. |
| Developer | In best-practice scenarios, a private sector entity is charged with designing, planning, and managing the development of infrastructure and facilities within the SEZ. |
| Operator and Service Provider | Specialised entities that manage the day-to-day provision of services to site investors, tenants, and resident labour. As the scale of an SEZ project expands, the depth and variety of services provided expands with it. |

Another key determinant for success of SEZ management is the implementation of a streamlined and investor friendly One Stop Shop (OSS). Currently, the planned OSS for the SEZ in Timor-Leste is expected to include approval procedures regarding investment certificate and granting benefits, land leasing and selling procedures, approval procedures about operating license, and import/export permits, among other things. Nonetheless, considerations should be given to the model in which the OSS will be instituted. The regulator of SEZs in Timor-Leste must think through the pros and cons of each of three main OSS models before deciding what is suitable for them. The three models are:

— **Secondment** – In this model of OSS, there are two sections: the front desk and the back office. The front desk is usually located inside the SEZ premises and is responsible for receiving an investor’s applications for different permits. Government representatives who work from the back office then process these permits. Since no back-office employees need to be hired, fewer resources are required to set up such an OSS. Nonetheless, this model can fall victim to bureaucratic hurdles that SEZs try to avoid.

— **New hire** – Similar to the secondment model, this model also has a front office and a back office. However, instead of asking ministries to send their representatives to the SEZ, the regulator hires, trains, and employs its own staff, who are authorised to carry out the work on behalf of different ministries. By sidestepping the existing bureaucratic setup, the regulator is able to institute an OSS with representatives who are better trained in the standard operating procedures of an SEZ. Hiring and training OSS employees would, however, require financial and management resources.

— **Front desk only** – In this model, the OSS does not have any back office at the SEZ. The front desk is responsible for taking the investor applications to the government representatives. In this model, limited resources are spent in building such an OSS since government representatives are not physically located inside the SEZ. This setup may only work in special cases, such as where the SEZs are physically near most government offices, or the standard operation procedures in the SEZ are similar to those outside the SEZ, or most business licenses can be processed digitally.

71 For example, the Aqaba Special Economic Zone Authority in Jordan had its own tax and custom officials, who were better trained than their ministerial counterparts. (Akinci, G., & J. Crittle (2008). Special economic zone: performance, lessons learned, and implication for zone development. *Foreign Investment Advisory Service (FIAS) occasional paper*. World Bank Group.)
5 Investment and financing strategy

Growth plans must be designed alongside a financing strategy that identifies the current resources available to fund the plan at the national, regional, and sectoral levels, as well as additional mechanisms to attract further financing. Evidence indicates that both domestic and external resources can be utilised to finance investments and growth. The next sections discuss key financing options available for Timor-Leste, namely:

1. Oil wealth from the Petroleum Fund
2. Non-oil domestic revenue
3. Development finance and private investment
4. Remittances

5.1 Utilising oil wealth

Timor-Leste has sensibly established and has successfully been operating a sovereign wealth fund (SWF) to improve management, transparency and growth of the country’s oil-based wealth, valued at approximately US$17.6 billion at the time of writing.\textsuperscript{72} The PF is essentially the key economic asset for the country’s development.

Currently, Timor-Leste uses a significant portion of its natural resource wealth to pay for recurrent expenditure, with PF being by far the primary source of funding in the state budget. Specifically, expenditure in the 2021 budget is forecasted to be US$1,377.6 million, which is approximately 7.6% of petroleum wealth. High withdrawals in recurrent expenditure are not matched by expected increases in GDP growth, which suggests that there is a need for stronger fiscal rules on the use of the PF. Moreover, there is potential for better investment and returns to be gained from investing the PF domestically. Specifically, in 2020, investment income was US$906.5 million, which is a return of approximately 5.2%, at best. The fiscally unsustainable management of Timorese oil-wealth calls for urgent re-thinking around the rules and uses of oil-based resources to prevent PF depletion.

During the COVID-19 pandemic, while oil demand slumped, SWF wealth has been an effective budgetary stop-gap for several developing countries, whereby revenues have been used as a temporary mechanism and later replenished back to the fund.\textsuperscript{73,74} SWFs can also be used to invest domestically and are becoming an increasingly important mechanism for post-COVID-19 recovery among resource-rich developing countries. For example, the Ghanaian government has stated intentions of utilising US$200 million from the Ghana Stabilisation Fund to be

\textsuperscript{73} Arnold, T. (2020). Rainy day hastens sovereign wealth funds’ refocus to home. Reuters.
\textsuperscript{74} Sender, H. (2020). Bringing sovereign funds into Covid fight would be misguided. Financial Times.
put into a Contingency Fund, which would be used to fund the Coronavirus Alleviation Programme.

Timor-Leste should use SWF wealth as a financing tool for high-impact development programmes, which could help diversify to non-oil-based growth while ensuring that a significant portion is saved for future generations. This can be done through frontloading large-scale, labour-intensive initiatives in non-oil sectors such as renewable energy investments, infrastructure development projects that create jobs and support broader economic activities, public jobs programmes, as well as other initiatives that improve human capital and target job creation amongst the most vulnerable in agriculture or fisheries.78

Moreover, returns from traditional investments such as stocks are anticipated to shrink, compared to risk-adjusted returns on domestic investments, due to COVID-19 and economic uncertainty worldwide, which potentially limit the returns gained through these external investments. Consequently, alternative investment strategies, including domestically-focused ones, are gaining popularity. Domestic use of SWF wealth could offer an opportunity for resource-rich countries to accelerate development by harnessing natural resource wealth for domestic investments that target existing development gaps.76,77,78,79,80 This would require effective fiscal rules, transparency, discipline, and active communication with the population to ensure that SWF wealth is only targeted at projects that yield significant returns and drives growth.

5.2 Domestic revenue mobilisation

There is both a need and an opportunity to increase non-oil domestic revenue mobilisation as oil revenue begins to run low due to the depletion of existing fields. Timor-Leste’s revenue has been one of the most oil-dependent in the world since production commenced in 2000; at its peak in 2015, it made up 95% of government revenues. This is greater than some of the other most oil-dependent countries such as Equatorial Guinea (85%) and South Sudan (75%).81

81 World Bank. Timor-Leste Systematic Country Diagnostic – Pathways for a New Economy and Sustainable Livelihoods
Revenue, fiscal, and public financial management reforms are necessary to diversify the source of domestic revenue away from oil. There is a need for a comprehensive review of the current tax collection system, reforms to improve the efficiency of revenue collection, an introduction of new fiscal instruments, and a review of existing ones. Additionally, tax capacity needs to be improved, for instance through targeted taxation, including customs and wealth taxes, which are easier to monitor and enforce. Enhancing policy and legislation that promotes investment is also necessary, and this can lead to increased economic activity and, therefore, greater revenue collection. Finally, developing the formal economy can be the most reliable strategy for long-term, sustainable revenue growth.

5.3 Development Finance Institutions and private investment

Development Finance Institutions (DFIs) are a source of development finance that could be leveraged to support diversification away from the oil sector and to promote private sector growth in Timor-Leste.

Given the absence of large domestic firms that could absorb DFI finance and meet ticket size requirements, these institutions could play a unique role in supporting foreign pioneering investments willing to enter fragile markets by subsidising start-up and first-mover costs, and thus de-risk projects. Moreover, DFIs could also prepare pipelines of investable in-country projects and undertake investments aimed at addressing structural constraints in the regulatory environment, which inhibit the growth of local firms and the attraction of FDI.

Currently, DFI presence in Timor-Leste is minimal. The government has an important role to play in changing this by revamping and coordinating relationships with DFIs and the private sector, and in creating the enabling environment for investment to be attracted and absorbed.

5.4 Remittances for productive investments

Remittances are a critical and growing source of financing in Timor-Leste. Their upward trend has been driven by a small but growing Timorese diaspora, which went from 1.1% to 1.6% of the total population between 2010 and 2015. Thanks to intensifying migratory flows, mainly towards the United Kingdom, followed by Indonesia, Australia, Korea, Ireland, and Portugal, remittances make up the prime source of non-oil foreign exchange and represent 6% of non-oil GDP. The weight of remittances on the Timorese GDP has accelerated at a faster pace than its regional peers, and in 2019, surpassed the average for Small Island Pacific States (see Figure 13). In 2014, one in five households reported remittances as a source of income, pointing to remittances’ poverty-reducing role. Given the growing importance of remittances in the Timorese economy, strategies could be devised to maximise their development impact on the domestic economy.

In a post-COVID-19 world, these flows should be mobilised and targeted towards productive investments to improve development impact. Evidence shows that remittances are positively correlated with entrepreneurial investment, education, and entrepreneurial income, which are all necessary for growth. In Ecuador, Banco Solidario has provided remittance-related financial innovations – such as credit products for emigrant families receiving remittances – to support investments in microenterprises, education, and other key areas.

Evidence shows that remittances can also be utilised to fund inputs to improve productivity. For example, a study in Mozambique found that enabling migrants to send money directly for buying and delivering agriculture inputs such as fertiliser and seeds increased the use of fertiliser and increased productivity. Remittances can also improve education. Analysis in El Salvador showed that a matching product, which enabled migrants to fund education for children in their home country, increased education expenditure and private school attendance.

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Policy steps to maximise the development impact of oil wealth

1. **Strengthen regulatory frameworks.** The PF is the main asset which can finance Timor-Leste’s economic transformation. Hence, a commitment to its preservation and its strategic use is paramount. Measures to limit the size of withdrawals at each financing cycle and earmarking funds withdrawals to specific spending categories should be explored.

   a. The government of **Ghana** manages its oil wealth through two key funds, each with a specific mandate: the Ghana Infrastructure Investment Fund oversees infrastructure development, while the goals of the Ghana Petroleum Funds – namely the Stabilisation Fund and the Heritage Fund – are to provide budgetary support in times of low revenue capacity and to preserve wealth for future generations. Each fund operates under specific regulation and management strategies consistent with their respective objectives.

2. **Leverage the PF to diversify financing options.** The security provided by the PF allows the government to realistically explore innovative financing options as a way to expand its fiscal space and diversify its debt portfolio. This could include issuing Timor-Leste’s first sovereign bond, especially if this is done in sustainability oriented sectors.

   a. In 2020, **Bhutan** announced its first sovereign bond to support the economic recovery from the COVID-19 pandemic while diversifying financial sources. This was a major step to independently finance Bhutan’s fiscal requirements by reducing reliance on overseas development assistance and concessional loans. The issuance saw the participation of financial institutions, non-bank institutions such as pension and insurance companies, and civil society organisations.

3. **Adopt an effective communication strategy.** If PF revenues are clearly earmarked for certain development projects, these should be branded and communicated as such to the public via government websites and mainstream media. Channels for feedback and public scrutiny would also be needed.
Generally, migrants have a preference over how the remittances they send home are used. This is especially necessary to consider in Timor-Leste where the many in the diaspora plan to return home. Therefore, offering innovative products and digital services with mechanisms to generate impact from the remittances they send is an important policy consideration of a growth strategy. Diaspora funds, which are fairly new vehicles, can also act as a useful way to harness the investment of emigrants to grow the economy.

Overall, it is essential to have in place sufficient resources to finance the growth strategy. Timor-Leste should utilise its natural resource by creating a framework of fiscal rules and transparent processes to support domestic, growth-enhancing investment. Revenue reforms are also needed to maximise non-oil revenue mobilisation. In addition to this, building relationships and coordinating DFI financing to unlock private sector investment could have structural impacts that can diversify Timor-Leste away from oil dependence. Finally, creating ways for diaspora remittances to be more productive and support long term economic growth is an area of policy intervention that holds large potential in Timor-Leste.

6 Infrastructure constraints

Developing a modern and efficient infrastructure is a necessary part of Timor-Leste’s strategy to diversify away from oil dependence because it can help boost trade, economic activity and value chains, and attract FDI. Since 2002, there has been significant progress towards infrastructure development, as most public infrastructure including roads, ports, water and sanitation systems, and airport infrastructure had been absent or destroyed before then.

Developing key infrastructure is already a part of Timor-Leste’s SDP, whereby government recognises its importance to support growth. Between 2007 and 2017, the average growth per year was 6.5% – a large improvement from the past – was driven primarily by public expenditure on infrastructure projects.

However, further investment is required on basic multipurpose and connective infrastructure for growth and development, which should be supported by sound planning and budgeting, and targeted to the most promising sectors for growth. Notably, tourism-related infrastructure is poor, characterised by expensive air links, inadequate road networks, and limited port facilities to receive cruise ships. In turn, this limits tourism potential and deters private investment.

Poor infrastructure is also a constraint for market access, distorting households and firms’ ability to generate income and to access goods and services. Infrastructure development should be undertaken strategically to enable individuals and firms to connect and trade, and thus promote private sector development.

Specifically, priority infrastructure investments that can support and enable a wide range of economic activities in Timor-Leste, should focus on:

— **Road connectivity and maintenance** – Approximately only 150 kilometres of road have been built in the last five years, out of 360 kilometres required in that period. The most recent assessment also indicates that over 350 kilometres of national road is in poor conditions, with little or no maintenance being carried out. Therefore, it is necessary to improve the pace of road construction and ensure maintenance services are in place to sustain the productive use of the road connectivity.

— **International airport standards** – Improving the standards and regulatory framework of the main international airport in Dili is important to support economic activities that depend on international mobility and to help markets that rely on international connectivity such as tourism. This includes obtaining the necessary certifications and meeting the International Civil Aviation Organisation (ICAO) standards. Currently, the country also lacks full international regulatory compliance; the civil aviation regulatory framework must be improved, and adequate infrastructure and services made available to attract and enable airlines to serve Timor-Leste at reasonable prices. Strategic partnerships with low-cost foreign airline companies should also be leveraged to reduce prices and attract demand.

— **Electrical reliability** – Major public spending in the energy sector has been used to finance the development of the electricity installations and network. While electrification rates have soared, approximately half of poor households still lack an electricity connection – an important factor to address to improve productivity and reduce poverty. To improve the reliability of electricity provision, policies which enable private sector participation should be explored, as should be alternatives for clean and renewable power generation, which is also often a cheaper option.

Prioritising projects aligned to the above infrastructure priorities can generate broad benefits such as encouraging labour market access and entrepreneurship, as well as reducing the costs for public service delivery. Although the government has made significant efforts in infrastructure investments such as seaport development, it is also important to focus on multi-purpose investments such as roads, international airports, and electricity reliability, which are likely to yield social returns and have a strong complementary impact on poverty reduction.

Without the necessary infrastructure development, private investment and growth will be held back. Plans to this end have already been designed, and include strategic and action plans for road network development. These measures should be implemented through public investments, including the use of oil wealth and public-private partnerships to fund catalytic infrastructure that can accelerate development, create new economic demand, and ensure more geographically inclusive growth.
7 Leveraging digital technologies

Technology has been the primary driver of development throughout human history, from steamboats and railways to artificial intelligence and robotics. What sets digital technologies apart from previous innovations is the rapidity with which their adoption has become widespread, their adaptability to diverse uses and sectors, and their fast cost reduction, which is critical for inclusiveness. The current wave of technological change – often referred to as the “digital revolution” – brings about new opportunities as well as significant challenges to countries like Timor-Leste that have not yet fully joined the latest wave of technological change.

Despite gains in mobile phone coverage, a large part of the country still lacks access to reliable mobile networks and only 2% of the population uses their phones to perform financial operations. Most transactions are still cash-based, with ATMs only situated in some municipal capitals. Moreover, only 26.8% of Timorese use the internet, and only 0.6% of households had access to fixed internet connections in 2013. Much of the public administration lacks wi-fi infrastructure and relies on phone-based access, financed through the budget. Internet connectivity is only available through satellite links, and the quality of the service is poor in terms of costs, speed, and coverage. These elements hold back Timor-Leste’s efforts towards social and economic inclusion, improved public sector delivery, and economic productivity. Technological infrastructure is also an essential prerequisite to attract FDI activities and tourism to the country. These factors call for committed government efforts to speed up the processes of technological upgrading, adoption, and penetration.

Enhancing technological capacity, or the presence of modern technological infrastructure and tools, should not be pursued in isolation because then it cannot ensure that the developmental benefits of digitally-led growth are fully realised. Policies, frameworks, investments, and business models must be developed jointly to ensure that a whole society, including its most marginalised groups, can take advantage of such changes. Here, we discuss three important factors to achieve this goal: a national digital strategy, investment in skills and knowledge, and the role of the supporting infrastructure. These elements fall within a discussion about the role of digital innovation in developing countries addressed in the final report of the Pathways for Prosperity Commission.

— National digital strategy – A nation-wide transition towards digitalisation must be underpinned by a national digital strategy that is supported by all relevant stakeholders, including the government, civil society, and private sector. The strategy should set out clear and time-bound objectives and commitments that focus on strengthening human capacity, service delivery, inclusivity, and local entrepreneurship within a technological development

framework. Technological change creates winners and losers; some professions may become obsolete while a demand for new roles may emerge. Therefore, a national compact should address the complex trade-offs that are implied in technological transitions through multi-stakeholder dialogues and negotiations that include industry leaders and civil society representatives. Credibility and sustainability of such a plan can be enhanced when it is championed by senior political leaders, as opposed to small government agencies. Countries such as Mongolia, Ethiopia, and South Africa have recently approved similar strategies.

— **Investment in skills and knowledge** – People are a central part of a country’s digital transformation and they need to be equipped with the right skills and knowledge. Failing to extend access to skills to everyone in a society reinforces existing inequalities. Updated educational curricula and sustained public investments in literacy, numeracy, and digital skills are fundamental actions to undertake in schools and vocational training institutes to prepare future generations for the present and future labour market requirements. Efforts should also be deployed in re-training the current workforce, for instance, by encouraging private sector enterprises to provide apprenticeships, or scaling work-abroad programmes in relevant sectors. Timor-Leste’s overseas work schemes in Australia and South Korea could be reviewed with these considerations in mind. Overall, a constructive dialogue with private sector representatives should be initiated to ensure that public interventions target the professions and skills that are needed by firms.

— **The role of supporting infrastructure** – Digitally-led development should be supported by the necessary physical infrastructure including electricity, telecommunication, and internet networks that reach even the most remote locations with affordable and reliable services. Timor-Leste has made impressive progress on expanding energy access and today, over 70% of the population enjoys access to electricity, up from 23% in 2003. Nonetheless, this sector is highly inefficient due to overcapacity and illegal use of electricity in remote areas. Moreover, prolonged outages continue in rural districts as well as in Dili, and strategic locations for the development of tourism such as part of Atauro, Jaco, and Valu remain severely underserved. Internet services lack speed and are extremely costly, while Wi-Fi connection is largely absent throughout the country. This type of investment is necessary for market development and productivity growth, and can connect firms to each other and to clients, as well as enable the development of digital finance and online marketplaces, among other benefits. Moreover, a stable internet connection is often an important requirement for the development of the tourism industry. Finally, recent technologies such as satellite-based internet networks, drones and altitude balloons hold great promise to improve internet accessibility at moderate costs for remote locations.
Policy steps to enhance digitalisation

1. **Leverage regional partnerships** to develop digital infrastructure, given the challenges that islands in the Pacific and Southeast Asia share. Regional platforms might prove more effective to attract funding from multilaterals and private capital (for example, via public-private partnerships) than if Timor-Leste acted alone.

2. **Government should act as the innovator.** In a context of limited digital dynamism in the private sector space, the government should pioneer digital innovations that firms can replicate.

   a. Establish a government agency, led by a champion with political clout, to lead on a digital economy strategy that covers e-government and infrastructure, and supports the private sector and its ability to trade and produce better.

   b. Digitise services for which the likelihood of adoption by people and the value of efficiency gains and returns on investment are highest, such as business licensing or cash transfer delivery. The ability to demonstrate socio-economic returns from these investments can unlock further funding support.

   - **In Rwanda,** hospital waiting times for blood supplies were reduced from four hours to 45 minutes thanks to a system that combines instant online ordering with drone-based delivery.

   c. Government agencies can sometimes resist adopting new technology as civil servants face little incentives to transform their practices, and this may make the incremental introduction of digital services ineffective. In selected areas, replacing paper-based systems with digital ones in a single wave might be preferred.

   - **The Central Bank of Tanzania** stopped accepting paper-based documentation from the Ministry of Finance, making it mandatory for all transactions to be carried out electronically. While the decision was initially met with resistance, it eventually led to sustained change.

   d. Invest in digital platforms that are easy and intuitive to use and in heavy piloting, which can help refine products and identify problems before digital services are rolled out to the whole population.

   - **In Kenya,** piloting Safaricom’s M-PESA platform resulted in the product being changed from a loan repayment mechanism to a mobile money transfer service, initially designed to enable sending domestic remittances, but later growing into a platform with multiple mobile transfer, payment, and loan products for individuals and firms.
3. Strategically build digital skills. People will adopt technology if they see value in doing so. Rather than relying on generalised training courses, the government should promote technology adoption in areas that will enhance people’s productivity and incomes, and these gains should be demonstrated. In Timor-Leste, technological innovation in strategic sectors of the economy such as agriculture and tourism may have the greatest impact.

a. Government agencies should demonstrate to workers the financial gains that could come from joining hospitality platforms such as Airbnb or e-commerce platforms such as Facebook Marketplace, showing the impact it has had on incomes in comparable countries. Government policies should also be forward-looking to ensure benefits of technological inflows are absorbed.

- The expansion of Uber, a transport mobility app, in Africa improved the digital skills of drivers. Uber loaned drivers the smartphones needed to carry out their services.

- In China’s rural villages, the widespread adoption of e-commerce platform Taobao effectively connected sellers to buyers, widening market access for rural producers, including for traditional products and perishable commodities. Taobao enterprises made 80% higher revenues than other businesses.

8 Policy priorities and concluding remarks

Timor-Leste faces significant challenges in its path to achieving greater socio-economic development and structural transformation. However, large financial assets, a youthful population, and geographic characteristics provide the country with significant potential to move in this direction. Current and future policymakers face multiple, pressing demands within a context of shrinking oil-dependent resources. Therefore, realistic, sound, and coherent policy sequencing and prioritisation are needed to guide Timor-Leste’s development strategy.

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The basic and essential building block is achieving **sound public financial management** and **fiscal sustainability**. Unless new petroleum fields are found and marketed the PF, which currently finances over 90% of the state budget, will deplete within the next 20 years. Projections might turn out to be even bleaker if oil prices continue trending downwards, the stock market yields low returns on the PF, or public spending accelerates (e.g., in response to a climate shock).

The depletion of the country’s key economic asset could leave the government unable to provide essential public services such as education, health, and security, increasing the risk of a relapse into social unrest and conflict, sweeping away the progress achieved since the restoration independence. At the same time, the existence of the PF today provides the capacity to build the basis of a more sustainable economic trajectory. In this sense, economic diversification and non-oil revenue reform are central. Additionally, harder fiscal constraints (such as establishing fiscal rules or capping and earmarking certain areas of spending) should be put in place to prevent the PF from being exhausted, and to ensure that it is used in effective, efficient, and development-oriented ways. A committed effort to reduce yearly budget envelopes, especially in recurrent spending (e.g., public sector salaries) must be upheld, alongside efforts to ensure budgets reflect stated government priorities, particularly in health and education.

The COVID-19 pandemic and the ensuing global economic recession have had large and negative repercussions on FDI flows, causing a contraction of global value chains and trade, and severely hurting strategic sectors such as tourism and hospitality. Attracting considerable foreign investment and new visitors, or boosting SEZ activity could be unrealistic in the short to medium term, even if conditions on the ground improve rapidly. However, these circumstances offer the government a window of opportunity to carry out the groundwork to prepare the country to join global markets after the crisis passes.

Measures to put in place enabling conditions for private sector development should be undertaken. Much of it involves relatively low-cost, rapid, and tangible investments to streamline administrative processes and costs. This could result in higher scores on international rankings such as the World Bank Doing Business Survey, which would send encouraging signals to potential investors and trading partners. Similarly, initiatives such as setting up supplier databases and enhancing IPAs could be considered at this stage.

While the pandemic might reduce the likelihood of immediately attracting private capital flows, the government could engage in advocacy to attract regional DFIs, such as the Asian Infrastructure Investment Bank, whose operations are currently absent on the island. DFI activity in Timor-Leste could prove instrumental to build capacity in the private and public sector, to enhance the business environment, and to catalyse the entry of foreign private sector players.

The COVID-19 recovery phase is also a good time to invest in the development of domestic market and local firms. This would include identifying and supporting firms and entrepreneurs with the greatest potential in niche export markets and in products that could reduce the country’s import dependence.

Lastly, larger scale investment should focus on key infrastructure constraints, especially internet connectivity and digitalisation, as well as ongoing maintenance.
of energy and road networks – especially in and around urban areas where the bulk of economic activity is concentrated. While boosting flight connectivity is unlikely at this stage, the government should also explore partnerships (including through government subsidies) with regional, low-cost airline companies, connecting the island to main touristic hotspots in Southeast Asia and to the Australian market.
The State Fragility initiative (SFi) serves as the Secretariat for the Council on State Fragility and is an International Growth Centre (IGC) initiative that aims to work with national, regional, and international actors to catalyse new thinking, develop more effective approaches to addressing state fragility, and support collaborative efforts to take emerging consensus into practice. SFi brings together robust evidence and practical insight to produce and promote actionable, policy-focused guidance in the following areas: state legitimacy, state effectiveness, private sector development, and conflict and security.

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