TIMOR-LESTE: PATHWAYS TO ECONOMIC DIVERSIFICATION

Country Economic Memorandum 2023

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP
East Asia & Pacific

1818 H Street NW
Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org

Cover photo: JM Travel Photography / www.shutterstock.com
Cover design and layout: Arsianti

Timor-Leste: Pathways to Economic Diversification

Country Economic Memorandum 2023

THE WORLD BANK
IBRD • IDA | WORLD BANK GROUP
East Asia & Pacific

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF BOXES

ACRONYMS

ADB	Asian Development Bank
AEMTL	Women Entrepreneurship Association
AIFAESA	Authority for Inspection of Economic Sanitary and Food Activities
ASEAN	Association of Southeast Asian Nations
ASYCUDA	Automated System for Customs Data
BCTL	Central Bank of Timor-Leste
BCTL	Bank Central of Timor-Leste
BNCTL	*Banco Nacional de Comercio de Timor-Leste*
BoP	Balance of Payments
CAFI	Administrative Council of the Infrastructure Fund
CAGR	Compound Annual Growth Rate
CEM	Country Economic Memorandum
COM	Council of Ministers
CPI	Consumer Price Index
CPIA	Country Policy and Institutional Assessment
DFS	Digital Financial Services
DTIS	Diagnostic Trade Integration Study
DVAR	Domestic Value-Added Ratio
EAP	East Asia and Pacific
EDD	Exporter Dynamics Database
EDTL	*Electricidade de Timor-Leste*
EM-DAT	Emergency Events Database
EPA	Economic Partnership Agreement
ERP	Economic Recovery Plan
ESI	Estimated Sustainable Income
EU	European Union
FDI	Foreign Direct Investment
FLBB	Fixed-Line Broadband
FRETILIN	Front for an Independent East Timor
FTZ	Free Trade Zone
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GEZ	General Economic Zone
GNI	Gross National Income
GoTL	Government of Timor-Leste
GSIM	Global Simulation Analysis Model
GSP	Generalized System of Preferences
GVC	Global Value Chain
HCI	Human Capital Index
HCR	Human Capital Review
HHI	Herfindahl-Hirschman Index
IADE	Institute of Enterprise Development
ICT	Information and Communication Technology
IFC	International Finance Corporation
IGC	International Growth Center
IMCTD	Inter-Ministerial Commission for Tourism Development
IMF	International Monetary Fund
ITU	International Telecommunication Union
JPDA	Joint Petroleum Development Area
LDC	Least Developed Country

LFS	Labor Force Survey
LMIC	Low- and Middle-Income Country
MAF	Ministry of Agriculture and Fisheries
MBB	Mobile Broadband
MCAE	Coordinating Ministry of Economic Affairs
MFN	Most Favored Nation
MJLP	Ministry of Justice, Land, and Property
MOEYS	Ministry of Education, Youth, and Sport
MOF	Ministry of Finance
MoH	Ministry of Health
MOPW	Ministry of Public Work
MSSI	Ministry of Social Solidarity and Inclusion
MTC	Ministry of Transport and Communications
MTCI	Ministry of Tourism, Commerce, and Industry
NQCI	National Quality Control Institute
NSW	National Single Window
NTFC	National Trade and Facilitation Committee
NTFC	National Trade and Facilitation Committee
NTM	Non-Tariff Measure
PIMA	Public Investment Management Assessment
PPP	Public-Private Partnership
RCA	Revealed Comparative Advantage
SCM	Synthetic Control Method
SDP	Strategic Development Plan
SDT	Special and Differential Treatment
SERVE	Service for Registration and Verification of Entrepreneurship
SERVE	Service for Registration and Verification of Entrepreneurship
SEZ	Special Economic Zone
SMEs	Small and Medium Enterprises
SOE	State-Owned Enterprise
SPS	Sanitary and Phytosanitary
TBT	Technical Barriers to Trade
TFA	Trade Facilitation Agreement
TFP	Total Factor Productivity
TIN	Taxpayer Identification Number
TIP	Trade Information Portal
TL-SLS	Timor-Leste Survey of Living Standard
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNECE	United Nations Economic Commission for Europe
UNMISET	United Nations Mission of Support to East Timor
UNTAET	United Nations Transitional Administration in East Timor
USAID	United States Agency for International Development
VAT	Value Added Tax
WBES	World Bank Enterprise Survey
WCO	World Customs Organization
WDI	World Development Indicators
WFP	World Food Programme
WITS	World Integrated Trade Solution
WTO	World Trade Organization
YoY	Year-on-Year
ZEESM	*Zona Especial de Economic Social de Mercado*

ACKNOWLEDGMENTS

This report was prepared by a core World Bank team led by Alief Aulia Rezza (Task Team Leader), Alexandre Hugo Laure (Co-Task Team Leader), and Csilla Lakatos.

Chapter 1 was prepared by Alief Aulia Rezza, Elisabeth Do Rosario Vincente, Indira Maulani Hapsari, Kathleen Victoria Tedi, Ananda Narasimhan, and Yus Medina Pakpahan. Chapter 2 was prepared by Alexandre Hugo Laure, Aufa Doarest, Filip Jolevski, Salman Alibhai, I Gede Putra Arsana, Bayu Agnimaruto, Roberto Martin Nolan Galang, and John Gerard Perrottet. Chapter 3 was prepared by Csilla Lakatos, Mochamad Pasha and Jana Mirjam Silberring. The report drew upon the findings of the Country Scan 2.0, which was led by Pedro Miguel Gaspar Martins and Samer Matta.

Overall guidance was provided by Satu Kahkonen (Country Director), Hassan Zaman (Regional Director), Lars Christian Moller (Practice Manager), Cecile Thioro Niang (Practice Manager), Bernard Harborne (Country Representative), Alvaro Gonzalez (Lead Economist), Habib Rab (Lead Economist and Practice Leader), Francesco Strobbe (Lead Financial Economist), and Achim Daniel Schmillen (Practice Leader). The peer reviewers were Nadia Piffaretti, Melise Jaud, Michael Engman, and Samer Matta.

Ana Clotilde Conceicao De Oliveira and Rideca Regina Carvalho Duarte provided administrative and operational assistance. The report is typeset by Arsianti.

The team gratefully acknowledges the collaboration with the Government of Timor-Leste.

EXECUTIVE SUMMARY

Timor-Leste has made important development gains since independence in 2002 but is now at a critical juncture. The government has successfully rebuilt public infrastructure, reduced poverty, and quickly built from scratch a network of functional public institutions. Despite these achievements, there is an urgent need for private sector-centered development that is not dependent on the oil sector. Receipts from sales of hydrocarbons have been the main source of government revenues, but their contribution to the economy is decreasing, raising the urgency for economic diversification. High public spending has not translated into strong and sustained economic growth. Furthermore, depleting oil reserves signal an urgency to reduce economic dependence on oil. The public sector-driven growth model has run its course and is fiscally unsustainable. The excessive public spending level led to an astronomical fiscal deficit of 45.3 percent of non-oil gross domestic product (GDP) in 2021. This fiscal stance entails significant risks that bring the country toward a damaging fiscal cliff in 2035.

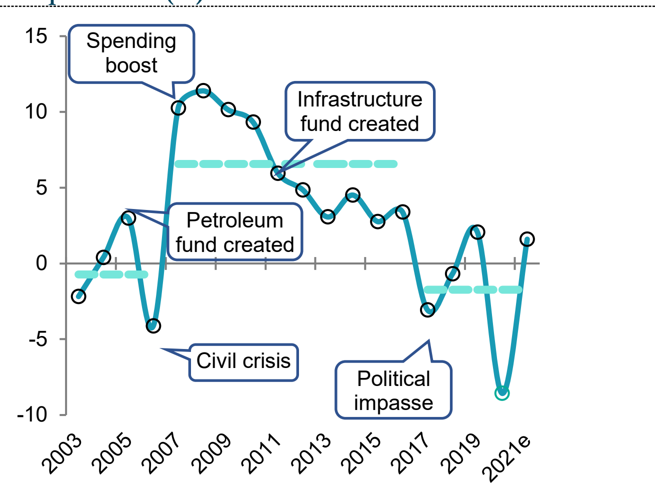
Albeit narrowing, there is a window of opportunity for the government to urgently implement the much-needed reforms in the next five years. There are several potential drivers for increased regional integration. These include the operationalization of the Tibar Bay port, the modernization of the Dili airport, the internet submarine cable installation, and the World Trade Organization (WTO) accession progress. Success requires a concerted and persistent government effort to address supply-side constraints, kick-start economic diversification, and boost export.

This report provides an in-depth analysis of Timor-Leste's economic performance in recent decades and proposes policies to enhance growth. It highlights two key interrelated constraints to sustained and inclusive growth: the 'missing' private sector and the need to tap into the growth-enhancing benefits of international trade. Given the diminishing returns of public investments, pursuing a sustainable development path will require a shift toward a more dynamic, private sector-driven growth model. Furthermore, with the right combination of a supportive enabling environment and trade policies, Timor-Leste could capitalize on incipient and established comparative advantages for its exports. Accordingly, the reforms to support private sector development and expand exports have the potential to boost Timor-Leste's international competitiveness and improve economic diversification.

Growth Performance and Constraints

Timor-Leste's growth over the last two decades can be divided into three periods (Figure 0.1). In the first period, 2003–2006, GDP growth averaged −0.9 percent due to a difficult set of circumstances at independence and the 2006 civil unrest. The second period, from 2007 to 2016, was characterized by the restoration of peace and a surge in public spending. As a result, growth averaged 6.6 percent. The third period, from 2017 to the present, shows a downward trend, largely due to political instability. Despite a small rebound in 2019, the adverse impacts of COVID-19 and natural disaster driven by Tropical Cyclone Seroja reinforced this downward trend with the economy shrinking to an average of −1.4 percent during the period.

Figure 0.1: Timor-Leste's growth path since independence (%)



Source: DG Statistics. Structural breaks analysis confirms the period choice.

The exploitation of offshore oil and gas reserves since 2004 has provided large resources for Timor-Leste to expand public services. The country has established an institutional framework for macroeconomic management that is anchored around its Petroleum Fund. Spending on economic infrastructure has helped achieve near universal access to electricity and improvements in the road network. Increased spending on health and education has led to some improvements in access to basic health care and school enrolment rates. Yet, despite one of the highest public spending per capita in the world, economic growth has been low and volatile, while development outcomes, including human capital and poverty, have fallen far short of the country's goals.

Timor-Leste's growth performance and prospects are shaped by a combination of its small-state challenges. Economic growth in small states such as Timor-Leste is hampered by modest domestic markets, economic isolation, lack of diversification, and vulnerability to shocks. These structural impediments are aggravated by institutional, infrastructure, and human capacity gaps that are inherent in newly independent nations. Added to these challenges are rising political instability and lack of policy predictability, especially since 2017. A combination of all these raises the costs and risks of private investment.

The structural challenges created by Timor-Leste's small-state characteristics, combined with capacity and reform gaps, raise the costs and risks of private investment. Capacity gaps reflect the shortages in basic human capital and infrastructure inputs. Reform gaps, on the other hand, reflect the institutions and policies needed to improve human capital and physical infrastructure as well as the basic foundations of macroeconomic management and the business environment. Timor-Leste's growth and its potential are weighed down by declining productivity growth and low factor accumulation. In turn, a combination of these factors lowers Timor-Leste's competitiveness and its ability to attract high-quality investments for growth.

Addressing these capacity and reform gaps to help overcome some of the challenges posed by Timor-Leste's small-state characteristics will require a concerted effort on getting the basic competitiveness pillars right. The handful of small states, including small island states that grew successfully (see Box 1.1 in the main text), all focused on the foundation of competitiveness. The economy cannot grow in a sustainable manner unless the *macroeconomic management* is stable. On the other hand, a well-developed *physical infrastructure* network is a prerequisite for the access of less-developed communities to core economic activities and services, while establishing an adequately skilled *human infrastructure* network is required to build the human capital needed to fuel the country's growth.[1] Further, the quality of *institutions, including the regulatory environment,* influences investment decisions and plays a key role in the ways societies distribute the benefits and bear the costs of development strategies and policies.

When assessed across these four dimensions of basic competitiveness pillars, Timor-Leste trails behind its peers. Despite having invested heavily in establishing basic institutions of public sector governance, recent political instability has created volatility in policy directions that damaged investment climate and investors' confidence. Timor-Leste also remains a fragile post-conflict nation with large infrastructure gaps. Transport, electricity, and internet infrastructure adversely affect firms' cost buildup and lower Timorese private sector competitiveness in the international markets. Finally, Timor-Leste's good track record of macroeconomic stability may be under threat as the country has only a limited time to bring its public finances on a sustainable footing. The threat of a fiscal cliff reduces the likelihood of achieving the country's economic diversification objectives as businesses will be averse to investing, given the prospect of disruptive economic and fiscal contraction in the near future.

The report argues that to overcome structural impediments to growth through private enterprise and trade, Timor-Leste needs to focus on filling gaps in foundational drivers of growth (Figure 0.2). This includes addressing fundamental macroeconomic, institutional, and infrastructure constraints. Macroeconomic stability is a concern due to the threat of a fiscal cliff. Furthermore, the shift in the growth model toward private investments requires policy and institutional reforms in business conditions with a focus on effective delivery of social services through both public and private sector entities. Investing in catalytic infrastructure with

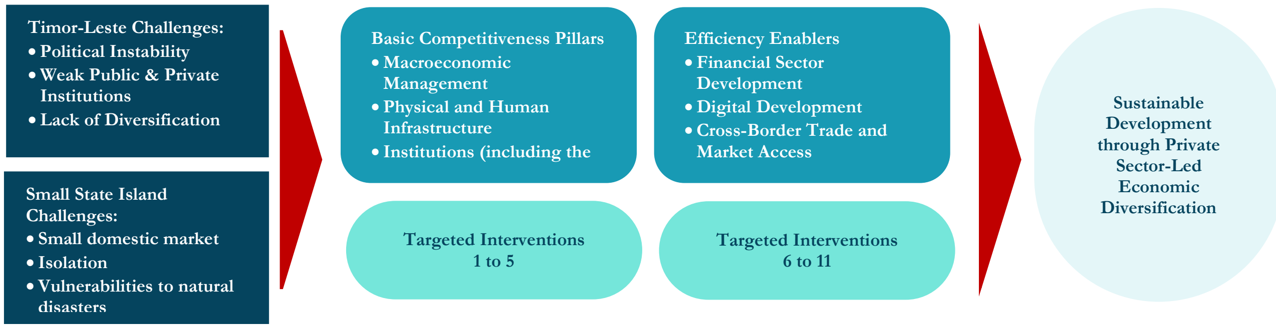
[1] One of the basic competitiveness pillars where this report does not offer in-depth new analysis is human capital, that is, the *basic health, nutrition, education, and social protection of the workforce*. While reference to building human capital is made in this CEM, the Timor-Leste Economic Reports June 2022 and December 2022 as well as the forthcoming Timor-Leste Human Capital Review report offer more comprehensive discussions on the matter.

particular attention to adequacy of operations and maintenance is also important. These efforts can then be complemented by targeted interventions that help provide a short-term boost to investment, production, and trade.

The report expands on this framework through three chapters:

- Chapter 1 diagnoses Timor-Leste's growth performance and how it relates to its small-state challenges. It analyzes what this implies for reforms to the foundational drivers of growth. These foundational drivers are binding constraints for private sector growth, which is discussed in Chapter 2.
- Chapter 2 drills down on the institutions and infrastructure that affect the operations, investments, and growth of private enterprises. These factors have an impact on the costs and risks of private investment and are therefore binding constraints for Timorese firms' ability to trade internationally, which is discussed in Chapter 3.
- Chapter 3 drills down further on institutional and policy constraints to participating in international trade. Given small domestic markets and remoteness from export markets, Timorese firms will need to integrate into international markets if it is to accelerate and sustain its long-term economic growth.

Figure 0.2: Framework for Timor-Leste Country Economic Memorandum: Pathways to economic diversification



Source: Authors' adaptation from Global Competitiveness Index (GCI) Framework.

Disadvantages Faced by Small States

Timor-Leste's small domestic markets mean that it is more difficult for private sector firms to benefit from economies of scale and agglomeration economies. As discussed in Chapter 2, Timorese firms tend to be small with little growth over time. While most small states can achieve economies of scale in their export sectors by exploiting the demand of bigger trading partners, the constraints arising from the countries' remoteness mean that imported inputs to domestic production processes are more expensive. This is also true for the costs associated with exporting to the rest of the world, as discussed further in Chapter 3. The small countries' exports tend to be uncompetitive on global markets while exports as a proportion of GDP are relatively low. Consequently, small country manufacturing sectors, Timor-Leste being no exception, have generally remained modest in size.

Timor-Leste and other small states also tend to have a narrow economic base and high exposure to external shocks. Timor-Leste's economy is relatively insulated from external shocks due to limited trade and financial integration in the region. However, global conditions may still affect its economy through some channels. For example, high international commodity prices—especially food—have a considerable impact on the purchasing power of (poorer) households. Since domestic productive capacities are low, including in agriculture, much has to be imported into the country. Additionally, the performance of the US dollar, the legal tender of the country, against the currencies of Timor-Leste's main trading partners has an important effect on the real effective exchange rates, which, in turn, influences international competitiveness. Depressed international stock markets would affect the Petroleum Fund's investment returns through negative revaluations. Finally, unless new producing fields are online, moribund production means that the trend of hydrocarbon prices would only have limited impact on the economy.

Small states, especially the developing ones, are disproportionately vulnerable to natural disasters. There have been at least 14 natural disasters of various types since 2001 in Timor-Leste. Most recently, the heavy rainfalls resulting from Tropical Cyclone Seroja in 2021 caused large-scale landslides and floods across the country, especially in the capital Dili, leaving about 31,000 people without homes. Greater exposure to disasters has important macroeconomic effects, resulting in lower investment, lower GDP per capita, and a more volatile revenue base. Nevertheless, Timor-Leste and other small states are projected to face much larger economic costs from climate change than larger peers. The impact on important economic sectors such as agriculture, tourism, or fishing and pressures on ecosystems could exacerbate poverty.

Small states can however compensate for their size-related problems by taking steps to exploit their advantages and offset their disadvantages. Small economies are not necessarily limited in their development potential. Various empirical research found that per capita growth of small states does not differ systematically from that of other states. Small economies may yet have different developmental challenges than large economies, which accordingly require different policy responses. Conversely, some of the small states have been able to overcome certain size-related challenges and accelerated economic growth in a sustained manner. A common lesson learned from these high-performing countries is that while size does create constraints, effective policies can help overcome the constraints.

A 'Missing' Private Sector

Timor-Leste has limited private sector participation in the economy and failed to attract the entry of high-productive firms. There are less than 7,000 registered firms[2] that are predominantly low-productive micro and small firms. Furthermore, due to its relatively small economy and market potency, Timor-Leste was only able to attract the entrance of low-productive firms. These new entrants have had slightly lower productivity compared to incumbents. At the same time, foreign investments have remained low for the past 20 years despite a liberal approach to foreign direct investment (FDI). The large presence of micro and small firms and inability to attract productive new entrants have resulted in a significant lower average productivity compared to firms in peer countries. Improvements in recent years to the licensing regime, construction and import permits, and the existence of a one-stop-shop corporate registry have not stopped the declining dynamism within the private sector.

Businesses face a range of obstacles, with political instability, access to finance, and electricity being the most binding. These constraints are primarily driven by a weak institutional, legal, and regulatory framework. Weak public and private institutions fail to actively engage in policy formulation to address the constraints. Large and ineffective public spending has also inhibited structural change toward more productive private sector activities. Political instability in Timor-Leste is perceived as the biggest obstacle to firms' operating environment, eroding investor confidence, and resulting in economic uncertainty. This explains, among others, the extremely low share of firms taking long-term risks in Timor-Leste, with only 8 percent training their workforce, 4 percent introducing a new product/service, 2 percent adopting a process innovation, and less than 20 percent investing in fixed assets. These so-called 'forward-looking' investments are a fraction of the levels in regional comparators. The absence of these investments will eventually jeopardize Timorese firms' active participation in the market economy.

There is an acute risk-return trade-off dilemma in Timor-Leste. It is difficult to assert whether it is the unpredictable business environment or the lack of market opportunities that most inhibits 'forward-looking' investments. Recent regulatory improvements as well as open FDI and trade regimes are not enough to attract productive activities. Three-quarters of firms in the country have a bank account but only 8 percent access credit. About 62 percent of firms do not consider that they need a loan, and 48 percent of firms that consider applying do not apply for various reasons, including high-interest rates, strenuous collateral requirements, or

[2] The informal economy is large yet formal firms in Timor-Leste did not perceive them as main business constraints in 2021. These two groups may be catering to two distinct consumer markets.

complex procedures. Thus, almost all firms rely on internal funds to finance their investment and working capital needs. Limited access to finance and the use of formal financial services negatively affected firms' performance. These circumstances will lead to a 'chicken-and-egg' situation in which firm investment decisions in Timor-Leste depend on whether a significantly improved business environment or latent market opportunities should come first.

Disconnection from Regional and Global Markets

Over the past two decades, Timor-Leste has not been able to avail the growth-enhancing benefits of international trade and the opportunity to integrate into regional and global markets. The export base is narrow, while diversification remains a major challenge. Timor-Leste still relies on a handful of products and services as the main source of export revenue. Hydrocarbons accounted for nearly 95 percent of exported goods with coffee as the only non-oil export and the remaining contributor.[3] Export of services, which accounted for less than 4 percent of total exports, is mainly driven by tourism.[4] Export potential is constrained by a weak private sector, limited institutional capacity, and persistent economic vulnerabilities. These, in turn, lead to below potential exports, a persistent trade deficit, and susceptibility to commodity price volatility.

The dynamism of exporting firms is constrained by the lack of a supportive business environment and weak trade facilitation performance. Although Timor-Leste is shown to have more exporters that are larger than comparators of similar development and size, these exporters are also more concentrated and exhibit lower entry, exit, and survival rates. These findings suggest that Timor-Leste has a business environment with high entry and exit costs which discourages firms from participating in exporting activities. However, once these firms enter export markets, they are quite competitive and have higher success rates. With low entry and exit rates, larger and more productive incumbents remain in the market, limiting the dynamism of exports.

Timor-Leste is currently pursuing an ambitious trade policy reform and integration agenda which combined with targeted policies to address supply-side constraints has the potential to help boost exports and diversification. Timor-Leste is committed to joining several important subregional, regional, and multilateral trade partnerships such as the Association of Southeast Asian Nations (ASEAN), the European Union (EU)-Pacific Economic Partnership Agreements (EPAs), and the WTO. Membership in these fora will translate into improved market access opportunities for the private sector. On the other hand, these integration efforts require Timor-Leste to address remaining trade-related distortions in its domestic markets, make progress toward a more stable and predictable trading environment, and anchor its commitments in economywide reforms.

At the crossroads of defining a national trade strategy as part of accession to the WTO and ASEAN, there is an increasing risk of protectionism. Despite ambitious integration efforts and long-standing open trade policies, the 2020 Economic Recovery Plan (ERP) highlighted the need for import substitution and protection of domestic infant industries through an increased use of trade barriers and import controls, aimed to protect local companies from competition from imported products. Import substitution, however, will require scaling up domestic production. Given the importance of imports for exports, there is a tension between the government's policy objectives of import substitution and infant industry protection, on the one hand, and export growth and diversification goals, on the other. Protectionism is not in the best interest of a small open economy such as Timor-Leste that relies greatly on international trade for imports of goods and services that it cannot produce domestically as well as a source of export revenues. The development of domestic productive capacities will be crucial for fostering diversification and structural transformation in the country.

[3] The value of total good exports was US$458 million in 2021, with coffee contributing less than US$30 million.

[4] According to the balance of payments (BoP) data from the Central Bank of Timor-Leste (BCTL), the pre-pandemic value of total exports was US$508.3 million (2019). The value of total service export was US$91.1 million. Receipts from the tourism sector were recorded at US$70.5 million.

Options for Reforms and Targeted Interventions

Ensuring fiscal sustainability through fiscal consolidation is essential to avoid the fiscal cliff and safeguard the perpetuation of government spending to support economic growth. The exceptionally high budget deficit has resulted in heightened concern on macroeconomic stability. Despite the receding impact of the pandemic, government spending has not returned to the pre-COVID 19 levels. Combined with the low level of domestic revenue, fiscal sustainability continues to be a major concern for the country as the current flow of petroleum revenue is projected to cease in early 2023. Fiscal sustainability should be secured through fiscal consolidation and the commitment to stop relying on excess withdrawals from the Petroleum Fund. Fiscal consolidation, in turn, should be supported by revenue mobilization and expenditure rationalization. A fiscal strategy to stop relying on excess withdrawals should be laid out while procedures for undertaking extra withdrawals from the Petroleum Fund need to be made harder. On the other hand, the quality of spending needs to be improved to enhance the productive capacity of the economy and protect the poor.[5]

Improving institutions and infrastructure in Timor-Leste is critical to strengthen private sector competitiveness. Better institutions, law and regulations, and lower costs of key infrastructures nationwide or within a discrete dedicated areas (such as special economic zones [SEZs]) are essential to determine the location of economic activity, particularly in sectors for which Timor-Leste has attractive endowments. Additionally, encouraging sectoral policies in tourism, agricultural processing, and manufacturing to mobilize private capital can pave the way for private sector-led growth. The government should focus on high-return public investment (including public-private partnerships [PPPs]) grounded in rigorous appraisal processes and competitive procurement and bidding processes to enhance the quality and management of key economic infrastructures. To reduce regulatory uncertainty, the government should continuously engage with the private sector throughout the policy-making process and reform implementation. The openness, stability, transparency, and predictability of investment and trade regimes can be improved by, among others, establishing public-private dialogue platforms (for example, Tourism Board and National Trade Consultative Forum) and developing instruments of collaboration (for example, inter-ministerial coordination bodies and Trade Information Portal [TIP]) and coordinated investment mechanisms (for example, integrated master plans and Tourism Fund). Furthermore, the government should proactively establish a well-functioning property database of state-owned lands to promote leases to investors (through either individual-purpose plots or agglomeration economies in dedicated SEZs) to attract private capital, particularly FDI.

Beyond physical infrastructure, Timor-Leste's human capital crisis calls for developing the skills of the current workforce to meet firms' needs and the building basic human capital that translates the country's youth bulge into a demographic dividend. A lack of skills has been highlighted as one of the main cross-cutting constraints to private sector development and export growth, including in the 2010 Diagnostic Trade Integration Study (DTIS), while cross-country evidence suggests that for commodity exporters such as Timor-Leste, the most important capacity for boosting trade diversification is human capital accumulation. Thus, building an enabling environment for human capital accumulation and labor market opportunities for its current cohort of students and children is imperative for Timor-Leste, alongside the skills strengthening of its current working-age population. Moreover, without an adequately healthy, educated, and productive population, Timor-Leste's demographic transition may give rise to socially and economically destabilizing conditions. Investing in human capital also enhances social cohesion and equity. Key priority areas for human capital development would include (i) investments in primary and specialist health care and nutrition to improve the health and productivity of Timor-Leste's population in the long term; (ii) renewed efforts to address the learning crisis that focus on the quality of education spending, including the skills development of the current workforce; and (iii) rebalancing the social protection system toward those who need it most.

With the right combination of a supportive enabling environment and trade policies, Timor-Leste could capitalize on incipient and established comparative advantages. In addition to coffee and tourism, Timor-Leste maintained significant comparative advantages for exports of seaweeds, vegetable materials, and densified wood and developed new ones for copra and vanilla. Based on the current production possibility

[5] The World Bank (2021). Timor-Leste Public Expenditure Review report identifies large ticket expenditures that could be reduced.

frontier, top agricultural export opportunities with high diversification potential are cocoa beans, coconut oil, raw sugar, fish products, processed fruits and nuts, and tapioca. Products with higher value added and higher complexity with diversification potential are cereals, flour, starches, edible animal byproducts, vegetables, fruits and nuts, and beverages. In terms of manufactures, products close to existing production capabilities are cotton, wood and articles of wood, apparel, and clothing accessories, and farther from current capabilities are products such as carpets, footwear, pulp of wood and other fibrous cellulosic material, and textile rags.

The government can encourage business dynamism and efficiency in financial markets through various initiatives. These include (i) piloting blended finance schemes to fund investment-worthy ventures that requires longer term or patient capital (for example, establishment of an equity funding facility), (ii) strengthening the resilience of businesses against the adverse impacts of climate-related events (for example, introduction of disaster risk financing and insurance products), and (iii) incentivizing increased financial intermediation and greater outreach of financial sector to bankable firms (for example, through partial credit guarantees). The digital economy as a key driver for growth and innovation, on the other hand, can be further supported by (i) increasing the adoption and scale of digital financial services (DFS) (for example, new use-cases for electronic and digital payments in partnerships with Government), (ii) improving digital connectivity through PPP arrangements (for example, submarine fiber optic cable roll out), and (iii) supporting the development of a vibrant digital ecosystem (for example, e-Government services at the business registry, digital skills training, and entrepreneurship programs).

Ensuring an open, stable, transparent, and predictable trade regime, combined with targeted reforms on tariffs, non-tariff measures (NTMs) and trade facilitation will remove remaining trade policy constraints to realizing the potential of exports. First, at the currently applied 2.5 percent, tariffs generate little revenue and are not protecting domestic producers. Coupled with the high administrative costs associated with their collection, the full elimination of tariff barriers could be beneficial domestic producers and consumers and would not lead to a surge in imports. Second, although currently the use of NTMs in Timor-Leste remains limited, as part of accession to the WTO, Timor-Leste designed a 5-year action plan for the implementation of the WTO Agreement on Technical Barriers to Trade (TBT) and WTO Agreement on Sanitary and Phytosanitary (SPS) Measures. Complying would include designing and implementing the appropriate legislation, regulatory framework, technical regulations, standards and conformity assessment procedures. In turn, to improve market access in top destinations, Timorese exporters will need to meet and satisfy non-tariff requirements pertaining to conformity, quality, testing and labelling of its export products. These NTMs likely hinder Timorese firms' participation in the export markets due to a lack of capacity to comply or bear the costs associated with compliance.

With looming Parliamentary elections and the potential accession to ASEAN, Timor-Leste is at a critical moment. The time for reform is now. This report identifies two critical aspects to adjusting the country's trajectory through private sector development and the need to realize its export potential. The necessary reforms for how to address those two agendas are set out in more detail in Table 0.1 and in the main text of the report.

Summary of the Recommendations

Table 0.1 presents a set of 11 key recommendations across all reform areas with simplified description of the proposed recommendations and their respective counterparts. The detailed measures for each recommendation can be found in the corresponding chapter.

Table 0.1: Summary of the recommendations

Reform area		Overarching recommendations	Timeline	Counterparts
Macroeconomic management	**1.**	**Ensure fiscal sustainability through fiscal consolidation to avoid fiscal cliff and safeguard the perpetuation of government spending to support economic growth (see Chapter 1)**	0–1 year	MOF
Physical and human infrastructure	**2.**	**Increase the quality and management of key economic infrastructures though coordinated and sound public investments including PPPs to boost economic competitiveness and attract FDI (see Chapters 1, 2, and 3).**	0–2 years	MOF with relevant line ministries
	3.	**Strengthen the skills of the current workforce and invest in basic human capital to capitalize on the youth bulge and build a future demographic dividend by investing in education, health, nutrition, and social protection (see Chapters 1 and 2).**		
Institutions (including the regulatory environment)	**4.**	**Reduce regulatory uncertainty and increase the openness, stability, transparency, and predictability of the investment and trade regimes by systematically involving the private sector in the formulation, delivery, and monitoring of business-enabling and sectoral reforms (see Chapters 2 and 3).**	0–1 year	COM, MCAE, MTCI, MJLP, IMCTD, MOF, MAF
	5.	**Attract private capital with a well-functioning public land lease system for investors, particularly FDI, and alternative dispute resolution (see Chapters 2 and 3).**	1–3 years	MJLP, MOF, TradeInvest, MCAE, MTCI, MTC, IMCTD
Financial and digital development	**6.**	**Increase financial intermediation and greater outreach of the financial sector to bankable firms with the establishment of a partial credit guarantees scheme (see Chapter 2).**	0–1 year	BCTL, MTCI, MOF, BNCTL
	7.	**Conduct a digital economy diagnostic while piloting new use cases for electronic and digital payments—such as digitizing social assistance transfers or establishing special electronic payment zones—to increase adoption and scale of DFS (see Chapter 2).**	0–1 year	BCTL, MOF, MSSI
	8.	**Encourage private sector risk taking and investments in productive and export-oriented activities with the development of non-debt financial instruments (for example, equity financing facility, secure transactions registries, disaster risk financing & insurance) while mitigating adverse impacts of climate-related events (see Chapter 2).**	1–3 years	MOF, BCTL, MTCI
	9.	**Build on foundational digital connectivity pillar and support the development of other digital economy requirements (e-government platforms including business registry, digitally enabled businesses, and digital skills) and the emergence of a private sector-led digital ecosystem (see Chapters 1, 2, and 3).**	1–3 years	MCAE, MTC, MOF, MTCI, TIC Timor, IADE
Cross-border trade and market access	**10.**	**Improve the efficiency of border processes and reduce the time and costs of trading, in line with the WTO Trade Facilitation Agreement (TFA) (see Chapter 3).**	1–3 years	MOF, MTCI, MOA, MCAE, NTFC
	11.	**Prepare for the implementation of WTO Agreement on SPS Measures and TBT and develop nondiscriminatory regulations, standards, and compliance procedures (animal health and food safety) in line with international standards (see Chapter 3)**	1–3 years	MAF, MoH, MTCI, AIFAESA, MOF, MoH

Note: Priority recommendations are presented in bold. AIFAESA = Authority for Inspection of Economic Sanitary and Food Activities; BCTL = Bank Central of Timor-Leste; BNCTL = Banco Nacional de Comercio de Timor-Leste; COM = Council of Ministers; Customs = Directorate General of Customs of MOF; IMCTD = Inter-Ministerial Commission for Tourism Development; IADE = Institute of Enterprise Development; MAF = Ministry of Agriculture and Fisheries; MCAE = Coordinating Ministry of Economic Affairs; MJLP = Ministry of Justice, Land, and Property; MOEYS = Ministry of Education, Youth, and Sport; MOF = Ministry of Finance; MoH = Ministry of Health; MOPW = Ministry of Public Work; MSSI = Ministry of Social Solidarity and Inclusion; MTC = Ministry of Transport and Communications; MTCI = Ministry of Tourism, Commerce, and Industry; NTFC = National Trade and Facilitation Committee; SERVE = Service for Registration and Verification of Entrepreneurship; TIC Timor = Information Technology and Communication Agency.

CHAPTER I: OVERVIEW OF TIMOR-LESTE'S ECONOMIC PERFORMANCE

1.1. Introduction and Country Context

a. Motivation and Framework for the Country Economic Memorandum

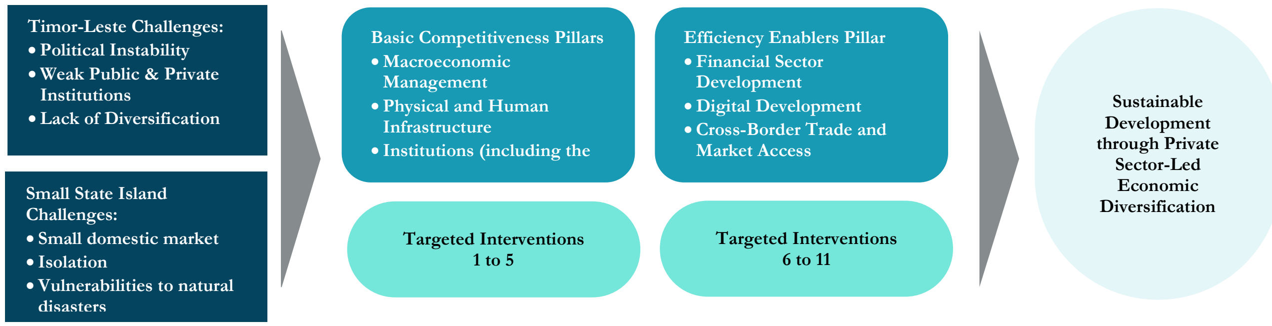
Timor-Leste has made important development gains since independence in 2002, yet low and volatile economic growth has weighed on its performance and potential. The exploitation of offshore oil and gas reserves since 2004 has provided large resources to expand public services. Timor-Leste has established a sound institutional framework for macroeconomic management that is anchored around its Petroleum Fund. Spending on economic infrastructure has helped achieve near universal access to electricity and improvements in the road network. Increased spending on health and education has led to some improvements in access to basic health care and school enrolment rates. Yet, despite one of the highest public spending per capita in the world, economic growth has been low and volatile, while development outcomes, including human capital and poverty, have fallen far short of the country's goals.

Timor-Leste's growth performance and prospects are shaped by a combination of its small-state challenges, its post-conflict legacy, and the extent to which policy reforms can overcome or minimize these challenges. Economic growth in small states such as Timor-Leste are hampered by modest domestic markets, economic isolation, lack of diversification, and vulnerability to shocks. These structural impediments are aggravated by institutional, infrastructure, and human capacity gaps that are inherent in newly independent nations. Added to these challenges are rising risks driven by political instability and lack of policy predictability, especially since 2017. A combination of all these raises the costs and risks of private investment. They call for a strategy that is focused on getting the basics right. That means prioritizing, above all else, the macroeconomic, institutional, human capital, and infrastructure foundations of growth.

The Timor-Leste Country Economic Memorandum (CEM) analyzes binding constraints to growth through private enterprise and international trade (Figure 1.1). The report argues that to overcome structural impediments to growth through private enterprise and trade, Timor-Leste needs to focus on filling gaps in foundational drivers of growth. Other areas of structural reform will be important but will only begin to matter more for growth only after basic macroeconomic, institutional, infrastructure, and human capital constraints are addressed. At the same time, given that these structural reforms take time to embed, there may be space for targeted interventions that help provide a short-term boost to investment, production, and trade. The report expands on this framework through three chapters:

- Chapter 1 diagnoses Timor-Leste's growth performance and how it relates to its small-state challenges. It analyzes what this implies for reforms to the foundational drivers of growth. These foundational drivers are binding issues for private sector growth, which is discussed in Chapter 2.
- Chapter 2 drills down on the institutions and infrastructure that affect the operations, investments, and growth of private enterprises. These factors impact on the costs and risks of private investment and are therefore binding issues for Timorese firms' ability to trade internationally, which is discussed in Chapter 3.
- Chapter 3 drills down further on institutional and policy constraints to participating in international trade. Given small domestic markets and remoteness from export markets, Timorese firms will need to integrate in international markets if it is to accelerate and sustain its long-term economic growth.

Figure 1.1: Framework for Timor-Leste Country Economic Memorandum



Source: Authors' adaptation from Global Competitiveness Index (GCI) Framework.

b. Country Context and History

Timor-Leste is a small island nation located on the edge of Southeast Asia. A former Portuguese colony and previously known as East Timor, Timor-Leste's neighbors are Indonesia and Australia. With a population of 1.3 million (Census 2015), Timor-Leste occupies the eastern half of the island of Timor in the Timor Sea and includes two additional small islands (Atauro and Jaco) and Oecusse, a small coastal enclave in the western half of Timor Island. Oecusse was among the first parts of the island of Timor on which the Portuguese established themselves, and is thus usually considered the cradle of Timor-Leste. The terrain of the country is mountainous, and it has a tropical climate with distinct wet and dry seasons. It measures 14,874 km^2 and has 706 km of coastline. Population density is relatively low, although rapidly increasing. Most Timorese live in the western portion of the country, which includes the capital, Dili (Census 2015).

Timor-Leste is the newest country in Asia and one of the world's youngest nations. Between 1702 and 1975, the territory—comprising modern Timor-Leste—was occupied by Portugal. After Portugal's internal revolution in 1974, it effectively abandoned its Timor territory. The local population, led by the Revolutionary Front for an Independent East Timor (FRETILIN), declared independence on November 28, 1975. Ten days later, Indonesia invaded and annexed Timor-Leste. The Timorese people vigorously opposed Indonesian rule, mounting a resistance movement that would span three decades. On August 30, 1999, the Timorese people overwhelmingly voted for independence in a Population Consultation through a process administered by the United Nations (UN). Following a period of UN administration, on May 20, 2002, the Democratic Republic of Timor-Leste (henceforth Timor-Leste) formally regained its independence.

Despite making good progress in nation building since its independence, the legacy of a long, devastating, and recent conflict remains. The formation of the new country was accompanied by a near-total collapse of both the public and private sectors. As a result of action by withdrawing Indonesian forces, 70 percent of government buildings, telecommunications and electricity networks, and all equipment at airports and ports were destroyed after the vote for independence. Few Timorese had significant experience in government, and the number of professionals and the population's general level of formal education were extremely low. From 2002 to 2006, the nation struggled to accelerate development progress, lacking much of the state apparatus, capacity, and resources needed to do so. Over the period, sporadic outbreaks of violence continued, and dissatisfaction with government grew, culminating in an attempted coup in 2006 and widespread violence. Following the cessation of violence, a new UN peacekeeping mission was established, and Xanana Gusmão took over as Prime Minister. Thereafter, security in the country has steadily improved, with disturbances confined to the activity of small-scale conflict between 'martial arts' gangs in urban areas.

Timor-Leste's fragility is evident in its weak institutions. At the time of independence, the only two institutions that were functioning were the church and the liberation movement. All government functions were undertaken by the UN missions.[6] After a brief interlude, the UN returned as a peacekeeping mission from 2006 until 2012. Twenty years later, while the government largely fulfils its security functions, institutional and

[6] United Nations Transitional Administration in East Timor (UNTAET, 1999 until 2002) and United Nations Mission of Support to East Timor (UNMISET, 2002 until 2005).

policy ambiguity is apparent in many sectors. Weak institutional frameworks not only impede the capacity of service delivery and the ability of the private sector to develop but also reduce the scope for capacity building, which is much more difficult in an ambiguous institutional environment. As a result, Timor-Leste remains on the harmonized list of fragile states for the multilateral development banks with a Country Policy and Institutional Assessment (CPIA) rating of 2.8 out of 5.0 in 2021.

Notwithstanding heavy investment in establishing basic institutions of public sector governance, recent political instability in Timor-Leste has created volatility in policy direction that damaged investment climate and adversely affected the economy. The lack of political agreement prevented the adoption of a supplementary budget in 2017 and delayed the approval of the 2018 budget. The impasse also postponed political decisions associated with the development of the oil industry and the medium-term public capital spending program. The political stalemate further compressed budgets preparations and resulted in the two consecutive economic downturns since 2006 and a halt to key economic reforms.

Timor-Leste quickly became one of the most oil-dependent countries in the world, but oil revenues are ceasing while fiscal cliff is looming. The offshore oil and gas sector became the country's largest source of income and at its peak made up over 90 percent of exports and 95 percent of government revenues. Timor-Leste was successful in securing a good share of the proceeds of petroleum production and saving it for the benefit of current and future generations in the form of the country's Petroleum Fund. Petroleum revenues have been flowing in, building up the balance to close to US$20 billion. Over the past decade, however, government spending has been above the level indicated as sustainable by the Petroleum Fund Law—domestic revenue plus the Estimated Sustainable Income (ESI).[7] As petroleum revenues declined, the government began spending more than it earns with an overall budget deficit reaching over 50 percent of non-oil gross domestic product (GDP) in 2016. As the capital is eroded and investment earnings fall, the Petroleum Fund balance will rapidly decrease if the fiscal deficit remains large. Without a carefully managed economic and fiscal transition, Timor-Leste is heading for a damaging fiscal cliff by 2035 (Ministry of Finance [MOF], 2023 Pre-Budget-Statement).

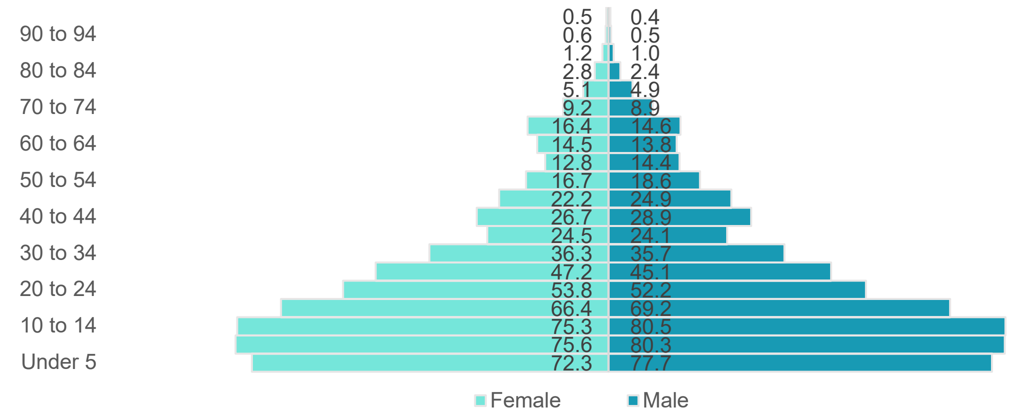
Timor-Leste is still recovering from a long history of autocratic foreign rule and war. Although poverty declined significantly from 2007 to 2014, the lack of more recent data poses a challenge to fully understand the current condition. The poverty rate at the national poverty line fell from 50.4 percent in 2007 to 41.8 percent in 2014. Measured using an internationally comparable poverty line of US$1.90 per person per day (2011 purchasing power parity), the poverty rate declined even more from 37.4 percent in 2007 to 22 percent in 2014. The latest poverty measurement was produced using Timor-Leste Survey of Living Standard (TL-SLS) 2014, and the General Directorate of Statistics of the MOF plans to conduct the next TL-SLS in 2023. This decade-long gap of poverty measurements also creates challenges for stakeholders to fully understand the current condition of poverty in Timor-Leste.

Nearly 60 percent of its 1.3 million population is younger than 25 years, with the median age at 18.5 years (in 2015). Only 8.2 percent of the population is older than 60 years (Figure 1.2). The total fertility rate, according to the 2015 Census, is on average 4.5 children per woman, although the rate has been declining in recent years.[8] According to projections, the scenario will change slowly, with dependency ratios staying low for decades to come (Table 1.1). Life expectancy at birth is increasing at an impressive speed, rising from 60.2 years in 2001 to 68.2 in 2014—an improvement of more than six months per year. The majority (70.5 percent) of the population lives in rural areas. The urban population is concentrated in the capital, Dili, the most populous municipality in the country with 70 percent of the urban population. The average household has 5.7 members. Only 16 percent of households are headed by women.

[7] The ESI, a form of fiscal rule, is set at 3 percent of petroleum wealth, which consists of the Petroleum Fund balance and the projected net present value of future petroleum revenues. The ESI is only updated once a year as part of the main budget process. The government can withdraw an amount from the Petroleum Fund in excess of the ESI if that it is in the long-term interest of Timor-Leste and that it is approved by the National Parliament. Parliament has yet to reject a request for excess withdrawals.

[8] Specifically, 3.2 live births per woman for urban areas and 5.1 for rural areas.

Figure 1.2: Timor-Leste's Population, by age group (thousands)



Source: Census 2015

Table 1.1: Expected demographic development in Timor-Leste, 2015–2100

Dependency ratio	2015	2030	2050	2100
Total dependency ratio	95.3	85.1	68.8	73.4
Child dependency ratio	82.0	73.1	55.4	32.4
Old-age dependency ratio	13.3	12.3	13.3	40.9

Source: UN 2015.

Note: **Total dependency ratio, in percent:** the proportion of dependents (0–14 years and 60 years or older) to the total working-age population (15–59 years). The total dependency ratio is the sum of the child and old-age dependency ratios. **Child dependency ratio, in percent:** the proportion of child dependents (0–14 years) to the total working-age population. **Old-age dependency ratio, in percent:** the proportion of elderly dependents (60 years or older) to the working-age population.

Although the growth of Timor-Leste's working-age population is declining due to the lower fertility rate, 36.4 percent of it comprised the young (15 to 24 years) in 2020.[9] In a country with a youth bulge, as the young adults enter working age, the dependency ratio will decline.[10] If the increasing number of working-age individuals can be fully employed in productive activities, other things being equal, the level of average income per capita should increase as a result. The youth bulge will become a demographic dividend. On the other hand, if a large cohort of young people cannot find employment and earn satisfactory income, the youth bulge will become a demographic bomb, because a large mass of frustrated youth is likely to become a potential source of social and political instability. Thus, one basic measure of a country's success in turning the youth bulge into a demographic dividend is the rate of youth not in employment, education, or training.

Timor-Leste has a large number of young people who are 'at risk'. Based on the 2015 Census, 24 percent of the population ages 15–24 years never attended school. Additionally, although youth educational attainment was improving, it was still limited, with 40 percent of the young adults not completing secondary school. Further, the illiteracy rate of youth population in 2015 was 15.7 percent. The other potential problem is early parenthood, which is often associated with low educational attainment and difficulty in entering the labor force. Timor-Leste also suffers from severe child malnutrition, and nearly half of all Timorese children under five are stunted. This is a considerably higher figure than that of its peers with a similar income level.

In addition to improving the supply-side readiness of Timor-Leste's workforce, it is essential to create demand for labor that would absorb the new entrants to the workforce. Such a shift in demand can be achieved only by a dynamic change in economic structure. Countries that have been successful in this regard move from a high share of employment in agriculture toward an increasing share of employment in manufacturing first and then gradually to the service sector in the post-industrialization stage. Generally, this structural change is accompanied by rural-urban migration, and it usually starts in labor-intensive

---

[9] World Bank Development Indicator database.

[10] A country experiences youth bulge when it has a large population of young people (15 to 24 years) and is a common phenomenon in developing and least-developed countries. It often occurs in a stage of development where a country has successfully reduced infant mortality, but mothers still have a high fertility rate, resulting in a large share of the population comprising young adults and children (who are future young adults).

manufacturing. In the case of Timor-Leste, a diversified economy that allows for job creation necessitates the growing and dynamic private sectors to complement government spending. In particular, an employment-focused strategy to certain private sectors with higher employment is urgently needed.

Throughout this report, Timor-Leste will be systematically benchmarked against relevant peers to gain insights into areas where reforms could help promote sustained growth. The CEM uses a set of regional, structural, and aspirational peers. Most of the countries in the East Asia Pacific are however not comparable to Timor-Leste due to considerable diversity in size of the population and level of development, proxied by GDP per capita. Regional peers include the Pacific Island countries to which Timor-Leste may consider looking for policy inspiration. A data-driven approach was then used to identify structural and aspirational peers. Structural peers are defined as fragile and conflict-affected countries that have similar structural characteristics to Timor-Leste: Comoros, Sao Tome, and Solomon Islands.[11] Aspirational peers are countries that have set a good development precedent and which Timor-Leste may aspire to emulate. These include Botswana, Cabo Verde, Mauritius, Guyana, and Bhutan. These countries have been able to grow faster than Timor-Leste, despite their similar initial structural conditions (see also Appendix 1.1 and Box 1.1).

1.2. Growth in Timor-Leste and Other Small States

a. Structural Constraints to Growth in Small States

Timor-Leste's small island characteristics pose significant constraints to its economic performance (Figure 1.3).[12] The constraints include lack of connectivity and relative remoteness from international markets,[13] lack of scale due to small land areas and populations, fragmentation through the dispersion of population and production, and environmental fragility. Small domestic markets mean that it is more difficult for firms to benefit from economies of scale and agglomeration economies. As discussed in Chapter 2, Timorese firms tend to be small with little growth over time. While most small states can achieve economies of scale in their export sectors by exploiting the demand of bigger trading partners, the constraints arising from remoteness mean that imported inputs to domestic production processes in such countries are more expensive. This is also true for the costs associated with exporting to the rest of the world, as discussed further in Chapter 3. Thus, the exports of small countries tend to be uncompetitive on global markets while exports as a proportion of GDP are relatively low. Consequently, the manufacturing sectors of small countries, Timor-Leste being no exception, have generally remained insignificant in size.

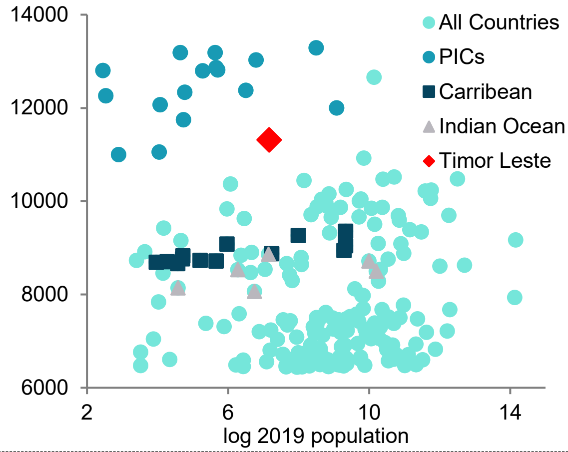
Despite geographical proximity with Australia and Indonesia and relatively low barriers to trade in terms of tariffs (Figure 1.4), Timor-Leste's level of integration into the global shipping network is limited. Timor-Leste has a lower index of connectivity than small and especially remote Pacific Island countries (Figure 1.6). This may be attributable to long-standing capacity and maintenance issues in the Dili port, which is the country's main and only international port of entry. A recently opened new container seaport in Tibar, around 16 km from Dili, is expected to have capacity for 1 million container shipments annually, which would allow Timor-Leste to access broader export markets more competitively.

[11] The World Bank's list of the fragile and conflict-affected countries distinguishes countries based on the nature of issues they face. The classification uses the following categories: (i) countries with high levels of institutional and social fragility, identified based on indicators that measure the quality of policy and institutions and manifestations of fragility, and (ii) countries affected by violent conflict, identified based on a threshold number of conflict-related deaths relative to the population.

[12] Small states are defined as countries with populations of 2.5 million or less.

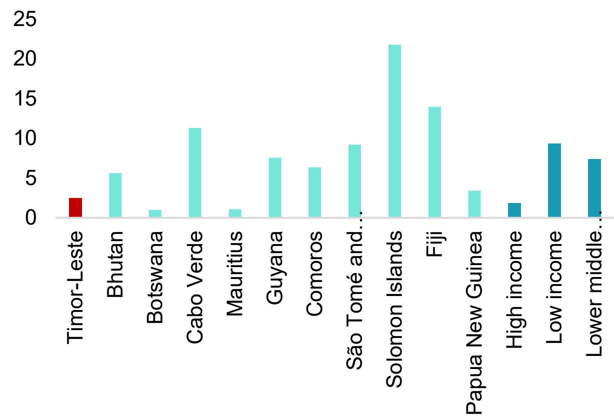
[13] At an average distance of 6,923 km from world markets, Timor-Leste's remoteness is much higher than most of its structural and aspirational peers at 5,590 km. The indicator measures the trade-weighted average minimum distance for a country to reach a 50 percent of the world market.

Figure 1.3: Smallness and remoteness as geographical challenges for Timor-Leste (average distance to market, km)



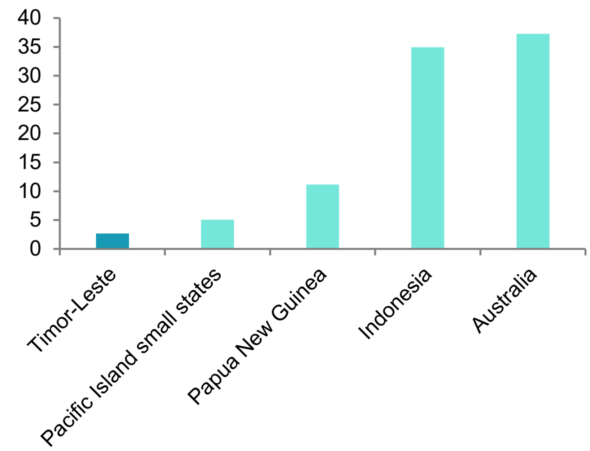
Source: World Development Indicators (WDI).

Figure 1.4: Barriers to trade are especially low in Timor-Leste (%, applied tariff rate, weighted mean, all products)



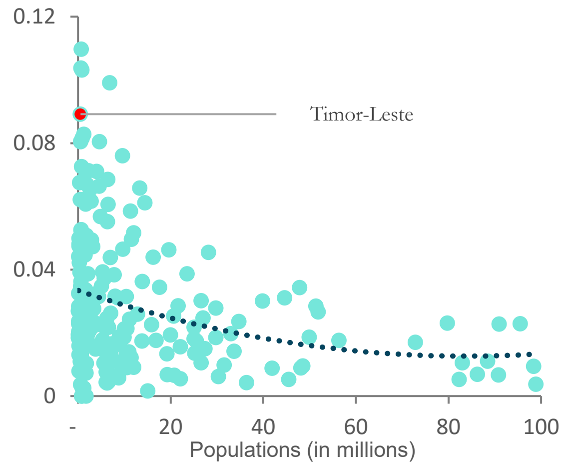
Source: World Development Indicators (WDI).

Figure 1.5: Despite proximity to major markets, Timor-Leste's liner shipping connectivity is low (Index, 2020 values)



Source: United Nations Conference on Trade and Development (UNCTAD).

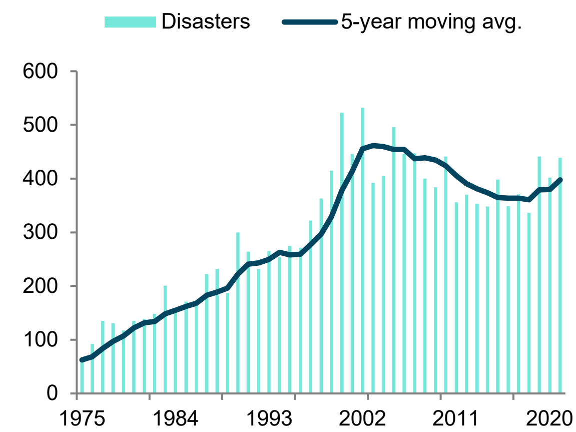
Figure 1.6: Smaller countries are likely to have more volatile economic growth (growth volatility, %)



Source: WDI, World Bank staff calculation.

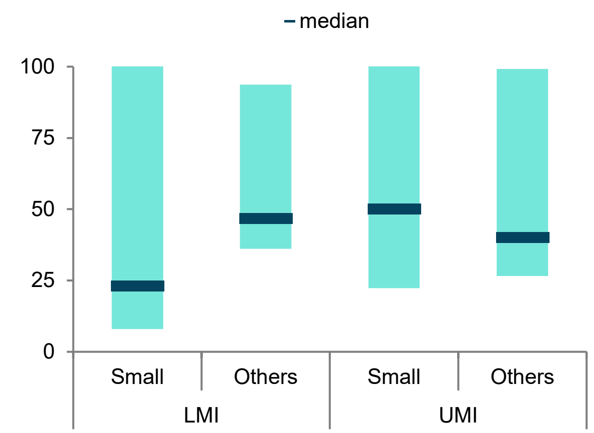
Timor-Leste, as other small states, also tends to have a narrow economic base and high exposure to external shocks (Figure 1.6). Timor-Leste's domestic economy is relatively insulated from external shocks due to limited trade and financial integration in the region. However, global conditions may still affect Timor-Leste's economy through some channels. High international commodity prices—especially food—have a considerable impact on the purchasing power of (poorer) households. Since domestic productive capacities are low, including in agriculture, much has to be imported into the country. Additionally, the performance of the US dollar, the legal tender of Timor-Leste, against the currencies of Timor-Leste's main trading partners has an important effect on the real effective exchange rates which, in turn, influences international competitiveness. Unless new producing fields are online, moribund hydrocarbon production means that the trend of petroleum prices would only have limited impact to the economy. Depressed international stock markets would affect the Petroleum Fund's investment returns through negative revaluations. Despite these downside risks, the large fiscal buffer provided by its sovereign wealth fund can, if adequately managed and targeted, be used to weather most external shocks.

Figure 1.7: Increasing occurrence of global natural disasters (number of occurrence)



Source: Emergency Events Database (EM-DAT), the international disaster database.

Figure 1.8: Compared with their larger peers, small states have slightly higher levels of public debt (public debt 2021, % of GDP)



Source: WDI.
Note: LMI = Lower-middle income; UMI = Upper-middle income.

Small states, especially the developing ones, are disproportionately vulnerable to natural disasters. According to EM-DAT data, there is an increasing trend in the frequency of disasters, both globally and for small states (Figure 1.7).[14] There have been at least 14 natural disasters of various types in Timor-Leste since 2001. Floods are the most frequent disaster, which are caused by heavy rainfalls compounded by low soil permeability and rapid and excessive runoffs from steep mountain slopes to lower streams. Timor-Leste also experiences tropical cyclones once every five years. Most recently, the heavy rainfalls resulting from Tropical Cyclone Seroja in 2021 caused large-scale landslides and floods across the country, especially in the Capital Dili, leaving about 31,000 people without homes. Greater exposure to disasters has important macroeconomic effects on small states, resulting in lower investment, lower GDP per capita, higher poverty, and a more volatile revenue base. Since climate change is projected to affect small states disproportionately, small states will thus face much larger economic costs from climate change than larger peers.[15] The impact on important economic sectors (agriculture, tourism, fishing) and pressures on ecosystems could in turn exacerbate poverty.

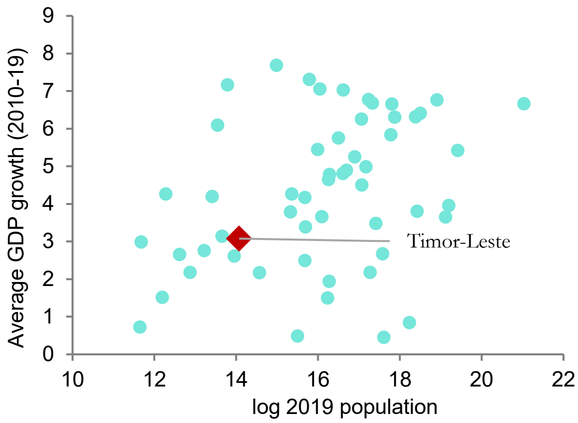
The literature highlights various other economic challenges for small island economies.[16] They include (i) lack of domestic capacity (which can result in poorer quality public administration), (ii) lack of opportunity (which can result in the underutilization of human resources), (iii) limited scope and capacity for negotiating with larger states and private sector entities, and (iv) limited ability to conduct monetary policy as small states are more likely than larger ones to peg their exchange rates to another currency. Small states also tend to have highly dispersed populations scattered across a broad geographical area. This further fragments public infrastructure and makes it harder again to attain scale economies.[17] Measured by the ratio of government expenditures to GDP, small states tend to have bigger governments than larger states. This is partly a reflection of the diseconomies of scale that make the provision of public goods and services more costly than in larger states. A large share of small states' expenditures is relatively inflexible and hard to reduce. The high level of expenditure has, in turn, often led to high levels of debt (Figure 1.8).

[14] EM-DAT contains essential core data on the occurrence and effects of over 22,000 mass disasters in the world from 1900 to the present day. Increasing trend in the frequency of disasters partly reflects better reporting exercises in the last several decades. EM-DAT started to systematically record disasters only in 1988, before which information was collected from historical sources such as newspapers and official reports.
[15] Partly by exacerbating natural disasters and partly through more gradual effects such as rising sea level.
[16] See, for instance, Briguglio (2022).
[17] Kiribati, for instance, has a population of 100,000 spread over 3.5 million km^2 of ocean. That makes for a country extraordinarily difficult to administer.

b. Timor-Leste's Growth Performance Relative to Other Small States

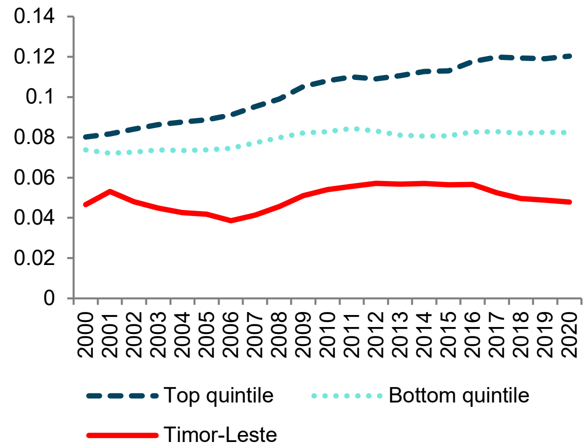
The net effect of the geographic characteristics is lowering the productivity of capital and labor (total factor productivity [TFP]). The range of activities in which small states can be internationally competitive is also limited. Given the difficulties associated with achieving economies of scale, the average output per unit of input is likely to be lower in the small states than in larger states. These constraints, viewed through a growth accounting framework, act to lower the amount of capital accumulation that takes place by reducing the potential return on new investment. Indeed, the constraints imposed by geography are so severe that even with an optimal environment for private sector activities—infrastructure, regulation, supportive macroeconomic policies—the range of viable economic opportunities will still be narrow. It is accordingly unsurprising that, due to considerable constraints and challenges that they face, small countries generally grow slower than the larger ones (Figure 1.9) and thus tend to converge more slowly (Figure 1.10), even if these small countries are all under the similar income categories.

Figure 1.9: Larger LMICs tend to experience higher GDP growth (%)



Source: WDI, World Bank staff calculations.
Note: LMIC = Low- and middle-income country.

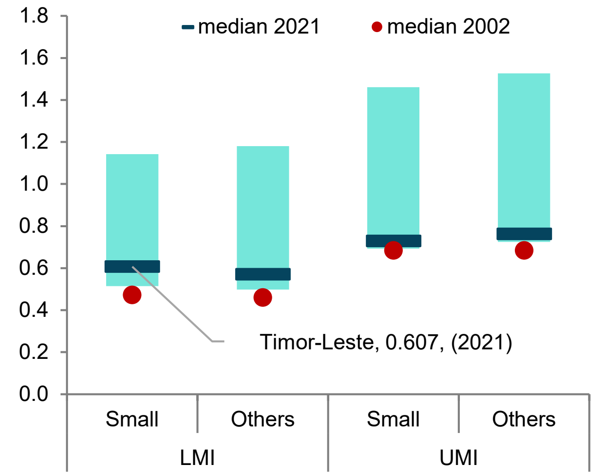
Figure 1.10: Larger LMICs converge faster than smaller LMICs (1=USA?) (%, simple average; GDP per capita constant 2017 purchasing power parity)



Source: WDI, World Bank staff calculations.
Note: Quintiles determined by population size

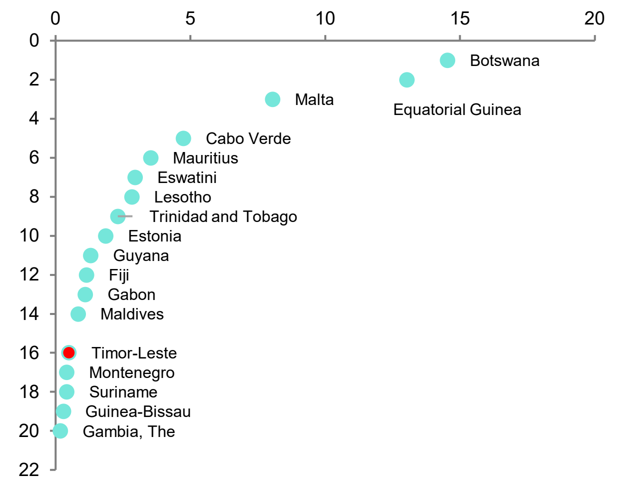
Despite various theoretical studies that consider small size as a disadvantage, empirical research on the growth implications of size is largely inconclusive (see, for instance, Armstrong and Read (2002)). Easterly and Kraay (2000) found that per capita growth of small states does not differ systematically from that of other states. In countering these views, Briguglio (2016) argues that the fact that a number of small states perform well economically does not mean that they do not face major economic constraints. Indeed, despite the common characteristics that adversely affect their competitiveness, there is yet heterogeneity among small states. While some are high-income fuel-exporting countries, there are also countries in the low-income group. Similarly, social indicators reflect a wide range of development with some small states ranked among the highest in the latest United Nations Human Development Index while others ranked among the lowest (see Figure 1.11).

Figure 1.11: Range of small states' levels of development (Index)



Source: WDI, World Bank staff assessment.

Figure 1.12: GDP per capita increase since its independence (rank, y-axis; multiplication factor, x-axis)



Source: WDI, World Bank staff calculation.

Some of the small states have been able to overcome certain size-related challenges and accelerated economic growth in a sustained manner.[18] Several small states have indeed experienced growth acceleration periods in the past post their independence (Figure 1.12, Table 1.2). Predictably, the high-performing countries with episodes of growth accelerations are also able to improve their GDP per capita faster than their peers and, except for Equatorial Guinea, have generally been successful in reducing the poverty headcount ratio or maintain it at the relatively low level.[19] The poverty headcount ratio for Botswana was 59 percent in 1985 but then declined to 19.5 percent in 2009. Similarly, Cabo Verde efficaciously lowered the country's poverty headcount ratio from 58 percent in 2001 to 35 percent in 2015. Malta and Mauritius, on the other hand, maintain low figures of the poverty headcount ratio of below 20 percent and 10 percent, respectively, during the last two decades. Nevertheless, despite the success stories of a few countries (see Box 1.1), most of small countries remain toiling in addressing the constraints imposed by the geographical features of the states.

Table 1.2: GDP per capita and growth acceleration in select small states

Country	Start Year (SY)	End Year (EY)	GDP Per Capita at SY (Constant 2015 US$)	GDP Per Capita at EY (Constant 2015 US$)
Botswana	1960	1977	357.6	1 444.4
Cabo Verde	1992	2000	907.4	1 236.6
Equatorial Guinea	1992	2005	485.6	12 908.1
Malta	1974	1980	3 904.5	7 684.7
Mauritius	1985	1988	2 699.7	3 370.3
Trinidad and Tobago	1996	2006	8 007.4	17 334.1
Timor-Leste's GDP per capita was US$979.6 (2002) and US$1,624.0 (2021).				

Source: WDI, World Bank staff calculation.

[18] We modify the approach taken by Hausmann et. al. (2005) and identify a year of growth acceleration in GDP per capita in which the following conditions are satisfied: (i) growth is rapid (higher than 3 ppa); (ii) growth accelerates, with the *delta* of the growth (the growth rate of the GDP per capita in t+1 – the growth rate of the GDP per capita in t) is greater or equal to 2 ppa. The time horizon is set at four years.

Box 1.1: A tale of four small states

Mauritius, one of the high-performing small states presented in Table 1.3, is a small, remote island state off the coast of eastern Africa. The country was deemed a strong candidate for failure by Nobel Prize–winning economist James Meade in the 1960s. Mauritius depended on one crop, sugar, was prone to terms-of-trade shocks, had high levels of unemployment, and lacked natural resources. But the country progressed to a well-diversified middle-income economy that earns revenues from tourism, finance, textiles, and advanced technology, in addition to sugar. Whether measured by per capita income, human development indicators, or governance indicators, Mauritius now is among the top African countries.

Botswana is a success story about how a landlocked, small country was able to transform its economy. Mining activities have been important for growth in Botswana, but in many other countries, natural resource abundance appears to be a curse rather than a blessing (for example, Sachs and Warner 1995). When the British left the country in 1966, there were only 12 km of paved road, 22 Batswana who graduated from university, and 100 from secondary school. However, from 1965 to 1999, Botswana achieved the world's highest rate of growth of per capita income: over 7 percent per year. By comparison, GDP in Sub-Saharan Africa was growing 2.6 percent annually. Manufacturing exports in Botswana, started from essentially a zero base in 1965, grew over 16 percent per year from 1975 to 1999. On the other hand, growth in modern sector jobs was about 7.5 percent per year at least since around 1980, two to three times the rate of population and labor force growth.

Rising above the daunting conditions it faced at inception, Cabo Verde is another case of relative success. Cabo Verde is a ten-island archipelago, nine of which are inhabited. With a population of less than 500,000 (2021 Census), only 10 percent of its territory is classified as arable land while mineral resources are limited. The fragmentation of its territory creates significant connectivity issues as well as challenges for service delivery, including energy, water, education, and health. Nevertheless, Cabo Verde has witnessed significant economic progress since 1990, driven in large part by the rapid development of tourism, coupled with considerable social development due to strong social policies since the 1970s. Before the COVID-19 global economic crisis, Cabo Verde experienced robust economic growth driven by a thriving tourism sector and strong structural reforms. Cabo Verde could be considered one of the champions among Sub-Saharan African countries in terms of poverty reduction with poverty projections rates declining by 6 percentage points between 2015 and 2019, from 41 percent to 35 percent.

Malta was among six countries in the world[20] to achieve an annual average growth rate higher than 5 percent in the first three decades after independence.[21] The rapid pace of development was nevertheless not a foregone conclusion. The Maltese economy did not perform well in the interwar period (Apostolides 2011) and was severely affected by the Second World War. A UN study carried out around the time of Malta's independence (Stolper, Hellberg, and Callender 1964) had recommended mass emigration as "the only feasible solution in the long run" for the country. Since it gained independence in 1964, however, Malta's economic development strategy has been driven by the need to compensate for the country's lack of natural resources and its small size. The chosen paths of diversification were manufacturing and services, particularly tourism and, more recently, financial services.

A common lesson learned from these high-performing countries is that while size does create constraints, effective policies can help small states overcome them. Small states can compensate for their size-related problems by taking steps to exploit their advantages and offset their disadvantages. An extensive literature on the challenges to growth in small states has developed over the past two decades. Various research indicates that the economic growth outcome in small states depends on numerous favorable and adverse factors. These factors, among others, include ensuring macroeconomic stability (Briguglio 2009, 2016), trade openness (Alesina 2005; Easterly and Kraay 2000), levels of human capital (Armstrong and Read 2004), or institutions and governance (Brautigam and Woolcock 2001; Brown 2010; Farrugia 2007). Everything else being equal, small states with better quality of these factors tend to have higher productivity, able to perform better economically, and, accordingly, enjoy a higher level of GDP per capita.

Even compared to other small states, economic growth in Timor-Leste has been relatively weak, leading to a divergence in income levels with peer countries. Between 2003 and 2019, GDP growth averaged 3.5 percent, much lower than the 4.1 and 4.6 percent average in structural and aspirational peers, respectively. Average economic growth has also been considerably below the targets stated in both the Strategic Development Plan (SDP) (11.3 percent for 2011–2020) and the VIII Constitutional Government program (7 percent for 2018–2023).[22] Accelerating and sustaining economic growth is a key priority for policy makers. Due to the rapid increase in population, growth was even lower in per capita terms, at only 1.6 percent compared to the 1.7 and 3.6 percent in structural and aspirational peers, respectively. As a result, the gaps in real GDP per

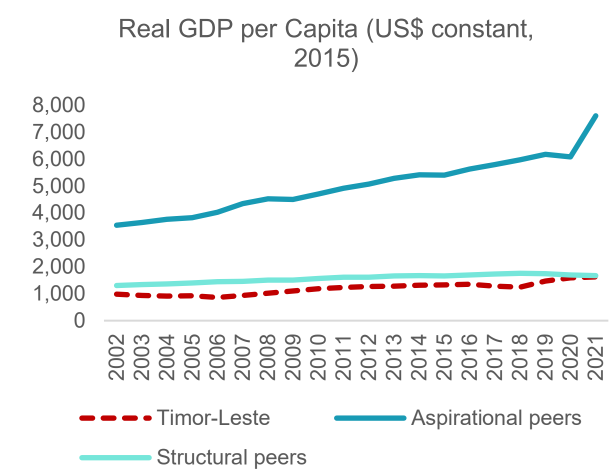
[20] The other countries being the Asian tigers and Botswana.
[21] Alesina and Spolaore 2003.
[22] The SDP envisages that Timor-Leste will attain upper-middle-income country status by 2030.

capita between Timor-Leste and its peers have largely widened (Figure 1.13). The country's growth path has also displayed cyclical fluctuations, largely reflecting peaks related to public spending hikes and troughs due to domestic instability in 2006 and 2017.

c. Diagnosing Timor-Leste's Growth Performance since Independence

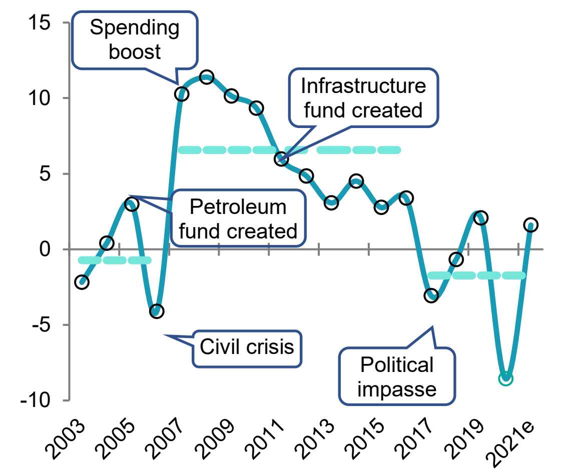
Timor-Leste's growth over the last two decades can be divided into three periods (Figure 1.14). In the first period, 2003–2006, GDP growth averaged −0.9 percent due to a difficult set of circumstances at independence and the 2006 civil unrest. The second period, from 2007 to 2016, was characterized by the restoration of peace and a surge in public spending. As a result, growth averaged 6.6 percent. The third period, from 2017 to the present, shows a downward trend, partly due to political instability. Despite a small rebound in 2019, the adverse impacts of COVID-19 and natural disaster driven by Tropical Cyclone Seroja reinforced this downward trend with the economy shrinking to an average of −1.4 percent.

Figure 1.13: The gap in real GDP per capita between Timor-Leste, structural peers, and aspirational peers widened



Source: WDI.

Figure 1.14: Timor-Leste's growth path since independence can be divided into three periods (%)

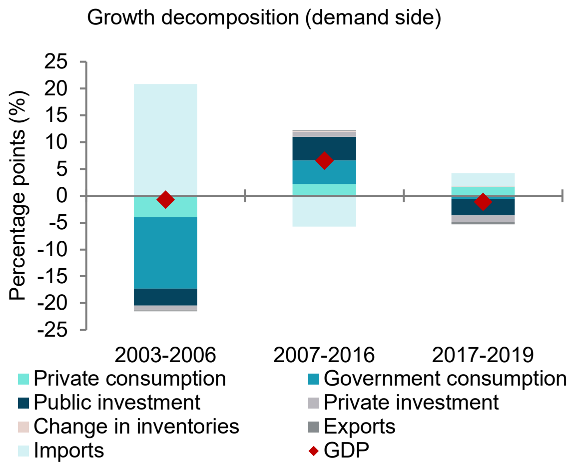


Source: DG Statistics. Structural breaks analysis confirms the period choice.

The current economic growth model, driven by public spending, has generated low economic returns and is fiscally unsustainable. The growth boom in 2007–2016 and the deceleration in 2017–2020 were driven by public sector dynamics (Figure 1.15). Public spending skyrocketed in 2007–2016 to 87 percent of GDP and remained one of the highest in the world, at 89 percent of GDP in 2021. Nonetheless, high public spending has not translated into strong and sustained economic growth, as the latter has been decelerating since 2008. This spending level not only failed to boost growth as expected but also led to an astronomical fiscal deficit of 45.3 percent of non-GDP in 2021. Although this fiscal imbalance can still be financed in the short run using assets from the Petroleum Fund (12 times larger than non-oil GDP by 2021), Timor-Leste will require painful adjustments within a generation, given the gradual depletion of petroleum wealth.

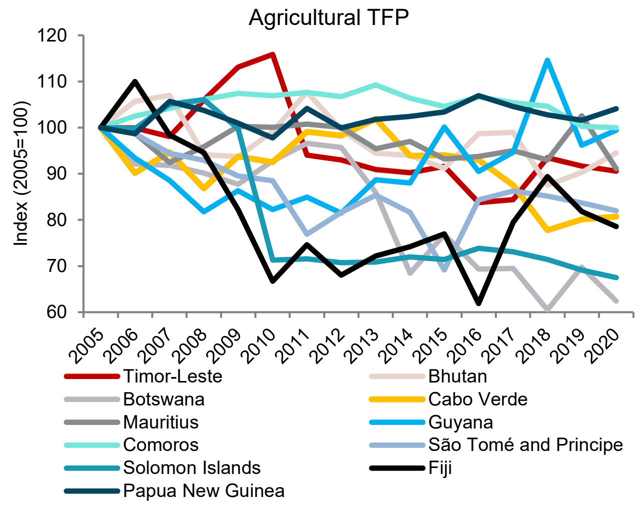
The increased public spending on the demand side translated into increased activity in public sector-linked service sectors on the supply side. As a result, the growth dynamics mainly reflected on sectors largely linked to the public sector: construction and public services. Combined, both sectors grew by an average of 17 percent between 2007 and 2016, before contracting by an average of 2 percent in 2017–2019 (Figure 1.13), reflecting the decreased public spending. Meanwhile, the agriculture sector remains critical to boost inclusive growth as it accounts for 54 percent of employment and 18 percent of real GDP but has barely grown by 0.9 percent between 2003 and 2019. This lackluster performance partly reflects low productivity, which has been on a declining trend over the past decade, in line with those of most peers (Figure 1.16).

Figure 1.15: Growth changes were driven by public sector dynamics



Source: MFMod and World Bank staff calculations.

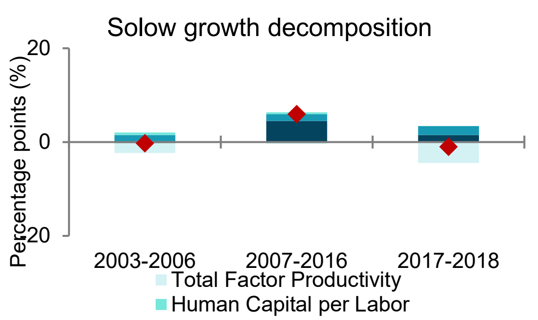
Figure 1.16: Agricultural TFP in Timor-Leste has been on a declining trend since 2009



Source: US Department of Agriculture.

The drop in agricultural productivity is part of the productivity loss experienced at the economywide level. The Solow's decomposition shows that labor and capital accumulation, rather than productivity improvements, were the major drivers of past growth (Figure 1.17).[23] In fact, TFP—the output growth after adjusting for accumulation of traditional input factors such as capital and labor—contracted across all different growth periods. However, the estimated TFP should be interpreted cautiously because it captures not only technological innovation but also developments and exogenous shocks that are not accounted for in the standard production function.

Figure 1.17: Capital and labor accumulation boosted growth in Timor-Leste, while productivity was a drag

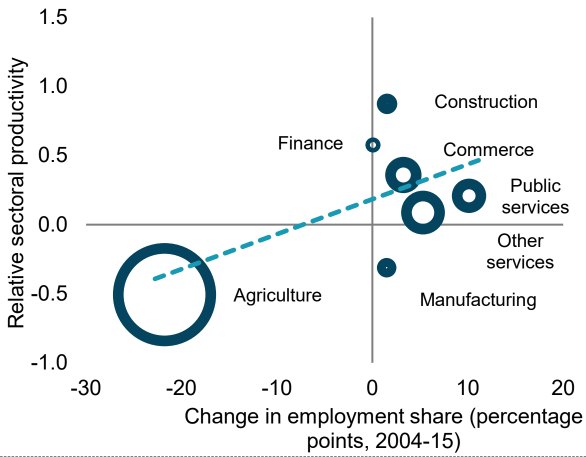


Source: Growth accounting tool and World Bank staff calculations.

Although Timor-Leste experienced structural transformation in the form of static reallocation from agriculture to non-tradable services, it experienced within-sector losses, indicating a need to shift more toward tradable sectors. The economy has experienced a structural change between 2004 and 2015 (latest available data), whereby labor shifted from agriculture to non-tradable sectors, including construction, commerce, and public services (Figure 1.18). Although this one-time (static) labor shift helped boost growth in the past, within-sector labor productivity, which has been broadly weakening, needs to improve (Figure 1.19). More importantly, the pattern of structural change needs to shift to a more sustainable path, since the current drivers are non-tradable sectors that are highly dependent on public spending. Strategic tradable sectors—such as commercial agriculture, labor-intensive manufacturing, and tourism—are thought to hold significant potential.

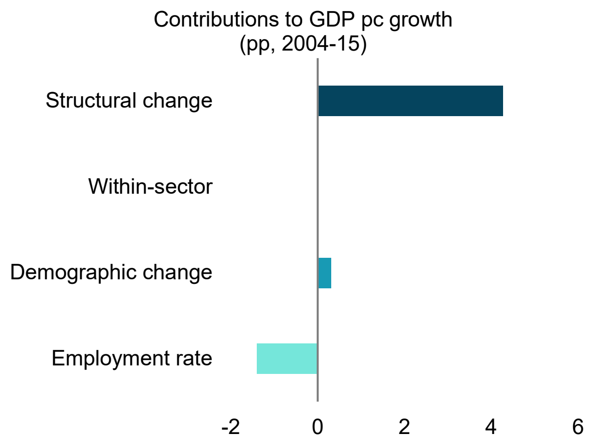
[23] The Solow's decomposition estimates the contribution of growth from capital, labor, and the TFP.

Figure 1.18: Labor moved from agriculture to higher-productivity sectors (mainly non-tradable services), …



Source: World Bank staff calculations.

Figure 1.19: … but within-sector productivity has not improved, highlighting the need to create more added value



Source: MOF, World Bank staff calculations.

1.3. Timor-Leste's Competitiveness Gaps

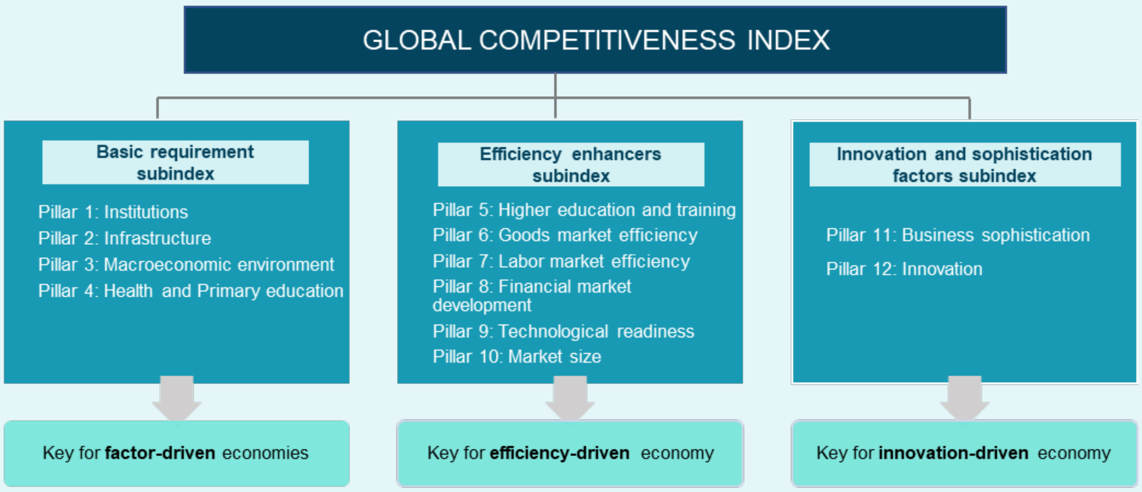
The structural challenges created by Timor-Leste's small-state characteristics combined with capacity and reform gaps raise the costs and risks of private investment. Capacity gaps refer to the shortages in basic human capital and infrastructure inputs. Reform gaps refer to the institutions and policies needed to improve human capital, physical infrastructure, and the basic foundations of macroeconomic management and the business environment. As discussed earlier, Timor-Leste's growth and its potential are weighed down by low productivity growth. This reflects the inability of relatively higher-productivity sectors to accumulate more factor inputs and expand. This is caused by weak factor inputs (that is, quality of human and physical capital) and challenges in the policy and institutional framework. A combination of these factors lower Timor-Leste's competitiveness and its ability to attract high-quality investments for growth.

Addressing these capacity and reform gaps to help overcome some of the challenges posed by Timor-Leste's small-state characteristics will require a concerted effort on getting the basics right. The handful of small states that grew successfully all focused, during their initial stages of development, on institutions, infrastructure, primary education and health, and macroeconomic stability (see Box 1.2). The GCI provides a useful framework to think about the importance of different policy and institutional drivers of competitiveness at different stages of development. Timor-Leste, which is at an early stage of development, competes based on its factor endowments (for example, unskilled labor and natural resources). Reforms should therefore prioritize pillars that facilitate an efficient accumulation of those factor endowments. As factor accumulation increases with development, countries transition into efficiency-driven growth, where reforms to improve allocative efficiency start to matter *relatively* more.

Box 1.2: The Global Competitiveness Index framework

The GCI framework is used in this report to assess the competitiveness of Timor-Leste relative to its peers. The GCI is developed by a team that, among other, consists of Xavier Sala-i-Martin (Columbia University), Elsa Artadi (then Harvard University), and Jennifer Blanke (the World Economic Forum). The exercise essentially aims to capture in a single index both the microeconomic and macroeconomic foundations of competitiveness. In addition to include subindexes that are directly related to economic realities, the GCI contains components capturing social, environmental, and political variables that are assumed to be conducive to competitiveness. Altogether, the GCI has 12 pillars (see Figure 1.20).

Figure 1.20: Pillar of competitiveness from the GCI



Source: World Economic Forum.

Despite reported separately, it is important to note that the 12 pillars of competitiveness tend to reinforce each other, and a weakness in one area often has a negative impact in others.[24] The GCI includes statistical data from internationally recognized organizations, notably the International Monetary Fund (IMF), the World Bank, and various UN' specialized agencies. The Index also includes indicators derived from the World Economic Forum's Executive Opinion Survey that reflect qualitative aspects of competitiveness, or for which comprehensive and comparable statistical data are not available for a sufficiently large number of economies

While all 12 pillars will matter to a certain extent for all economies, they will affect different economies in different ways. The best way for Timor-Leste to improve its competitiveness is not the same as the best way for, for example, Türkiye to do so. This is because Timor-Leste and Türkiye are in different stages of development. In line with economic theory, the GCI accordingly assigns countries to three different stages of developments.[25] In the first stage, the economy is factor driven, and countries compete based on their factor endowments. Private sectors in these types of economies compete based on price and sell basic products or commodities, with their low productivity that is reflected in low wages. As a country becomes more competitive, productivity increases and wages rise. Countries will then move into the efficiency-driven stage of development when they must begin to develop more efficient production processes and increase product quality to maintain the prices of the products. Finally, as countries move into the innovation-driven stage, wages will have risen by so much that they are able to sustain those higher wages and the associated standard of living only if their businesses are able to compete with new and unique products.

The GCI was initially presented in the Global Competitiveness Report 2004–2005 and has since been updated in the later version of the Global Competitiveness Report. The index and the approach have also been used in hundreds of academic articles.

[24] For example, a strong innovation capacity (pillar 12) will be difficult to achieve without a healthy, well-educated, and trained workforce (pillars 4 and 5) that is adept at absorbing new technologies (pillar 9). Alternatively, innovation necessitates sufficient financing (pillar 8) for research and development or an efficient goods market that makes it possible to take new innovations to market (pillar 6).
[25] This is in line with Porter's (1990) approach.

Timor-Leste mostly produces basic goods and depends on natural resources. Commodity exports accounted for more than 91 percent of exported goods in 2017 (Figure 1.21). Crude petroleum and coffee accounted for 85 percent of exported goods in 2017. Moreover, the Timor-Leste ranks globally as the 8th most dependent country on natural resources (Figure 1.22). These products however do not create much added value as they are not complex nor linked to other products. As such, reducing the risks and the costs of investment at this stage of development hinges primarily on well-functioning public and private institutions (Pillar 1), a well-developed infrastructure (Pillar 2), a stable macroeconomic environment (Pillar 3), and a healthy workforce that has received at least a basic education (Pillar 4).

Figure 1.21: Commodity exports in Timor-Leste accounted for more than 90 percent of exported goods

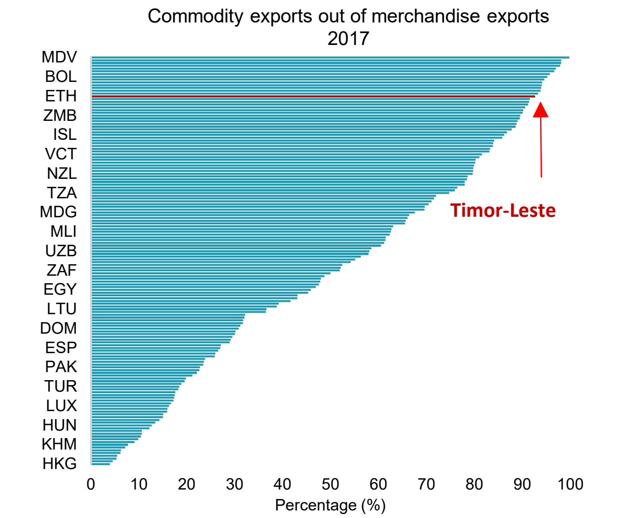
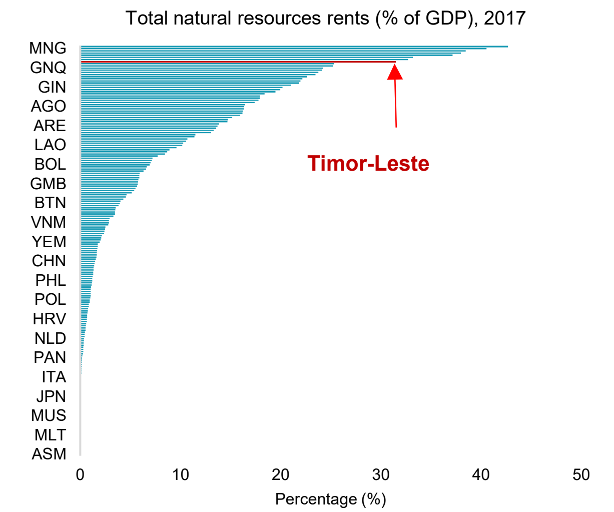


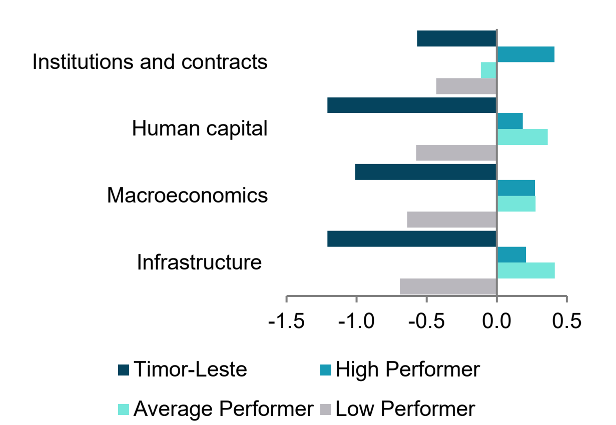
Figure 1.22: Timor-Leste's economy ranks as the 8th most dependent in the world on natural resources



Source: WDI.

To assess Timor-Leste's competitiveness relative to peers, indicators from various surveys are grouped across four dimensions of competitiveness. The quality of *institutions* influences investment decisions and plays a key role in the ways in which societies distribute the benefits and bear the costs of development strategies and policies. On the other hand, a well-developed *infrastructure* network is a prerequisite for the access of less-developed communities to core economic activities and services. Further, the economy cannot grow in a sustainable manner unless the *macroenvironment* is stable. Lastly, lack of *basic education and healthy workers* can become a constraint on business development, with firms finding it difficult to move up the value chain by producing more sophisticated or value intensive products. In turn, composite Z-scores are derived for each dimension to measure how many standard deviations below or above the population mean a raw score is for Timor-Leste, high performers, and low-performing small states.[26]

Figure 1.23: Timor-Leste's competitiveness gap



Source: World Bank staff estimates from 2014–2015 GCI, the latest publication with Timor-Leste's data; 2022 Bertelsmann Stiftung's Transformation Index (BTI); 2020 WDI; and 2020 Global Quality Infrastructure Index,

[26] A composite Z-score attempts to normalize different measures or indexes onto one comparable scale.

When assessed across four dimensions of basic competitiveness, Timor-Leste trails behind even the low-performing small states (Figure 1.23).[27] Despite having invested heavily in establishing basic institutions of public sector governance, at a macro level however, recent political instability in Timor-Leste has created volatility in policy directions that damage investment climate and investors' confidence. Timor-Leste also remains a fragile post-conflict nation with large infrastructure gaps. Timor-Leste also has a poorer Human Capital Index (HCI) than most of its small-state counterparts. Finally, Timor-Leste's good track record of macroeconomic stability may be under threat as the country has only a limited time to bring its public finances on a sustainable footing. The threat of a fiscal cliff reduces the likelihood of achieving the country's economic diversification objectives as businesses will be averse to investing, given the prospect of disruptive economic and fiscal contraction in the near future.

a. Timor-Leste's Institutions and Political Stability

The institutional environment is determined by the legal and administrative framework within which individuals, firms, and governments interact to generate wealth. The importance of a sound and fair institutional environment is especially crucial for further solidifying the recovery post a series of crises. The quality of institutions influences investment decisions and the organization of production as well as plays a key role in the ways in which societies distribute the benefits and bear the costs of development strategies. For example, owners of land are unwilling to invest in the improvement and upkeep of their property if their rights as owners are not protected.[28] Government attitudes toward markets and freedoms and the efficiency of its operations are also important. Excessive bureaucracy and red tape, overregulation, corruption, dishonesty in dealing with public contracts, lack of transparency and trustworthiness, inability to provide appropriate services for the business sector, and political dependence of the judicial system impose significant economic costs to businesses and slow the process of economic development.

As a newly independent nation, Timor-Leste has invested heavily in establishing basic institutions of public sector governance. One of many success stories is the transformation of Timor-Leste's Banking and Payments Authority into the Central Bank in September 2011. When the Central Payments Office was created in 2000 to act as a quasi-central bank, UNTAET confronted daunting difficulties. In addition to the complete destruction of physical infrastructure and reliable means of communication, there were almost no nationals with the required skills in banking. Multiple currencies were circulating in the country and being exchanged in informal markets. There was a small nascent banking sector, but its costs and risks were high. A few years later, when the country established the Petroleum Fund, there was considerable uncertainty about the capacity of the organization to manage it. The institution tackled these challenges and built its credibility in a relatively short period. Additionally, although Timor-Leste's development path remains complex, more than two decades after the restoration of independence, the country can lay claim to several defining accomplishments: at least more than a decade without a relapse to violence and several free, fair, and democratic national elections. Underlying these achievements are institutional developments that have enabled these gains.

At a macro level, however, political stability is one important constraint to ensuring sound implementation and further development institutions. Indeed, political stability influences several sub-pillar indexes through which the strength of institutions pillar under the GCI is assessed.[29] Political instability in Timor-Leste has created volatility in policy direction and compromised implementation of institutional practices that damage investment climate and investors' confidence. The continued breach of the limit of the ESI, the delay in budget approvals, and regular budget revisions that took place during the year through budget rectification or virements, to name a few, have all undermined the credibility of government policies.

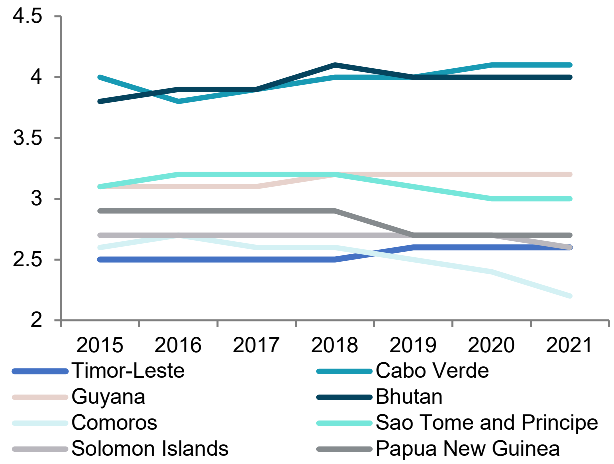
[27] The GCI data for the period of analysis are only available for Mauritius, Bhutan and Botswana. A related issue is encountered when extracting the data from BTI and Global Quality Infrastructure Index. Additional small states, namely Trinidad and Tobago, Estonia, Lesotho, and Montenegro are therefore added solely for this exercise. These countries are then categorized as High, Average, or Low Performer, depending on how fast they increase their GDP per capita since independence. Mauritius, Bhutan, and Botswana are categorized as High Performer countries. Trinidad and Tobago, Estonia, and Lesotho are under the Average Performer. Montenegro is the only country in the Low Performer group.

[28] See de Soto (2000).

[29] The sub-pillar indexes include favoritism in decisions of government officials, wastefulness of government spending, burden of government regulation, efficiency of legal framework in settling disputes, efficiency of legal framework in challenging regulations, and transparency of government policy making. In between one and seven, seven being the highest score, Timor-Leste grade.

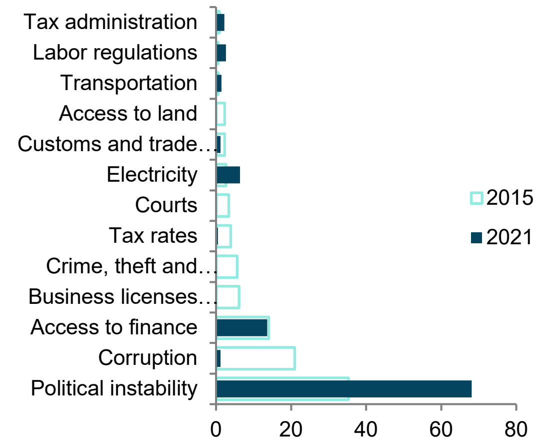
Furthermore, while it is important for the country to attain political stability, it is equally crucial to translate the stability into good governance in the form of a predictable and transparent environment for private businesses.

Figure 1.24: CPIA public sector management and institutions



Source: WDI, World Bank staff calculation.

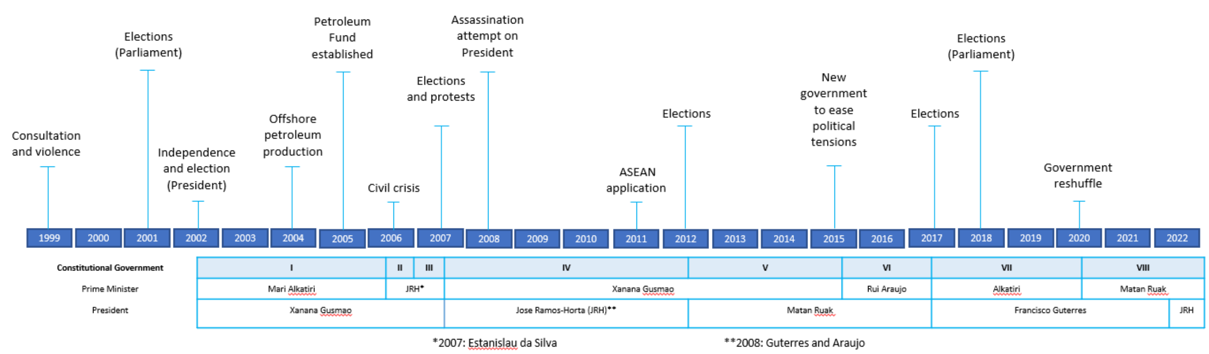
Figure 1.25: Timor-Leste's business environment constraints



Source: 2021 Timor-Leste Enterprise Surveys.

Political stability is a fundamental precondition to ensure a sustained economic recovery. Timor-Leste has been lagging its peers and, until recently, trailed the fragile and conflict-affected countries in its World Bank's CPIA for public sector management and institutions (Figure 1.24). An overwhelming majority of businesses in Timor-Leste named political instability to be the biggest obstacle to their operations, with more than half indicating that it is a major or very severe issue (Figure 1.25). As a young democratic nation, Timor-Leste has been devoting considerable energy to rebuild its institutions. Nevertheless, the country has had eight different governments since independence 20 years ago (Figure 1.28). A civil crisis contributed to three changes in government between 2006 and 2007. In 2015, tensions between the CNRT and FRETILIN were resolved with a national unity government—which was formed without an election. However, this was the start of an intermittent period of political uncertainty. There have been four governments in the past eight years, while the recent reconfiguration of the ruling coalition could also be considered as a new government.

Figure 1.26: Timeline of main political events in Timor-Leste



Source: World Bank staff estimates.

Between 2011 and 2021, only four state budgets were promulgated on time (Table 1.3) affecting the development financing. Most delays have been caused by political (rather than technical) reasons. The President vetoed the initial 2016 state budget proposal, which was reapproved unchanged by the Parliament and subsequently promulgated—since the President can only veto a budget proposal once. The President also vetoed the 2019 state budget, which was later promulgated with some changes—namely, the elimination of a provision to purchase stakes in the Greater Sunrise Joint Venture for the development of oil and gas fields. The 2018 budget was nine months late, as a consequence of the political stalemate, while the 2020 budget also suffered similar delays. As the economy continues to depend on government outlays, preliminary analysis indicates that the accumulated economic impact of recent political instabilities between 2017 and 2019 amounted to 39.2 percent of the 2019 GDP per capita (see further analysis presented in Box 1.2)

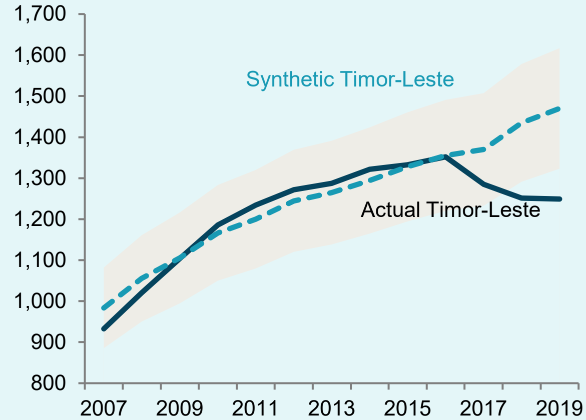
Table 1.3: Budget approval and promulgation dates

Budget	Submission (Government)	Approval (Parliament)	Promulgation (President)	Delay
2011	January 12, 2011	January 28, 2011	February 14, 2011	> 1 month
2012	November 9, 2011	November 25, 2011	December 21, 2011	—
2013	February 4, 2013	February 20, 2013	March 1, 2013	> 2 months
2014	October 25, 2013	January 24, 2014	February 3, 2014	> 1 month
2015	September 19, 2014	December 18, 2014	December 29, 2014	—
2016	October 29, 2015	December 18, 2015/January 8, 2016	January 14, 2016	2 weeks
2017	October 13, 2016	December 9, 2016	December 28, 2016	—
2018	August 7, 2018	September 7, 2018	September 27, 2018	> 8 months
2019	November 22, 2018	December 22, 2018	February 7, 2019	> 1 month
2020	September 15, 2020	October 8, 2020	October 19, 2020	> 9 months
2021	October 15, 2020	December 12, 2020	December 28, 2020	—

Source: MOF and news articles.

Box 1.3: The economic costs of political instability

Figure 1.27: Loss of per capita GDP due to political instability (2017–2019) (GDP per capita, in 2015 constant US$)



Source: World Bank Enterprise Surveys (WBESs) 2021.

Timor-Leste has faced intermittent bouts of political instability since 2017. For the first time since independence, Timor-Leste elected a minority government in July 2017. After only 280 days, the government was dissolved after twice failing to pass the state budget in an opposition-controlled parliament. This impasse led to early parliamentary elections in May 2018. The Alliance for Change and Progress (AMP) coalition was elected to form a government. However, then-President Francisco Guterres was a member of FRETILIN, which was in opposition. The president vetoed the state budget proposal and cabinet appointments which resulted in significant delays in passing the budget over most of 2018. Without an approved state budget, the government was forced to operate under a duodecimal regime, which allows monthly appropriations of 1/12th of the previous year's budget. This severely constrained public spending for the first three quarters of 2018, especially since the appropriated budget is generally spent to merely cover the recurrent spending.[1] Eventually, public spending recovered by the end of 2018 and in 2019, despite another late approval for budget in that year also.

Political uncertainty reemerged in 2020 when the government was unable to pass the budget, returning national finances to the duodecimal regime. The budgeting process revealed tensions within the AMP coalition, resulting in the withdrawal of the first proposal from parliament before a vote was held. The revised proposal was submitted in late December 2019 but did not pass in January when the CNRT abstained and the opposition voted against the budget. The Prime Minister submitted his resignation, which he withdrew two months later upon the outbreak of the COVID-19 pandemic. After a nearly ten-month delay, the 2020 budget was finally approved, but this had already negatively affected consumer and business confidence.

The inability to adopt a budget hampered macroeconomic management and contributed to economic recession. GDP contracted both in 2017–2018 and again in 2020 amidst the COVID-19 pandemic. In both instances of political instability, the budget was only approved toward the year's end, hence the quality of public spending suffered due to insufficient planning, delayed budget decisions, and spending constraints.[2] Notably, capital spending weakened since 2017, which is unsurprising, since government investment dwarfs private investment

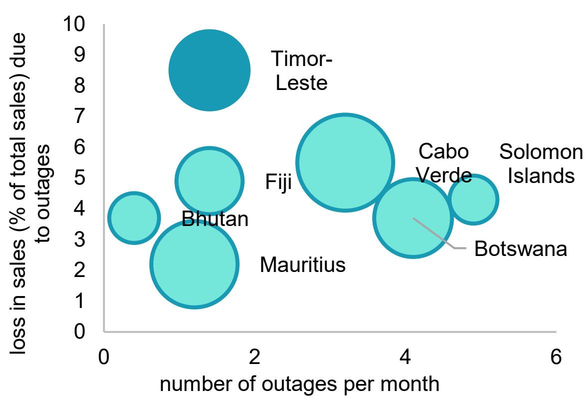
As shown in Figure 1.27, real GDP per capita loss due to political instability are in the range of UD$440–540, equivalent to between 35.2–43.2 percent of 2019 GDP per capita.[3] Continued political uncertainty and the COVID-19 pandemic contributed to the unprecedented economic contraction in 2020. As it would be impossible to isolate the impact of political instability from the impact of the pandemic, the synthetic control method (SCM) cannot be applied beyond 2019. Nevertheless, the measurable aggregate impact of these dual shocks is an 8.6 percent contraction of GDP in 2020, which is the largest recession since independence and the third in four years. Public health measures and voluntary behavioral change, although necessary to slow the spread of COVID-19, have resulted in significantly weaker private consumption. Political uncertainty, manifested in a nearly ten-month delay in approving the 2020 budget, have lowered public spending by 9 percent compared to 2019; this is despite the significant emergency spending in response to the pandemic. All these factors undermined consumer and business confidence.

[1] Drawdowns from the Petroleum Funds requires parliamentary approval, usually through the state budget process.
[2] Timor-Leste Economic Report, April 2020.
[3] Please consult Appendix 1.2 for extended discussion on the methodology employed in the analysis.

b. Infrastructure Development

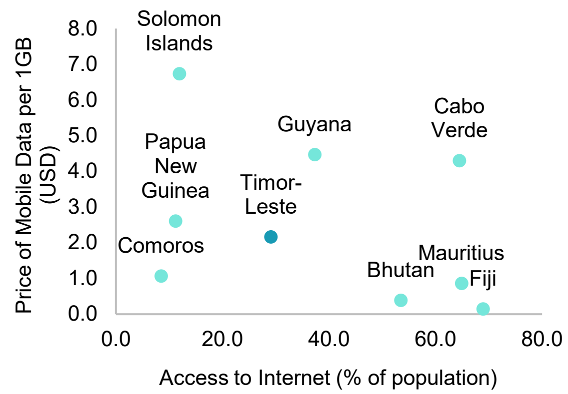
At independence in 2002, Timor-Leste had little physical infrastructure, but it has made considerable progress over the years. Despite hitherto notable socioeconomic achievements, Timor-Leste remains a post-conflict nation with large infrastructure gaps. Timor-Leste's road network is generally in poor condition, mainly due to unsuitable design and underinvestment in maintenance. The results of the 2015 survey indicated that 13 percent of rural roads were rated good, 30 percent fair, 44 percent poor, and 13 percent very poor.[30] On electricity, grid electricity access increased from 21 percent of the population in 2003 to about 80 percent in 2020. However, the distribution network is in poor condition, suffering excessive voltage drops for its frequency of service outages (Figure 1.28). As a result, improving the financial sustainability of *Electricidade de Timor-Leste* (EDTL), the state-owned enterprise (SOE) responsible for producing and distributing electricity, is critical. The government subsidizes about 85 percent of electricity operating expenses of EDTL, costing the government budget more than US$100 million annually.[31]

Figure 1.28: Electricity outages in Timor-Leste has led to relatively high loss in sales for firms during operations



Source: WBES, various years.
Note: Bubble size represents the share of firms that identify electricity as a major constraint.

Figure 1.29: Connectivity is costly, causing access to the internet to lag behind peers



Source: WBES, various years, cable.co.uk.

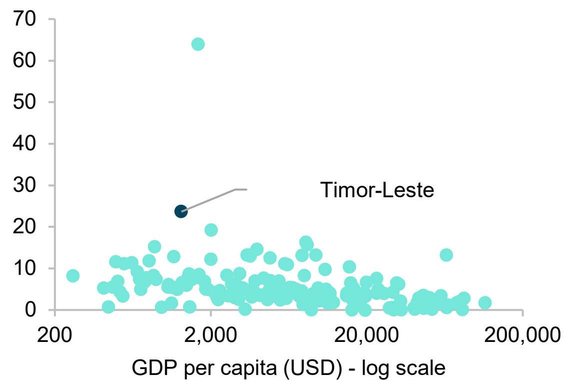
According to the International Telecommunication Union (ITU), only one-third of Timor-Leste's total population of 1.3 million has broadband internet access. Access to fixed-line broadband (FLBB) service is severely lacking, with less than 1 percent of the country's population having access. Timor-Leste also lags behind on many connectivity indicators compared to peers. Mobile broadband (MBB) services are relatively

[30] MPWTC, Rural Roads Master Plan, Investment Strategy 2016-2020, September 2015.
[31] The annual budget support to EDTL represents about 6 percent of Timor-Leste 2020 GDP.

affordable, but access to FLBB services is considered low compared to peers (Figure 1.29). Although three telecom companies offer broadband and wireless telecommunication services, reliability continues to constrain digital growth.

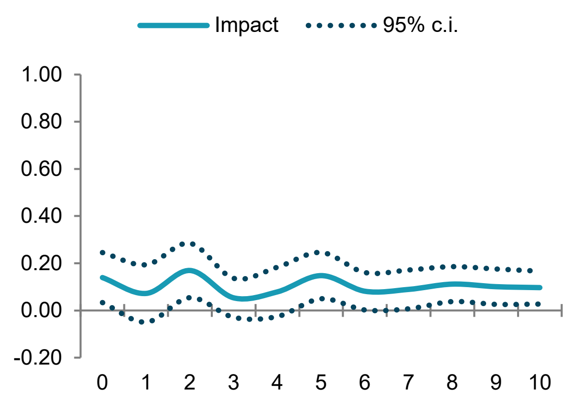
Faced with the task of rebuilding public infrastructure, the authorities have made significant progress in key areas since independence. There has been a clear policy of frontloading public investment, especially after the establishment of the Infrastructure Fund in 2011. The new fund is tasked to centralize decision-making and facilitate large investments in physical assets. Timor-Leste has a dual budgeting system, where the recurrent budget is mostly the responsibility of the MOF, while the elaboration of the capital and development budget is under the mandate of the Administrative Council of the Infrastructure Fund (CAFI). Much of the spending on capital and development is accordingly undertaken through the Infrastructure Fund. Foreign lending is also used to finance the construction and rehabilitation of physical assets, especially roads, although these amounts are comparatively small.

Figure 1.30: Timor-Leste's capital spending (2014–2019) (% of GDP)



Source: MOF (BOOST) and IMF.

Figure 1.31: Fiscal multiplier of government capital spending

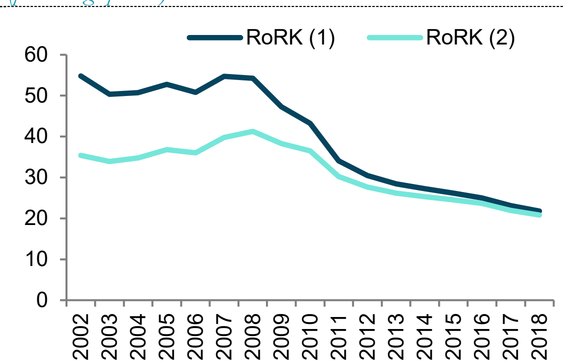


Source: World Bank staff estimates.

There has been a strong prioritization of capital spending, although recurrent spending has also grown considerably. Capital spending has on average accounted for one-third of total spending since 2008, which stands out from Timor-Leste's peers and is considerably high by international standards (Figure 1.30). Capital and development spending has mainly constituted investments in electricity and roads. The large spending increase observed in 2011 and 2012 is mostly associated with the large electricity program. The road construction and rehabilitation program is the largest spending since 2015. The ports program had a large expenditure in 2016—essentially related to the Tibar Bay port—while the airports program averaged US$15 million per year in 2014–2017. However, investments in several key sectors such as agriculture, water and sanitation, education, and health have lagged behind.

Estimates suggest that the impact of capital spending on economic activity has been subdued. The long-run multiplier for capital expenditure is 0.10—a multiplier lower than 1 indicates that public spending is counteracted by effects that reduce its effectiveness, such as a 'crowding out' of private sector activity and/or import 'leakage'. The relatively low multiplier then raises concerns over the effectiveness of capital spending (Figure 1.31). It is important to evaluate the impact of public investment on GDP growth, since the economic literature posits a strong correlation between the two. Moreover, successive governments in Timor-Leste have adopted a policy of frontloading

Figure 1.32: Rate of return to public capital *(percentage points)*



Source: World Bank staff calculations.

large-scale public investments with a view to stimulating domestic economic activity.

Further, the rate of return on capital has been declining, implying that public investment management needs to be improved. The rate of return to capital measures the change in output brought about by a unit change in the capital stock. The return on public capital expenditures has been declining since 2008 (Figure 1.32). This suggests inadequate public investment management, as large investments appear to have been undertaken without a judicious assessment of needs. For instance, about US$1 billion has been invested in the electricity sector since 2008. Although access to electricity improved remarkably, service provision remains unreliable and there is significant overcapacity. Another example is the new US$120 million international airport in the exclave of Oecusse that has capacity for over 1 million passengers per year, even though the region has less than 70,000 inhabitants and limited economic activity. Overall, the selection of future investment projects should rely on robust cost-benefit analysis and thus prioritize growth-enhancing cost-effective infrastructure—which should include improvements to education and health facilities as well as digital infrastructure.

c. Basic Health and Primary Education[32]

Human capital is the knowledge, skills, and health that people accumulate over their lives, enabling them to realize their potential more fully. Accordingly, human capital is also a central driver of sustainable growth and poverty reduction, both at the individual and collective levels. This is especially true in the context of a global economy in which between 10 and 30 percent of per capita in the GDP differences is attributable to cross-country differences in human capital.[33] A key metric for the World Bank Group analysis of human capital formation is the HCI—which measures, across 174 countries, the constraints to productivity of the next generation of workers given the prevailing rates of mortality, schooling, and health.

Timor-Leste has a poorer HCI than most of its peers. The country's HCI equates to a child born today being only 45 percent as productive when she grows up as she could be if she enjoyed complete education and full health (see Table 1.4). About 5 percent of children do not survive to age 5 (slightly higher than the peer average at 4 percent), 46 percent of children are stunted (one of the highest rates in the world), and learning outcomes measured by learning-adjusted years of school is at 6.3 years, which is on par with the peer average.

Table 1.4: HCI and HCI component scores for LMICs in the EAP region

Country	HCI 2020	Probability of survival to age 5	Fraction of children under 5 not stunted	Expected years of school	Learning-adjusted years of school	Adult survival rate
Bhutan	**0.48**	0.97	0.79	10.22	6.33	0.81
Botswana	**0.41**	0.96	0.69	8.12	5.08	0.80
Comoros	**0.40**	0.93	0.69	8.17	5.13	0.78
Fiji	**0.51**	0.97	0.91	11.33	6.95	0.78
Guyana	**0.50**	0.97	0.89	12.20	6.76	0.77
Mauritius	**0.62**	0.98	—	12.43	9.41	0.86
Papua New Guinea	**0.43**	0.95	0.51	10.32	6.00	0.78
Solomon Islands	**0.42**	0.98	0.68	8.34	4.68	0.86
Timor-Leste	**0.45**	0.95	0.54	10.6	6.3	0.86

Source: 2020 World Bank HCI.
Note: EAP = East Asia and Pacific.

In spite of some progress, the country faces a human capital crisis that has been further exacerbated by the COVID-19 pandemic. Timor-Leste's HCI in the last decade continually fell behind other structural, aspirational, and regional peers, from 0.41 in 2010 to 0.45 in 2020, while the peer average rose from 0.46 to 0.47. The COVID-19 pandemic has resulted in an observed disruption of human capital service delivery, resulting in significant job losses for almost 40 percent of the working population, missed vaccinations for children, lack of access to reproductive health care for over 50 percent of women seeking support, and school closures that led to learning losses affecting 45 percent of school children. These disturbances risk significant adverse long-term impacts on health, learning, and lifetime income losses, further hindering the country's

[32] Please refer to 2021 Timor-Leste Public Expenditure Review and the forthcoming Timor-Leste Human Capital Review for a more detailed discussion on the matter.
[33] See Hsieh and Klenow (2010).

efforts in making up for lost ground. This further raises the alarm that 'business as usual' approaches to human capital accumulation and protection will not suffice.

Even before the pandemic, however, Timor-Leste's human capital initiatives have had persistent challenges. Despite a high overall level of spending on human capital, it has not effectively translated into expected levels of performance in human capital outcomes. This is especially the case compared to other countries that on average spend a smaller percentage of its GDP and achieve higher HCI levels. Persistent challenges include inefficiencies in implementation, lack of program coordination, fluctuating budgeting, and anomalous targeting of its social protection component of human capital investment (with up to 64 percent of the 2019 social protection budget allocated to the Veteran's Pension program and very little effectively channeled to children and youth, as per the Timor-Leste Economic Report December 2022). Therefore. the forthcoming Timor-Leste Human Capital Review (HCR) report offers comprehensive discussions specifically on health, education, and social protection, with Box 1.4 presenting key learnings from this in-depth work on human capital.

Box 1. 4: Addressing Timor-Leste's human capital crisis

The upcoming Timor-Leste HCR offers a deep dive into evidence on and recommendations for the reinforcement of education, health, nutrition, and social protection. Strengthening the human capital of the current and future generations of the Timorese population is a key building block for private sector development and export growth. It can also help ensure that the youth bulge can be turned into demographic dividend and the skills and well-being of Timor-Leste's working and elderly population are strengthened. The HCR offers concrete solutions to build future and broaden existing human capital in Timor-Leste following a life-cycle approach, centered around the following:

- Strengthening primary health care facilities and the equitable provision, equipment, and staffing of secondary and tertiary care facilities. Where access gaps persist, innovative solutions of health service delivery are proposed to fill these shortcomings.
- Scaling up high-impact multisectoral interventions on nutrition and strengthening accountability to results across all concerned sectors.
- Boosting education enrolment and retention, literacy, and expansion of accredited technical and vocational education programs to improve youth's labor market readiness and address high rates of youth outside of the formal education system and youth unemployment.
- Improving alignment between labor market opportunities and the skills of the current workforce through investments in lifelong learning, demand-driven training, and capacity building.
- Reducing the fragmentation of social protection delivery systems and ensuring welfare improvements through a wide range of tailored, effective benefits and services, including supporting early years initiatives, disability and inclusion programs, and social security.

d. Timor-Leste's Macro-Fiscal Environment

As oil production commenced in the 2000s, Timor-Leste quickly became one of the most oil-dependent countries in the world. Shortly after its independence, Timor-Leste came to an agreement with Australia to exploit the oil and gas reserves in the Timor Sea, which separates the two countries. The 2002 Timor Sea Treaty established the 'Joint Petroleum Development Area' (JPDA), a regulatory framework to facilitate commercial production, giving 90 percent of the area's petroleum revenues to Timor-Leste. With little other economic activity spurring growth in Timor-Leste, the offshore oil and gas sector became by far its largest source of income. At its peak, it made up over 90 percent of exports and 95 percent of government revenues.

Timor-Leste was successful in securing a good share of the proceeds of production. The Petroleum Fund Law was passed to establish the Petroleum Fund as a perpetual fund, providing the government with continual budget financing from 3 percent of the total expected petroleum revenues each year (ESI), except in exceptional circumstances where more could be drawn if it was in the national interest. The incoming government in 2007 decided to scale up spending beyond the ESI to speed up development. The GDP growth in the years following 2006 reflected this scaling up of public spending from a low base. Economic growth has however decelerated sharply over the past decade, from 11 percent in 2008 to 3–4 percent in 2014–2016, while recessions since 2017 have jeopardized hard-won gains. Over the same period, production from existing oil and gas wells has begun to decline as Timor-Leste's largest oil and gas field, Bayu-Undan, approached depletion as early as 2022. As a result, the balance of the Petroleum Funds, which peaked at around US$19.7 billion in 2021, has begun declining. As the capital is eroded and investment earnings fall, the Petroleum Fund balance will fall increasingly quickly if the fiscal deficit remains large.

Timor-Leste adopted the US dollar as legal tender to eliminate the inefficiencies and distortions from the use of multiple currencies. After the independence referendum in 1999, under the UN Transitional Administration, it was to adopt a full dollarization regime. The US dollar as a legal tender had advantages that include stable value, wide international use, and facilitator of trade in an economy in which the export base is concentrated in a few volatile commodities, including oil and coffee, that are priced in US dollars. Dollarization also helped achieve price stability and eliminated exchange rate volatility and risks of any sudden, sharp devaluation of the country's exchange rate. Average annual inflation during 2001–2021 was 4.5 percent with relatively stable real effective exchange rate over the past few years (as the value of the US dollar against other major currencies and oil prices are negatively correlated).

The US dollar began rising at the beginning of 2022. The DXY, an index that measures the value of the US dollar against six major currencies, including the euro and the Japanese yen, is at a 20-year high. Economic fundamentals are a major factor in the appreciation of the currency. A series of interest rate increases since the beginning of the year by the US Fed has turned the dollar into a high-yielding currency. Lofty interest rates are a draw to global capital and make dollar-denominated assets more attractive which, in turn, increase the value of the dollar. Another driver is the considerable terms-of-trade shock triggered by Russian Federation's invasion of Ukraine.[34] The surge in gas prices in the euro area has brought its terms of trade to the lowest level in the history of the shared currency.

The real appreciation of the US dollar has not had a significant impact on the production of hydrocarbons and coffee. The production of these commodities is capacity constrained, at least in the medium term, while they are also priced and traded in US dollars. The appreciation of the US dollar, however, adds to the challenge of establishing new exports or developing local production. It is accordingly important to ponder measures to improve competitiveness of domestic production and mitigate the impacts of a stronger US dollar. These policies may include maintaining a low level of inflation and lowering domestic transaction costs. Price stability should be incorporated as an explicit consideration in the formulation of fiscal policy. This is because inflation pressure may come from a sudden increase in public spending that exceeded the local absorptive capacity. On the other hand, making financial intermediation more efficient is an example of measure to lower domestic transaction costs. Further policy considerations in the areas of private sector development and trade are discussed further in Chapter 2 and Chapter 3 of the report.

The use of the US dollar as legal tender, however, has some disadvantages. The first is the absence of monetary policy as an instrument for macroeconomic stabilization, leaving fiscal policy as the only instrument. The second is the seigniorage revenue foregone from the monopoly power to print money. Developing countries in the EAP region that rely on monetary policy to respond to shocks and restore equilibrium in the domestic economy usually collect seigniorage revenues of about 1–2 percent of GDP. And the third is the inability to rely on exchange rate policy to mitigate the adverse impact from external shocks (for example, higher food prices) to facilitate the adjustment of the real exchange rate and restore external equilibrium without causing domestic deflation.

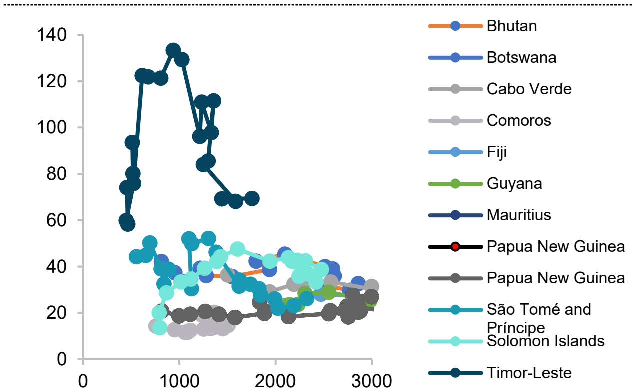
Looking ahead Timor-Leste's good track record of macroeconomic stability may be under threat. Economic growth has decelerated sharply over the past decade, calling for a renewed economic strategy backed by a strong political consensus. Additionally, Timor-Leste has made little progress in achieving a sustainable economic and fiscal model while continuing to rely on a model of spending finite resources. Timor-Leste's Petroleum Fund reserves are being depleted. As new petroleum revenues cease and earnings from the Petroleum Fund decrease, the balance will fall increasingly rapidly in years to come. Under the current spending trajectories, the Petroleum Fund will be fully depleted by 2035 (2023 Pre-Budget Statement, MOF). This affords Timor-Leste only a limited time to bring its public finances on a sustainable footing, and with an

[34] Term of trade is a measure of prices for a country's export relative to its import.

underdeveloped domestic economic base, few taxes, and a high level of public expenditure, it faces considerable challenges in doing so. The threat of the fiscal cliff reduces the likelihood of achieving the country's economic diversification objectives as businesses will be averse to investing, given the prospect of disruptive economic and fiscal contraction in the near future.

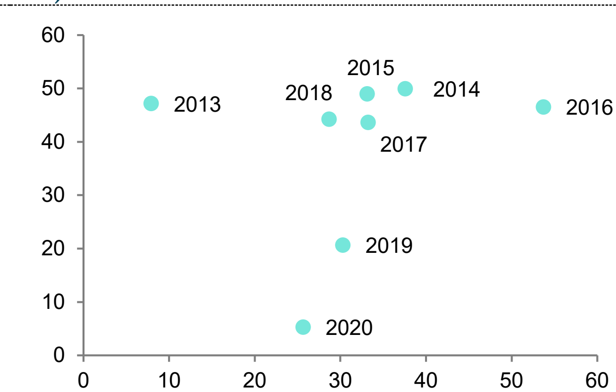
Public expenditure levels have been high, which coupled with limited domestic revenues has contributed to large budget deficits. Public expenditure levels have been among the highest in the world—averaging over 80 percent of GDP since 2007 (Figure 1.33). Public spending is perpetuating a vicious cycle of resource misallocation, which is fueling large (fiscal and trade) deficits and weighing on economic growth, which is then offset with further unproductive public spending (Figure 1.34). Domestic revenues remain small (at less than 12 percent of GDP), while the ESI is gradually declining, owing to depleting petroleum wealth. Hence, the fiscal deficit is large and predominantly financed by excess withdrawals from the Petroleum Fund. The enormous public spending, however, has failed to sustain economic growth due to inefficient public transfers and investments as well as large import content of government spending. Indeed, historical data from the last few years suggest that there has been no obvious positive link between spending and economic growth in Timor-Leste (Figure 1.35). The justification for frontloading public spending is thus increasingly untenable.

Figure 1.33: Timor-Leste's public expenditure (% of GDP)



Source: MOF (BOOST) and IMF.

Figure 1.34: Twin, fiscal and current account, deficits of Timor-Leste have been considerably large (% of GDP; fiscal deficit - y-axis; current account deficit - x-axis)



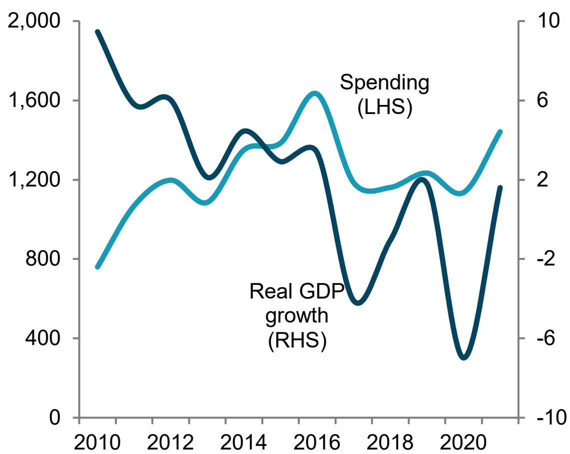
Source: World Bank staff estimates.

Estimates suggest that the impact of public expenditure on economic activity has been limited. Analysis confirms that GDP responds positively to government expenditure, although confidence intervals are large. The impulse responses are significant at both impact (that is, same quarter) and longer horizons—with the multiplier estimated at 0.17 and 0.08, respectively. These estimates are well below unity, implying that the increase in GDP is much lower than the initial increase in spending. The fiscal shocks are more effective in the short term—especially for public consumption (0.39), albeit still considerably below 1—but the magnitude of the multipliers is lower in the long run (Figure 1.36). The estimated fiscal multipliers are modest and lower than those estimated for other countries.[35] Low-impact multipliers indicate that much of the spending leaks into imports (such as capital goods and construction services), as there is limited domestic productive capacity to satisfy this demand. Moreover, low long-run multipliers suggest that the (large) expansionary fiscal policy stance is not addressing supply-side constraints and is thus jeopardizing fiscal sustainability. In sum, public spending partly drives economic growth in the short term but fails to have a lasting impact on the economy. Increasing the rate of return of public spending (that is, quality of spending) is essential to stimulate growth both in the short and the long run.

[35] The fiscal multiplier range is usually less than 0.5 for small open economies (Spilimbergo and Schindler 2009**).** Fiscal multipliers in small states tend to be low, reflecting a high level of spending on imports. For instance, the government spending multipliers range from 0.44 to 0.47 in Kiribati and from 0.14 to 0.16 in Palau (Boyce et al. 2014). This range is consistent with the estimates obtained for small island states in Eastern Caribbean Currency Union (Gonzales-Garcia and Mrkaic 2013).

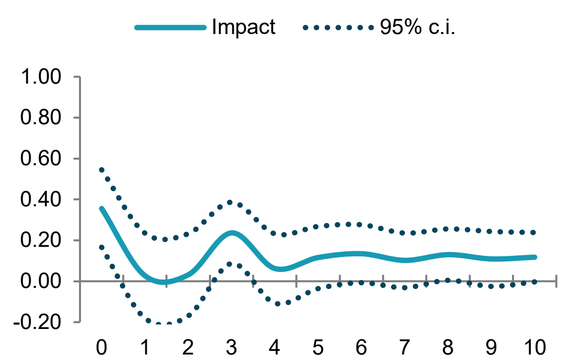
The current fiscal pattern raises concerns from a sustainability perspective. Total revenue, which includes both domestic revenue and the ESI, has been insufficient to cover recurrent spending. Recurrent spending is typically associated with outlays necessary for the basic functioning of the government and public service provision, so it is crucial to cover these costs with (recurrent) revenues. Fiscal projections however suggest that total revenue will only be part of recurrent spending in the medium term. Moreover, excess withdrawals from the Petroleum Fund are often justified by the need to frontload public investment. However, excess withdrawals have been larger than capital spending since 2016, implying that they are also financing the recurrent budget. Given the foregone investment returns associated with withdrawals, it is important to ensure that these funds generate high economic (and social) returns. This may not be the case if funds are mostly used for consumption, rather than investment. Overall, the expected spending profile over the medium term appears to be untenable.

Figure 1.35: Spending and economic growth in Timor-Leste (million, LHS; %, RHS)



Source: MOF, World Bank staff calculations.

Figure 1.36: Fiscal multiplier for spending on goods and services (US$ million, y-axis)



Source: MOF, World Bank staff estimates.

The Petroleum Fund could be exhausted in about a decade, according to planned spending patterns. The Petroleum Fund balance grew rapidly to US$16.5 billion by the end of 2014, after which it broadly stabilized. Exceptional investment returns in recent years pushed its balance to a record high of nearly US$19 billion by the end of 2020. However, high withdrawals and declining petroleum-related revenues threaten its sustainability. Once existing petroleum reserves are depleted, increases in the Petroleum Fund will rely exclusively on investment returns from existing assets. The volatility in international equity markets has strongly influenced the value of the Petroleum Fund through (unrealized) asset revaluations. With the exhaustion of offshore petroleum reserves and uncertainty over future petroleum developments, the Petroleum Fund is projected to deteriorate rapidly in the medium term.

The collapse of the Petroleum Fund could lead to a sudden and painful fiscal adjustment with significant consequences to human development. Spending levels significantly escalated in 2020 and 2021 to address the impact of COVID-19 pandemic and Tropical Cyclone Seroja. Despite receding impact of the pandemic, the expenditure ceiling for 2022 was set at US$2.1 billion, 75 percent higher than average actual spending in 2017–2019 and three times larger than the estimated sustainable sources of revenue of US$705 million. This would contribute to a fast depletion of the Petroleum Fund which in turn would reduce the ESI. A lower ESI would place further pressures on excess withdrawals in the absence of changes in the fiscal policy stance. Under such circumstances, an abrupt and painful fiscal adjustment would ensue when the Petroleum Fund is completely exhausted and public spending would need to be brought down to affordable levels as a result. This could then entail cuts in the civil service, social protection schemes, and other key expenditure categories. The delivery of basic public services would be jeopardized, and social cohesion would be at risk.

The joint 2022 IMF and the World Bank Debt Sustainability Analysis reveals that Timor-Leste remains at moderate risk of overall and external debt distress. The present value of external debt-to-exports ratio and the debt service-to-exports ratio under the baseline are projected to breach their respective indicative thresholds in the medium term, triggering a high-risk mechanical rating for external and overall debt. In the medium term, however, the Petroleum Fund is large relative to projected debt levels and debt service requirements, and its assets are liquid and accessible, thus acting as a mitigating factor, prompting the use of judgment to upgrade the risk assessment. The same report also indicates that long-term risks to debt sustainability have increased compared to the earlier analysis, reflecting higher projected fiscal deficits and a faster depletion of the Petroleum Fund.

1.4. Conclusions and Policy Recommendations

This chapter proposes to refocus Timor-Leste's reform efforts on key institutions, infrastructure, and macroeconomic management. The objective is to highlight the criticality of these factors *relative to* other areas of reform in helping to address the country's structural impediments inherent in its small-state features. Without these factors in place, it will not be possible for Timor-Leste's private sector (Chapter 2) let alone its tradable sector (Chapter 3) to expand. These are binding constraints to competitiveness and investment. The purpose of this chapter is not to provide a detailed roadmap in each of these critical areas of reform but rather to reiterate what is covered elsewhere in a consistent framework to help prioritize the reform strategy. The following recommendations are, therefore, drawn from the existing analysis to reinforce the arguments highlighted in this chapter.

Political stability is a fundamental precondition to ensure a sustained economic recovery. The temporary political instability of 2017–2018 took a toll on the economy, as lack of agreement prevented the adoption of a supplementary budget in 2017 and delayed the approval of the 2018 budget. This forced the government to operate for most of that year on the duodecimal regime. The impasse also postponed political decisions associated with the development of the oil industry and the medium-term public capital spending program. The political stalemate compressed budget preparations and resulted in one of the sharpest economic downturns since 2006 and a halt to key economic reforms.

A political consensus around key policy and, therefore, regulatory reforms to support the economic recovery and overcome socioeconomic challenges is urgently needed in Timor-Leste. From the macroeconomic and fiscal perspective, it is critical to formulate more predictable and credible fiscal policies. This can be done by, among others, (i) ensuring the timeliness of the annual budget approval; (ii) safeguarding the reliability of the budget by avoiding midyear revisions; and (iii) imposing a stronger medium-term budget perspective during budget preparation processes.

Timor-Leste's demographic profile and losses caused by COVID-19 call for an urgent action to bolster human capital. The country's demographic profile offers an opportunity that must be seized now. Building an enabling environment for human capital accumulation and labor market opportunities for its current cohort of students and children before they reach the labor market is imperative for Timor-Leste alongside the skills strengthening of its current working-age population. The need to put the fiscal position on a sustainable footing means that the people of Timor-Leste will now need to be the drivers of the country's income growth. Without an adequately healthy, educated, and productive population, Timor-Leste's demographic transition may give rise to socially and economically destabilizing conditions.

To capitalize on the youth bulge and translate it into a demographic dividend, Timor-Leste will need to improve the efficiency, equity, and sustainability of its human capital investments. Investing in human capital also enhances social cohesion and equity, while strengthening people's trust in institutions. These are important factors for Timor-Leste to mitigate fragility as the country contends with the legacies of past conflict. Key priority areas for human capital development would include (i) investments in primary and specialist health care and nutrition to improve the health and productivity of Timor-Leste's population in the long term; (ii) renewed efforts to address the learning crisis that focus on the quality of education spending, including the skills strengthening of the current workforce; and (iii) rebalancing the social protection system toward those who need it most.

The effectiveness of public capital spending has been low, calling for improvements in public investment management. Estimates suggest that the impact of capital expenditure on economic activity has been limited. Much of the spending leaks into imports, as there is limited domestic production capacity to satisfy this demand. Moreover, the large expansionary fiscal policy stance is not contributing to ease supply-side constraints and is thus jeopardizing fiscal sustainability. Public expenditure is therefore failing to support medium-term economic growth. Moreover, the rate of return on capital has been declining, suggesting that public investment management has been deteriorating. It is therefore crucial to make improvements along the entire project cycle to enhance the impact of public spending on economic growth. It will be crucial to undertake critical public investment management reforms, with a particular focus on project appraisal and project selection.

The 2016 Timor-Leste Public Investment Management Assessment (PIMA) recommended a prioritized action plan to strengthen public investment management institutions and processes. The PIMA, jointly conducted by the IMF and the World Bank, aims to improve capital spending efficiency in the country. The report argued that public investment should focus on high-return projects and efforts should be focused on more rigorous appraisal processes, cost-benefit analysis, risks assessments, and more competitive procurement processes. To address the weaknesses identified in the assessment, the PIMA recommended a prioritized action plan to be implemented before scaling up infrastructure investment.

As the impact of the pandemic has greatly receded, putting the fiscal position on a more solid footing should be a priority for the authorities. The goal should be to secure fiscal sustainability through fiscal consolidation and the commitment to stop relying on excess withdrawals from the Petroleum Fund. There should however be a transition period allowing a gradual fiscal consolidation to contain the adverse impact of consolidation on growth and development needs. A fiscal strategy to stop relying on excess withdrawals should be laid out in the 2022 budget while procedures for undertaking extra withdrawals from the Petroleum Fund need to be made harder.

Fiscal consolidation should be supported by revenue mobilization and expenditure rationalization. Domestic revenue mobilization should be underpinned by a revised tax procedure code and the adoption of a value added tax (VAT). Strengthening tax administration to improve tax compliance should also be a priority. Expenditure rationalization, on the other hand, should aim to gradually put the level of government expenditure in line with sustainable sources of revenue. The quality of spending needs to be improved to enhance the productive capacity of the economy and protect the poor. Government expenditure in Timor-Leste averaged 74 percent of non-oil GDP in 2015–2019, an outlier compared to other countries. The 2021 public expenditure review conducted by the World Bank provides useful information to identify large-ticket expenditures that could be cut.

CHAPTER II: STRENGTHENING THE FOUNDATION FOR PRIVATE SECTOR-LED GROWTH IN TIMOR-LESTE

2.1. Motivation

A more dynamic private sector will enable Timor-Leste's economy to thrive. While the country celebrates the 20th anniversary of its independence, its economy is at a turning point. Construction, public services, and petroleum have been the key drivers of economic performance since independence, partly to rebuild infrastructure, strengthen public institutions, and enhance service delivery. However, given the diminishing returns of public investments, achieving the ambitious targets of the SDP 2011–2030 (including an average economic growth rate above 7 percent, an increase in private investment by at least 10 percent per year, and the creation of at least 60,000 new jobs per year) will require a shift toward a more dynamic, private sector-driven growth model. Enhancing the competitiveness and performance of private firms will be essential to accelerate growth and sustainably raise living standards.

The private sector in Timor-Leste is small and incipient, as it currently mostly serves its domestic market. With fewer than 7,000 registered firms employing 52,200 workers, Timor-Leste's non-oil private sector is small and concentrated in Dili (88 percent of workers and 90 percent of the value added). While it is difficult to measure the size of the informal sector,[36] over 71 percent of the employed population is engaged in informal activities.[37] The average age of a business is 11 years with business entry decreasing from 2017 and further exacerbated by the COVID-19. Improvements in recent years to the licensing regime, construction and import permits, and the existence of a one-stop-shop corporate registry have not stopped the declining dynamism within the private sector. The private sector serves the domestic market with only 1.1 percent of firms exporting directly or indirectly. The small domestic market (1.3 million people) prevents firms from exploiting economies of scale. However, an increased integration to international markets could increase through various factors such as the operationalization of the Tibar Bay port, upgrading of the Dili airport, the internet submarine cable, ASEAN's observer status, and accession to the World Trade Organization (WTO). As a result, the size of the addressable market for Timorese products and services may grow in the coming years. Foreign investments have remained low for the past 20 years despite a liberal approach to foreign direct investment (FDI). The private ownership of land remains a main constraint for investors, particularly foreign investors. Agreements with landowners for commercial property use are hindered by difficulties in determining the parties to a land lease contract. Thus, the role of government should be to step in to offer readily available state-owned land alternatives with a land concession fee that can be negotiated with interested investors or determined though competitive tendering or auction.[38]

Private sector firms do not invest. Businesses mention political instability, access to finance, and electricity as being the most binding constraints to investing. Firms are not predicting that the high levels of risk could translate into high potential returns (which would normally be the case from an investor perspective), which indicates an acute risk-return trade-off dilemma for any investor. As a result, the WBES conducted in Timor-Leste (see Appendix 2.1. for the scope and methodology of the survey) indicates that private investments in workers, innovation, and productive assets are a fraction of the levels of regional comparators. The lack of such 'forward-looking' private investments may jeopardize Timorese firms' ability to actively contribute to the economy in the future. Perceived political instability dampens investment by producing economic uncertainty. Legal and regulatory changes could help improve the business enabling environment in support of more domestic and foreign private investment. However, these immediate governing modifications will not be sufficient. Nationwide reforms, which are critical to develop economic opportunities over a sustained period,

[36] Timor-Leste Labor Force Survey (LFS) 2013. NB. A more recent mini-LFS was conducted in 2016, but it did not collect the necessary data to measure the informal sector and informal employment.
[37] 45 percent in the services sector, 41 percent in the agriculture sector, and 13 percent in agriculture.
[38] Public land lease system best known examples are in the People's Republic of China and Vietnam. ABD Institute Policy Brief (2021): https://www.adb.org/sites/default/files/publication/713156/adbi-pb2021-3.pdf

will take decades to yield positive changes for the private sector. While these fundamental reforms are essential in the long run, the private sector can benefit in the short run through expanded access to land, markets, and finance.

This chapter drills down on institutions, key infrastructures, and cross-cutting enablers that affect the operations, investments, and competitiveness of private enterprises. These factors affect the costs and risks of private investment and are therefore binding issues for Timorese firms' ability to trade internationally, which is further discussed in Chapter 3. Timor-Leste can focus in the next five years (2023–2027) on strengthening the foundation for private sector-led growth. The first pillar for private sector-led growth is the quality, predictability, and fairness of the institutional, legal, and regulatory framework in firm investment and trade decisions. The second pillar is the availability, quality, and cost of key infrastructure that firms rely on to operate and expand their activities in domestic and international markets, including logistics costs. The third pillar is the possibility for firms to benefit from efficiency levers by tapping into the development of well-functioning labor and financial markets and harnessing digital and green technologies. In short to medium term, the government's efforts could usefully focus on achievable changes that best respond to the private sector's immediate expectations such as the provision of state-owned land for individual investors or through agglomeration economies (for example, special economic zones [SEZs]), the piloting of non-debt financial and de-risking instruments (for example, equity funding facility, secure transactions registries, disaster risk financing & insurance, and partial credit guarantees) and digital financial services (DFS) (for example, uptake of electronic and digital payments), and the continued commitment to cross-border trade and market access reforms (see recommendations in Chapter 3). These efforts should be complemented by concrete industry-level actions to mobilize private capital and robust public-private dialogues to monitor the delivery of economic reforms.

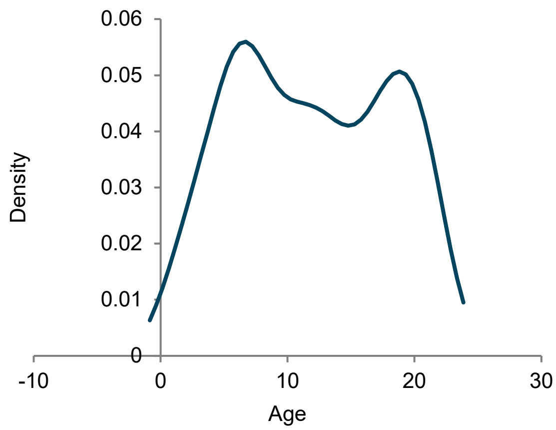
2.2. State of the Private Sector

a. Characteristics of the Private Sector

Unlike other peer countries, Timor-Leste's private sector is much like the country—young, small, and less productive yet lots of potential for further improvement. The creation of firms was spurred after the country became independent in 2002. Close to 90 percent of firms started after independence, making the average age of businesses around 11 years. New business formation grew until 2017 (Figure 2.1), which was followed by the COVID-19 pandemic from 2020 onward. Both firm entry and exit remain relatively high, indicating dynamism within the private sector, albeit with some decline in recent years. Unfortunately, due to its relatively small economy, Timor-Leste can only attract less productive firms. On average, new firms had slightly lower productivity than that of incumbents.

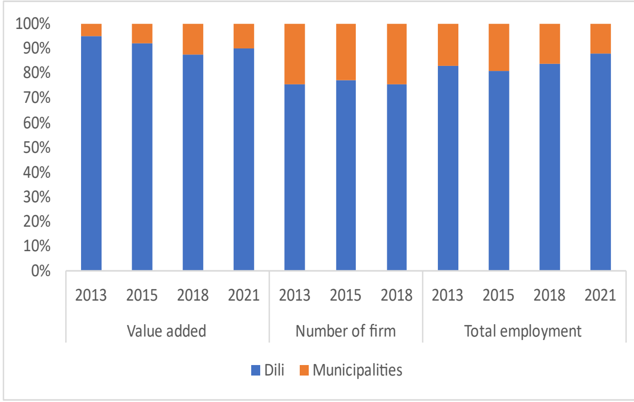
Relative to other comparable countries, the private sector in Timor-Leste is more geographically unequal signaling significant difference in business opportunity among regions. Three-quarters of the non-oil private sector is in the Dili area. While the share of value added from the periphery increased between 2013 and 2021, much of the employment and a number of firms remain concentrated in the capital. In 2010, firms in Dili employed 82 percent of workers while value added was 95 percent. Value added from firms in Dili fell to 90 percent in 2021 (Figure 2.2). In contrast, Bhutan has a more equal between-province distribution. In 2018 and 2019, 52.8 percent of firms in Bhutan are located in four largest districts: Thimphu the capital city (24.9 percent), Chhukha (13.6 percent), Sarpang (8.1 percent), and Paro (6.2 percent). The remaining firms (47.2 percent) are scattered in the remaining 16 districts (Bhutan National Statistics Bureau 2020).

Figure 2.1: Kernel distribution of age of firms



Source: WBES 2022.

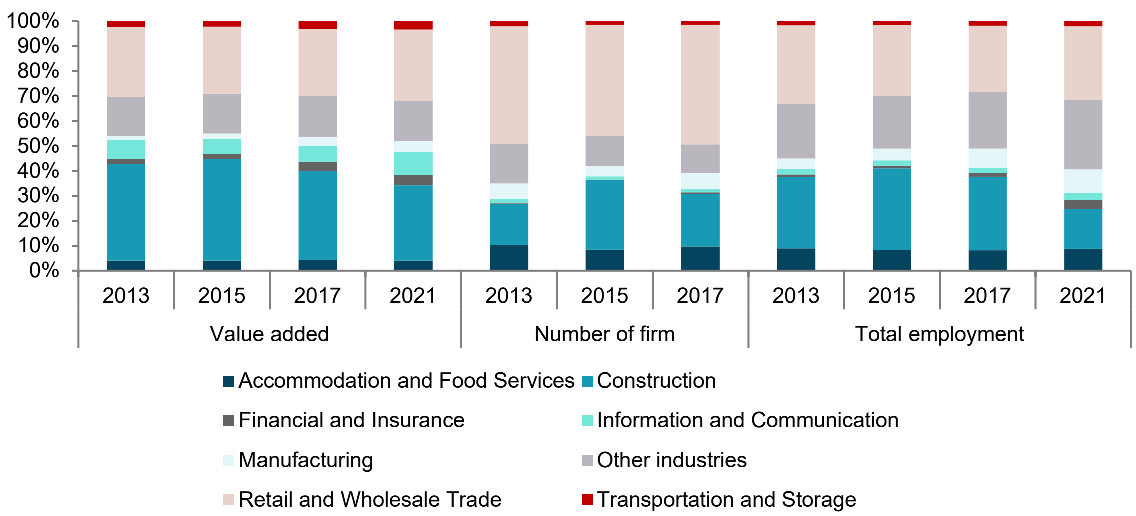
Figure 2.2: Geographical concentration of private sector activity



Source: Business Activity Survey, The Government of Timor-Leste (2022)

While over half of the firms operating are retailers or construction firms, the economic contribution of these manufacturing firms started from a low threshold and has increased over the last decade. As per the Enterprise Survey results, which focus on the formal sector of firms employing five workers or more, the retail and construction sectors make up the greatest share of employment and value added in the country. Jobs in the construction sector are linked to public sector contracts. Accommodation and food services[39] nearly doubled, while contribution to value added nearly tripled (Figure 2.3).

Figure 2.3: Sectoral distribution of the private sector



Source: Business Activity Survey, the Government of Timor-Leste (2022).

Small firms make up about three-quarters of the firms, yet they employ about one-third of all workers. Between 2019 and 2021, the average firm grew at an annualized rate of about 10 percent, measured in terms of employment. However, during the same period, the net employment level fell about 3 percent driven primarily by large firms. Small firms, which are the largest segments of the economy (Figure 2.4), had net job creation of 7.7 percent between 2019 and 2021. Large firms, despite their net reduction of employment levels by 18.8 percent, continue to make up the largest source of employment in the country, employing an estimated 22 percent share of all workers (Figure 2.5).

[39] Food, textiles and apparel, publishing and printing, motor vehicle and transportation equipment, furniture, and others.

Figure 2.4: Distribution of firm's size

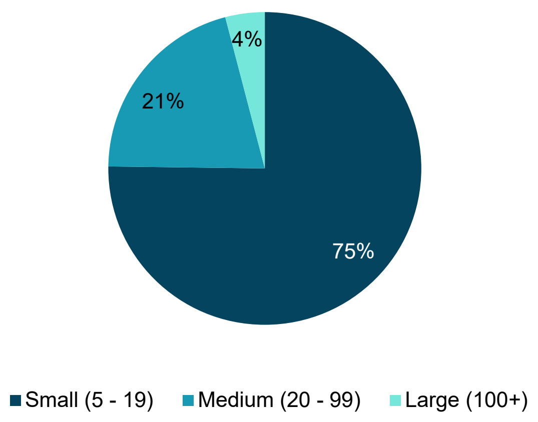
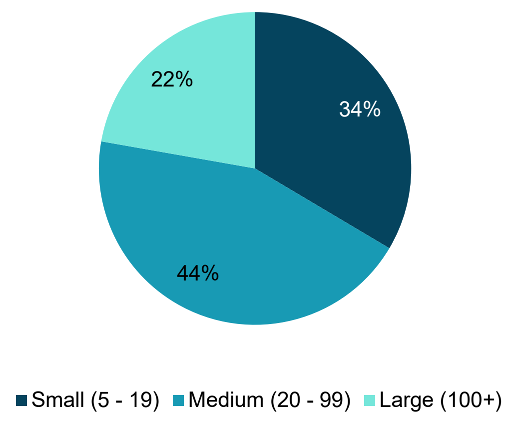


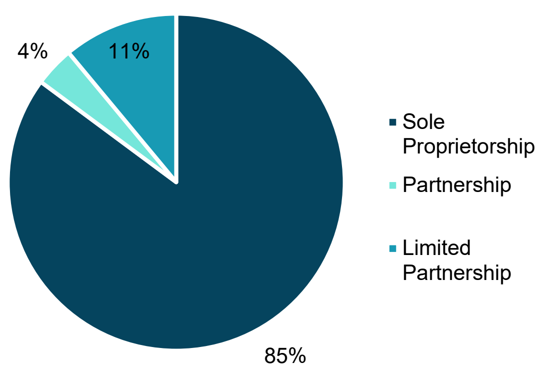
Figure 2.5: Distribution of employment by firm size



Source: WBES 2022.

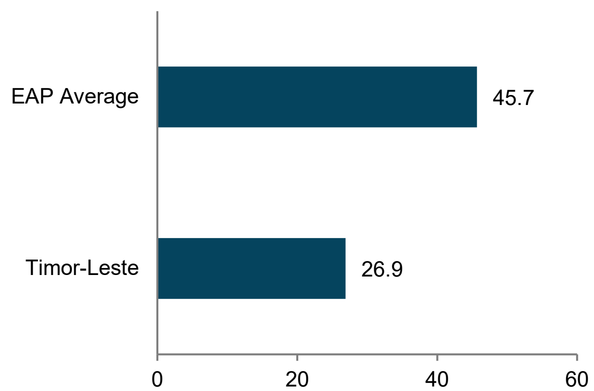
Sole proprietorships dominate as the legal structure for firms. Over 85 percent of businesses are operating as sole proprietorships. Sole proprietorships mean that the liability is the responsibility of the owner (Figure 2.6). About 11 percent of firms are incorporated as limited partnerships which hold a significant advantage in terms of labor productivity and annual sales growth (Abdo Ahmad and Fakih 2022). The lack of corporations and other forms of shareholding arrangements can pose a significant constraint to the ability of business owners to provide personal liability protection, disincentivize firm owners from taking risks, make it difficult to transfer ownership of the business entity, and obtain access to different forms of financing.

Figure 2.6: Distribution of legal status



Source: WBES 2022.

Figure 2.7: Percentage of firms with a female owner



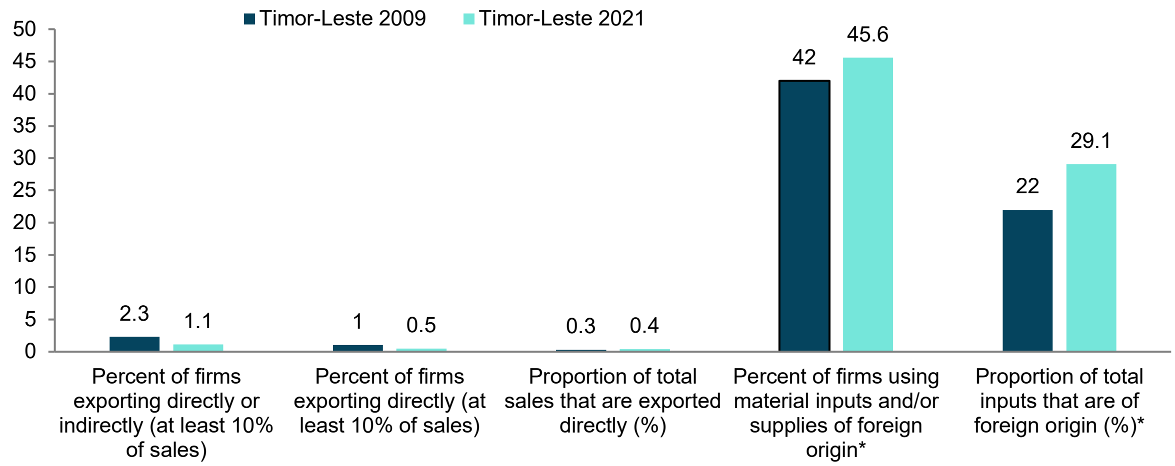
Source: WBES 2022.

Women participate as owners in about one-quarter of all firms surveyed (Figure 2.7). This number is significantly less than the regional average of 45 percent. The relatively lower participation of women in ownership of firms is partly due to the large share of sole proprietorship firms which limits the opportunities for women to invest in businesses. This could be because, for family businesses, existing gender dynamics lead to the business being registered in the name of a male household head. It may also be that many women-led economic activities remain in the informal sector. Men and women perceive similar obstacles to their businesses, and the relative importance of these obstacles is also similar for male- and female-owned small and medium enterprises (SMEs). Only 10 percent of female-owned SMEs have a line of credit or loan from a financial institution.

b. Participation in the Global Market

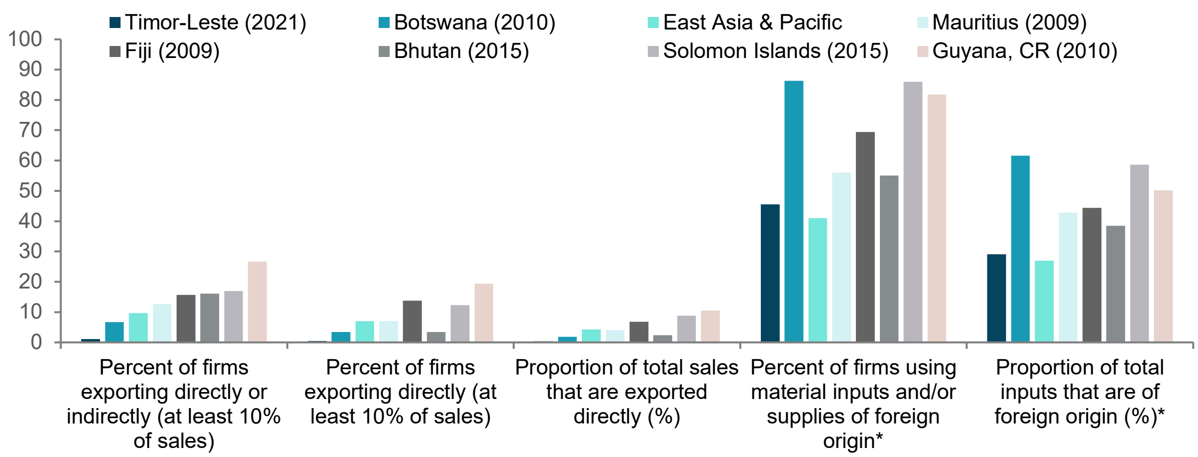
Relative to firms in other comparable countries (see Appendix 1.1), the private sector mostly serves the domestic market and share of exporting firms in 2021 was only 50 percent of the 2009 level. The share of exporting decreased from 2.3 percent in 2009 to 1.1 percent in 2021 (Figure 2.8). This is significantly lower than the export performance of comparable countries. About 16.1 percent of firms in Bhutan engaged in exporting activities in 2015. Similar higher participation in the international market occurred in the Solomon Islands (16.9 percent) and Guyana (26.7 percent). Furthermore, firms in these countries also had higher export intensity, reflected in the share of exported goods in the total production. For example, while the average export intensity in Bhutan was 2.4 percent of the total output, 8.8 percent of produced goods in the Solomon Islands were exported in 2015. In contrast, Timor-Leste only exported around 0.4 percent of total production in 2021.

Figure 2.8: Participation in the international market



Source: WBES 2022.
*Note: * This indicator is computed using data from manufacturing firms only.*

Figure 2.9: Participation in the international market (cross-country comparison)



Source: WBES 2022.

Timorese firms' reliance on the imported inputs is higher than that of other countries, leaving them more vulnerable to disruptions in their supply chains that could contribute to domestic value addition. Figure 2.9 shows that more firms import their production inputs from other countries likely due to the small size of the economy. While 30–40 percent of firms in comparator countries imported in the last five years, 45 percent of the private sector purchased production inputs from the international market in 2021. This share is lower than that of comparators. More firms in the Solomon Islands (86 percent) and Guyana (81.8 percent) import material input. Moreover, Timorese firms import 29.1 percent of their production input. The percentage of imported inputs is lower than that of the Solomon Islands (58.7 percent), Guyana (50.2 percent), and Bhutan (38.5 percent).

c. Performance of the Private Sector

Firms in comparable countries outperformed Timorese firm in terms of labor productivity measured by sales per worker in 2018. The average sales per worker was US$35,000 in 2018. In comparison, the average sales per worker of firms among peers was significantly higher than the Timorese firms' performance. Comparatively lower sales per worker in Timorese firms was primarily driven by lower sales of manufacturing firms. In 2018, sales per worker of Timorese services firms was eight times higher than in manufacturing (the average of manufacturing firms was US$5,440 per worker, compared to US$42,570 per worker for services firms).

Figure 2.10: Sales per worker (US$, thousands)

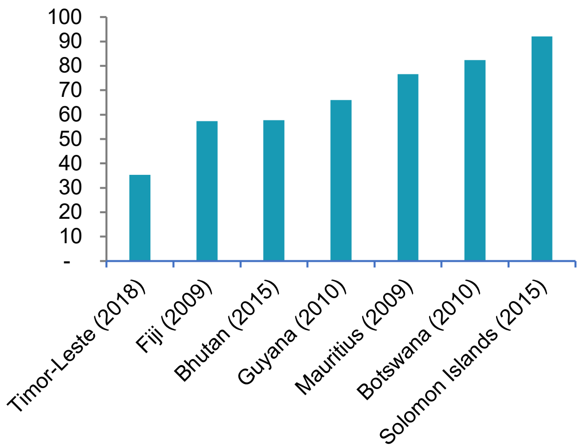
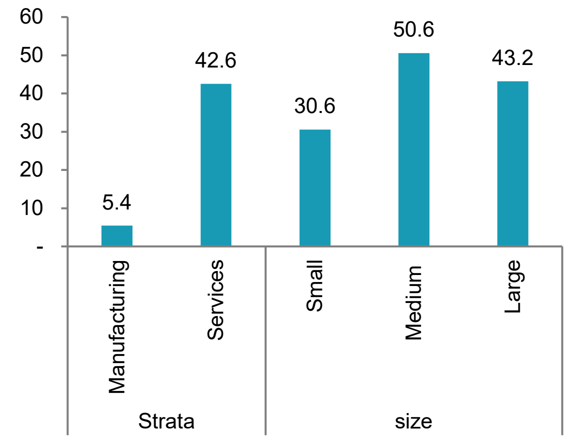


Figure 2.11: Sales per worker of Timor-Leste in 2021 (US$, thousands)



Source: WBES 2022.

Figure 2.12: Average growth of sales per worker (%)

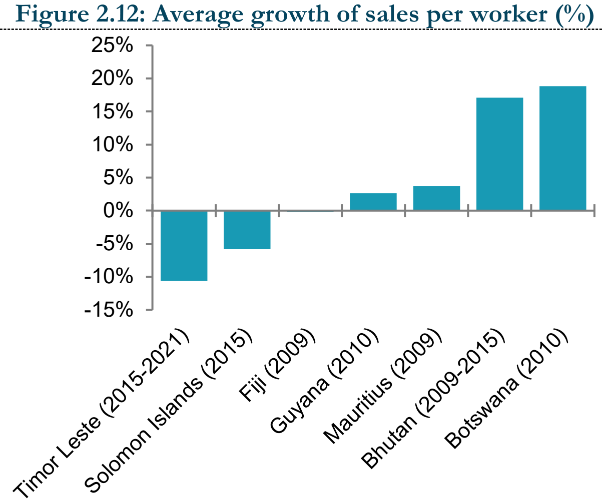
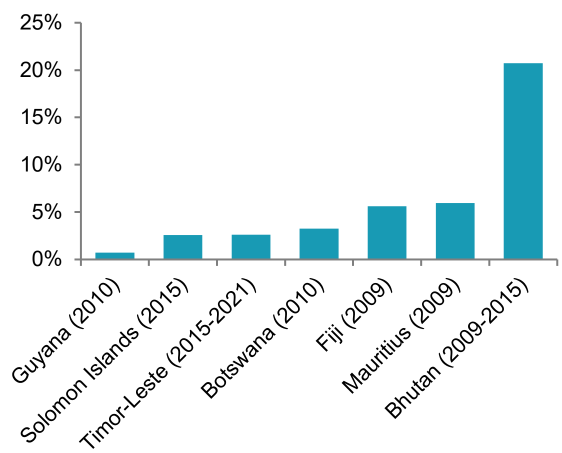


Figure 2.13: Average growth of employment (%)



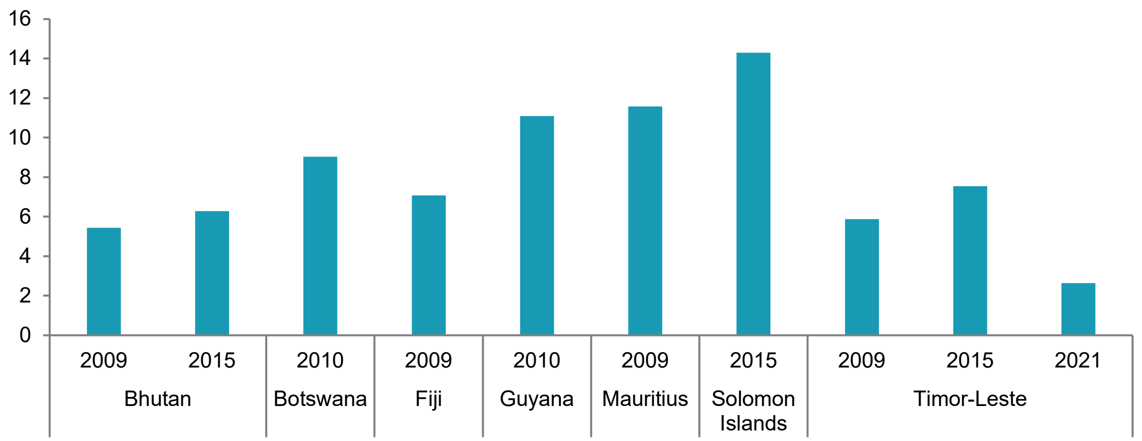
Source: WBES 2022.

Sales per worker growth decelerated and was lower than the growth rate of all peers. Enterprise Surveys collect information on sales and workers for the current year and the two preceding years. Labor productivity growth—as measured by the rate of change in sales per worker—declined between 2013–2015 and 2019–2021 (Figure 2.12). During 2019–2021, firms in services experienced the biggest drop in productivity growth by −22.4 percent. Firms in manufacturing perform slightly better with −17.0 percent drop in growth. Furthermore, compared to its peers, Timorese firms experienced modest labor productivity growth between 2015 and 2019

(Figure 2.12). This drop was largely due to the COVID-19 pandemic (see Box 2.1). Labor productivity growth (−10.6 percent) was lower than in other comparator countries.

Manufacturing firms showed a significant increase in value added per worker between 2009 and 2015, yet this high performance was halted in 2021 (Figure 2.14). Between 2009 and 2015, average labor productivity (measured in value added per worker) of the manufacturing firms increased from US$5,878 to US$7,545. However, this growth halted in 2021 where the value added per worker dropped to US$2,633 in 2021. This drop can be partly explained by the COVID-19 pandemic (see Box 2.1). Looking at the comparable countries, the similar increased in labor productivity also happened in Bhutan. The value added per worker in Bhutan increased from US$5,439 in 2009 to US$6,283 in 2015. However, lack of recent micro-level data in comparable countries force us to limit analysis on pre-COVID performance.

Figure 2.14: Value added per worker (US$, thousands)



Source: WBES 2022.

Employment has decreased since 2015 and is primarily attributed to COVID-19 and low labor demand of labor-intensive sectors. The contraction of permanent full-time employees is additional evidence of slowing private sector performance in Timor-Leste.[40] After an acceleration in employment growth between 2013 and 2015, employment in Timor-Leste contracted by 6.9 percent between 2015 and 2018. The contraction continued with a −2.7 percent employment growth between 2018 and 2021. While COVID-19 was the main reason for the employment contraction in 2020 and 2021, the negative employment growth between 2015 and 2018 was mainly caused by a significant drop in labor demand from the labor-intensive sector such as construction and retail sectors. Employment in the construction sector decreased from 20,000 workers in 2015 to 11,800 workers in 2018. At the same time, the total number of retail and wholesale workers slightly dropped from 17,400 in 2015 to 16.300 in 2018 (Business Activity Survey 2018).

Box 2.1: COVID-19 and the private sector

Following the first confirmed COVID-19 case in March 2020, the Government of Timor-Leste (GoTL) adopted various containment measures.[41] The restriction measures did not amount to a complete 'lockdown' as in some other countries in the region. However, as shown in the mobility data, the air, sea travel, and public event restrictions led to a sharp drop in movements between March and April relative to February 2020. The stringency index,[42] which measures the extent of mobility, sharply increased in March and April 2020. Due to a gradual easing of containment measures in the following months, mobility started to grow, and the stringency index gradually decreased in May 2020. The dynamic of the stringency index was also reflected in the Facebook mobility index. After the sudden drop in March and April 2020, the mobility gradually increased afterward. It started to decrease in late 2020/early 2021 as the number of cases in Timor-Leste increased, and the GoTL introduced some mobility restriction policies.

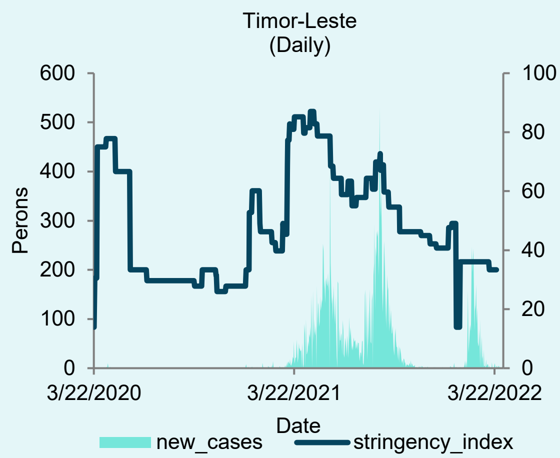
[40] Enterprise Surveys contain information on employment levels at the end of the last complete fiscal year before the survey was administered (t) and at the end of 'three fiscal years ago', which enables the calculation of average employment growth over a two-year period.

[41] See the IMF COVID-19 policy tracker for a summary.

[42] For further information on stringency index, please see Hale et al. (2021).

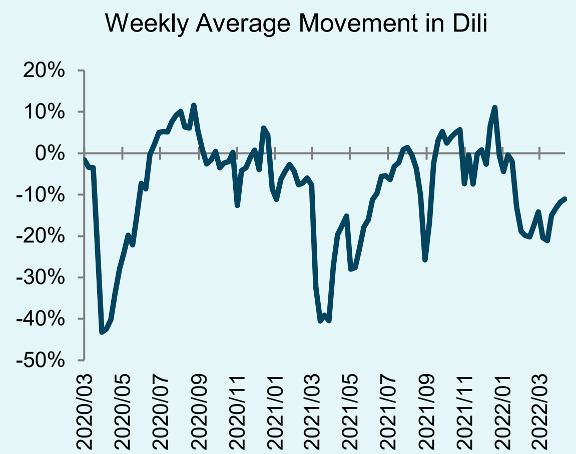
The COVID-19 crisis and following containment measures severely hit firms in all sectors and sizes, especially small and medium firms in the manufacturing industry. Around 56 percent of firms reported temporarily closing their business activities during the pandemic. The average closed duration was 18.8 weeks. Furthermore, on average, compared to sales in 2018, firms in Timor-Leste reported a sales drop of 30 percent in 2020. Firms in the manufacturing sector reported a significantly larger sales drop at 41 percent. Meanwhile, firms in the retail industry and other services sectors reported a milder impact, with sales dropping by 31.82 percent and 29.20 percent, respectively. Furthermore, small and medium firms reported a more significant negative impact, with sales falling by 40.5 and 32.1 percent, respectively. Larger firms reported a lower impact with an 8.1 percent sales drop.

Figure 2.15: The stringency index of Timor-Leste



Source: Oxford COVID-19 Government Response Tracker (OxCGRT) (2022).

Figure 2.16: Weekly average movement in Dili



Source: Facebook Movement Range Maps (2022).

Figure 2.17: Sales changes between 2018 and 2020 (%)

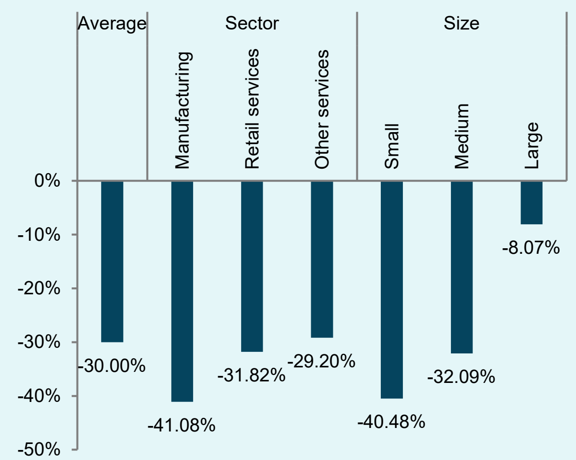
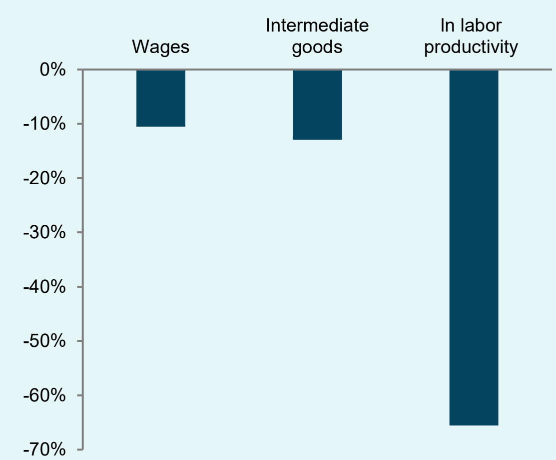


Figure 2.18: Changes between 2019 and 2020 in manufacturing sector



Source: WBES 2022.

The pandemic also provided a temporary shock to production inputs, leading to lower productivity of manufacturing firms in Timor-Leste. Lower sales forced firms to use less labor inputs. As a result, during the 2019–2020 episode, the total wage bill of manufacturing firms decreased by 10.5 percent. This lower wage bill could be the result of employing fewer workers due to pandemic (extensive margin),[43] lower total wages (intensive margin),[44] or a combination of these two margins. However, there was limited information for separating these two margins from the lower wages bill. Simultaneously, the log labor productivity of firms in the manufacturing sector in Timor-Leste decreased by 65 percent between 2019 and 2020.

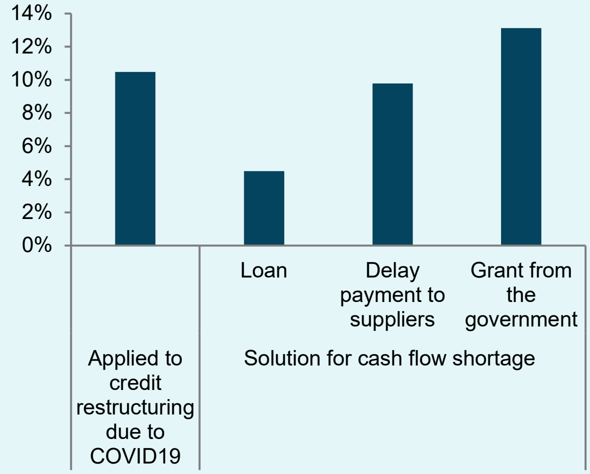
[43] Extensive margin: Firing worker (reduce number of workers).

[44] Intensive margin: Reducing working hour of existing workers.

Compared to regional counterparts, firms in Timor-Leste experienced less negative impact from the COVID-19 pandemic. In the short term, the COVID-19 pandemic severely affected firms. While this reduction is sizeable, it was also expected given the nature of the pandemic, which resulted in mass distancing and closures that interrupted the normal conduct of business. Compared with other countries, the decline in Timor-Leste is relatively lower than others in the region. For example, firms' sales in Indonesia dropped by 42 percent in October 2020 (year-on-year [YoY]). This is an improvement from the pressure in June 2020, with a 56 percent drop. Timorese firms only performed worse than firms in Malaysia, with 12 percent sales drop in May–August 2020.

Figure 2.19: Average change in YoY sales

Figure 2.20: Loan and cash flow shortage



Source: WBES 2022; Business Pulse Survey from several countries

This pandemic put financial pressure on firms in Timor-Leste. About 10 percent of firms requested loan deferments from the banking sector in Timor-Leste, and 4 percent applied for new loans to solve the shortage in their cash flow. While 10 percent delayed payment to suppliers, around 12 percent relied on grants from the government to handle the cash flow shortage.

A smaller share of firms utilized the internet or digital platforms to adapt to the negative shocks from COVID-19. About 17.4 percent of firms started using or increased their use of digital platforms in response to COVID-19. The uptake of digital platforms is higher among medium and large firms. Almost 3 in 10 of medium and large firms reported having started or increased online business activity in response to the COVID-19 outbreak. This is significantly lower than the digital adoption in Indonesia and other Southeast Asian countries.

2.3. Cross-cutting Constraints to Private Sector Development

Businesses face a range of obstacles, with political instability, access to finance, and electricity being the most binding. An overwhelming majority of businesses named political instability as the biggest obstacle to their operations, with more than half indicating that it is a major or very severe issue (Figure 2.21). Electricity, which was the biggest issue in 2009, continues to be an obstacle albeit less so. On the other hand, access to finance has been identified as one of the top three obstacles since 2009. The following sections look at the factual indicators as to how these obstacles have played a role in the private sector of Timor-Leste (Figure 2.22).

Figure 2.21: Top 3 obstacles (% of firms)

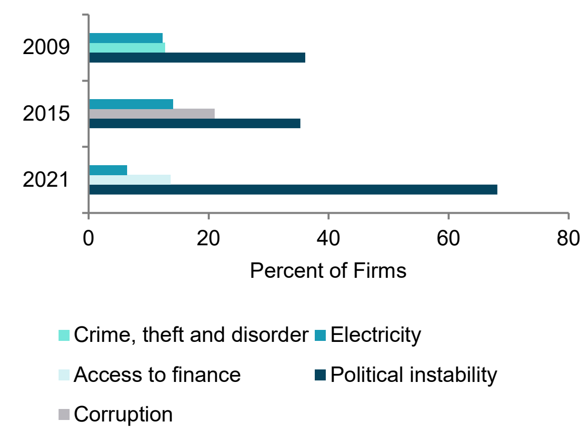
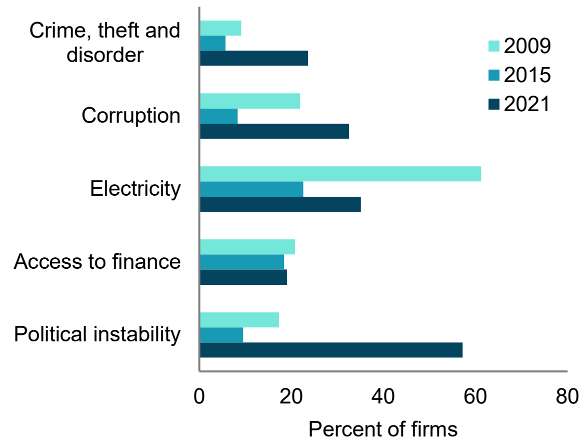


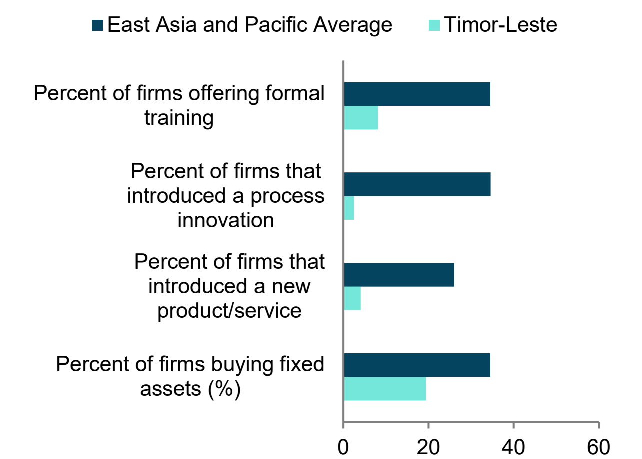
Figure 2.22: Percentage of firms indicating the obstacle to be major or very severe (% of firms)



Source: WBES 2022.

a. High Uncertainty due to Political Instability and Regulatory Changes

Figure 2.23: Investing in the future



Source: WBES 2022.

Political instability erodes investor confidence and results in economic uncertainty. The share of firms investing in purchases of fixed assets in Timor-Leste is nearly half of the regional average in EAP, with less than 20 percent of businesses undertaking these investments. About 8 percent of firms are investing in their workforce by providing some form of formal training to their workers which is lower to the EAP average of 34 percent (Figure 2.23). Innovation rates are even lower, with 4 percent of firms introducing a new product and 2 percent of firms introducing a new process of manufacturing goods or rendering services indicating low levels of risk taking. It is important to note that the lack of domestic competitive pressure also negatively affects the lack of investment, training, and innovation. This political instability has resulted in significant losses to Timor-Leste economy as detailed in Chapter 1.

Despite recent successes in streamlining the licensing regime, the proliferation of multiple business licenses remains costly for the private sector. Firms are required to obtain multiple licenses and permits starting from operating licenses to specific sectoral licenses (for example, construction permit) to import licenses, but the licensing regime is ill-defined and a full and complete inventory of all licenses for businesses needs to be completed. Firms are also required to regularly present a certificate confirming that their tax returns and payments are up-to-date (*Certidão de Dívidas*), and the frequency with which this certificate has to be updated has caused problems for firms through increased transaction costs, delays, and penalties. With such multiple licenses and permits, managers in Timor-Leste spend more time in dealing with cumbersome government regulations. In 2017, Timor-Leste passed Decree Law 34/2017 to coordinate the different sectoral licenses through the Service for Registration and Verification of Entrepreneurs (SERVE) with additional reforms designed to shift from 'ex ante' licensing to 'ex post' controls and limiting sectoral licenses to activities designated as high risk to the economy. While this suite of licensing reforms is expected to result in significant private sector cost savings, the reform agenda has not been fully implemented, particularly as SERVE lacks the full mandate and resources to provide these services. Hence, Timor-Leste lags behind most comparators except

Mongolia when considering the proportion of time managers spend on cumbersome government regulations. Timor-Leste is also far above the regional average for EAP (6.7 percent).

Figure 2.24: Senior management time spent dealing with the requirements of government regulation (%)

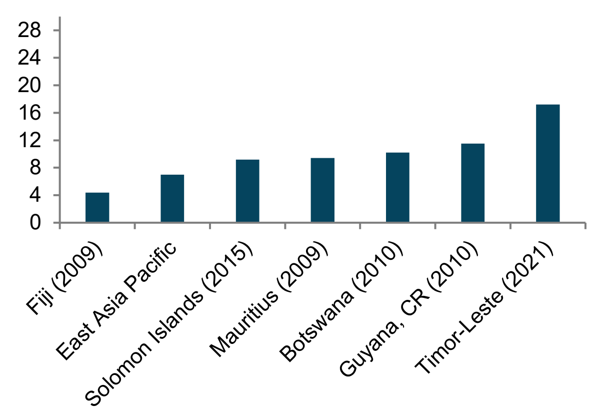
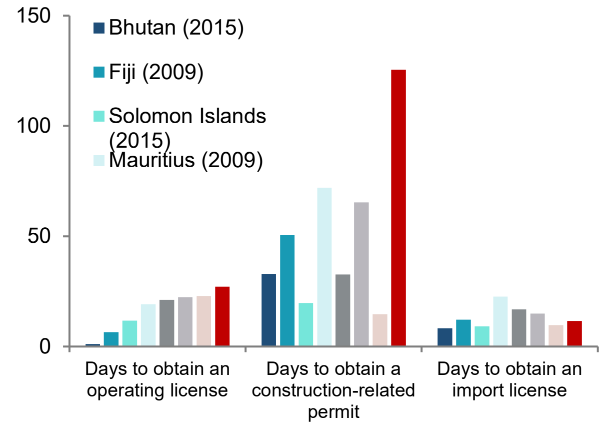


Figure 2.25: Business licensing (cross-country comparison)

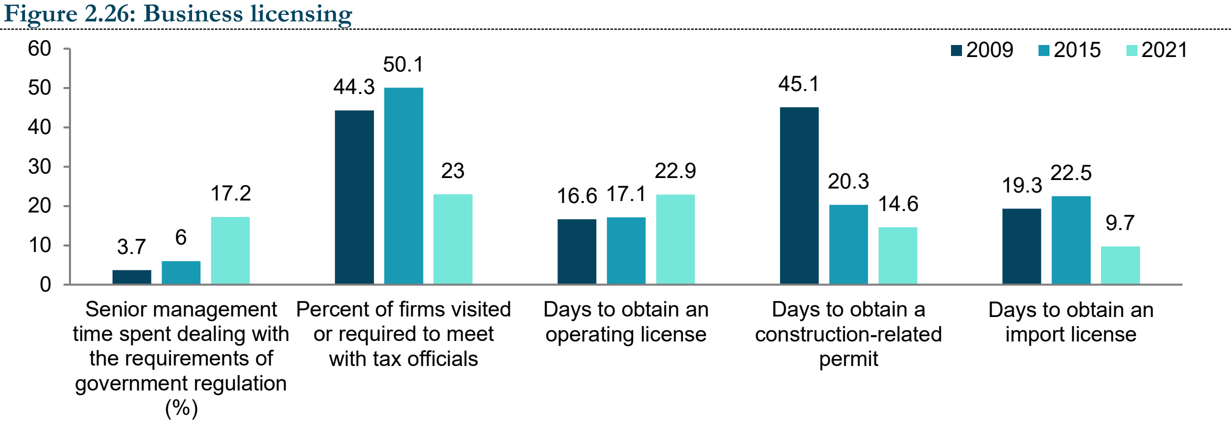


Source: WBES 2022.

Firms wait slightly longer than average EAP countries when applying for operating permits and less for construction and import permits. In 2021, firms had to wait 22.9 days to get an operating license: two days longer than average EAP countries. Apart from this operating license, Timorese firms can get construction permits and import licenses faster than other EAP countries. To get a construction permit, firms in Timor-Leste must wait for 14.6 days. This is half the time needed to get the same license in comparable EAP countries. The similar shorter waiting period also happens in the import license, where Timorese firms wait 8 versus 16.4 days in the rest of EAP.

Despite lagging behind its peers, there have been improvements in the processing of permits and licenses in Timor-Leste since 2009. The time frame to obtain an import license reduced from 19.3 days in 2009 to 9.7 days in 2021. Simultaneously, the percentage of firms visited by tax officials decreased from 50 to 21 percent during the same period. Despite this improvement, getting an operating license remains an issue. The days to obtain an operating license increased from 16 in 2009 to 22.9 in 2021. In addition, the percentage of senior managers' time spent dealing with government regulations increased from 6 to 17.2 percent between 2015 and 2021.

Figure 2.26: Business licensing



Source: WBES 2022.

In addition to streamlining, there is a need to upgrade the functionalities provided by the corporate registry at SERVE. While SERVE provides a one-stop shop for same day registration of sole traders and single shareholder corporations, there appear to be difficulties in the business licensing process. There is some indication that SERVE's effectiveness, as a one-stop shop, has reduced in recent years. Furthermore, stakeholder consultations indicate a lack of clear procedures in the filing of annual reporting and other financial information, limiting the usefulness of the corporate registry for due diligence.

Timor-Leste needs to further improve its licensing scheme as it positively correlates with overall firm's performance. The longer the waiting period for getting an operating license is, the lower labor productivity is. Specifically, one additional day of waiting for getting the operating license will reduce the productivity by 0.5 percent. Considering that there is no correlation between bribe to get the license and productivity, faster waiting period for license is more important for the private sector than the associated cost for such license. Furthermore, political instability is negatively correlated with labor productivity in Timor-Leste. On average, firms that perceived political instability as a significant constraint have a 71 percent lower labor productivity than firms that did not.

Table 2.1: Correlation between licenses and the firm's performance

	Labor Productivity	
Political instability as major constraint	−0.719***	
	(0.264)	
Operating licenses wait		−0.00495*
		(0.00271)

Source: World Bank staff calculation based on WBESs of Timor-Leste (2023).
Note: Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

There is scope to improve the collaboration between the public and private sectors in reform formulation and implementation. First, there is a lack of a public-private dialogue except for the construction, tourism, trade, and agricultural sectors.[45] Second, there is no formal mechanism in the public sector to involve private sector counterparts that are relevant to the issues being addressed through legal, regulatory, or institutional changes.[46] Third, the private sector is not well organized and industry associations are either nascent or not active in the policy and public debate, which contrast with other civil society organizations, the Catholic Church and activist groups. The Parliament's 'open door policy' allows the private sector and civil society to participate in discussions, particularly those around the state budget. Committee meetings draft minutes, but they cannot be consulted online (only physically at the Parliament). Fourth, the reform agenda and annual legislative plan of ministries are not properly communicated for either transparency or consultation.[47] The government could make a greater use of Article 3 (g) of the Timor-Leste Government Rules on Legislative Drafting[48] determines that one of the principles that shall govern the drafting of legislation by the government (and regulations to the extent applicable) is the 'Principle of Transparency and Participation'. It ensures the right of citizens to access and control the procedures undertaken with a view to approving normative acts. This principle is further elaborated in Article 13 of the same regulations that provides that with the exception of situations of public interest, national security, and others deemed necessary to ensure the effectiveness of the decision to legislate: (i) the legislative process shall follow the principle of an 'open administration'; (ii) citizens shall be consulted (as deemed most adequate) either directly or through representative associations or by means of public consultation; and (iii) in especially sensitive areas (such as social inclusion, the fight against corruption, and the promotion of gender equality), the widest public consultation possible shall be promoted. Fifth, even

[45] Based on a World Bank assessments of the public-private consultations and dialogue in Timor-Leste, organized private sector and trade and farmer associations are most active in the construction (Chamber of Commerce and Industry, CCI-TL), tourism (Hotel Owners Association, Maritime Tourism Association), trade (Customs Brokers Association), and agricultural sectors (coffee). There is also Timor-Leste Business-women Association (The Associação Empresarial das Mulheres Timor-Leste -AEMTL).

46 Most of private sector involvement is on an ad hoc basis even if some upcoming initiatives are planned to involve the private sector more systematically. The Constitution of the Democratic Republic of Timor-Leste does not foresee a mandatory participation of stakeholders in the legislative process; however, Article 48 allows for the right of petition, either individually or collectively, the Parliament or any authorities to defend their rights, but the exercise of this right has not yet been regulated and required an enabling legislation to become active. There is a special unit within the Office of the Prime Minister called the 'Civil Society Support Unit' that is responsible for public consultations and workshops aimed at explaining legislative changes (and other specific matters) to the population.

[47] One area where stakeholder participation is mandatory is when any amendments are made to employment-related legislation. In these instances, the respective parliamentary committee shall mandatorily seek the opinion of the trade unions, the associations representing employers (although that is not its statutory role, the Chamber of Commerce and Industry is typically heard in this respect), and the government. Article 10 of the Regulations of the Council of Ministers (approved by Government Resolution No. 26/2020 of August 5, 2020) determines that a press release on the discussions and outcomes of all meetings of the Council of Ministers shall be prepared in all the official languages (and if so, justified in the working languages) and sent to the media. It is also published on the government website.

[48] Approved by Government Resolution No. 21/2019, of 26 June 2019.

organized private players do not articulate nor coordinate their requests and do not seem to have a collective lobbying culture that could influence reform priorities and accelerate the full implementation of laws. Because of this, many private companies provide comments on new government procedures after the regulations have been passed rather than before, making further improvements to the regulations more complicated to enact.

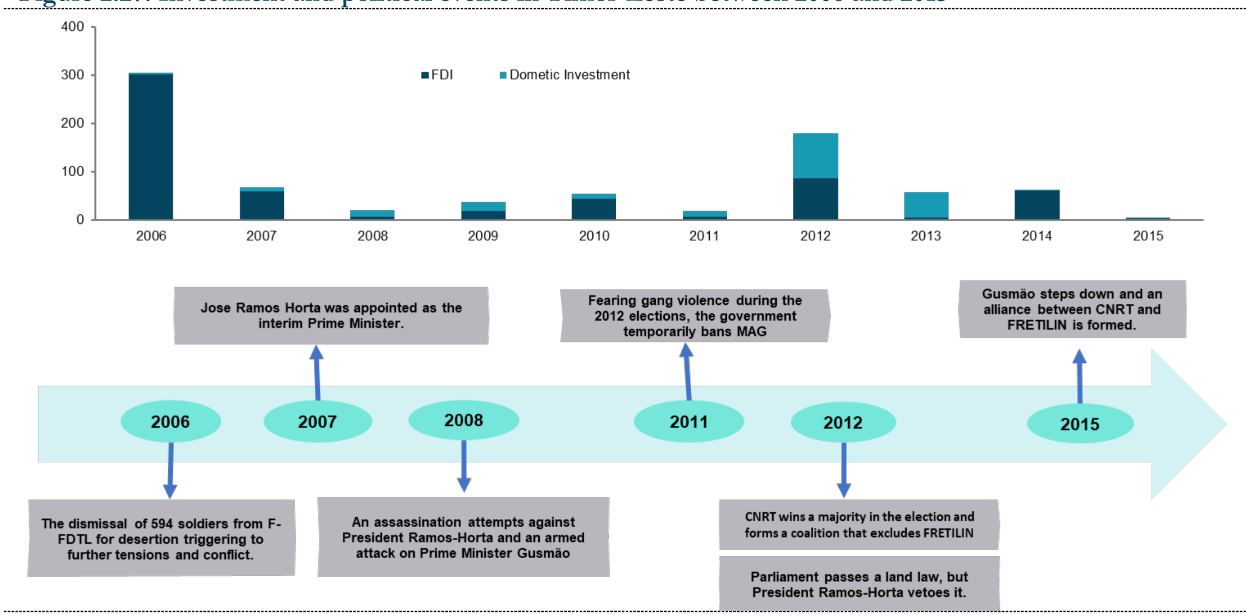
Apart from labor-related matters, it is not mandatory to hear stakeholders in respect of changes in policy or legislation. Laws could be amended to foresee mandatory participation of stakeholders before approval/enactment of key policy or legal changes. This could be enshrined such that lack of consultation would lead to formal invalidity of the decisions. It could also be foreseen in the applicable regulations that a draft should not be approved if the mandatory consultation has not taken place and a report thereon prepared and made available. These changes should be made to the Government Rules on Legislative Drafting, the Regulations of the Council of Ministers', and the Regiment of the National Parliament.

Although the government has started requiring that an annual legislative drafting plan be prepared, it is not shared with the public and stakeholders. Sharing of legislative plans and schedules in advance (for instance, before the commencement of each quarter) would allow for stakeholders to prepare for discussions and contact the responsible Ministries to provide feedback and request information. This could be included in existing legislation governing the government's legislative drafting process. Making it mandatory to publish any draft legislation on the government website at least two months before its discussion at the Council of Ministers, with an option to submit comments, would also make a significant contribution to increased stakeholder engagement. These changes could be made to the Government Rules on Legislative Drafting and the Regulations of the Council of Ministers.

b. Lack of Investment

Timor-Leste is relatively open for FDI and does not have policies that discriminate against foreign investors. Unlike many other neighbor countries such Indonesia, sectors restricted to investments (especially FDI) in Timor-Leste are few. Foreign investors may invest in any sectors other than those reserved for the State (for example, postal services, protected natural areas, and weapons production and distribution) or illegal activities (for example, criminal activities). In addition to a few negative investment lists, the government also does not impose any minimum capital requirement for FDI.[49]

Figure 2.27: Investment and political events in Timor-Leste between 2006 and 2015



Sources: Asia Foundation 2017; Scambary 2009; TradeInvest 2022.

[49] Private Investment Law.

Despite this liberal approach to FDI, foreign investments have remained low for the past 20 years, likely dampened by the political instability during this period. The largest FDI inflows came to Timor-Leste in 2006 with a total of US$300 million (for example, US$96 million in water and sanitation services and US$26 million in refinery and power station) (Tradeinvest 2022). A significant portion of this FDI was invested in hotel and restaurant sector, marking increased presence of international businesses in the Dili area. After this surge of FDI inflow, FDI remained low from 2007 to 2015. While there is no evidence showing the significant causality between low FDI and political instability, Figure 2.28 shows a coincidence between the drop in FDI and the initial phase of political instability in 2006.

c. Limited Access to Land

Private land ownership (or the access to readily available state-owned land) is a major constraint for investments. Rights over land ownership have become one of the most complex issues to solve and produces overlapping claims on land with deep roots stemming from the colonial and post-colonial history of the country. It is not uncommon to find situations where a plot of land is under the possession of an individual or family, who may have been occupying it for the last 20 years but does not hold legal title to it. Similarly, there may be two other individuals holding a lawfully obtained title over the same plot but who do not occupy it: one that was issued during the Portuguese Administration and the other during the Indonesian era. It is also common for local communities to take possession of land as per traditional usages and customs.

Uncertainty over ownership leads to disputes once economic interest over a plot of land is apparent. For instance, after construction commenced on the Tibar Port, a dispute arose regarding the ownership of the quarry used for the project. The land in dispute was initially considered as state-owned and not claimed by anyone. This dispute hindered progress on the project for some time. Similar issues also plagued other important FDI projects in the country, where disputes appear after the project locations are announced.

There have been several attempts to build a land cadaster and tackle the issue of private ownership of land. Both the National Parliament and the Government passed legislation aimed at punishing illegitimate appropriation of immovable property during 1999 (Law No. 1/2003 of March 10, 2003), consolidating State immovable property that had been illegitimately occupied or disposed of (Law No. 1/2003 of March 10, 2003), approving a lease regime on immovable property of the State's private domain, and identifying cases of undisputed land plots, which could be the object of legal transactions (Ministerial Diploma No. 23/2011 of November 23, 2011 and Decree-Law No. 27/2011 of July 6, 2011). In 2022, the Land Registry Law was finally enacted, though it will only become effective 120 days after its publication (which was on April 6, 2022) and still need to be fully implemented.

This difficulty in accessing land, mostly private land, has implications for investments in Timor-Leste, especially for FDI. Under the Constitution, only citizens may own land. The government tried to solve this access by introducing Article 14 in the Private Investment Law No.14/2011. This article states that foreigners can be granted the right to private property for investment and reinvestment projects subject to the limits set out in the Constitution and in legislation on land and commercial companies. Typically, investors enter into agreements with landowners that grant them the right to use the property for a period, generally 50 years. The investors' concern is less on the ability to access land but on the ability to determine the party to which the land lease contract will be negotiated with. A newer land law, promulgated in 2017, does not address the prohibition on foreign ownership and requires additional decree laws before the land law can be fully implemented. Additionally, land transactions remain difficult and mostly informal, with the validity of formal agreements facing the issue of contract enforcement.

Disputes over private land ownership are dealt in civil cases for which the process in courts is extremely slow and unpredictable. Some cases have been ongoing for nearly a decade, and the wait time of civil cases increases. The Department of Land and Property recognizes that the complexity of civil cases, particularly land law cases, and their accumulation in the judicial system, for example, at Dili District Court, is due to evidence requirements (scarce evidence or proof). Unpredictable processing (petition, conciliation, witnesses, hearings scheduling, arguments, and judgment), the capacity of lawyers and judges being alike (and the limited number of judges who on average handles ten times more criminal trials than civil hearings), and finally the lack of standard operating procedures, updates to judicial actors, or online case management create additional bottlenecks.

Box 2.2: The government's role in identifying land

For those investors seeking larger parcel of land, working with the government to identify an appropriate parcel is often the best option, as privately owned land tends to be smaller parcels. According to a businessman with multiple holdings, finding 10–20 m^2 of land is difficult.

The government can be helpful in identifying land and supporting the process of relocating existing owners/occupants when necessary. However, their capability to be able to quickly identify and supply land to potential investors is limited. Even for an investment viewed as high priority for the government, it still took two years to find and secure the land. The experience of one large, foreign investment to obtain land in the location and size needed required numerous rounds of back and forth with the government, over the span of several years. Even now, the land which they have been given is facing issues of occupancy which is restricting moving forward with the investment in the way planned.

The experience of smaller Timorese firms in working with DNTPSC to identify land is reported to be even more challenging.

Source: Timor-Leste Business Enabling Environment (2018).
https://www.laohamutuk.org/econ/MCC/2018/BusinessEnvironRootCauseAug2018.pdf

The land registry is not yet complete, and its completion is an obstacle to negotiating land acquisition deals. As per Article 29 of Law 13/2017, the Land Registry shall be a combination of the existing National Cadaster of Properties' database and information on the legal titles over property. In terms of legislation, the main framework is already approved. Although the National Cadaster of Properties was initially created to be a database of properties, a lot of effort and resources have been spent in identifying properties and respective ownership in the National Cadaster, and it is imperative that this registry information is kept updated. From the government's perspective, an appropriate Land Registry Law would need to be passed for the National Cadaster of Properties to become an adequate database of land registration, including both a physical description of the asset and details on its ownership and other rights. Without a clear system of land ownership, the absence of protection created by the lack of a proper registry and protection of good faith in third parties will remain a hindrance for large investors, whose legal occupancy over factories or offices will remain in doubt. On top of this, their inability to finally determine ownership of land affects the ability of firms to access finance.

d. Limited Access to Finance

Access to finance remains a major constraint for firms. In the absence of the large inflow of new investment, the transition toward a more diversified economy depends on the ability of existing firms to grow and become more competitive. Unfortunately, firms still have issues in accessing finance, limiting their potential growth. Private sector credit in Timor-Leste stands at only 17.8 percent of GDP, compared to an average of 172 percent in the EAP region and among the lowest levels in the world. While three out of four firms in the country have a checking or savings account, only 8 percent have a loan or a line of credit. Most firms rely on internal funds to finance their investment and working capital. A large share of investments finance their needs internally (91 percent) and a small percentage of firms use banks to finance working capital (5 percent). While around 15 percent of manufacturing firms have a loan or line of credit, 6 percent of firms in the services sector do.

Timor-Leste's financial sector is stable but shallow. There are five commercial banks in the country, four of which are branches of foreign-owned banks. The only local bank, *Banco Nacional de Comercio de Timor-Leste* (BNCTL), is owned by the government and has the widest outreach and branch network in the country. The financial system also includes insurance companies, microfinance institutions, money transfer operators, financial cooperatives, and credit unions. The financial sector is stable and liquid and was able to weather the pandemic period through sound policy making and timebound forbearance measures. The banking sector, which constitutes the majority of Timor-Leste's financial sector, is relatively robust in terms of its ability to deal with a possible deterioration in credit quality, given that current levels of non-performing loans (NPLs) are low, capital adequacy and liquidity ratios remain comfortably above the regulatory threshold, and profitability margins offer a basis for financing a contingency. At the same time, banks have very little outreach to the private sector.

In the absence of a framework for land titling and contract enforcement, Timor-Leste's financial sector plays a limited role in financial intermediation. The four foreign banks operating in Timor-Leste primarily serve international organizations and their staff and businesses and nationals from their respective home countries. Over time, the foreign banks have begun to penetrate local market segments, but products for Timorese citizens are mostly limited to basic savings accounts and payroll loans backed by salary guarantees for public sector employees and employees of large corporates. The only local bank, BNCTL, plays a more substantial role in financial intermediation and has the largest lending portfolio of any of the country's banks, with approximately US$200 million in loans outstanding at the end of 2021. However, lacking the ability to securitize liabilities, BNCTL faces similar constraints to outreach and expansion of credit.

Expanding access to finance to a broader base will entail addressing institutional constraints around land titling and contract enforcement. In the interim, however, some supply-side constraints could also be unlocked through tools and technologies to resolve information asymmetries and mitigate lending risk. This could be achieved particularly through advancements in digital and electronic payments, development of secure transactions registries to enable lending against movable collateral, and design of de-risking instruments such as partial credit guarantees to incentivize bank lending. This will require improving the policy and regulatory framework, enabling access to finance.

DFS are poised to play a catalytic role in expanding access to finance in Timor-Leste. Digital credit products can make finance more accessible to firms distant from bank branches and can leverage alternative data and innovative credit scoring models to lend without reliance on fixed asset collateral. At the same time, digital payments can enable firms to procure supplies more easily and expand sales to broader markets. The infrastructure for digital payments in Timor-Leste is already relatively advanced compared to other Pacific Island countries. The R-TiMOR system established by the Central Bank in 2015 facilitates an interconnected network of system that allows individuals, companies, organizations, and other entities to make electronic payments. A card switch system (P24) which enables instant transactions between and across banks went live in 2019. Meanwhile, network coverage has expanded to most regions of the country.

Riding the rails of the well-established payment infrastructure in Timor-Leste, two electronic money wallets (e-wallet) are operating in the market. e-Wallet providers have the potential for wide outreach, with more than 3,000 agents and merchants in place across the country. Despite the advances in digital payment infrastructure and the entry of digital players, however, Timor-Leste remains a cash-based economy, with less than 1 percent of Timor-Leste's population actively using e-wallets and DFS. Leveraging the existing infrastructure and piloting new use cases for digital payments could help catalyze adoption and expansion of DFS. Publicly sponsored use cases could include, for example, digitalization of social assistance transfers, digital payment of customs fees or taxes, digital delivery of salaries and allowances to public sector employees, or the creation of special electronic payment zones in government-run public spaces such as airports, ports, or tourist attractions.

Figure 2.28: Access to finance of firms (cross-country comparison)

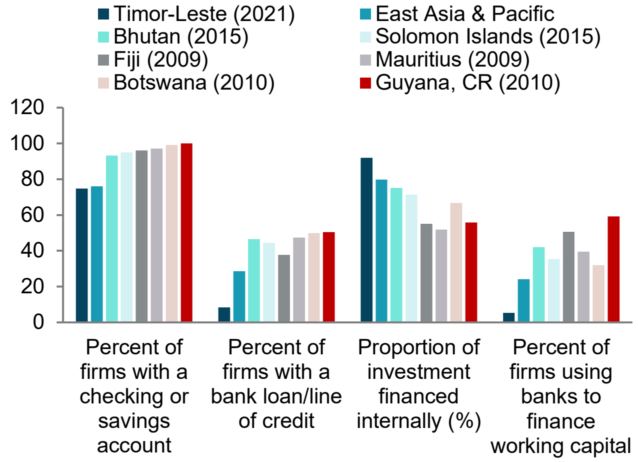
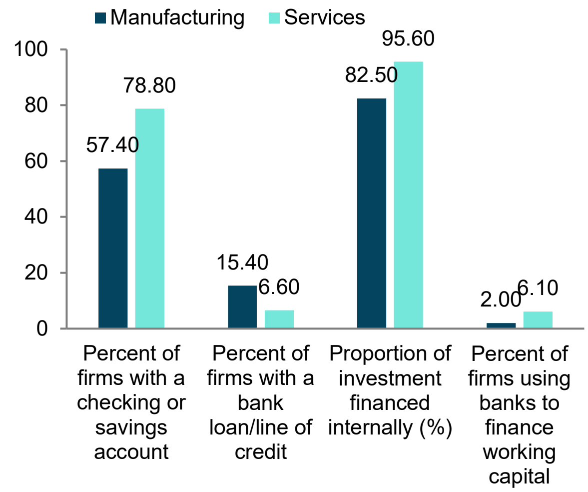


Figure 2.29: Access to finance of manufacturing and services firm in Timor-Leste



Source: WBES 2022.

Figure 2.30: Reasons for not applying for loan from banks

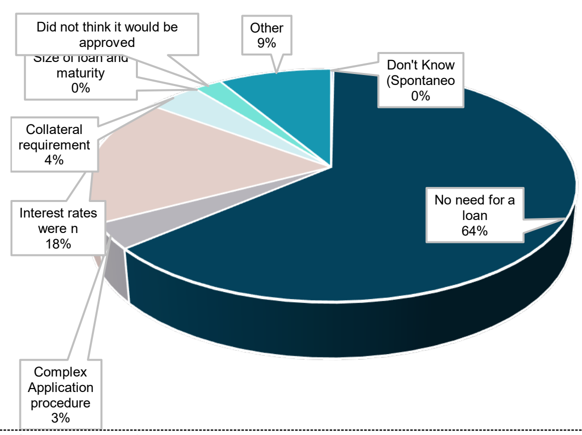
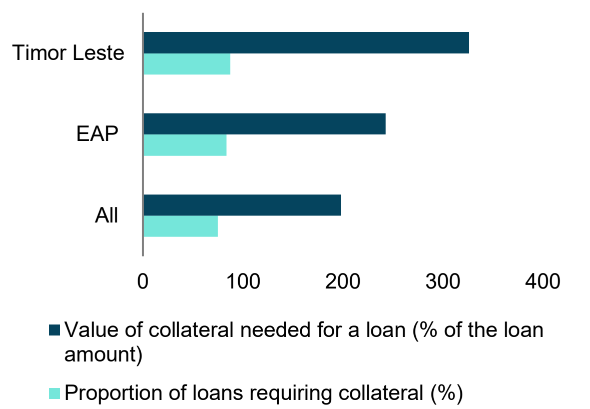


Figure 2.31: Loan and collateral



Source: WBES 2022.

High interest rates and lack of sufficient collateral are the main constraints expressed by firms in accessing loans. An additional impediment to improving formal financial access is the lack of interest from the private sector in such bank services. Latest Enterprise Survey showed that 64 percent did not apply for loan due to lack of interest for loan application. Furthermore, among firms that expressed a need for financial support, two common reasons for not applying were high interest rates and collateral requirements (Figure 2.30). For example, 17.7 percent of firms reported being discouraged from obtaining new loans due to unfavorable interest rates. In addition, firms have decided not to apply due to high collateral requirements (4 percent). On average, firms must have collateral as much as 325 percent of the loan size, significantly higher than the average collateral needed in the region at 242 percent (Figure 2.32). In the absence of an enabling environment for secure transactions, terms of credit are largely unfavorable for firms.

Table 2.2: Access to finance and firms' performance

	Labor Productivity	
Credit line	0.646**	
	(0.317)	
Overdraft facilities		1.099***
		(0.298)

Source: World Bank staff calculation based on WBESs of Timor-Leste (2023).
Note: Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

This limited access to finance and usage of formal financial services negatively affected firms' performance. Analysis using WBESs shows that access to credit and overdraft facilities is strongly associated with firm productivity in Timor-Leste. Firms with existing credit lines had 64 percent higher productivity than those without credit lines. Furthermore, firms with an overdraft facility also had a 110 percent higher productivity than those without overdraft facilities.

e. Poor Infrastructure

The availability and quality of transport and electricity (see Chapter 1) adversely affect firms' cost buildup and lower Timorese private sector competitiveness in the international markets. The combination of poor road conditions and frequent landslides during the rainy season significantly increases logistics costs in Timor-Leste. Tourism is limited by poor flights connectivity. One in three Timorese firms reports electrical outages, resulting in financial losses, higher than the average firms in EAP. Power outages are also associated with poorer firm performance and negatively affect employment and labor productivity growth rates.

Poor road conditions and frequent landslides during the rainy season significantly increase logistics costs. Interregional economic links mainly use the road network. Despite its importance for people mobility and economic activity, Timor-Leste has low quantity and quality of its road network (World Bank 2016). The World Food Programme (WFP) through the Digital Logistic Capacity Assessment reported that 65 percent of national roads and 96 percent of district roads are in such poor conditions that they may only be accessible with 4x4 vehicles and certain trucks and are often dangerous during the wet season. This leads to higher logistics costs and lower competitiveness of the Timor-Leste private sector in the international markets.

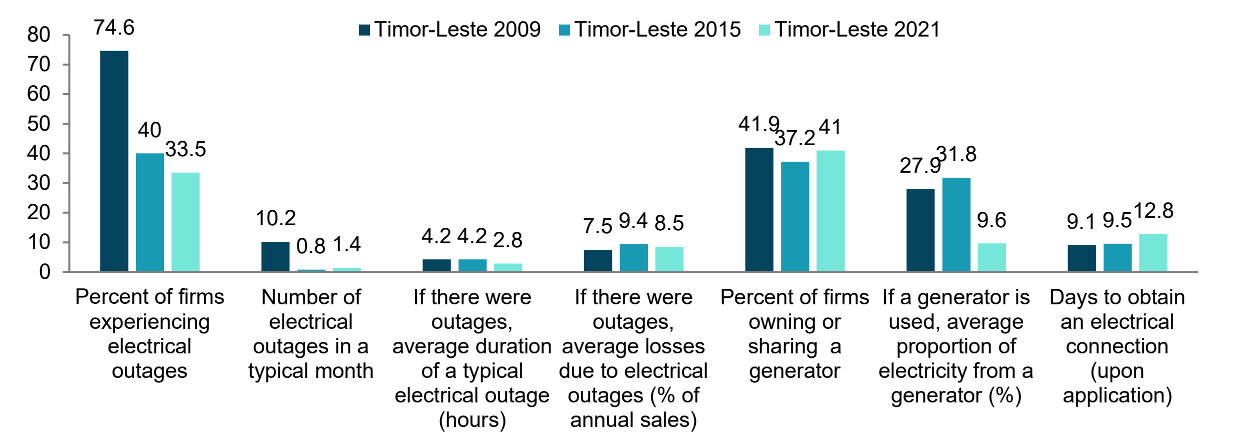
The subjective perception of infrastructure, such as transportation, also had a negative correlation with productivity. The availability and quality of transport, electricity, and internet infrastructure adversely affect firms' cost buildup and lower Timorese private sector competitiveness in the international markets**.** Our estimation shows that firms that reported transportation as a significant constraint also have lower productivity (67 percent) than those that did not report it as a significant constraint.

Table 2.3: Quality of electricity connection and performance

	Ln Labor Productivity
Transportation as major constraint	−0.673**
	(0.295)

Source: World Bank staff calculation based on WBESs of Timor-Leste (2023).
Note: Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Figure 2.32: Quality of electricity connection in Timor-Leste



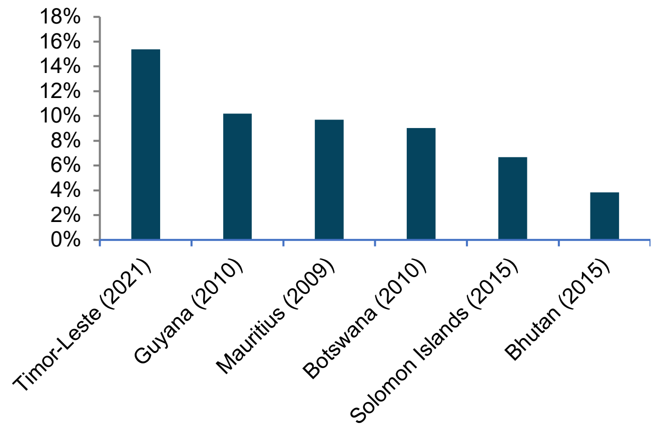
Source: WBES 2022.

Firms report better quality of electrical connection in 2021. Compared to 2015, fewer Timorese firms reported electrical outages (from 40 percent in 2015 to 33.5 percent in 2021). Conditional on the outages, the frequency of the outages slightly increased from 0.8 in 2015 to 1.4 in 2021. Nevertheless, the duration of the outages decreased from 4.2 hours in 2015 to 2.8 hours in 2021 (Figure 2.34). This new outage duration is lower than the EAP average of 3.7 hours. This better quality of electrical connection resulted in fewer power self-generation usage and lower economic losses due to outages. However, financial losses due to outages are still higher than the average EAP at 2.8, indicating the relative importance of electricity for the private sector.

Power outages are also associated with poorer firm performance. Since electricity plays an important role in the firms' operation, lack of stable electricity will negatively affect firms' performance.

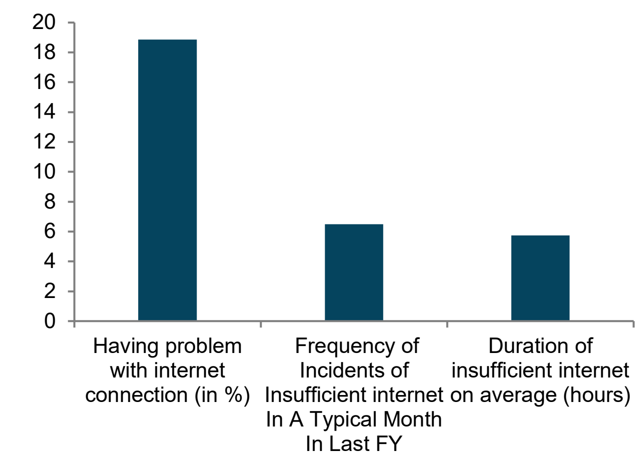
In addition to the poor infrastructure, the cost of electricity is nonnegligible and affects the competitiveness of the firms. Firms in Timor-Leste spend about 15.3 percent of their total production cost on the electricity. This share is significantly higher for more power-intensive sectors such as manufacturing. Meanwhile, firms in comparator countries spend less on electricity, highlighting the importance of addressing the overall electrical infrastructure to support the competitiveness of the private sector in the global economy.

Figure 2.33: Electrical cost as a share of total production cost



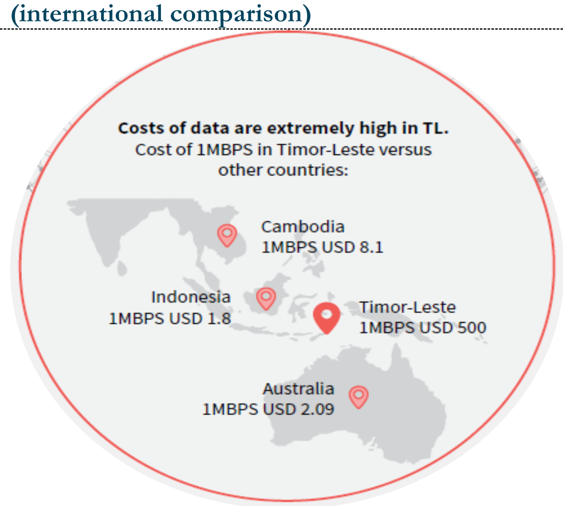
Source: WBES 2022.

Figure 2.34: Quality of internet connection in Timor-Leste



Source: WBES 2022.

Figure 2.35: Cost for 1 Mbps internet connection (international comparison)

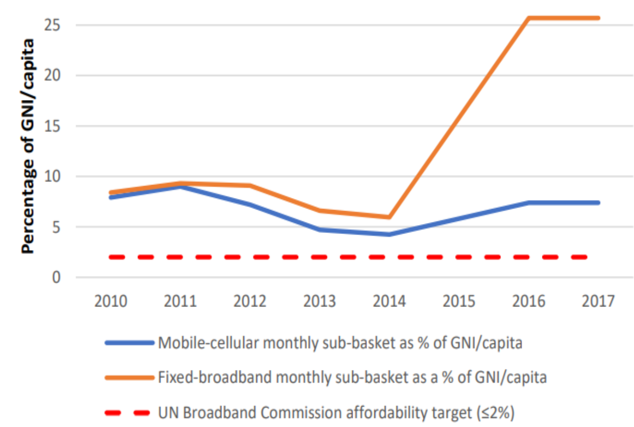


Source: Market Development Facility (2018).
Note: Mbps = Megabits per second.

Poor internet connection limits progress on the digitalization of firms. Another indicator of improved infrastructure is the presence of a reliable internet connection. However, over 18 percent of firms experienced a poor internet connection over the past year. Firms claimed that this problem occurred 6.5 times within a typical month. The average duration of limited connection was 5.7 hours per incident. Limited internet connection can partially be explained by issues with electrical connectivity.

Internet access is expensive for the available internet connection speed. Despite improving electrical connections, the availability of reliable and cheap internet connection remains a significant problem. The World Bank (2012) reported that a 256 kbps fixed broadband connection costs US$300 per month or US$3,100 per month for unlimited access and high speed. Despite paying for such a high price, the average download speed of broadband internet connection ranked 175 in an international comparison with 4.3 Mbit per second.[50] The cost of 1 Mbps in Timor-Leste is US$500, which is significantly higher compared to neighboring countries such as Indonesia (US$1.8), Cambodia (US$8.1), and Australia (US$2.09). The high costs of internet connectivity limit the ability of the government to digitalize public services and of the private sector to capitalize on digital economy platforms that enhance efficiency. One of the reasons for the high costs is the current accessibility of internet via satellite for which the ITU estimates the wholesale price to be at least five times higher than for submarine cable internet (Maui 2017). Broadband services in Timor-Leste cost more than the United Nations Broadband Commission's affordability target of 2 percent (Figure 2.36).

Figure 2.37: Affordability of broadband services in Timor-Leste



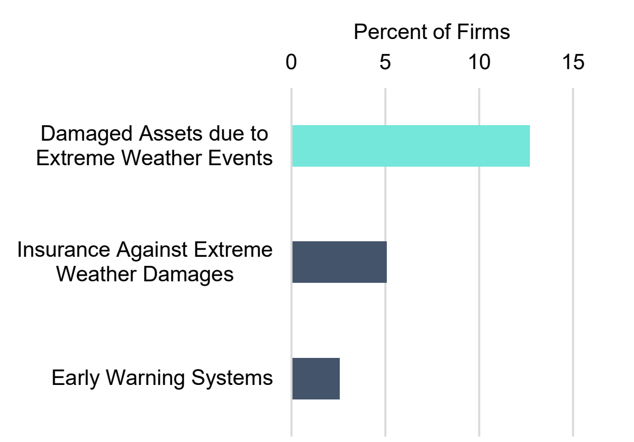
Source: ESCAP calculations based on data from ITU, "World Telecommunication/ICT Indicators database 2018 (22nd Edition/June 2018)", accessed on January 29, 2019.
Note: Data for 2015 are estimates.

f. Green Resilience and Mitigation from Climate Events

Much like the country, businesses have been affected by climate related events. The greatest risks come from the West Pacific Monsoon which manifest through flooding. Over 12 percent of businesses had physical assets damaged due to extreme weather events (Figure 2.37). As the impact of climate change is expected to persist and amplify risks, additional uncertainty is added to long-term returns in private sector investment.

Despite the exposure to extreme weather events, mitigation measures are lagging behind. While over 12 percent of firms have experienced damages to extreme weather events, 1 in 20 firms has some form of insurance against damages from extreme weather events. Early warning systems are employed by little over 2 percent of firms. This presents an opportunity for the development of insurance markets to decrease the uncertainty to the private sector and incentivize investments in fixed assets. Insurance mechanisms against extreme weather events and the availability of early warning systems can contribute to the overarching goal of reviving the entrepreneurial spirit in the country.

Figure 2.36: Firms and extreme weather preparedness



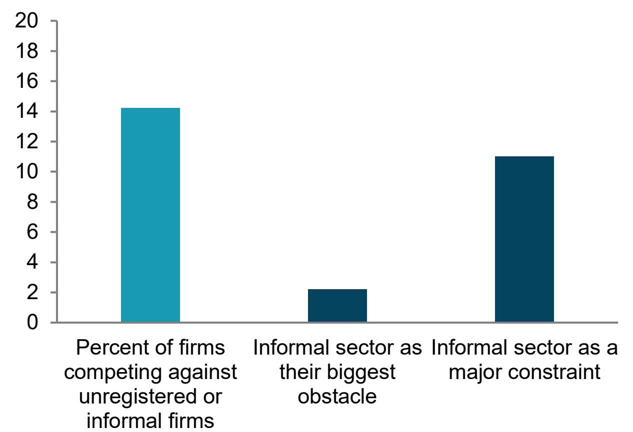
Source: WBES 2022.

[50] https://www.worlddata.info/asia/east-timor/telecommunication.php#:~:text=With%20an%20average%20download%20speed,%2Fsecond%20(144th%20place).

g. Informality

While a significant size of the economy is concentrated among informal or unregistered activity, the informal and formal sectors cater to different markets. It is estimated that over 71 percent of the employed population is engaged in informal activities.[51] Close to 14 percent of firms indicate that they compete against informal firms. One in 10 firms finds the competition from the informal sector to be a major or very severe obstacle, while about 2 percent of firms perceive informality to be the biggest obstacle to their operations.

Figure 2.38: Competition between formal and informal firms



Source: WBES 2022.

The competition from the informal sector is likely to intensify as the business environment improves and investments are strengthened. Therefore, the current situation presents an opportunity to formalize many of the informal businesses to avoid unfair competition down the road. Streamlining the registration process and providing access to better government services are ways through which firms can be incentivized to formalize. Furthermore, reducing the size of informality will improve the business environment itself and remove another obstacle to potential investors, both foreign and domestic.

2.4. Market Opportunities for Private Sector-Led Growth

Improving the business environment and unlocking private sector opportunities requires a careful sequence of well-coordinated and targeted policy and public investments. While trade links exist, they are mostly one sided with firms importing supplies but rarely exporting their products to new markets. Timorese businesses invest modestly in fixed assets, human capital,[52] and innovation. As a result, demand for financing remains low while the Enterprise Survey shows that access to finance remains a major constraint to firms. A set of predictable conditions are required to unlock private sector-led growth. Commercial banking and land usage issues are likely to persist over time. However, opportunities in tourism, agricultural processing, and light manufacturing (through agglomeration economies), on the one hand, coupled with alternative financing mechanisms to traditional bank loans (for example, FDI, public-private partnership [PPP] modalities, equity, and risk sharing), digital uptake (for example, connectivity, digital payments, and e-government platforms), and market access (see Chapter 3), on the other hand, could bridge the private sector development gap in the short to medium term. Timor-Leste should focus on the fundamental prerequisites for the private sector to flourish.

Focused policy initiatives, at the industry level or in discrete geographic areas, aimed at enhancing private investment in specific sectors or promoting specific products (domestic or export led) can complement broader investment climate efforts and economywide reforms. Market possibilities exist, but they are challenged by cross-cutting constraints as explored in the previous section. This report does not consider oil and gas, non-tradable sectors (wholesale, retail, and construction), and enabling sectors (water sanitation, energy, information and communication technology [ICT] infrastructure, transport, finance and insurance, education, and health). In particular, the promise of additional resources through the potential development of the Greater Sunrise field (see Box 2.3) should not distract the authorities from its effort to diversify the economy away from the hydrocarbon sectors. This report, instead, scans market possibilities and opportunities in tradable sectors away from oil known as downstream sectors (agriculture, manufacturing including agro-processing, services including ICT services, and tourism).[53] Within tradable sectors, the

[51] 45 percent in the services sector, 41 percent in the agriculture sector, and 13 percent in manufacturing.
[52] For example, the lack of skilled workforce prevents Timor-Leste from fully realizing its economic potential.
[53] CPSD Methodology Note (January 2021).

development impact and feasibility were considered as dimensions for prioritization. Sectoral priorities were extensively discussed through consultations with public and private stakeholders in 2022. Development impact includes six categories: inclusion and jobs, economic growth, competitiveness and productivity, integration and connectivity, resilience and stability, and environmental sustainability. Reform feasibility is assessed across four categories: demand, production factors, key inputs, and institutions. The rapid sector scan approach has been adapted and simplified from the Country Private Sector Diagnostic (CPSD)Sector Scan Online Tool to respond to the question below.

Box 2.3: Conundrum of the Greater Sunrise

As the world begins a substantive shift to renewables, Timor-Leste remains overly reliant on hydrocarbon production for sustaining its economy. More than 90 percent of total exports and over 80 percent of the government's revenues are from hydrocarbon-related activities. Without the oil revenues, the undiversified economy of the country will solely rely on the rapidly depleting Petroleum Fund to bridge the considerable fiscal gap in its annual budget. Yet, according to the government's own projections, the Petroleum Fund is likely to be fully depleted in 2034 or even sooner depending on the spending trajectories. In this context, the government is looking to the exploitation of the Greater Sunrise fields as a solution to the challenge of poor economic performance and low non-oil domestic revenues.

The Greater Sunrise is an important source of untapped revenue in the form of deep-water hydrocarbon fields. The fields are in the Timor Sea, south of Timor-Leste, and north of Australia and hold a total contingent resource of 5 trillion cubic feet of dry gas and over 230 million barrels of condensate.[54] In comparison, Bayu-Undan was estimated to have produced around 3 trillion cubic feet of gas and 400 million barrels of oil.[55] Despite close estimates of the resources stored in their reserves, the oil and gas prices changed dramatically from around US$37.3 a barrel in 2004 (the year Bayu-Undan fields started its production) to US$69.1 a barrel in average in 2021.[56] If successfully developed, the Greater Sunrise fields offer a significant upside risk for Timor-Leste.

Discovered in 1974, the field has however remained undeveloped for nearly three decades. The development of Greater Sunrise has been hindered in part by the maritime boundary dispute between Timor-Leste and Australia and the decision as to whether to process the extracted petroleum in Timor-Leste or Australia. Yet, on March 6, 2018, a maritime boundary treaty was signed and ratified by both the governments in August 2019. The agreement essentially removed a significant impediment for the development of the fields while setting a stable legal framework for both the countries to jointly develop the fields and share the associated revenue.

Nevertheless, the ownership structure over Greater Sunrise is dynamic, with state and private entities having their say on how the field should be further developed. Timor Gap, a state-owned company, owns approximately 56.6 percent, while Woodside and Osaka Gas retain close to 33.4 and 10 percent of the operations, respectively. Accordingly, the development of the Greater Sunrise fields is highly uncertain, driven by the difficulties in finding a commercially viable option that is acceptable to all parties. The two options being considered are as follows:

(i) Processing the hydrocarbons along the Southern Timorese coastline, which is geographically closer to the Greater Sunrise fields. The transformation of the south coast of Timor-Leste as a regional petroleum center is a key part of the government's development strategy. When the upstream and downstream industry is developed, the government expects it to contribute more broadly to the development of the economy and the south coast, generating over 10,000 direct jobs and more than 50,000 indirect jobs.[57] Nevertheless, considerable investment spending is necessary to build suitable infrastructure to allow this proposal to be successful.
(ii) Processing the hydrocarbons in Darwin, Australia, which has an existing liquified natural gas infrastructure, including a port, processing plants, highways, and a skilled workforce that have served well the Banyu-Undan field in the past. As such, this option offers a relatively quicker timeline for the development of the field.

Even if arduous, it may be in the best interest of Timor-Leste's authorities to find a viable solution through a thorough cost-benefit analysis for the Greater Sunrise to start producing within the near future. Irrespective of

[54] 2010 Annual Report of Woodside Petroleum Ltd. https://www.laohamutuk.org/Oil/Sunrise/2011/SunriseWoodside2010AnnualReport.pdf
[55] See https://www.offshore-technology.com/projects/bayu-undan/
[56] World Bank Commodity Market Outlook 2022.
[57] The Oil and Mineral Resources Program of the Eight Constitutional Government of Timor-Leste. http://timor-leste.gov.tl/?p=19915&lang=en

the option chosen, the development of the field is further confronted by the declining Petroleum Fund and the dwindling appetite of investors to finance fossil-fuel-related projects. Accordingly, raising the funds to meet the development of the required infrastructure is yet another conundrum to resolve. On the one hand, if the Greater Sunrise does not come to fruition, Timor-Leste will miss out on its future revenue potential. On the other hand, even if it does generate revenue, an oil-based economy can struggle to create jobs, which is a priority for Timor's young and growing population. Thus, it is imperative for the authorities to intensify the efforts to grow other sectors and diversify the economy away from the oil sector.

In which sectors is there a role for the private sector to advance the country's economic diversification agenda?

- **ICT services suffer from an expensive and unreliable infrastructure**, and the sector is too nascent to be scaled up and drive economic diversification and growth in short to medium term given the lack of ICT-related skills, infrastructure gaps, and the low base of entrepreneurship. ICT services could gain momentum with better digital connectivity (that is submarine internet cable roll out) and uptake of DFS and government e-platforms. Digital payments show the most potential in the short-term.

- **Agribusiness is the primary livelihood for Timorese**, mostly subsistence, but opportunities exist for high-value crops, especially crops produced for the export markets. However, in the short to medium term, the inefficiencies along most agricultural value chains, immense challenges in scaling up commercial usage of land, and inadequate farming techniques require targeted approaches either at the farm level looking at productivity (food security approach) or at the aggregator level looking at productive partnerships (commercial approach) with mostly niche agricultural products as suggested in Chapter 3.

- **Barriers to entry in heavy manufacturing are high when looking at the characteristics and performance of the private sector in Timor-Leste.** It could have an impact on exports, growth, and nonagricultural jobs but in the longer term as fundamental constraints such as energy prices, lack of long-term finance, and non-competitive transport costs need to be addressed.

- **Tourism and light manufacturing (including agro-processing) are two sectors in which possibilities for market creation in the short and medium term are the greatest.** While these two sectors do suffer from cross-cutting constraints inhibiting opportunities from being fully realized, the relative dynamism of private players in these sectors, their importance to drive exports and growth, as well as FDI and jobs, and their role as government economic diversification priorities position them as market opportunities. Tourism was the country largest non-oil export, followed by coffee. The development of local skills and domestic productive capacities will be important to contribute to the economic diversification and structural transformation of Timor-Leste. For example, the domestic value addition of coffee exports is limited, and improvements would require access to appropriate packaging and effective distribution networks, both of which are frequently lacking in Timor-Leste. Developing value-adding roasting facilities would boost exports, domestic value added, and growth. In addition to coffee, and based on the current production possibility frontier, top agricultural export opportunities with high diversification potential are cocoa beans, coconut oil, raw sugar, fish products, processed fruits and nuts, and tapioca. Products with higher value added and higher complexity with diversification potential are cereals, flour, starches, edible animal byproducts, vegetables, fruits and nuts, and beverages. In terms of manufactures, products close to existing production capabilities are cotton, wood and articles of wood, apparel, and clothing accessories, and farther from current capabilities are products such as carpets, footwear, pulp of wood and other fibrous cellulosic material, and textile rags. These agro-processing and manufacturing opportunities are further discussed in Chapter 3.

Developing local or domestic capabilities does not mean focusing exclusively on domestic demand given the small size of the economy, but it could help Timorese firms' preparation to embark in export-led market opportunities. Additionally, research from the International Growth Center (IGC) suggests the role of traders as strategic first movers in jump-starting or growing the national industrial sector including agro-processing and manufacturing. In fact, the bulk of the leading industrial firms in Sub-Saharan Africa started as trading companies. World Bank analysis, further detailed in Chapter 3, also indicates that Timorese exporters are relatively more diverse in terms of the number of products they export and the number of their export markets than comparator countries such as Rwanda and São Tomé and Príncipe. It may be that Timorese traders can unlock productive opportunities and scale them (see Box 2.4).

Box 2.4: From trading to manufacturing

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 global and domestic supply chains. Such knowledge allows traders to identify products that have the potential of becoming import substitutes and 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-size 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 of their sectoral focus.

Timor-Leste's heavy reliance on imports, matched with a widespread scarcity of medium-size 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, the government should consider strategies to support import firms in Timor-Leste to undertake horizontal sectoral shifts into manufacturing and agribusiness.

Source: Timor-Leste's Drivers of Growth and Sectoral Transformation (2018).
https://www.theigc.org/wp-content/uploads/2021/06/Policy-paper-Timor-Lestes-drivers-of-growth-and-sectoral-transformation.pdf

Timor-Leste should support the reinforcing and virtuous sectoral complementary of tourism, agro-processing, and light manufacturing. It is reinforcing because addressing sector-specific policy issues in tourism, agro-processing, and light manufacturing can serve both a domestic and export-oriented demand (not mutually exclusive) as well as generate sectoral spillovers and synergies (agribusiness, agrotourism, food and beverages manufacturing, and so on). It is virtuous because sector-specific reforms are better suited for constructive public-private dialogue, concrete instruments of collaboration, and more manageable and localized solutions (such as industrial parks) which in turn reinforce the need for and the impact of economywide or cross-cutting policy reforms in institutions, infrastructure, the financial sector, digital development, and trade. The report proposes to attract private capital from domestic and foreign investors in high-potential tradable sectors in the short to medium term while advancing much-needed nationwide reforms in land, finance, digital, and trade.

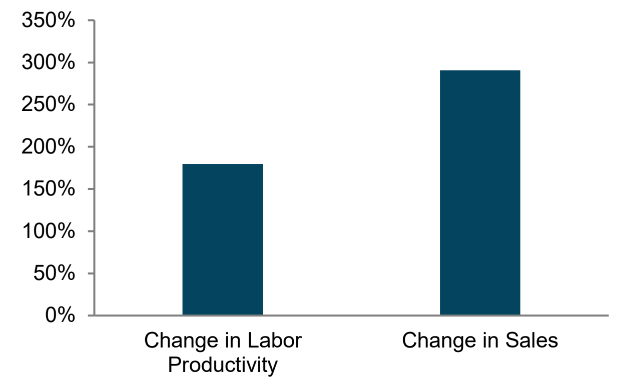
a. Tourism Opportunities

There is a consensus that tourism can serve as a new engine of diversification and private sector-led growth. Tourism and travel, pre-COVID, was the country's largest non-oil export (4.5 times the value of coffee) and by far the largest service export in 2019 (78 percent). Tourism and the visitor economy are relatively undeveloped in Timor-Leste. The country has many attractive endowments that form powerful building blocks for tourism, however there are important pre-requisites that are needed for tourism to take off. The recent 'Tourism Demand Assessment' and 'Tourisms Pathways to Growth' workshops in 2022 highlighted that these endowments are well aligned with the growing global niche markets. Timor-Leste received approximately 74,000 visitors in 2019. The compound annual growth rate (CAGR) between 2015 and 2019 was 5 percent exceeding the global average.

Tourism is the world's largest services sector and is a substantial contributor to global GDP. Before COVID-19, tourism was the world's largest service sector and a critical earner of foreign exchange for many countries. Tourism generated more than US$9 trillion in revenues, accounted for 10.4 percent of global GDP, and provided 334 million jobs or one in ten jobs worldwide in 2019. International tourism was consistently growing faster than the global economy.

The development of tourism in Timor-Leste has the potential to contribute to income growth by generating substantial foreign exchange and contributing to GDP growth and employment. Experience from around the world shows that tourism generates jobs and builds skills—especially for women and young people—and can provide an entry point for workers to formal employment and a pathway to ongoing skill development. This is especially important in Timor-Leste where the general level of workforce skills is low. Tourism also generates revenues for the government through direct and indirect taxation—revenues that can be used to build essential infrastructure and provide needed services. Tourism can also contribute to geographic dispersal of economic activity. The recent WBES shows the high concentration of economic activity in the Dili area. Through the development of multiple destinations (Figure 2.42) and a range of product offerings, tourism can help spread economic benefits geographically across the country and provide opportunities for underserved communities. A growing tourism sector would improve the trade balance by increasing service exports.

Figure 2.39: Hotels and restaurant performance (2015–2021)



Source: WBES 2022.

Figure 2.4040: Tourism destinations identified for Timor-Leste

Source: World Bank Tourism Demand Assessment (2021).

Australia, Indonesia, China, and Portugal were the top source markets in 2019 accounting for 45 percent of total arrivals. Timor-Leste's visitor economy is dominated by work and business visitors. Leisure visitors make up 17 percent (2014) compared to the global average of 53 percent. Indonesia and Australia make up 70 percent of total leisure arrivals. International tourism receipts were estimated at approximately US$73 million (current US$) in 2017 representing less than US$1,000 per visitor and reflecting the high dependence on business travel which tends to generate lower expenditures per visitor. Total employment in the sector is estimated at 4,300 jobs.

With appropriate pre-requisites on the supply side, Timor-Leste has many attractive endowments that form powerful building blocks for developing tourism products. These include natural assets such as a pristine marine environment, attractive mountain and forest landscapes, and a rich history and culture. Timor-Leste is situated in the Coral Triangle zone, which has more species of marine life than anywhere else in the world. It is home to more than 1,200 species of reef fish and 400 reef-building species and is recognized among the global recreational diving community for its high-level or marine biodiversity. Rugged mountainous terrains offer diverse panoramic views and include dense primary forests which provide wide opportunities for various recreational activities. Some hold cultural and spiritual significance. Timor-Leste is home to a wide array of terrestrial flora and fauna including several endemic species and highly diverse bird populations. Timor-Leste holds rich history dating from its first inhabitants to the Portuguese colonization and Catholicism, World War II, the Indonesian occupation, and now to its independence. These historical events have left Timor-Leste with a significant number of tangible and intangible cultural and historical assets that are valuable for the tourism industry.

World Bank research shows these endowments are well aligned with growing global niche markets. A detailed market and demand analysis carried out by the World Bank during 2020–2021 found strong support for leisure travel to Timor-Leste among travelers with demonstrated specialized interests which align with Timor-Leste's endowments including marine, soft adventure, and cultural tourism. This quantitative research investigated three key markets (United Kingdom, Australia, and Singapore) and six segments[58] with a total of 3,010 of leisure traveler respondents. Specific activities which can be developed to attract these markets include diving, snorkeling, whale watching, trekking, bird watching, religious, historical, and cultural tours as well as more passive activities such as sightseeing and relaxing. Several of these niche segments were growing rapidly before COVID-19 and are expected to continue to grow in the post-COVID era as travelers seek more remote and outdoor experiences in less crowded destinations. For example, the whale watching season in 2022 was back to the pre-COVID level and the next two seasons (2023 and 2024) are already fully booked at current capacity. These segments also generate higher average expenditures than more traditional markets. Support for holiday travel to Timor-Leste was found among both long- and short-haul markets with the most prospective interest from Australia, Singapore, and the United Kingdom. The research also identified a prospective market for Timor-Leste as an 'add-on' destination to Bali. These findings are supported by research carried out by other development partners.

The government has identified tourism as a driver of growth and diversification, but there are important prerequisites for Timor-Leste to realize its tourism demand potential. The government has recognized that tourism has the potential to contribute to economic growth and has adopted a progressive National Tourism Policy. This policy sets goals of 200,000 visitors, 15,000 jobs, and US$150 million tourism receipts by 2030. The World Bank analysis indicates that an additional 125,000 international visitors would generate US$188 million in additional receipts, US$255 million in additional GDP, approximately 12,600 direct new tourism jobs, and a further 25,000 indirect tourism-related jobs.

The pre-requisites for tourism to take off are numerous, encompassing both soft and hard aspects of tourism development. Regarding the former, while the upcoming airport's enhancement presents an augment passenger traffic, it is incumbent upon the country to negotiate sufficient Air Service Agreements with partner nations to bolster flight connectivity. Additionally, Timor-Leste must collaborate with commercial airlines to enhance ticket pricing, which entails, among other things, reviewing carriers, charges, and taxes. The country should also establish a robust and stable institutional and regulatory framework that delineates the definition and remuneration of tourism activities while outlining a clear division of labor between the public and private sectors. To this end, the enabling environment for PPP necessitates attention, given that many tourism projects have been identified in the PPP pipeline of the Ministry of Finance. The government established an Inter-Ministerial Commission for Tourism Development (IMCTD) in 2019 to prioritize its commitment to tourism

[58] Divers, snorkelers, whale or dolphin watchers, do things, see things, relax or rejuvenators

and has recently appointed a Technical Working Group with representation from 16 government agencies involved in tourism to support the IMCTD in coordinating the implementation of the policy. This coordination mechanism must continue and be endowed with additional resources to facilitate the subsequent stage of tourism development in Timor-Leste.

In January 2023, the Council of Ministers approved the 2023-30 National Strategy for Tourism which has an ambitious legislation roadmap to be completed in the short term. The multi-year tourism strategy ought to be decomposed into yearly work plans and supplemented with crucial priority reforms. Additionally, providing relevant trainings and skill development programs represents another soft-side pre-requisite. It may take time to have sufficient skilled labor, and the private sector will have a pivotal role to play. As far as hard-side prerequisites, they are well-established, ranging from vital transportation infrastructure (airport, port, and roads) to developing fundamental infrastructure (water and sanitation) and facilities in key tourism destinations. The issue lies in the seamless coordination of budgeting and implementing tourism-relevant expenses in the State Budget, particularly the final mile infrastructure, which requires consultation with private sector and communities with better understanding of tourism product opportunities and constraints.

Other development partners are providing support which contributes to improving conditions for building tourism's role in economic diversification. The Asian Development Bank (ADB), Japan International Cooperation Agency, and Australia are aiding in the redevelopment of the Dili airport. The International Finance Corporation (IFC) currently has a mandate as transaction adviser for the airport PPP. The United States Agency for International Development (USAID) has supported the tourism sector through its 'Tourism for All' technical assistance program which has contributed to better understanding of the opportunities for tourism, better organization of the private sector and the identification of a number of critical infrastructures needs which can be quickly mobilized through PPPs, and the development of sustainable management plans at the municipal level. Important institutional and legislative efforts are ongoing with discussions to establish permanent tourism institutions that will involve the private sector or a Tourism Fund that will serve as investment vehicle in priority destinations. These institutional and legislative efforts need a careful consideration particularly regarding the sequencing and capacity of sponsors. Other development partners including Australia and New Zealand and the Asia Foundation are working on initiatives which contribute to market and product development. These include the development of a coffee trail to capitalize on Timor-Leste's high-quality coffee sector and its associated links; support for cultural activities including museum development; and marketing support through facilitating familiarization trips for visiting tour operators and travel writers from key markets. Inclusion of local communities is an important aspect of Timor-Leste tourism strategy with various village-level pilots ongoing and a keen interest from the National Directorate for Public-Private Partnerships to develop a pipeline and approach to small-scale PPPs well suited to the tourism sector (for example, Dili Waterfront, Cristo Rey landmark, concession, or management of historical, cultural or heritage sites, waste management, and transport services).

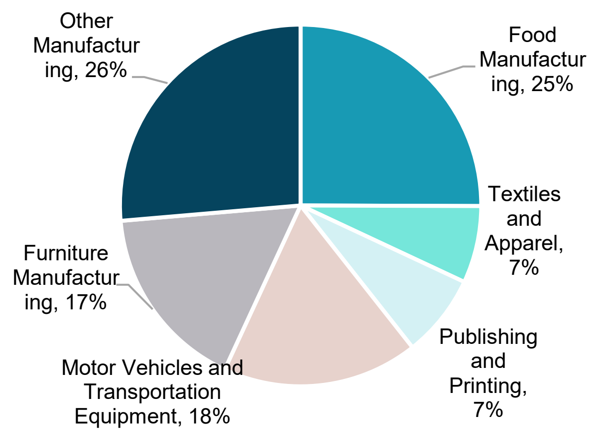
b. Agricultural Processing and Manufacturing Possibilities

There are good possibilities to develop market opportunities in agro-processing and light manufacturing, particularly given the growth of manufacturing in recent years. Light manufacturing is the next logical step in the transformation ladder which, on the one hand, builds on a large agriculture sector and, on the other hand, benefits from an open market economy with no restrictions to inputs and market access. As highlighted in Box 2.4, Timorese traders may either lead the way to economic diversification or may be holding the key to unlocking new market opportunities with possibility which will expand with the accession to the WTO. Light manufacturing augments the range of products and their quality from less complex agro-processing techniques (often artisanal) and increase the value agricultural products, notably those high-value crops that could benefit from commanding higher prices by focusing on quality control and additional transformation instead of exporting raw products (for example, vanilla, oily seeds, copra, cloves, and nuts). Light manufacturing can also build productive capacities in-country for which there is a business case such as beverages, textiles, and furniture production.

Light manufacturing activities such as food processing and apparel provide excellent opportunities to complement investments in tourism. Timor-Leste's agricultural products contain high-value crops. These high-value crops, such as coffee or vanilla, have the potential to be branded as unique premium products and priced highly in international markets. The inflow of tourism can serve as promotional tool for these products which could be further processed in Timor-Leste ('Made in Timor'). In addition to international markets, food processing of agricultural products could also cater to domestic markets by supplying the demand of food products which are currently being imported (for example, Timor-Leste currently imports US$20 million of bottled water annually) and is consistent with the government's Economic Recovery Plan (ERP).

Within the manufacturing sector, food processing and manufacturing of textiles and clothing make up the components that contribute to the most value added per worker. One-quarter of the manufacturing value added per worker comes from the food processing sector, showcasing the extent of the potential for this sector to grow and its contributions to economic growth. Light manufacturing, defined as the three sectors which engage in food processing, textiles and apparel, and publishing and printing, makes up about one-third of the value added per worker in the country. These sectors also tend to have lower polluting activities, hence avoiding negative externalities for the tourism industry. Additional analysis indicating most suitable latent and future subsectors and products is provided in Chapter 3.

Figure 2.4141: Share of contribution to value added per worker (manufacturing)



Source: WBES 2022.

While light manufacturing is not the only alternative to low-productivity agriculture, it is an important source of growth and productive employment in economies endowed with less-skilled labor and a comparative advantage in labor-intensive sectors. Most transformation from traditional agriculture toward a modern economy starts with light manufacturing because of its potential to rapidly absorb a large pool of less-skilled workers from agriculture into new occupations that substantially increase their productivity without imposing steep capital requirements (including human capital which is at a low base in the services sector, specifically digital skills). Timor-Leste has not sufficiently focused on light manufacturing, including the transformation of agricultural products. Light manufacturing can be important even in countries with no clear comparative advantage in it. In these countries, while it may not be a viable export industry, light manufacturing could still replace imports and serve the domestic market.

In addition to the relative comparative advantage of the light manufacturing sectors with respect to productivity, there are sectors which drive the exports from the country. Thus, light manufacturing can support the transition from agriculture to manufacturing (that is not only services particularly those services which are either government sponsored such as construction or tend to be short-term oriented such as wholesale and retail services). Increasing the potential of light manufacturing toward exports will further drive productivity and generate spillovers to move to more sophisticated products and higher value chains. For example, digital services will take time to materialize but could provide the main long-term opportunities for this small island nation.

However, economic growth opportunities in low-value-added manufacturing exports (versus catering for a domestic demand) will not be an easy feat in the short term unless the government addresses three important constraints. The fierce cost-based competition from regional peers reduces the number of products for which Timor-Leste could become regionally and globally competitive. At the moment only niche products could become competitive in the short term and those niches are better found by the private sector itself (rather than being dictated by the public sector through supply side or feasibility studies). Moreover, as discussed in Chapter 1, the challenges of Timor-Leste as a small island country mean that opportunities for economies of scale and agglomeration are limited, and the country's isolation from international markets (apart from Australia and Indonesia) increases logistics and trade costs. Reducing costs in this environment is extremely difficult to achieve one firm at a time. Finally, the proliferation of uncoordinated institutional, legislative, and regulatory initiatives poses a risk to the strategic coherence and sequencing of important economic undertakings.

While the economic narrative that manufacturing is a necessary stepping stone to transition to the next stage of development requires caution in the context of Timor-Leste (Newfarmer, Page, and Tarp 2018), the government should first and foremost be agile and adaptable to emerging private sector-led and demand-driven opportunities. First, more opportunities will emerge in a conducive business environment with strong enabling sectors such as the financial and digital ones, hence the importance of always advancing sector-specific policy reforms with cross-cutting ones. Second, the government should always lower the complexity of priority economic reforms by either sequencing measures needed for a successful implementation or breaking down a big problem into a series of smaller ones. As such the case for the momentum around SEZs, and the SEZ program in specific, could be used as a tool to establish the demand for promoting targeted private sector-led economic activities whether the SEZ focuses on logistics, packaging, and assembly at an industrial park in the vicinity of Tibar Port, or on manufacturing exports at a joint cross-border free trade zone (FTZ) with Indonesia reviving the Growth Triangle initiative at a doorstep of ASEAN accession, or on tourism and services at the repurposed Dili port into a waterfront marina landmark.

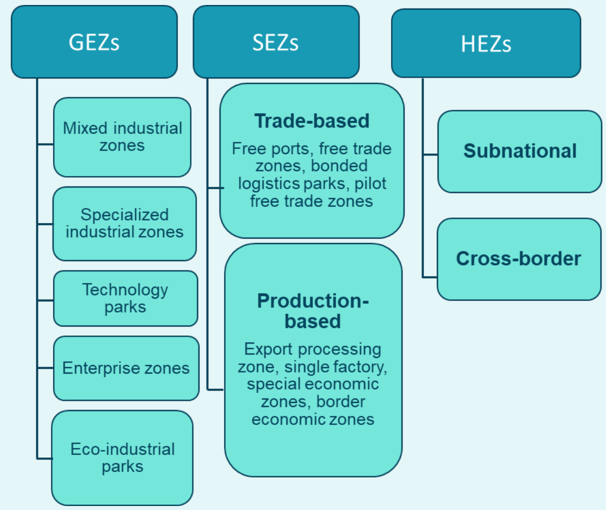
To address the fundamental issue of investors' access to land, the government has been exploring spatial solutions with three important initiatives which have recently benefited from a certain momentum. All these initiatives must be pursued based on a strong market and demand assessments, featuring meticulous forecasts of the sectors that could potentially be drawn to Timor-Leste and the cost of attracting such investors (e.g., cost/benefit analysis, or economic and financial analysis). Only after identifying the viability gap can the government contemplate investing strategically in the spatial solutions most likely to succeed. However, these viability gaps can extend well beyond the selected area/ location and immediate surrounding, underscoring the need to continue addressing investment climate constraints across the country.

While sponsored by different government stakeholders, all these initiatives are part of the same economic vision (see Box 2.5) for which a good practice is to conduct sound market and demand assessments to validate the priority locations and sectors that are the most attractive to investors. The first initiative pertains to the development of an SEZ in the Oecusse district of Timor-Leste based on a Situation Analysis prepared by the *Zona Especial de Economic Social de Mercado* (ZEESM) authority in March 2014. At the request of the government and the authority of the Oecusse Special Administrative Region, the World Bank further assessed the economic opportunities for the planned Oecusse's SEZ (agriculture, tourism, transport, and connectivity) in May 2016. The second initiative is the creation of a framework for industrial parks (Decree-Law No. 44/2022) and subsequent establishment of GESPIN S.A. (Decree-Law No. 70/2022), a limited liability company mandated to manage industrial parks in Timor-Leste which shareholding will likely combine public and private shareholders. Several potential sites are being considered in the greater Dili area near the Tibar Bay port, but the SEZ program could expand across the country with additional industrial park locations. The selection of the location should be driven by a robust market and demand assessment as mentioned above. The third initiative is a more ambitious endeavor for the development of a cross-border economic zone, coined as the joint cross-border FTZ following the meeting of the Indonesian and Timorese Presidents in July 2022. This third initiative could also take the form of 200 kilometers' economic corridor going from the greater Dili area all the way to the Oecusse district of Timor-Leste and linked to the broader trade facilitation and regional integration agenda priorities of the government, including the improvements of cross-border land posts. Finally, a fourth type of SEZ could come to life in Timor-Leste with the drafting of the export promotion policy that is expected to introduce the Export Processing Zone concept.

Box 2.5: The need for a well-managed SEZs program in Timor-Leste to address the issue of access to commercial and industrial land

The term 'special economic zone' encompasses a range of spatial solutions which have both policy and infrastructure rationales (Figure 2.44). SEZs have become an increasingly popular instrument to accelerate industrial development, but a 2017 review from the World Bank shows that SEZs have an indistinct economic trajectory relative to the countries in which they are located. SEZs can act as a catalyst of economic dynamism but even the most successful zone growth happens in its early years and slows over time. There have been mixed experiences in the implementation of SEZs around the world, and Timor-Leste starts with important weaknesses, such as the access to land for investors that should be addressed on priority.

Figure 2.4242: Typological Framework of SEZs

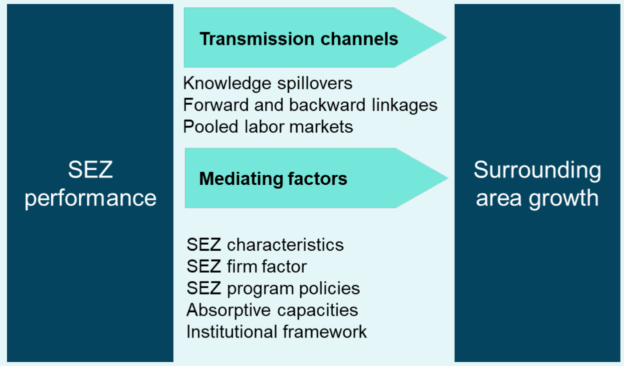


Source: Asian Infrastructure Investment Bank (2022).
Note: GEZ = General Economic Zone; HEZ = Hybrid Economic Zone.

Compared to the domestic economic environment in which they are placed, SEZs can be considered 'special' in several ways. They provide infrastructure (access, quality, reliability, cost, flexibility); customs regimes (efficient customs, duty or VAT, free or deferred); regulatory regimes (efficient licensing, planning, flexibility), and fiscal regimes (capital freedoms, tax incentives, subsidies). SEZs should be consistent with broader spatial development approach and strategy so that the selection of this policy instrument be well substantiated. The selection and development of SEZs with 'special' provisions should be informed by a thorough market and demand assessment. The results of such an assessment should be validated by soliciting feedback from prospective investors and tenants in the targeted sectors and geographical regions. Only those 'special' provisions that contribute to addressing viability gaps should be given consideration, provided their returns are significant enough to warrant upfront public spending.

In addition to making land available to investors, important elements in the success of Timor-Leste SEZ program will be the ownership arrangement, institutional framework, and development approach. There have been a growing number of privately owned, developed, and operated zones worldwide. Formal PPPs have also become increasingly popular around the world, with several different models evolving, including the following:

Figure 2.4343: SEZ Performance and Surroundings Area Growth



Source: World Bank 2017.

- Public provision of off-site infrastructure and facilities (utilities connections, roads) as an incentive for private funding of on-site infrastructure and facilities
- Assembly of land parcels with secure title and development rights by the government for lease to private zone development groups, development of better land use/ownership laws and regulations, and adoption of enforceable zoning and land use plans
- Build-operate-transfer and build-own-operate approaches to on-site and off-site zone infrastructure and facilities, with government guarantees and/or financial support
- Contracting private management for government-owned zones or lease of government zone assets by a private operator (beneficial ownership)
- Equity-shifting arrangements where a private contract manager of a government zone can exercise a purchase option once predefined performance levels have been reached.

SEZ policies cannot substitute for wider structural reforms that would enhance the potential to develop both economic activities and the absorptive capacity in the country. SEZ policy formulation also should consider the supporting policies beyond the SEZ policy framework. Proximity to attractive markets is essential as is the predisposition of the economy. A market and investor analysis before policy formulation is important to understand which categories of investors would potentially locate to the zone and which markets they would aim to serve. As the basis for policy formulation, it is important to assess whether the location could be used to penetrate local, regional, or international markets. A cost advantage through a low-cost labor base would likely remain an attractive feature for firms and continue to stimulate the dynamism of zones and their surrounding areas. Policy makers therefore need to undertake a cost comparative assessment to fully understand whether an SEZ program would provide a cost advantage to investors.

As outlined in Chapters 1 and 2, a multitude of structural gaps exist that have the potential to undermine the effectiveness of SEZs. Despite their physically discrete location, SEZs are not hermetically sealed from their larger economic environment. It is anticipated that the shortcomings in basic competitiveness pillars will limit the realization of SEZ's full potential. Therefore, unless the government methodically addresses structural infrastructure, institutional and regulatory gaps, SEZs in Timor-Leste will likely operate below optimal levels.

The location of zones is a major factor of success, and such decisions on the location should be guided by a credible location analysis. More flexibility in choosing the location of a SEZ, that is, by a location analysis, the higher the probability of success. Locations that can exploit cost advantages in factor input markets that are not negatively affected by distance have higher success rates. A World Bank Group study conducted in 2017 identified five potential sites for an industrial park in the vicinity of Tibar Bay port. An initial demand analysis explored the sectors that would likely attract the most demand. The following industries ranked as the most likely to locate in an industrial park: warehousing and logistics, processing of construction material, and food processing and packaging. Such demand analysis should be updated to account for the overall conditions which may be less favorable post-pandemic for an industry over the other. An industrial park serving only the domestic market may not be viable, as such the demand analysis should explore opportunities to attract tenant companies that are export oriented. An export-oriented SEZ could pave the way for a more ambitious SEZ program given Timor-Leste preferential market access, improving infrastructure, and lower labor cost for low-skilled workers. Strong evidence suggests that positive spillovers from SEZ programs are possible. Supporting programs should be implemented as part of the SEZ program to ensure that positive spillovers are increased.

The government should consider a private sector and/or foreign partners to develop an export-oriented SEZ. This could be done by a private developer, through a PPP or a government-government partnership. The focus of the initial SEZs in the government's SEZ program should be manufacturing and exports. The government could invest to bring the viability gap and address important weaknesses of the Timorese economy which include limited skilled labor and domestic supplier capacity, high cost-structure, high cost of electricity and a challenging business enabling environment.

2.5. Recommendations

Beyond the macroeconomic environment and human capital (see recommendations in Chapter 1) and to strengthen the foundations for private sector-led growth in Timor-Leste, policy makers need to (i) involve the private sector in the formulation and delivery of economic reforms and the mobilization of investments in sectors such as tourism, agricultural processing, and light manufacturing (access to land, SEZs, and PPPs); (ii) encourage the development of sound financial sector and digital solutions; and (iii) continue improving the cross-border trade environment (see recommendations in Chapter 3). There are five sets of important actions which are divided into two focus areas.

Focus area 1: Create a level playing field for private sector participation in the country's economic development

A first important set of actions is to systemically consult private sector representatives in existing or future coordination mechanisms such as the recent IMCTD, the anticipated Inter-Ministerial Task Force for the Joint FTZ, the proposed National Trade Consultative Forum, the proposed Tourism Authority/Board, or the newly established State-Owned Industrial Parks Manager (GESPIN S.A.), to name a few, while ensuring the diversity of private sector and trade associations' participation in these fora.

A second important set of actions is to ensure the strategic alignment and coherence of the government's institutional and legislative/regulatory reforms (for example, there is a bunching of decree and laws at the Council of Ministers regarding the tourism, industry, and trade agenda); translate/prioritize them into tangible activities that serve as instruments of collaboration among public and private stakeholders such as Integrated Tourism Master Plans (aka Special Tourism Areas) or sustainable management plans in selected tourism destinations, the National Trade Information Portal (TIP), demand-driven financing mechanisms with transparent standard operating procedures, and grievance redress mechanism (for example, Tourism Fund); and demand assessments to establish the economic and financial viability of the government SEZ program comprising, among others, a cross-border FTZ, industrial parks, and export processing zones.

A third important set of actions is to maintain and promote/market a readily available state-owned land offering, based on a well-functioning land lease regime, to private investors through individual plots across the country or agglomeration economies in dedicated SEZs with defined commercial and industrial use. This is consistent with the government's economic diversification agenda such as tourism (for example, land for hospitality industry, Dili port site redevelopment, or small-scale PPPs for dedicated tourism sites), agricultural processing, and light manufacturing at the vicinity of transport infrastructures (for example, industrial zone in the vicinity of Tibar Port or Indonesia-Timor-Leste joint cross-border FTZ).

Justification	Recommendation	Measure	Counterpart	Impact	Feasibility
There are insufficient mechanisms for public-private dialogue and weak private sector organizations.	Create public-private dialogue platforms to minimize regulatory uncertainty	Enhance private sector involvement in inter-ministerial fora (tourism development, FTZs, and so on) to ensure the successful implementation of economic policy reforms	COM, MCAE, MTCI, MJLP, MOF, IMCTD	•	• • •
Policy uncertainty, inconsistent regulations, and perceived high risk of reforms reversal, compounded by coordination failures, hinder the implementation of economic diversification.	Implement collaboration and investment mechanisms to drive recovery and growth in targeted markets	Standardize regulatory and planning practices across departments and promote stakeholder engagement in tangible initiatives (tourism master plans, tourism agency, tourism funds, industrial parks, and so on)		• • •	• •
Complex private land ownership, a lack of regulations on the use of public domain assets, and the absence of designated commercial and industrial zones make it challenging for investors, especially FDI, to locate suitable commercial and industrial land.	Establish a comprehensive database of state-owned lands to facilitate leasing to investors and attract private capital, especially FDI, to targeted market opportunities	Keep a database of readily available state-owned lands for private investors, particularly FDI (short-term); and implement a lease regime for state-owned property (medium-term)	MJLP, MOF, TradeInvest	• • •	• •
		Promote designated locations, based on established demand, for government SEZs such as the Dili port site redevelopment, Ulmetra industrial zone, and Indonesia-Timor-Leste joint cross-border FTZ	MCAE, MTCI, MTC, MOF, IMCTD	• • •	• •

Note: COM = Council of Ministers; MCAE = Coordinating Ministry of Economic Affairs; MJLP = Ministry of Justice, Land, and Property.

Focus area 2: Encourage business dynamism and efficiency

A fourth important set of actions is to pilot blended finance schemes to fund investment-worthy ventures that requires longer-term or patient capital, strengthen the resilience of businesses against the adverse impacts of climate-related events, and incentivize increased financial intermediation and greater outreach of the financial sector to bankable firms.

A fifth important set of actions is to harness the digital economy as a key driver for growth and innovation by increasing the adoption and scale of DFS, improving digital connectivity through PPP arrangements, and supporting the development of a vibrant digital ecosystem.

Justification	Recommendation	Measure	Counterpart	Impact	Feasibility
The scarcity of forward-looking ventures in key sectors (bringing appropriate level of investments in fixed assets, human capital, and innovation) as well as limited supply and demand for financial services, and preparedness for climate disasters, constrains growth	Develop non-debt financial instruments to encourage risk taking and investments in productive and export-oriented sectors	Set up an equity financing facility for innovative, growth-oriented ventures	MOF, MTCI	• •	• •
		Pilot disaster risk financing and insurance products	MOF, BCTL	• •	•
		Implement partial credit guarantees to incentivize increased financial intermediation and better access to financial services for viable firms	BNCTL, MTCI, MOF, BCTL	• •	•
Despite the early stage of development, the digital ecosystem offers potential to enhance digital connectivity, increase the use of DFS, and improve e-government services	Roll out the submarine fiber optic cable to improve connectivity and foster the growth of a private sector-led digital ecosystem	Conduct a digital economy assessment and pilot new applications for electronic payments, such as digitizing social assistance transfers or creating electronic payment zones, to expand the use of DFS	BCTL, MOF, MSSI	• •	• •
		Enhance high-speed internet access through PPP arrangements	MCAE, MTC, MOF, MTCI, SERVE, TIC Timor, IADE	• •	• •
		Promote the development of the digital economy (e-government platforms, digital businesses, digital skills) and enhance the quality of government business support programs		• • •	•

CHAPTER III: REALIZING THE POTENTIAL OF EXPORTS FOR STRUCTURAL TRANSFORMATION IN TIMOR-LESTE

3.1. Motivation

Over the past two decades, Timor-Leste has not been able to avail the growth-enhancing benefits of international trade and the opportunity to integrate in regional and global markets. The export base is narrow, diversification remains a major challenge, and Timor-Leste still relies on a handful of products and services as the main source of export revenues. Coffee accounts for close to 90 percent of agricultural exports, minerals and fuels for 94 percent of goods exports, and tourism for 92 percent of services exports. Export potential is constrained by a weak private sector, limited institutional capacity, and high and persistent economic vulnerabilities. These in turn lead to below potential exports, a persistent trade deficit, and susceptibility to commodity price volatility. Combined with additional structural constraints, these are a source of significant vulnerabilities for Timor-Leste, increasing its exposure to shocks and limiting its capacity to respond and recover in a sustainable manner.

Timor-Leste is currently pursuing an ambitious trade policy reform and integration agenda which combined with targeted policies to address supply-side constraints have the potential to help boost exports and diversification. Timor-Leste committed to joining several important subregional, regional, and multilateral trade partnerships such as the ASEAN, the European Union (EU)-Pacific Economic Partnership Agreements (EPAs), and the WTO. WTO accession negotiations, though initiated only in 2016, have been progressing rapidly since 2021 with the stated goal for conclusion by 2023. ASEAN accession has also progressed with the agreement of the group to admit Timor-Leste as the 11th member in November 2022, granting it observer status until it complies with criteria to become a member. Membership in these fora will translate not only into improved market access opportunities for the private sector but will also require Timor-Leste to address remaining trade-related distortions in its domestic markets, make progress toward a more stable and predictable trading environment, and anchor its commitments in economywide reforms.

Economic diversification and export growth are held back by substantial structural economic vulnerabilities. As highlighted in Chapter 1, these vulnerabilities are driven by numerous factors such as a small domestic market, remoteness from world markets, export and agricultural production instability, and vulnerability to environmental and natural hazards. The remoteness of Timor-Leste from global markets is a structural disadvantage not only because it is a source of vulnerabilities but also because distance remains a significant barrier to trade, as well as a determinant of high trade and transportation costs. Countries separated from major markets have trouble diversifying their economies. Among other vulnerabilities, the volatility of prices for its main agricultural and oil export products results in large terms of trade shocks, uncertainty about export revenues, and leads to Timor-Leste to have the highest export instability among comparators.

The dynamism of exporting firms is constrained by the lack of a supportive business environment. This chapter further analyzes characteristics of exporters and business environment constraints they face, complementing the analysis in Chapter 2. Although Timor-Leste is shown to have more exporters that are larger than comparators of similar development and size, these exporters are also more concentrated and exhibit lower entry, exit, and survival rates. These findings suggest that Timor-Leste has a business environment with high entry and exit costs, which discourages firms from participating in exporting or leaving the export markets. However, once these firms enter export markets, they are quite competitive and have higher success rates. With low entry and exit rates, larger and more productive incumbents remain in the market, limiting the dynamism of exports.

The appreciation of the US dollar, the country's official currency, has been putting additional pressure on Timor-Leste's international competitiveness. The 2021 IMF Article IV concluded that the real exchange rate is overvalued by about 26 percent. While moving to an alternative currency regime such as a peg to a trade-weighted basket of currencies could boost Timor-Leste's long-term competitiveness, evidence shows that official dollarization has also contributed to macroeconomic stability, helped achieve price stability, and eliminated exchange rate volatility in Timor-Leste (IMF 2022). The underdevelopment of the financial sector combined with limited institutional capacity and the high concentration of exports in US dollar-denominated commodities such as coffee and petroleum remain among the main constraints toward the adoption of a national currency. Nevertheless, according to recent IMF recommendations, the Central Bank could start developing a long-term strategy to explore the necessary steps to introduce a national currency and raise awareness (IMF 2022).

The development of domestic productive capacities will be crucial for fostering diversification and structural transformation in Timor-Leste. Although existing productive capacities are better than in most comparators, these have not yet yielded the expected diversification potential. Addressing constraints to boosting domestic productive capacities such as human capital, energy, ICT, transport infrastructure, and institutions will be critical. Cross-country evidence suggests that for commodity exporters such as Timor-Leste, the most important capacity for boosting trade diversification is human capital accumulation, followed by improving education outcomes at the secondary level, improving the quality of institutions, and developing the financial sector.

Existing evidence highlights that smaller and resource abundant countries such as Timor-Leste tend to be less diversified, but there are several policies that can support diversification efforts. Research finds that resource abundance impedes diversification not only at the intensive margin (more of the same products) but also at the extensive margin (new export products). Even among commodity exporters, countries with higher natural resource rents are likely to export fewer products after controlling for other factors, including quality of institutions. The determinants that are found to be most robustly associated with higher export diversification are (i) higher levels of human capital, with primary education being the key driver of growth on the extensive margin;[59] (ii) greater openness to trade especially through the extensive margin; and (iii) higher-quality institutions, proxied by quality of governance. As outlined in the 2020 ERP improving education should be at the core of Timor-Leste's long-term economic development and human capital development as the epicenter of economic policy. Furthermore, the concentration of exports and natural resources dependence increases risk of the 'natural resource curse' (Lederman and Maloney 2007). There is an overwhelming body of evidence showing that diversification in both exports and output is a key determinant of growth for low-income countries (IMF 2014, 2017).

The policies and strategies identified in the 2010 Diagnostic Trade Integration Study (DTIS) to expand and diversify exports have not been fully availed. The DTIS identified several sectors with a short-term export growth potential such as coffee, grains and pulses (mung beans), and livestock (cattle) and sectors with medium-term possibilities such as horticultural exports. The main cross-cutting constraints to export growth highlighted were access to land, lack of skills, weak business environment, and lack of critical infrastructure needed for the facilitation of international trade (road, port, and customs infrastructure). Although coffee exports have expanded, there has been a pronounced shift toward unprocessed green bean and coffee husks and skins, while the production of gains and pulses, livestock, and horticultural products remains of the subsistence type with no excess supply for export markets. In terms of policy reforms to address cross-cutting constraints to export growth, despite some progress (discussed in Chapter 2), the majority of these remain in place.

With the right combination of a supportive enabling environment and trade policies, Timor-Leste could capitalize on incipient and established comparative advantages. In addition to coffee, Timor-Leste has a significant comparative advantage for exports of seaweeds, vegetable materials, densified wood, and travel sets and developed new ones for copra and vanilla. Based on the current production possibility frontier, top agricultural export opportunities with high diversification potential are cocoa beans, coconut oil, raw sugar, fish products, processed fruits and nuts, and tapioca. Products with higher value added and higher complexity with diversification potential are cereals, flour, starches, edible animal byproducts, vegetables, fruits and nuts, and

[59] The extensive margin of trade refers to the number of exporting firms, the number of products exported, or the number of export destinations. Alternatively, the intensive margin refers to the value of trade.

beverages. In terms of manufactures, products close to existing production capabilities are cotton, wood and articles of wood, apparel, and clothing accessories, and farther from current capabilities are products such as carpets, footwear, pulp of wood and other fibrous cellulosic material, and textile rags.

Targeted policies are needed to boost the value addition of food processing and light manufacturing exports. As highlighted in Chapter 2, light manufacturing can support the agro-processing and increase value addition for agricultural products, especially through higher prices by focusing on quality control and additional transformation. For instance, in the case of coffee exports, green beans and coffee husks and skins have been accounting for close to all of coffee exports since 2017, indicating that domestic value addition is limited. Roasted coffee beans have a relatively limited shelf life, requiring access to appropriate packaging and effective distribution networks, both of which are frequently lacking. Additionally, import taxes and other levies apply to both packing supplies and roasting equipment. Developing value-adding roasting facilities would boost exports, domestic value added, and growth. In addition, developing national quality standards and incentivizing certification with international ones would also boost farmers' revenues and value addition in the coffee sector. Given that price differentials to farmers are not strongly associated with quality, there are no incentives to improve the quality and consistency of coffee beans.

At the crossroads of defining a national trade strategy as part of accession to the WTO and ASEAN, there is an increasing risk of protectionism in Timor-Leste. Starting in January 2023, import tariffs applied on imports of goods were doubled from 2.5 to 5 percent with the objectives of boosting revenue collection, reducing imports, and improving diversification prospects. In addition, despite ambitious integration efforts and long-standing open trade policies, the 2020 ERP highlighted the need for import substitution and protection of domestic infant industries through an increased use of trade barriers and import controls, aimed to protect local companies from competition from imported products. As acknowledged in the same strategy paper, import substitution will require scaling up domestic production, which will not be easy. Given the importance of imports for exports, there is a tension between the government's policy objectives of import substitution and infant industry protection, on the one hand, and export growth and diversification goals, on the other. In a world dominated by global value chains (GVCs), imports are crucial for exports and quality inputs are crucial for quality outputs and exports. Experience shows that countries transitioning from commodity-based to manufacturing-based GVC see their imports of intermediate inputs increase, as they need more and higher-quality inputs to feed their diversifying export portfolio. Furthermore, protectionism is not in the best interests of a small open economy such as Timor-Leste that relies greatly on international trade for imports of goods and services that it cannot produce domestically as well as a source of export revenue. Instead, complementary policies are needed to eliminate fundamental supply-side constraints and address remaining trade policy and market access constraints.

Ensuring an open, stable, transparent, and predictable trade regime, combined with targeted reforms on tariffs, non-tariff measures (NTMs), and trade facilitation, will remove remaining trade policy constraints to realizing the potential of exports. First, at the currently applied 2.5 percent, tariffs generate little revenue and are not protecting domestic producers. Coupled with the high administrative costs associated with their collection, the full elimination of tariff barriers could be beneficial to domestic producers and consumers and would not lead to a surge in imports. Second, although currently the use of NTMs in Timor-Leste remains limited, as part of accession to the WTO, Timor-Leste designed a five-year action plan for the implementation of the WTO Agreement on Technical Barriers to Trade (TBT) and WTO Agreement on Sanitary and Phytosanitary (SPS) Measures. Complying would include designing and implementing the appropriate legislation, regulatory framework, technical regulations, standards, and conformity assessment procedures. In turn, to improve market access in top destinations, Timorese exporters will need to meet and satisfy non-tariff requirements pertaining to conformity, quality, testing, and labelling of its export products. These NTMs likely hinder Timorese firms' participation in the export markets due to a lack of capacity to comply or bear the costs associated with compliance.

In addition, despite advancements on trade facilitation, issues with reliability, predictability, and implementation remain. Three-quarters of traders and freight forwarders state that it takes at least 10 days for imported goods to be released from customs. Transparency, formalities, institutional arrangement and cooperation, paperless commerce, and cross-border paperless trade were among the components with the lowest scores, much below that of peers. Additional trade facilitation reforms such as risk management, post-clearance audits, electronic payment of customs and taxes, and electronic application are still in the planning phases or have not yet been introduced. In addition, indicators highlight that there is a gender gap in trade facilitation. For instance, fewer women are members of industry and trade associations, fewer women are consulted on changes to official border processes and procedures, and they are also less aware of electronic systems and pre-declaration mechanisms (World Bank 2020).

To position itself to benefit from the major structural shifts in the international trading system, Timor-Leste needs to adapt to new sources of international demand and develop its productive capabilities. Against a background of slowing world trade growth and slowing GVC integration, there is a need to pursue additional reforms to reduce trade costs and boost exports, coupled with complementary private sector development policies outlined in Chapter 2. Rising shipping costs and supply chain disruptions in the wake of the COVID-19 pandemic are likely to induce more structural shifts in the global economy with the rising importance of spatial proximity, there may be a push toward near-shoring, reshoring, or even regionalizing value chains. The COVID-19 pandemic intensified Timor-Leste's focus on food self-sufficiency objectives. Although food self-sufficiency is often perceived as the right strategy to reduce countries' vulnerability to international supply shocks or sudden and sharp rises in food prices, evidence shows that using distortive policies to encourage domestic production can in fact increase countries' vulnerability to shocks and lead to significant efficiency losses. Further, trade can enable countries to respond to shocks in the short term and recover in the medium and long term (Cavallo and Frankel 2008; Haddad et al. 2013; WTO 2021).

Against this background, this chapter analyzes the challenges and opportunities to strengthen productive capacity and boost diversification and exports in Timor-Leste. The chapter takes stock of developments in international competitiveness since the 2010 DTIS and outlines strategies to address remaining trade policy bottlenecks outlining three main areas for trade policy reforms aimed to (i) reduce the time and costs of trading and improve the efficiency of border processes and procedures; (ii) design and implement the regulatory framework, infrastructure, and domestic capacity needed for the implementation of the WTO SPS and TBT Agreements; and (iii) ensure an open, stable, transparent, and predictable trade regime supported by the removal of supply-side constraints. These reforms in combination with the private sector development policy priorities outlined in Chapter 2 have the potential to boost Timor-Leste's long-term international competitiveness, improve economic diversification, and boost sustainable and equitable growth.

3.2. The Importance of Trade for Timor-Leste

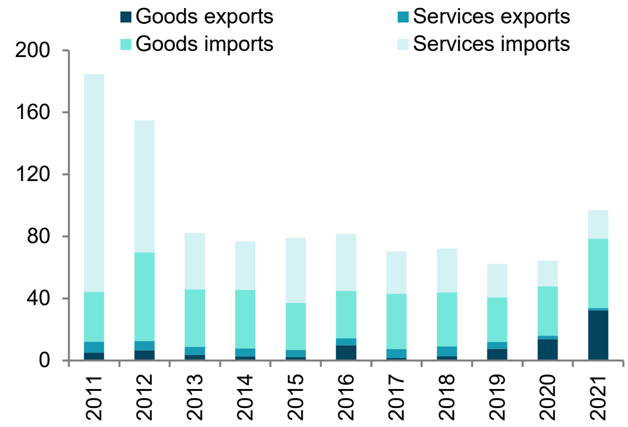
Timor-Leste is a small open economy that relies greatly on international trade for imports of goods and services (food, fuel, capital goods, construction, and financial services) that it cannot produce domestically as well as a source of export revenues. The share of trade in GDP reached 89 percent in 2021 (Figure 3.1.A), close to double that of comparators such as São Tomé and Príncipe and Rwanda but much lower than in aspirational peers such as Mongolia and Guyana at 117 and 122 percent, respectively. At 9.2 and 7.6, the ratios of goods and services imports to exports are among the highest and point not only to a considerable reliance on imports but also to exports significantly below potential (Figure 3.1.B). Export competitiveness has been lagging and although the export intensity of GDP increased from 8.3 percent in 2011 to 26 percent in 2021, it remains significantly below potential and below that of most comparators (Figure 3.1.C and D). For most of the last decade and before the COVID-19 pandemic, export of goods and services accounted for less than 2 and 6 percent of Timorese GDP, respectively.

Since the signature of the Maritime Border Treaty with Australia in 2018, previously disputed exports of oil and gas have been officially recorded in Timor-Leste's trade data. This is what explains the steep rise in Timor-Leste's exports of goods from US$23 million in 2018 to US$458 million in 2021. Not counting oil and gas, Timor-Leste's exports have been hard hit by the COVID-19 pandemic but partially recovered in 2021. Overall, non-oil export competitiveness has been stagnating. Exports of commercial services, highly concentrated in tourism, declined by more than 77 percent, from US$76 million in 2019 to US$17 million in 2021.

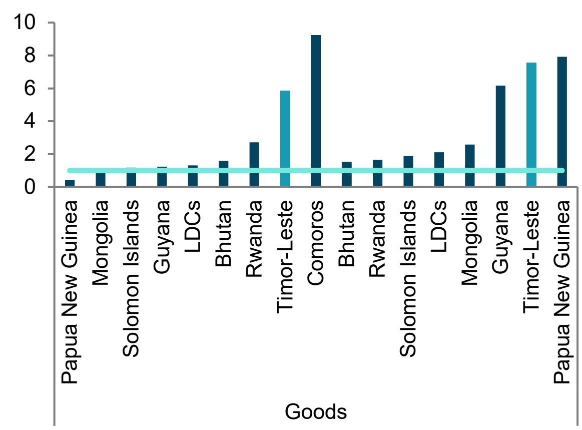
Despite diversification efforts, Timor-Leste's exports remain concentrated across both goods and services sectors. Coffee accounts for close to 90 percent of agricultural exports, minerals and fuels for 94 percent of merchandise exports, and tourism for 92 percent of services exports (Figure 3.1.E–G). As underscored by recent developments such as the devastating 2021 floods, the COVID-19 pandemic, and the Ukraine-Russia war, such high concentration of exports makes the country susceptible to internal as well as external supply and demand shocks. Combined with additional structural constraints, these are a source of significant vulnerabilities for Timor-Leste, increasing its exposure to shocks and limiting the country's capacity to respond and recover in a sustainable manner.

Figure 3.1: The importance of trade for Timor-Leste

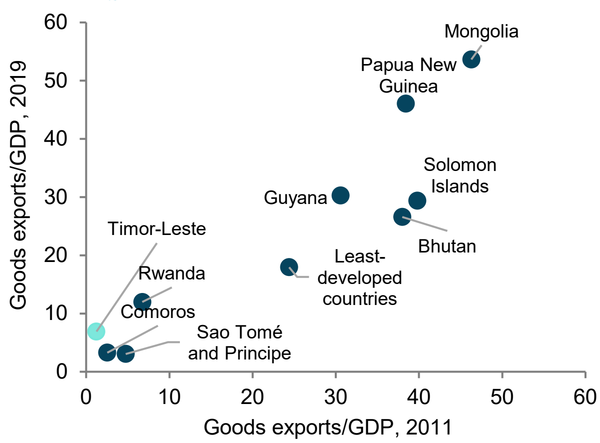
A. Trade openness (exports and imports, percent of GDP)



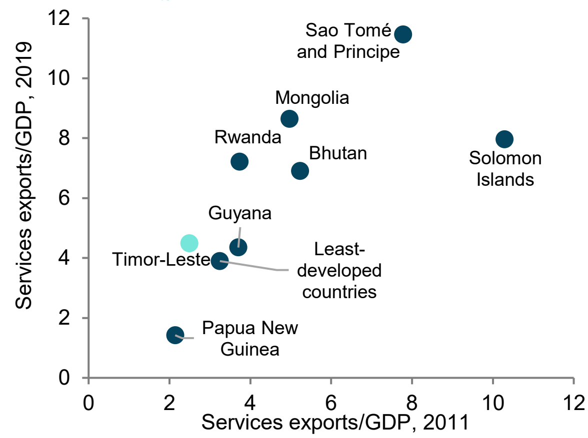
B. Ratio of imports/exports (2011–2021)



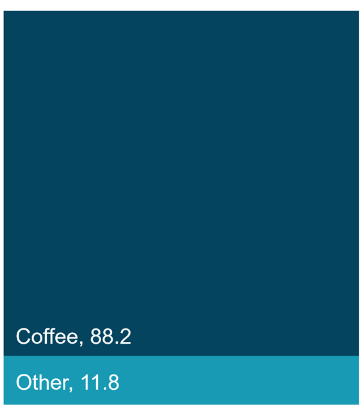
C. Goods exports/GDP: 2011 versus 2019



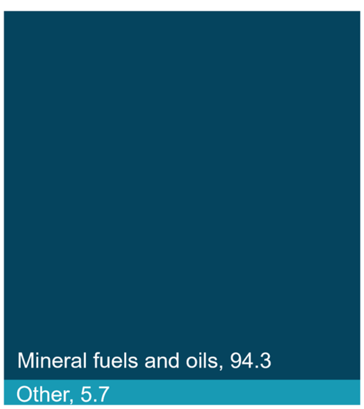
D. Services exports/GDP: 2011 versus 2019



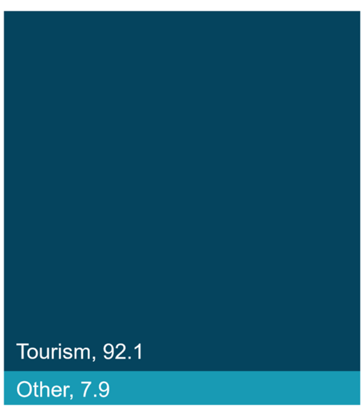
E. Agricultural exports (percent, 2021)



F. Goods exports (percent, 2021)



G. Services exports (percent, 2021)



Source: World Bank, WTO.
Note: Services exports represent commercial services only.

During the last decade, export product diversification has been limited and stagnant. Timor-Leste exported a total of 51 products in 2021 (slightly up from only 19 in 2012) among which oil, gas, and coffee accounted for 99.2 percent of the total in 2021. After a declining trend between 2016 and 2019, the Herfindahl-Hirschman Index (HHI) of export product concentration[60] has also been on the rise with the addition of oil and gas products to the official trade data (Figure 3.2.A). Among non-mineral exports, coffee has been systematically the most important, accounting for close to 90 percent of non-oil merchandise exports over the last decade (Figure 3.2.C). More recently, there has been a slight increase in exports of oil seeds and oleaginous fruits, vegetable saps, and extracts, while exports of wood and articles of wood have declined. Compared to aspirational and structural peers, export product concentration is among the highest, only exceeded by that of Solomon Islands (Figure 3.2.B). More recently, exports of products such as seaweed, candlenut oil, ferrous waste and scrap, and aluminum waste have expanded the most (2016–2021 relative to 2011–2015), although from a low base.

The concentration of imports has been relatively stable across the years, although the number of imported products is much higher than that of exported products and has more than doubled from 2075 in 2011 to 4224 in 2021. Imports of oil and gas accounted for 15 percent of the total, which together with machinery, iron and steel articles, vehicles, and cereals amounted to more than half of total imports in 2021 (Figure 3.2.D). Timor-Leste runs a persistent deficit in merchandise trade, driven mostly by imports of capital goods and cereals and financed mostly by excess withdrawals from the Petroleum Fund. Demand for imported capital goods such as tubes and pipes and small equipment as well as consumer products such as poultry meat, beer, cigarettes, telephones, and pasta products have risen in recent years.

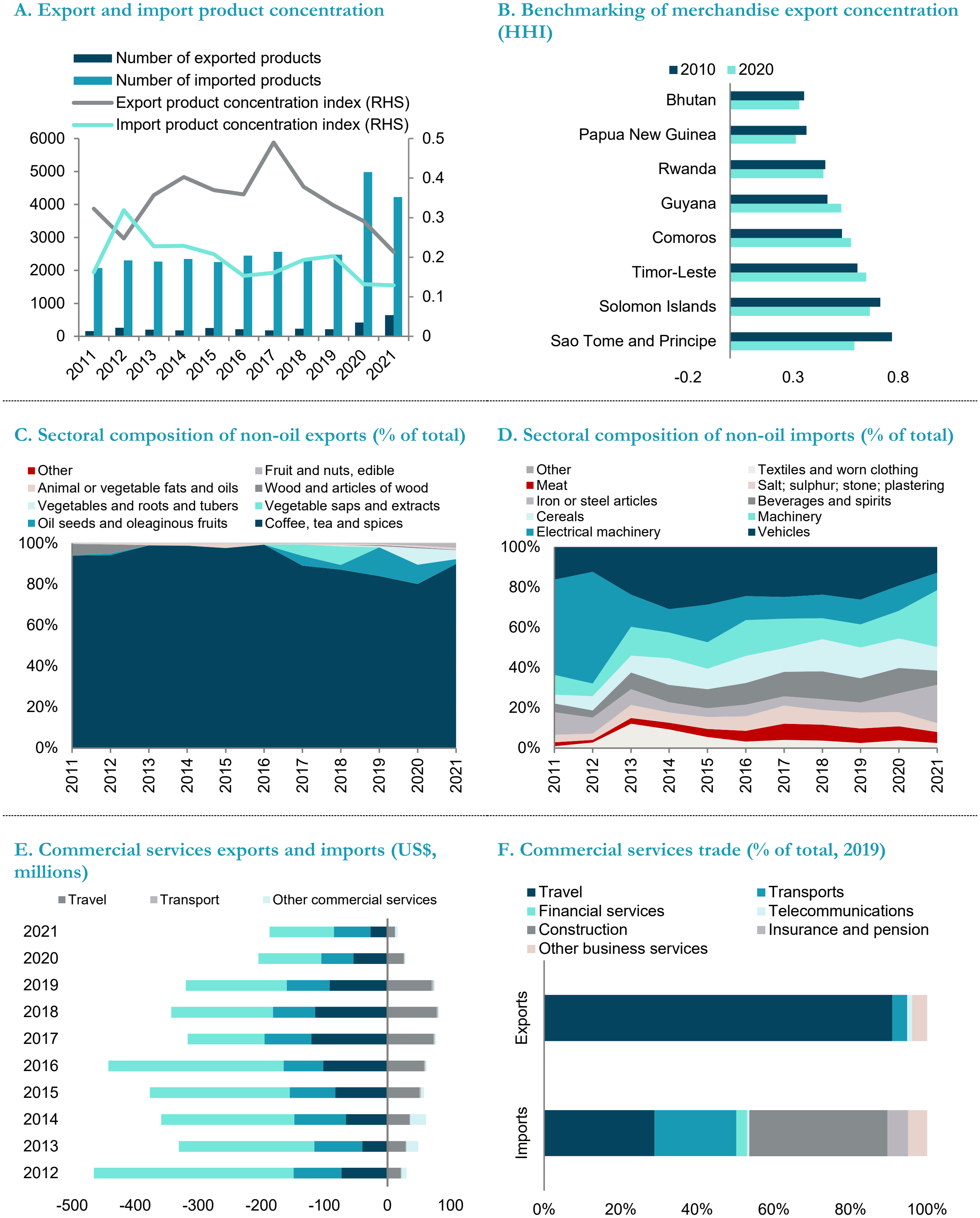
Exports of commercial services have been expanding steadily until 2019 but have been hit hard by the COVID-19 pandemic, declining from US$76 million in 2019 to US$17 million in 2021. With a ratio of services imports to export of 7.6, demand for imported services such as construction, transport, travel, and insurance and pension services (Figure 3.2.F) significantly outweighs exports. Trade in services, particularly business services, has become a dynamic component of trade as well as another source of export diversification for many countries and with the right enabling environment has the potential to contribute significantly more to export growth in Timor-Leste (Chapter 2).

Timorese export products reach an average of 40 markets, with the most important destinations being Singapore, Japan, and China. Although together with South Korea, these account for more than 88 percent of total exports, the market concentration of Timorese exports has been declining since 2014 (Figure 3.3.A). Exports to these large destination markets have expanded significantly during the last couple of years, as exports of oil were officially recorded (Figure 3.3.C).[61] For non-oil exports, the most important destinations are the United States, Canada, and Germany. Export destinations such as China, United States, and Germany represent important potential for further expansion, given that they developed as market destinations for Timorese export and grew faster than the average in terms of import demand (Figure 3.3.E). The most important import markets are Indonesia, Singapore, China, and Australia. Overall, the largest bilateral deficit was recorded with partners such as Australia and Indonesia (driven by imports of fuel and food), and the largest trade surplus was recorded with Japan, Korea, and Singapore (explained by exports of oil and gas; Figure 3.3.B). Over time, Australia and China have grown significantly as a source of Timorese imports (Figure 3.3.F).

[60] HHI measures export's concentration ratio, based on the share of exports in the sector in total exports. The index results take values between 0 and 1.

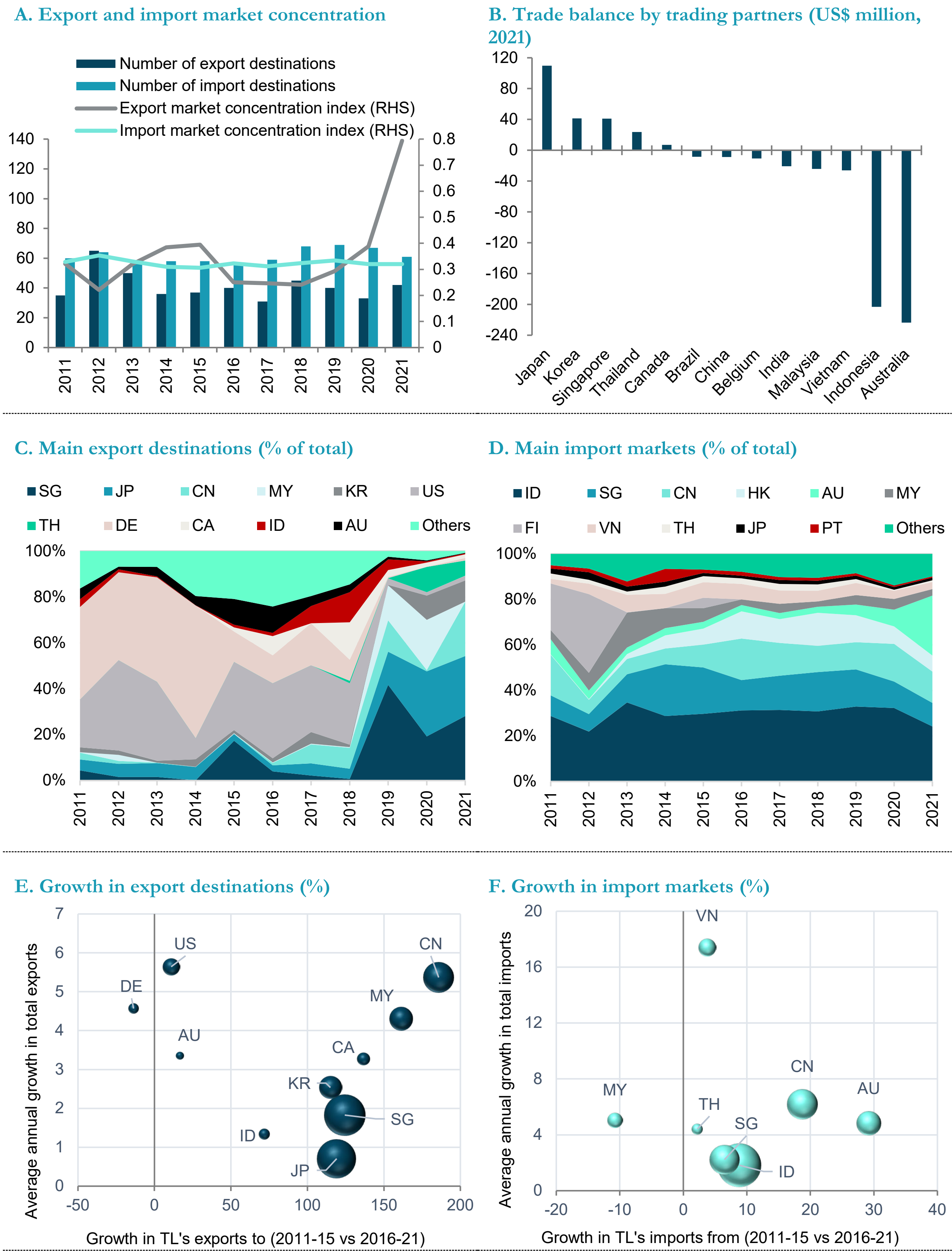
[61] The temporary boundaries established in 2006 under the Treaty on Certain Maritime Arrangements in the Timor Sea set out that revenues from the Greater Sunrise oil fields would be divided 50–50.

Figure 3.2: Sectoral composition of goods and services trade



Source: Timor-Leste customs transactions trade data; WTO Services Trade Database.

Figure 3.3: Decomposition of trade by partners



Source: Timor-Leste customs transactions trade data. The size of the bubbles represents the share of that markets in Timor-Leste's total exports and imports, respectively.

3.3. Structural Vulnerabilities and Constraints to Export Growth and Diversification

Economic diversification and export growth are held back by significant structural economic vulnerabilities. Timor-Leste's Economic Vulnerability Index[62] is among the highest compared to peers, only exceeded by that of the Solomon Islands, and much higher compared to structural peers such as Comoros and São Tomé and Príncipe (Figure 3.4.A). These vulnerabilities are driven by numerous factors such as a small domestic market, remoteness from world markets, export and agricultural production instability, and vulnerability to environmental and natural hazards. In turn, there is a strong and negative correlation between economic vulnerability and development, as captured by GNI per capita (Figure 3.4.B).

Timor-Leste has been classified as a least developed country since 2003. LDCs are defined as low-income countries with significant structural impediments to sustainable development, vulnerable to economic and environmental shocks, and with low levels of human capital.[63] The LDC classification is important from a trade perspective because LDCs such as Timor-Leste benefit from special and differential treatment (SDT) to help them develop their export capabilities and attract investment. SDT comes in the form of significant market access opportunities for goods and services exports (for example, 'duty-free and quota-free' access to export markets), special treatment regarding obligations and flexibilities under WTO rules and regional agreements, and trade-related technical assistance and capacity building to mainstream trade into national development strategies and boost exports and growth.

As highlighted in Chapter 1, the remoteness of Timor-Leste from global markets is a structural disadvantage not only because it is a source of vulnerabilities but also because distance remains a significant barrier to trade. Timor-Leste's remoteness is much higher than most of its structural and aspirational peers and the average LDC (Figure 3.4.C). In turn, location and distance from markets is an important determinant of shock exposure and resilience, channeled through high transportation and trade costs. Countries separated from major markets have trouble diversifying their economy and remoteness is a structural constraint to trade and development as well as potential source of vulnerability during shocks.

Among other vulnerabilities, high export instability[64] captures Timor-Leste's heightened vulnerability to terms of trade shocks and uncertain and highly variable export earnings. Such fluctuations in domestic production and exports, employment, and the availability of foreign exchange have negative consequences for sustainable economic growth and development. In comparison, the instability of agricultural production is less pronounced yet reflects Timor-Leste's high vulnerability to natural shocks, including droughts and disturbances in rainfall patterns. Volatility of prices for its main agricultural and oil export products results in large terms of trade shocks, uncertainty about export revenues, and export instability which is the highest among comparators (Figure 3.4.D).

The development of domestic productive capacities will be crucial for fostering diversification and structural transformation in Timor-Leste. As measured by the Productive Capacities Index, domestic productive capacities reflecting a combination of factors such as human capital, energy, ICT, natural resources, transport infrastructure, institutions, the private sector, and structural change have overall improved over time in Timor-Leste (Figure 3.4.E). Energy infrastructure and structural change are the two factors that are found to have worsened between 2003 and 2018. Overall, there is an inverse relationship between productive capabilities and export concentration (Figure 3.4.F). Dependence on the export of a few commodities may be

[62] The Economic Vulnerability Index is one of the criteria used by the UN in the identification of least developed countries (LDCs). It has different indicators including (i) share of agriculture, hunting forestry, and fishing in GDP; (ii) remoteness and landlockedness; (iii) merchandise export concentration; and (iv) instability of exports of goods and services aimed to capture different structural vulnerabilities in a composite index.

[63] LDC classification criteria were as follows: gross national income (GNI) per capita of US$1,018 or below, Human Assets Index (HAI) of 60 or below, and Economic Vulnerability Index (EVI) of 36 or above. Inclusion of eligible countries is based not only on the criteria scores but also on complementary sources of information. Currently, there are 46 countries classified as LDCs.

[64] The indicator measures the variability of the value of exports around its trend, calculated over a 20-year period. It is defined as the standard deviation of the difference between the value of annual export earnings and its multiyear trend.

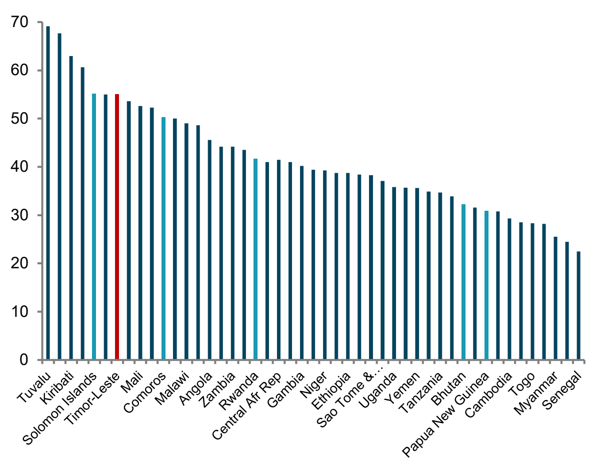
reduced by fostering productive capacities. In Timor-Leste, although existing productive capacities are better than in most comparators, these have not yet yielded the expected diversification potential.

Cross-country evidence suggests that for commodity exporters such as Timor-Leste, the most important capacity for boosting trade diversification is basic human capital accumulation, followed by improving education outcomes at the secondary level and financial sector development. Other policy areas include improving quality of institutions and developing the financial sector (Giri, Quayyum and Yin 2019). More generally, improvements in productive capacities such as energy and transport infrastructure are positively associated with export diversification and overall trade performance. An increase in the share of manufacturing value added has been found to be directly linked to export diversification, whereas natural resource endowments have the opposite effect through their tendency to trap countries into commodity specialization. Improving human capital accumulation and institutions, reducing trade barriers, and developing better industrial policies could also support export diversification. Giri et al. (2019) identified factors that predispose countries toward lower levels of export diversification but found that the relative influence of the size of an economy is less intensive than an abundance of natural resources.

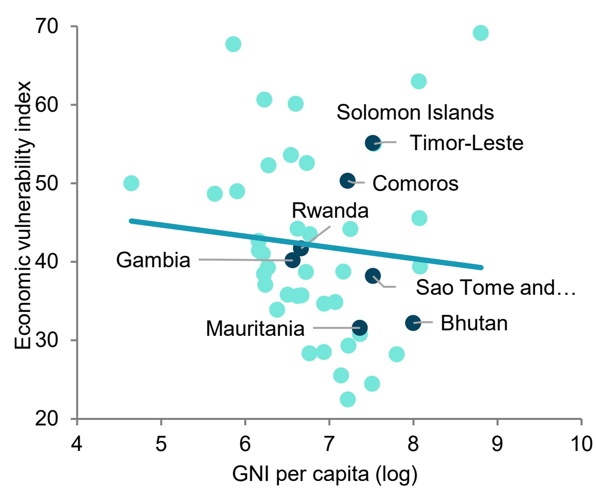
Natural resource dependence leaves Timor-Leste susceptible to the so-called resource curse and Dutch disease. While under the right conditions natural resource wealth can foster a country's development[65], resource dependence has been associated with adverse economic outcomes such as lower growth, reduced competitiveness, revenue volatility and declining terms of trade, as well as poor performance on socio-political outcomes such as rent seeking, political instability, conflict, and lack of public accountability. In the case of Timor-Leste, evidence points to the fact that the extractive sector aggravates preexisting structural issues rather than causing them (John, Papyrakis, and Tasciotti 2020). Additionally, natural resource dependence is a channel for Dutch disease, often associated with an appreciation of the real exchange rate, and a shift of productive resources toward the booming resource sector. In Timor-Leste, the adverse effects of Dutch disease are mitigated by the dollarization of the economy and the fact that the number of Timorese workers employed in the natural resource industry is limited. Yet, the manufacturing base remains limited, the contribution of services to growth has been declining, while international competitiveness has been stagnating.

Figure 3.4: External economic vulnerabilities

A. Economic vulnerability index

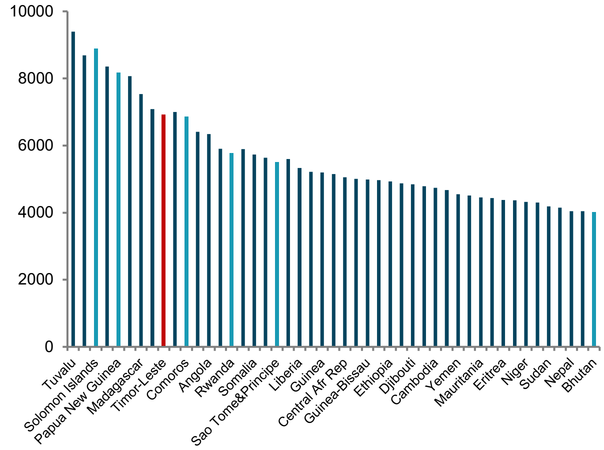


B. Economic vulnerability and GNI per capita in LDCs

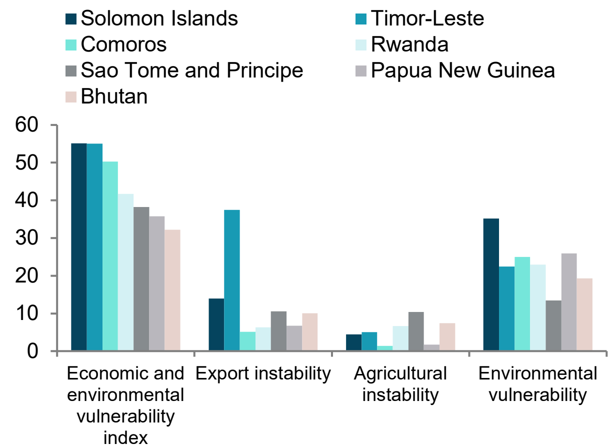


[65] Countries with sound institutions that are more diversified are better placed to benefit from the income shock associated with commodity booms.

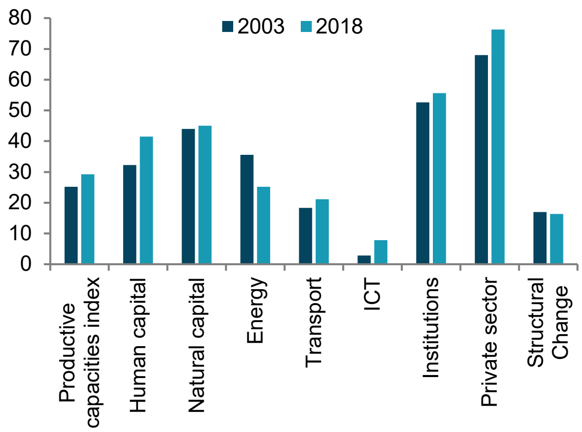
C. Distance for world markets



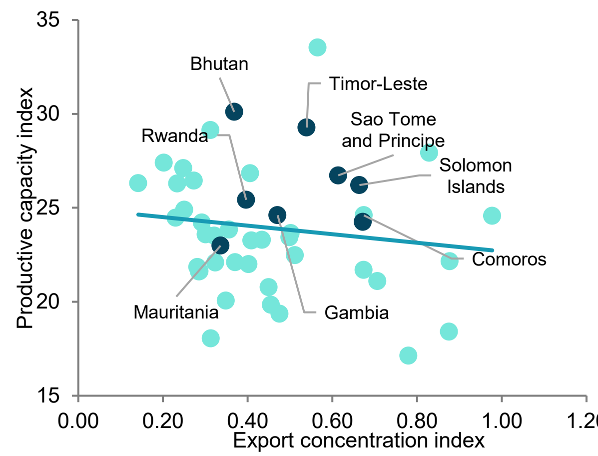
D. Other vulnerabilities



E. Productive capacities index



F. Productive capacities and export concentration in LDCs

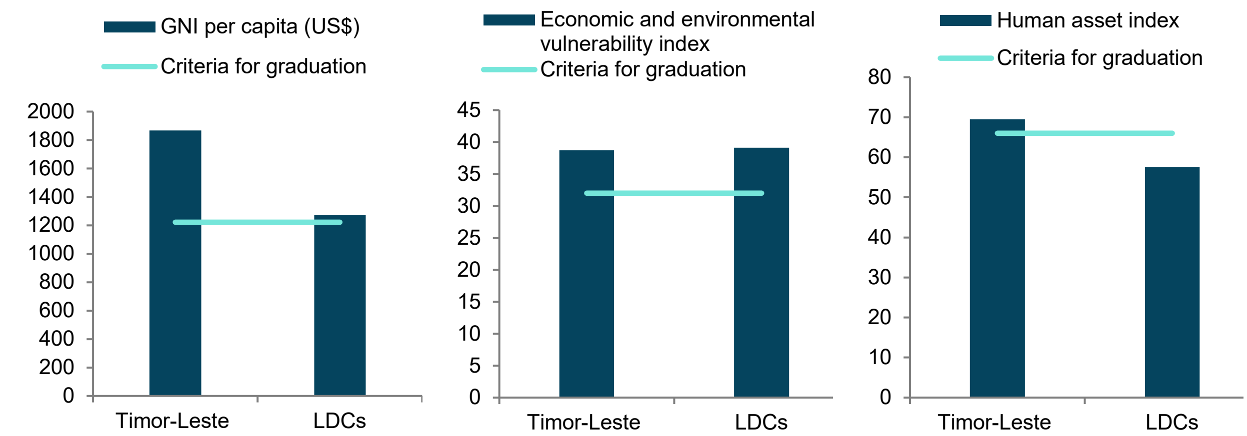


Source: UN. Data reflects 2021 information.

On account of its structural vulnerabilities, Timor-Leste's LDC status will give it flexibility to implement WTO accession criteria. Although Timor-Leste met the criteria for LDC graduation in 2015, 2018, and 2021, the decision regarding its graduation has been deferred by the United Nations Committee for Development Policy to 2024. With a GNI per capita of US$1,867 and a Human Assets Index of 69.5 in 2021, Timor-Leste met the LDC graduation criteria of US$1,222 and 66, respectively, and performs better on these indicators than the average LDC. However, at 38.7, the Economic and Environmental Vulnerability Index remains high and is above the graduation criterion of 36 (Figure 3.5). One of the key advantages of delaying graduation is that the country will be able to join the WTO as an LDC, which will allow it to benefit from flexibility for conditions of entry.

Figure 3.5: Timor-Leste and LDC graduation

A. GNI per capita (US$) **B. Economic and environmental vulnerability** **C. Human Assets Index**



Source: UN.

3.4. Firm-Level Drivers of Export Competitiveness

To benchmark Timorese exporters' performance and dynamism, the Exporter Dynamics Database (EDD) is used. The EDD draws on the exporter transactions obtained from the Timor-Leste Customs Authority which together with data from other countries allow for comparability across countries.[66] The measures in the EDD cover the basic micro-characteristics of the export sector (number of exporters, their size, and their growth), the degree of concentration/diversification of exporters, and their dynamics in terms of entry, exit, and survival. Using EDD data, the analysis is based on panel regressions of country-year-product level for 2000–2021 including 69 EDD countries, where the dependent variables are different indicators of export performance. The regressions control for the size (GDP) and the stage of development (GDP per capita) of each country. In addition, year-product fixed effects are used to control for common commodity prices or technology shocks during the sample period.

a. Exporters: Size, Number, and Concentration

Timor-Leste has fewer exporters per product category than its peers. At an average of 0.9 exporters per product category, Timor-Leste is below its peers such as Lao People's Democratic Republic and São Tomé and Príncipe, which have an average number of 2.5 and 3.1 of exporters per product category, respectively. With 12.7 and 15.4, Cambodia and Myanmar, respectively, have around 15 times higher number of exporters per product category than Timor-Leste (Figure 3.6.A). The small number of exporters per product category leads to a high market concentration, where a few large firms dominate the exports.

In terms of total exports, Timorese exporters are larger than in comparators such as São Tomé and Príncipe and Rwanda but much lower than in Lao PDR or Cambodia. The average annual total value of exports per firm and product is US$274,000 (Figure 3.6.B) whereas the median total value of exports per firm and product is lower at US$205,000. The difference between the average and median suggests a skewed distribution of exporter size, dominated by large exporters.

Timorese exporters are relatively more diverse in terms of the number of products they export and the number of their export markets. Notably, with 24 products per exporter, firms export a higher variety of products than in comparator countries (Figure 3.6.D). Similarly, the number of destinations reached by the average exporter per product is 1.7, higher than comparator countries such as Rwanda at 1.2 and Sao Tome at 1.3 (Figure 3.6.C).

[66] The collection of transaction-level real-time trade data in Timor-Leste have been possible since the implementation of Automated System for Customs Data (ASYCUDA) system in 2010.

The concentration of exporting firms in Timor-Leste is close to double that in Myanmar and 30–40 percent higher than in São Tomé and Príncipe and Lao PDR (Figure 3.6.E). The finding that a few large exporters contributing most to the overall exports of a country is not unique to Timor-Leste, but rather it is a global feature (Freund and Pierola 2015). Studies about variation in firm size attribute cross-country concentration differences not only to productivity differences but also to distortions that affect resource allocation between firms to affect the size distribution. Such distortions can be associated with determinants of institutional and business environment policies, such as labor market regulations, regulations on business entry, access to finance, and taxation. Large and productive firms are able to overcome regulatory hurdles.

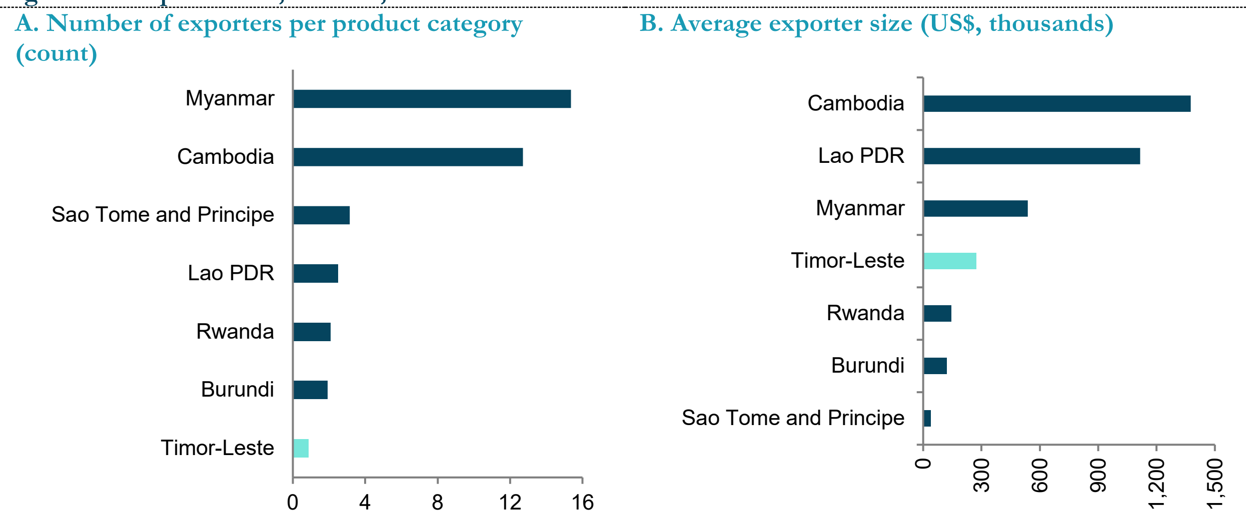
Overall and accounting for the level of development and economic size, Timor-Leste is shown to have more exporters that are larger but also more concentrated. In addition, average Timorese exporters are more diverse in terms of the number of products they export and the number of their export markets than in countries of similar size and development (Table 3.1).

Table 3.1: Benchmarking exporters number, size, and concentration in Timor-Leste

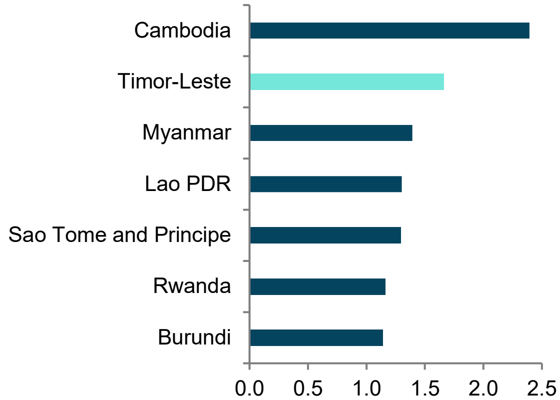
Variables	Log number of exporters	Log average exporter size	Log median exporter size	HHI	Log number of products per exporter	Log number of destinations per exporter
Timor-Leste	0.621***	1.102***	1.150***	0.0153**	0.370***	0.348***
	(0.0137)	(0.0851)	(0.0794)	(0.00733)	(0.0215)	(0.0154)
Log GDP	0.621***	0.531***	0.169***	-0.0729***	0.0272***	0.0620***
	(0.000826)	(0.00141)	(0.00131)	(0.000174)	(0.000775)	(0.000256)
Log GDP per Capita	0.0666***	0.175***	0.00307*	-0.00279***	0.0613***	0.0792***
	(0.000924)	(0.00175)	(0.00163)	(0.000218)	(0.000978)	(0.000381)
Observations	1,564,185	1,168,509	1,141,822	1,168,509	67,211	1,168,509
R-squared	0.515	0.392	0.361	0.264	0.562	0.262
Time x HS6 FE	Yes	Yes	Yes	Yes	HS 2-digits	Yes

Source: World Bank estimations based on the EDD.

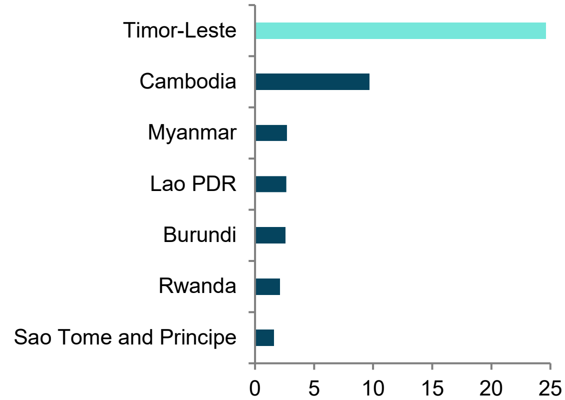
Figure 3.6: Exporter size, number, and concertation



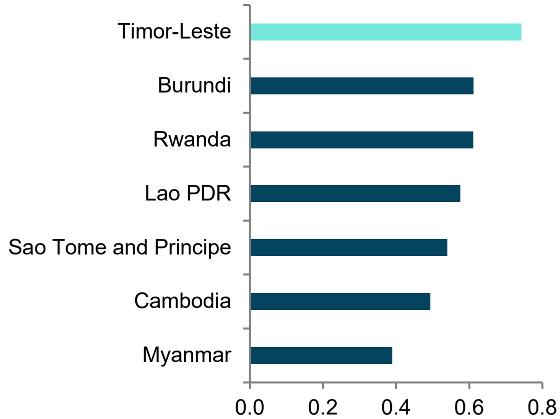
C. Average number of destinations per exporter (number of countries)



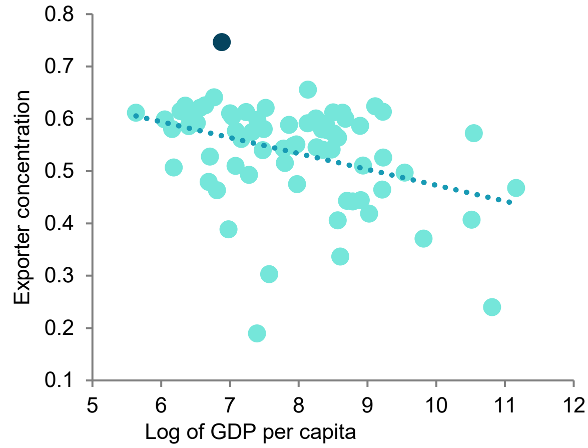
D. Average number of products per exporter



E. Concentration of exporters



F. Exporter concentration and level of development



Source: World Bank estimations based on the EDD.

b. Entry, Survival, and Exit

Exporter entry and exit rates in Timor-Leste are low and lower than in comparators. Exporter entry rates are found to be lower than in comparators such as Rwanda or Lao PDR while exit rates are lower than in Burundi and Rwanda (Figure 3.7.A). In a more favorable business environment, where firm churn is incentivized, the entry and exit rates of exporters should be relatively higher. In contrast, in an economy where regulatory burdens and distortions in access to finance or information uncertainties allow less productive firms to grow, entry and exit rates are expected to be relatively lower. Exporter dynamics are also closely linked with the stage of development, with richer countries experiencing higher entrant and survival rates.

In addition to lower exporter entry and exit rates, Timor-Leste has higher survival rates of exporters. On average, 21 percent of the new exporters of a product in Timor-Leste each year remain active exporting that product the following year. The one-year survival rate is higher compared to Rwanda and Burundi but lower than other peer countries. After the third year, only 4 percent of the new exporters still export that product.

These findings suggest that Timor-Leste has a business environment with high entry and exit costs44, which discourages firms from participating in exporting or leaving the export markets (see Section 2.3). However, once these firms enter export markets, they are quite competitive and have higher success rates. After accounting for country size, level of development, and export products basket, the new exporters in Timor-Leste are more likely to survive. With low entry and exit rates, larger and more productive incumbents remain in the market. As discussed in the next section, most of these surviving firms are large firms that both import and export.

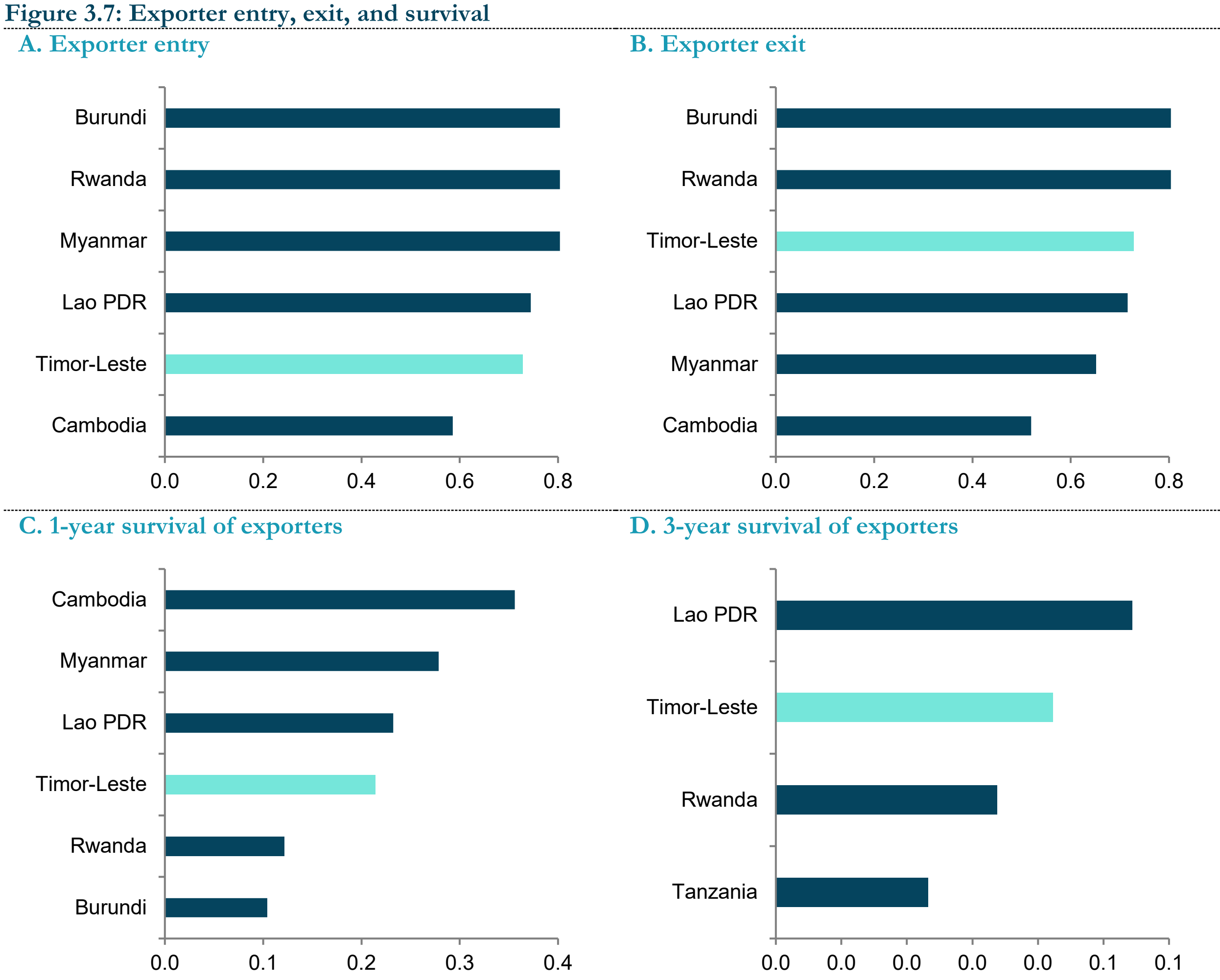
Overall and accounting for the level of development and its small size, Timor-Leste is found to have lower exporter entry and exit rates but also lower survival rates. The one-, two-, and three-year survival rates of new exporters are higher in Timor-Leste after accounting for levels of development and product characteristics. The share of total exports accounted for by new entrants is 7 percent lower in Timor-Leste than in comparator countries after accounting for levels of development and product-year fixed effects (Table 3.2).

Table 3.2: Benchmarking exporters entry and exit in Timor-Leste

Variables	Firm entry rate	Firm exit rate	Share of entrants in TEV	Firm survival rate	2-year firm survival rate	3-year firm survival rate
Timor-Leste	−0.0851***	−0.0935***	−0.0736***	0.0941***	0.0395***	0.0284***
	(0.00617)	(0.00619)	(0.00493)	(0.00698)	(0.00475)	(0.00394)
Log GDP	**−0.0166*** **	**−0.0174*** **	**−0.0871*** **	**0.0124*** **	**0.00817*** **	**0.00590*** **
	(0.000180)	(0.000185)	(0.000232)	(0.000189)	(0.000153)	(0.000139)
Log GDP per Capita	−0.0507***	−0.0506***	−0.0671***	0.0239***	0.0173***	0.0129***
	(0.000217)	(0.000225)	(0.000289)	(0.000223)	(0.000174)	(0.000150)
Observations	**1,425,525**	**1,411,437**	**1,308,366**	**1,161,644**	**1,028,942**	**901,372**
R-squared	0.206	0.208	0.324	0.156	0.155	0.152
Time x HS6 FE	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**

Source: World Bank estimations based on the EDD.

Figure 3.7: Exporter entry, exit, and survival



Source: World Bank calculations based on the EDD.

c. Importing-Exporters and Domestic Value Added in Exports

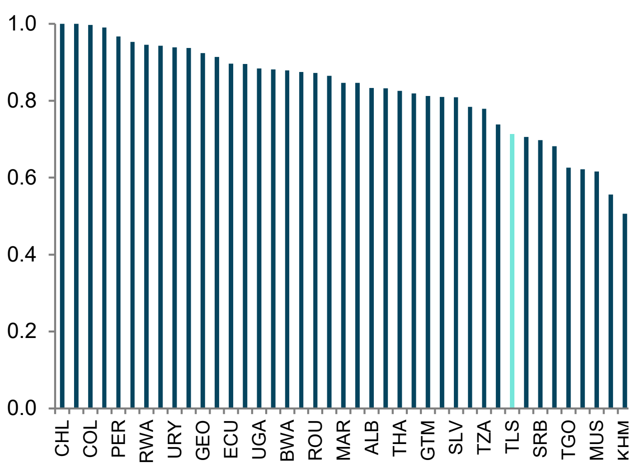
With an average domestic value-added ratio (DVAR)[67] of 0.76, Timorese exporters rely moderately on imports for exports. As outlined in Chapter 2, close to one-third of inputs used in production are imported in Timor-Leste (see page 40). The domestic value-added content of agricultural exports is relatively higher (0.81), compared to nonagricultural goods at 0.70 (Figure 3.8. A and B),[68] because agricultural products intrinsically have less imported content which drives up their DVAR. More broadly, results suggest that Timor-Leste's DVAR is relatively lower, compared to other countries with similar size and income status. Nevertheless, the DVAR has been increasing between 2011 and 2021, indicating an increasing reliance on domestic inputs for exports, decreasing integration in value chains, increasing exports of primary/unprocessed goods, and more cyclical and compositional developments in Timor-Leste's structure of trade flows.

Domestic value added in Timor is higher in agriculture, compared to other coffee exporters such as Rwanda and Guatemala, which rely more heavily on imported inputs such as fertilizers and pesticides. Nonagriculture exports have a lower DVAR in Timor-Leste, below that of Cambodia and Lao PDO but higher than Guatemala, an important apparel exporter that uses imported inputs heavily (Figure 3.8.C).

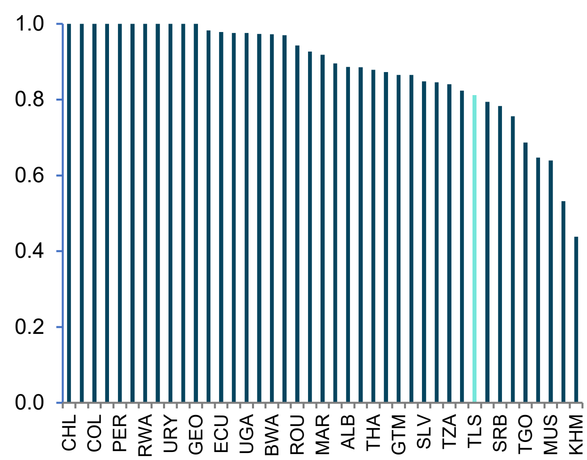
Among the major destinations, Timor-Leste's exports have higher domestic value added for exports to China, as expected given the composition of China's imports skewed to primary goods. On the other hand, exports to regional partners in the EAP region have some of the lowest DVAR, showing the high usage of imported inputs (Figure 3.8.D). Cross-country differences in the DVAR mainly reflect the differences in product and exporting country compositions. For example, China mainly imports raw materials, which have higher DVAR, while other countries import finished products, which have lower DVAR.

Figure 3.8: Domestic value added in exports

A. Average DVAR: nonagriculture

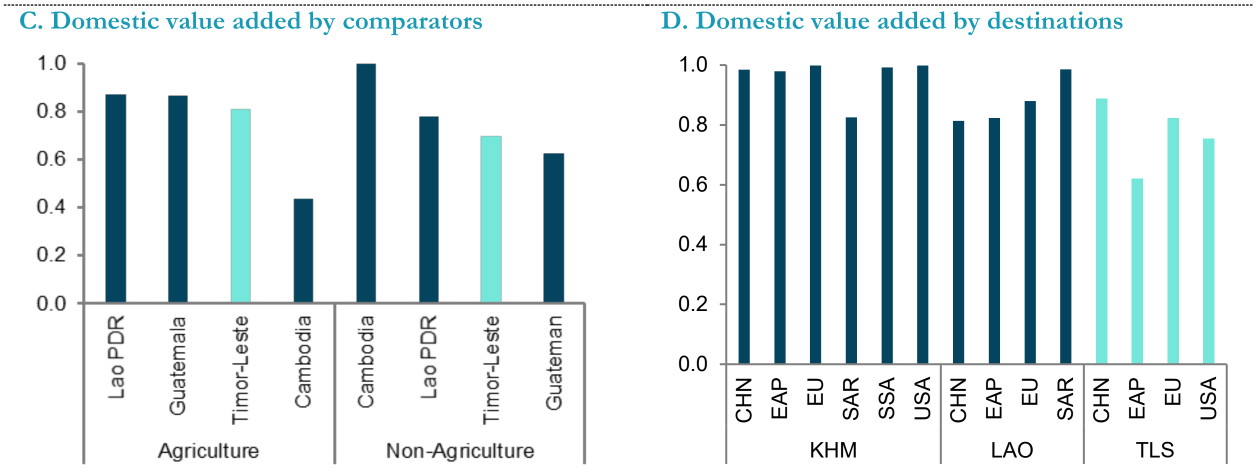


B. Average DVAR: agriculture



[67] The DVAR is calculated by taking the value added of each firm, aggregate it to country level, and measure it as a share of the country's exports. A DVAR of 0.76, for example, means that domestic value added makes up 76 percent of all exports.

[68] Estimations use the EDD for 2011–2021 following Kee and Tang (2016) and Kee and Xu (2019) but use only customs transactions trade data.



Source: World Bank calculations based on the EDD.

To increase GVC participation to reap the benefits of better integration with the world trade system, there are several policies that Timor-Leste may consider. First, additional liberalization of tariffs and harmonized non-tariffs measures could promote the import of intermediate goods necessary to produce export products. Second, policies to incentivize FDI could bring much-needed foreign capital and technical knowledge, together with market and production networks. By attracting FDI, Timor-Leste may improve its participation in the GVCs and reap the benefits of export-led growth. Third, reforms that improve the quality of institutions and rule of law have better prospects in GVC participation. This is because one of the characteristics of GVCs is the intense firm-to-firm interaction and the firm-specific investments that may require contracting. Without good institutions or rule of law, it is harder to enforce contracts which hinder GVC participation. The fourth is customs reform. Variable trade costs deter trade, especially GVC trade, requiring multiple border crossings. Natural trade barriers such as remoteness cannot be changed, but man-made trade barriers such as inefficient customs clearing or cumbersome customs procedures can be improved by adopting trade facilitation measures and aligning with international standards such as the WTO Trade Facilitation Agreement (TFA) and the World Customs Organization (WCO) Revised Kyoto Convention (discussed in depth below).

3.5. What Are the Opportunities for Diversification?

With the right combination of a supportive enabling environment and targeted policies, Timor-Leste could capitalize on established as well as incipient comparative advantages and expand exports, contributing to diversification. This section discusses opportunities for agricultural/food processing and other light manufacturing diversification based on Timor-Leste's current production possibility frontier.

a. Agricultural/Food Processing Diversification Opportunities

Agriculture and food production in Timor-Leste remains of the subsistence type, practiced mostly by smallholder farmers, with not much value added or surplus to be sold on export markets. The main constraints for boosting production have been identified as the following: low levels of productivity; limited use of productivity-enhancing inputs and technologies; losses due to pests, diseases and basic post-harvest handling; uncertain land rights and underinvestment in agricultural land; poor market orientation; lack of infrastructure for value adding including storage, marketing, and distribution; inadequate access/feeder roads; and insufficient investment compounded by the deterioration of natural capital.[69] As a result, Timor-Leste relies heavily on imported agricultural and food products to satisfy domestic demand that is higher than supply.

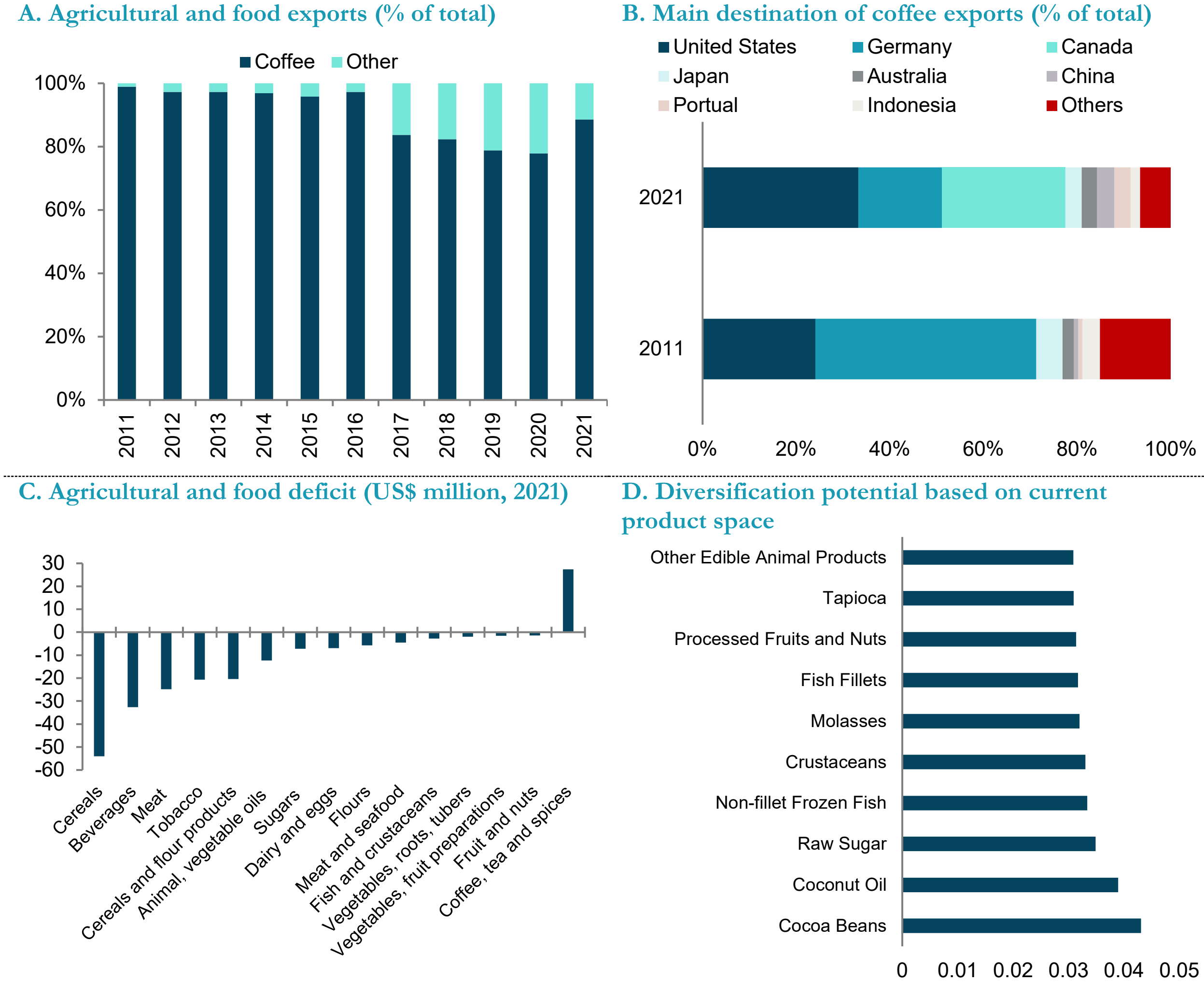
The 2011–2030 SDP recognizes the essential role of the agriculture sector for economic diversification. The SDP sets out as priority the transition from subsistence to commercial farming, all the while preserving environmental sustainability and the conservation of natural resources. Similarly, one of the main objectives

[69] Strategic Plan 2014–2020, Ministry of Agriculture and Fisheries (MAF).

laid out in the World Bank Country Partnership Framework 2020–2024 is to promote economic diversification through agribusiness and tourism with key outcomes being increased commercialization of agriculture output and tourism development.

With limited domestic production, Timor-Leste has been running a sustained and persistent agricultural and food trade deficit. Agricultural products accounted for close to 30 percent of the total goods deficit, increasing from US$27 million in 2011 to US$179 million in 2021. The products that contribute the most to the deficit are imports of cereals (mostly rice), beverages, meat, and tobacco products (Figure 3.9.C). Among these, for rice there is little surplus available for sale either domestically or exports. Furthermore, rice farmers have not been responding to incentives aimed to boost production such as upgrades in irrigation infrastructure and subsidized inputs, partly explained by constraints such as the lack of retail outlets for surplus and unpredictability of water available for irrigation. Additionally, rice subsidies affect domestic rice prices and planting decisions made by farmers (Fanzo and Bonis-Profumo 2019).

Figure 3.9: Agricultural/food processing diversification opportunities



Source: Timor-Leste customs transactions trade data; International Coffee Organization.

Agricultural exports are dominated by coffee, accounting for close to 90 percent of the total. Exports of coffee more than doubled in value during the last decade, increasing from US$12 million in 2011 to US$27.6 million in 2021. The main destinations for Timor-Leste's coffee exports are the United States, Germany, and Canada, with more than three-quarters of total coffee exports (Figure 3.9.B). Among other exported agricultural products are roots and tubers, nuts, vanilla, copra, locust beans, and vegetable oils and fats.

Green beans and coffee husks and skins add up to almost all of coffee exports since 2017, indicating that domestic value addition is limited. Although Timor-Leste is not a major coffee producer,[70] total output amounting to only 103,000 out of the world total of 165 million 60 kg bags in 2020, the country aims to specialize in the production of specialty and niche coffee varieties. The majority of coffee production is Arabica (90 percent), the remaining being Robusta. The National Coffee Sector Development Plan 2019–2030 sets out to more than double the share of premium and specialty grade coffee to reach 70 percent by 2030. As the global coffee market continues to expand, especially for specialty coffee, there is indeed significant room to expand Timor-Leste's potential in specialty coffee exports.

Despite the recent expansion in exports, Timor-Leste's coffee sector is far below its long-term potential. The main constraints to boosting production and exports are low yields and volatile supply and inconsistent and low quality, compounded by the lack of sectoral management and coordination.[71] Among specific factors that contribute to these constraints are uncertain land tenure, poor quality of roads and infrastructure, low rates of adoption of agricultural practices, lack of national quality standards, low levels of certification, lack of knowledge and understanding of quality, and low information sharing. Given that coffee value addition is limited, targeted policies are needed to boost domestic value added.

In addition to coffee, Timor-Leste maintained comparative advantages[72] for exports of seaweeds and vegetable materials, and also developed new ones for copra and vanilla. Compared to the 2011–2015 period, previously established comparative advantages for products such coffee, vegetable materials, oils and fractions, ground nut oils were sustained during 2016-21. Among products with newly developed comparative advantages are copra, cloves, vanilla, candlenuts, and roots and tubers, agar-agar and other vegetables extracts and frozen fish. In contrast, Timor-Leste lost comparative advantages for products such as for live fish, vegetables oils, and honey (Table 3.3).

Processed agricultural products close to current production possibilities could represent previously untapped export opportunities. Top agricultural export opportunities with high diversification potential based on current exports and product space relatedness are cocoa beans, coconut oil, raw sugar, fish products, processed fruits and nuts, and tapioca (Figure 3.9.D). Low complexity and low-value-added products with significant diversification potential are animal or vegetable oils and fats, cereals, vegetables, roots and tubers, and fruits and nuts (lower right corner of Figure 3.10.A). Products with higher value added and relatively higher complexity with diversification potential are preparations of cereals, flour, starches, edible animal byproducts, preparations of vegetables, fruits and nuts and beverages (upper left corner of Figure 3.10.A).

Table 3.3: Maintained, new, and lost agricultural/food processing comparative advantages

		2011–2015	2016–2021
		Maintained comparative advantages	
901	Coffee	457.5	73.1
1212	Locust beans, seaweeds, sugar beet, sugar cane; fruit stones	5.1	48.4
1508	Ground nut oil and its fractions	50.7	13.8
1515	Fixed vegetable fats and oils	19.6	1.3
		New comparative advantages	
1203	Copra	0	201.2
905	Vanilla	0	41.5
1210	Candlenut, hop cones, fresh or dried; lupulin	0	27.1
714	Roots and tubers	0	23.4

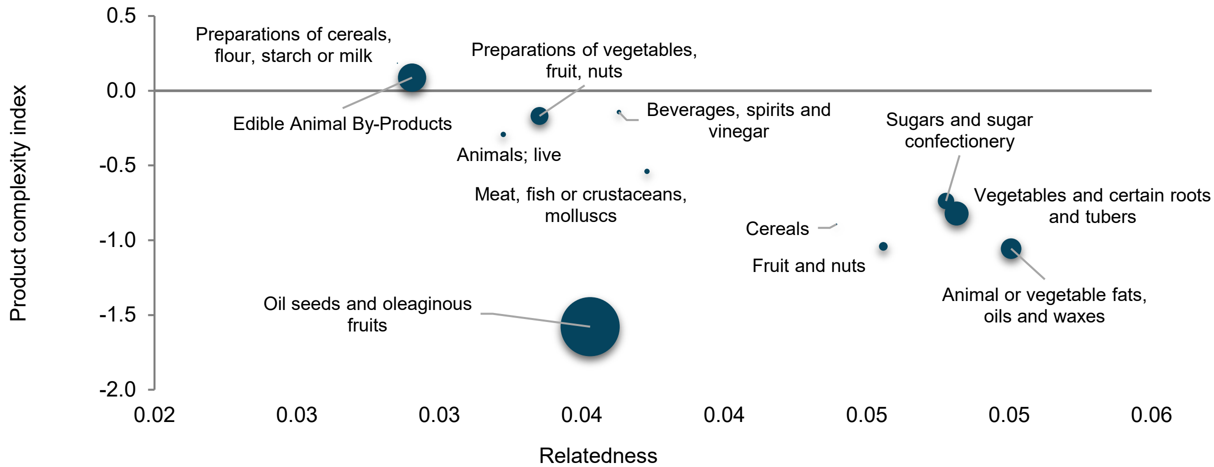
[70] The two biggest coffee producers, Brazil and Vietnam, account for more than half of world coffee production, while the top five, including Colombia, Indonesia and Ethiopia, accounted for more than three-quarters.
[71] National Coffee Sector Development Plan 2019–2030.
[72] The Revealed Comparative Advantage (RCA) is defined as the ratio of two shares. The numerator is the share of a country's total exports of the commodity of interest in its total exports, and the denominator is share of world exports of the same commodity in total world exports. The RCA takes a value between 0 and infinity.

1302	Vegetable saps and extracts; pectic substances, pectinates and pectates; agar-agar and thickeners	0	8.6
1401	Vegetable materials of a kind used primarily for plaiting (for example, bamboos, rattans, reeds, rushes, osier, raffia)	0	3.4
802	Nuts (excluding coconuts, Brazil nuts, and cashew nuts)	0	1.1
		Lost comparative advantages	
1510	Oils and their fractions obtained solely from olives fractions	81.1	0
1211	Plants and parts of plants of a kind used primarily in perfumery, in pharmacy or for insecticidal, fungicidal or similar purposes	11.6	0

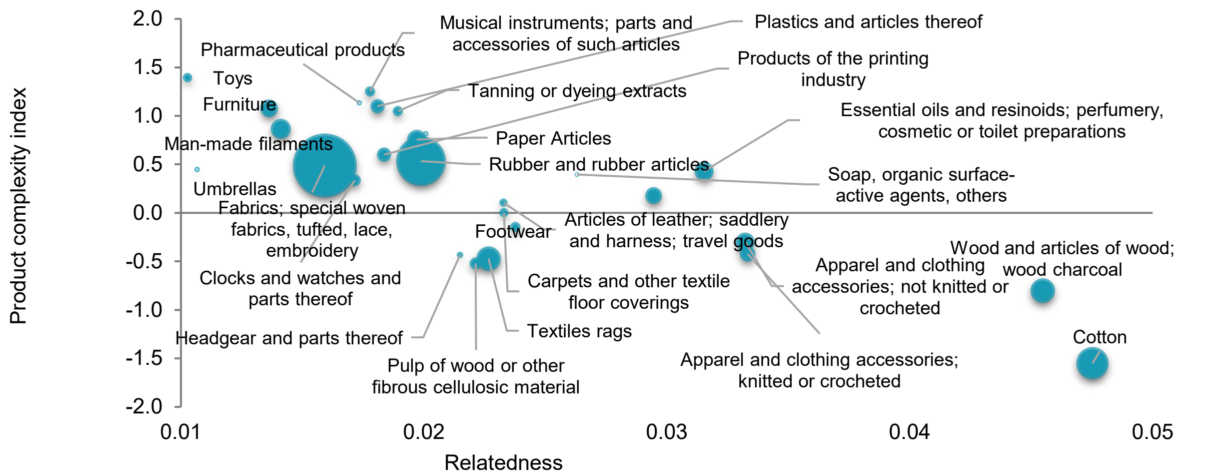
Source: Timor-Leste customs transactions trade data.

Figure 3.10: Agricultural/food processing diversification frontier

A. Agricultural product diversification frontier



B. Light manufacturing product diversification frontier



Source: Atlas of Economic Complexity. The size of the bubble represents current revealed comparative advantages.

b. Light Manufacturing Diversification Opportunities

Select light manufacturing products represent diversification potential in Timor-Leste. Based on its current product space, low complexity products close to existing production capabilities are cotton, wood and articles of wood, apparel, and clothing accessories (lower right corner of Figure 3.10.B), and farther from current capabilities are products such as carpets, footwear, pulp of wood and other fibrous cellulosic material, and textile rags. Products with diversification potential with higher value added and complexity identified are furniture, paper articles, rubber and rubber articles, fabrics, and essential oils (upper left corner of Figure 3.10.B). While these products represent potential diversification opportunities, given existing constraints to private sector development and low survival rates of Timorese firms in export markets identified in Chapter 2, these cannot be considered silver bullets for growth and diversification. Given the high concentration of exporting firms and low survival rates in export markets, an export strategy and policies focused on promoting an ex ante choice of priority products would be highly risky, especially without addressing prevailing constraints to private sector growth.

Increasing firms' competitiveness by diversification into niche and higher-quality products represent important opportunities. Given small product and labor markets and structural constraints to trade growth, Timorese businesses are not able to fully benefit from economies of scale to raise profit and productivity. The limited quality of outputs also means that firms have small profit margins, which further limits their ability to reinvest in workers skills or productivity-enhancing technology. Diversifying to niche and higher-quality products would help firms grow their profits and remain competitive in foreign markets where consumer demand is increasingly governed by social, environment and quality standards, whether for food products, light manufacturing, or even tourism offerings.

Table 3.4: Maintained, new, and lost non-oil manufacturing comparative advantages

		2011–2015	2016–2021
		Maintained comparative advantages	
4413	Densified wood, in blocks, plates, strips or profile shapes	414.2	6.7
9605	Travel sets; for personal toilet, sewing, shoe or clothes cleaning	8.3	4.8
		New comparative advantages	
2942	Organic compounds	0	1.9
6309	Textiles; worn clothing and other worn articles	0	1.1
7118	Coins	0	1.2
7311	Containers for compressed or liquefied gas, of iron or steel	0.4	1.3
		Lost comparative advantages	
4403	Wood in the rough, whether or not stripped of bark or sapwood, or roughly squared	11.4	0
4421	Wooden articles	7.9	0
6912	Ceramic tableware, kitchenware, other household articles and toilet articles; other than of porcelain or china	1.3	0
7602	Aluminum; waste and scrap	1.2	0.1
9015	Surveying, hydrographic, oceanographic, hydrological, meteorological or geophysical instruments and appliances, excluding compasses, rangefinders	2.0	0.7

Source: Timor-Leste customs transactions trade data.

3.6. Trade Policy Constraints to Export Growth

Ensuring an open, stable, transparent, and predictable trade regime, combined with targeted reforms on tariffs, NTMs, and trade facilitation, will remove remaining trade policy constraints to realizing the potential of exports. This section discusses and identifies policies in these areas that could contribute to diversification objectives within the context of reforms and commitments for WTO, ASEAN, and EPA accession.

a. Tariff Barriers

At a uniform 2.5 percent across all products, Timor-Leste's tariffs are the lowest among comparators. In addition to the uniform tariff,[73] there is a 2.5 percent sales tax applied on all imports.[74] In comparison, peers

[73] Select products are exempted from tariffs: (i) products of noncommercial nature below a threshold value imported by travelers; (ii) products imported under diplomatic exemptions; (iii) products imported by charitable organizations; and (iv) temporary imports.
[74] The sales tax is only levied on imported products, not domestically produced ones, and thus acts as a de facto discriminatory measure against import.

such as the Solomon Islands, Rwanda, and Guyana impose tariffs on imports that are significantly higher, at 16, 13, and 12 percent, respectively (Figure 3.11.A). Excise taxes are also applied on select alcoholic, tobacco, petroleum products, small passenger vehicles, and private boats and aircrafts as well as a 5 percent services tax on imports for the provision of hotel, restaurant and bar, or telecommunication services of more than US$500. In terms of exemptions, there is a customs duty drawback regime in place that refunds customs duties and other charges on imports for raw materials, semifinished products, and components if these are used in the manufacturing of other products which are then exported. Tariff rate quotas or other quantitative limits on imports are not used.[75]

Duties and other taxes on international trade are not an important source of revenue for Timor-Leste. Revenues from tariffs and other charges on international trade accounted for about 1 percent of the total, the lowest among comparators. In contrast, at 27 percent of total revenues, the Solomon Islands relies heavily on high and distortionary taxes on international trade as a source of revenue. Furthermore, revenues from customs duties amounted to only US$14 million or 21 percent of the total revenues collected from international trade transactions in 2021. Conversely, revenues from excise taxes were more than double, amounting to US$38 million and 56 percent of the total (Figure 3.11.C).

In terms of market access, Timor-Leste benefits from preferential market access and low barriers on exported products. As an LDC, Timor-Leste qualifies for low to no tariffs on exports through the Generalized System of Preferences (GSP) offered by different developed countries such as Australia, Belarus, Canada, the EU, Japan, Kazakhstan, New Zealand, Norway, Russia, Switzerland, Türkiye, and the United States. Utilization of preferential market access is high, as on average close to 98 percent of Timor-Leste's exports benefit from duty free access in these markets (Figure 3.11.B). For exports to China and India, utilization of preferences could be improved by reducing the costs and stringency of complying with rules of origin associated with GSP preferences. Notably, exports to Indonesia (an important market for Timorese exports) do not benefit from preferential market access and are levied tariffs that average 5 percent. Exports of coffee, for instance, benefit from zero duties in important destination markets such as the United States, Germany, and Canada but are applied the average MFN tariff rate of 5–20 percent in Indonesia. At the present, Timor-Leste does not have any preferential trade agreements in place.

As part of its accession to the WTO, Timor-Leste is defining its goods market access offer and bound tariff rates schedule. Timor-Leste's goods market access offer and commitments on the bound tariffs schedule[76] are still under negotiations, but evidence suggests there is a strong rationale for keeping bound tariffs low. Although, on the one hand, high bound tariff rates and a binding overhang create the policy space to raise tariffs in future, if need be, a high binding overhang has been shown to lead to trade policy uncertainty. In turn, this can decrease trade and investment, especially in countries with low-quality institutions and in the presence of GVCs. Average trade policy uncertainty associated with a high binding overhang is equivalent to a level of tariffs between 1.7 and 8.7 percentage points and existing evidence shows that reforms that eliminate the binding overhang increase the probability of exporting by 12 percent. Furthermore, a 1 percent decrease in the binding overhang increases export volumes by 1 percent (Osnago, Piermartini, and Rocha 2015). Finally, low bound rates will act as insurance against future increases in tariffs. Close to one-fifth of WTO members committed to average bound tariff rates between 0 and 10 percent and another one-fifth committed to bound rates between 20 and 30 percent (Figure 3.11.D).

Timor-Leste is revising the 2008 Taxes and Duties Act and reforming its applied tariffs schedule. Although there is a risk that the reforms will translate into higher tariffs to be used for protectionist especially for certain sensitive sectors, there is a case to be made for maintaining an open and transparent trade policy regime. For a small open economy such as Timor-Leste that relies on imports of consumer goods as well as intermediate inputs crucial in the development of national production capabilities, full liberalization of tariffs could translate into important benefits. At the currently applied 2.5 percent, tariffs generate little revenue and

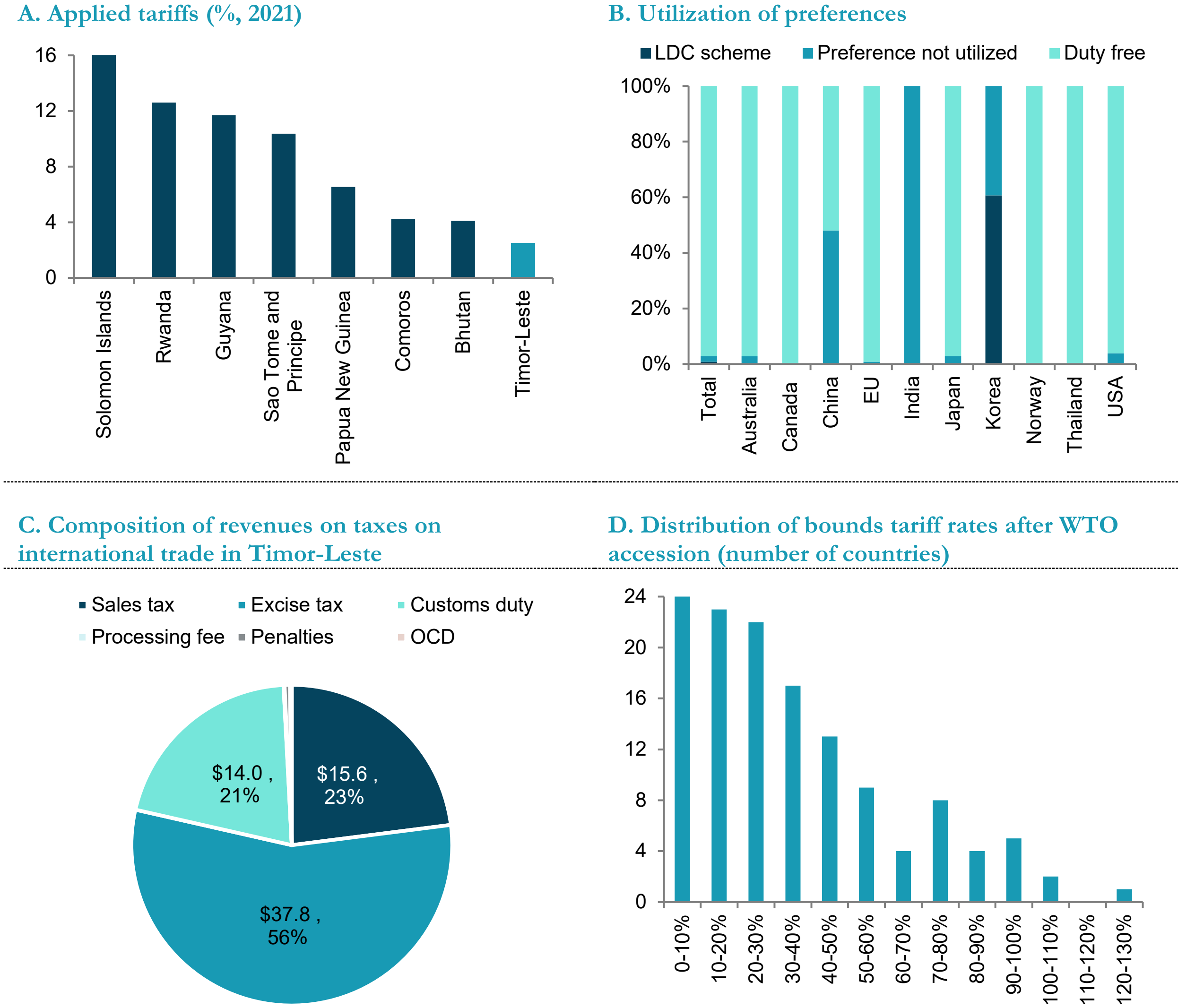
[75] Imports of certain products such as proteins for animal feeds, poultry powder, and non-transformed fats are prohibited, in addition to animals and plants listed in the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

[76] Bound tariffs represent specific commitments made by countries as part of their accession to the WTO and specify the maximum rate of Most Favored Nation (MFN) tariff for a given product. Bound tariff rates usually differ from applied tariff rates, the difference between the two representing the 'binding overhang' or 'water in tariff'.

are not protecting domestic producers. Coupled with the high administrative costs associate with the administration and collection, their full elimination could be beneficial for the country's overall economy and domestic producers likewise and would not lead to a surge in imports. To estimate the effect of potential liberalization scenarios of tariffs, a partial equilibrium trade model is used.[77]

Liberalizing tariffs on imported intermediate inputs and capital goods would benefit the private sector in Timor-Leste. Tariffs and other barriers affecting the imports of such crucial inputs act as a tax on future productive capacity and diversification prospects. Their reform would boost firms' access to cheaper intermediate inputs and capital goods from abroad, competitiveness, exports, and GVC integration. Imports of capital goods and raw materials crucial for developing domestic production capabilities such as machinery and electronics, base metals, and chemicals are estimated to expand the most. Results of the simulations show that total imports expand by 1.8 percent, with an associated decline in tariff revenues by 52 percent. Trade with partners such as Australia, Indonesia, and China is estimated to expand the most, by US$7.3 million, US$3.2 million, and US$3 million, respectively (Figure 3.11.E and F).

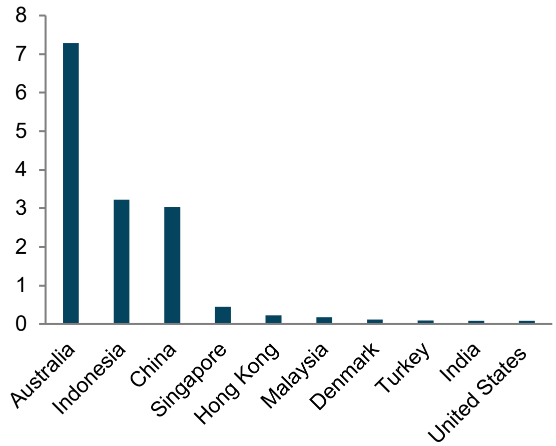
Figure 3.11: Tariffs and revenues from international trade



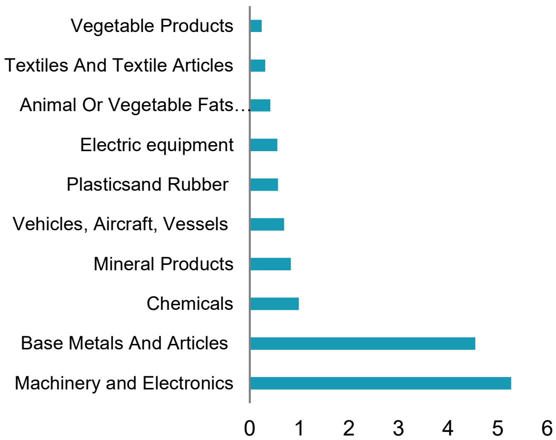
Source: Timor-Leste customs transactions trade data; World Bank World Integrated Trade Solution (WITS) database; UNCTAD 2020.

[77] The modeling framework underlying the simulations is a modified version of the Global Simulation Analysis Model (GSIM) (Francois and Hall 2009). The model is calibrated on trade data at the 8-digit product level, representing trade with all partners, including more than 10,000 observations.

E. Full liberalization of tariffs on intermediates and capital goods: impact on imports by trading partners (US$, millions)



F. Full liberalization of tariffs on intermediates and capital goods: impact on sectoral imports (US$, millions)



Source: World Bank simulations using the GSIM model.

b. Non-Tariff Measures

The use of NTMs in Timor-Leste remains limited. At present, agricultural imports are subject to provisions under the Law on Quarantine and Sanitary Control (Decree Law No. 21/2003), according to which imports of plants and animal products are subject to the quarantine regulations. Timor-Leste does not apply any approval or import licensing requirements, rules of origin, pre-shipment inspections, anti-dumping, countervailing, or safeguard measures. There are, however, other discretionary trade-distorting and administratively burdensome policies in place that affect exporters as well as non-exporters. For instance, traders require a Timor-Leste Taxpayer Identification Number (TIN) and an import authorization issued by SERVE. Imports classified as lower risk are automatically granted an authorization, while for imports defined as medium or higher risk, nonautomatic import licenses are issued by sectorial ministries or agencies.[78] For example, traders must acquire a recommendation from the MAF to export or import fishing products. To get an import or export permit, traders must subsequently submit this approval to the Directorate of Quarantine and Biosecurity. In addition, additional permits are necessary for the importation of live animals, live plants, animal/vegetable products, and motor vehicles. As outlined in Chapter 2, these regulatory burdens result in high costs for the private sector.

In contrast, at an average of 95 percent of exported products, Timor-Leste's exports of agricultural products face a high incidence of NTMs in main export markets. SPS measures are the most used (92 percent), followed by TBT measures (87 percent). Agricultural exports are also subject to licensing and quotas measures (51 percent of agricultural products), with as low as 8 percent of exported products to Canada and as high as 94 percent in China and the EU. Additionally, Timorese exports face a high number of measures such as price controls and additional taxes in all markets except for the EU (Table 3.5). A recurring constraint to export growth and diversification is the lack of quality infrastructure, that is, the hardware of metrology labs, testing facilities and certification procedures, and underlying regulatory software needed to help Timorese exporters comply with ever stringent product standards and other NTM requirements in export markets. Much scope exists to expand assistance in this key area of trade performance.

While exports to markets such as Canada and the EU benefit from duty free access, they also have the highest frequency of NTMs. Conversely, exports to Australia and Indonesia have significantly lower NTM coverage at 68 and 65 percent, respectively. The highest coverage is seen in TBT-related measures, with an average frequency of 74 percent for the six main partners and ranging from 46 percent to 93 percent. The second highest coverage by chapter is in licensing and quotas, at an average of 39 percent.

[78] Procedures for nonautomatic licensing could take up to one month.

Furthermore, 84 percent of Timor-Leste's exports is subject to at least one NTM in all partner countries. For most export destinations, the coverage ratio is larger than the frequency ratio. For example, for exports to China the number of products subject to NTMs adds up to 85 percent, whereas the trade value covered is 100 percent. The difference is even higher for SPS measures, for which the frequency ratio is 42 percent while the coverage ratio is 97 percent. This pattern is explained by the composition of exports, namely the high value of agricultural exports. The higher the economic importance of these goods, the higher is the probability that it is subject to an NTM. However, this is not the case for all NTM chapters. For example, 35 percent of exports of agricultural goods to China are subject to inspections, whereas only 1 percent of value is subject to such inspection measures (Table 3.6).

Timor-Leste's agricultural exports are most affected by SPS measures such as prohibitions or restrictions and conformity assessments. Tolerance limits, labelling marking and packaging requirements, hygienic requirements, and other requirements also have high coverages but with higher heterogeneity. For example, Australia requires 29 percent of Timorese agricultural products to have treatments for elimination of pests, while countries in the EU do not have this requirement (Figure 3.12). For some types of measures such as prohibitions and restrictions and tolerance limits, the coverage is significantly lower than the frequency ratios. For example, Australia applies prohibitions and restrictions to 77 percent of the agricultural tariff lines, whereas only 11 percent of Timor-Leste exports to Australia are subject to this measure. This exemplifies the endogeneity of both trade and measures; in this case it is likely that the most restricted products are not traded at all, whereas the minority of tariff lines that are not restricted make up a significant part of trade.

Table 3.5: Frequency of NTMs in main export markets (% of exported products)

	Partner	All NTMs	SPS	TBT	Inspection	Licensing, quotas	Price controls, taxes
All sectors	Australia	68	18	58	0	33	36
	Canada	95	19	93	14	17	79
	China	85	42	84	18	54	23
	EU	92	29	90	3	57	0
	Indonesia	65	26	46	39	49	24
	United States	76	19	71	7	25	22
Agriculture	Australia	91	85	87	0	20	85
	Canada	94	89	94	31	8	43
	China	94	94	94	35	94	84
	EU	97	94	97	3	94	0
	Indonesia	99	97	66	93	51	24
	United States	94	92	82	27	38	94

Source: World Bank WITS database.

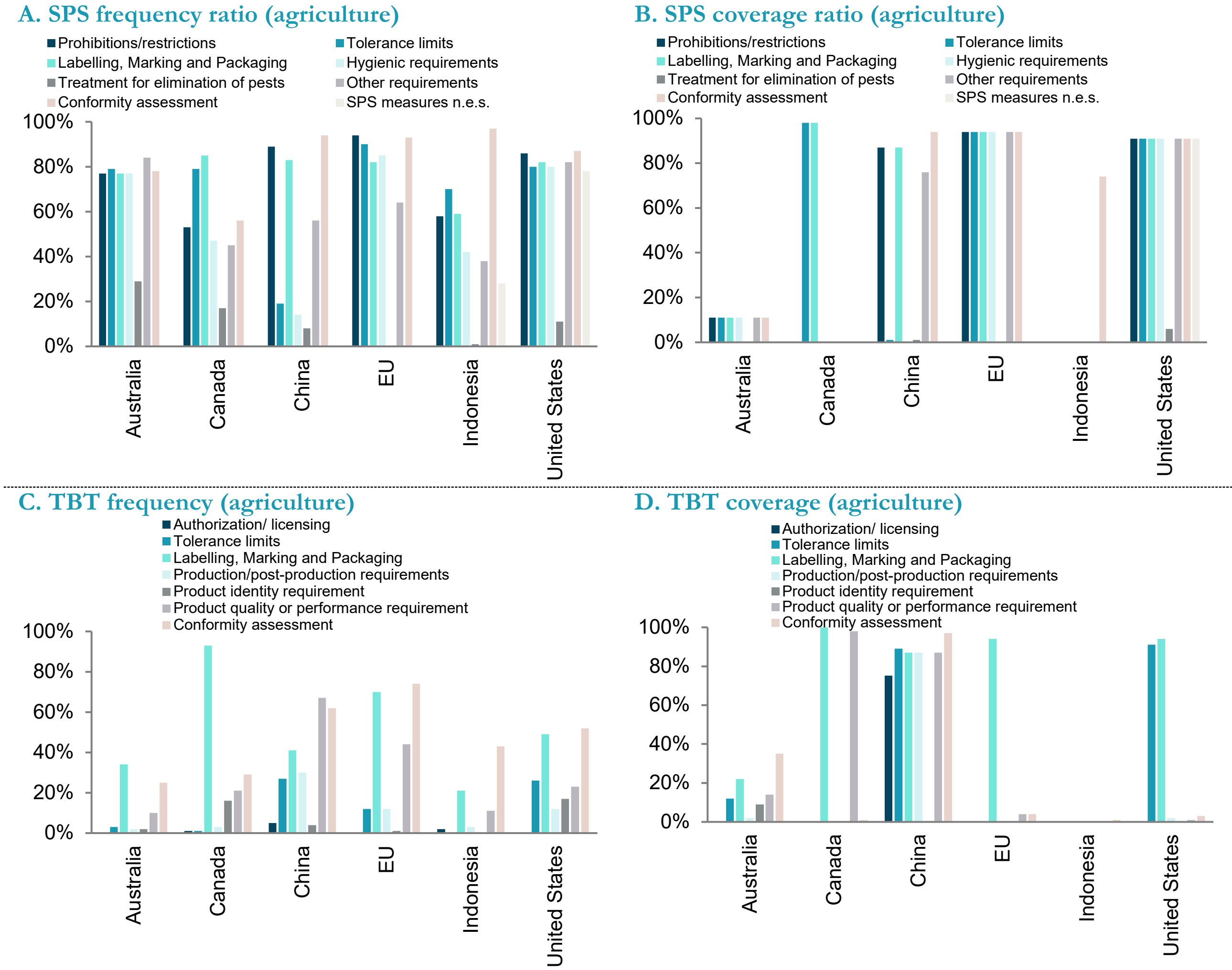
Table 3.6: Coverage of NTMs in main export markets (% of total exports)

	Partner	All chapters	SPS	TBT	Inspection	Licensing, quotas	Price controls, taxes
All sectors	Australia	53	13	50	2	36	45
	Canada	100	98	100	0	1	1
	China	100	97	97	2	97	88
	EU	98	94	98	0	98	0
	Indonesia	99	74	1	74	17	1
	United States	98	91	94	2	3	94
	World	84	63	59	20	31	35
Agriculture	Australia	100	99	99	0	0	99
	Canada	100	100	100	0	0	0
	China	100	98	98	1	98	90
	EU	100	100	100	0	100	0
	Indonesia	100	89	0	89	0	0
	United States	100	96	96	0	0	96
	World	100	94	69	29	24	37

Source: World Bank WITS database.

Exports of coffee face conformity assessments but also prohibitions, labelling or packaging, and hygienic requirements. The number of these measures is higher in the EU and the lowest in Canada and China. Other exports affected by SPS measures include wood products to China which face conformity assessments, animal or vegetable fats (HS 15) to the United States which face almost all groups of measures, and other food residues which face some prohibitions and hygienic requirements. Frequency of SPS measures is relatively homogeneous across agricultural HS chapters. For most chapters coverage is 100 percent or close. Chapters with lower coverage are 1 (live animals), 6 (trees and other live plants), 14 (vegetable plaiting materials), 23 (food industries residues), and 24 (tobacco).

Figure 3.12: Frequency and coverage of specific SPS and TBT measures



Source: World Bank WITS database.

The most often used TBT measures are labelling, marking, and packaging requirements and conformity assessments, covering 51 and 47 percent of Timorese goods exports, respectively. Conformity assessments are required for as much as 74 percent of exported goods to the EU and 62 percent to China. Requirements of product quality or performance cover 29 percent of exported products, ranging from 11 percent for Indonesia to 67 percent for China. The highest difference compared to frequency ratios is found for tolerance limits, which subjects only 12 percent of products on average but 32 percent of export value. The opposite relation is seen in conformity assessment measures, which cover 52 percent of products but only 23 percent of value. This asymmetry is a potential indicator of measures that restrict trade and bias toward products with fewer restrictions (Figure 3.12). TBT measures apply to agricultural exports such as coffee, wood, and animal or vegetable fats but also to industrial goods such as machinery, transportation, and apparel. The most prevalent type of measure is the labelling and packaging requirement as well as the product quality requirement and the conformity assessment requirements.

To improve access to top destination markets, targeted policies are needed to support Timorese exporters to meet and satisfy NTMs faced in export markets. NTMs likely hinder exports due to a lack of capacity to comply or bear the costs associated with compliance. As highlighted in the firm-level analysis, Timor-Leste's overall exports are dominated by large firms with lower-than-average entry and exit rates for new and smaller firms. These findings are consistent with the observation that NTMs in main export markets are restrictive and act as a deterrent for the new and smaller firms to start exporting.

As part of accession to the WTO, Timor-Leste designed a five-year action plan for the implementation of the WTO TBT and SPS Agreements. Timor-Leste is developing new decree laws on 'Animal Health and Quarantine' and 'Plant Health and Quarantine' in line with the guidelines of the WTO SPS Agreement.

Complying with the WTO SPS Agreement will require introducing new standards, animal health regulations, and food safety regulations. In addition, Timor-Leste will need to comply with requirements such as (i) the establishment and operation of a single contact point for information; (ii) WTO notification and access to documentation; (iii) ensuring that measures are applied only to the extent necessary to protect human, animal, or plant health; (iv) ensuring that regulations are based on scientific evidence and follow international standards and guidelines; (v) conducting risk assessments to ensure that measures are based on science and applied only to the extent necessary to protect health; and (vi) ensuring that SPS measures do not arbitrarily or unjustifiably discriminate between different members or between domestic and foreign suppliers.[79]

Similarly, complying with the WTO TBT Agreement will entail introducing new standards and technical regulations and conformity assessment procedures. Other requirements involve (i) the establishment and operation of a single contact point for information; (ii) identification of authority responsible for notifications, publications, and other internal procedures; (iii) development and application of technical regulations and conformity assessment procedures; and (iv) development and application of standards and conformity assessment procedures.[80]

Timor-Leste started the process of building the legal and institutional framework for the requirements of the WTO SPS and TBT Agreements. Complying would include designing and implementing the appropriate legislation, regulatory framework, technical regulations, standards, and conformity assessment procedures. In 2018, the National Quality Control Institute (NQCI) was established as the national regulatory entity for qualification, standardization, and metrology, and a single contact point for information ('enquiry point') was also established. Among the biggest constraints faced for the full implementation of the WTO TBT and SPS Agreements are the lack of existing facilities, including laboratories and quarantine facilities; the lack of qualified human resources in the specific areas; and the lack of funds to operate such quarantine, testing, and facilities.

c. Trade Facilitation

Timor-Leste has made important progress on improving trade facilitation performance. The launch of ASYCUDA++ in 2003 and the ASYCUDA World system in 2020 paved the way for the ongoing development of an integrated and paperless customs management system and the implementation of the National Single Window (NSW). ASYCUDA has the capacity to connect different trading stakeholders such as carriers, customs brokers, trade operators, port and airport authorities, government agencies, banks and financial institutions, and other customs organizations and handles manifests and customs declarations, accounting procedures, transit, and other procedures. It also captures real-time trade data that can be used for economic analysis. Timor-Leste initially focused its effort on the cargo clearance modules within ASYCUDA, but connectivity is currently being expanded to facilitate other actions between border agencies and industry. The implementation of the NSW started in 2020 and is expected to further streamline and digitize document processing.

In 2021, the ASYCUDA system was further integrated with the TradeInvest platform offering information and services to local and foreign investors. Even though as an interim measure the MOF

[79] WTO Checklist for Illustrative SPS issues for consideration in accession (WT/ACC/22/Add.2).
[80] WTO Checklist for Illustrative TBT issues for consideration in accession (WT/ACC/22/Add.2).

(Customs) website has been enhanced, the ease of access to information (a single place online) needs further improvement, and Timor-Leste is currently working toward implementing a TIP to align with United Nations Economic Commission for Europe (UNECE) Recommendation 38 and assessing options for integrating TIP with NSW developments.

Other important trade facilitating measures were also implemented. In 2016, the regulatory framework for Timor's National Trade Facilitation Committee (NTFC) was established as a forum for the government and other stakeholders to engage on trade facilitation issues, initially, without including the private sector. This committee is being refocused in 2022 to also include the private sector, as the government strives to meet its WTO accession aims. Timor-Leste also amended its Customs Code in 2017 and aligned requirements under the WTO TFA and future ASEAN membership and is currently preparing updates for the 2022 version of the Customs Code.

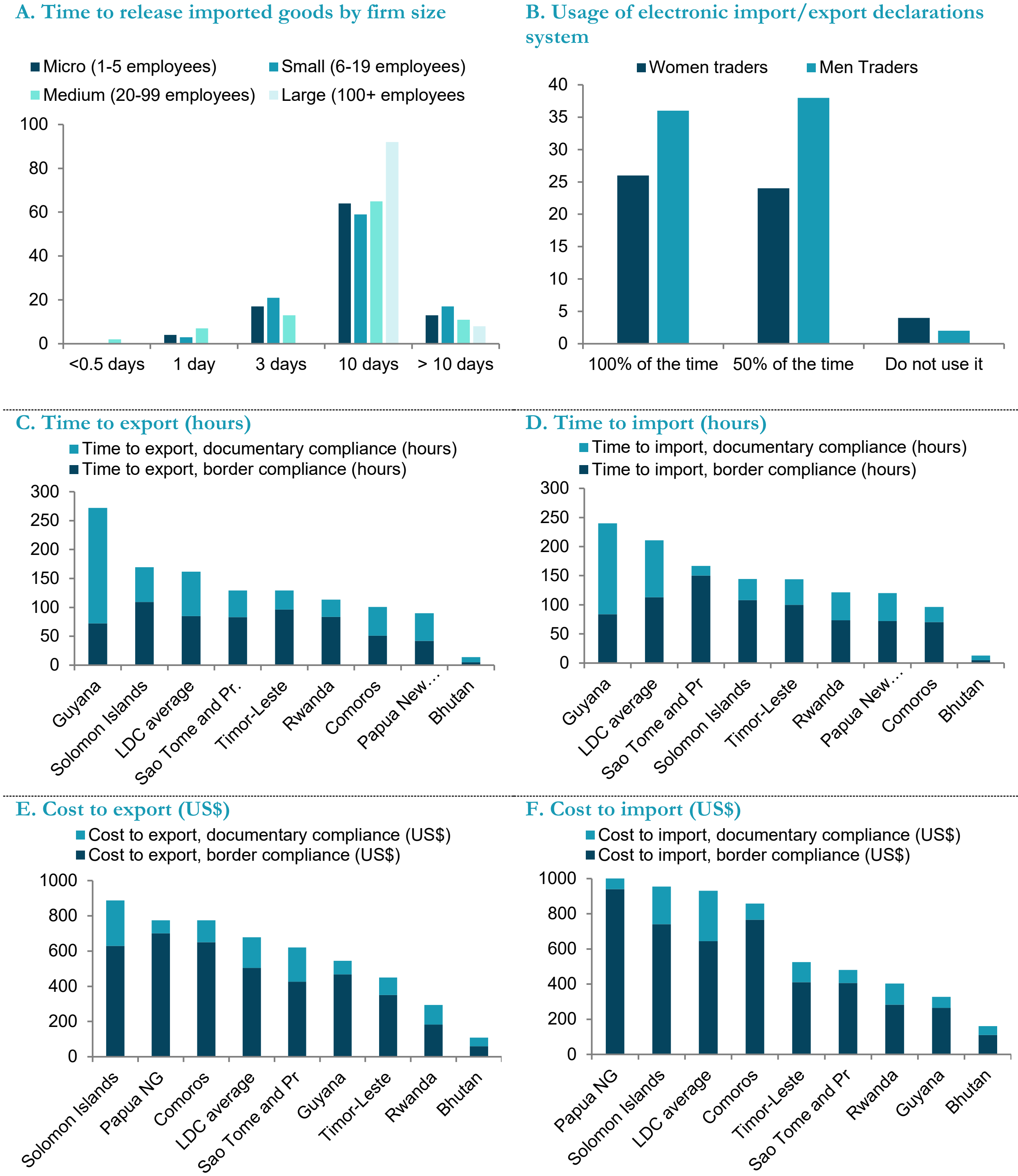
Despite these advancements, issues with reliability, predictability, and implementation remain. The UN Global Survey on Digital and Sustainable Trade Facilitation in 2021 gave Timor-Leste a trade facilitation score of 24.7 percent out of a possible 100. Transparency (53.3 percent), formalities (12.5 percent), institutional arrangement and cooperation (44.4 percent), paperless commerce (29.6 percent), and cross-border paperless trade (29.6 percent) were among the components with the lowest scores, much below that of peers. Additional trade facilitation reforms such as risk management, post-clearance audits, electronic payment of customs and taxes, and electronic application are still in the planning phases or have not yet been introduced. Risk management is still in planning stages, while practices such as post-clearance audit, e-payment of duties and fees, electronic application, and issuance of import and export permits are not yet implemented. Risk management is employed moderately, and focused risk-based targeting/profiling is yet to be implemented. The online issuance of import and export licenses has been developed and is currently being rolled out to seven agencies.

A survey of traders and freight forwarders revealed that for three-quarters of respondents it takes at least 10 days for imported goods to be released from customs (Figure 3.13). The survey also revealed that the majority of respondents were not aware of the NTFC. In addition, respondents also highlighted that it was difficult to find trustworthy information about border processes and procedures. Due to the incomplete implementation of the e-payment system, most respondents depend on bank transfers to pay government taxes and levies. Overall, 2019 data showed that it takes an average of 129 hours (5.4 days) to comply with documentary and border compliance requirements when exporting and 144 hours (6 days) when importing, better than the LDC average at 161 and 211 hours, respectively (Figure 3.13). Similarly, in terms of costs associated with border and documentary compliance, Timor-Leste outperforms the average LDC with US$450 and US$525 for exporting and importing, respectively, compared to the average LDC with US$677 and US$930, respectively.

The full operationalization of the system would require further improvements in internet connectivity and capacity development. Despite the rollout of ASYCUDA World, border agencies, including Customs maintain a dual (paper and electronic customs) clearance process. There is a plan to go fully paperless in the cargo clearance processes as cargo operations are relocated to the new Tibar Port. The transition of operations to the Tibar Port and future upgrades of the airport and hard infrastructure improvements will lead to soft infrastructure reforms in trade facilitation, while the ongoing installation of modern port technology will connect the new Tibar Port with ASYCUDA World. Although the legislative framework is not yet in place for either Customs or the Quarantine Service, progress is expected under the WTO and ASEAN accession framework. Moreover, the recent NTFC refocus is also needed to reflect operational implementation governance.

The implementation of the WTO TFA will help reduce trade costs in Timor-Leste. Evidence shows that LDCs such as Timor-Leste stand to gain the most from full implementation, with an estimated reduction of trade costs by 16 percent. Additionally, the adoption of the TFA will assist LDCs in their attempts to diversify their exports in terms of both items and markets. Full implementation of the TFA could boost the number of products exported by LDCs by up to 35 percent and the number of export destinations by up to 59 percent (WTO 2015). It is also expected to result in improved participation of SMEs, enhance participation in GVCs, increase customs collections, lower incidence of corruption, and effectively shorten geographic distance by enhancing connectivity between nations. The full implementation of an efficient NSW will also help Timor-Leste improve its trade performance, by reducing the costs and time of trading, improving the reliability of shipments, reducing bureaucracy, increasing transparency, and streamlining the processes for import and export procedures. Such reforms will also generate benefits for the government through efficiency in resource deployment, higher trader compliance, and increased security.

Figure 3.13: Trade facilitation indicators



Source: World Bank.

d. Services Trade Policies

Timor-Leste places mild limitations on services trade. Foreign investors are permitted to engage in all economic sectors except in mail and courier services, and limited foreign participation is permitted in public communication and media services, as well as passenger land and air transport. Additional restrictions include limits (30 percent of equity) on foreign involvement in public communication and media services; urban and suburban passenger land transport services which are awarded to enterprises owned by national citizens/companies in which national citizens own at least 50 percent of the stock; foreign nationals are prohibited from holding a majority stake in the national airline company; and outside of the public air transport service, there are restrictions based on minimum capital requirements(US$3 million for commercial aircraft transport and US$1.5 million for helicopter transport). As highlighted in Chapter 2, trade policies have important potential to contribute to growth and job creation in Timor-Leste as well as to generate a services trade dividend by boosting total productivity.

The Private Investment Law that governs the hiring of foreign skilled personnel involves limited restrictions. A minimum of five work permits for foreign employees are guaranteed to investors with a Declaration of Benefits or Special Investment Agreement. However, there are restrictions on the industries and occupations where foreign skilled employees may work. In the construction industry, for instance, registration for entrepreneurs who are technical specialists (for example, engineers, architects, technical designers, and electricians) and management experts (project supervisor) is restricted to national residents. This provision applies to public procurement projects valued at US$25,000 or less (Decree Law No. 26/2010). Foreign construction enterprises competing on public procurement projects valued at US$7.5 million or less must register and be approved by the Ministry of Infrastructure (Decree Law No. 27/2010). The Procurement Law permits foreign involvement in public procurement projects valued at above US$7.5 million. Given that 10 Decree Laws control the procurement process, the rules and processes under the Procurement Law are highly complicated.

The employment of foreign workers is permitted with certain limitations. All major businesses need to ensure that a minimum percentage of the value of labor in all major projects in Timor-Leste is dedicated to the employment or accredited training of citizens of Timor-Leste. Artisanal/traditional fishing permits were also granted only to Timor-Leste nationals (citizens and legal entities). Activities that are reserved to nationals include providing universal postal service and public communication services and development and exploration of national parks, marine or land reserves, or other protected areas.

Timor-Leste concluded several bilateral investment treaties, including with Portugal, Qatar, Kuwait, Germany, Vietnam, Cambodia, and the United States. Furthermore, in 2015, a Special Investment Agreement with Heineken Asia Pacific was concluded, including incentives for Heineken to build a production plant (soft drinks, beer, and mineral water), which is estimated to have created 200 direct and 800 indirect jobs.

Finally, as Timor-Leste is pursuing this ambitious trade integration agenda, it will be important to develop a national trade strategy that would ensure consistency across different initiatives and maximize the benefits of for the economy. Although there are several strategy documents that have been developed or are currently under development, the lack of a national trade strategy to ensure the consistency of trade policy objectives with other national development strategies or across different accession efforts is likely to hinder maximizing the benefits of different integration efforts. For instance, the 2011 SDP 2011–2030 outlines strategies for growth for Timor-Leste to become an upper-middle-income country built around the growth of three agriculture, tourism, and petroleum. In addition, the GoTL has developed a National Coffee Sector Development Plan 2019–2030, an Industrial Policy Strategy, and an Investment and Export Promotion Strategy through the reestablished Investment and Export Promotion Public Agency (TradeInvest Timor-Leste) in 2015.

3.7. Recommendations

Based on the findings and constraints to export growth and diversification identified in this chapter, the following three focus areas have been identified for reforms:

Focus Area 1: Reduce the time/costs of trading and improve the efficiency of border processes and procedures

Recommendation	Measure	Counterpart	Impact	Timeline
1. Reduce time to release goods at the border	Remove import/export paper declarations and encourage traders to submit documentation via electronic platforms.	Customs, MTCI, MOF	High	1–2 years
	Introduce pre-arrival declaration submission in alignment with the WTO TFA so that goods can be risk-assessed and released immediately upon arrival.		High	1–2 years
	Eliminate the dual, paper processes (in addition to the electronic customs processes).		High	2–3 years
2. Improve the availability of information on official border processes and procedures	Publicize changes to procedures at the border posts, published in layperson's terms and in local languages.	Customs, MTCI, MOF	High	1-2 years
	Implement a TIP so that traders can access all trade-related information in one place.		Very high	2–3 years
3. Strengthen the roles of the NTFC and the National Trade Consultative Forum	Implement a fully functioning NTFC; ensure that trade and industry associations are well represented so that the trade facilitation needs of traders and freight forwarders are considered.	MTCI, NTFC	High	1–2 years
	Support trade associations to increase membership and strengthen their ability to raise industry concerns.		High	1–2 years
4. Implement the WTO TFA	Commit to and implement WTO TFA.	Customs, MTCI, MCAE	Very high	4–5 years

Focus Area 2: Design and implement the regulatory framework, infrastructure and domestic capacity needed for the implementation of the WTO SPS and TBT Agreements

Recommendation	Measure	Counterpart	Impact	Timeline
5. Develop and implement nondiscriminatory animal health and food safety regulations in line with international standards	Enact and implement the Decree Laws for (i) Animal Health and Quarantine and (ii) Plant Health and Quarantine.	MAF, MoH, MTCI, AIFAESA	High	1 year
	Establish quarantine and inspection facilities.		Very high	3–4 years
	Build capacity and provide scientific/technical training for staff to under SPS measures work.		Very high	4–5 years

Recommendation	Measure	Counterpart	Impact	Timeline
6. Develop and implement nondiscriminatory technical regulations, standards, and conformity assessment procedures in line with international standards	Develop a law on standards and conformity assessments.	MAF, MTCI, MOF, Customs, MoH	High	2–3 years
	Establish a national standards body.		High	2–3 years
	Build capacity to undertake product testing and conformity assessments.		Very high	4–5 years
7. Fully implement the WTO SPS and TBT Agreements	Ensure monitoring, transparency, and notification of SPS and TBT measures.	MCAE, MAF, MTCI, MOF, Customs, MoH	High	5 years
	Harmonize with international standards; ensure mutual recognition; and risk assessment.		Very high	5–6 years

Note: AIFAESA = The Authority for Inspection of Economic Sanitary and Food Activities.

Focus Area 3: Ensure an open, stable, transparent, and predictable trade regime

Recommendation	Measure	Counterpart	Impact	Timeline
8. Develop a trade strategy consistent with national development and international integration objectives	Avoid protectionist measures such as increases in tariffs or limits on quantities imported in the new Taxes and Duties Act	MCAE, MTCI, MOF, MAF	Very high	1 year
	Limit the difference between bound and applied tariffs post WTO accession		Very high	1 year
	Fully liberalize tariffs on capital goods and intermediates inputs		High	1–2 years
	Develop and publish a national trade strategy		High	1–2 years

APPENDIX

Appendix 1.1: Peer Selection

To benchmark Timor-Leste's performance, this study uses three groups of peers: the EAP average, structural peers, and aspirational peers. The structural and aspiration peer countries were selected using the Dynamic Benchmarking Tool (Matta 2018) as per the table below.

Criteria adopted to select regional, structural, and aspirational peers for Timor-Leste

Group	Definition	Selection criteria	Selected countries
Regional peers	Neighboring countries in the EAP region as per the World Bank classification	• (Relatively) Small countries in EAP	• Papua New Guinea • Fiji
Structural peers	Countries that have similar economic characteristics as Timor-Leste in 2016–2019	• Countries that had a GDP per capita, Human Development Index, population, electricity access that are +/- 30 positions distant from Timor-Leste's average rank in 2016–2019 • Countries that are commodity exporters	• Comoros • São Tomé and Príncipe • Solomon Island
Aspirational peers	Countries that possessed similar structural characteristics as Timor-Leste but grew (in per capita terms) significantly faster over time	• Countries that were low- or lower-middle-income and a medium-size population. • Countries that had a Human Development Index, real GDP per capita, population, life expectancy, and access to electricity that were +/- 50 positions distant from Timor-Leste's average rank in 2003–2006 • Countries that grew faster than Timor-Leste by 2 percentage points more than Timor-Leste in 2003–2019, on average	• Botswana • Cabo Verde • Mauritius • Bhutan

Appendix 1.2: Methodology Employed to Estimate the Impact of Political Instability

The economic cost of political instability in 2017–2019 is nominally estimated using the SCM. The SCM is a statistical method that is used to estimate the causal impact of a treatment (such as a shock, conflict, or legislation) in comparative case studies by creating a counterfactual (that is, synthetic control) as a weighted average of several control units. The SCM was created and first employed by Abadie and Gardeazabal (2003) to estimate the economic impact of terrorism in Basque Country, Spain.

For this analysis, synthetic Timor-Leste is most optimally constructed as a weighted average of 4 countries out of a control group of 122, with Rwanda and Nepal bearing the highest weights, followed by Lebanon and Sri Lanka. The list of omitted countries is provided below. The weights are assigned such that the synthetic control closely follows the actual trend of the outcome variable during the pretreatment period. The impact, on the other hand, is calculated as the difference between the actual outcome and the synthetic control outcome. The outcome variable is GDP per capita in the US dollar at 2015 constant prices. Following the example of Matta et al. (2016), relevant socioeconomic indicators are used as covariates: components of GDP in terms of value added (agriculture, industry, and services sectors) and government consumption, all as a share of GDP, as well as life expectancy in years.

Country	Reason for exclusion
Afghanistan	Data constraints
Algeria	Political protests since 2019
American Samoa	Data constraints
Andorra	Data constraints
Angola	Affected by the Southern Africa drought
Antigua and Barbuda	Hit by Hurricane Irma in 2017
Aruba	Data constraints
Bahamas	Hit by hurricanes in 2017 and 2019
Barbados	Data constraints
Botswana	Affected by the Southern Africa drought
British Virgin Islands	Hit by Hurricane Irma in 2017
Brazil	Affected by a severe drought in 2014-17
Cabo Verde	Hit by Hurricane Irma in 2017
Cayman Islands	Data constraints
Channel Islands	Data constraints
Chile	Political protests and riots beginning 2019
China	Affected by flooding in 2018 and a super-typhoon in 2019
Cuba	Hit by hurricanes in 2017
Curacao	Data constraints
Djibouti	Data constraints
DRC	Ebola outbreak in 2018
Dominica	Hit by Hurricane Maria in 2017
Ecuador	Political protests and riots in 2019
Eritrea	Data constraints
Faroe Islands	Data constraints
France	Yellow vests civil unrest in 2018
French Polynesia	Data constraints
Gambia	Constitutional crisis in 2016-17
Gibraltar	Data constraints
Greece	Hit by a tropical-like cyclone in 2017, resulting in severe flooding
Greenland	Data constraints
Grenada	Data constraints
Guam	Data constraints
Guatemala	Hit by a deadly volcanic eruption in 2018
Guyana	Data constraints
Haiti	Affected by protests and hurricanes
Honduras	Political protests in 2017–2018

Country	Reason for exclusion
Hong Kong SAR, China	Political unrest in 2019
Indonesia	Impacted by several volcanic eruptions and tsunamis in 2018
Iran	Political protests beginning 2017
Iraq	War in Iraq which ended in December 2017
Isle of Man	Data constraints
Israel	Ongoing Israel-Palestinian conflict
Kosovo	Data constraints
Korea, Dem. People's Rep.	Data constraints
Lao PDR	Data constraints
Liberia	Data constraints
Libya	Second Libyan Civil War
Liechtenstein	Data constraints
Macao SAR, China	Data constraints
Malawi	Data constraints
Marshall Islands	Data constraints
Micronesia	Impacted by typhoon in 2019
Monaco	Data constraints
Morocco	Rejoins African Union in 2017
Mozambique	Affected by the Southern Africa drought
Myanmar	Rohingya crisis
Namibia	Affected by the Southern Africa drought
Nauru	Data constraints
New Caledonia	Data constraints
Northern Mariana Islands	Impacted by typhoons in 2018
Palau	Data constraints
Papua New Guinea	Data constraints
Paraguay	Political crisis
Puerto Rico	Hit by hurricanes in 2017
Republic of the Congo	Data constraints
Samoa	Data constraints
San Marino	Data constraints
São Tomé and Príncipe	Data constraints
Sint Maarten (Dutch part)	Data constraints
Solomon Islands	Data constraints
Somalia	Severe drought in 2017
South Sudan	Data constraints
Spain	Catalan protests in 2019
St. Kitts and Nevis	Data constraints
St. Lucia	Data constraints
St. Martin (French part)	Data constraints
St. Vincent and the Grenadines	Data constraints
Sudan	Mass protests and coup d'état in 2019
Suriname	Data constraints
Syria	Ongoing civil war
Trinidad and Tobago	Data constraints
Türkiye	Military conflicts
Turks and Caicos Islands	Hit by hurricanes in 2017
Tuvalu	Data constraints
United Kingdom	Brexit and several terrorist attacks
United States	Impacted by several winter storms and hurricanes
Uruguay	Data constraints
US Virgin Islands	Hit by Hurricane Irma in 2017
Vanuatu	Hit by major volcanic eruption in 2017–2018
Venezuela	Presidential crisis in 2019
West Bank and Gaza	Ongoing Israel-Palestinian conflict
Yemen	Data constraints
Zambia	Affected by the Southern Africa drought
Zimbabwe	Coup d'état in 2017

Appendix 2.1: World Bank Enterprise Survey

The WBESs are a series of comprehensive and comparable nationally representative firm-level surveys. Since 2005, the WBESs have conducted 180,000 interviews in 154 economies. These surveys follow a global methodology, making them comparable across countries and years. The survey instrument covers a wide range of topics that aim at measuring characteristics of the business environment infrastructure, licensing and permitting, exporting and importing, and dealing with the government. In addition, the granularity of the WBES allows to study how the business endowment affects firm outcomes such as performance, productivity, employment, and growth.

Manufacturing - combining all the relevant activities (ISIC Rev. 4.0 codes 10-33) and Services (ISIC codes 41-43, 45-47, 49-53, 55, 56, 58, 61, 62, 79, 95).

The coverage of the WBES is restricted to firms employing five or more workers which have a formal registration and are engaged in manufacturing and most services sectors (see Table A.1 for more details).

Table A.1: Sectors of the economy covered by the Enterprise Surveys

Excluded	Included
Sectors Agriculture Fishing Mining Public utilities Financial intermediation Public administration Education, health, and social work	Sectors (ISIC Rev. 4.0) Manufacturing (10-33) Construction (41-43) Wholesale and retail trade; repair of motor vehicles and motorcycles (45-47) Transportation and Storage (49-53) Hotels and restaurants (55-56) IT (58, 61, 62) Tour operators (79) Repairs (95)
Additional Criteria • < 5 employees • Informal firms • 100% state-owned firms	Additional Criteria • 5+ employees • Formal (registered) firms • Minimum of 1% private ownership

The WBES in Timor-Leste was conducted between December 2021 and March 2022. The regional coverage was restricted to Dili, which makes up over 80 percent of private sector employment and close to 90 percent of total value added in the whole country. Furthermore, the estimates of the survey fall within a 90 percent confidence interval and a 7.5 percent margin of error. The sampling frame used is the Income Tax List of the Tax Service obtained from the Directorate of Economic and Social Statistic of the MOF. The total sample size was 238 firms, divided among manufacturing and services, each with its own questionnaire. Figure 2 presents the details of the sample distribution in terms of the firm size and sector.

The full methodology and instrument can be found at https://www.enterprisesurveys.org/en/methodology

The country-specific profile for Timor-Leste can be found at https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/country/Timor-Leste-2021.pdf

Figure A.1a: Distribution of sectors

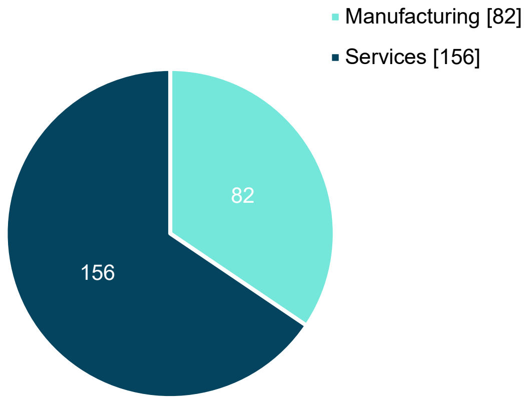
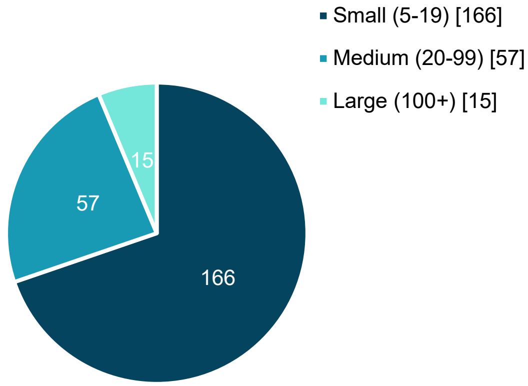


Figure A.1b: Distribution of firm size



Appendix 2.2: Methodology for Productivity Analysis

The empirical analysis aims to examine the correlation between constraints (subjective and objective) in the business environment of firms in Timor-Leste and firm performance. In this appendix, we first describe the dataset we use for the empirical analysis and then discuss the methodology for the estimation.

Dataset

We use a pool sample of Timor-Leste in three waves of WBES—2009, 2015, and 2021. It includes data from 514 firms from Timor-Leste, of which 150 were collected in 2009, 126 in 2015, and 238 in 2021. This broad sample allows us to examine constraints to performance in Timor-Leste from a broader comparative perspective.

Outcome Variable

To measure firm performance, we use labor productivity, calculated as the ratio of sales to full-time workers. We deflated all values using the Consumer Price Index (CPI). This CPI data are collected using the IMF and ADB dataset.

Explanatory Variables

The WBES contains both **perceived** and subjective obstacles. First, firm representatives are asked to rate how big each of these constraints is to the firm's current operations. Respondents must rate each of these potential constraints on a five-point scale, from 'no obstacle' (0) to 'severe obstacle' (4). We identify an issue as ***a significant*** constraint if the firm identified it as a major or severe constraint to its operations (rating of >2 in the question of perception).

We include several variables that capture the **objective** constraints faced by firms in the different issue areas: access to finance, political instability, backbone services and infrastructure, labor skills and regulations, and business environment and corruption.

Estimation Strategy

For the analysis of the pool dataset, we use an Instrument Variables (IV) estimator, regressing the measure of firm performance on the subjective or objective constraint for all countries in the world. In addition, a vector of firm-specific variables is also included (size, age, export status) as well as sector and time fixed effects.

$$Y_{it} = \alpha_i + \beta Constraint_{it} + \delta X_{it} + \theta_s + \sigma_t + \varepsilon_{it}$$

where:

- $\boldsymbol{Y_{it}}$ **= labor productivity for firm *i* in year *t*.**
- $\boldsymbol{X_{it}}$ **= vector of time-varying firm characteristics.**
- $\boldsymbol{\theta_s}$ **= 4-digit ISIC fixed effects.**
- $\boldsymbol{\sigma_{ct}}$ **= time fixed effects.**

We control for the endogeneity of subjective and objective constraints using the Instrument Variable technique. Specifically, we use the 'all-but-one' methodology to find the instrument in the estimation. Specifically, the average value of other firms within the same district are treated as an instrument for each objective and subjective constraint.

Bibliography

Abdo Ahmad, I., & Fakih, A. 2022. Does the legal form matter for firm performance in the MENA region? Annals of Public and Cooperative Economics, 93(1), 205-227.

Abedie, Alberto and Javier Gardeazabal. 2003. "The Economic Costs of Conflict: A Case Study of the Basque Country." American Economic Review 93.1: 113-132.

Alesina, A., Spolaore, E., and Wacziarg, R. 2005. Trade, Growth and the Size of Countries, Handbook of Economic Growth, Volume 1 Part B, 1499-1542.

Apostolides, A. 2011. The Growth of Two Small Economies in the Great Depression: GDP Estimation for Cyprus and Malta during the Interwar Period (1921-1938), MPRA 30276.

Armington, Paul S. 1969. "A theory of demand for products distinguished by place of production." IMF Staff Papers 16.1 (1969): 159-178.

Armstrong, H. W. and Read, R. 2002. The Phantom of Liberty: Economic Growth and The Vulnerability of Small States. *Journal of International Development*, 14(4), 435-458.

Armstrong, H. W. and Read, R. 2004. Insularity, Remoteness, Mountains and Archipelagoes: A Combination of Challenges Facing Small States. In international conference on the political economy of small islands, Victoria University of Wellington, 23-25.

Asian Development Bank Institute. 2021. 15 Fairer Ways to Share Land for Better Infrastructure and Urban Renewal. Policy Brief. No. 2021-3 (July). https://www.adb.org/sites/default/files/publication/713156/adbi-pb2021-3.pdf

Asia Foundation. 2017. Timor-Leste-State of Conflict and Violence.

Asian Infrastructure Investment Bank. 2022. Meeting the USD50 Trillion Investment Gap for Special Economic Zones to Drive Industrial Transition to Zero-Carbon in 2050. https://www.adb.org/sites/default/files/publication/772536/special-economic-zones-imt-growth-triangle.pdf

Bareiss, R., Porter, B. W., and Murray, K. S. 1990. Supporting start-to-finish development of knowledge bases. Knowledge Acquisition: Selected Research and Commentary: A Special Issue of Machine Learning on Knowledge Acquisition, 13-37.

Blavatnik School of Management (BSG), The University of Oxford. 2022. Oxford COVID-19 Government Response Tracker (OxCGRT). https://www.bsg.ox.ac.uk/research/covid-19-government-response-tracker

Boyce, M. S., Dodzin, M. S., Cabezon, E., Jamaludin, M. F., Wu, M. Y., and Heller, M. R. 2014. Asia and Pacific Small States Monitor, August 2014. International Monetary Fund.

Bräutigam, D. and Woolcock, M. 2001. Small states in a global economy: The role of institutions in managing vulnerability and opportunity in small developing countries (No. 2001/37). WIDER Discussion Paper.

Briguglio, L., Cordina, G., Farrugia, N., and Vella, S. 2009. Economic Vulnerability and Resilience: Concepts and Measurements, 37(3), 229-247.

Briguglio, L. 2016. Exposure to External Shocks and Economic Resilience of Countries: Evidence From Global Indicators. Journal of Economic Studies, 43(6), 1057-1078.

Briguglio, L. 2022. Economic Growth of Small Developing States – A Literature Review. IMF Engagement With Small Developing States BP/22-01/12. Independent Evaluation Office of The International Monetary Fund. Washington, DC.

Brown, D. R. 2010. Institutional Development in Small States: Evidence from the Commonwealth Caribbean. Administrative Culture, 11(1), 44-65.

Cavallo, Eduardo A., and Jeffrey A. Frankel. 2008. "Does openness to trade make countries more vulnerable to sudden stops, or less? Using gravity to establish causality." *Journal of International Money and Finance* 27.8 (2008): 1430-1452.

de Soto, H. 2000. The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else. New York: Basic Books.

Director of National Directorate of Economics and Social Statistics. (2021). Business Activity Survey.

Easterly, W. and Kraay, A. 2000. Small States, Small Problems? Income, Growth, and Volatility in Small States World Development, 28 (11), 2013-2027.

Economic and Social Commission for Asia and the Pacific (ESCAP). 2019. Regulatory Policies and ICT Trends: Insights from Timor-Leste. Asia-Pacific Information Superhighway (AP-IS) Working Paper Series. https://www.unescap.org/sites/default/files/Regulatory%20Policies%20and%20ICT%20Trends%2C%20Insights%20from%20Timor-Leste.pdf

Facebook Movement Range Maps. 2022. https://dataforgood.facebook.com/dfg/tools/movement-range-maps

Farrugia, N. 2007. The importance of institution building in small island states. Bank of Valletta Review, 36(3), 57-75.

Fanzo, Jessica, and Bonis-Profumo, Gianna. 2019. "Timor-Leste: Agriculture Sector Review." Prepared for the Ministry of Agriculture and Fisheries of the Democratic Republic of Timor-Leste through the Sustainable Agriculture Productivity Improvement Project.

Francois, Joseph, and H. Keith Hall. 2009. *Global simulation analysis of industry-level trade policy: The GSIM model*. No. 20090803. Institue for International and Development Economics.

Freund, Caroline, and Martha Denisse Pierola. 2015. "Export superstars." *Review of Economics and Statistics*, 97.5: 1023-1032.

Giri, Rahul, Mr Saad N. Quayyum, and Rujun Yin. 2019. "Understanding export diversification: Key drivers and policy implications." *IMF Working Paper No. 2019/105*.

Gonzales-Garcia, J., Lemus, A., and Mrkaic, M. 2013. Fiscal Multipliers in the ECCU. *IMF Working Paper 13/117*.

Government of Timor-Leste. 2020. Program of the Eighth Constitutional Government. http://timor-leste.gov.tl/?p=19915&lang=en

Haddad, Mona, et al. 2013. "Trade openness reduces growth volatility when countries are well diversified." *Canadian Journal of Economics,* 46.2 (2013): 765-790.

Hale, Thomas, Noam Angrist, Rafael Goldszmidt, Beatriz Kira, Anna Petherick, Toby Phillips, Samuel Webster et al. 2021. "A global panel database of pandemic policies (Oxford COVID-19 Government Response Tracker)." Nature human behavior 5, no. 4 (2021): 529-538.

Hausmann, R., Pritchett, L., and Rodrik, D. 2005. Growth accelerations. *Journal of economic growth*, 10, 303-329.

Hsieh, C. T. and Peter J. K. 2010. Development Accounting. *American Economic Journal: Macroeconomics*, 2(1), 207-23.

Inder, Brett. 2018. Speed Matters. The Case for an International Cable Internet Connection for Timor-Leste. Joint report between Monash University and the Timor-Leste Office of Market Development Facility

International Growth Center (IGC). 2018. Timor-Leste's Drivers of Growth and Sectoral Transformation. https://www.theigc.org/wp-content/uploads/2021/06/Policy-paper-Timor-Lestes-drivers-of-growth-and-sectoral-transformation.pdf

International Monetary Fund (IMF). 2014. "Sustaining Long-Run Growth and Macroeconomic Stability in Low-Income Countries—The Role of Structural Transformation and Diversification." *IMF Policy Paper.*

International Monetary Fund (IMF). 2021. "Article IV Consultation – Press Release; Staff Report; and Statement by the Executive Director for Timor Leste." *IMF Country Report No. 21/152.*

International Monetary Fund (IMF). 2017. "Regional Economic Outlook, Sub-Saharan Africa."

International Monetary Fund (IMF). 2022. "Article IV Consultation – Press Release and Staff Report." *IMF Country Report No. 22/307* (2022).

Investment and Export Promotion Agency (Tradeinvest) Timor-Leste. 2021. Multiple publications.

John, Samuel, Elissaios Papyrakis, and Luca Tasciotti. 2020. "Is there a resource curse in Timor-Leste? A critical review of recent evidence." *Development Studies Research* 7.1: 141-152.

Laohamutuk. 2018. Timor-Leste Business Enabling Environment. https://www.laohamutuk.org/econ/MCC/2018/BusinessEnvironRootCauseAug2018.pdf

Laohamutuk. 2010. Annual Report of Woodside Petroleum Ltd. https://www.laohamutuk.org/Oil/Sunrise/2011/SunriseWoodside2010AnnualReport.pdf

Lederman, Daniel, and William F. Maloney. 2007. "Trade structure and growth." *Natural resources: Neither curse nor destiny*: 15-39.

Market Development Facility. 2018. Speed Matters: The Case for an International Cable Internet Connection for Timor-Leste. https://marketdevelopmentfacility.org/wp-content/uploads/2019/07/Speed-Matters-%E2%80%93The-Case-for-an-International-Cable-Internet-Connection-for-TL-Engl.pdf

Maui, Sanford. 2017. Satellite and submarine international connectivity in the pacific.

Matta, Samer., Simon Appleton and Michael Bleaney. 2019. "The Impact of the Arab Spring on the Tunisian Economy". *World Bank Economic Review*, 33(1), 231 – 258.

Ministry of Agriculture and Fisheries (MAF). 2012. Strategic Plan 2014-2020. Government of Timor Leste. https://faolex.fao.org/docs/pdf/tim149148.pdf

Newfarmer, R., Page, J. & Tarp, F. 2018. Industries without Smokestacks: Industrialization in Africa Reconsidered. WIDER Studies in Development Economics. Oxford University Press.

Offshore Technology. 2016. Bayu-Udan, Timor Sea. https://www.offshore-technology.com/projects/bayu-undan/

Osnago, Alberto, Roberta Piermartini, and Nadia Rocha. 2015. "Trade policy uncertainty as barrier to trade." No. ERSD-2015-05. *WTO Staff Working Paper.*

Presentation at ITU/PITA Workshop on Enhancing access to submarine cables for Pacific Islands Countries. 2017. https://www.itu.int/en/ITU-D/Regional-Presence/AsiaPacific/SiteAssets/Pages/Events/2017/Submarine%20Cable/submarine-cables-for-Pacific-Islands-Countries/ITU%20PITA%20Suva%20Workshop%20Maui%20Sanford%2002%20Aug%202017.pdf

Sachs, J. D., and Warner, A. 1995. Natural resource abundance and economic growth. *NBER Working Paper* 5398.

Scambary, James. 2009. Groups, gangs and armed violence in Timor-Leste.

Spilimbergo, A., Schindler, M., and Symansky, S. A. 2009. Fiscal multipliers. IMF Staff Position Notes, 011.

Statistical Yearbook of Bhutan. 2020. Bhutan National Statistics Bureau.

Stillman, Grant B. 2021. 15 Fairer Ways to Share Land for Better Infrastructure and Urban Renewal. *ADB Institute Policy Brief N0.2021-3*

Stolper, W. F., Hellberg, R. E. R., and Callender, S. O. 1964. Economic Adaptation and Development in Malta, United Nations, Commission for Technical Assistance, Department of Economic and Social Affairs.

The Government of Timor-Leste. 2022. Business Activity Survey.

The Government of Timor-Leste. 2013. Timor-Leste Labor Force Survey (LFS) 2013. https://www.statistics.gov.tl/wp-content/uploads/2015/04/LFS_2013_ENGLISH_VERSION.pdf

United Nations, Department of Economic and Social Affairs, Population Division. 2015. *World Population Prospects*: The 2015 Revision, Volume II: Demographic Profiles (ST/ESA/SER.A/380).

World Bank. 2012. Timor-Leste's telecommunications sector will soon help more people access to a variety of services.

World Bank. 2016. Timor-Leste: Connecting People through Climate-Resilient Roads.

World Bank. 2020. Timor-Leste Economic Report: A Nation Under Pressure, April 2020. https://openknowledge.worldbank.org/entities/publication/8d11d494-0676-56c0-b748-22c89b1eb702

World Bank. 2020. "Timor-Leste Trade Facilitation Challenges for Women Traders and Freight Forwarders."

World Bank. 2021. *Timor-Leste Public Expenditure Review: Changing Course – Towards Better and More Sustainable Spending.* https://www.worldbank.org/en/country/timor-leste/publication/timor-leste-public-expenditure-review-changing-course-towards-better-and-more-sustainable-spending

World Bank. 2021. Country Private Sector Diagnostic (CPSD) Methodology Note. https://state-owned-enterprises.worldbank.org/sites/soe/files/tootkit/CPSDMethodologyNote-Jan2020_0.pdf

World Bank. 2021. Enterprise Surveys-What Businesses Experience. Timor -Leste 2021 Country Profile. https://www.enterprisesurveys.org/content/dam/enterprisesurveys/documents/country/Timor-Leste-2021.pdf

World Bank. 2022. Timor-Leste Economic Report: Honoring the Past, Securing the Future, December 2022. Washington, DC.

World Bank. 2022. Commodity Markets Outlook: Pandemic, war, recession: Drivers of aluminum and copper prices. World Bank: Washington, DC.

World Bank. Forthcoming. Timor-Leste Human Capital Review. Washington, DC.

World Bank Enterprise Survey (WBES). 2022.

World Bank and IMF. 2016. Public investment management assessment (PIMA)–Democratic Republic of Timor-Leste.

World Bank and IMF. 2022. Timor-Leste Debt Sustainability Analysis. Washington, DC.

World Data. Telecommunication in East Timor. https://www.worlddata.info/asia/east-timor/telecommunication.php#:~:text=With%20an%20average%20download%20speed,%2Fsecond%20(144th%20place).

World Trade Organization (WTO). 2015. "World Trade Report. Speeding up Trade: benefits and challenges of implementing the WTO Trade Facilitation Agreement."

World Trade Organization (WTO). 2021. "World Trade Report. Economic Resilience and Trade."