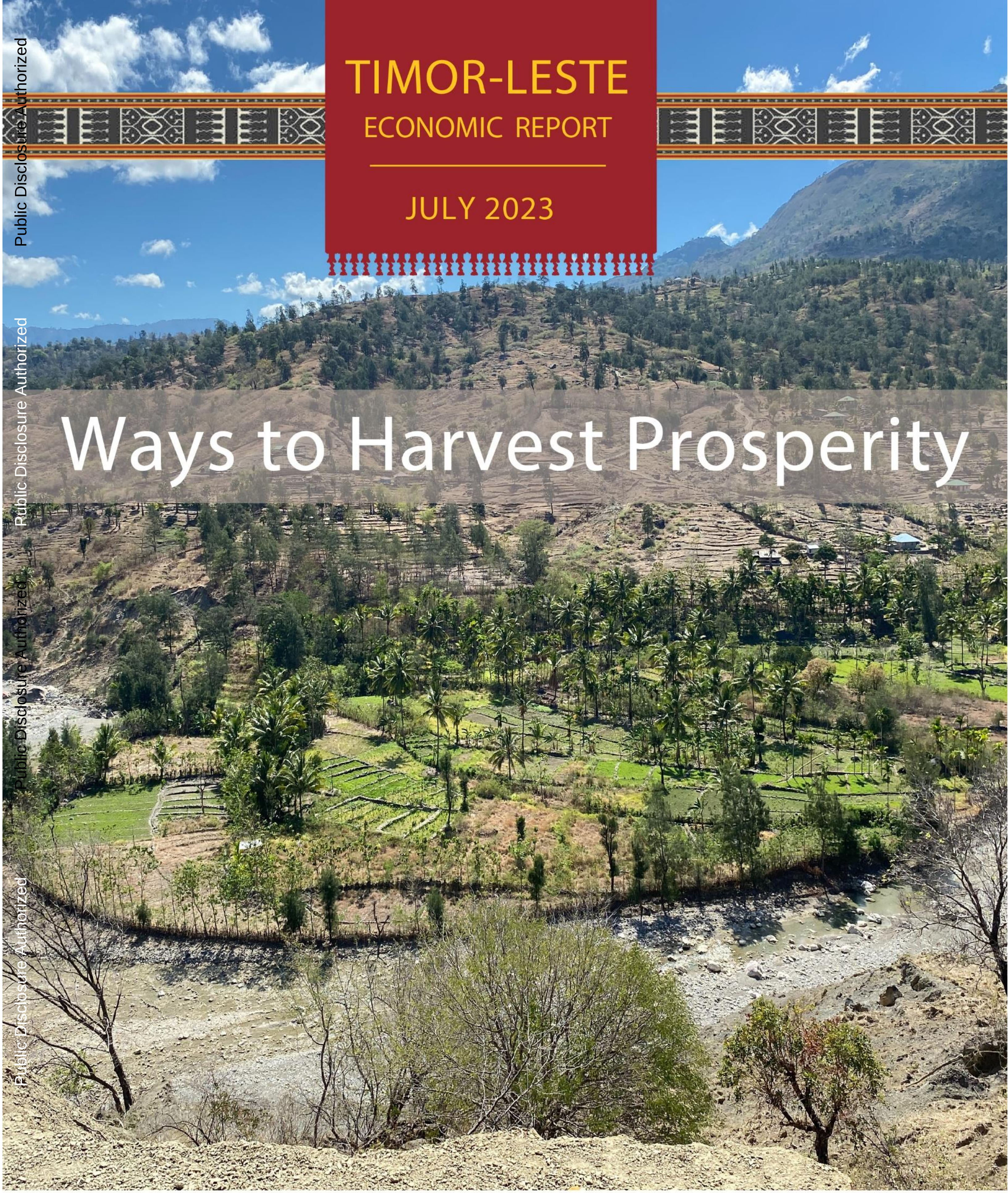
TIMOR-LESTE
ECONOMIC REPORT

JULY 2023

Ways to Harvest Prosperity



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Timor-Leste Economic Report:
Ways to Harvest Prosperity
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Acknowledgment

The Timor-Leste Economic Report (TLER) is a bi-annual World Bank report that assesses recent macroeconomic developments, outlook, and risks, as well as specific development challenges for the Timorese economy. In doing so, the TLER aims to inform the public policy debate and is geared towards a wide audience, including the general public, the government, the private sector, civil society organizations, and other domestic and international stakeholders.

The TLER is a product of the World Bank Jakarta and Timor-Leste office and receives strategic guidance from an editorial board chaired by Satu Kahkonen, Country Director for Indonesia and Timor-Leste. The report is prepared by the Macroeconomics, Trade, and Investment (MTI) Global Practice team, under the guidance of Lars Christian Moller (Practice Manager), Dina Umali-Deininger (Practice Manager) Bernard Harborne (Resident Representative), Habib Rab (Program Leader and Lead Economist), Achim Daniel Schmillen (Program Leader) and Vikas Choudhary (Program Leader and Lead Agriculture Specialist). The report production is led by Alief Aulia Rezza (Senior Country Economist) and Yus Medina Pakpahan (Research Analyst). Ana de Oliveira provided administrative support and coordinated the organization of the report launch event. The report was formatted by Arsianti.

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KEY INDICATORS	
Population (million)	1.3
GDP (USD billion)	1.6
GDP per capita (USD)	1,295
Poverty headcount ratio -national poverty line (% population)	41.8
Poverty headcount ratio-USD 1.90 a day (2011 PPP, % population)	22.0
Poverty headcount ratio-USD 3.20 a day (2011 PPP, % population)	65.9
GINI index	28.7

Notes: Population and GDP data are for 2019. Poverty and inequality data are for 2014 (with revised PPPs).

Summary

1. Recent Developments

Timor-Leste's economy continued its recovery in 2022, expanding by 3.9 percent, fueled by public consumption and investment. Private investment rose from an exceptionally low level while net exports continued to be a drag on growth. Despite the implementation of fiscal measures like the food basket program, thirteen-month salaries, and fuel vouchers, which led to increased government spending and a larger fiscal deficit, private consumption only exhibited weak growth.

The recently released 2021 Labor Force Survey reveals challenges that are consistent with weak private demand and recovery. Timor-Leste has the lowest labor force participation rate compared to peers. This can be partially attributed to a lack of vibrancy in the private sector, insufficient job opportunities being created, and the possibility of high reservation wages. Furthermore, structural factors also contribute to this issue, particularly due to the rising enrollment in secondary schools and the persistently high fertility rates, resulting in increased household responsibilities.

Headline inflation soared in March 2023 at 9.6 percent, spurred by significant increases in food and non-food prices. High inflation is part of a global trend driven by prices of tradable goods. Within Timor-Leste, the government's policy of enforcing higher excise taxes on tobacco products, implementing import taxes and applying excises to sugar and sugary beverages, partially drove the inflationary trend. A steady decrease in inflation was, however, noted for fuels and lubricants, reflecting the average decline in the global oil prices.

At close to 123 percent of GDP, the Government's approved budget for 2023 is slightly lower than the allocation for 2022 but remains significantly higher than the actual spending in 2022. Public transfers increased significantly, rising from 21.8 percent of GDP before the pandemic to 55.3 percent in 2022. Furthermore, the fiscal deficit has continued to grow and reached 63.7 percent of GDP in 2022, one of the highest in the world, considerably higher than the pre-pandemic average of 36.3 percent of GDP.

The cessation of oil and gas production in Q1 2023 flipped the current account from a surplus in 2021 into a deficit. This situation highlighted the country's dependence on hydrocarbon and coffee exports and its underdeveloped private sector. Despite trade and investment openness, attracting foreign direct investment (FDI) has been challenging. The country's heavy reliance on imports has consistently strained its current account. Since FDI and portfolio investments remain minimal, the country has resorted to using withdrawals from its own Petroleum Fund to finance its fiscal and current account deficits. The balance of the Fund decreased by 6.8 percent year-on-year by the end of Q1 2023.

2. Outlook and Recommendations

Following the Parliamentary elections held in May 2023, the 9th Constitutional Government assumed office on July 1st. The new administration faces immediate and immense pressure to deliver results across various domains. These encompass the execution of the ASEAN accession roadmap, further expansion in the oil and gas sector, ongoing demands for economic diversification, and the imperative need to enhance human development outcomes. The success of the government will heavily rely on its efficient use of limited budgetary and human resources.

In this context, the economy is projected to grow, but only at an average of 3.4 percent over the medium term. Political stability would facilitate predictability required to encourage private investment and a boost in consumer confidence, leading to higher private consumption. The government's focus on reducing bottlenecks in infrastructure spending is expected to stimulate growth by improving the execution of infrastructure projects.

Achieving higher economic growth hinges on bolstering private sector development and enhancing competitiveness particularly in the agriculture sector that employs nearly 38 percent of Timor-Leste's labor force (see Chapter 3). A flourishing agricultural sector holds the potential to stimulate rural development and alleviate poverty. Yet, in the short-term, caution is required due to the unfavorable outlook related to the El Nino climate forecasts predicting reduction in rainfall in the coming wet season.

Given the end of oil production and tumultuous recent years for financial markets, the balance of the Petroleum Fund will experience faster depletion and is projected to be entirely depleted by 2034. Withdrawals from the Fund have been the key in financing persistent budget and current account deficits. The Fund is critical for ensuring a consistent US dollar supply. The depletion of the Petroleum Fund threatens long term macroeconomic stability and the continued use of the US dollar as legal tender.

Downside risks include persistent high inflation, political instability, reversal of reforms and natural disasters. In this context, it is now crucial for the new Government to maintain the consistency of high-level policies, particularly in areas such as fiscal sustainability, public financial management, and the diversification agenda.

To advance a reform agenda, the new Government may want to consider institutionalizing fiscal consolidation through robust fiscal rules. Both revenue mobilization and expenditure rationalization efforts should not only be maintained but also enhanced. Given that significant increases in public spending have had a limited impact on Timor-Leste's medium-term economic growth, it is possible to sustain growth levels with a reduced budget.

3. Special Focus: Ways to Harvest Prosperity

Investing in agriculture plays a crucial role in fostering an inclusive economy that benefits a significant portion of the population. Agriculture has been consistently the largest share of the economy outside the public sector. The latest 2021 Labor Force Survey show that 38 percent of employment is still in the agriculture sector making it the largest sector of employment in Timor-Leste.

The agriculture sector is characterized by low remuneration for farmers and low productivity levels. On average, agricultural households in the country generate a meager economic value, resulting in very low returns. Moreover, the average harvested area has significantly reduced by 35 percent during the past 20 years.

To achieve inclusive economic development and foster broad-based employment creation, it is imperative to prioritize investment in agriculture. However, maintaining the status quo in the agricultural sector will not suffice, as the prevailing low productivity levels make it impossible to support adequate livelihoods. Without substantial improvements in productivity, income levels, and commodity mix diversification, most agricultural households will remain trapped in poverty.

Efforts to enhance agricultural productivity and create sustainable economic opportunities for farming households are vital. This includes boosting farmer incomes via increased small-scale agriculture productivity, balancing domestic supply and demand of key food categories, transitioning focus to high-value commodities, and encouraging productivity gains through improved seed varieties, affordable technologies, and superior storage methods. The development of food processing, particularly in Micro, Small, and Medium Enterprises, should also be supported.

1. Recent Developments

1.1. Global growth projected to slow in 2023 whilst commodity prices remain higher than pre-pandemic levels.[1]

Amid persistent global economic challenges, the East Asia Pacific (EAP) region shows signs of recovery. The global economy remains in a precarious state amid the negative shocks of the pandemic, Russia's invasion of Ukraine, and the sharp tightening of monetary policy to contain high inflation. After growing 3.1 percent last year, the global economy is set to slow substantially in 2023, to 2.1 percent. In the EAP region, growth is projected to strengthen to 5.5 percent in 2023 from 3.5 percent in 2022, largely driven by robust activity in China. While headline consumer price inflation has started to moderate, it remains above Central Bank targets in most countries in the region. Economic growth in the small states has remained sluggish.[2]

Despite a significant drop since last year, commodity prices remain higher than their pre-pandemic levels, impacting food security. The surge in commodity prices after Russia's invasion of Ukraine has largely been unwound on a combination of slowing economic activity, favorable winter weather, and a global reallocation of commodity trade flows. Nonetheless, prices of all major commodity groups and about four fifths of individual commodities remain above their 2015-19 average levels.[3] Fertilizer prices reached an all-time high in real terms in 2022, while the food price index reached its second-highest level in real terms. The

[1] See the World Bank's June 2023 Global Economic Prospect for a detailed analysis pertaining to the global economy.
[2] Constraints to growth in the small states include lack of connectivity, relative remoteness from international markets, lack of scale due to small land areas and populations, fragmentation through the dispersion of population and production, and environmental fragility.
[3] The global reallocation of commodity trade flows refers to significant changes in how commodities are bought and sold worldwide. It happens due to geopolitical events or economic shifts disrupting traditional supply chains and trade relationships among nations.

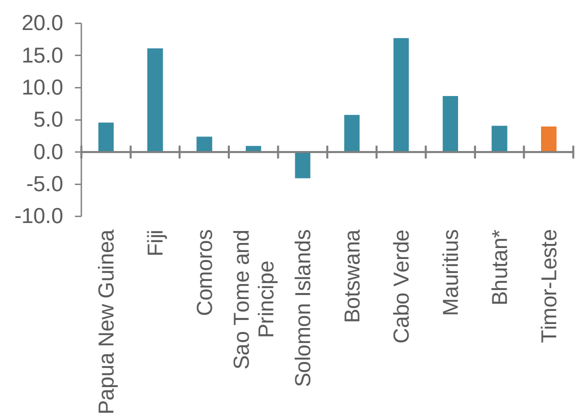
surge has contributed to higher consumer prices across the globe. The World Food Program estimates that 345 million people will face acute food insecurity.[4]

Though Timor-Leste's trade and financial integration are limited, global conditions can significantly influence the country's economy. High international commodity prices, particularly those of food, substantially impact the purchasing power of less affluent households. Given the country's low domestic production capacity, including in agriculture, a significant volume of goods must be imported. Moreover, the performance of the US dollar—which serves as the country's legal tender—against the currencies of Timor-Leste's primary trading partners significantly affects the real effective exchange rates. This, in turn, impacts international competitiveness. Should international stock markets experience a downturn, the Petroleum Fund's investment returns could be adversely impacted.

1.2. Sluggish economic recovery and persisting negative output gap despite high government spending…

Timor-Leste's economy continued its gradual recovery, expanding by 3.9 percent in 2022, in line with its peers countries (Figure 1.1).[5] Growth was fueled by public consumption and public investment (Figure 1.2). The run-up to the 2022 Presidential Election momentarily disrupted government spending, but economic activity was strong following the first full year without COVID-19 restrictions since 2020. The end of the State of Emergency accelerated mobility, boosted domestic demand, and increased foreign arrivals. Public consumption and public investment rose by 8.0 percent and 44.2 percent, respectively.

Figure 1.1: Timor-Leste Continues to Recover, in line with its Peers Countries.
(2022, percent growth)



Source: World Bank Staff Calculation
Note: *Bhutan: 2021

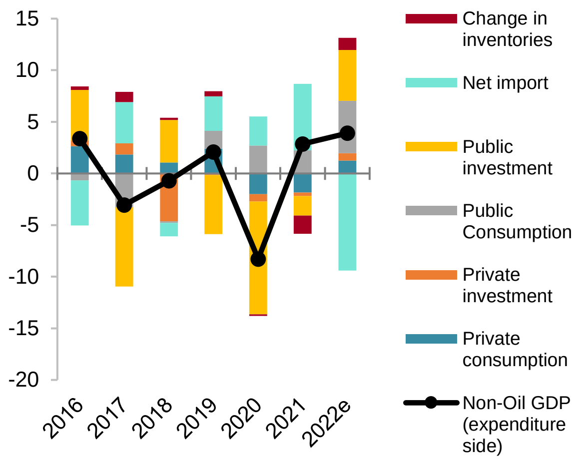
Non-public sector demand, however, has remained sluggish. Though there has been some recovery in private investment, this is reflective of base effects from a prolonged period of declining private investment between 2018 and 2021. Private consumption grew by a modest 1.9 percent in 2022 but has been weak despite the sharp drop during the pandemic in 2020 and 2021, an uptick in remittance inflows in 2022, and various government support programs. Fiscal and quasi fiscal measures in 2022 to boost private consumption included the universal payment of thirteen-month salaries, fuel vouchers, *Cesta Basica* (the Food Basket program) and *Bolsa de Mae* programs, as well as increased funding to EdTL (*Electricidade de Timor-Leste*) to stabilize electricity prices.[6]

Private consumption growth has remained weak due to successive economic shocks. The political stalemate from 2017 to 2020 (See Box 2.1), the COVID-19 pandemic (2020-2021), a natural disaster in 2021, and escalating domestic prices throughout 2022, have dented consumer confidence. Households have curtailed consumption and increased precautionary savings. Notwithstanding the small share of banked population, data from Banco Central de Timor-Leste (BCTL, the Central Bank of Timor-Leste) reveals continued year-on-year growth in demand deposits and savings deposits in 2022 (Figure 1.3).

[4] WFP Global Operational Response Plan (2023). The February 2023 Timor-Leste Acute Food Insecurity Snapshot shows a slight reduction, albeit still relatively high, of total population face high levels of acute food insecurity (IPC Phase 3 or above).
[5] Throughout this report, Timor-Leste is systematically benchmarked against relevant peers to gain insights into areas where reforms could help promote sustained growth. See Annex 2: Peer Selection
[6] Bolsa de Mar targets poor and vulnerable households with children.

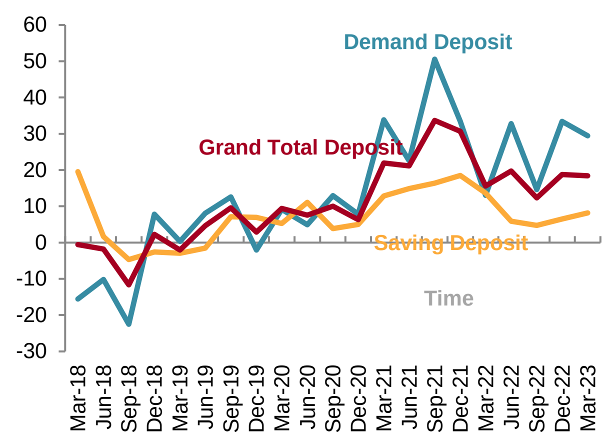
The sluggish recovery has sustained the negative output gap that is closing slowly. Following the shocks of 2020 and 2021, potential GDP in Timor-Leste declined. COVID-related restrictions led to a large negative output gap (Figure 1.4), with actual output falling significantly short of potential. Despite very high public spending in 2021-22, Timor-Leste has not yet closed its output gap. The diminishing returns of government spending on overall growth is indicative of inefficient public spending.[7]

Figure 1.2: Government spending drives recovery, but private demand has been sluggish.
(percentage points of contributions)



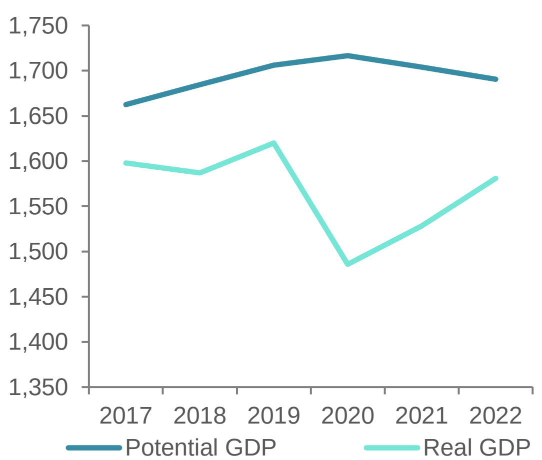
Source: Directorate General of Statistics, Ministry of Finance

Figure 1.3: Growth in consumer deposits may be signalling rising precautionary savings
(end of period percent change, YoY)



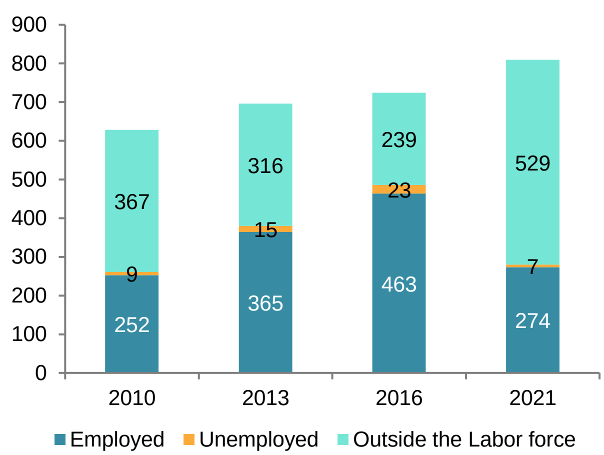
Source: BCTL

Figure 1.4: Economic shocks have led to a decrease in Potential GDP, but output gap persists.
(in million USD)



Source: World Bank staff estimates

Figure 1.5: Lower unemployment in 2021 but larger working age population outside the Labor Force
(working age population by status, (thousand))



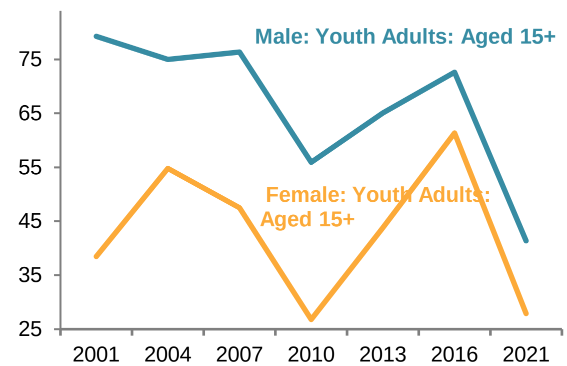
Source: 2021 Timor-Leste Labor Force Survey, ILO

[7] The World Bank's 2021 Public Expenditure Review of Timor-Leste provides an in-depth analysis of the effectiveness of government spending. This includes an evaluation of the fiscal multiplier and various recommendations that the government could implement to enhance the impact of its expenditures.

1.3. … consistent with significant labor market challenges.

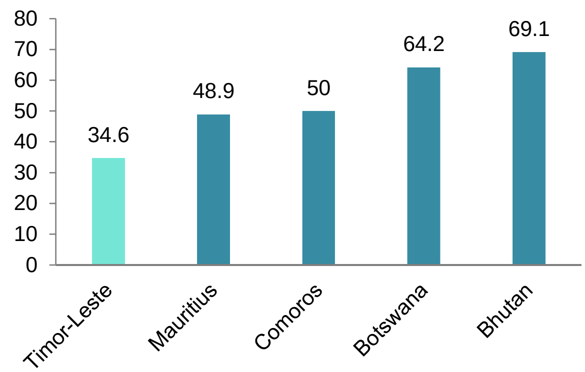
Weak recovery and a negative output gap are consistent with labor market challenges. According to the 2021 Timor-Leste Labor Force Survey (TL-LFS) conducted during the pandemic in 2021,[8] more than half of the Working Age Population (WAP, 15+ years old) was outside the labor force (Figure 1.5) The labor force participation rate dropped from 67 percent in 2016 to 35 percent in 2021.[9] Significant gender disparities also persist, with even fewer women participating in the labor force compared to men (Figure 1.6).

Figure 1.6: Low labor force participation, even more so among women.
(percent)



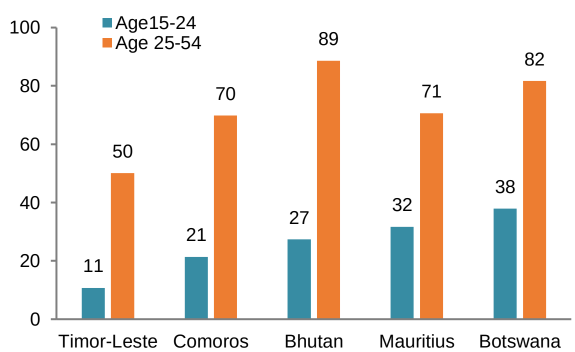
Source: 2021 Timor-Leste Labor Force Survey, ILO

Figure 1.7: Timor-Leste's labor force participation is the lowest among selected small states…
(labor force participation rate 2021, percent)



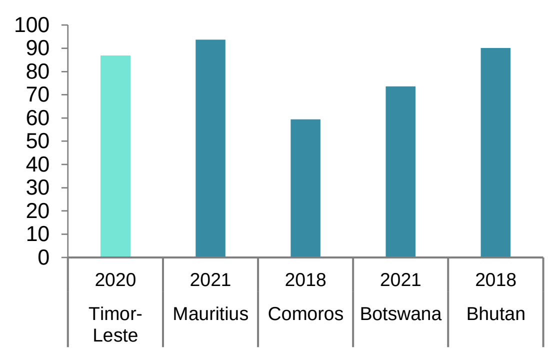
Source: ILO

Figure 1.8: … with consistent gaps across age groups.
(labour force participation rate by age 2021, percent)



Source: ILOSTAT

Figure 1.9: Compared to its peers, Timor-Leste has a higher secondary enrolment ratio…
(secondary school enrolment (gross, percent))

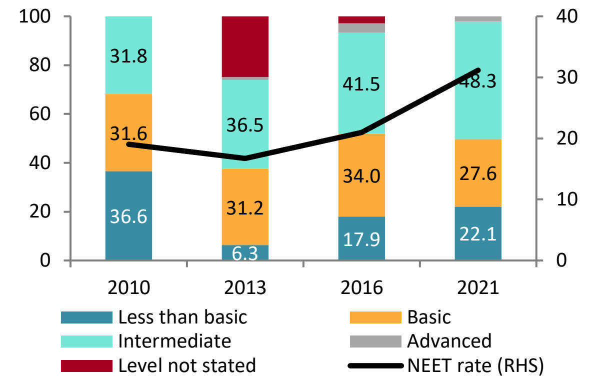


Source: WDI

[8] The 2021 TL-LFS is the third comprehensive standalone Labor Force Survey conducted in Timor-Leste since its independence in 2002, following the first in 2010 and the second in 2013. A smaller-scale labor force study was carried out in 2016 using data from a child labor survey, resulting in findings that may not align directly with those from the full survey years.

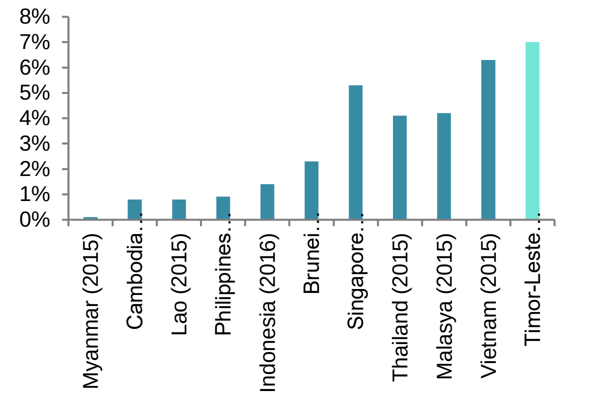
[9] The labor force participation rate indicates the percentage of working-age individuals who are either employed or actively looking for work and available to work. The unemployment rate, on the other hand, measures the percentage of the labor force that is currently jobless but actively seeking employment and available to work. These two figures together provide a holistic understanding of the state of the workforce. The unemployment rate alone could be misleading as it doesn't consider those who've stopped looking for work (the 'discouraged workers'). A low unemployment rate may seem positive, but if paired with a low labor participation rate, it could suggest a high number of discouraged workers who've left the labor market. Similarly, a high labor participation rate indicates a more engaged workforce, which can be beneficial for economic growth. Thus, assessing both figures is vital for a nuanced understanding of labor market dynamics.

Figure 1.10: … but also a high number of youths not in employment, education, or training (NEET).
(percent of total youth NEET)



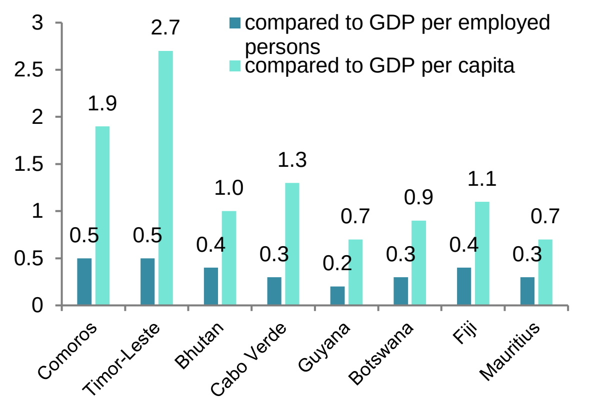
Source: 2021 Timor-Leste Labor Force Survey, ILO

Figure 1.11: Higher social protection expenditure as Percent of (non-oil) GDP in Timor-Leste …
(share social protection spending of GDP)



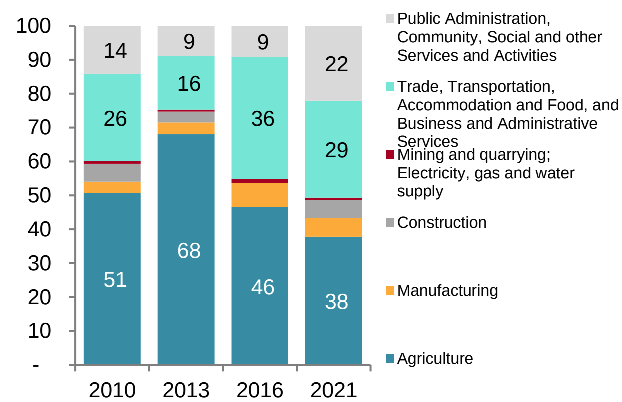
Source: 2021 Timor-Leste Labor Force Survey, ILO; Social Protection Country Reviews and Assessment (Philippines and Indonesia), ILO Report (Brunei), 2019 ADB Report for the remaining countries

Figure 1.12: Average monthly earnings to per capita GDP in Timor-Leste are high.
(percent)



Source: ILOSTAT

Figure 1.13: Employment distributed by economic activity.
(percent)



Source: 2021 Timor-Leste Labor Force Survey, ILO

While the global pandemic severely impacted labor market conditions across all countries, the situation in Timor-Leste stands out. Compared to other small states surveyed during the pandemic, Timor-Leste has the lowest labor force participation rate (Figure 1.7). There is a significant gap of nearly 15 percent between Timor-Leste and Mauritius, which has the second-lowest labor participation rate at 48.9 percent. Furthermore, Timor-Leste consistently ranks at the bottom when comparing labor force participation rates for younger age groups (15-24 and 25-54) in peer countries (Figure 1.8)

Apart from weak growth, sluggish labor demand, and pandemic impacts affecting the demand side, low labor force participation can likely also be attributed to structural factors on the supply side. For example, low labor force participation among the youth could in part be due to the sharp rise in the secondary school enrollment ratio in Timor-Leste in recent years (Figure 1.9). However, this is a partial explanation at best since there has also been a steady increase in the number of youths who are not engaged in employment, education, or training (NEET) (Figure 1.10). The high levels of NEET youth suggest that many young people may be discouraged from studying or working, or they may lack access to education, employment, or training opportunities.

Factors such as a potentially high reservation wage and household responsibilities in Timor-Leste might have also partly contributed to the low labor force participation rate.[10] Albeit mainly accounts for the allocations toward the pensions for veterans, Timor-Leste has one of the highest rates of social protection expenditure among developing nations, signaling a potentially high reservation wage (Figure 1.11). The reservation wage could also be associated with the rising remittance flows from abroad[11], further discouraging some members of the working-age population from seeking or accepting employment.[12] Additionally, the country's high fertility rates and the notably lower rate of women's participation in the workforce suggest that personal or familial obligations, like household responsibilities, play a role in the low participation rate. Furthermore, when combined with a government-led economy and high social spending, this lower labor force participation leads to an economy where average monthly earnings relative to per capita GDP are notably high (Figure 1.12).

The 2021 Labor Force Survey highlights the growing role of the public sector as one of the main employers. The proportion of public sector employment has increased from 14 percent in 2010 to 22 percent in 2021 (Figure 1.13).[13] This trend aligns with the pattern of government expenditure on wages and salaries, which has consistently risen over the years, along with the expansion of public institutions. These findings may also suggest significant job losses in other sectors. Despite substantial government support for the private sector during the pandemic, the private sector has struggled to retain workers and adapt to new working methods, such as work from-home-arrangements, in response to the pandemic.[14]

These developments are reflective of the challenges and opportunities inherent in the country's population structure. With nearly 40 percent of the population below the age of 15, the youth dependency ratio is relatively high, placing significant pressure on formal and informal safety nets. Over the next 15 years, approximately 480,000 individuals are expected to enter the workforce, a relatively high figure compared to Fiji, Guyana, and Bhutan. Among its peers, only Comoros has a slightly higher share of the population under the age of 15 than Timor-Leste. While this presents a substantial demographic opportunity, it also underscores formidable challenge in terms of the need to create jobs.

1.4. Headline inflation continues to rise and remains broad-based.

Headline inflation in Timor-Leste remained high, primarily driven by food prices and the price of tradable goods. The average year-on-year inflation rate during the first three months of 2023 surged to 9.7 percent, compared to a 6 percent average during the same period in 2022. In comparison to other countries in the region, Timor-Leste stands notably above the Philippines and Indonesia, which recorded inflation rates of 7.6 percent and 5 percent respectively. However, Timor-Leste is at a similar level to other small states like Botswana and Mauritius, where inflation rates reached 9.9 percent and 9.1 percent respectively. The biggest contributor to inflation was an escalation in food prices (Figure 1.14). Alongside this, the price of tradable goods experienced significant increases, in stark contrast to the price of non-tradable goods which remained

[10] The reservation wage is the lowest wage rate at which a worker would be willing to accept a particular type of job. It is the minimum amount that justifies the time, effort, and other potential costs of employment, such as commuting or giving up leisure time. This wage varies from person to person and can be influenced by many factors including a person's skills, previous salary, financial condition, and the current job market.

[11] The forthcoming report from the 2023 Tatoli Perception Surveys indicates a substantial increase in the number of households benefiting from remittances, compared to the results of the previous survey.

[12] Close to 8 percent of those who choose to remain outside the labor force stated that they neither need nor desire to work

[13] Among other comparator countries, Timor-Leste has the second lowest share of public sector employment, surpassing only Bhutan. Meanwhile, Mauritius, Botswana, and Comoros have shares of public employment at 28 percent, 32 percent, and 33 percent respectively.

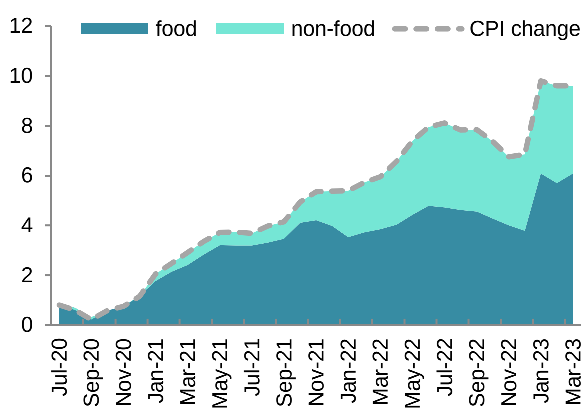
[14] According to the 2021 TL-LFS, the labor force engaged in the "public administration and defense" sector constituted nearly 15 percent of the estimated total of 234,000 workers. This sector ranks as the fourth largest, following "services," "agriculture, forestry, and fisheries," and "wholesale and retail trade".

stable (Figure 1.15). Further analysis (Box 1.1) finds that global energy prices and the Nominal Effective Exchange Rate (NEER) have a positive and significant impact on headline inflation.[15]

The significant increase in the prices of rice, vegetables, oils and fats, sugar, jam, honey, and meat played a major role in driving up headline inflation.[16] The broader range of goods experiencing higher inflation rates points to a wider economic impact. Rice prices increased by an average of 9 percent in Q1 2023 YoY, higher than the average of 5 percent over the same period last year (Figure 1.16). Rice, being the primary staple for most of the population, remains in high demand. Domestic rice production falls short of domestic demand. The country therefore relies heavily on imported rice, which covers approximately 45 percent of the national requirements (FAO Food Security Bulletin, March 2022). Changes in the price of imported rice is closely associated with price fluctuations in the local rice market (Figure 1.17). Meanwhile, a year-over-year increase in the price of cooking oil and other fats has been observed, largely driven by global supply chain issues.

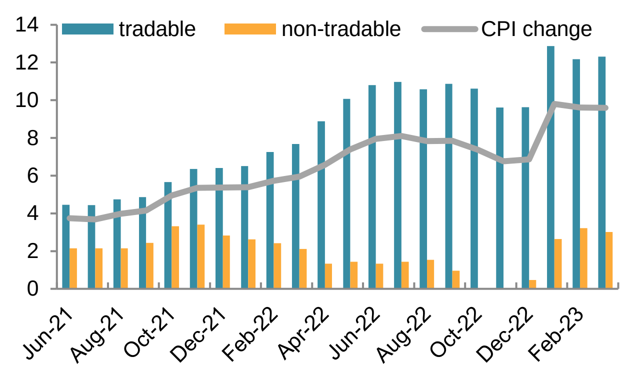
Fuels and lubricants inflation continued to decrease since its peak in July 2022 through the first quarter of this year, while tobacco prices consistently rose (Figure 1.18). This downward trajectory mirrored the average global crude oil prices, which have a direct impact on headline inflation as oil is a crucial component in the production of various goods and is involved in the supply chain of nearly all products. Conversely, electricity prices remained stable and had no impact on headline inflation, thanks to both direct and indirect government subsidies that were passed on to consumers (Figure 1.19). A persistent rise in tobacco product prices was on the other hand noted as the government consistently raised the excise tax on tobacco from USD 19/kg in 2022 to USD 50/kg, and then further to USD 100/kg in January 2023.

Figure 1.14: Headline inflation remained elevated primarily due to food price inflation.
(point contribution and percent, YoY)



Source: DG Statistics, Ministry of Finance

Figure 1.15: Tradable goods' prices continue to rise while non-tradable goods prices are stable.
(percent, YoY)



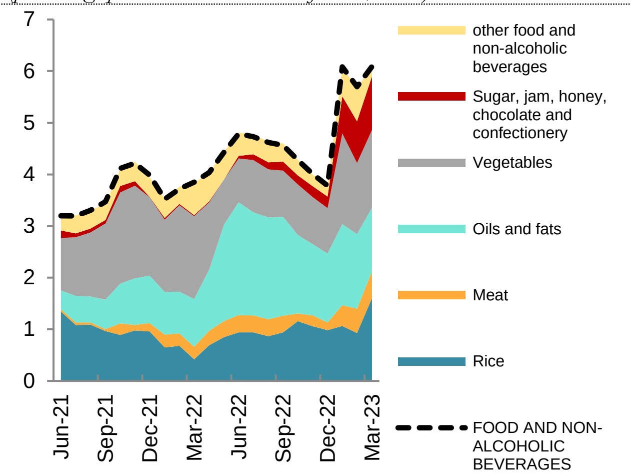
Source: DG Statistics, Ministry of Finance

[15] The Nominal Effective Exchange Rate (NEER) is a weighted average of a country's currency exchange rates with the currencies of its trading partners.

[16] The policy that imposes excise on sugar and sugary beverages may be partly responsible for the significant rise in prices.

Figure 1.16: Rice prices are one of main contributors to food price inflation

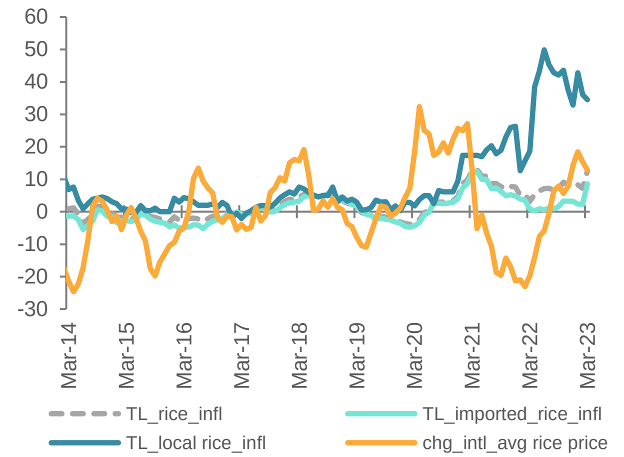
(percentage point contribution to inflation, YoY)



Source: DG Statistics, World Bank staff calculations

Figure 1.17: Domestic rice price changes closely linked to imported rice prices

(percent, YoY)

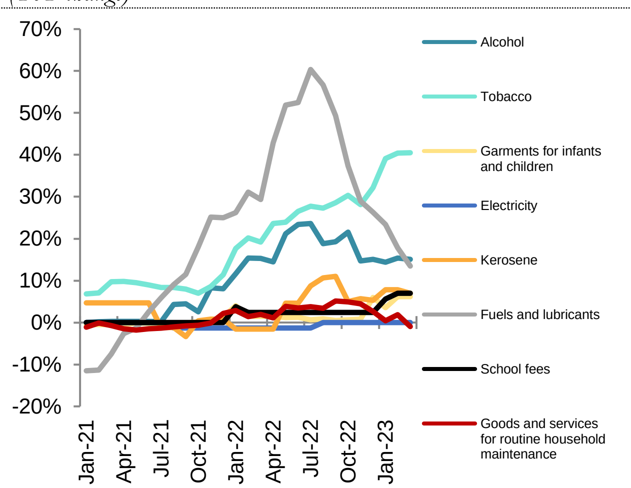


Source: World Bank Commodities Price data (Pink sheet) and DG Statistics Timor-Leste

Note: International rice prices is the average prices of Thai rice 5 percent broken, Thai rice 25 percent broken, Thai rice A.1 100 percent broken, and Vietnam rice 5 percent broken.

Figure 1.18: Persistent upward trend in tobacco prices, whereas fuel prices inflation declined

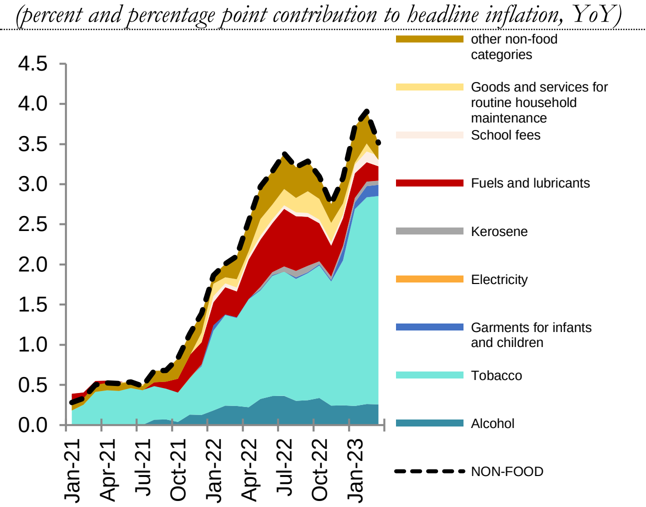
(YoY change)



Source: DG Statistics, Ministry of Finance

Figure 1.19: Amongst non-food inflation, tobacco prices is the largest contributors to the headline inflation

(percent and percentage point contribution to headline inflation, YoY)

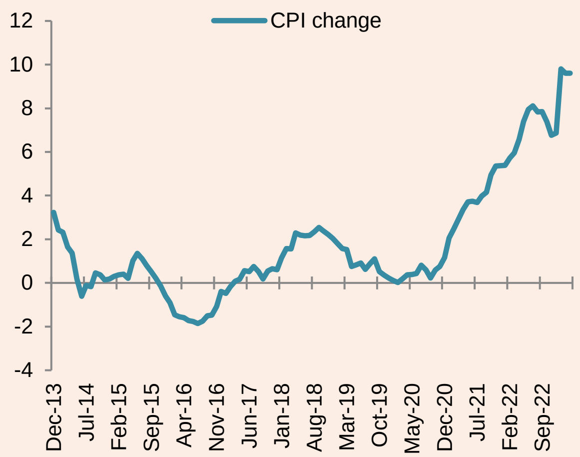


Source: DG Statistics, Ministry of Finance

Box 1.1: Persistent Rise in Timor-Leste's Headline Inflation Linked to Global Energy Prices and Effective Exchange Rate

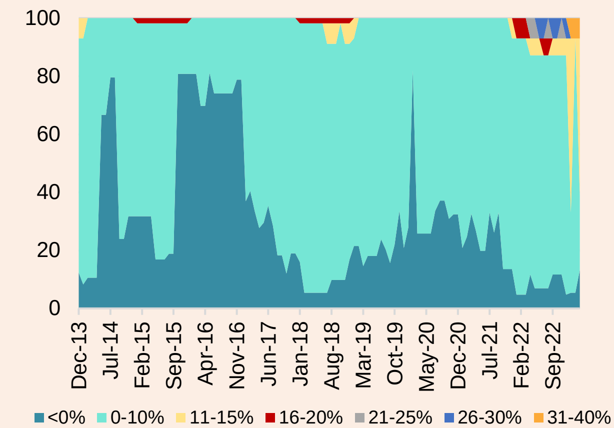
Timor-Leste's headline inflation has continuously risen since September 2020. The average inflation rate stood at 9.7 percent year-on-year in the first quarter of this year, more than double the annual average of 4 percent for the last two years (Figure B.1.1). The rise in headline inflation has been driven by higher inflation across a larger share of the CPI basket (Figure B.1.2). Historically, inflation across the CPI basket has been evenly distributed and low. This changed between January-March 2023 when a larger share of the CPI basket experienced rapidly rising inflation. A higher share of the CPI basket is experiencing double-digit inflation, ranging from 11 to 15 percent and 31 to 40 percent. In particular, the food and non-alcohol beverages as well as alcohol and tobacco prices experienced high inflation.

Figure B.1.1: Inflation has been increasing and remained above its moderate level
(percent)



Source: DG Statistics

Figure B.1.2: Distribution of price component increase
(percent distribution)



Source: DG Statistics, World Bank staff calculations

Inflation can be driven by demand (e.g., increased government spending) or supply pressures (e.g., costs of production, natural disasters). An ordinary least regression (OLS) model is developed to investigate the drivers of inflation in Timor-Leste using 2014 to 2022 monthly data. Among potential drivers, the analysis looked at government expenditure, global food, energy prices and the Nominal Effective Exchange Rate (NEER.). NEER is a measurement that assesses the worth of a nation's currency in comparison to a selection of other currencies. In the specific case of Timor-Leste, which utilizes the US dollar as its official currency, fluctuations in the value of the US dollar against the currencies of Timor-Leste's trading partners will affect the relative prices of goods and services. Evaluating the impact of government expenditure, food and energy prices on inflation is crucial given the economy's reliance on government spending and imported commodities. Food prices were however excluded as they were non-stationary.[17]

The estimation results find that global energy prices and the NEER have a positive and significant impact on headline inflation. The final model 6 (Table B.1) has a good fit, with an R-squared value of 0.56, indicating that 56 percent of the variation in headlined inflation can be explained by the variation in energy prices, and NEER. This suggests that domestic headline inflation is driven by external supply side factors namely energy prices and the NEER, relative to domestic demand factors.

[17] In time series regressions, a non-stationary variable is one whose statistical properties, like mean or variance, change over time. Non-stationary variables can lead to spurious relationships and unreliable model estimates, making them problematic for accurate and meaningful regression analysis.

Table B.1: Changes in energy prices and nominal exchange rate are persistently affecting inflation.

Variables	DLN_CPI											
	(1)		(2)		(3)		(4)		(5)		(6)	
Changes of goods and services spending (nat.log)	-0.002										-0.002	
	(-0.837)										(-.837)	
Changes of salary spending (nat.log)	-0.002		-0.004								-0.002	
	(-0.501)		(-1.126)								(-0.501)	
Changes of transfers spending (nat.log)	0.003		0.003		0.004						0.003	
	(1.256)		(1.591)		(1.707)						(1.256)	
Changes of capital spending (nat.log)	-0.001		-0.004		-0.003		0.002				-0.001	
	(-0.243)		(-0.898)		(-0.788)		(0.898)				(-0.243)	
Changes of global energy prices (nat.log-seasonally adjusted)	0.048	***	0.048	***	0.047	***	0.047	***	0.047	***	0.048	***
	(12.077)		(12.082)		(12.026)		(11.839)		(11.873)		(12.077)	
Changes of NEER (nat.log-seasonally adjusted)	0.213	***	0.213	***	0.207	***	0.213	***	0.213	***	0.213	***
	(6.627)		(6.636)		(6.534)		(6.689)		(6.694)		(6.627)	
C	0.009	***	0.009	***	0.009	***	0.009	***	0.009	***	0.009	***
	(4.894)		(4.986)		(4.909)		(4.935)		(5.045)		(4.894)	
R-squared	0.597		0.594		0.589		0.577		0.574		0.597	
F-statistic	25.148		30.125		37.245		47.817		71.453		25.148	
Included observations	109		109		109		109		109		109	
Sample (adjusted)	2013M12 2022M12		2013M12 2022M12		2013M12 2022M12		2013M12 2022M12		2013M12 2022M12		2013M12 2022M12	

Note: First difference natural log of "X" is calculated by taking the difference between natural log of "X" at month t with natural log of "X" at month t-12 (year on year difference)
Each variable has passed the stationary test. Each variable is tested at 1%, 5% and 10% test of significance level. The symbol "***" indicates that the observed variable is statistically significant at the 1% level. The symbol "**" means that the observed variable is statistically significant at the 5% level, and the sign "*" means that the observed variable is statistically significant at the 10% level.

1.5. Government spending remains significantly above pre-pandemic levels, with an increasing proportion allocated to public transfers.

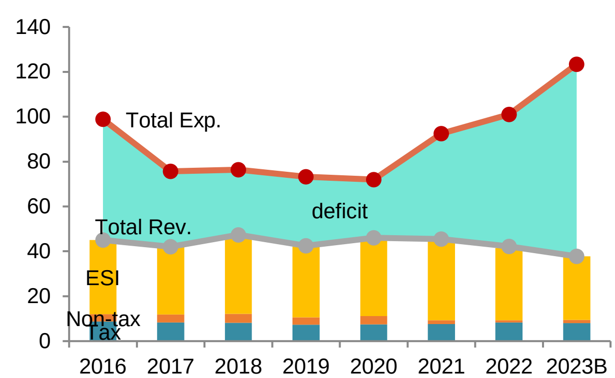
Ensuring fiscal sustainability in Timor-Leste has become more challenging after consecutive economic shocks. Prior to the pandemic, government expenditure averaged around USD 1.3 billion per year between 2013 and 2019, accounting for 82.6 percent of GDP (Figure 1.20). However, sustainable revenue sources were limited to approximately USD 781 million, resulting in a persistent fiscal deficit of USD 510 million, close to 32 percent of GDP).[18] In 2020 and 2021, the fiscal gap expanded significantly due to increased government spending to address the impacts of both Tropical Cyclone Seroja and the COVID-19 pandemic. Government budget rose by 1 percent and 36 percent in 2020 and 2021 respectively.[19] Moreover, the adverse impact of the pandemic on revenue streams, combined with the government's decision to exclude utility revenues from the State Revenue, led to a significant increase in the fiscal deficit, reaching 25.9 percent and 47 percent of GDP in 2020 and 2021 respectively.[20]

[18] Sustainable sources of revenue include the Estimated Sustainable Income (ESI) from Petroleum Fund withdrawals, as well as various domestic revenue generated through tax and non-tax sources. However, it's important to note that domestic revenues are closely connected to government spending, such as companies that receive government contracts and households that receive public transfers.
[19] The realized expenditure in 2020 decreased by 8 percent compared to 2019 due to a combination of factors, including the duodecimal regime, political uncertainty, the COVID-19 pandemic, and the restrictive measures implemented to control the spread of the virus within the country. These measures significantly restricted the execution of the Government budget.
[20] The Government non-tax revenue contracted significantly by more than half in 2021 due to the exclusion of fees and charges receipt from EDTL (*Electricidade de Timor-Leste*) and BEE TL (Water and Santition Company) as they become State Own Enterprises.

Although the impact of the pandemic has receded, the risk factors for sustainable budget spending are increasing. Initial budget projections for 2022 set government spending at USD 1.9 billion (113 percent of GDP), but this was later raised through a budget rectification in May 2022. The pressure to increase expenditure arose due to rising commodity prices, resulting in a subsidy exceeding USD 90 million to the EdTL (5.2 percent of GDP or 4.6 percent of 2022 budget). The budget rectification had also proposed the establishment of a Veteran Fund, using USD 1 billion from the Petroleum Fund balance. However, this policy was later ruled unconstitutional by the Court of Appeal.

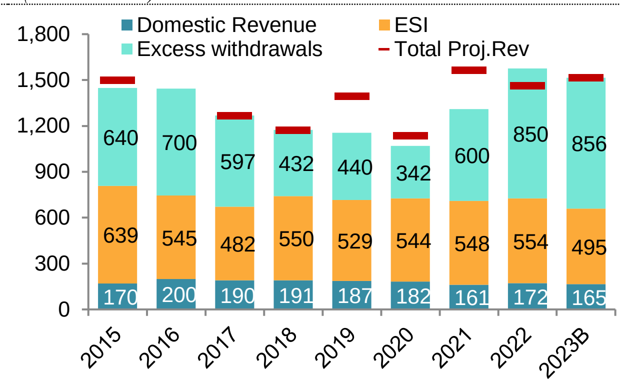
Efforts to enhance revenue generation have been slow-moving, yielding only modest results. In recent years, strategies to augment revenue have encompassed adjusting taxes on alcohol and tobacco, escalating import tariffs, and more recently, instituting excise taxes on sugar and sugary beverages (SSBs) (see Box 1.2). These initiatives, although praiseworthy, have had a minimal overall impact on total revenues. In 2022, of the total revenue collected, close to 35 percent and 50 percent were derived from Estimated Sustainable Income (ESI) and extra withdrawals from the Petroleum Fund.[21] The expected supplementary revenue from the new excise taxes on SSBs is projected to be in the range of USD 7 – 10 million annually. This could represent 4.1-5.8 percent of the domestic revenue if the revenues from the Petroleum Fund are set aside. However, when compared to the total expenditure, this sum amounts to less than 1.0 percent, emphasizing the need for more effective strategies to boost domestic revenues (Figure 1.21).

Figure 1.20: Continuous upward trend in spending despite the cessation of the pandemic.
(As percent of non-oil GDP)



Source: Ministry of Finance
Note: 2022 GDP nominal non-oil is estimated figure. 2023B means 2023 budget with World Bank projected GDP number.

Figure 1.21: The domestic revenue remains below the pre-pandemic level.
(USD million)



Source: Ministry of Finance
Domestic revenue is calculated by the sum of tax, non-tax revenue, and other revenues.
Total projected revenue refers to Government projected revenue presented in budget document
2023B refers to budget figures

[21] ESI refers to the estimated long-term income that Timor-Leste can sustainably withdraw and spend from Petroleum Fund without depleting its capital over time. It is calculated based on various factors, including the fund's asset base, expected returns, inflation rates, and the desired timeframe for the fund's sustainability. ESI is set at 3 percent of Timor-Leste's total petroleum wealth to ensure sustainable usage

Box 1.2: Timor-Leste Leverages Excise Taxes on Sugary Goods for Health and Economic Goals

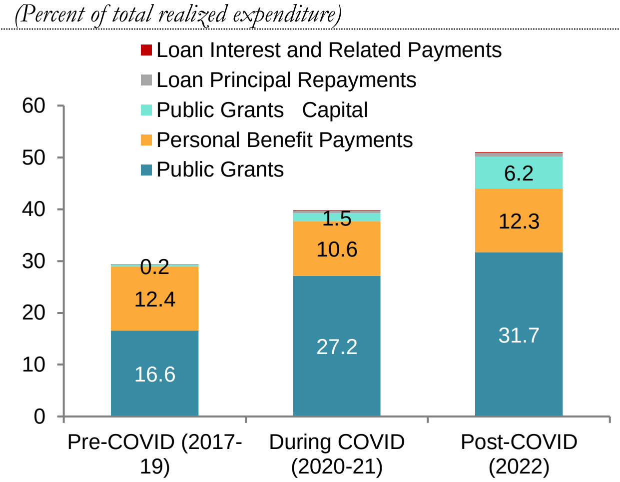
Timor-Leste has recently joined over 100 countries that have implemented excise taxes on SSBs, but there remains room for amplifying the impact of the initiative. The policies, initiated at the beginning of the year, impose a duty of USD 1 per kilogram on sugars and confectionery, and USD 3 per liter on sugary drinks. These regulations intend to mitigate health issues linked to excessive sugar consumption and to elevate government revenue. Despite these measures, there still exist opportunities to further refine these policies through insights from international experiences. Some of the recommendations that the authorities may want to consider include:

- Framing the policies as health interventions is crucial in gaining public and political support. Strong framing and communication strategies are essential to sustain support and create a powerful signal about the health risks involved. It is crucial to make the tax visible to consumers at the point of purchase to maximize its impact.
- Expanding the scope of the tax to include a broader range of sugary foods could enhance both revenue and health benefits. This is because the policies, as currently stand, exclude a wide range of high-sugar foods. Other jurisdictions that incorporate high-sugar food products in their tax regimes include Dominica, Ethiopia, French Polynesia, Hungary, Mexico, and Nauru.
- Inclusive consultations with stakeholders are essential for the smooth implementation of the policy. This involves addressing implementation issues with Customs and Revenue agencies, assessing the potential impact on businesses that produce domestically or source products internationally, and conducting a comprehensive evaluation of the policies' regressivity. If found to be regressive, it is crucial to design measures to mitigate the impact on affected communities.
- It is essential to clearly communicate revenue expectations. Considering the experiences of the UK and South Africa, where similar policies generated consistently lower-than-expected revenues, it is important to avoid overestimating revenue forecasts. Inflated projections could be used by critics to undermine the tax. In fact, there is a paradox where the more successful an SSB tax is at reducing sugar consumption, the lower the revenue it generates.

Amidst the COVID-19 pandemic and its aftermath, there has been a significant increase in public transfers. The proportion of the government realized expenditure to public transfers, including personal benefit transfers and public grants, has increased from 29.3 percent before the pandemic to 39.8 percent during the pandemic, and to 51 percent in 2022 (Figure 1.22). Public transfers were already on the rise before the pandemic, partly due to the implementation of a substantial pension scheme for veterans of the independence struggle. Public grants, on the other hand, has also steadily increased to cover institutional transfer payments, with notable recipients including RAEOA-ZEESM, BCTL, state-owned enterprises (SOEs), sub-national investment programs, churches, and private institutions.[22]

Figure 1.22: Government spending to public transfers continued to increase amidst the cessation of Pandemic

(Percent of total realized expenditure)



Source: Ministry of Finance

[22] The creation of the Special Administrative Region of Oecusse Ambeno (RAEOA) and the Special Zone for Social Market Economy (ZEESM) was authorized by legislation in 2014 and officially established in 2015 to drive the socio-economic development of the region. This legislation granted RAEOA-ZEESM a significant level of autonomy in administrative, financial, and patrimonial matters. However,

The practice of using transfers as an accounting category is causing concern from a public financial management perspective due to possible misclassification and the potential weakening of the impact of public spending on economic growth. Some transfers, such as those given to the entities like RAEOA-ZEESM, might be better defined as capital expenses or wage allocations.[23] Further, public transfers have been expanded to various governmental bodies that had previously obtained allocations through distinct budget appropriations such as wages, goods and services, or capital expenditure. Although transfers serve multiple purposes, there is a concern that they are being used as substitutes for other accounting categories that might require stricter procedural constraints. Without solid justification, an increased budget allocation for transfers may result in a bloated, less efficient budget with a potentially diminished impact of government spending.[24]

Financial support for State-Owned Enterprises (SOEs) has noticeably increased over the past six years, imposing a substantial strain on the national budget. This support, encompassing provisions for the EDTL, BTL-EP (*Bee Timor-Leste Empresa Publica*), and Timor-Gap, has grown from 6.1 percent of the budget (equivalent to 4.6 percent of GDP) in 2017, to 9.8 percent of the budget (equivalent to 12.5 percent of GDP) in 2022.[25] The budgetary support peaked in 2021, accounting for 13 percent of the budget (or 17 percent of GDP). This increase is partially attributed to the government's efforts to stabilize electricity prices amid rising commodity costs, particularly during Russia's invasion of Ukraine. Among the three SOEs, the largest portion of the budget, averaging nearly 7.1 percent, has consistently been allocated to support energy sector (see Box 1.3 for more details).

Box 1.3: Perpetual government support has been provided for electricity provision

Significant progress has been made in improving electricity access in the country, but there is still much work to be done to enhance the reliability and quality of power supply. Grid electricity access has increased significantly from only 21 percent of the population in 2003 to approximately close to total of the population in 2020. Despite experiencing outages less frequently than benchmark countries, the effects of these outages in Timor are more significant, leading to a greater percentage of sales losses (Figure B.3.1). The government's electricity access program, along with anticipated industrial growth from projects like the Bacau cement plant, Tibar Bay Port, Pelican Bay Resort, and potential development of Liquefied Natural Gas (LNG) facilities in Tasi Mane, is expected to drive domestic electricity demand.

The high cost of electricity is a significant concern as it affects the competitiveness of businesses. The 2021 World Bank Enterprise Surveys revealed numerous challenges faced by firms in Timor-Leste, with political instability, access to finance, and electricity being the most critical. Timorese firms spend approximately 15.3 percent of their total production costs on electricity, and a higher share for power-intensive sectors like manufacturing. In contrast, firms in comparator countries have lower electricity expenses, highlighting the importance of addressing the overall electrical infrastructure to enhance the competitiveness of the private sector in the global economy (Figure B.3.2).

RAEOA-ZEESM has also received substantial public funding, averaging approximately USD 125 million annually between 2015 and 2019. The majority of the budget has been allocated to capital expenditures, including the improvement of the airport, various road projects, and the construction of a power station.

[23] A more recent instance involves the transfer of the national program for village development to the Ministry of State Administration in 2022.

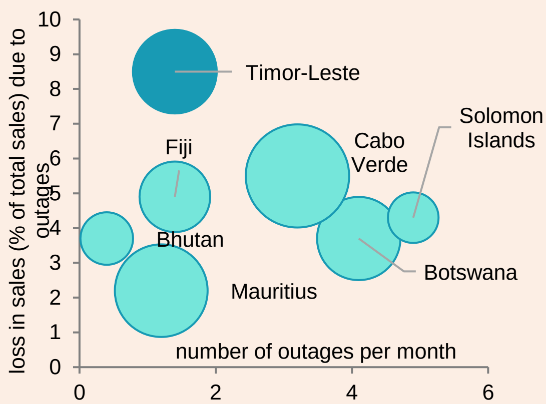
[24] The World Bank's 2021 Public Expenditure Review of Timor-Leste provides an in-depth analysis of the effectiveness of government spending. This includes an evaluation of the fiscal multiplier and various recommendations that the government could implement to enhance the impact of its expenditures.

[25] TIMOR GAP is a state-owned oil & gas firm conducting domestic and international petroleum business, including onshore and offshore exploration and production. It has several subsidiaries for efficient upstream, downstream, and project-specific operations. BTL is a public utility company established in 2020, tasked with efficiently implementing the government's strategy for delivering clean water and improved sanitation services.

The energy sector continues to rely on government support to bridge the financial gap caused by over-capacity, high fuel costs, and operational inefficiencies. The cost of electricity service reached USD 0.42/KWh in 2021, while the average tariff stood at USD 0.19/KWh[26]. A significant portion of the required funding is provided through transfers for EdTL, the electricity utility, primarily for fuel payments. Although power plants in the country are designed to operate with various fuels, they currently rely on diesel, the most expensive and susceptible to theft due to its widespread use in industry and transport. Additionally, there are also cost pressures from over-capacity, with a total capacity of 300MW, 3.5 times greater than the peak load of 80-84 MW. While there are no ongoing capacity charge payments, significant costs are associated with the idle capacity's sunk cost and maintenance. Operational efficiency is also a concern, with collections amounted to only around 40 percent of the energy generated.

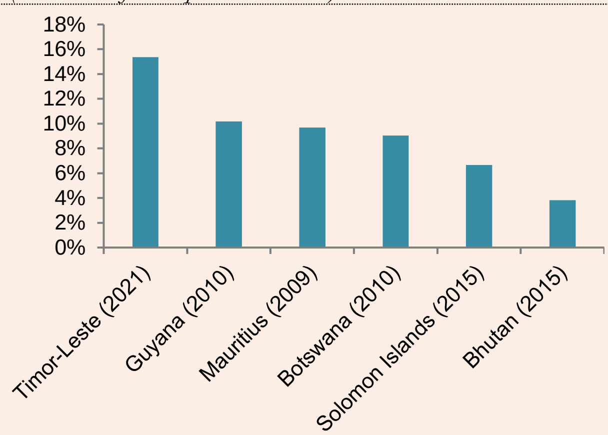
The state of the power sector puts significant strain on the budget. Government allocations for supporting energy sector through public transfers have averaged 5.7 percent of the budget before COVID (2017-2019), 9.4 percent of the budget during COVID (2020-2021) and the peak of Russia's invasion in Ukraine, and 7.8 percent of the budget in the 2022 budget. Despite the challenges, EdTL has consistently enhanced its financial and operational performance. Ongoing reforms in the energy sector are nevertheless crucial for maintaining fiscal sustainability and lowering business costs in the country.

Figure B.3.1: Excessive voltage drops and frequent service outages



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

Figure B.3.2: Electricity costs account for the highest share of total expenses in Timor-Leste
(As share of total production cost)

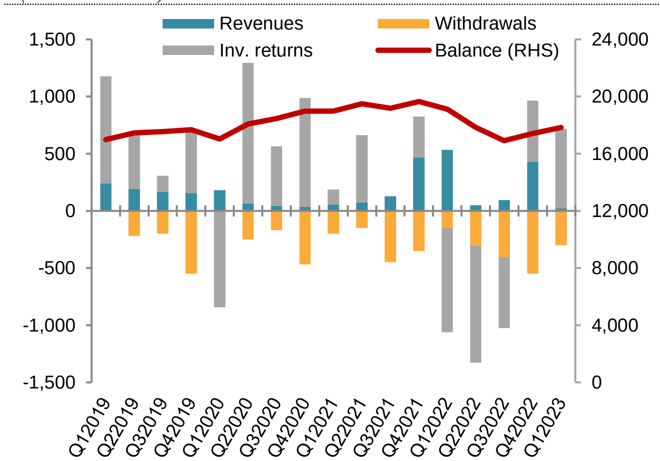


Source: WBES 2022.

[26] Asian Development Bank (2011) Sector Assessment, https://www.adb.org/sites/default/files/linked-documents/49177-002-ssa.pdf

The government is financing its fiscal gap with withdrawals from the rapidly depleting Petroleum Fund. As of the end of Q1 2023, the Petroleum Fund balance was estimated at USD 17.8 billion, equivalent to 10.2 times the non-oil GDP (Figure 1.23). This signifies a drop of 6.8 percent from the previous year. A range of factors, including negative asset revaluation returns, cessation of production from the Bayu-Undan field, substantial over-withdrawals from the set ESI to cover the budget deficit, and a shift towards a larger allocation for the fund's liquidity portfolio have all contributed to this decline.[27] Parliament-approved withdrawals beyond the Estimated Sustainable Income (ESI) are permitted under specific conditions and have been the norm since 2009.[28] While fluctuations in the Petroleum Fund balance are a natural occurrence, the reduction seen at the end of Q1 2023 marks the steepest year-on-year decrease yet. This underscores an imbalance between the fund's revenue and withdrawals and highlights the rapid depletion of the Fund.

Figure 1.23: Petroleum Fund balance has been decreasing due to low revenue and fund withdrawals above its sustainable amounts.
(USD million)



Source: BCTL

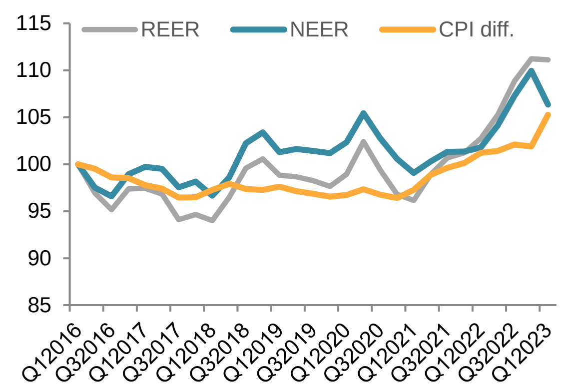
1.6. The strength of the US dollar lessened commodity prices surge, but the ending of oil production intensifies external pressures.

The use of the US dollar as the official currency lessened the impact of rising commodity prices but harmed competitiveness. In the Q1 2023, the REER increased by 8.1 percent (Figure 1.24).[29] Relative to the Indonesian rupiah (IDR) and the Australian dollar (AUD), which are Timor-Leste's key trade partners, the US dollar experienced considerable increase in March 2023 (Figure 1.25).[30] This development may have alleviated the costs of non-US-dollar denominated imports from Indonesia and Australia. However, the overall global increase in prices offset these benefits, resulting in sustained price pressures domestically. The combination of high inflation in Timor-Leste relative to trading partners and the appreciation of the USD has led to a higher REER, further harming the country's external competitiveness. A stronger US dollar could make, for instance, travel experiences in Timor more expensive. The tourism sector, which is a key source of foreign currency through service exports, may accordingly face challenges.

[27] The liquidity portfolio is a low-risk portfolio of cash and low-maturity bonds intended to support anticipated budget withdrawals. As the balance of the Petroleum Fund declines, the relative size of the "lower-risk, lower-return" portfolio will increase as it is replenished regularly from the "growth" portfolio to cover the next years of expected withdrawals. Consequently, the overall return of the Fund will decline as well.
[28] The mechanics of the Petroleum Fund imply that a reduction in the fund's balance diminishes the ESI, necessitating larger withdrawals to fill a given fiscal deficit.
[29] Real Effective Exchange Rate (REER) is an adjustment of the NEER by the ratio of domestic to foreign prices, measured through the Consumer Price Index. REER captures the overall competitiveness of a country. The NEER, on the other hand, showed a year-on-year appreciation of 5.2 percent in March 2023, a faster pace compared to the 1.7 percent appreciation observed in March 2022
[30] The USD appreciated by 8.4 percent compared to the IDR and 9.3 percent against the AUD.

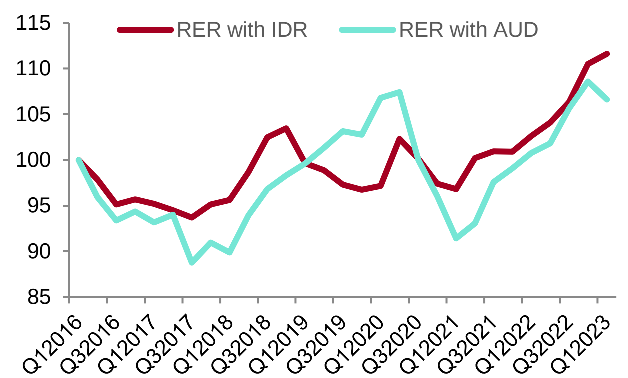
The cessation of oil and gas production in Q1-2023 flipped Timor-Leste's current account from a surplus in 2021 into a deficit in 2022. Timor-Leste's current account balance reflects its small domestic private sector, limited production capacity, and heavy reliance on hydrocarbon and coffee exports.[31] Over the past seven quarters, there's been a consistent current account deficit with the last surplus recorded in Q3 2021 (Figure 1.26).[32] Additionally, apart from one quarter, the primary income has been in deficit since 2020. Although the country saw a significant recovery in 2021, trade growth has moderated since Q1 2022 (Figure 1.27). Since the beginning of 2021, Arabica coffee prices have risen, providing a slight uplift to coffee exports (Figure 1.28). However, exports declined throughout 2022, partly because of an unusual rainy season that reduced production. On the other hand, the country continues to face a persistent trade deficit, largely driven by consistently high import levels and a growing appetite for capital goods necessary for domestic infrastructure development. (Figure 1.29).

Figure 1.24: US dollar appreciated both in nominal and real terms…
(Index, 2016Q1=100)



Source: BCTL
Note: REER: real effective exchange rate which measuring the average of the bilateral RERs between the country and each of its trading partners along with each trade weights.
NEER: Nominal effective exchange rate

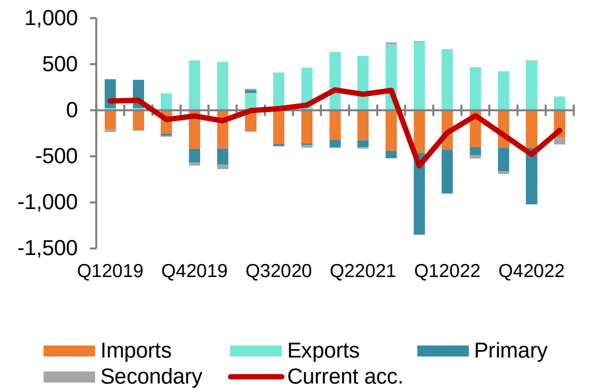
Figure 1.25: … and against the currencies of Timor-Leste's main trading partners.
(Index, 2016Q1=100)



Source: BCTL
Note: RER; real exchange rate indexes (adjusted with relative price of goods) between two countries i.e Timor-Leste with Indonesia or Timor-Leste with Australia

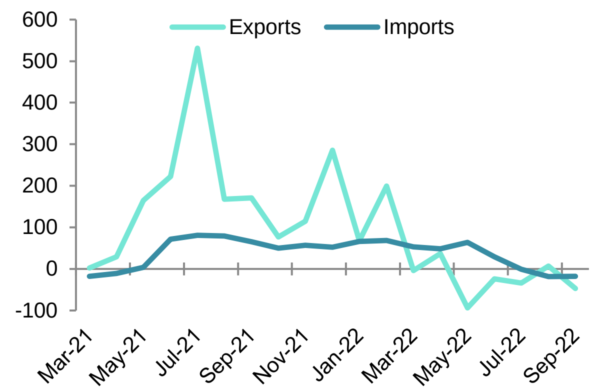
[31] The 2019 maritime boundary agreement necessitated an adjustment on how the oil-related transactions are recorded. Previously, these activities had been considered non-resident transactions, with oil and gas revenues classified as other primary income. However, the recent agreement had redefined these activities as resident transactions, leading to the international sale of oil and gas being recorded as exports. This adjustment had a notable impact on the current account profile. It resulted in a surplus, but as oil production in the Timor Sea declined and eventually stopped in early 2023, the current account shifted into deficit.
[32] The current account consists of the goods and service account, the primary income account and the secondary account.

Figure 1.26: Current account deficit worsened due to deteriorating primary income account.
(USD million)



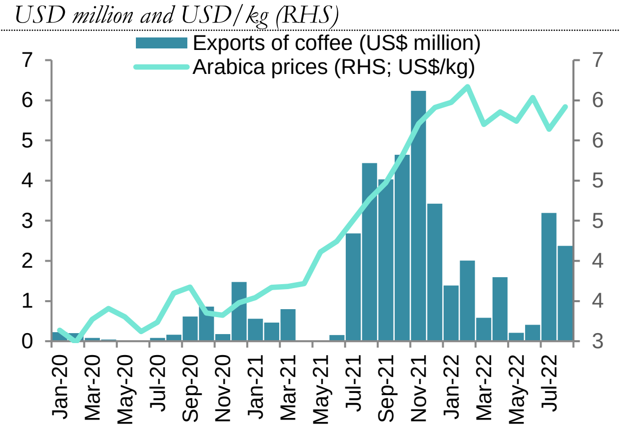
Source: BCTL

Figure 1.27: Trade growth moderated in 2022, after the sharp rebound in 2021
percent change yoy (values), 3-month trailing sum



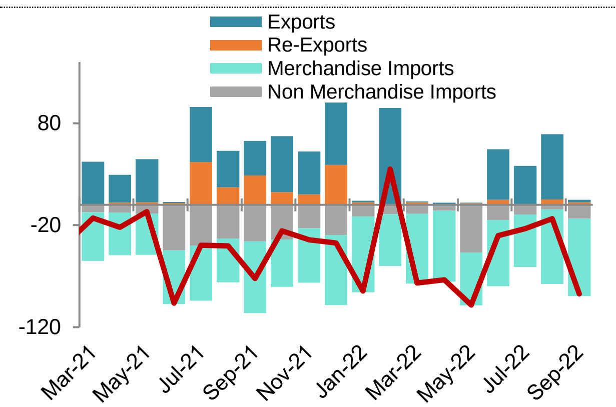
Source: DG-Statistics, Ministry of Finance

Figure 1.28: A pronounced increase in Arabica coffee prices in early 2021 boosted coffee exports
USD million and USD/kg (RHS)



Source: DG-Statistics, Ministry of Finance

Figure 1.29: Persistently high imports have been contributing to a sustained goods trade deficit
USD million

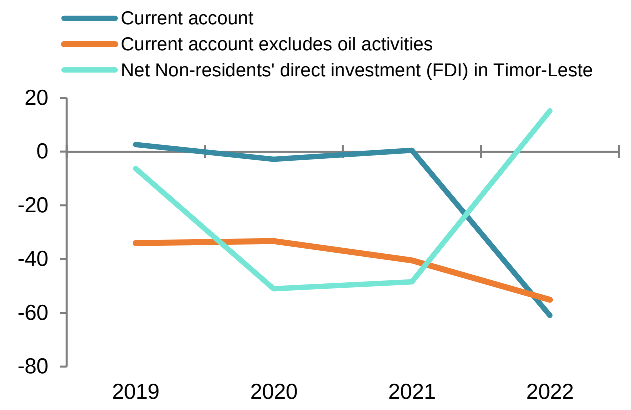


Source: DG-Statistics, Ministry of Finance

The persistent current account deficit in the country has been primarily financed through withdrawals from the Petroleum Fund, as foreign direct investment (FDI) and other portfolio investment are minimal.[33] Surpluses in the current account have only occurred mostly during quarters with high hydrocarbon exports or during the peak of the COVID-19 crisis when imports were significantly reduced. Despite adopting a relatively open approach to FDI, the country has struggled to attract foreign investments. The largest FDI inflow of USD 300 million occurred in 2006, mainly in the oil and gas sectors. However, excluding oil activities, the average current account over the past 5 years has been around USD 600 million, which is nearly twice the size of the largest recorded FDI (Figure 1.30).

Figure 1.30: Current account has been persistently deficit, while FDI was trivial

(Percent of non-oil GDP)



Source: BCTL and World Bank staff calculation

[33] In a balance of payments report, portfolio investment refers to a category that tracks financial transactions and positions involving investments in equity and debt securities issued by foreign entities. This includes investments in stocks, bonds, and money market instruments. However, in the case of Timor-Leste, the portfolio investment category has primarily recorded withdrawals from the Petroleum Funds, as the country's domestic financial system is still in its early stages of development.

2. Outlook and Risks

Having assumed office on July 1 following the May 2023 Parliamentary elections, the 9th Constitutional Government faces the immense task of delivering results across a range of critical sectors. Among other responsibilities, the administration must focus on executing the ASEAN accession roadmap, responding to continual demands for economic diversification, and addressing the urgent requirement to improve human development outcomes. The effectiveness of the government will largely depend on its ability to efficiently utilize its limited budgetary and human resources.

Table 2.1: Economic Forecast
(percent)

	2020	2021	2022	2023f	2024f	2025f
Real non-oil GDP growth	-8.6	2.9	3.9	2.4	3.5	4.3
Private Consumption	-2.5	-2.7	1.8	4.0	4.5	5.8
Government Consumption	4.9	3.5	6.9	2.9	-2.2	-1.2
Gross Fixed Capital Investment	-42.5	-13.0	44.8	-1.2	26.0	20.5
Export, Goods and Services	-51.1	151.9	0.0	10.0	9.0	9.0
Import, Goods and Services	-8.5	-9.1	19.6	2.0	6.0	7.0
Inflation (Consumer Price Index)	0.5	3.8	7.0	5.5	3.3	2.8
Fiscal Balance (percent of non-oil GDP)	-25.6	-47.0	-63.7	-56.1	-53.5	-50.4
Current Account Balance (percent of non-oil GDP)	-19.1	2.8	-17.8	-43.9	-51.7	-56.9

The economy is expected to continue recovering thanks to a pick-up in private consumption demand and more effective public spending. Over the medium term (2023 to 2025), average annual growth is projected to reach 3.4 percent (Table 2.1). Assuming political stability and structural reforms, both private consumption and investment are likely to increase their contributions to economic activity. Further, the government's focus on reducing bottlenecks in infrastructure spending is expected to stimulate growth by improving the execution of various infrastructure projects. Nevertheless, export growth is expected to face limitations, with coffee as the sole principal commodity.

While global food prices have gradually moderated since the Russian invasion of Ukraine, they are projected to remain higher than pre-war levels and persist at elevated levels globally. This is partly due to transportation and processing costs, which remain subject to inflationary pressures. Additionally, recent government policies, enacted in early 2023, have increased import tariffs and excises on alcohol and tobacco. Given the significant weight of food, alcoholic beverages, and tobacco in the Timor-Leste's consumption basket, these factors are expected to continue driving domestic prices. As a result, Consumer Price Inflation (CPI) is projected to hover around 5.5 percent in 2023 before retreating to 3.1 percent between 2024 and 2025.

Given the ending of oil production, the balance of the Petroleum Fund will experience faster depletion and is projected to be entirely depleted by 2034. Over the next five years, total withdrawals are projected to surpass the net return on investment by about 200 percent. Future withdrawals will likely necessitate the sale of the Petroleum Fund's capital assets as investment returns are predicted to fall below historical averages. Without the Petroleum Fund, tax and non-tax collections will become the primary sources of domestic revenue. In the absence of resources to plug the budget deficit, public spending will need to be cut significantly—a situation referred to as the fiscal cliff.

The rapid depletion of the Petroleum Fund poses a threat to macroeconomic stability and the continued use of the US dollar as legal tender. The withdrawals from the Petroleum Fund, which are recorded as portfolio investment inflows in the financial account, have been fundamental in covering the persistent budget and current account deficits. The country's ability to maintain a dollarized economy also heavily relies on the Petroleum Fund, as it ensures a consistent supply of US dollars within the economy. In addition to the risk of a fiscal cliff, the complete depletion of the Petroleum Fund would prevent the country from financing its import expenses, potentially leading to a balance of payment crisis. There is also a domestic risk where individuals and businesses may not have the necessary currency to carry out their daily transactions.

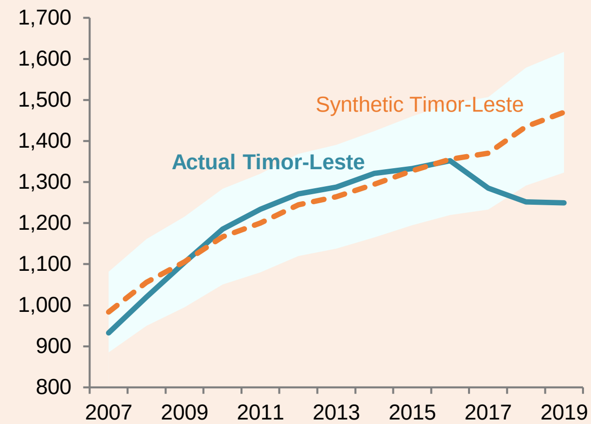
Risks are significant and tilted to the downside. These include political instability, reversal of reforms, natural disasters and persistent high inflation. It is crucial for the 9th Constitutional Government to maintain the consistency of high-level policies and reforms particularly in areas such as fiscal sustainability, public financial management, and the diversification agenda. In the 2021 Enterprise Surveys, political instability was identified as the primary concern for business actors. Without the political gridlock and budget approval delays that plagued the country from 2017 to 2020, Timor-Leste's income per capita might have been higher by USD 300 to USD 500 annually (see Box 2.1). Further, ongoing geopolitical tensions pose additional risks through more prolonged and/or heightened high oil and food price inflation. Persistent high inflation in advanced economies could tighten global financial conditions that could adversely impact the Petroleum Fund balance.

Box 2.1: The Economic Costs of Political Instability

Between 2017 and 2020, Timor-Leste grappled with recurring periods of political instability. The dissolution of the Government and Parliament, premature elections, and delayed annual budget approvals all severely dented consumer and business confidence. The lack of a government budget for almost eight months in 2018 and nearly nine months in 2020 necessitated the implementation of duodecimal regimes. These regimes permitted monthly appropriations equal to 1/12th of the prior year's budget. The financial crisis reached a point of such severity in 2018 that two emergency withdrawals from the Petroleum Fund were required to ensure the basic functionality of the state. Given that government spending has been the primary economic catalyst, it was unsurprising that Timor-Leste underwent periods of negative economic growth in 2017, 2018, and 2020.

Figure 2.1: Loss of per capita GDP due to political instability (2017–2019)

(GDP per capita, in 2015 constant USD)



Source: World Bank Staff Estimate

The political instability in 2017 and 2018 resulted in estimated per capita GDP losses ranging from USD 440–540, equivalent to 35.2–43.2 percent of 2019's per capita GDP. These estimates were derived using the synthetic control method (SCM), a statistical approach that assesses the causal impact of an event, such as a shock, conflict, or legislation. The SCM creates a counterfactual (synthetic control) as a weighted average of several control units, with weights assigned to ensure the synthetic control closely follows the actual trend of the outcome variable during the pre-treatment period. The impact is then calculated as the difference between the actual and synthetic control outcomes. The outcome variable in this case is the GDP per capita in USD at 2015 constant prices. Relevant socioeconomic indicators employed as covariates include components of GDP (agriculture, industry, and services sectors) and government consumption, all expressed as a share of GDP, along with life expectancy in years. As illustrated in Figure 2.1, the real GDP per capita losses due to political instability ranged between USD 77–94 in 2017, USD 166–203 in 2018, and USD 199–244 in 2019.

Following the end of oil production in the Timor Sea, fiscal sustainability should take precedence as the primary concern for the incoming 9th Constitutional Government. The newly elected Parliament and incoming government will find it beneficial to institutionalize fiscal consolidation through robust fiscal rules (see Box 2.2). Both revenue mobilization and expenditure rationalization efforts should be maintained. Domestic revenue mobilization could be bolstered by updating the tax procedure code and implementing a value-added tax (VAT). Additionally, strengthening tax administration to enhance compliance should be given priority. Exploring further revenue sources, such as property taxes, and minimizing discretionary tax exemptions are also strategies worth considering. In terms of expenditure rationalization, the goal should be to gradually align government spending with sustainable revenue sources. Given that significant increases in public spending have had a limited impact on Timor-Leste's medium-term economic growth, it is possible for the government to sustain growth levels with a reduced budget.

Achieving the 5 percent economic growth target outlined in the government program is critically dependent on supporting private sector development, promoting human capital, and enhancing competitiveness through structural reforms. Particularly, efforts to improve the productivity of the agriculture sector will be vital (see Chapter 3). Nearly 38 percent of Timor-Leste's labor force is engaged in agriculture. The sector is also responsible for supplying the population's food needs and, although presently modest, contributes to foreign exchange earnings through the export of products such as coffee, cocoa, maize, and vegetables. However, the sector is marked by considerable downside risks, particularly natural disasters and, in the short run weather anomalies like El Niño, which can bring a "relatively dry" rainy season, adversely impacting agricultural productivity. Ultimately, a flourishing agricultural sector holds the potential to stimulate rural development and alleviate poverty.

Box 2.2: Fiscal Consolidation Efforts Require Enhanced Compliance with Fiscal Rules

The incoming 9th constitutional Government is confronted with the pressing task of reinforcing the nation's fiscal discipline. The cessation of oil production has underlined this necessity, as investment returns now represent the sole revenue source for the Petroleum Fund (PF). Moreover, an impending shift towards a lower-risk liquidity portfolio could result in reduced future investment returns. Capitalizing on the public trust and reform momentum sparked by the recent election, it is vital to use this moment for effecting meaningful fiscal reforms.

The fiscal policy of Timor-Leste is steered by two rules that have been inconsistently followed. The first rule mandates that withdrawals from the Petroleum Fund to the budget must align with the Estimated Sustainable Income (ESI). The second rule places a ceiling on the cost of external debt, requiring the government to weigh borrowing costs against the PF's average investment returns.[34] The first fiscal rule has been frequently breached, as authorities and parliament members exploit a loophole, thereby justifying excessive withdrawals under the argument of a frontloading policy. Given the limited progress in economic diversification and the extensive development needs, the rapid depletion of the Petroleum Fund and the escalating budget deficit pose a significant risk to Timor-Leste's fiscal sustainability.

Looking ahead, it's essential to strengthen compliance with the existing fiscal rules and consider introducing additional ones within a Medium-Term Fiscal Framework. The government should consider incorporating expenditure rules to cap certain spending types. Additionally, the introduction of revenue rules, setting domestic revenue thresholds to be reached within specified periods, could lessen the dependence on the PF. Rules aimed at preventing deficits from exceeding predetermined amounts also warrant consideration. To align short-term budget considerations with long-term fiscal objectives, it is recommended that authorities develop a Medium-Term Fiscal Framework (MTFF). This framework could provide a strategic roadmap for achieving the objectives set out in the fiscal rules, while also ensuring compliance.

[34] According to the 2023 Budget Book, the debt-to-GDP ratio is 15.5 percent. The document also states that over the past decade, the Petroleum Fund has averaged a 4.28 percent return, with loans bearing a 1.21 percent average interest rate.

3. Ways to Harvest Prosperity

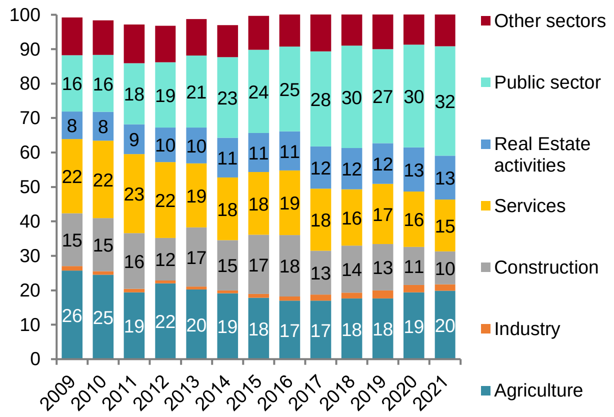
3.1. Introduction.

Investing in agriculture plays a crucial role in fostering an inclusive economy that benefits a significant portion of the population. Agriculture has been consistently the largest share of the economy outside the public sector contributing at the average 23 percent of total non-oil real GDP for more than a decade (Figure 3.1). Additionally, the latest 2021 Labor Force Survey shows that 38 percent of employment is still in the agriculture sector, although much lower than 51 percent in 2010 (Figure 3.2) making it the largest sector of employment in Timor-Leste.

The agriculture sector is marked by low remuneration of farmers and low productivity levels. Estimates presented in Inder et al. (2017) indicate that, based on 2014 data, the average agricultural household in Timor-Leste contributes a mere USD 240 per person of economic value annually. This amount accounts for approximately 40 percent of the Poverty Line, representing an unsustainable level of low returns. The same study also suggested that the situation has not improved significantly since 2014. Furthermore, projections by Nguyen et al. (2017) indicate that even in the 2040s, more than 50 percent of Timor-Leste's population will reside in rural areas, and a large majority of them will rely on agricultural sector for their livelihoods.

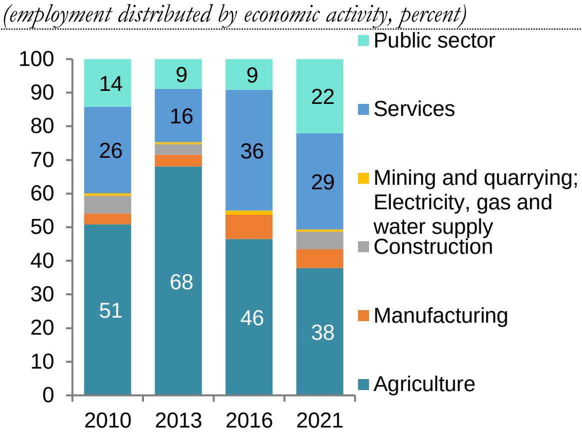
To achieve inclusive economic development and foster broad-based employment creation, it is imperative to invest in agriculture. However, maintaining the status quo in the agricultural sector will not suffice, as the prevailing low productivity levels make it impossible to support adequate livelihoods. Without substantial improvements in productivity, income levels, and commodity mix diversification, many agricultural households will remain trapped in poverty. Therefore, concerted efforts are necessary to enhance agricultural productivity and create sustainable economic opportunities for these households.

Figure 3.1: Agriculture's share in non-oil GDP has been declining
(non-oil GDP constant by sectors, percent)



Source: General Directorate of Statistics
Note: the chart excludes net taxes and statistical discrepancy

Figure 3.2: However, excluding public sector, employment in agriculture is still dominant
(employment distributed by economic activity, percent)



Source: Labor Force Survey, ILOSTAT[35]

3.2. Diagnosing the Challenges.

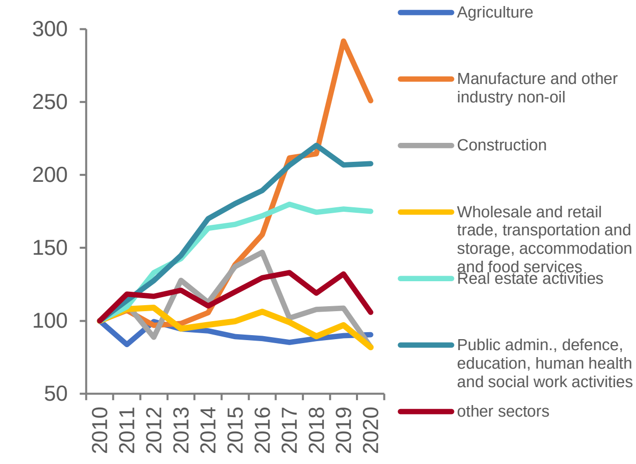
a. Decreasing Trend of Agriculture Production

Timor-Leste faces a scarcity of arable land suitable for agricultural production that hinders agricultural development. The country's mountainous terrain and rugged landscape limit the availability of flat and fertile land, which is essential for cultivating crops. Timor-Leste arable land was at 7.5 percent of total land area in 2020, lower than the average EAP countries at 9.5 percent yet higher than Pacific Island countries at 2.4 percent[36]. The scarcity of arable land poses a significant constraint on expanding agricultural activities and hampers efforts to increase food production and agricultural output.

Water availability is a significant binding constraint for agriculture in Timor-Leste, ranking lower compared to other agriculture-based countries. With limited access to sufficient and reliable water resources, agriculture is primarily dependent on rainfall, which is sparse and getting erratic, and it contributes to the poor performance in the sector. The country's low water availability per capita, seasonal variations in rainfall, and inadequate irrigation coverage pose challenges for crop cultivation. Insufficient water affects crop yields, leading to decreased agricultural output and income for farmers[37]. At 6.5 cubic meters per capita of internal renewable water resources in 2018, Timor-Leste ranks 63 out of 180,[38] which is considerably lower than countries in a similar context, such as Indonesia, Myanmar, and Laos, who for example, have 7.5, 18.7, and 27 cubic meters per capita for the same period, respectively.

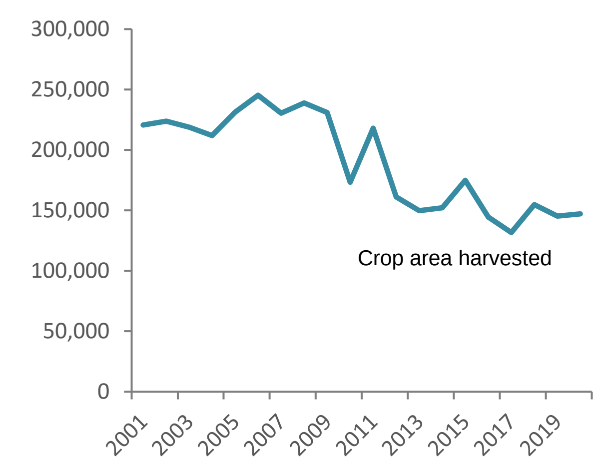
[35] For the purpose of data comparison by years and countries the Labor Force Survey analysis in this chapter will use a broader definition of employment drawn from ILOSTAT which include own-use production work
[36] Source: Word Development Indicators, World Bank based on FAOSTAT data
[37] Agricultural Policy and Strategic Framework (2017) as the revision to the 2004 version; https://www.laohamutuk.org/Agri/2017/AgriculturePolicy4Jul2017en.pdf
[38] Index Mundi: Renewable Internal Freshwater Resources Per Capita. https://www.indexmundi.com/facts/indicators/ER.H2O.INTR.PC/rankings Accessed June 2023.

Figure 3.3: The agriculture value added declined compared to ten years ago.
(GDP by value added index by economic sector, base year 2010)



Source: DG Statistics with World Bank staff calculations

Figure 3.4: Declining trends in cultivated land area for crop
(harvested area, hectares)



Source: FAOSTAT

Agriculture production has been declining substantially over the last decade, in part resulting from a decrease of cultivated land area. The value added of agriculture sector has been declining, lowered by 10 percent between 2010 and 2021. Compared to other sectors, the agriculture sector has been consistently one of the sectors with lower production in ten years (Figure 3.3). In part, this figure could be associated with the decline of harvested area in Timor-Leste. Between the 5-year period of 2001-2005 and the more recent 2016-2020 average, the average harvested area has been significantly reduced by 35 percent (Figure 3.4).

Significant changes in crop area and production in Timor-Leste resulted in notable trends and implications for agricultural outcomes. Rice and Maize are two of the largest cereal commodities in Timor-Leste and over 92 percent of arable crop land in 2010 was devoted to production of these two commodities (Figure 3.5). In a decade, there has been substantial reductions in the areas dedicated to rice, which decreased approximately by 48 percent between 2020 and 2010, and maize, which decreased by nearly 59 percent for the same period (Figure 3.6). In 2021, due to COVID related reverse migration to rural areas, the arable crop land increased substantially (from 29,081 ha in 2020 to 57,666 ha in 2021 for maize and from 18,912 ha in 2020 to 26,791 ha in 2021 for rice) for a single year. However, 2021 might be an exception and the trend of long-term decline of arable crop land poses a serious challenge for agricultural sector in Timor-Leste.

Moreover, the harvested area of coffee also fell sharply in the past ten years. Between 2010 and 2020, coffee, one of the major export crops of Timor-Leste, has witnessed a significant decline of 48 percent in cultivated area to 28 thousand hectares (Figure 3.6). This decline can be attributed to the longer-term falling of international prices which was making coffee production less profitable and leading to many farmers to abandon their coffee gardens. However, the more recent figures (Figure 1.28) show that the coffee prices have been rising lately which could provide incentive for farmers to grow coffee if price remains at high level.

Figure 3.5: More than 90 percent of arable land was planted with rice and maize in 2010
(percent of total arable land, 2010)

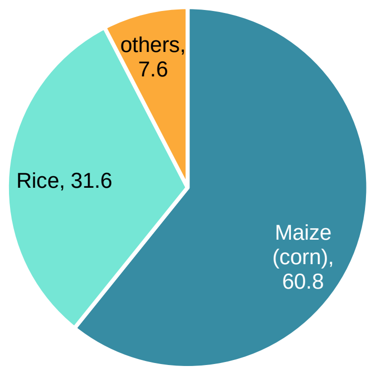
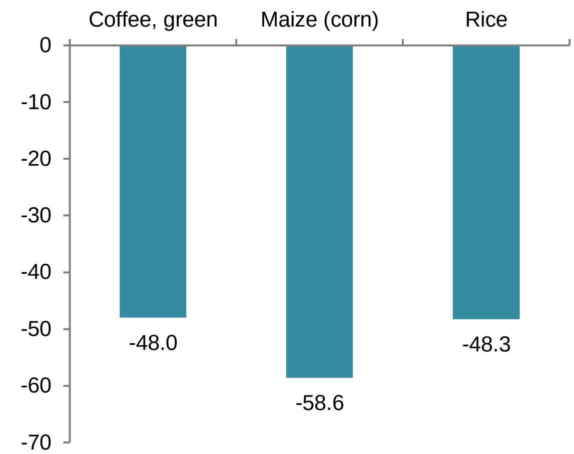


Figure 3.6: cultivated area size of major crops declined sharply
(percent change, 2010 and 2020)



Source: FAOSTAT
Note: in 2020, Timor-Leste was hit by a massive floods and COVID-19 pandemic

b. Labor moves away from agriculture

The recent Labor Force Survey shows that employment in agriculture has been falling. According to the Labor Force Survey Reports in 2013 and 2021, the labor force participation rate in Timor-Leste declined very significantly, to a very low rate of 30.5 percent in 2021 (Chapter 1). [39] Out of total employment, the share of labor working in agriculture sector fell from 41 percent (76.9 thousand people) in 2013 to 27 percent 2021 (63 thousand people). Moreover, for the same period, the working-age population participating in agriculture either as workers or subsistence foodstuff producers[40] fell from 37 percent to 28 percent.[41]

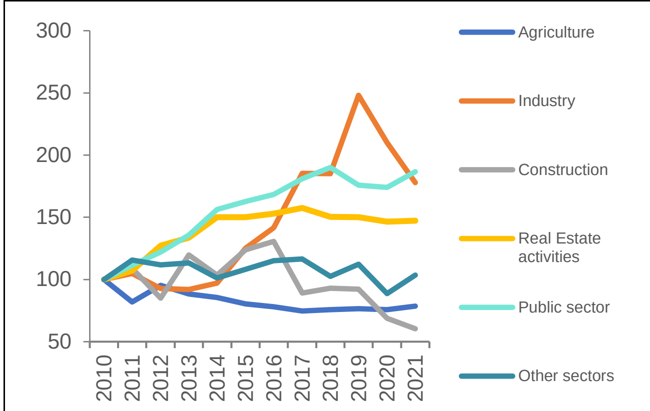
A similar story also emerges from the Census which shows a significant decline in the proportion of people employed in Agriculture, Forestry and Fisheries. Out of the employed people, the employment in the sector fell from 65.3 percent in 2010 to 59.6 percent in 2015. This near 6 percentage points decline in the supply of labor over 5 years is quite substantial. Sustained over 10 or more years, it represents a significant structural change in labor supply. Notably, the decline is greatest among males - in 2010 67.7 percent of agriculture workers were male, and this declined to 61.1 percent by 2015. It is also more rapid among young adults. The decline in supply has been primarily among the most potentially productive agricultural workers.

Moreover, these labor force patterns align with high levels of rural-to-urban migration. The level of migration from rural to urban areas particularly towards Dili, the capital city is still high, predominantly among young people. According to the 2022 census, migration from rural to urban areas, mostly from other municipalities to Dili, accounted for 36.9 percent of total population living in Dili[42] and increased from 30 percent in 2015. Additionally, international out-migration has been on the rise. With fixed technologies and declining labor supply in agriculture, it becomes evident that production will continue to decline, primarily reflected in reductions in the area harvested.

[39] Due to different calculations and assumption, the best comparable years between Timor-Leste's Labor Force Surveys results are only between 2013 and 2021.
[40] Based on 19th International Conference of Labor Statisticians (ICLS), the subsistence foodstuff production consists of subsistence farming, fishing, hunting, and processing food for storage. The Timor-Leste LFS 2021 report also explained that the subsistence foodstuff producers were not considered as the persons who were in employment.
[41] See footnote 9.
[42] This is measured as net internal migration ratio, calculated as the difference between the number of people born in another municipality with the number of people who moved to another municipality and presented as a percentage of the population living in the municipality. Compared to other municipalities, only Dili has a positive net internal migration meaning that a gain of population.

Figure 3. 7 Compared to a decade ago, the agriculture value added per worker was lower.

(value added per worker index by economic sector, base year 2010)



Source: DG Statistics with World Bank Staff calculations

The prevailing evidence strongly suggests that the primary explanation for the significant decline in area under crop production can be attributed to changes in labor supply. The decline of production in most of agriculture crops has turned in the persistently decrease of agriculture productivity. In the past decade, the agriculture value added per worker dropped by 21 percent between 2021 and 2010 (Figure 3. 7). Had there been notable advancements in yield and productivity resulting from enhanced utilization of inputs and tools, it could have averted the decline and potentially stimulated income growth. Such a scenario aligns with the more conventional narrative of the modernization and transition of an economy from an agrarian to a market-based structure. In this narrative, productivity improvements yield higher incomes for farmers, leading to increased demand for non-agricultural goods and services, consequently driving the demand for non-farm labor. Moreover, productivity gains generate surplus labor within the farming sector, prompting workers to seek employment in other occupations. Essentially, productivity improvements create push and pull factors that contribute to the labor mobility away from agriculture. However, this narrative does not accurately reflect the situation in Timor-Leste (Box 3.1).

Box 3. : Factors Contributing to the Decline in Agricultural Labor Supply for Timor-Leste

Government employment and wage disparity drive rural-urban migration. The decline in agricultural labor supply in Timor-Leste can be attributed to several interconnected factors. Firstly, the standard Harris-Todaro model provides insights into the rural-urban migration phenomenon, with a focus on the relatively high expected urban wages. In the case of Timor-Leste, the increase in urban employment is predominantly driven by government jobs. According to Business Activity Survey estimates from 2010 to 2022, there has been minimal growth in private sector employment. However, during the same period, the Government's wages and salaries bill has more than doubled, even after adjusting for inflation. Moreover, the number of individuals on the Government payroll has witnessed a substantial increase of almost 40 percent from 2015 to 2022. This significant growth in government employment has resulted in an elevated expected urban wage, exacerbating the disparity with the stagnant rural return-to-labor. Consequently, this disparity serves as a key driver of rural-urban migration.

Secondly, the availability of international migration opportunities has played a role in the decline of agricultural labor supply. Seasonal worker programs, particularly those offered by popular destinations such as Korea and Australia, have experienced remarkable growth. These programs, which were virtually non-existent in 2012, have rapidly expanded to include more than 5,000 workers per year by 2022. The allure of alternative income sources through international migration has enticed Timorese farmers to seek employment opportunities abroad.

Thirdly, alternative income sources may affect farmers' incentive to improve low-return agricultural activities. The expansion of access to veterans' and other pensions, along with the rapid growth in remittances, may have diminished the incentives for farmers to invest in low-income and low-return agricultural activities. The availability of these alternative income sources may have increased farmers' reservation wage, which represents the minimum return to labor they expect to justify their efforts. Consequently, farmers have reduced their labor supply, which is manifested by reduced acreage under agriculture production.

Major crops in Timor-Leste are providing low returns to agriculture workers. Various studies specific to Timor-Leste have documented evidence from diverse sources, shedding light on yields, productivity, and the daily return to labor associated with farming and selling various crops. These studies, including the Development Partners Compendium (2022), provide valuable insights into potential areas for productivity improvements. The analysis reveals that the returns to labor for major crops such as rice, maize, and coffee are exceedingly low when traditional production methods and seed varieties are employed. For instance, the returns can be as low as USD 3.20 per day for rice and USD 7.40 per day for coffee. Notably, these crops have experienced significant production declines over the past decade. Conversely, the relatively robust growth in vegetable production during the same period corresponds to comparatively high returns to labor, exceeding USD 20 per day in some cases.

The labor scarcity could be the main constraints for agricultural production in the future. Additionally, the declining trend in the use of arable land suggests that land availability is not the primary constraint for the foreseeable future. Instead, the scarcity of labor, driven by the low returns to labor, becomes the binding constraint. To address this issue, future investments in agriculture should prioritize enhancing farmer incomes through engagement in high value commodities and productivity improvements. By increasing the returns to labor, it will be possible to resolve the labor shortage problem and achieve a significant increase in farmer incomes, thereby enhancing the overall contribution of agriculture to economic growth.

Furthermore, it is essential to carefully select sub-sectors and commodities to support, ensuring that they offer adequate returns to labor above the reservation wage. Failure to do so will result in labor supply constraints hindering production growth. Therefore, a strategic approach is necessary to identify commodities and associated technologies that guarantee favorable returns to labor, thereby stimulating production and mitigating the labor constraint.

3.3. Unleashing the Potential: The Significance of Agricultural Development.

a. Rising per Capita Food Imports and Closing Gap with SIEs

Over the past decade, Timor-Leste has experienced a significant surge in per capita food imports. Timor-Leste's import value per capita more than tripled from USD 63 in 2013 to USD 191 in 2022 (Table 3.1). A striking observation is the narrowing gap between Timor-Leste and other Small Island Economies (SIEs) in terms of per capita food imports. In 2013, Timor-Leste's per capita food imports were nearly 10 times smaller compared to other SIEs (USD 688 vs. USD 63 per capita). However, by 2022, this ratio reduced to approximately four times smaller (USD 720 vs. USD 191 per capita).

Table 3.1: Per Capita Food Import Value

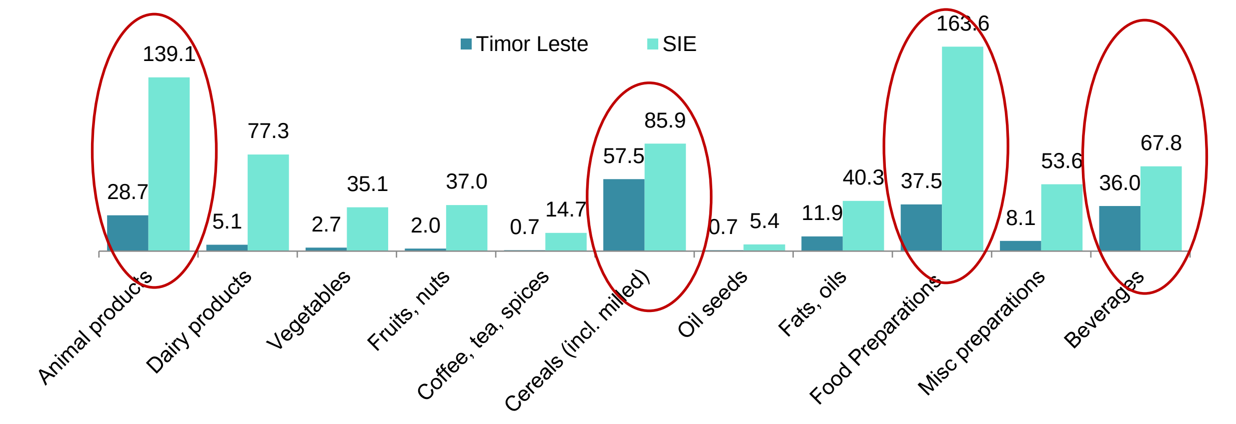
(USD per capita)

	Timor-Leste	Small island economies	Differences
2013	63	688	625
2014	-	714	
2015	-	642	
2016	-	641	
2017	131	687	556
2018	120	702	582
2019	112	672	560
2020	117	627	510
2021	133	791	658
2022	191	720	529

Source: World Bank Staff Calculation

By food groups, cereals, food preparation, beverages, and animal products are the top four of Timor-Leste food import values, the same pattern as with other SIEs. Analyzing food imports by group and value reveals noticeable disparities between Timor-Leste and other SIEs. Overall, the values for all food groups in other SIEs surpass those of Timor-Leste (Figure 3.7). In Timor-Leste, the food groups with higher import values per capita include cereals (USD 57.5), food preparations (USD 37.5), beverages (USD 36), and animal products (USD 28.7).

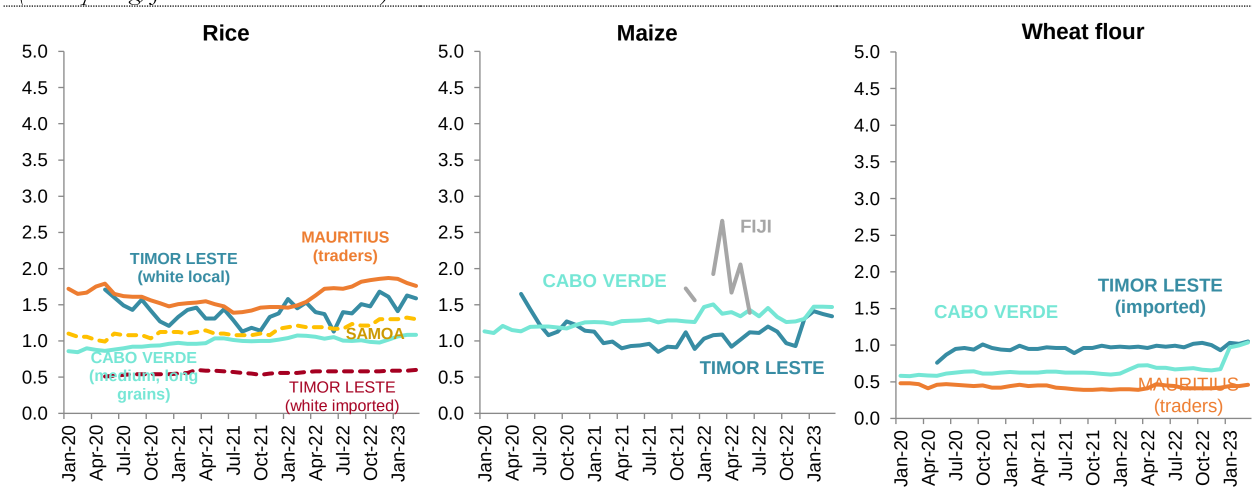
Figure 3.8: Disparities in Food Import Values: Group
(2022, breakdown per food group, USD per capita)



Source: World Bank Staff Calculation

Cereal imports have been increasing with big price disparity. Further analysis on food trade and prices reveals significant trends. Between 2017 and 2021, cereal imports in Timor-Leste have experienced a notable annual growth rate of nearly 13 percent. Additionally, since 2020, imported rice has been priced at a significantly lower range of 2-3.5 times cheaper than locally produced rice (Figure 3.8). Moreover in 2010, farmers in Timor-Leste provided nearly 104 kg of paddy rice per capita, while in 2020 they barely reach 55 kg per capita. Larger cereal imports and imported rice which is cheaper than local rice is making Timor-Leste increasingly more dependent on imported cereals to meet the domestic demand.

Figure 3.9: Food Prices have been relatively stable compared to peers, including cereals and milled grains
(USD per kg, Jan 2020 – March 2023)



Source: FAO/FPMA. Note: Unless otherwise indicated traders, wholesale), all prices are retail-level.

b. Food security status of Timor-Leste remains weak

Despite improvements in recent years, compared with other SIEs, the status of food security in Timor-Leste remains weak. Some indicators still show significant challenges in undernourishment and stunting.

Timor-Leste continues to face a high prevalence of undernourishment. The undernourishment rate was at 26.2 percent in 2019-21 (Figure 3.9). This figure is not only concerning but also higher compared to other SIEs. The persistently high levels of undernourishment highlight the need for targeted interventions and strategies to improve access to nutritious food and address the underlying causes of food insecurity.

Stunting rate in under-5 children is considerably high. The prevalence of stunting as the indicator of child malnutrition among children under the age of five was alarmingly high at 48.8 percent in 2020 (Figure 3.10). This figure ranks Timor-Leste with the highest prevalence of stunting among SIEs and considerably high as per WHO cut-off values for public health significance. The long-term consequences of stunting on children's physical and cognitive development emphasize the urgency of implementing comprehensive nutrition programs and promoting adequate infant and young child feeding practices.

Figure 3.10: Prevalence of Undernourishment …
(prevalence of undernourishment, 2009-11 to 2019-21, 3-year average, percent)

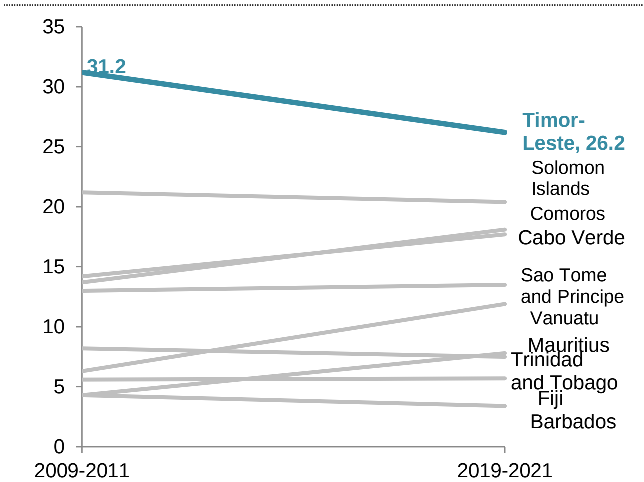
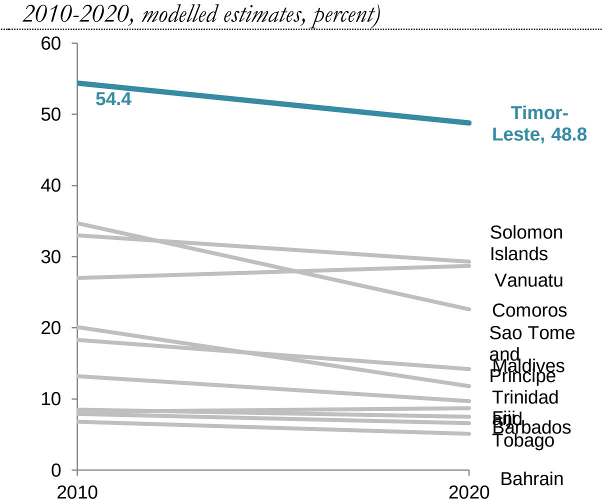


Figure 3.11: …and stunting among Children under 5 Years remain high
(percentage of children under 5 years of age who are stunted 2010-2020, modelled estimates, percent)



Source: FAOSTAT

Despite the challenging food security situation, Timor-Leste has made significant progress in reducing undernourishment and stunting over the past decade. Recent acute Integrated Food Security Phase Classification (IPC)[43] suggested that 22 percent of population experiencing acute food insecurity in 2022, considered as a high level of food insecurity.[44] On the other hand, other indicators show some positive development. The prevalence of undernourishment has declined from 31.2 percent to 26.2 percent, indicating an encouraging trend towards improving access to food and addressing malnutrition. Similarly, the prevalence of stunting has also shown a notable reduction from 54.4 percent to 48.8 percent (Figure 3.10). These achievements demonstrate the potential for further advancements through sustained efforts and targeted interventions to ensure better nutrition outcomes for the population.

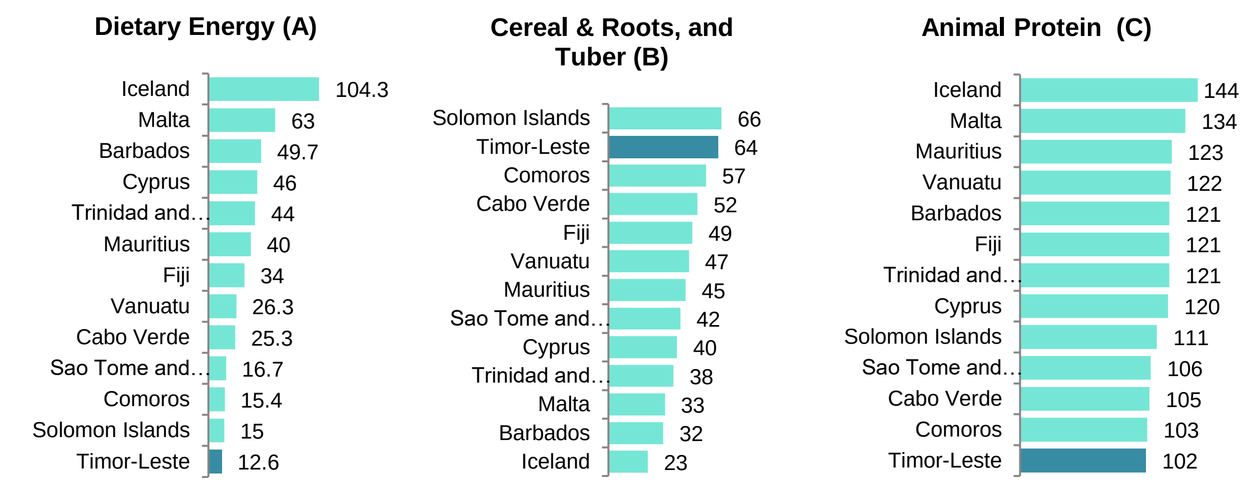
[43] The Integrated Food Security Phase Classification (IPC) is an innovative multi-partner initiative for improving food security and nutrition analysis and decision-making. By using the IPC classification and analytical approach, Governments, UN Agencies, NGOs, civil society and other relevant actors, work together to determine the severity and magnitude of acute and chronic food insecurity, and acute malnutrition situations in a country, according to internationally recognised scientific standards.
[44] Timor-Leste Annual Country Report 2022: Country Strategic Plan 2018-2022, WFP

The significant imbalance in dietary supply is also highlighted in Timor-Leste. This dietary imbalance is characterized by a heavy reliance on cereals and a low consumption of animal-sourced foods (Figure 3.11). The findings shed light on the dietary adequacy and prevailing sources of nutrients across small island economies (SIEs), particularly in Timor-Leste.

When examining the ranking of dietary energy supply among SIEs, Timor-Leste stands at the lowest position (Figure 3.11.A). This indicates that, compared to other countries in the same category, the available food supply in Timor-Leste is the least adequate to meet the dietary needs of the population. This suggests a pressing need for interventions and strategies to improve the availability and accessibility of a diverse range of nutritious foods in Timor-Leste.

Nutrient source disparities, with cereal dominance and limited animal protein intake is seen in Timor-Leste. Furthermore, the data reveals notable differences in the sources of nutrients between Timor-Leste and other SIEs. In terms of nutrients provided from cereals, roots, and tubers, Timor-Leste ranks among the top SIEs (Figure 3.11.B). However, in terms of proteins of animal origin, Timor-Leste is positioned at the bottom of the ranking (Figure 3.11.C). This indicates a limited consumption of animal-sourced foods, which are important sources of essential nutrients such as protein.

Figure 3.12: There is a significant imbalance in dietary supply in Timor-Leste with relied heavily on cereals but very low on animal-sourced foods.
(dietary supply comparison ranking)



Source: FAOSTAT. Note: Average dietary energy supply adequacy: percent, 3-year average, 2019-2021. Share of dietary energy supply derived from cereals, roots and tubers: kcal/cap/day, 3-year average, 2017-2019. Average supply of protein of animal origin: g/cap/day, 3-year average, 2017-2019.

3.4. Policy Recommendation

Importance of Developing the Agricultural Sector in Timor-Leste.
To achieve inclusive economic development, support food security, and foster broad-based employment creation, it is imperative to prioritize investment in agriculture. By prioritizing investments that promote improved farmer's income, improve productivity, and invest in value-added agricultural products, Timor-Leste can work towards enhancing food security, and boosting economic resilience.

Improving farmer incomes as the priority focus, especially through making small-scale agriculture sector more productive and remunerative.
The core reason for the decline in agriculture is the low incomes received by farmers, compared to alternative incomes in Dili or as overseas workers. The only way to reverse this trend is by improving farmer incomes through improved productivity. The improvements in incomes come from a change in the mix of commodities, along with productivity gains produced by improved use of inputs and technologies.

Reduce growing mismatch between demand and domestic supply in key food categories.
It will be useful to reverse, if possible, the trend towards greater import dependency, especially regarding high value and nutrient dense food.

Moving from Cereals to High Value Commodities.
The obvious trends in commodity mix over recent years are away from cereals and towards selected animal production, vitamin-rich vegetables, fruits, and legumes. These all offer higher incomes/return to labor, as well as delivering greater nutritional benefits. However, production of most of these commodities is still low and growing slowly, a cause of undernutrition and over-reliance on imported foods. Policies can be put in place to support this shift in the commodity mix.

Emphasizing Productivity improvements.
As noted, there has been minimal improvement in yields for most crops over the past 10 years. However, there are exceptions, with some farmers discovering sizeable productivity gains through improved seed varieties, adopting low-cost technologies, use of inputs including fertilizer and herbicides, use of better storage, and other innovations. These gains can be shared more widely by investing in targeted extension services, policies and programs that improve the supply of inputs and address farmer credit constraints and risk aversion.

Support development of food processing, especially through MSMEs where possible.
This will increase agriculture value-addition in the post-production phase, generate more stable and remunerative jobs in the agri-food sector as well as serve the growing domestic demand which is currently met through rising imports.

Annex 1: Key Indicators

Annex Table 1: Economic Indicators

	2016	2017	2018	2019	2020	2021	2022
Real sector	*(annual percentage change, constant)*						
Gross domestic product (non-oil)	3.4	-3.1	-0.7	2.1	-8.3	2.9	3.9
Final consumption expenditure	1.7	-1.2	0.8	3.5	0.6	0.3	4.9
Gross fixed capital formation	15.3	-16.7	-1.5	-17.4	-42.5	-13	38.8
Consumer price index, period average	-1.5	0.5	2.3	0.9	0.5	3.8	7
Fiscal sector	*(percentage of non-oil GDP)*						
Total Revenue	45	42	47	43	46	45	42
Domestic revenue	12	12	12	12	11	10	10
Estimated Sustainable Income	33	30	35	31	34	35	32
Total expenditure	99	75	75	73	71	92	101
Recurrent expenditure	62	59	51	54	61	84	89
Capital expenditure	36	16	24	18	10	9	12
Fiscal balance	-54	-33	-29	-30	-26	-47	-59
Monetary and Financial sector	*(as stated)*						
Credit to the private sector (percent growth)	-5.3	24.5	-2.4	4.3	11.2	5.8	33
Lending interest rate (percent)	14.5	12.1	11.9	12	11.3	11	11
Nominal effective exchange rate (index)	94.4	94.8	96.3	97.4	98.7	96.5	101.6
Real effective exchange rate (index)	110.9	109	111.2	112	113.2	113.0	121.8
External sector	*(percentage of non-oil GDP)*						
Current account	-33	-18	-12	3	-3	1	-61
Goods and services	-68	-59	-59	-20	13	72	26
Primary income	33	46	53	26	-12	-72	-83
Secondary income	2	-4	-6	-4	-4	0	-4
Capital account	3	2	3	2	1	1	1
Financial account	29	31	16	-18	-38	-39	-13
Direct investment	0	0	3	-45	-51	-48	15
Portfolio investment	42	21	12	29	15	10	-9
Other investment	-12	9	0	-2	-3	0	-19
Net errors and omissions	-9	1	1	12	40	56	67
Change in reserves	9	-16	-8	1	0	-18	6
Memorandum items	*(as stated)*						
Oil production (million BOE)	47	42	39	38	36	37	NA
Petroleum Fund, closing balance (USD million)	15,844	16,799	15,804	17,692	18,991	19,651	17,414

Source: Ministry of Finance, BCTL

Note: GDP 2022 is based on Government estimated number released on April 2023. Starting from 2019, the BOP figures include the Export and Import Value from Oil activities.

Annex 2: Peer Selection

To benchmark Timor-Leste's performance, this report uses three groups of peers: the regional peers, structural peers, and aspirational peers. Criteria adopted to select the peers are presented in the below table.

Annex Table 2: Peer Selection

Group	Definition	Selection Criteria	Selected countries
Regional peers	Neighbouring countries in the East Asia and Pacific region as per the World Bank classification	• (Relatively) Small countries in East Asia & Pacific	• 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, an electricity access that are +/- 30 positions distant from TL's average rank in 2016-2019 • Countries that are commodity exporters	• Comoros • Sao Tome • 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 TL's average rank in 2003-2006 • Countries that grew faster than TL by 2pp more than TL in 2003-2019, on average	• Botswana • Cabo Verde • Mauritius • Bhutan

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