

**TIMOR-LESTE  
ECONOMIC REPORT**

**APRIL 2019**

**MOVING  
BEYOND UNCERTAINTY**



**WORLD BANK GROUP**

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**Timor-Leste Economic Report:**  
**Moving Beyond Uncertainty**  
April 2019  
World Bank Group

Cover Photo: Tanushree Rao

# TIMOR-LESTE ECONOMIC REPORT

Moving Beyond Uncertainty

April 2019



### KEY INDICATORS (2018)

Population (million)	<i>1.3</i>
GDP (USD billion)	<i>1.6</i>
GDP per capita (USD)	<i>1,187</i>
Poverty headcount ratio – national poverty line (% population)	41.8
Poverty headcount ratio – \$1.90 a day (2011 PPP, % population)	30.3
Poverty headcount ratio – \$3.20 a day (2011 PPP, % population)	73.2
GINI index	28.7

Source: World Development Indicators and World Bank staff estimates  
 Notes: Values in *italics* are estimates. Poverty and inequality data are for 2014.

### ACKNOWLEDGEMENTS

We would like to acknowledge the Ministry of Finance and the Central Bank of Timor-Leste (BCTL) as the producers and/or compilers of most of the data used in this report. The report also benefited from information provided by other official sources and feedback from internal and external peer-reviewers. The Special Focus is based on a recent review of Timor-Leste's agricultural sector supported by the World Bank.

# SUMMARY

## RECENT DEVELOPMENTS

- Economic activity is estimated to have declined for a second consecutive year, owing to political and economic uncertainty. A new political cycle started in May 2018, but the cabinet is yet to be completed and two state budgets had to be prepared in a short period of time. Amendments to the Law on Petroleum Activities enabled the acquisition of a 56.6 percent stake in the Greater Sunrise Joint Venture through the Petroleum Fund.
- Public expenditure was severely constrained until the (late) approval of the 2018 budget in September. A large increase in outlays towards the end of the year was insufficient to offset minimal spending in the first 9 months. As a result, GDP is estimated to have contracted by 0.7 percent in 2018.
- Consumer price inflation increased to 2.3 percent in 2018 – partly due to higher international food prices – while a stronger US dollar has also contributed to the appreciation of the real exchange rate. Credit to the private sector declined by 2 percent and the proportion of non-performing loans showed signs of increasing once again.
- The current account deficit improved from 18 to 12 percent of GDP, mainly due to an increase in primary income. The trade deficit eased as imports declined and exports increased. The financial account balance decreased due to lower Petroleum Fund withdrawals and lower ‘other’ investments.

## OUTLOOK AND RISKS

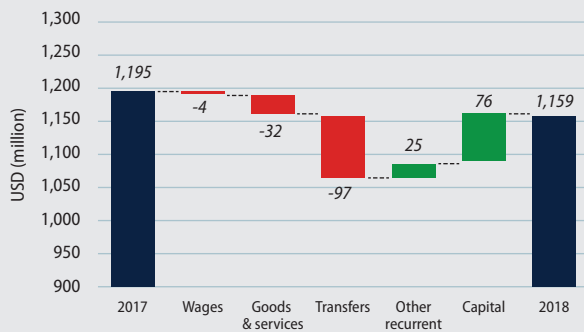
- GDP is forecast to grow by 3.9 percent in 2019 and reach 4.9 percent by 2021. Inflation is expected to remain below 4 percent in the medium-term. An expansionary fiscal stance will steer economic recovery, coupled with stronger private consumption. The fiscal balance is likely to deteriorate due to higher spending, a lower Estimated Sustainable Income, and subdued domestic revenues. The current account deficit is anticipated to widen – remaining a key medium-term concern – while the financial account will continue to support large (and growing) fiscal and current account deficits through even larger withdrawals from the Petroleum Fund.
- Despite being fairly shielded from external shocks, the economy could be vulnerable to higher international prices, a falling US dollar, and worsening global financial conditions – the latter would impact on the Petroleum Fund balance. Domestic risks remain elevated, as political tensions have subsided but not dissipated.
- With petroleum production declining and in the absence of greater fiscal prudence, large Petroleum Fund withdrawals will accelerate asset depletion and further threaten fiscal sustainability. A strong fiscal adjustment in response to tighter fiscal space would hurt living standards. Securing private investors for upstream and downstream development of the Greater Sunrise oil and gas fields would lessen exposure to commercial risks. Moreover, improving the quality of public spending can have multiplier effects on the economy – especially through greater efficiency and more strategic allocations. The key challenges facing Timor-Leste include accelerating economic growth and diversifying the economy, which will require stronger and better investments in human capital.

## SPECIAL FOCUS: GROWING AGRICULTURE

- The agriculture sector can play a key role in reducing poverty and malnutrition, promoting economic diversification, and engendering structural transformation. However, the sector faces numerous challenges, including low productivity and vulnerability to climate shocks. Public investments in rural development should integrate policies and programs for the development of agriculture, natural resource management, and agribusiness.
- Climate-smart agricultural practices and technologies – such as drought or water tolerant crop varieties, low-tillage farming, crop rotations, and use of cover crops – would enhance resilience and reduce risks of crop failure and food insecurity. Investments in natural resource management – especially forests and water – should be integrated with other rural investments to reduce or prevent environmental degradation. Improved rural infrastructure and greater ICT connectivity would help address market access constraints for smallholder farmers.

# SNAPSHOTS OF 2018

Government spending was broadly comparable to 2017, notwithstanding a large fall in public transfers



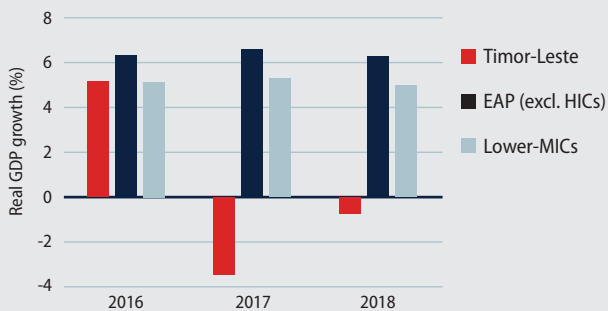
Source: Ministry of Finance

Despite a slow start, public spending picked up after the approval of the 2018 budget in September



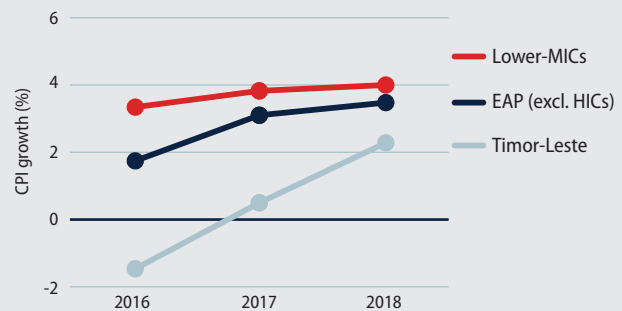
Source: Ministry of Finance

GDP likely contracted for a second consecutive year, owing to political and economic uncertainty



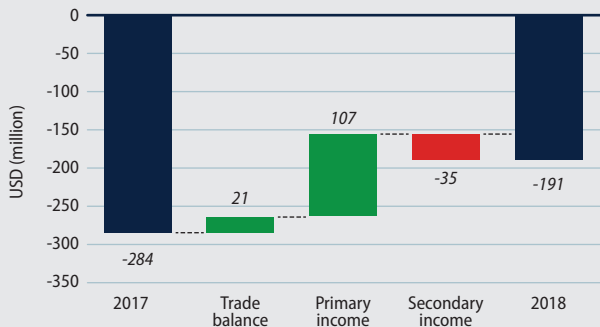
Source: Ministry of Finance, WDI and WB staff estimates

Consumer price inflation increased but remains below the 4-6 percent target range



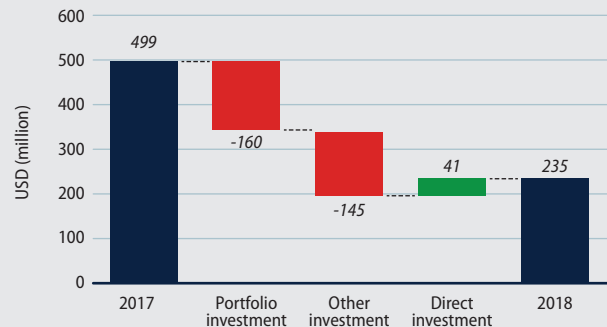
Source: Ministry of Finance and WDI

The current account deficit narrowed, mainly due to higher primary income related to oil production



Source: Central Bank

Lower portfolio and other investments contributed to a weaker financial account balance



Source: Central Bank

**Note:** In this report, gross domestic product (GDP) does not include offshore petroleum production. Including it would unduly complicate the assessment of domestic economic activity due to the inherent volatility of international petroleum prices and declining production levels. There are also few direct links between the petroleum sector and the rest of the economy, as production is outsourced to foreign companies. Nonetheless, the two main transmission channels – government financing and primary income – will be scrutinised when analysing fiscal and external trends. Official balance of payments (BoP) data includes (revenues from) offshore petroleum as primary income rather than merchandise exports.

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## PART 1.

# RECENT ECONOMIC DEVELOPMENTS

## REAL SECTOR

**Economic activity is estimated to have declined for a second consecutive year, owing to political and economic uncertainty.** The political deadlock that followed the mid-2017 parliamentary elections continued to affect economic activity in 2018. But unlike 2017, much of 2018 went by without an approved state budget, which meant that a duodecimal regime was in place.<sup>1</sup> This severely constrained public spending in the first 9 months due to limited access to the Petroleum Fund. Despite a strong recovery towards the end of the year, which was partly used to settle previous financial commitments, total public expenditure remained lower than in 2017. This had a notable impact on the private sector, affecting both consumer and business confidence. Private consumption is thought to have declined, especially since public spending on wages & salaries and personal benefit transfers both fell by 1-2 percent and thus failed to sustain consumption as they did in 2017. Private investment was also relatively subdued. Imports of goods and services declined marginally despite stronger demand for construction services in the last quarter of the year – which was linked to public investment projects. This ‘leakage’ channel also explains why the late spending surge may have not generated considerable domestic activity. Exports of goods and services – which exclude offshore petroleum and re-exports – increased as a result of a good performance of both coffee and travel services exports. Overall, gross domestic product (GDP) is estimated to have contracted by 0.7 percent in 2018, which follows a 3.5 percent decline in 2017.<sup>2</sup> The economic and social impacts of two consecutive contractions will become clearer later in the year, once data on employment levels and labour earnings becomes available.<sup>3</sup>

**Economic performance has been weakening since 2008 – when it reached double-digit growth.** An historical perspective reveals that economic performance has been deteriorating gradually ever since growth peaked at 11 percent in 2008 (Figure 1). While in the period 2007-2011 economic growth averaged 9 percent per year, a period of slower growth ensued in 2012-2016 – with growth averaging 4 percent. The latter was considerably below the average performance for comparator countries and insufficient to sustainably raise living standards given population growth. More recently, in 2017 and 2018, negative economic growth further contributed to a divergence from

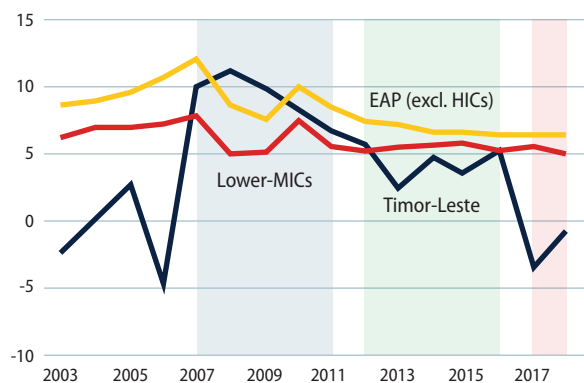
<sup>1</sup> In the absence of a state budget, the law allows monthly appropriations of 1/12th of the previous budget.

<sup>2</sup> In this report, GDP excludes offshore petroleum production.

<sup>3</sup> The number of job seekers registered at employment centres increased from about 2,800 in 2017 to over 7,000 in 2018, with a strong increase towards the end of the year. Employment in the formal private sector has been declining in the past few years – from 62,200 in 2014 to 57,900 in 2017.

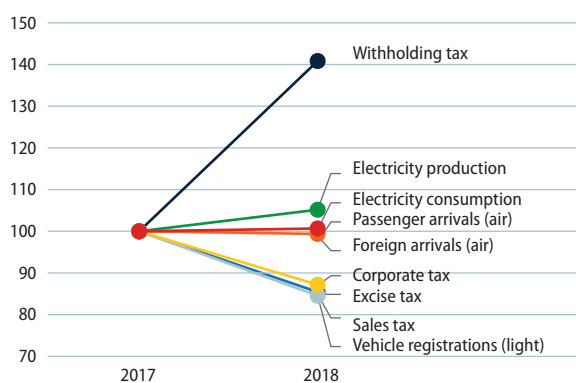
regional trends.<sup>4</sup> In the short-term, increased public spending will contribute to positive economic growth. However, accelerating and sustaining economic growth will require boosting human and physical capital, as well as enhancing productivity growth – see TLER October 2018.

**Figure 1. Real GDP growth (%)**



Source: Ministry of Finance, World Development Indicators, and World Bank staff estimates

**Figure 2. Proxies of economic activity (index)**



Source: Ministry of Finance

**Available proxies for economic activity seem to corroborate a contraction in 2018.** Proxy indicators can provide useful insights on recent economic activity, especially since official GDP data for 2018 will only be available towards the end of the 2019. Sluggish tax receipts could be a symptom of lower economic activity, although lower tax compliance and collection efforts, greater use of tax exemptions, and changes in tax regimes could also play a role. Receipts from sales, excise, and corporate taxes all declined, possibly reflecting lower private consumption and corporate profits (Figure 2). The amount collected through withholding taxes increased considerably – by over 40 percent – but this is mainly linked to the large spending on public investment projects that occurred in the last quarter of 2018. As stated earlier, this may not necessarily entail an immediate boost to economic activity.<sup>5</sup> Although the number of flights at Dili international airport increased considerably in 2018, the overall number of passengers stagnated and so did foreigner arrivals. The airfare hikes to and from Bali in late 2018 might have played a small part. Registrations of light passenger vehicles and motorcycles were lower in 2018, perhaps a sign of lower (middle-class) consumer confidence, although registrations did increase for light cargo vehicles – albeit to a smaller extent. Electricity production increased, but the rise in consumption – which is a better proxy for economic activity – was significantly more moderate. Commercial bank credit declined, with significant decreases for construction and tourism, but a corresponding increase for individuals. Since the latter gradually increased through the year – as economic conditions got tighter – this was possibly to maintain consumption standards rather than an indication of greater confidence in the economy. Imports of machinery, vehicles, and cement all declined strongly – by 51, 42 and 20 percent, respectively. On the whole, these indicators seem to suggest a deterioration in economic conditions in 2018. Additional evidence will be available later in the year once business data for 2018 is published.<sup>6</sup>

<sup>4</sup> This trend may expose the limitations of Timor-Leste’s demand-driven growth model, given existing supply constraints. Between 2002 and 2016, real GDP growth per capita only increased by 35 percent – an average of 2 percent per year.

<sup>5</sup> GDP data is mostly compiled on an accrual basis, while fiscal data follows cash basis accounting. This makes it difficult to evaluate the impact of fiscal trends on GDP, since some payments may not necessarily influence economic activity or may do so with a lag.

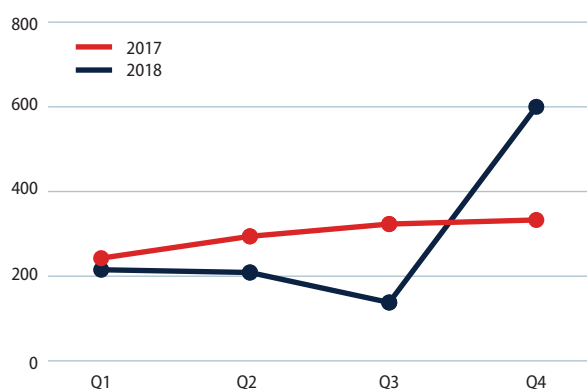
<sup>6</sup> While agricultural performance was probably positive in 2018, industry and services likely struggled for most of the year.

## FISCAL SECTOR

### Government spending was constrained for most of the year due to the lack of an approved budget for 2018.

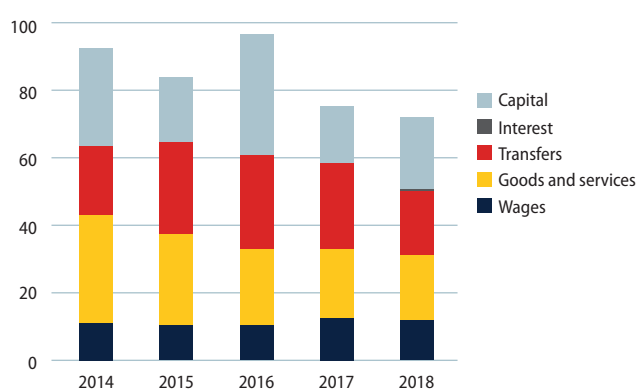
A duodecimal regime was in place for the first 9 months of 2018, which allowed monthly appropriations of 1/12<sup>th</sup> of the previous 2017 budget. However, access to Petroleum Fund resources requires parliamentary approval, which is usually done through the annual state budget process. Apart from the two exceptional transfers made to the central government in May (\$70 million) and August (\$140 million), expenditures had to be covered by domestic revenues – which totalled \$173 million in 2018 – and existing cash balances.<sup>7</sup> This led to a significant containment in spending, even threatening the provision of basic public services. At the end of September, spending was about one-third lower than in the first three quarters of 2017 (Figure 3). This was largely due to lower current transfers (by nearly 60 percent) – mainly owing to public grants – and goods & services (by 30 percent). The execution rate of budget appropriations available under the duodecimal regime was low – from January to September – hampered by the limited availability of domestic resources.

Figure 3. Government expenditure (USD million)



Source: Ministry of Finance

Figure 4. Government expenditure (% GDP)



Source: Ministry of Finance

**Despite a strong recovery towards the end of the year, public spending declined by 3 percent in 2018.**<sup>8</sup> With the approval of the 2018 state budget in September, which granted access to the Petroleum Fund, the last three months of 2018 experienced a surge in both recurrent and capital spending. Current transfers, goods & services, and capital spending recorded notable increases, especially in December. Although it is not unusual for public spending to accelerate in the last quarter of the fiscal year, the magnitude observed was remarkable. In 2018, 61 percent of capital spending, 57 percent of current transfers, and 48 percent of goods & services were spent during this period. The execution rate of the 2018 budget was considerably high, at around 90 percent.<sup>9</sup> Nonetheless, total government expenditure was still 3 percent lower when compared to 2017 (Figure 4). Recurrent spending declined by 11 percent, as both transfers and goods & services fell by 24 percent and 9 percent, respectively. Spending on wages & salaries also dropped by 2 percent, possibly as an adjustment to the 10 percent increase recorded in 2017.<sup>10</sup> With regard to capital spending, it increased by 27 percent in 2018 – reaching levels comparable to 2015. Both 2016 and 2017 were unusual years, as a large one-off payment inflated the value for 2016, while an effort to preserve cash balances

<sup>7</sup> Most fiscal data were accessed from the Budget Transparency Portal at the end of March. Revisions may have been made since then.

<sup>8</sup> Development grants are not included in total government expenditure because they are 'off-treasury' and cannot be mapped into specific expenditure categories.

<sup>9</sup> This is impressive given the limited timeframe (3 months) to plan and undertake new projects. However, some of the available funds were likely used to settle financial commitments relating to activities already undertaken.

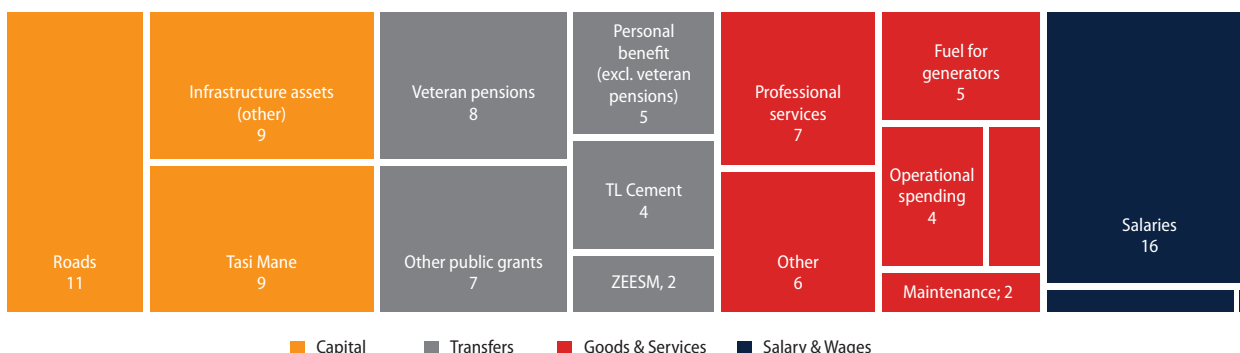
<sup>10</sup> The number of temporary contract staff increased in 2017 to support the presidential and parliamentary elections. The 2017 revision of civil service salary scales also contributed to higher spending on wages & salaries in that year.

for a ‘budgetless’ 2018 led to lower investment spending in late 2017.<sup>11</sup> Overall, there was a marked change in the composition of spending – namely, a reallocation from public transfers (especially public grants) to capital spending – although this might be temporary.

**At least 30 percent of total public spending in 2018 entailed direct payments to employees and households.**

A detailed breakdown of public expenditure in 2018 shows that salary & wages – including allowances and overtime – accounted for 17 percent of total spending, or \$193 million (Figure 5). Most salaries were related to the Ministry of Education (\$58 million), Ministry of Health (\$21 million) and Ministry of Interior (\$20 million). Professional services, which include payments to both individual consultants and corporations, accounted for 7 percent of total spending – or \$76 million. Personal benefit transfers represented 13 percent, mainly comprising veteran pensions (\$91 million), but also pensions for the elderly and disabled (\$37 million), pensions for ex-politicians (\$5 million), and Bolsa da Mae (\$9 million).<sup>12</sup> Hence, direct payments to state employees and households amounted to between 30 and 37 percent of total government spending – depending on the composition of professional services. Moreover, public grants included a \$50 million contribution to TL Cement and \$27 million for Oecusse.<sup>13</sup> Spending on fuel for generators accounted for 5 percent of total spending (\$56 million).<sup>14</sup> Operational spending, travel & vehicles and maintenance are also significant expenditure items.<sup>15</sup> Overall, about 70 percent of total government spending was associated with recurring outlays. Capital spending essentially comprised infrastructure assets, most of which related to road construction and rehabilitation. The Tasi Mane project accounted for 9 percent of total spending, but it also includes spending on the highway from Suai to Beaço.

**Figure 5. Public spending by economic classification (% , 2018)**



Source: Ministry of Finance

**Education and health accounted for 12 percent of total public spending in 2018.** General public services covered nearly half of total government expenditure, benefiting from a 11 percent increase in 2018 (Figure 6).<sup>16</sup> Spending on economic affairs declined significantly and currently represents 17 percent of the total budget. The third largest functional category was social protection (14 percent), despite an 8 percent decline in relation to 2017. Spending on education and health also recorded declines, potentially affecting service delivery levels. Since human capital is

<sup>11</sup> The one-off payment was a \$130 million transfer to an escrow account relating to the Tibar Bay Port Public-Private Partnership (PPP) project, which was recorded as capital expenditure in the fiscal accounts.

<sup>12</sup> Fine-tuning the design of existing social protection schemes (in terms of coverage, amount of benefit, and targeting) could considerably enhance their impact on welfare and help secure fiscal sustainability.

<sup>13</sup> The latter includes both the Special Administrative Region of Oecusse Ambeno (RAEOA) and the Special Zones for Social Market Economy (ZEESM). The amount is considerably lower than the \$172 million disbursed in 2017.

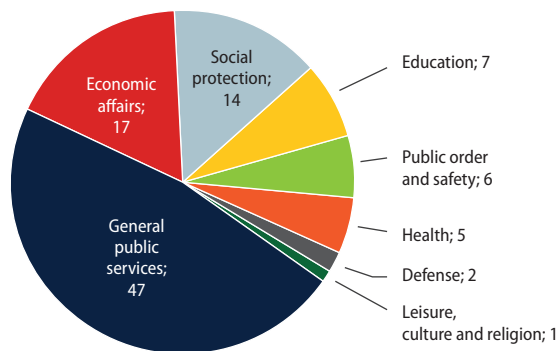
<sup>14</sup> This leads to a large implicit subsidy given low revenues from fees & charges. Power plants currently operate with diesel fuel, but a switch to heavy fuel oil (HFO) or liquified natural gas (LNG) could generate large fiscal savings. In addition, hydropower and photovoltaic (PV) solar energy are thought to have significant potential.

<sup>15</sup> However, road maintenance only accounts for a small fraction of this amount, which might be insufficient given the recent accumulation of these physical assets and their vulnerability to extreme weather events.

<sup>16</sup> Total spending by functional category is 17 percent lower than the data reported in the Budget Transparency Portal – likely due to the use of partial data for December. In fact, the lack of a consistent application of the COFOG classification makes it difficult to track public spending on government priorities – such as education, health, and agriculture.

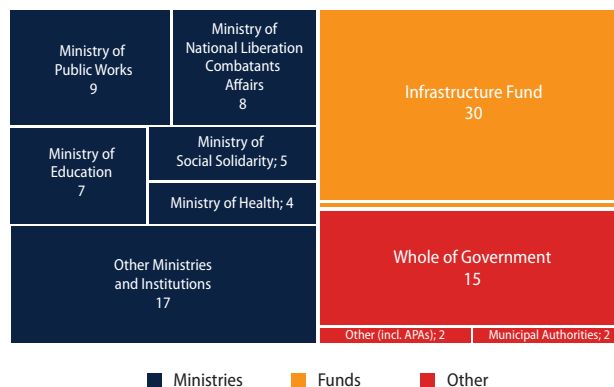
critical to accelerate economic growth and promote economic diversification, increasing budget allocations to these priority sectors – while improving the quality of spending – can significantly contribute to achieve Timor-Leste’s long-term development objectives. Spending on education and health – both in US dollars per capita and as a share of total public spending – lags behind the averages for the region and Timor-Leste’s income group.<sup>17</sup> Data disaggregated by administrative unit suggests that the Ministries of Education and Health account for about 10 percent of total spending, of which over two-thirds is used to pay the salaries of teachers and health professionals (Figure 7).

Figure 6. Public expenditure by function (% , 2018)



Source: Ministry of Finance (Quarterly Statistical Indicators)

Figure 7. Public expenditure by administration (%)

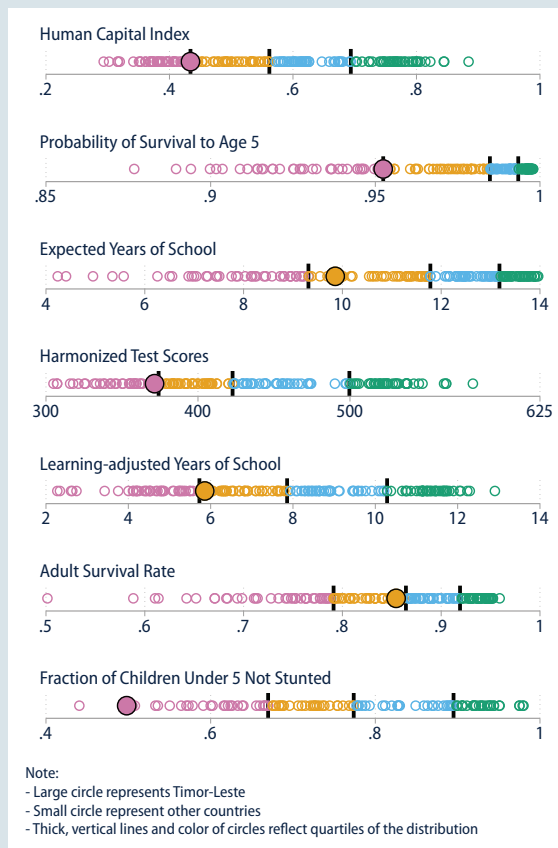


Source: Ministry of Finance

### Box 1. The Human Capital Project

**Enhancing human capital is critical to accelerate economic growth, eradicate poverty, and create a more inclusive society.** Human capital is an intrinsic component of a country’s total wealth and can be broadly defined as the knowledge, skills, and health that people accumulate in their lifetime. Hence, investing in people – through good quality education, training, health care, and nutrition – generates considerable long-term economic and social benefits. These include higher individual earnings, economy-wide labour productivity gains, greater citizen participation, among others. Evidence suggests that reducing global chronic malnutrition could generate a rate of return of between 15 to 24 percent, while every dollar invested in preschool programmes could yield a return of between \$6 and \$17. However, the economic and social benefits of these investments often take time to materialise and may not be always visible, leading to a persistent underinvestment in human capital.

**The Human Capital Project (HCP) seeks to raise awareness and increase demand for interventions to build human capital.** The World Bank Group announced the HCP in 2017, a program of advocacy, measurement, and analytical work to raise public awareness and accelerate

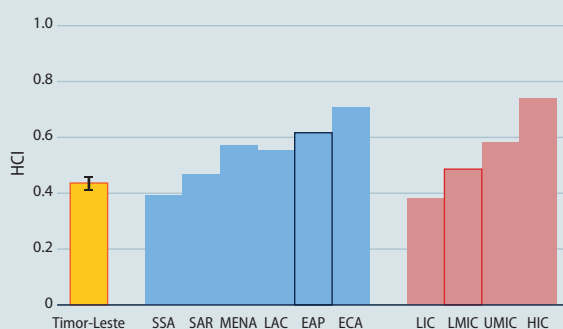


<sup>17</sup> In 2015, health expenditure averaged \$646 per capita in the East Asia Pacific region (excluding high-income countries) and \$259 for lower-middle-income countries, compared to \$141 for Timor-Leste – all data adjusted with purchasing power parities (PPP). In Timor-Leste, the government accounted for 63 percent of the total expenditure, which was complemented by development partners (27 percent) and the private sector (10 percent).

(more and better) investments in people for greater equity and economic growth. The HCP has three components: (i) a cross-country metric – the Human Capital Index, (ii) a program to strengthen research and measurement to inform policy action, and (iii) a program of support for countries to accelerate investments to raise human capital outcomes. Ultimately, the project aims to mobilise additional resources, increase the efficiency of spending, improve governance structures, raise public awareness, and increase demand for better services.

**The Human Capital Index (HCI) measures the amount of human capital that a child born today can expect to attain by age 18.** The HCI conveys the productivity of the next generation of workers compared to a benchmark of complete education and full health. The index is constructed for 157 countries and comprises five indicators: (i) the probability of survival to age five, (ii) a child’s expected years of schooling, (iii) harmonised test scores as a measure of the quality of learning, (iv) adult survival rate (fraction of 15-year olds that will survive to age 60), and (v) the proportion of children who are not stunted. These can be grouped into three main components: survival (i), education (ii and iii), and health (iv and v). Globally, 56 percent of all children born today will grow up to be, at best, half as productive as they could be; while 92 percent will grow up to be, at best, 75 percent as productive as they could be.

**A child born in Timor-Leste today will be 43 percent as productive when she grows up as she could be if she enjoyed complete high-quality education and full health.** About 95 out of 100 children born in Timor-Leste survive to age 5. In terms of education, a child who starts school at age 4 can expect to complete 9.9 years of school by her 18<sup>th</sup> birthday. However, learning outcomes are very low. According to harmonised test scores, students in Timor-Leste score 371 on a scale where 625 represents advanced attainment and 300 represents minimum attainment. When factoring in what children actually learn, expected (learning-adjusted) years of school declines to 5.9 years. Regarding health, about 85 percent of 15-year olds will survive until age 60. This is a proxy for the range of fatal and non-fatal health outcomes that a child born today would experience as an adult under current conditions. Finally, about 50 out of 100 children are stunted, and therefore at risk of cognitive and physical limitations that can last a lifetime. Overall, Timor-Leste ranks 118th out of 157 in the HCI.



Notes:  
 - Unless specified all data are for 2017  
 - The uncertainty interval (black vertical line) reflects the imprecision in the component of the index

**Stunting affects children’s cognitive and physical development.** If children do not receive the right type of care in their early years – when their brains are developing – they will never be able to fully realise their growth potential. Children that lack proper nutrition (either in utero or through breastfeeding) and are exposed to poor sanitation are at a higher risk of chronic malnutrition. Despite some progress regarding the prevalence of stunting – from a high of 56 percent in 2002 – high nutritional deficits continue to impair children’s cognitive and physical development, often with long-term consequences. About 2 percent of Timor-Leste’s GDP is estimated to be lost to malnutrition every year.

**Low learning outcomes undermine labour productivity and thus Timor-Leste’s economic potential and international competitiveness.** Primary school enrolment rates have shown remarkable progress, but learning outcomes remain low, while repetition and dropout rates are high. This is partly due to the lack of school readiness, as many children do not master the language of instruction, lack good nutrition, and suffer recurrent illnesses. Low teacher competencies, poor infrastructure, and poverty are also key challenges. Later in life, low skills and poor health undermine their ability to obtain gainful employment, be productive at work, earn a decent income, and move to better jobs – thus delaying much needed structural transformation.

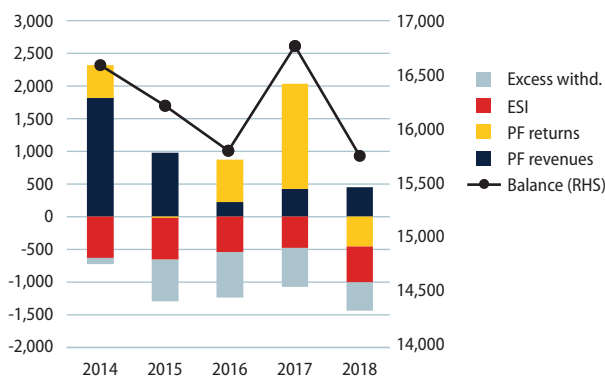
**More and better investments in early childhood development are key to enhance human capital.** Early interventions in education, health, and nutrition are crucial to ensure that children can prosper as adults. In particular, it is important to ensure that children arrive in school well-nourished and ready to learn, can expect to attain real learning in the classroom, and are able to enter the job market as healthy, skilled, and productive adults. Improving the provision of early childhood care and education (both in terms of access and quality) would improve school readiness, enhance school performance, and thus reduce repetition and dropout rates. It would also improve women’s participation in the labour market. An increase of 3 years in students’ learning is estimated

to add nearly 1 percentage point to Timor-Leste’s long-term economic growth. Promoting cognitive skills – such as problem-solving and critical thinking – partly through an integrated curriculum focused in science, technology, engineering and mathematics (STEM) would ensure that future workers and businesses are prepared to compete effectively in an increasingly-sophisticated global economy. Stronger leadership, more and better spending, and improved managerial systems and capacities will be critical ingredients for success.

For more information, see <https://www.worldbank.org/en/publication/human-capital/brief/about-hcp>

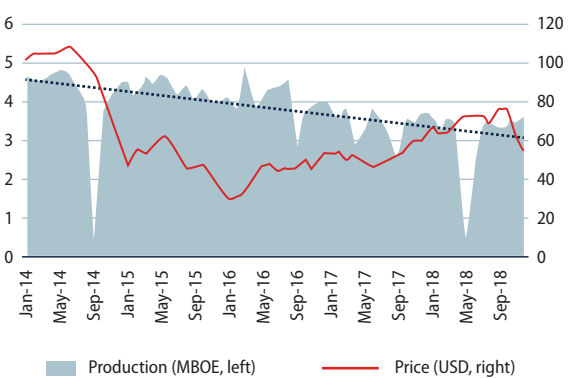
**The balance of the Petroleum Fund dropped by \$1 billion, mainly because of withdrawals and negative investment returns in late 2018.** A strong performance of global equity markets in 2017 contributed to a considerable rise in Petroleum Fund investment returns (Figure 8). Nonetheless, these were ‘unrealised’ gains since they related to the revaluation of marketable securities – and could be swiftly eliminated if stock markets fell. This is precisely what happened in late 2018, leading to a considerable fall in investment returns.<sup>18</sup> Regular access to the Petroleum Fund was possible only after September 2018, with the promulgation of the state budget. From January to September, only \$210 million were withdrawn from the Petroleum Fund – through two exceptional transfers – but from October to December \$733 million were withdrawn. Nonetheless, withdrawals were still lower than in 2017. Petroleum revenues declined significantly between 2012 and 2016, due to a combination of lower production and lower international prices – the latter was particularly noticeable in 2014-2015 (Figure 9). Despite the price recovery since 2016, production continues to decline and is expected to cease in 3-4 years. Once these reserves are depleted, increases in the Petroleum Fund will rely exclusively on investment returns from existing assets. Prudent management of the Petroleum Fund – by gradually reducing withdrawals beyond the ESI – is crucial to secure fiscal sustainability and ensure that future generations can benefit from these savings.

**Figure 8. Petroleum Fund (USD million)**



Source: Ministry of Finance  
 Note: Revenues in 2018 exclude a \$63 million tax refund.

**Figure 9. Petroleum production and prices**

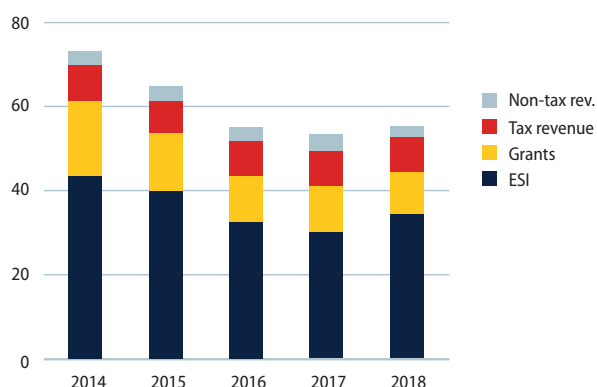


Source: National Petroleum and Mineral Authority (ANMP)

**The Estimated Sustainable Income increased in 2018 but will decline in 2019.** The Estimated Sustainable Income (ESI) is calculated as 3 percent of the total petroleum wealth, which is the Petroleum Fund balance plus the net present value (NPV) of future Petroleum Fund revenues. For any given year the calculation is based on several assumptions, including petroleum production and price forecasts, production costs, and the discount rate. The ESI increased by nearly \$70 million in 2018, owing to an exceptional performance of the Petroleum Fund in 2017 (Figure 10). Nonetheless, the ESI for 2019 declined to \$529 million and resumed the downward trend observed since 2013 – when it peaked at \$730 million.

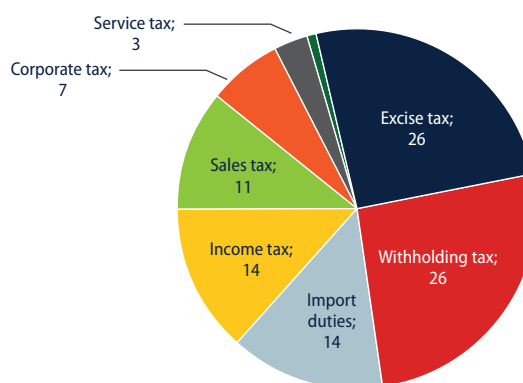
<sup>18</sup> However, international stock markets have recovered since then. As of 28th February, the Petroleum Fund balance was \$16.7 billion. The payment to TIMOR GAP – the national oil company – does not affect the Petroleum Fund balance sheet since it is accounted as ‘other eligible investments’ and thus reflected as an asset.

**Figure 10. Total revenue and grants (% GDP)**



Source: Ministry of Finance

**Figure 11. Tax revenues (USD million, 2018)**



Source: Ministry of Finance

**Domestic revenues declined from an already low base, despite a large increase in withholding tax collections.**

Domestic revenues declined by 9 percent in 2018, dragged down by more than a one-third drop in non-tax revenue collections – as electricity fees & charges dropped from \$30 million in 2017 to \$10 million in 2018 (Figure 10). Although tax receipts increased by 3 percent, this was largely due to a 41 percent increase in withholding taxes – owing to the surge in public investment spending towards the end of 2018. This is the second consecutive year that domestic revenues decline.<sup>19</sup> The total amount collected in 2018 – \$173 million – corresponds to 11 percent of GDP and only covers 15 percent of total government expenditure. Tax revenues typically account for about 70 percent of domestic revenues, with half of collections usually coming from two types of taxes: excise and withholding (Figure 11). Efforts to enhance domestic resource mobilisation remain important to secure medium-term fiscal sustainability, although delays in the implementation of important fiscal reforms – due to the ongoing political uncertainty – have been a key constraint. Development grants also declined for a fourth consecutive year.

**Total revenues covered 88 percent of recurrent spending, which is nonetheless higher than the 72 percent recorded in both 2016 and 2017.**

Fiscal sustainability is sometimes gauged in terms of the ability of domestic revenues to cover recurrent (operational) expenditures, since capital expenditures can often produce high economic and social returns that justify government borrowing. In the case of Timor-Leste, total revenues – which comprise domestic revenues and the ESI – have been insufficient to cover recurrent spending since 2013, mainly because of the scaling up of current transfers – especially public grants up to 2016. The accumulated spending on transfers since 2015 is equivalent to capital expenditure – \$1.9 billion. In the medium-term, a strong fiscal adjustment in response to tighter fiscal space would hurt living standards – through sharp forced cuts in social transfers and public sector jobs – and affect the basic functioning of government. Hence, greater fiscal prudence through a streamlined recurrent budget and greater capital spending efficiency would be essential to secure medium-term fiscal sustainability while ensuring that sufficient resources are allocated to promote effective economic development.

**The fiscal deficit eased due to higher total revenues and lower spending, but remains very large.**

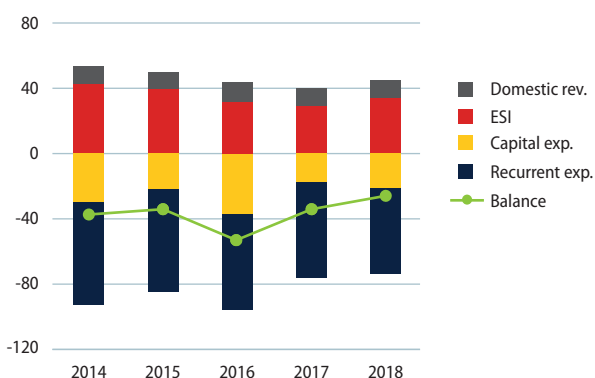
Total revenues were boosted by a considerable increase in the ESI for 2018 – more than offsetting the drop in domestic revenues – while the spending catch-up that occurred in late 2018 was insufficient to compensate the slow start of the year. Consequently, the fiscal deficit improved once again in 2018 – to 27 percent of GDP (Figure 12).<sup>20</sup> However, the fiscal deficit would rise to 62 percent of GDP if only domestic revenues were considered – that is, excluding all Petroleum Fund resources. The deficit was largely financed by excess withdrawals from the Petroleum Fund (Figure 13). Cash balances were vital earlier in the year – and ran very low – while regular access to the Petroleum Fund after September enabled their recovery.

<sup>19</sup>Tax revenues fell by 8 percent in 2017, mainly due to lower withholding tax receipts from public infrastructure projects – which were postponed in the last quarter of the year. These are essentially retention taxes for government contracts.

<sup>20</sup>The ESI is reported under total revenues while excess withdrawals from the Petroleum Fund are reported under deficit financing. This approach ensures that the corresponding budget balance provides a good measure of medium-term fiscal sustainability.

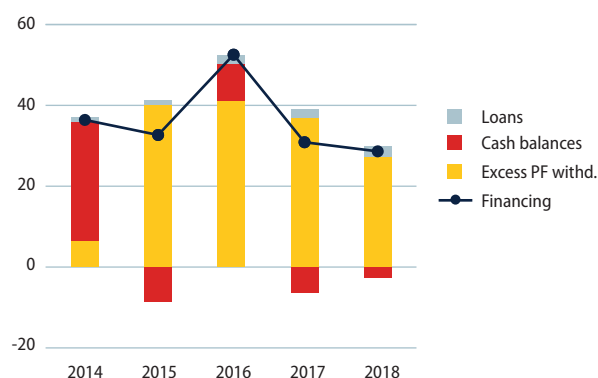


Figure 12. Fiscal balance (% GDP)



Source: Ministry of Finance

Figure 13. Deficit financing (% GDP)



Source: Ministry of Finance

**Public debt remains low and is exclusively composed of concessional lending.** The general government debt stock is relatively low – at \$146 million in December 2018, corresponding to 9 percent of GDP – owing to the limited uptake of debt financing. The total value of external loans signed as of December 2018 amounted to \$355 million, much of which remains to be disbursed.<sup>21</sup> The first loan agreement dates back to 2012 and the first principal payment was due in 2017. Debt servicing (or amortisation), which comprises both interest and principal payments, is negligible but expected to grow moderately in the medium term as grace periods expire. The recent Debt Sustainability Analysis undertaken by the IMF and the World Bank reclassified the country at a low risk of debt distress. This improvement was mainly due to a change in the assessment’s methodology, which now considers public assets – such as sovereign wealth funds – when evaluating an economy’s capacity to withstand external shocks. Overall, there seems to be further scope for tapping into concessional lending opportunities, especially if lending rates on offer are considerably below Petroleum Fund investment returns – which averaged 3.8 percent per year since its inception in 2005.

### Box 2. The Petroleum Fund

**The Petroleum Fund is a sovereign wealth fund that receives all of Timor-Leste’s petroleum-related revenues.** The Petroleum Fund was created in 2005 through the enactment of the Petroleum Fund Law. In practice, it is a bank account held by the Ministry of Finance in the Central Bank. The account receives all petroleum-related revenues accruing to Timor-Leste – such as those from the Joint Petroleum Development Area (JPDA) – which are then invested abroad in a diversified portfolio of financial assets. Petroleum Fund (gross) receipts include both petroleum revenues and investment returns. Revenues mainly comprise income taxes, royalties, and profits related to offshore petroleum production. Investment returns are accrued from financial assets, such as fixed-income products (mostly US treasury bonds) and international developed-market equities.

**Petroleum receipts are regulated by the Petroleum Fund Law and are not automatically transferred to the state budget.** Withdrawals from the Petroleum Fund require parliamentary approval, usually through the annual budget process. The Petroleum Fund Law provides for an Estimated Sustainable Income (ESI), which represents the annual amount that can be sustainably withdrawn from the Petroleum Fund for budget financing. The ESI is calculated as 3 percent of the total petroleum wealth, which comprises the Petroleum Fund balance plus the net present value (NPV) of anticipated future petroleum revenues. However, the ESI is often seen as merely indicative rather than a binding fiscal rule. Excess withdrawals – above the ESI – have been made on a regular basis since 2009 (Figure 14).

<sup>21</sup> This comprises eight loan packages with the World Bank, Asian Development Bank, and JICA. To date, about one-third of this amount has been spent – on road infrastructure projects.

**The governance structure of the Petroleum Fund comprises several institutions with clear roles and responsibilities.** The Ministry of Finance, on behalf of the government, is responsible for the overall management of the Petroleum Fund. This includes formulating the investment policy, monitoring the (operational) management of the fund, and reporting annually to Parliament. In fact, the government is accountable to Parliament through various reporting requirements. The Ministry of Finance is also required to seek advice from the Investment Advisory Board before deciding on matters pertaining to the investment strategy or management of the Petroleum Fund. The Central Bank is responsible for the operational management of the Petroleum Fund, which comprises implementing the investment policy, selecting external managers (with the approval of the Ministry of Finance), and reporting to the Ministry of Finance on a quarterly basis. The Central Bank invests the Petroleum Fund's capital according to the guidelines established by the Ministry of Finance and the mandates developed by the Investment Advisory Board.

**The Petroleum Fund has been assessed as having a strong legal framework and being relatively well managed.** In 2018, the Extractive Industries Transparency Initiative (EITI) assessed Timor-Leste's as having made satisfactory progress in implementing the EITI Standard. Timor-Leste is also a member of the International Forum of Sovereign Wealth Funds (IFSWF). Timor-Leste's petroleum sector scored 49 out of 100 points in the 2017 Resource Governance Index, ranking 43rd among 89 assessments. The overall score is affected by poor scores in the 'enabling environment' component and some sub-components of 'revenue management' (e.g. national budgeting) and 'value realisation' (e.g. local impact). Among sovereign wealth funds, the Petroleum Fund scored 88 out of 100, ranking 6th out of 34 – making it one of the top performers. The same assessment ranked TIMOR GAP – the national oil company – in 36th place out of 74 state-owned enterprises, with a score of 50 out of 100 points.

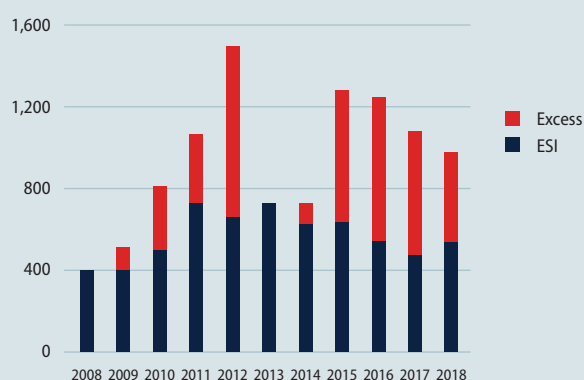
**A recent law amendment enables the Petroleum Fund to invest directly in the national oil company.** Amendments to the Law on Petroleum Activities were approved by parliament and subsequently enacted by the President in January 2019 – despite an initial veto. One of the amendments enables the Petroleum Fund to invest directly in TIMOR GAP. The Ministry of Finance revised the Petroleum Fund's investment policy and instructed the Central Bank to reduce the proportion allocated to international stocks from 40 to 35 percent and include an investment in TIMOR GAP under "other eligible investments" (which have a 5 percent cap). The national oil company will pay 4.5 percent interest per year on the investment and will be required to comply with reporting requirements. With these resources, TIMOR GAP will purchase the stakes of ConocoPhillips (30 percent) and Shell (26.6 percent) in the Greater Sunrise Joint Venture for a combined total of \$650 million. Other amendments include the removal of the 20 percent limit on state participation in petroleum projects and the need for prior inspection by the Chamber of Auditors for any petroleum-related contracts. Overall, these amendments signal a commitment to a higher degree of financial exposure to the petroleum sector than before.

**The Petroleum Fund is a critical resource that can be used to invest in human capital and improve socio-economic infrastructure.** At independence, Timor-Leste had considerable human development deficits, manifested by the very low education and skill levels of the population as well as poor health outcomes. Socio-economic infrastructures – such as schools and health centres – were either destroyed or in very poor condition. Significant progress has been made since then in re-building infrastructure and improving both access to and quality of education and health services. However, the infrastructure gap remains large, stunting levels are among the highest in the world, and learning outcomes are comparatively low. The Petroleum Fund could be used to gradually frontload spending on human capital and related socio-economic infrastructures, which coupled with efforts to improve spending effectiveness, could yield significant benefits in the medium-term.

**The Strategic Development Plan identifies the Tasi Mane project as a key catalyst for economic growth and diversification.** The Tasi Mane project embodies an ambitious multi-billion-dollar vision to create an onshore gas-processing industry in the South Coast of Timor-Leste. It comprises the construction of a liquefied natural gas (LNG) plant in Beaço – connected to the Greater Sunrise gas fields through a pipeline – a refinery

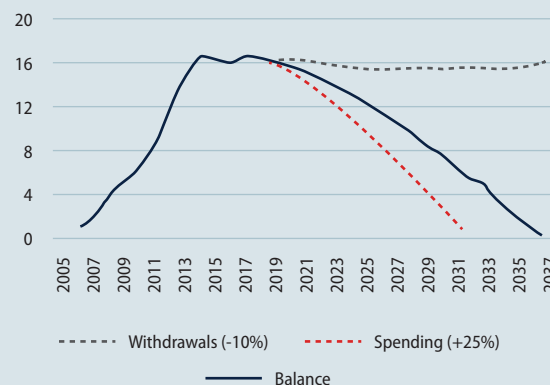
and petrochemical complex in Betano, and a supply base in Suai. The project is an intrinsic part of the Strategic Development Plan and thought to be essential for the diversification of the economy through the development of new industries and skills. Greater Sunrise fields are estimated to hold between \$40-\$60 billion worth of oil and gas reserves, but investment costs – which include both capital expenditure (capex) and operating expenditure (opex) – are also expected to be high. TIMOR GAP has stated its intention to develop Greater Sunrise without using Petroleum Fund resources. Financing options – for both onshore and offshore developments – include project financing, private equity, joint venture, international loans, among others. Securing private sector participation in these developments, coupled with adequate safeguards, would be critical to minimise commercial risks that are inherent to operations in the sector – owing to highly volatile prices and demand – and protect the Petroleum Fund.

**Figure 14. Petroleum Fund withdrawals (USD million)**



Source: Ministry of Finance

**Figure 15. Petroleum Fund balance (USD billion)**



Source: Ministry of Finance and WB staff calculations

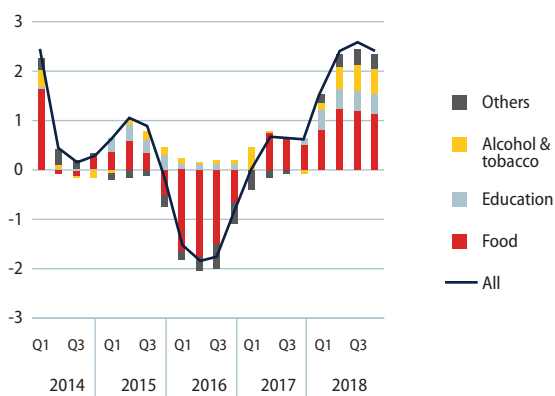
**Although the Petroleum Fund balance remains relatively large, over \$10 billion have been withdrawn since 2008.** Government expenditures have risen sharply since the 2006 civil crisis, partly as petroleum resources became available. Excluding development partner grants, public spending increased (in nominal terms) from \$115 million in 2006 to \$1.2 billion in 2012, reaching a peak of \$1.6 billion in 2016. Much of this increase targeted the creation and rehabilitation of economic and social infrastructure – such as electricity, roads, public buildings, schools and hospitals – as well as public transfers and the expansion of the civil service. Given this rapid increase in a context of limited capacities, there are concerns about the quality of spending – in terms of value-for-money and impact on development outcomes, as discussed in the Public Expenditure Review on Infrastructure. Much of these expenditures have been financed through the Petroleum Fund owing to limited domestic revenue collection (Figure 14). At the current rate of withdrawals, the Petroleum Fund might become depleted in less than 20 years (Figure 15).<sup>a</sup> Hence, medium-term fiscal sustainability is a concern, especially since the revenues from the Greater Sunrise are unlikely to materialise very soon. Although the Petroleum Fund balance remains substantial, at around \$16 billion, it is important to manage these resources strategically and efficiently to ensure that future generations can also benefit from this financial wealth. Gradually reducing excess withdrawals with the aim of abiding by the ESI rule in the medium-term would yield considerable benefits – especially if coupled with greater quality of spending.

<sup>a</sup> The baseline uses data for 2017-2023 from the 2019 Budget Book, which is then extrapolated using a 5-year moving average on Petroleum Fund withdrawals – assuming similar spending patterns and limited domestic resource mobilisation. Investment returns on Petroleum Fund balances are assumed to average 3.5 percent per year. In one scenario, spending is 25 percent higher than the baseline, partly because the 2018 and 2019 budgets have relatively conservative medium-term expenditure projections when compared to the 2016 and 2017 budgets (e.g. Infrastructure Fund projections were over 50 percent lower). The second scenario assumes that withdrawals decline by 10 percent per year until 2027 and remain constant thereafter.

## MONETARY AND FINANCIAL SECTOR

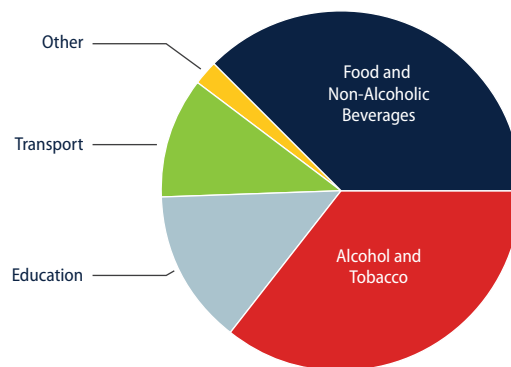
**Consumer price inflation remains low – at 2.3 percent – despite the increase observed in 2018.** Inflation has been contained in the past four years, partly owing to relatively low international commodity prices – namely, food and oil prices. Over 2018, the largest price increases – as measured by the consumer price index (CPI) – were observed in education (17 percent), alcohol & tobacco (8 percent), and transport (3 percent). However, the impact of these price changes on the population’s living standards depends on household expenditure patterns – i.e. the consumption basket. For example, food items are more important for poorer households since they draw a high share of their income, while recreation and transport are probably more important for wealthier households. The consumption basket used for CPI calculations has been recently revised and is now based on the 2014 Timor-Leste Survey of Living Standards. Food & non-alcoholic beverages currently account for 54 percent of the representative consumption basket, a decline from the 64 percent of the previous revision. While this suggests that households now spend proportionally less on food items, which is expected as average incomes increase, it is still a considerable amount. Therefore, even small changes in food prices (1.7 percent in 2018) can lead to sizeable impacts in overall inflation. In fact, consumer price inflation in 2018 was predominantly driven by higher food prices (especially rice) and tobacco prices (Figure 16). Education (increase in school fees) and transport (higher oil prices) also contributed to raise overall inflation, albeit to a lesser extent (Figure 17). International commodity prices contribute disproportionately to increases in domestic inflation, since much of the goods and services consumed in Timor-Leste are imported. This highlights the importance of enhancing productive capabilities, especially regarding food production, to better insulate the economy from the volatility of international commodity markets – see Special Focus. This was particularly evident in 2011-2013, when inflation reached a high of 14 percent. Nonetheless, an appreciating exchange rate has somewhat weakened the impact of higher international prices in 2018.

**Figure 16. Contribution to inflation (year-on-year, %)**



Source: Ministry of Finance and WB staff calculations  
Note: Values may not add up to the total due to rounding.

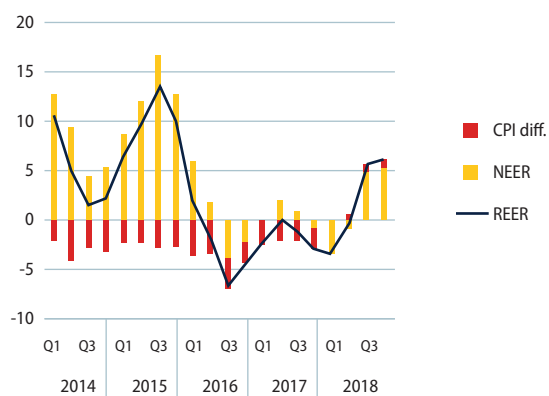
**Figure 17. Contribution to inflation (2018, %)**



Source: Ministry of Finance and WB staff calculations

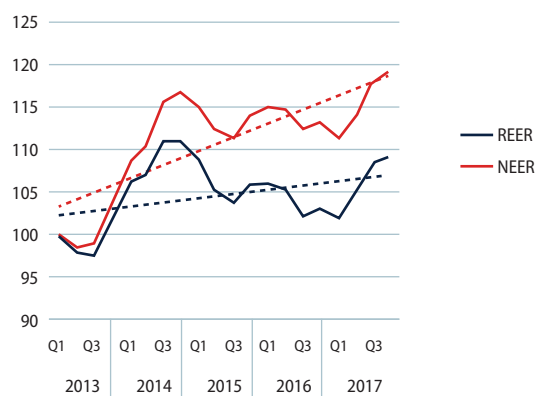
**The exchange rate appreciated in the second half of 2018 due to the strengthening of the US dollar.** The nominal effective exchange rate (NEER) is a trade-weighted average of bilateral exchange rates that provides an approximate measure of international competitiveness. Since Timor-Leste uses the US dollar as its legal tender, a strengthening of the US dollar against the currencies of its main trading partners will improve Timor-Leste’s purchasing power abroad. In the second half of 2018, the NEER appreciated by over 5 percent when compared to the same period in 2017. The US dollar strengthened against many international currencies, partly owing to interest rate increases in the United States and foreign capital outflows from emerging markets in Asia – the latter motivated by concerns over the global economic and trade outlooks. In turn, the rise of the NEER contributed to a similar appreciation of the real effective exchange rate (REER), which also reflects inflation differentials between Timor-Leste and its main trading partners (Figure 18). This poses a challenge to economic diversification, since it weakens the external competitiveness of local products and services. Appreciation pressures eased somewhat in the last quarter of 2018.

Figure 18. Contribution to REER changes (year-on-year, %)



Source: Central Bank and WB staff calculations  
 Note: Positive value indicates an appreciation year-on-year.

Figure 19. Effective Exchange Rates (index)



Source: Central Bank  
 Note: Data is not de-seasonalised.

**The exchange rate is thought to be overvalued, but the current exchange rate regime has served the economy well.** There is evidence to suggest that the REER is currently overvalued, although such an assessment depends on a judgment about what the equilibrium level might be. An overvalued exchange rate weakens the external competitiveness of locally produced goods and services – except for coffee, which is traded in US dollars in international markets. In the absence of an export-friendly exchange rate regime, domestic production needs to rely on boosting productivity levels to become more competitive. Nevertheless, an overvalued exchange rate makes imports relatively cheaper – such as imports of food, capital goods and services – albeit reinforcing import dependence. This trade-off needs to be regularly and carefully monitored. In general, the current exchange rate regime (formal dollarisation) has supported macroeconomic stability – which is important for economic growth – and is still deemed to be appropriate to the prevailing economic conditions.<sup>22</sup> Nonetheless, there is a need to enhance international competitiveness through labour productivity improvements, especially since labour and energy costs also appear to be high by regional standards.

### Box 3. Gender-Sensitive Poverty Mapping

**Timor-Leste has made significant progress in reducing income poverty, but spatial and gender disparities persist.** The number of people living below the national poverty line declined from 50.4 percent in 2007 to 41.8 percent in 2014. However, there are considerable spatial and gender variations. About 80 percent of the poor are concentrated in rural areas, but the largest cluster of poor people is found in Dili. Gender disparities are still evident in broader socioeconomic dimensions. For instance, 61 percent of men were employed in 2015, compared to only 44 percent of women. Meanwhile, the maternal mortality rate in Timor-Leste is still far higher than that of its regional peers. Domestic violence is also pervasive.

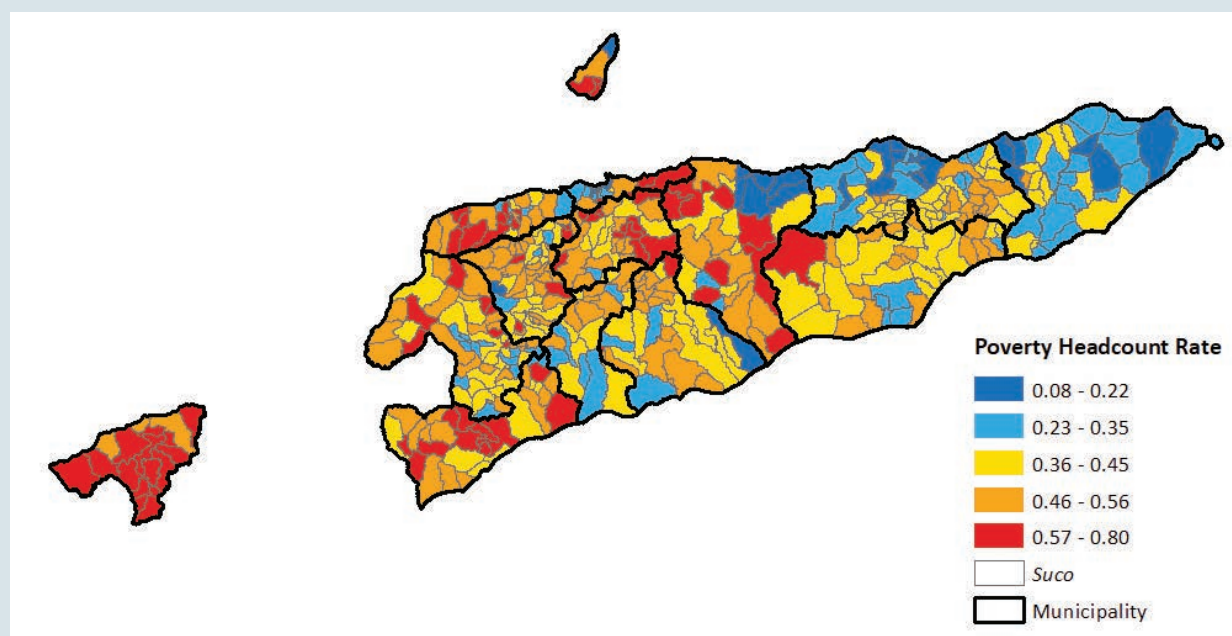
**Existing poverty estimates are representative only at the municipality level, hence cannot capture heterogeneity within these administrative units.** Introducing socially-inclusive and gender-sensitive policies is key to eradicate extreme poverty. However, their success will depend on how effectively these policies and programmes are developed and targeted. For example, if the poor are concentrated in certain areas, spatial targeting of poverty reduction programs and public services is likely to be more effective than trying to target the poor individually. Nevertheless, existing consumption-based poverty estimates are representative only at the municipality level. Therefore, they do not capture the heterogeneity of living standards and access to services within these administrative units – e.g. at the suco (village) level.

<sup>22</sup> Especially given Timor-Leste's limited financial sector development, low institutional capacity, and USD-denominated exports – see IMF Article IV.

**By combining different data sources and using appropriate methods, several indicators can be estimated for the 442 sucos.** Disaggregated statistics are needed to reveal which sucos within each municipality have particularly high rates of poverty and high gender disparities. This can generate useful information for developing spatially-targeted interventions and inform future analyses of the driving forces behind spatial variations in poverty. For that purpose, data from the 2015 Population and Housing Census, the 2014 Timor-Leste Survey of Living Standards (TL-SLS), and the 2016 Demographic and Health Survey (DHS) are combined to estimate various key indicators for each of the country's 442 sucos. Small area estimation (SAE) techniques were used to develop suco-level gender-sensitive poverty maps.

**The results suggest that there is much more variation in poverty rates within municipalities than between them.** It has been previously established that the headcount poverty rate is much higher in western areas of Timor-Leste than in eastern areas. However, the newly-generated maps show that there is much more variation in poverty rates within municipalities than between municipalities. This suggests that the municipality-level headcount poverty rate is of limited use for understanding the incidence of poverty of sucos within a particular municipality. For instance, the Dili municipality has suco-level headcount poverty rates that range from 8 to 80 percent, and Manatuto from 10 to 71 percent.

**Figure 20. Poverty headcount by Suco**



Source: *A Gender-Sensitive Insight of Poverty Mapping for Timor-Leste* (World Bank)

**The prevalence of female disadvantage in education is higher in poorer areas.** A gender-related education index is constructed using data on illiteracy and school attendance. The findings show that the proportion of the population living in households with negative values in the education index – which indicates female disadvantage – is negatively correlated with the suco-level mean of predicted per capita consumption. Across the country, the lowest education gaps are observed in and around Dili.

**There is no clear correlation between poverty and female disadvantage in health.** A gender-related health index was constructed based on the number of days affected by illness and the number of hospitalisations. The map shows scattered patterns across sucos, while Oecusse, Baucau and Viqueque have a higher proportion of the population living in households with female health disadvantage.

**There is an inverse pattern between gender disadvantage in the labour market and poverty rates.** A gender-related labour market index was constructed based on (the lack of) engagement in economic activity and hours of wage labour supplied across all jobs. Gender-related labour force gaps are wider in sucos where households are wealthier (on average), and where poverty rates are lower.

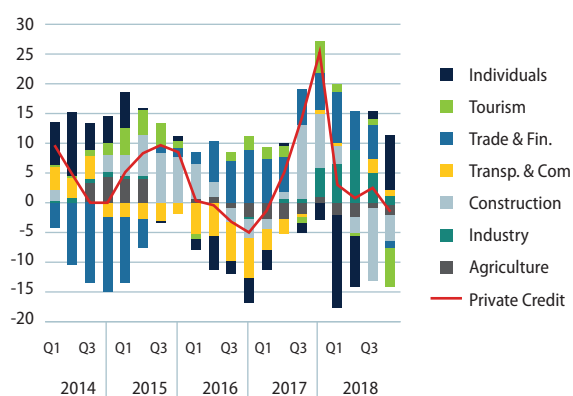
**There are no apparent patterns between female decision-making autonomy with respect to poverty.** Adult females who were married or living with a man at the time of the survey were asked whether they make decisions regarding their own health care, major purchases, and visits to their family and relatives. The suco-level results suggest that the locations with the highest proportion of the population living in households with the lowest levels of female decision-making autonomy are scattered in some inland parts of the country. There is little evidence of differences regarding female autonomy in decision-making.

**Only 26 percent of females had no experience of any type of abuse or domestic violence, while its prevalence is higher in poorer areas.** An index was built based on female experience of physical abuse, verbal threats, being afraid, or domestic violence from the current or former male partner. Only 26 percent of the respondents had no experience of any of these types of abuse or domestic violence. This index is most highly correlated with elements of sexual violence (being forced to have sexual intercourse and forced with threats or in any other way to perform sexual acts) and least with being afraid of the partner. The western areas of the country, especially Oecusse, have a higher prevalence of households with high values on the domestic violence index. This geographic pattern is similar to that of poverty headcount rates, which are also higher in the west.

**These gender-sensitive poverty maps at the suco level provide new insights on poverty in Timor-Leste.** They also highlight hotspots of gender-disaggregated deprivation along dimensions such as access to economic opportunities, education, health, and power and agency. The maps can be used to inform the design of policies and programs targeting at the suco level. They could help improve resource allocation aimed at raising the living standards of the poor and balancing the targeting of poor areas and poor people, while also closing gender gaps in these dimensions. Furthermore, they provide a cost-effective way of adding value to existing census and survey data collection and can serve as a substitute for fielding expensive new censuses or surveys.

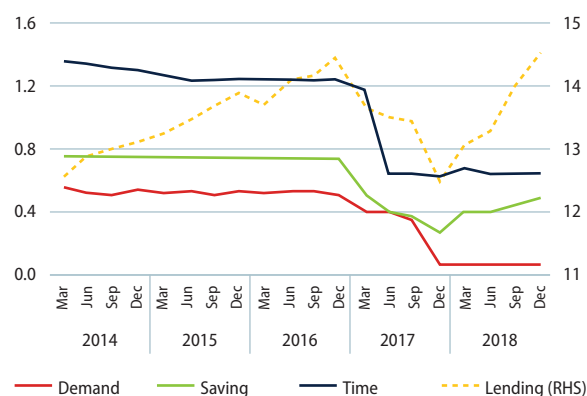
**Commercial lending to the private sector declined by 2 percent in 2018, although the credit spike in late 2017 was unusual.** Credit extended to the private sector grew remarkably in 2017 – by 25 percent – possibly in response to payment delays affecting economic sectors dependent on government contracts (such as construction) and declining lending rates. Credit levels grew steadily throughout 2017 but dropped sharply in the first quarter of 2018 (Figure 21). This might have been caused by mounting concerns over creditors' ability to repay debts and was predominantly driven by lower credit to individuals. As of December 2018, outstanding credit to the private sector was 2 percent lower than at the end of 2017. Although lending was still higher than pre-2017 levels, it accounted for only 14 percent of GDP – which is very low by regional standards. Overall, individuals drove credit growth in 2018, while construction and tourism experienced declining credit levels. Individuals accounted for 41 percent of total commercial bank credit in 2018, while construction (25 percent) and trade & finance (19 percent) were also important borrowers. Access to credit is often reported as a key business constraint, which can discourage the development of key productive sectors. The Central Bank is preparing to implement a credit guarantee scheme this year to stimulate lending to small and medium-size enterprises by sharing credit risk with commercial banks.

Figure 21. Private credit growth (year-on-year, %)



Source: Central Bank and WB staff calculations

Figure 22. Deposit and lending interest rates (%)



Source: Central Bank

**The share of non-performing loans is increasing once again, while deposits started to decline.** The gradual resolution of legacy non-performing loans (NPLs) has contributed to a steady decline of NPLs as a share of total loans – from a high of 42 percent in 2010. NPLs reached a low of 4 percent of total loans in March 2018, but this share has recently started to increase again – to 6 percent in December 2018. This is likely due to the deteriorating economic conditions, whereby businesses and even individuals struggled with cash flows and some probably had to default. The banking sector remains characterised by high liquidity – with a low loan-to-deposit ratio of 0.22 – underscoring poor financial intermediation. A very large proportion of the banking sector’s assets are placed overseas, while deposits declined – mainly from government. Lending rates remain high – averaging 13 percent in 2018 – while deposit rates are below one percent (Figure 22). In December, the Central Bank launched a new service (called P24) partly aimed at facilitating payments by integrating commercial banks and service providers in same network. When fully implemented, the system will enable transactions through ATMs, points of sale (POS), and mobile phones.

**Greater political and economic stability is likely to promote private sector investment.** Formal economic activity is highly concentrated in Dili, with the country’s capital city accounting for about 88 percent of value added in industry and services.<sup>23</sup> Investments in the South Coast, Oecussi and other municipalities could potentially contribute to a decentralisation of economic activity. Improving domestic and international connectivity – through improved transport infrastructure, as well as fast, reliable, and affordable internet – would be vital to enhancing business competitiveness. There have been recent discussions to bring an international optical fibre cable to Timor-Leste and increase flight destinations – especially important after the flight to Singapore was discontinued. An anti-corruption law is under consideration in Parliament, which could help address one of the key concerns reported by businesses in the 2015 Enterprise Survey (see Annex).

## EXTERNAL SECTOR

**The trade deficit eased in 2018 as imports declined and exports increased.** The trade deficit stood at about \$940 million in 2018, a decline of 2 percent when compared to 2017. Total imports declined to some extent as an increase in service imports was insufficient to compensate the fall in merchandise imports. Merchandise imports declined by 3 percent, mainly owing to declines in vehicles and machinery, although mineral fuels partly offset these falls because of higher international oil prices. However, imports of goods remain very large, at about \$613 million, and mainly comprise consumer and capital goods.<sup>24</sup> Most merchandise imports originated from ASEAN member states, such as

<sup>23</sup> Business Activity Surveys essentially measure the formal non-public non-oil economy.

<sup>24</sup> Imports of raw materials and intermediate goods are relatively low, owing to limited productive capabilities. The exception is fuel, which is used to generate electricity.

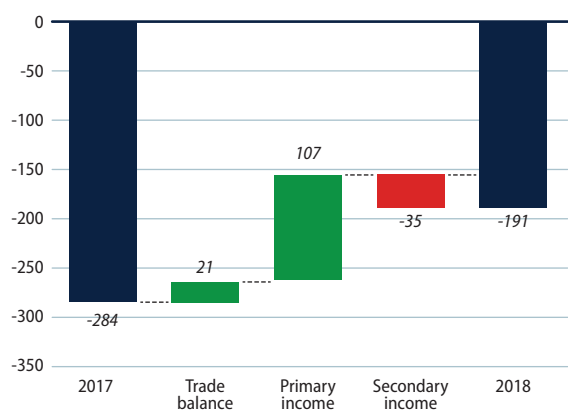


Indonesia and Singapore, but also from China. Imports of services are also large, amounting to nearly \$450 million in 2018. Travel and construction services alone accounted for over half of total service imports. In fact, a robust increase in construction services during the last quarter of 2018 – driven by the large increase in government capital spending – averted a sharper fall in total imports. Merchandise exports increased by almost 50 percent to \$25 million, mainly owing to coffee – which had a better harvest than in 2017. Coffee accounts for about 95 percent of all exported goods. It should be noted that petroleum is not recorded as an export, although petroleum revenues (e.g. taxes and royalties associated with petroleum production) are recorded as primary income.<sup>25</sup> In addition to coffee, travel services are an important component of total exports, representing 64 percent of total domestic exports.<sup>26</sup> Exports of travel services increased by 6 percent in 2018, although recent hikes in airfare prices are likely to affect tourism and business travel. Overall, total exports amounted to about \$122 million in 2018, which only covered about 12 percent of total imports (over \$1 billion). Encouraging exports is crucial to ensure the sustainability of the trade deficit, especially since the deficit is essentially financed through petroleum resources.

**The current account deficit improved to 12 percent of GDP, predominantly due to an increase in primary income.**

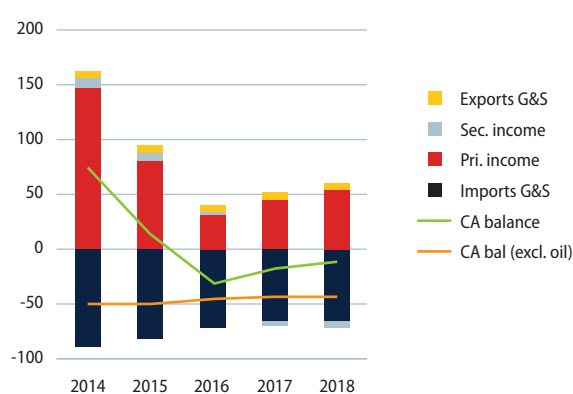
Primary income mainly comprises income from the Joint Petroleum Development Area (JPDA) and investment income – mostly interest and dividends accrued from Petroleum Fund investments abroad. The increase in JPDA income – by over 20 percent – was the key driver behind primary income growth in 2018 (Figure 23). This reflects higher taxes and royalties collected from petroleum operators, mainly owing to higher international oil prices during 2018 and despite reduced production levels (by almost 10 percent). Petroleum production is expected to cease in 3-4 years, since the existing reserves of Bayu-Undan – the only field currently active – are nearly depleted. Investment income increased to a smaller extent, due to higher (realised) investment returns.<sup>27</sup> Secondary income, which comprises both private and public transfers, deteriorated further as foreign grants and (net) workers’ remittances declined again. In effect, remittance inflows – sent by Timorese workers living abroad – totalled \$91 million in 2018, compared to \$283 million of remittances that were sent abroad. On the whole, the current account deficit improved from 18 to 12 percent of GDP (Figure 24).

**Figure 23. Current account balance (USD million)**



Source: Central Bank

**Figure 24. Current account balance (% GDP)**



Source: Central Bank  
Note: Adjusted value excludes income from JPDA.

<sup>25</sup> The balance of payments (BoP) statistics considers the production units in Joint Petroleum Development Area (JPDA) to be non-resident.

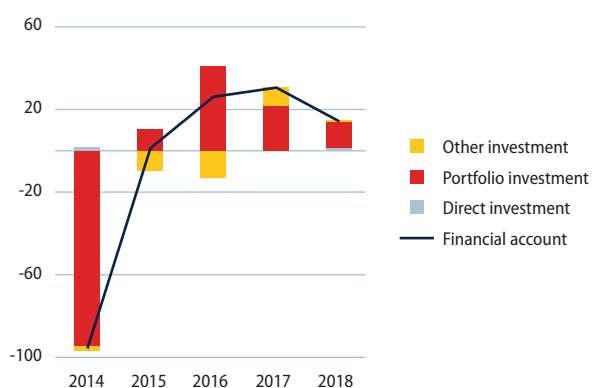
<sup>26</sup> ‘Travel services’ covers goods and services acquired from an economy by non-resident travellers for business and personal purposes during their visits (of less than one year), including local transport but excluding international passenger services (which is included in passenger transport).

<sup>27</sup> Realised returns include interest and dividends received, as opposed to unrealised returns – such as revaluations of financial assets – which are not considered in the balance of payments (BoP) but are reflected in the Petroleum Fund balance.

**Despite recent improvements, the current account deficit remains a key medium-term concern.** Recent improvements were driven by exceptional circumstances, as economic contractions in 2017 and 2018 led to declines in total imports while higher oil prices boosted primary income. Nonetheless, the current account deficit still compares poorly with its regional peers. This underscores an untenable current account position, which is mainly induced by the large trade deficit. Income from JPDA has typically offset large trade deficits, but this has no longer been the case since 2016. Once petroleum reserves are exhausted, the current account deficit will deteriorate dramatically. As a thought experiment, the current account deficit would jump from the current 12 to 44 percent of GDP when excluding JPDA income (Figure 24). The current account balance is an important macroeconomic variable because large deficits heighten vulnerability to shocks and can lead to economic crisis – as illustrated by the 1997 Asian financial crisis.<sup>28</sup> Even if the fiscal deficit enters a more sustainable path in the medium-term, large withdrawals from the Petroleum Fund would still be required to provide the foreign exchange to pay for the sizeable import bill. If the Petroleum Fund is ever depleted, then domestic consumption and investment will have to adjust considerably – especially given the current exchange rate regime, which does not enable an automatic adjustment mechanism through the depreciation of the local currency. Tackling the current account deficit requires the development of stronger domestic productive capacities and greater international competitiveness.

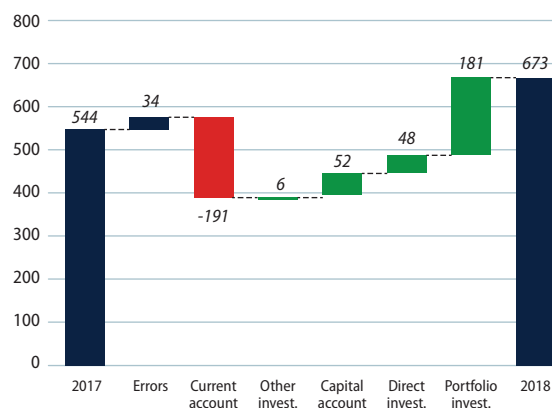
**The financial account balance declined due to lower Petroleum Fund withdrawals and lower ‘other’ investments.** Portfolio investment largely relates to equity and debt securities invested through the Petroleum Fund. When this component is negative (i.e. outflows) it means that investments are being made abroad – in net terms – while a positive value (i.e. inflows) signals a divestment from foreign assets. Hence, its main driver is the differential between Petroleum Fund withdrawals and Petroleum Fund revenues. In 2018, portfolio investment declined due to a combination of lower withdrawals (9 percent) and higher revenues (6 percent). In the past four years, Petroleum Fund withdrawals have far exceeded revenues, thus contributing to a positive financial account (Figure 25). In practice, portfolio inflows – i.e. Petroleum Fund withdrawals – have financed large current account and fiscal deficits. ‘Other investments’ – which mainly include currency and deposits – were almost negligible in 2018. Direct investment recorded a considerable increase to \$48 million – from \$7 million in 2017 – although this predominantly reflects retained earnings from the commercial banking sector rather than new foreign investments.<sup>29</sup> The new investment policy can contribute to attract new and large foreign investments, although investment promotion needs to be more proactive and strategically targeted.

Figure 25. Financial account balance (% GDP)



Source: Central Bank

Figure 26. Central Bank reserve assets (USD million)



Source: Central Bank

<sup>28</sup> East Asian countries ran large current account deficits financed by speculative financial inflows, which when reversed led to a currency crisis. In Timor-Leste, the depletion of the Petroleum Fund could lead to similar impacts.

<sup>29</sup> Retained earnings, whether distributed or reinvested, are recorded as direct investment income (under primary income in the current account) with an offsetting entry in the financial account (under direct investment, reinvested earnings). This is to recognise the investor’s increased ‘investment’ in the foreign subsidiary or branch.



**Official reserve assets increased in 2018, mainly due to the financial account balance.** The balance of payments (BoP) records economic transactions between a country's residents and the rest of the world in three key accounts: capital (which is usually small), current, and financial. Typically, a current account deficit needs to be financed by flows in the financial account, but their interplay can also lead to changes in reserve assets. In 2018, the financial account surplus was larger than the current account deficit, thus contributing to a \$129 million increase in official reserve assets (Figure 26). Meanwhile, gross external debt grew to \$239 million, mostly due to rising long-term government liabilities. The external debt stock of deposit-taking corporations (i.e. commercial banks) also increased, but to a smaller extent.



## PART 2.

# OUTLOOK AND RISKS

**The approval of the 2019 state budget cleared the way for the implementation of the 2018-2023 government program.** Although a new political cycle started in May 2018, the first eight months of the legislature were marked by a few disagreements between the executive and the head of state. Several members of cabinet are yet to be sworn in, including the ministers for finance, health, and strategic investments. The President initially vetoed amendments to the Law on Petroleum Activities – which he had to promulgate subsequently – enabling the Petroleum Fund to invest directly in TIMOR GAP, eliminating the 20 percent limit on state participation in petroleum projects, and removing the need for prior inspection by the Chamber of Auditors for any petroleum-related contracts. He also vetoed the first budget proposal for 2019 – which amounted to \$2.1 billion – citing concerns over fiscal unsustainability and neglect of priority sectors. A revised budget of about \$1.5 billion – which excluded the \$650 million initially allocated to purchase the stakes of ConocoPhillips (30 percent) and Shell (26.6 percent) in the Greater Sunrise Joint Venture – was promulgated by the President on the 7<sup>th</sup> February. This enables the concrete start of the implementation of the 2018-2023 government program, since the 2018 state budget was essentially a ‘bridging’ budget.

**The economic outlook for 2019 seems more favourable than six months ago, despite the late promulgation of the state budget.** GDP is forecast to grow by 3.9 percent in 2019, under a scenario of greater political and economic stability. The 2019 state budget provides a resource envelope of \$1.482 billion, which represents an increase of \$205 million in relation to the 2018 budget. If adequately implemented, this expansionary fiscal stance will contribute to higher public consumption and investment, which in turn will stimulate economic activity. Greater consumer and business confidence – owing to the approval of the 2019 budget – are likely to propel a recovery in private consumption and investment. Trade values are also predicted to grow in 2018. The construction sector is expected to recover, as government contracts start to flow once again. Nonetheless, the effects of two consecutive economic contractions may undercut the prospects for an even faster economic recovery. For example, some firms might have had to dismiss workers or even dissolve, while consumers may have had to use their savings to protect living standards. Resuming production and consumption to the levels observed in 2016 might therefore take longer than desirable. Moreover, several members of cabinet are yet to be confirmed, which may affect the smooth execution of the state budget in the respective ministries.

**In the medium-term, economic growth is expected to reach 4.9 percent.** The economy is predicted to recover to the activity levels observed in 2016 by 2020 – over \$1.3 billion. However, the fiscal balance is expected to deteriorate further due to three main factors. First, public expenditure will likely increase as part of a frontloading strategy favouring large-scale infrastructure investments, as well as large and growing recurrent costs. Second, the Estimated Sustainable Income (ESI) will resume its gradual decline as petroleum production exhausts and excess withdrawals drag down the Petroleum Fund balance.<sup>30</sup> Third, domestic revenue mobilisation will remain subdued due to the slow implementation of reforms to broaden the tax base and raise tax rates – which are low by regional and international standards. The current account deficit is also expected to widen in the medium-term. The demand for imports will expand, partly as the development of the Tasi Mane project accelerates – which will require significant amounts of imported goods and construction services. Moreover, primary income will decrease because of the unwinding activity in JPDA. Consequently, the financial account will have to continue supporting large and growing fiscal and current account deficits through even larger withdrawals from the Petroleum Fund. In fact, there will be strong pressures for larger excess withdrawals, given the gradual decline in the ESI. Inflation is expected to remain below 4 percent – the lower-bound of the policy target – although this assumes relatively stable international commodity prices (namely, food) and exchange rates.


**External risks include higher international prices, a falling US dollar, and worsening global financial conditions.**

The domestic economy is relatively insulated from external shocks due to limited trade and financial integration in the region. However, there are some channels through which global conditions may still affect Timor-Leste's economy. For example, high international commodity prices – especially food – have a considerable impact on the purchasing power of (poorer) households. Since domestic productive capacities are low, including in agriculture, much has to be imported into the country – see Special Focus. Although food prices are projected to fall in 2019, they are expected to rebound in 2020. Trends in petroleum prices will have a limited impact on petroleum revenues since production in Bayu-Undan is declining. The performance of the US dollar against the currencies of Timor-Leste's main trading partners has an important effect on the REER – which influences international competitiveness – and either compounds or offsets the impact of commodity prices on purchasing power. Depressed international stock markets would affect the Petroleum Fund's investment returns through negative revaluations. A 'bear market' induced significant losses to Petroleum Fund equity investments in the last quarter of 2018 – of about \$730 million – even though there has been a recovery in early 2019. The ongoing trade dispute between the US and China could also affect global demand, and thus indirectly impact on Timor-Leste. Despite these downside risks, the large fiscal buffer provided by its sovereign wealth fund can, if adequately managed and targeted, be used to weather most external shocks.

**Safeguarding fiscal sustainability should be a key policy priority.** Offshore petroleum production from the remaining field is expected to cease in 3-4 years. The government is committed to the upstream development of the Greater Sunrise and plans to build a liquified natural gas (LNG) plant and petrochemical industry in its southern coast – as part of its ambitious Tasi Mane project.<sup>31</sup> However, it is unclear how these multi-billion-dollar investments will be financed. Withdrawing significant resources from the Petroleum Fund for that purpose would contribute to a much faster depletion of its assets and further threaten fiscal sustainability. Securing private investors for upstream and downstream development – coupled with adequate safeguards – would lessen exposure to the inherent commercial risks typically associated with the petroleum sector. The 2019 state budget is relatively more prudent than previous budgets – the 2012-2016 budgets were higher than the current one, while the 2017 and 2018 budgets were somewhat peculiar. Nonetheless, curbing recurrent expenditures – especially those that are not pro-poor – and

<sup>30</sup> There is also a reduced outlook for Petroleum Fund investment returns owing to lower bond yields. The Ministry of Finance expects a real rate of return of 1.9 percent over the next 10 years – instead of the targeted 3 percent.

<sup>31</sup> Australia and Timor-Leste signed a new maritime boundary treaty in March 2018, although it is yet to be promulgated by either parliament.



prioritising capital investments would help safeguard fiscal sustainability.<sup>32</sup> Protecting the Petroleum Fund balance would be key to secure a stable income stream for future generations – in the form of the ESI.

**Fiscal policy improvements will have multiplier effects on the economy.** Improving the quality of public spending would enhance value-for-money, meaning that better outcomes could be achieved for the same level of resources invested. Over \$10 billion have been withdrawn from the Petroleum Fund since its inception in 2005 – in nominal terms. While these resources have contributed to improve literacy rates, health outcomes, and living standards, these outcomes still lag considerably behind regional peers. Enhancing the efficiency of public spending and its effectiveness will be critical to ensure that future investments produce better outcomes. In particular, prioritising investments in human capital would yield significant benefits for current and future generations. These should be aimed at improving the quality of and access to education and health services, as well as developing a stronger and more tailored social protection system to enable poor households to make productive investments.

**Enhancing productive capabilities holds the key for accelerating and sustaining economic development.** Two consecutive years of depressed economic activity render accelerating and sustaining economic growth all the more important. To achieve the 7 percent growth target envisaged in the government programme, it is crucial to support private sector development. This would not only contribute to boost economic growth, but it would also increase economic resilience. In particular, attracting foreign and domestic investment, strengthening domestic linkages, and promoting competitiveness will be key to create a large number of decent employment opportunities for a growing, ambitious, and young population. The development of strategic productive sectors – such as commercial agriculture, labour-intensive manufacturing, and tourism – would stimulate value addition, support economic diversification, and help ease trade imbalances (see TLER October 2018). This would be key to attain upper-middle-income status by 2030, as envisioned in the Strategic Development Plan 2011-2030 (SDP).

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<sup>32</sup>In 2016, Timor-Leste had the fifth highest expenditure-to-GDP ratio in the world – when general government expenditure amounted to 72 percent of (total) GDP. Excluding oil, this ratio averaged over 100 percent in 2013-2016, only behind Libya, Kiribati, and Tuvalu. Expenditure includes development partner grants for international comparisons.





# PART 3.

## SPECIAL FOCUS:

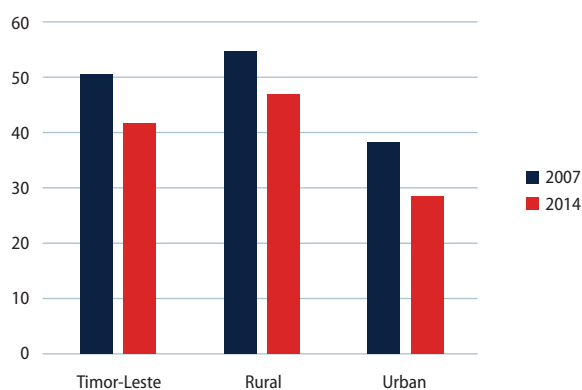
### GROWING AGRICULTURE

#### THE ROLE OF AGRICULTURE IN POVERTY REDUCTION

**Agriculture is an important sector in Timor-Leste's economy and the main source of livelihood for its people.** Over half of Timor-Leste's population are engaged in (subsistence) agriculture. A diverse range of food crops are produced in different zones of the country, mostly for own consumption. Food imports are needed to supplement supplies of the main staples, notably rice. Income from cash crops remains low. The agriculture sector is underperforming, and its potential is yet to be realised – namely, to provide sufficient livelihoods, employment and incomes; to enhance food security and nutrition; and improve the sustainability of natural resources and resilience to climate shocks. The development of the agriculture sector is an important part of the structural transformation of the economy.

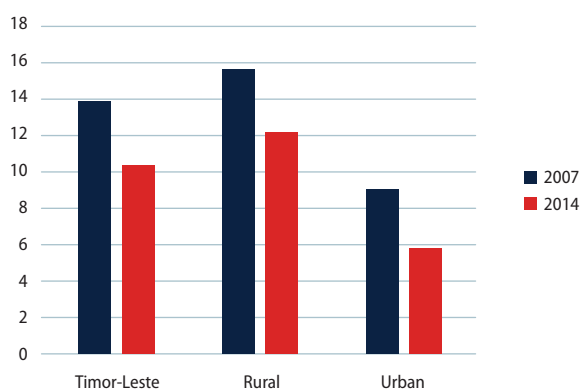
**Rural poverty has declined, but less rapidly than urban poverty.** The proportion of the population living below the national poverty line fell substantially between 2007 and 2014 – from 50 to 42 percent (Figure 27). However, about 47 percent of the rural population still lives in poverty. Rural households dedicated 57 percent of their expenditure to food in 2014, down from 70 percent in 2007. The poverty gap index – a measure reflecting the depth of poverty as well as its incidence – has also declined between 2007 and 2014 (Figure 28).<sup>33</sup> Female farmers are particularly disadvantaged – as they have less access to hired labor and farming tools, and have limited involvement in cash crop production and participation in farmer groups.

Figure 27. Poverty headcount (%)



Source: TL-SLS surveys

Figure 28. Poverty gap index (%)



Source: TL-SLS surveys

<sup>33</sup> The poverty gap index is calculated as the average income shortfall from the poverty line – counting the nonpoor as having zero shortfall – and expressed as a percentage of the poverty line.

**Agriculture growth has the potential to contribute to poverty reduction, as has been the case in other Asian countries.** Cambodia's impressive growth of the agricultural sector has contributed to significant poverty reduction. From 2007 to 2011, the overall poverty headcount fell from 50 percent to 21 percent. The main factors explaining the reduction in poverty were higher commodity prices, ability by farmers to sell to the market, increased agricultural wages, and an increase in non-farm business activities – the latter two factors displaying the growth multiplier effects of agricultural transformation. In Myanmar, growth of the agriculture sector accounted for at least 46 percent of the poverty reduction seen between 2005 and 2015, much of which was achieved by enhanced productivity and crop diversification. Experiences from Thailand show that agricultural competitiveness is key to support the development of the sector, which requires sound and consistent macroeconomic policies, including an open agricultural trade policy that encourages private investment, and investments in public goods that encourage productivity growth.

**Timor-Leste's natural resources endowment in the form of multiple agro-ecological zones enable the cultivation of a wide range of food and cash crops for the domestic and export markets.** The main export commodities that offer growth potential are coffee and forestry products such as high-value hard woods, candlenuts and coconut, spices, live cattle, and legumes.<sup>34</sup> Undeveloped opportunities exist to increase cross-border trade with Indonesia and continue historical informal trading patterns.

**Modest productivity enhancements are being achieved and recent investments in agricultural value chains confirm the potential for development of the sector.** The production of horticulture produce is increasing in response to a growing domestic demand in the main urban centres as living standards improve and consumer preferences demand improved quality. Renewed interest by the private sector to invest in coffee, spices and cassava (the latter for the brewing industry) is encouraging and confirms a latent commercial potential. Coffee is the country's traditional agricultural export commodity and has potential for growth, with recent advancements made to position the country as a supplier of organic coffee in the form of the unique Timor hybrid endemic variety. Cloves, black pepper and vanilla also offer potential for further development in Timor-Leste. Recent increases in spice production have been made possible by leveraging export markets linked to coffee exporters. For example, vanilla (fresh bean) is showing substantial farm gate increases from \$7 per kilogram in 2015 to \$57 per kilogram in 2018.

**The Strategic Development Plan acknowledges that agriculture is key for poverty reduction and economic diversification.** The Strategic Development Plan 2011-2030 (SDP) emphasises the fundamental role of the agriculture sector for poverty alleviation, economic diversification, and as a key driver for employment and economic growth. To deliver the SDP commitments, the Ministry of Agriculture and Fisheries (MAF) developed in 2012 its own Strategic Plan 2014-2020 articulated through four mutually-reinforcing objectives: improve rural incomes, livelihoods, and reduce poverty; improve household food and nutrition security; support the transition from subsistence farming to commercial farming; and promote environmental sustainability and conservation of natural resources.<sup>35</sup>

<sup>34</sup>The selection of commodities is based on existing market demand for surplus production and an identifiable market chain, an existing strong production base, and agro-ecological potential to increase productivity.

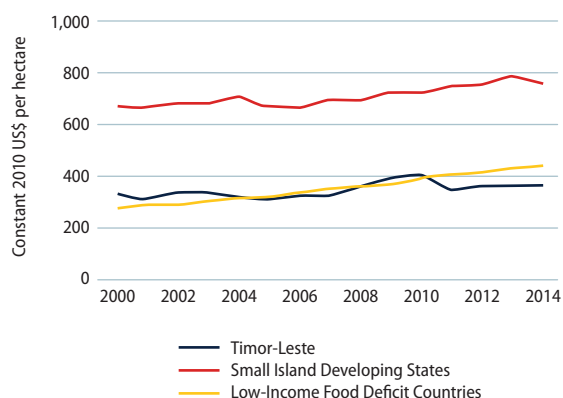
<sup>35</sup>MAF's strategic objectives cover a large spectrum of agriculture sub-sector and are articulated around five large programs representing key areas of opportunity: (i) enhancing production and productivity; (ii) improving market access and value addition; (iii) creating an enabling environment; (iv) organisational strengthening; and (v) sustainable resource management.

## OVERVIEW OF THE SECTOR

**Agriculture remains an important economic sector, despite its declining weight.** The agriculture sector contributed to 16 percent of non-oil output in 2017, a decrease from the 29 percent recorded in 2008.<sup>36</sup> Agriculture output (value added) is largely determined by crop outputs, with highly volatile volumes that are particularly sensitive to weather conditions – including droughts, floods, El Niño/La Niña cycles – and influenced by public investments. Forestry and fisheries contribute marginally to agriculture value added, while livestock has been progressively increasing its share – from an estimated 12 to 17 percent.

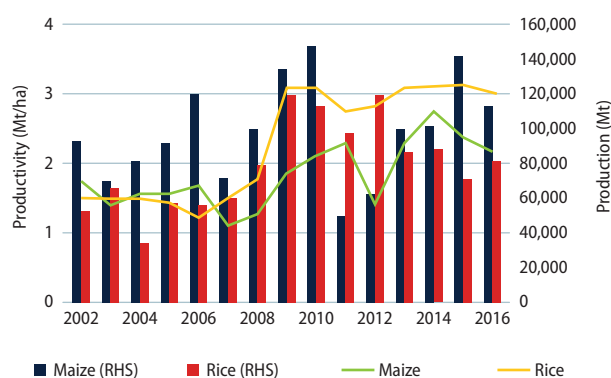
**Smallholder farmers manage multiple crops on very small land holdings.** Cropping systems are diverse and extensive, with 50 percent of households growing maize, cassava, sweet potato, vegetables, legumes and coconut trees. Rice production is concentrated in a limited number of areas that are suitable and provides for 25 percent of staple food production. Farm fields are small due to the difficult terrain, as rocky soil or mountains surround patches of arable land.

**Figure 29. Agricultural production (USD per hectare)**



Source: FAOSTAT

**Figure 30. Production (Mt) and productivity (Mt/ha)**



Source: FAOSTAT

**Agricultural productivity is gradually improving but remains lower than the average for comparator countries.**

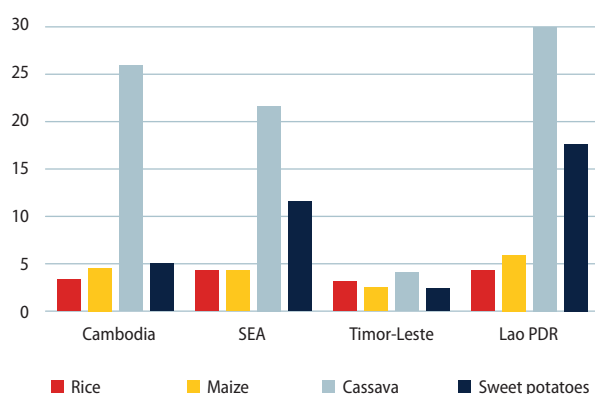
Timor-Leste's value of production per hectare (ha) is substantially lower than other small island developing states and, in recent years, it has fallen below the average for low-income food-deficit countries (Figure 29). Yields of rice and maize remain low, despite average yields doubling from 1.5 Mt/ha for rice and 1.1 Mt/ha for maize in 2008, to 3.0 and 2.2 Mt/ha in 2016 (Figure 31). These yields are lower than those achieved in neighbouring countries with similar agro-economies. Yields of nutritious crops such as fruits, vegetables, beans and other pulses that provide for essential dietary quality are low, as are the yields of roots and tubers, which are of important for the rural poor as they supply food reserves during the lean season (Figure 32).

**Although the use of fertiliser is gradually increasing, less than 10 percent of farmers have adopted this technology.**

The use of inputs such as fertiliser and agrochemicals is low due to their high cost and underdeveloped supply chain. A combination of using poor-yielding local varieties, depleted soils, poor weed control, steep slopes, and highly variable rainfall, contribute to low productivity. This points to a need to promote the use of improved plant varieties, farming inputs and farming practices in a holistic manner.

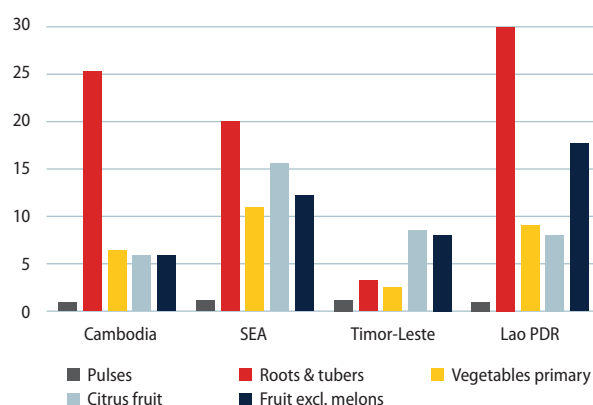
<sup>36</sup>This is estimated by the Ministry of Finance based on production data provided by the MAF as well as estimations from the FAO. It includes agriculture, fishery, livestock and forestry.

Figure 31. Productivity (Mt/ha) of key staple crops



Source: FAOSTAT

Figure 32. Productivity (Mt/ha) of nutritious crops



Source: FAOSTAT

## PUBLIC INVESTMENT IN THE AGRICULTURE SECTOR

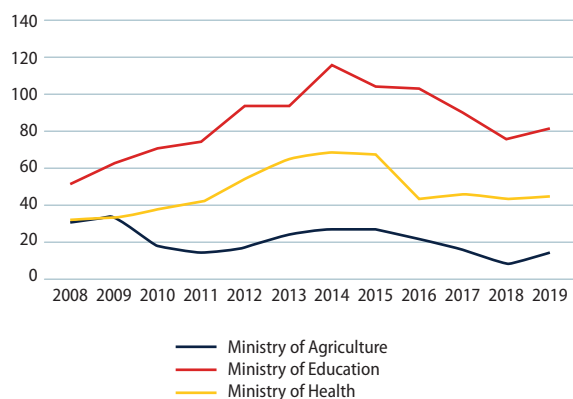
**Public resource allocation should be informed by existing evidence and complemented by other countries experiences.** Public resource allocation to the agriculture sector should be informed by an understanding of the drivers of past/current growth, and the potential drivers of future growth, complemented by lessons from global successes and failures. In Myanmar, advances made in the agriculture sector accounted for at least 46 percent of the poverty reduction seen between 2005 and 2015. During that period, the headcount poverty rate for households working exclusively in agriculture dropped from 60 percent to 41 percent. The factors that contributed to that process included: a) crop diversification, including development of the livestock subsector; b) increase in use of fertilisers, pesticides and herbicides, facilitated through knowledge transfer; c) Improved management of irrigation infrastructure; d) increased mechanisation; e) enhanced access to markets through improved rural infrastructure; and f) access to credit for smallholder farmers.

**The Ministry of Agriculture and Fisheries receives less than 2 percent of the total state budget.** Despite the sector providing direct employment to over half of the employed population, MAF's ratio of the state budget has diminished over time, from 3.9 percent in 2008 to 1.1 percent in 2016. For 2019, the proportion of the total state budget allocated to MAF decreased to 0.7 percent – despite an annual growth of the sector of 5 percent (Figure 33). The level of public investment in agriculture may not reflect the prioritisation of the sector in current policies and programs.

**Donor assistance represents a significant portion of total investment in the sector.** Development assistance focuses on sustainable agriculture, horticulture, forestry and value chains for agricultural livelihoods. Most projects link agriculture value chain economic development with nutrition and livelihood outcomes while addressing sustainability considerations, in line with government priorities. For 2019, planned disbursements from development grants in agriculture or off-budget project assistance amount to \$20.4 million, about 138.8 percent of MAF's budget.

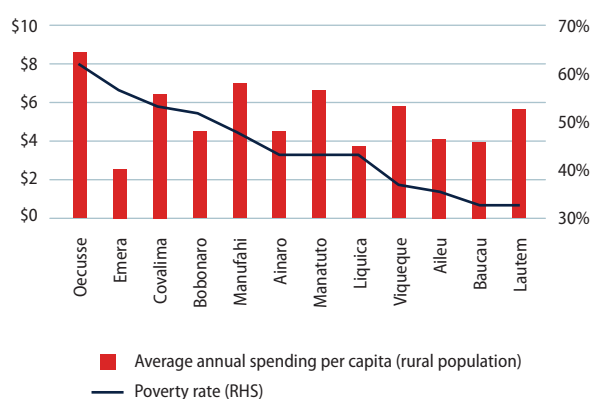
**MAF's expenditure allocations at municipal level over the last ten years do not correspond with local poverty levels** (Figure 34). While the decentralisation of budgets and programs is transforming municipal agriculture services with allocations transferred directly to municipal authorities, allocation levels may need to be reviewed. For example, Ermera is the second poorest municipality and receives the lowest MAF investment per capita; while for PDID infrastructure, Ermera received \$20 per capita compared to \$78 in Baucau with a relatively low poverty rate. Budget allocations to municipalities should consider different levels of needs, including population size, poverty levels in the area covered, and staffing.

Figure 33. Budget for key line ministries (USD million)



Source: Ministry of Finance

Figure 34. Municipal services per capita vs. poverty rate (%)



Source: Ministry of Agriculture

**Public investment in coffee, the leading agricultural export commodity, is insufficient.** To enable the private sector to be more competitive in international markets and continue an ongoing expansion of the coffee sector in Timor-Leste, public support is needed for replanting, and improving crop husbandry practices and post-harvest quality enhancement. In 2017, MAF dedicated \$712,000 to the rehabilitation and intensification of coffee plantations, 5.6 percent of the total budget for its priority programs. These low levels of public investment do not reflect the importance of this crop as a major export commodity nor the large number of relatively poor households that cultivate it. Using the example of Ermera, it is the leading coffee producing municipality and second most populated, yet receives the lowest per capita level of public investment.


**Public spending programs and policy objectives should be carefully aligned.** Market distortions created by well-intentioned subsidy programs on food commodities and agricultural inputs may discourage investment in local production of rice and maize. The distribution of subsidised imported rice may have been an important reason for a decline in rice production in recent years.<sup>37</sup> Timor-Leste has the potential to commercially develop a range of agricultural products for the domestic and export markets. Market access, competitiveness and farm level profitability are prerequisites for farmers to consider investments in productivity-enhancing technology such as fertiliser and improved seed.

**To inform policy and program design, the availability of accurate and timely data is important.** The upcoming agriculture census will provide an opportunity to conduct an in-depth assessment of the rural sector. Likewise, the ongoing development of a sector-specific monitoring and evaluation system at MAF is expected to provide performance updates. These efforts should be complemented by assessments of what works and what has not worked, based on which policies and resource allocation decisions can be adjusted.

## THE THREATS OF ENVIRONMENTAL DEGRADATION AND VULNERABILITY TO CLIMATE SHOCKS

**Climate models show that Timor-Leste will experience major increases in both temperature and rainfall, which could have significant implications for livelihoods and food security.** Timor-Leste's climate is highly influenced by El Niño. The El Niño-Southern Oscillation's (ENSO) influence on Timor-Leste is evident in the large year-to-year variability of the rainfall. The El Niño phenomenon changes the timing and volume of rainfall and induces prolonged drought in certain areas of the country. Unless adaptation and mitigation measures are taken, agricultural productivity

<sup>37</sup> Recent production estimates by MAF suggest substantial increases in area under cultivation and harvested volumes of maize and rice during 2018.



will decline due to the increased occurrence of extreme weather events, shorter and less predictable wet seasons, extreme rainfall patterns that lead to seawater intrusion, hotter dry seasons, and more intense drought-causing El Niño events. This would be exacerbated by land degradation and land use change.

**Land degradation has several impacts on ecosystems and biodiversity.** First, deforestation destroys forest habitat and its biodiversity, leading to soil erosion. This then impacts farming practices and livelihoods. Nearly half of the country is estimated to have a slope of 40 percent or more. The steep slopes and shallow soils are very susceptible to erosion. Second, forest fires result in loss of habitat, loss of organic matter, reduction in soil fertility, and soil erosion; leading to sedimentation of rivers; and air pollution which in turn leads to health problems in nearby populations. Third, downstream impacts extend to flooding of settlements and destruction of infrastructure; torrential river flows causing severe siltation and destruction of coastal vegetation, beaches, mangrove forests and coral reefs; leading to loss of fisheries and of potential recreational and tourism activities.

**Climate change will also impact international food commodity prices.** Simulation models suggest that inflation-adjusted prices of the three most important staple grains in the world – wheat, rice, and maize – would increase between 31-106 percent by 2050.<sup>38</sup> Although high commodity prices may benefit producers, substantially higher food prices may increase food insecurity and poverty not only for the urban poor, but also for rural people, many of whom are net food buyers.

**The degradation of natural resources combined with the country's vulnerability to climate change requires an integrated rural development approach.** Land degradation is a limiting factor for increased agricultural productivity and requires investments in hillside protection and water management infrastructure, while increasingly variable water availability calls for expanded water tolerance levels of crops. Public investment in appropriate technology to suit the local circumstances will need to be a priority.

## POLICY IMPLICATIONS

**Public investments in rural development should integrate policies and programs for the development of agriculture, natural resource management, and agribusiness.** Alignment of the objectives of agriculture, food and other related policies and programs by other sector ministries is essential. Policies and programs to support the enhancement of agriculture productivity should include climate adaptation and resilience. Public investment in the adoption of technology such as fertiliser and seed should support and promote the development of commercial agriculture input supply chains and product value chains. Food subsidy programs should be targeted in a way that minimises market distortions that would otherwise provide disincentives to would-be growers and sellers of local food commodities. Further analysis is required to identify specific recommendations in this regard.

**Agriculture development requires a comprehensive approach and adequate resources.** The development of an updated agriculture strategy, investment plan and operational plan provides a timely opportunity to ensure that a comprehensive approach is adopted and that adequate resources are allocated. The strategic objectives of the current Strategic Plan of the Ministry of Agriculture and Fisheries (2014-2020), focus on: improving rural income and livelihoods; improving household food and nutrition security; supporting the transition from subsistence farming to commercial farming; and promoting environmental sustainability and conservation of natural resources.

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<sup>38</sup> Simulations ran using the International Food Policy Research Institute's IMPACT (International Model for Policy Analysis of Agricultural Commodities and Trade).



**Technology and service delivery are key to improve rural incomes, livelihoods, and food security.** A key element is the provision of support to technology development and dissemination, and scaling up service delivery aimed at enhancing productivity and food security. This would include the promotion of nutritious crops that contribute to a positive diversification of the diet, considering the interests of small-scale, female, young and marginalised farmers, as well as urban consumers. Climate smart agriculture practices and technologies, such as drought or water tolerant crop varieties, low- or no-tillage farming, crop rotations, use of cover crops and perennial trees along slopes, would enhance resilience and reduce risks of crop failure and food insecurity.

**The promotion of agriculture-led rural income growth requires strategic complementary investments.** The production of cash crops can be supported in part by facilitating the development of farmer-to-market linkages and other value chain actors and functions. This includes supporting and facilitating agribusiness companies that have the potential to source raw materials from smallholder farmers for processing and marketing, both domestically and for export markets. Rural infrastructure investments should consider market access constraints for smallholder farmers. Investments in ICT connectivity would also be of fundamental importance. There is a need to strengthen the enabling environment to allow Timor-Leste access international markets and benefit from imported technology. This requires sanitary and phytosanitary (SPS) certification and compliance with internationally recognised SPS requirements and other international certification standards.

**Investments in natural resource management should be integrated with other rural investments to reduce or prevent environmental degradation.** This includes the promotion of agroforestry for cash crop production where possible, protecting forests while enhancing climate resilience. Investments in hillside protection and water management infrastructure would enhance access to water and reduce the risks of droughts and floods.

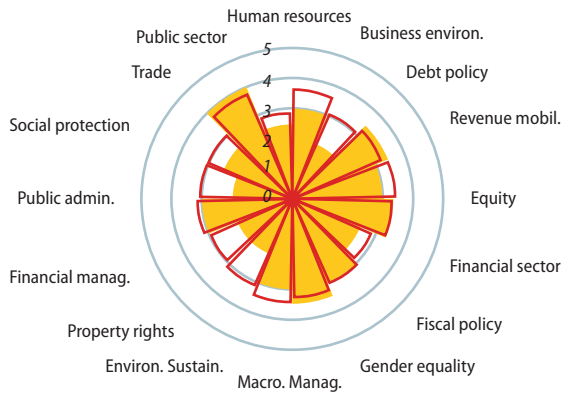
**The achievement of positive outcomes of the agricultural transformation process depends on policy decisions made today.** Agriculture is likely to retain a major role in economic growth, and agricultural growth can provide opportunities for income generation and poverty reduction in the years to come. For Timor-Leste to refine its policy agenda and move to the next level of agricultural transformation, a thorough analysis is required of the past development of the agriculture sector, the drivers of past growth – what has worked so far – and the potential drivers of future growth, complemented by lessons from global successes and failures.

## ANNEX: KEY INDICATORS

	2014	2015	2016	2017	2018
<b>REAL SECTOR</b>	<i>(annual percentage change, constant)</i>				
Gross domestic product	4.7	3.5	5.1	-3.5	-0.7
Final consumption expenditure	8.6	1.3	3.3	-2.3	-6.1
Gross fixed capital formation	6.1	-3.6	15.3	-16.7	10.5
Consumer price index, period average	0.9	0.6	-1.5	0.5	2.3
<b>FISCAL SECTOR</b>	<i>(percentage of non-oil GDP)</i>				
Total Revenue	55	51	44	42	46
Domestic revenue	12	11	12	12	11
Estimated Sustainable Income	44	40	32	30	35
Total expenditure	93	84	97	75	73
Recurrent expenditure	63	64	61	58	52
Capital expenditure	29	19	36	17	21
Fiscal balance	-37	-33	-53	-33	-27
Financing	37	33	53	33	27
Cash balances	29	-9	9	-7	-2
Excess PF withdrawals	7	40	42	37	27
Loans	1	2	2	2	2
<b>MONETARY AND FINANCIAL SECTOR</b>	<i>(as stated)</i>				
Credit to the private sector (% growth)	-0.1	9.1	-5.3	24.5	-2.4
Lending interest rate (%)	13.9	14.5	12.5	14.5	0.0
Nominal effective exchange rate (index)	112	125	126	126	126
Real effective exchange rate (index)	129	141	137	135	137
<b>EXTERNAL SECTOR</b>	<i>(percentage of non-oil GDP)</i>				
Current account	75	13	-32	-18	-12
Goods and services	-82	-76	-66	-60	-59
Primary income	147	81	32	46	53
Secondary income	11	8	2	-4	-6
Capital account	1	2	3	2	3
Financial account	-95	2	29	31	15
Direct investment	3	2	0	0	3
Portfolio investment	-95	9	41	21	11
Other investment	-2	-9	-12	10	0
Net errors and omissions	-7	-3	-9	1	2
Change in reserves	26	-14	9	-17	-8
<b>MEMORANDUM ITEMS</b>	<i>(as stated)</i>				
Oil production (million BOE)	45	48	49	41	38
Petroleum Fund, closing balance (USD million)	16,539	16,218	15,844	16,799	15,804

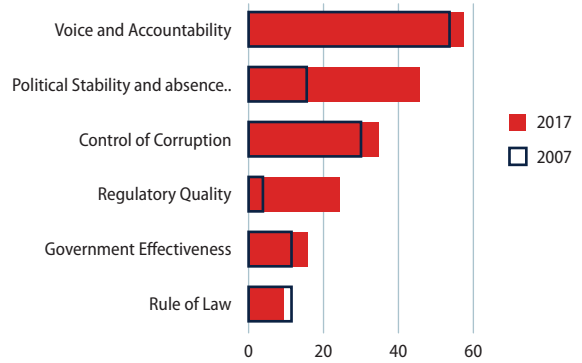


Figure 35. CPIA 2017 (Timor-Leste vs. IDA average)



Source: World Bank

Figure 36. WGI (percentile rank)



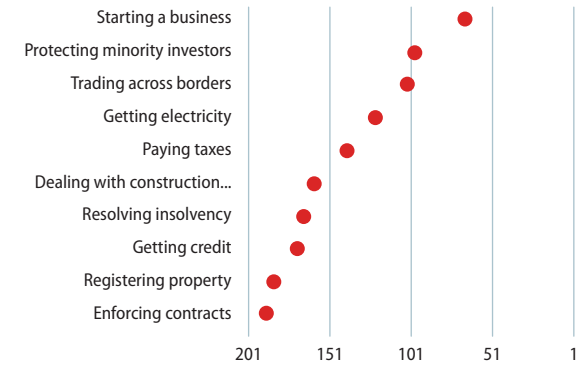
Source: World Bank (World Governance Indicators)

Figure 37. Doing Business 2019 (score)



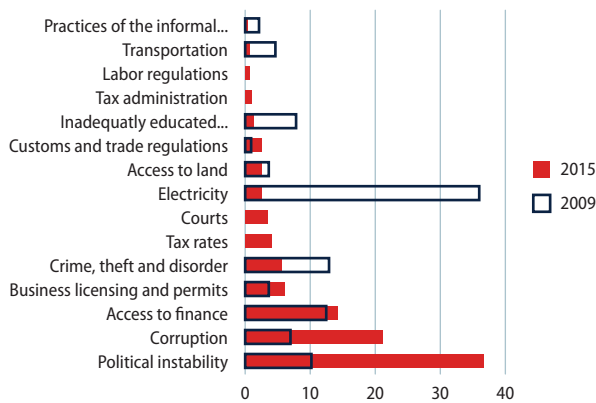
Source: World Bank

Figure 38. Doing Business 2019 (rank)



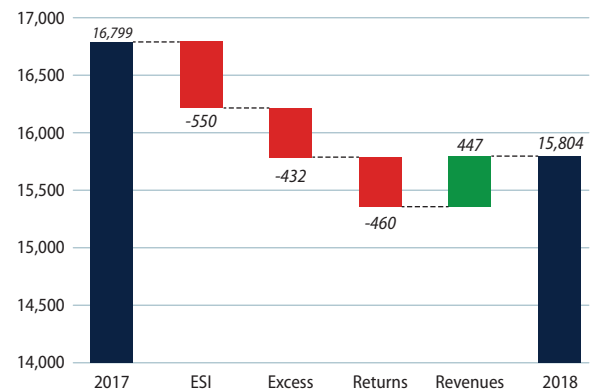
Source: World Bank

Figure 39. Enterprise Surveys (Main Obstacle, %)



Source: World Bank

Figure 40. Petroleum Fund balance (USD million)



Source: Ministry of Finance  
Note: Petroleum revenues exclude a \$63 million tax refund





