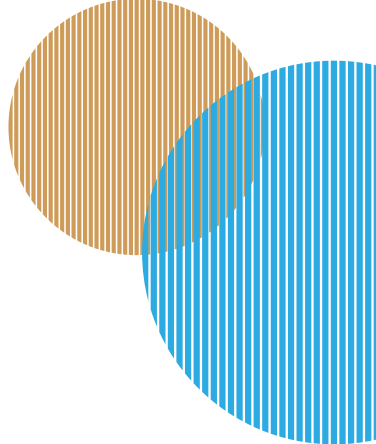




WORLD BANK GROUP



THAILAND PUBLIC REVENUE AND SPENDING ASSESSMENT

PROMOTING AN INCLUSIVE AND SUSTAINABLE FUTURE

EXECUTIVE SUMMARY
JUNE 2023

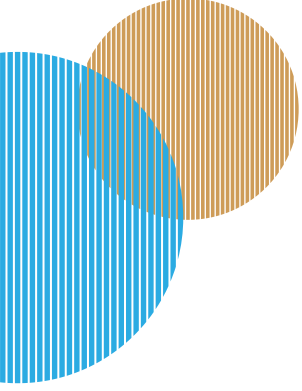




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Having implemented a substantial fiscal response to COVID-19, Thailand's government now faces the medium-term challenge of reducing elevated deficit and debt levels, and the structural challenge of meeting rising spending needs – including those associated with an aging population – while maintaining fiscal sustainability. In this context, this Public Revenue and Spending Assessment sets out revenue and expenditure choices that will help to ensure a more inclusive and sustainable economy. This will require raising revenue, improving the efficiency of public spending, and ensuring that revenue and spending policy measures support the most vulnerable and are responsive to climate-related challenges. Within this overall framework, the report provides several recommendations to improve the quality of spending in the health, education, and social protection sectors, as well as a detailed assessment of fiscal policies that would contribute to the achievement of climate mitigation and adaptation goals.

CONTEXT

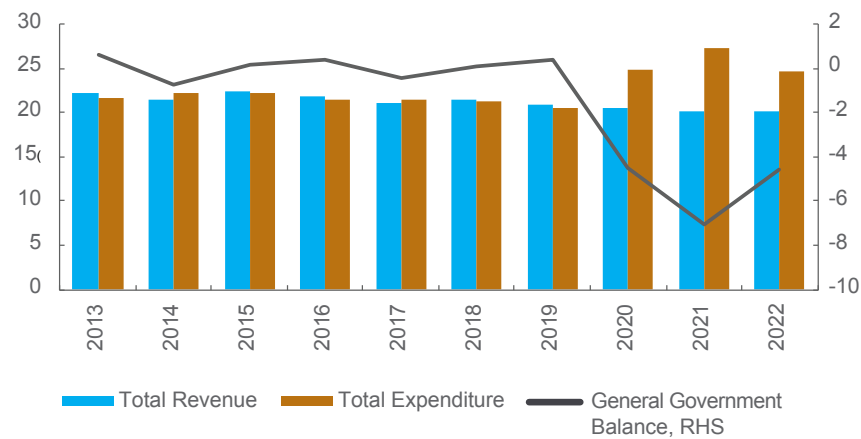
COVID-19 hit Thailand during a period in which economic growth had slowed. The economy grew at an average annual rate of 7.7 percent in the period from 1980-1996, supported largely by capital accumulation and a manufacturing-focused, export-oriented growth model. Labor shifted from agriculture to manufacturing, and this structural transformation enabled Thailand to rapidly converge with upper middle-income comparator countries while achieving substantial gains in poverty reduction. However, the Asian Financial Crisis of the late 1990s and the Global Financial Crisis of 2008 caused growth to slow. Over the decade to 2019, GDP growth declined to an annual average of just 3.3 percent. Investment in physical capital halved as a share of GDP, and total factor productivity (TFP) growth decelerated. In 2020, the economy contracted by 6.2 percent, due to the cessation of international tourism, the impact of domestic mobility restrictions, and a deterioration in external demand. Thailand returned to pre-pandemic levels of output in the third quarter of 2022, later than most regional peers.

While Thailand has made remarkable progress in poverty reduction in recent decades, this progress is slowing, and inequality remains very high. The national poverty rate fell from 58 percent in 1990 to 7.2 percent in 2015. But the pace of poverty reduction has slowed from 2015 onwards, mirroring a slowing economy and stagnating farm, business, and wage incomes. Due to the large-scale social transfers implemented as a response to COVID-19, poverty only slightly increased by 0.6 percentage points to 6.8 percent in 2020, and estimates indicate that it has subsequently declined. Nevertheless, income inequality in Thailand remains the highest in East Asia and was likely aggravated by the pandemic. Inequality can undermine progress in human capital accumulation and tends to reduce the pace and sustainability of growth and poverty reduction.

Thailand has traditionally had a conservative approach to fiscal policy, with budget deficits and public debt remaining contained prior to the pandemic. Over much of the past two decades, relatively low levels of revenue mobilization have constrained overall spending. Tax revenues (averaging around 16 percent of GDP) and overall revenues have remained relatively low over the past two decades by the standards of upper-middle income countries, as well as regional and OECD comparators. But the budget has been broadly balanced over this period, with the deficit peaking at just 2 percent of GDP in 2009. Between 2011 and 2019, fiscal outcomes have remained within a +1 to -1 percent of GDP range (Figure ES1). Taken together, the combination of low revenues and a balanced overall fiscal position have meant that public spending has been relatively low given Thailand’s income level and compared with its peers. Between 2013 and 2019, general government expenditure fluctuated within a tight band of between 21.3 and 22.2 percent of GDP. While health and education spending were prioritized within the overall government budget, they remained relatively low in per capita terms and as a proportion of GDP.

Figure ES1: General government fiscal balance

(% of fiscal year GDP, GFS basis)



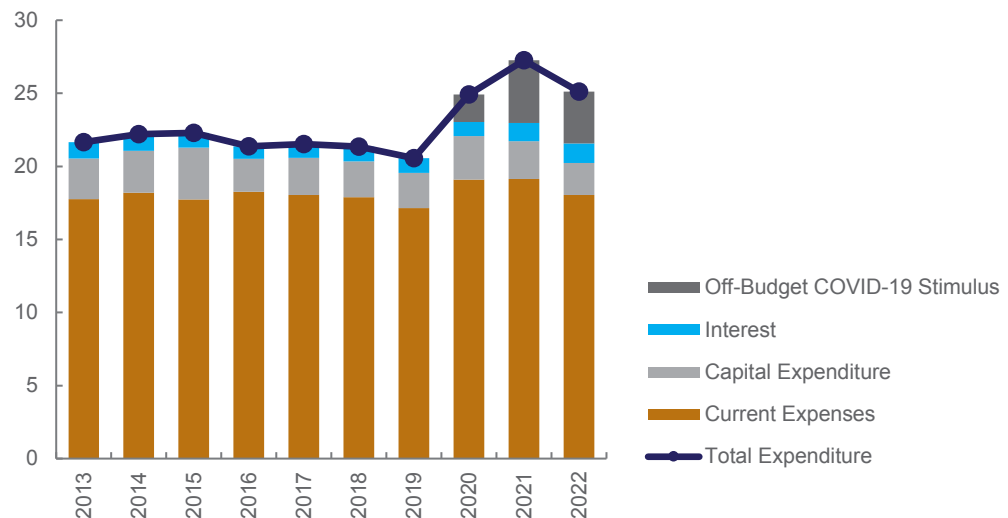
Source: Fiscal Policy Office, Ministry of Finance



This spending discipline allowed the government the fiscal space to respond to the COVID-19 pandemic with one of the largest fiscal packages in the region (Figure ES2). The response was unprecedented for Thailand in terms of the size, coverage and variety of instruments employed. Three phases of fiscal stimulus were announced in March 2020, April 2020, and May 2021 respectively, totaling THB 1.56 trillion. These were organized around three themes: health; relief (financial aid and cash handouts); and economic restoration and recovery. In addition, the Bank of Thailand provided extensive liquidity support to the private sector. Significant resources were allocated to income support measures, including cash transfers and subsidies for vulnerable households, informal workers, and farmers. A relatively large proportion of the total package was allocated to SMEs, to be provided via soft loans from state-owned banks. While Thailand's health-related measures were slightly larger than peers (1.7 percent of GDP), non-health related fiscal measures (7.6 percent of GDP) and below the line measures (5.4 percent of GDP) were much higher than in comparator countries. The package was financed by THB 1.5 trillion (8.9 percent of FY19 GDP) in off-budget loans, combined with reallocations from the budget, and contributions from Bank of Thailand and other financial institutions.

Figure ES2: General government expenditures

(% of fiscal year GDP, GFS basis)

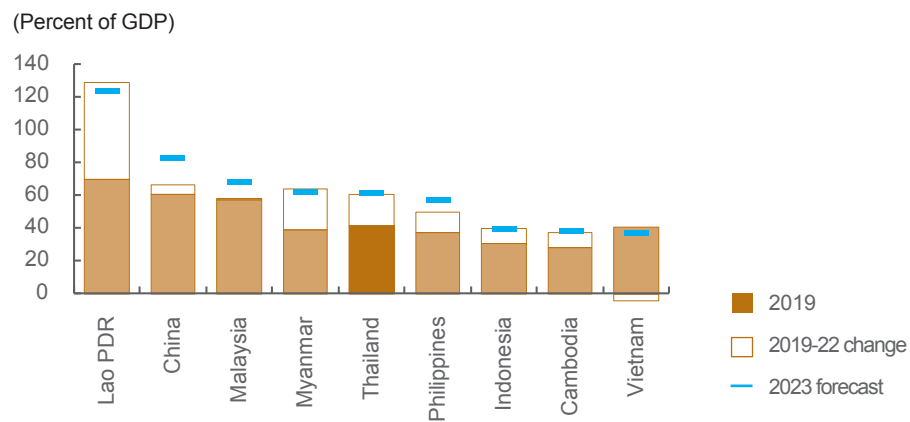


Source: Fiscal Policy Office, Ministry of Finance.

Additional fiscal measures were announced in FY2022 to mitigate the rising cost of living due to the war in Ukraine, slowing the planned consolidation in spending. Between February and July 2022, the authorities announced fiscal measures equivalent to THB 152 billion (almost 1 percent of GDP) to mitigate cost-of-living pressures due to the Ukraine war and rising global commodity prices. Some of the welfare subsidy measures were targeted at lower-income households, which generally results in larger multiplier effects while benefitting the most vulnerable. But subsidies and tax reductions on diesel and cooking gas were costly while being relatively inefficient in terms of their impact on poverty reduction.

These fiscal responses drove an increase in public sector debt of around 20 percent of GDP. Prior to the pandemic, Thailand’s conservative fiscal policy had meant that public debt had declined since the early 2000s. As of 2019, the level of public debt – at 41 percent of GDP – was moderate compared to regional and global benchmarks. But the COVID-19 pandemic saw public debt exceeding 60 percent of GDP for the first time in the past 20 years. Accommodating the emergency policy response required temporary changes to the fiscal mandate, including raising the public debt ceiling from 60 to 70 percent of GDP. This allowed the government to fully utilize the THB 1.5 trillion in borrowing authorized for the COVID-19 response effort during FY2020-22. While public debt has risen sharply since 2019, it remains at relatively contained levels compared with other countries in the region (Figure ES3).

Figure ES3: Public debt in emerging EAP economies



Source: IMF Fiscal Monitor April 2023.





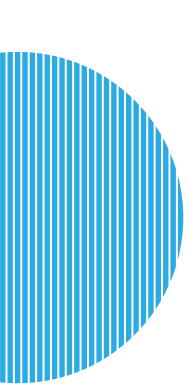
ENSURING FISCAL SUSTAINABILITY

i. ... over the medium term, while continuing to support economic activity...

Although public debt has risen to historically high levels, several factors mitigate the associated fiscal risks. Almost all of Thailand's public debt is denominated in local currency, and domestic appetite for local-currency government debt appears to have remained resilient. A large majority of public debt is held by Thai residents, limiting exposure to external shocks triggering capital outflows and exchange rate depreciation. Despite the sharp increase since 2019, public debt remains contained relative to peers, and interest rates had not increased substantially as at the end of 2022. The low share of foreign exchange-denominated public debt and long average term to maturity significantly mitigate the impact from exchange rate and interest used by the rate shocks. Debt service as a percent of total revenues, which serves as an additional indicator used by the authorities to guide fiscal policy, remains low.

Nevertheless, some fiscal consolidation will be required over the medium term. In a 'no consolidation' scenario in which primary fiscal deficits remain at the average level observed over the period from FY2020 to FY2022 – 4.4 percent of GDP – public debt would quickly increase to unsustainable levels given current baseline assumptions for economic growth and interest rates. Hence – as recognized by the government's medium-term fiscal framework (FY2023-2027) – over the medium term it will be necessary to reduce the deficit from its recent levels. Moreover, the fiscal costs and risks associated with public debt at 60 percent of GDP are higher than what Thailand was exposed to with public debt at pre-pandemic levels. These include: i) an increase in future interest costs on public debt (with the potential to crowd out other public spending); ii) higher rollover risks associated with a larger stock of maturing debt; iii) elevated risks of an adverse shift in interest rates (due to higher risk premia) and/or growth, which would make it more difficult to maintain debt sustainability; and iv) reduced fiscal space available to respond to future exogenous economic shocks.

But there is scope for the government to moderate the pace of fiscal consolidation over the next few years without jeopardizing debt sustainability. Fiscal consolidation will be more supportive of economic activity if it proceeds at a gradual pace, and to the extent that capital spending is maintained or even increased as current spending declines from its current high levels. A customized macro-structural model is used to assess the impacts of such a fiscal path, compared with a baseline in which larger spending reductions see public debt decline to 55 percent of GDP by 2028. The illustrative scenario is one in which: i) public debt remains at around 60 percent of GDP in 2028; ii) current spending declines by around 3 ppts of GDP from 2022 levels by 2028 (consistent with the baseline); and iii) capital spending increases by a further 0.3 ppts of GDP by 2028 (versus a reduction of 0.4 ppts of GDP in the baseline).



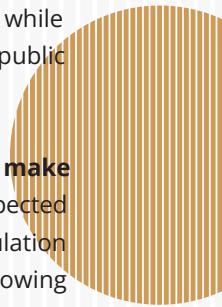
Overall, the analysis indicates that increasing public investment spending from current levels over the medium-term would allow a more growth-friendly fiscal consolidation. Increasing public investment spending from 2.6 percent of GDP (the 2017 to 2022 annual average) to 3.3 percent annually from 2023-28 would support domestic demand in the short-term – in the context of a still-fragile recovery from recent economic shocks – with significant multiplier effects as that spending recirculates in the economy. Additional public investment also has a supply-side effect, raising the public capital stock and ‘crowding in’ private investment, both of which act to increase potential output over the medium-term. This path would imply a slower fiscal consolidation than would otherwise be the case, but the associated increase in debt-related costs and risks is expected to be manageable. The longer-term fiscal analysis that follows below incorporates the fiscal and growth impacts of this medium-term increase in public investment spending.

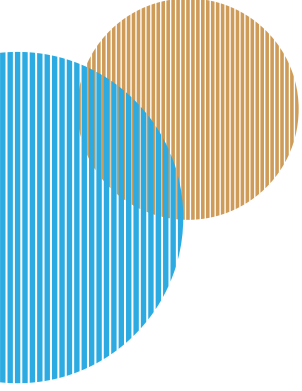
ii. ... and over the longer-term, while meeting structural spending needs

Alongside an increase in overall public investment spending, the analysis in this report suggests that increasing spending on social assistance, education, and climate adaptation is a near-term priority. Spending in these areas has a significant impact on human capital and economic resilience. Moreover, social spending plays an important role in reducing poverty and inequality in Thailand. But overall levels of social assistance spending (prior to the COVID-19 shock) were relatively low. Currently, the Old Age Allowance (OAA) is among the lowest social pensions in the world, with beneficiaries aged 60 to 69 receiving benefits just over a quarter of the international upper middle income poverty line. Other social assistance payments, including those associated with the State Welfare Card (SWC), are even lower. Microsimulations indicate that increasing the size of these benefits and targeting them more effectively would be a cost-effective means of reducing poverty and vulnerability, even after the impacts of the pandemic recede. In education, spending per student at the pre-primary and secondary level is low relative to international benchmarks, with evidence to suggest that this has adversely affected learning outcomes. Higher spending at these levels has the potential to drive the necessary improvements in education quality and raise the level of human capital over the longer term. And as Thailand is rated as one of the world’s most vulnerable countries to climate change, significant climate adaptation investments are required as a matter of priority to mitigate the substantial economic costs associated with an increasing incidence and severity of flooding, storms, and coastal erosion.

Looking forward and beyond the pandemic period, spending needs will also rise relative to pre-COVID levels because of a rapidly aging population. There will be pressure to increase the availability and quality of basic public services and social protection systems given the needs of an aging population, the rising expectations of an increasingly middle-class society, and the objectives of government to support resilient growth and human capital development. The challenge will be to pursue these objectives while ensuring that overall spending remains sustainable, and that the fiscal incidence of taxation and public spending is consistent with an inclusive development path.

Aging acts to constrain potential growth, which, in the absence of offsetting measures, will make it more difficult to maintain fiscal sustainability. Long-term projections show that growth is expected to decline between 2020 and 2050. The decline in population growth and the working-age to population ratio account for more than one-third of the projected decline in GDP growth over this period. Slowing growth will make it more difficult to raise the revenues required to match spending needs.



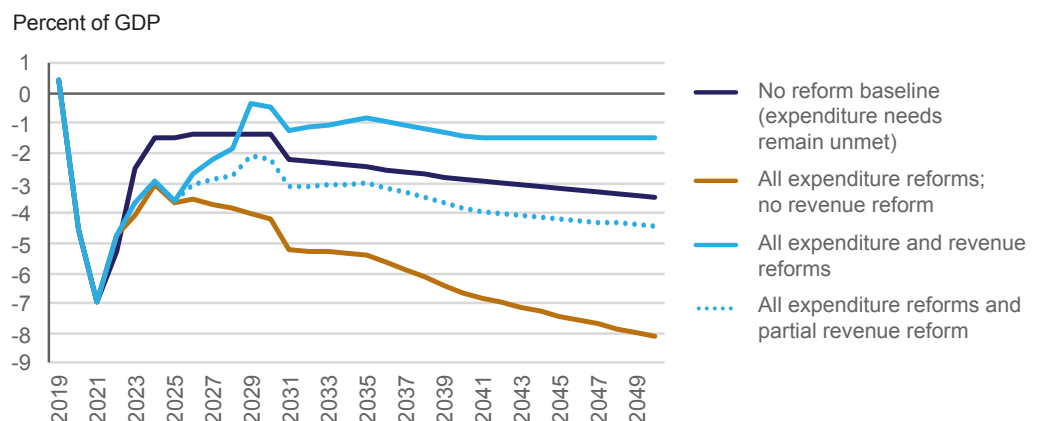


Aging will also directly lead to increased spending needs, through rising public pension and healthcare costs. The number of people aged 60 or older has been increasing and this trend will continue until 2050. Under the baseline projection, the combined fiscal cost of the Old Age Allowance and civil service pensions is projected to rise from 1.8 percent of GDP in 2019 to 3.5 percent in 2050, assuming that the per recipient size of these benefits increases with per capita GDP. The total public cost of healthcare is projected to rise from 2.8 percent of GDP to 3.5 percent during the same period as the incidence of non-communicable diseases continues to rise, costs associated with new medical technologies and procedures increase, and the increasing numbers of elderly require additional spending on healthcare.

To limit the extent of spending increases and enhance their impact on equity, there is scope to improve the efficiency of spending on social assistance, education, and health. More stringent targeting of the OAA and SWC benefits could reduce fiscal costs while largely preserving gains in poverty reduction. In education, spending per primary student is high, mainly due to the prevalence of inefficiently small and under-resourced primary schools: efforts to consolidate these schools and redirect resources to pre-primary and secondary schools would lead to a significant gain in allocative efficiency. In health, enhanced NCD screening and preventative measures would reduce the need for more expensive treatments, while there is also scope to harmonize and improve the design of public health insurance purchasing arrangements to reduce costs.

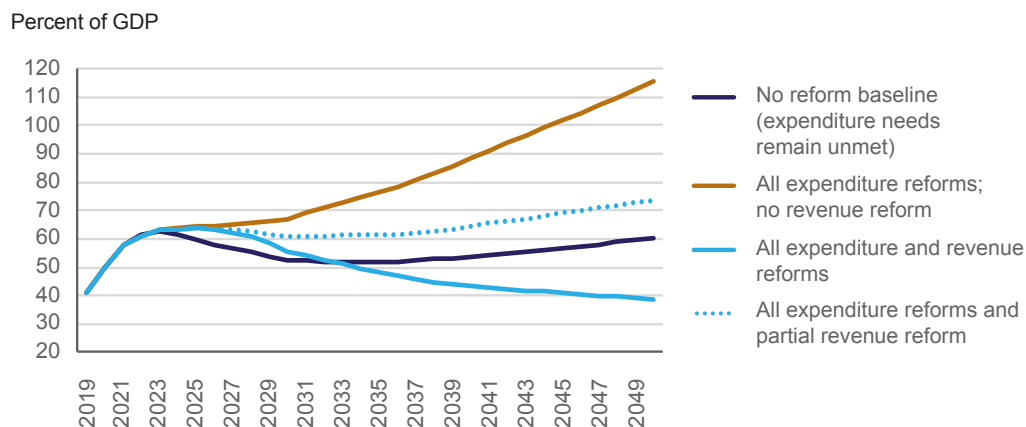
Nevertheless, a key finding of this report is that meeting these identified spending needs while maintaining debt sustainability will require a substantial increase in revenue. In the absence of revenue reforms, the additional expenditures in social assistance, education and climate adaptation outlined above – even after accounting for potential improvements in spending efficiency – would cause the fiscal deficit to exceed 8 percent of GDP and the public debt stock to increase to unsustainable levels in the long term (Figures ES4 and ES5; All expenditure reforms; no revenue reform scenario). On the other hand, with significant efforts on tax reform (see below), revenue collection could rise by 3.5 percentage points of GDP to just under 25 percent of GDP, and public debt could decline to below current levels over the long term. Less effort on revenue mobilization (as per the ‘partial revenue reforms’ scenario) or spending efficiency would lead to commensurately higher deficit and debt levels. Note that fiscal consolidation in the ‘All expenditure and revenue reforms’ scenario is slower than in the baseline over the next five years, consistent with the more growth-friendly (and higher capital spending) medium-term trajectory described above.

Figure ES4: Impact of reforms on the fiscal balance



Source: WB analysis

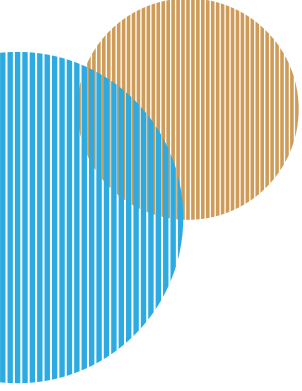
Figure ES5: Impact of reforms on public debt



Source: WB analysis

Note: “No reform baseline” denotes a scenario in which revenues remain stable at 2022 levels and identified spending needs in social assistance, education and climate adaptation remain unmet.

While revenues ultimately need to rise, Thailand has the fiscal space to increase spending in critical areas immediately while pursuing revenue reforms more gradually. In the all-reforms scenario depicted in Figures ES4 and ES5, the recommended increases in spending on public investment and social assistance are assumed to be fully implemented in 2023, while spending on climate adaptation quickly scales up from 2023 onwards. But revenue reforms are assumed to be implemented more gradually, so that revenues rise steadily over the remainder of the decade and reach their peak of 24.3 percent of GDP only by 2030. Such a measured approach to revenue reform may be warranted given that i) the economic recovery remains fragile as at early 2023; ii) there is a need to make a political case for ‘stroke of the pen’ reforms such as increasing the VAT rate; and iii) other recommended measures (e.g. broadening the personal income tax base) will naturally require a longer implementation period due to the nature of the changes required. The all-reforms scenario shows that committing to such a gradual increase in revenues over the next eight years would create the required fiscal space for additional spending in priority areas now, with debt not rising substantially above current levels in this scenario.



Long - term fiscal outcomes are highly dependent on economic growth. If real GDP growth was to average 2 percent per year rather than the 2.5 percent assumed in the baseline – due to weaker than expected public or private investment, more pronounced aging impacts on the labor force, or more modest growth in total factor productivity – public debt could rise to close to 70 percent of GDP by 2050 after accounting for the impact of all revenue and spending reforms. Conversely, faster average growth of 3 percent per year would make it significantly easier to ensure longer-term fiscal sustainability, though would not eliminate the need for revenue reforms.

This implies that continued progress on the structural reform agenda is critical to the maintenance of fiscal sustainability. To mitigate the impact of aging on long-term growth, policies should aim to increase the size of the labor force and to enhance its productivity, including by increasing the retirement age, increasing female labor force participation rates, and providing training to upskill the existing workforce and resolve mismatches between the skill set of agricultural workers and the skill set demanded by the industrial and services sectors.¹ These are in addition to the reforms considered in Chapter 5 to improve the quality of basic education. Previous World Bank analysis has shown that productivity can also be improved by i) increasing economic openness; (ii) enhancing competition in the domestic economy; and (iii) creating a more conducive environment for firm innovation. Finally, additional public investment (as assumed over the medium-term in the reform scenario) could boost the productive capacity of the economy and crowd in private investment, while at the same time providing demand-side stimulus over the next few years.

Conversely, sustainable fiscal policy can have a significant impact on growth. There are two main channels. The first is that additional public investment in physical and human capital, as captured by the public investment and education reforms in the all reforms scenario, will increase the productive capacity of the economy over the longer term and thereby raise the potential growth rate. The second is that the maintenance of fiscal sustainability is itself growth enhancing. Investment is negatively correlated with macroeconomic uncertainty, while a lower risk of debt distress tends to be associated with lower interest rates.

A sound and transparent fiscal framework can help to provide assurance to investors and the general public that fiscal settings will remain sustainable over time. The public debt rule provides an important anchor for fiscal policy. While the recent increase in the public debt ceiling to 70 percent of GDP was justifiable given the circumstances, to preserve credibility future adjustments to the level of the ceiling should be minimized. And although fiscal policy outcomes to date have been sound and policy decisions have been appropriately constrained in practice, the overall fiscal rules framework is complex and may not be fit for purpose in all respects., For several of the rules – including the capital spending rule – a careful review is warranted as to whether they are necessary and serving intended objectives. In addition, budget fragmentation, including the use of extra-budgetary funds and quasi-fiscal policies, tends to undermine fiscal transparency and the effectiveness of fiscal rules. The Ministry of Finance can improve fiscal transparency by reporting on the extent of off-budget operations, improving the costing of contingent liabilities in the statement of fiscal risks, and moving towards greater compliance with the IMF's general data and dissemination standards.

¹ See Bandaogo, M. and R. Van Doorn (2021), *The Macroeconomic and Fiscal Impact of Aging in Thailand*, World Bank, on which this longer-term fiscal sustainability analysis is partly based.

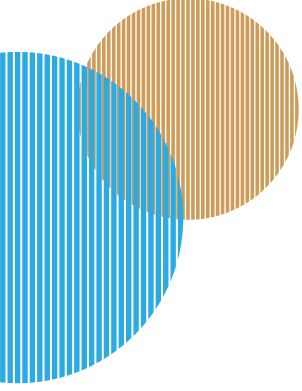
RAISING REVENUE

Given Thailand's income level, revenue collection is low. Thailand has an estimated structural 'tax gap' – the difference between tax collection capacity, based on the performance of peers at a similar income level, and actual tax revenue – of around 5.6 percent of GDP. At current levels, revenues will be inadequate to meet future spending needs while maintaining fiscal sustainability. Moreover, the tax system on its own does relatively little to promote equity. More progressive taxes such as personal income tax and wealth taxes provide a relatively small share of the overall tax take, with low levels of compliance and high rates of informality raising the potential for horizontal inequities.

This report proposes progressive tax reforms that taken together could increase revenues by 3.5 percentage points of GDP. These reforms, if implemented gradually over the rest of this decade, would narrow the estimated tax gap, promote equity, and provide the revenue needed to fund elevated spending needs. They include reforms to: (a) adjust the VAT rate and exemptions; (b) broaden the personal income tax base and streamline allowances; and (c) expand property tax collection. By implementing these reforms at a gradual pace over the next eight years, revenue collection could increase to 24.3 percent of GDP by 2030 from 20.9 percent in the baseline scenario (Table ES1). With the incidence of these taxes falling more heavily on higher-income households, these reforms would help to mitigate Thailand's very high rate of inequality. Moreover, the negative impacts on the poor could be offset by social assistance reforms, the cost of which would still allow for substantial net revenue gains (see below). Note that Table ES1 excludes the impact of additional revenues from carbon pricing, which over the longer term would be broadly offset by the cost of other climate mitigation measures proposed in this report.

Table ES1: Key revenue reform areas


Reform options	Detail	Estimated impact (% of GDP)
VAT		
• VAT rate increase	Increase the VAT rate from 7% to 10%	1.6
• VAT exemption reform	Remove VAT exemptions	0.6
• VAT rate and exemption reform	Increase VAT rate to 10%, while also removing VAT exemptions	2.5
Personal Income Tax		
• Expansion of personal income tax base	Expand number of tax filers to the UMIC average of 32.5% of the labor force by incentivizing compliance	0.3
• Streamlining personal income tax allowances	Streamline overall allowances, deductions, and special allowances (while maintaining the exemption for incomes below THB 150,000, among others)	0.5
Tax on property	Improve collection by ensuring regular updates of the appraisal value (linked to market values), and simplifying valuation approaches	0.3
Total revenue impact of proposed reforms		3.5



Raising the VAT rate and removing exemptions could substantially increase tax revenue and would also be progressive. Thailand's VAT is a relatively productive tax, with the government collecting around 85 percent of potential collections given the VAT rate and base. But Thailand misses out on higher VAT collections because the rate of 7 percent is among the lowest of upper-middle income countries, and because the tax base is relatively narrow. Raising the VAT rate from 7 percent to 10 percent is estimated to increase revenue by up to 1.6 percent of GDP, with a larger impact on high-income groups. The low VAT base is another driver of low tax potential, largely attributable to the prevalence of exemptions, the relatively low level of consumption, and high rates of informality. Exempted products and services are estimated to account for around 19 percent of GDP; removing these exemptions could result in additional tax revenue of around 0.6 percent of GDP. Taken on their own, these reforms would adversely impact the poor, but providing compensation via the targeted social protection measures proposed in this report would more than offset the impacts on poverty at a cost well below the additional VAT revenue raised. There is also potential for other reforms to broaden the VAT base. Targeted incentives for SMEs could encourage informal firms to register in the VAT system. Extending the VAT to capture e-commerce and digital services more effectively could also raise revenue in a fast-growing sector, while also making local service operators more competitive in the domestic market.

Thailand has the potential to raise personal income tax (PIT) revenue by 0.7 percent of GDP, while also achieving a fairer tax system. At around 1.8 percent of GDP, personal income tax revenues in Thailand are in the bottom 20th percentile of upper-middle income countries. This is because i) the tax base is narrow, with a low share of personal income taxpayers and low rates of filing from non-salary workers; ii) informality rates are relatively high; and iii) despite a high top marginal tax rate of 35 percent, effective tax rates are low due to generous tax incentives and allowances. Only 4 million people (or 10 percent of the labor force) paid tax in 2019, most of whom were salary workers. The introduction of incentives for tax filing and compliance could help to address the low number of self-declarations and/or under-reporting of income among the self-employed, business owners, as well as those workers in the informal sector. The removal of generous deductions and allowances would also improve the efficiency of the personal income tax and make system more equitable. The analysis shows that the benefits of some tax allowances, such as tax incentives for long-term savings, accrue mainly to high-income taxpayers. Measures to expand the PIT base from the current level of 28.5 percent of the labor force to the UMIC average of 32.5 percent are estimated to improve PIT revenue collection by 0.3 percent of GDP. Removing most personal income tax deductions and allowances, while maintaining the standard exemption of THB 150,000 and allowances for personal spending and spending for dependents, could increase revenue by a further 0.5 percent of GDP.

Additional efforts to collect tax on wealth would also help raise revenue and increase tax equity, while minimizing distortionary impacts. Property tax is an equity-enhancing and growth-friendly tax instrument, and Thailand's property tax collections are relatively low at 0.2 percent of GDP, below the UMIC average of 0.5 percent. Closing this gap could provide additional own-source revenues for local governments. Thailand has taken steps to increase property tax with the new Land and Building Tax Act, however, the tax payments due were reduced by 90 percent in 2020 and 2021 due to the COVID-19 pandemic. As these temporary measures are unwound, property tax collection should increase. Collections can be further improved by raising rates, ensuring regular, systematic cadastral updates, and implementing simplified valuation approaches that are based on market values.



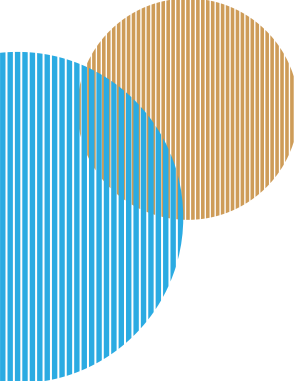
ENSURING THE ADEQUACY AND EFFICIENCY OF SPENDING

Prior to the pandemic, overall public spending was relatively low by international standards, reflecting the constraint of low revenue collection. Spending averaged 21 – 22 percent of GDP—far lower than in structural peers (31 percent) and aspirational peers (28 percent), and around half the OECD average (41 percent). The more rigid drivers of current spending—such as the wage bill and interest payments—have been relatively well contained. This reflects the overall conservative fiscal approach, with controls on civil service remuneration and headcount and relatively low levels of public debt.

The low overall budget envelope has constrained investments in human capital, despite efforts to prioritize this spending in the budget. As a proportion of GDP, education and health spending is low compared with peers, and spending on social protection was also low prior to 2020, with the significant COVID-related increase expected to be largely temporary. While there is scope for efficiency gains in each of these sectors, the level of spending will also need to increase to address key challenges arising from the aging population, rising expectations around service delivery, weak learning outcomes, and greater needs for social assistance. This report focuses on the need to invest in human capital to raise productivity and potential growth, with separate chapters devoted to health, education, and social protection spending (see below). In each of these areas there is potential to increase the quantity and quality of spending.

While physical capital is also an important driver of growth, public investment has declined as a share of GDP and of total government spending. Capital spending fell from an average of 14 percent of total spending in FY13 – FY15 to 11 percent in FY16 – FY19. Total public investment spending (including SOEs) as a share of GDP remains higher than in peers, as does the level of the public capital stock. However, the quality of infrastructure appears to have declined, and now underperforms many peers. This has resulted in Thailand giving up a competitive advantage that it previously enjoyed relative to other regional economies. Recent analyses identify gaps in Thailand's infrastructure as a key factor contributing to the slowdown in productivity over the past 20 years, weakening its economic competitiveness and worsening congestion and air pollution. Furthermore, deteriorating infrastructure quality indicates inefficiencies in public investment spending. Cross-country analysis of public marginal capital to output ratios confirms that there is scope for enhancing public investment efficiency in Thailand.

Raising public investment over the medium term and strengthening public investment management (PIM) would unlock a triple benefit of economic stimulus, structural reform, and efficiency gains. Since the late 1990s, Thailand has consistently underspent its capital budget by around 30 percent. This suggests that a constraint to increasing public investment is implementation capacity, and not just available financing.



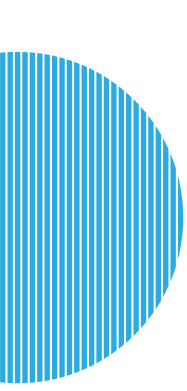
Several flagship investment projects — initiated many years prior to the pandemic — remain delayed in Thailand’s investment pipeline. These projects present an opportunity for economic stimulus in the short to medium term, while boosting the productive capacity of the economy over the longer term. The higher rates of capital spending in the reform scenario considered in this report could be achieved with a relatively small boost to the capital budget execution rate.

Recommendations to alleviate bottlenecks and boost the impact of a public investment-led stimulus include: i) strengthen investment planning and the medium-term expenditure framework (MTEF), including by developing a comprehensive multi-year pipeline of public investment projects—including projects that are identified as potential PPPs—that are costed, appraised, and prioritized at a whole of government level; ii) improve the quality of project appraisals; iii) establish an independent appraisal review body to validate project appraisals and increase transparency; iv) institute mechanisms to effectively follow through on Environmental Impact Assessments (EIAs); v) modernize procurement rules and electronic systems, and increase transparency; and vi) develop real-time monitoring systems that allow agencies to make project modifications during implementation.

i. Health

Despite relatively low levels of spending, the Thai health system has achieved good outcomes, driven by the prioritization of universal health coverage and a focus on primary health care. While health is prioritized in the government budget, because overall spending is comparatively low, public health spending is modest by international standards. Out of pocket spending is also relatively low. Nevertheless, Thailand has achieved a remarkable improvement in population health outcomes in recent decades, with an equitable health system compared to peers. Life expectancy has increased to 77.2 years in 2019, up from 70.6 years in 2000, and over the same period there have been substantial declines in infant, under-five, and maternal mortality rates. In general, Thailand’s key population health outcomes are better than the average for East Asia and Pacific countries and Upper and Middle-Income Countries (UMICs). These successes are anchored in (i) long-standing government policy and action towards Universal Health Coverage (UHC), with almost the entire population covered by one of three public health insurance schemes; (ii) sustained focus on primary health care (PHC) with emphasis on maternal and child health (MCH); and infectious diseases; and (iii) a health workforce with a favorable skill mix.

With pressures on the health system expected to rise over the medium to long-term, an ongoing improvement of health outcomes will require a combination of additional resources and efficiency gains (see Chapter 4). Thailand’s aging population places increased demands on the health system, in terms of service delivery and escalation of costs. The introduction and expanded use of new drugs, procedures, and other medical technologies – alongside growing pressure to include these in the benefit packages of public health insurance schemes – will put further upward pressures on health spending. Costs associated with NCDs are also expected to rise. While the prevalence of diabetes and hypertension has increased sharply since 2000 and will continue to grow over time, progress in reducing the premature mortality rate from NCDs has stagnated. The system is not well prepared to prevent, detect and manage NCDs. Particularly in urban areas, people often bypass the gatekeeping and referral system, hindering the effectiveness of mechanisms for early diagnosis. This is a source of spending pressure as late diagnosis can result in the need for complex treatments which are much more costly than prevention or routine care. More broadly, health financing and purchasing mechanisms provide limited incentives for care coordination and integration across levels of care, and there is a lack of information sharing among service providers.



A more integrated service delivery system would increase the efficiency of health spending and enhance responsiveness to health-related needs. The establishment of a nationwide interoperable health information system (HIS) with electronic health records (EHR) at its core would provide the foundation of delivering and paying for people-centered integrated care. This would allow care to be better coordinated by different providers and integrated with other services. Innovative payment models should, such as bundled payments, should be explored to achieve better integration and less duplication and waste in health services.

- **A more integrated service delivery system would allow a more effective response to the chronic care needs of an aging population, and result in better management and control of NCDs.** In particular, improving screening of hypertension and diabetes and providing health education during outpatient visits to public health providers would help reduce financing needs associated with providing more expensive treatments.
- **Improvements in the design of public health insurance purchasing arrangements could result in significantly reduced costs.** In particular, three reforms to the Civil Service Medical Benefits Scheme (CSMBS) could make a difference: (i) require beneficiaries to select and register with a contractor provider; (ii) change the payment for outpatient services from a retrospective fee-for-service to a prospective risk-adjusted capitation payment; and (iii) change the budget from open-end to close-end.

Taken together, these reforms would improve spending efficiency and it is estimated that they could reduce total public health spending needs from 3.5 percent of GDP in a 2040 baseline scenario to 3.0 percent, which is only slightly higher than current public health spending of 2.8 percent of GDP.

ii. Education

Student learning outcomes have remained weak despite substantial increases in education spending.

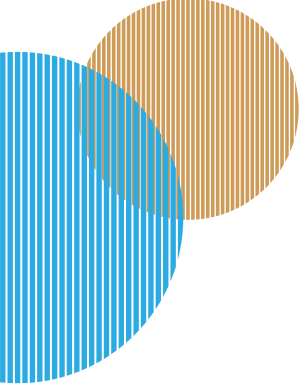
Boosting Thailand's growth potential and facilitating its shift into a high-income economy will require a focus on raising productivity by developing human capital and skills. But Thailand's quality of human capital is lagging its regional peers. Despite a large increase in per-student spending over the last two decades, Thai students' performance in the PISA mathematics and science assessments remained stagnant at low levels, and declined significantly in reading.

Poor education outcomes are explained by inefficiencies in the way education spending is allocated across levels, as well as inadequacy of the overall spending envelope.

In particular, spending per primary student is high relative to international benchmarks, mainly because there are a large number of inefficiently small and under-resourced primary schools. Even though per-student costs for these small schools are much greater than those for larger schools, they are chronically short of teachers and other key educational inputs. On the other hand, spending per student at the pre-primary and secondary level is comparatively low.

In the education reform scenario, the school network is reorganized to consolidate small schools and ensure that primary students have access to the teachers and resources they need to learn effectively.

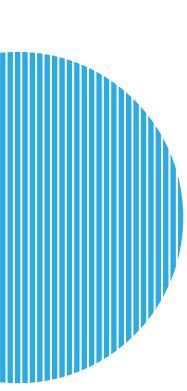
Savings from this school reorganization – which would largely be reflected in a reduction in per-student primary spending – would then be reallocated to other levels. The analyses in this chapter indicate that the proposed merger of mostly primary schools could be expected to reduce per-student spending at the primary level by around 11 percent. But the reallocation of this spending would only provide a portion of the resources necessary to bring pre-primary and secondary spending to international benchmarks. Additional resources will also need be drawn on to ensure the adequacy of overall education spending at these levels.

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- **Children’s readiness for school should be improved by increasing the availability of high-quality preschools available.** Only 61 percent of Thai children aged 3-5 were developmentally on track in the literacy-numeracy domain (UNICEF, 2020) and the level of per-student spending in 2019 was as much as 47 percent below comparable international peers. Research has shown that investment in high quality preschool programs generates high economic returns, in the range of 3 to 9 times the amount invested (Cascio and Schanzenbach, 2013).
 - **At the secondary level, Thailand should focus on reducing class sizes and providing adequate resources to its schools.** Thailand’s average class size of 37.3 was the 9th largest among the 79 education systems which participated in PISA 2018. By contrast, class sizes in OECD countries averaged only 26.2. Moreover, in the PISA 2018 school survey, school principals in ‘Average’ and ‘Disadvantaged’ as well as ‘Rural’ schools reported that their schools’ capacity to provide instruction was hindered by ‘a lack of/inadequate or poor quality’ educational material and physical infrastructure. The same was also true in the area of teaching and supporting staff (World Bank, 2020).
 - **There is a need to generate better and more frequent data on the quality of school inputs, establish minimum quality standards, and provide resources to ensure that all basic education schools meet them.** A new instrument developed by the World Bank (2020), called the Fundamental School Quality Level (FSQL) Standards, provides a good starting point. FSQL school input quality indices have been found to correlate significantly with the learning outcomes of students, and therefore can provide guidance to policy makers and school leaders about areas that need to improve to boost student learning.

Though the implementation of these reforms would require additional spending (equivalent to around 0.5 percent of GDP) above the baseline by 2050, the resulting higher rate of human capital accumulation is expected to drive faster potential growth. The net effect of these reforms would see overall education spending increase from 2.8 percent of GDP under the baseline to 3.3 percent of GDP in 2050. However, the reforms would be expected to improve test scores and education quality, which in turn would boost human capital over the longer term as graduating students enter the workforce. Ultimately this could be reflected a boost to GDP growth of between 0.1 and 0.2 ppts per year between 2025 to 2050.

iii. Social Protection

Before the COVID-19 pandemic, social protection spending was low. In 2019, spending on social assistance was less than 1 percent of GDP, compared to 1.6 percent for UMIC countries. Spending on the immature social insurance scheme was also low, though spending on the defined benefit civil service pension scheme had grown to exceed 1 percent of GDP in 2020. While a large share of the population is covered by some form of social assistance, the amounts transferred remain very small, and most poor and vulnerable households do not receive a full package of support due to the fragmented nature of the social protection system. At the same time, large segments of the population lack access to social insurance.

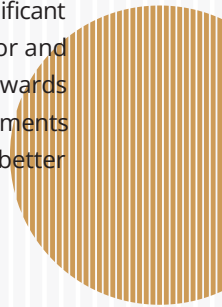


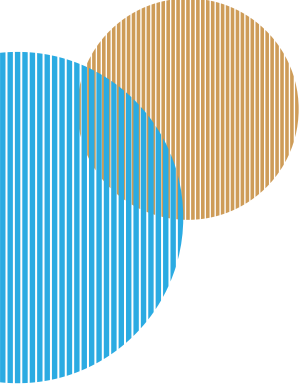
The experience of COVID-19 and the war in Ukraine has highlighted the scope to increase social assistance spending more permanently as a means of reducing poverty and inequality and helping households cope with risk. The government responded swiftly and effectively when the COVID-19 crisis hit, more than tripling spending on social assistance and reaching over 80 percent of households with some form of assistance. However, much of this increase in spending is expected to be only temporary. There is now an opportunity to permanently expand social assistance and reduce fragmentation across programs, improving efficiency and impact (see Chapter 6). Increasing spending to be more in line with international benchmarks would not only lead to a greater impact on poverty, but it would also lead to positive impacts on productive work and long-term growth via human capital formation.

Better targeting of social assistance spending would limit the fiscal impact of increases to benefit amounts, while maintaining most of the poverty reduction gains. This report recommends the following:

- **An increase of the Old Age Allowance (OAA) to THB 2000 per month for the poorest beneficiaries, with the amount of the allowance tapering or being left unchanged for higher income recipients.** Currently the OAA ranges between THB 600 and THB 1000 per month (increasing by beneficiary age), and has not been adjusted for over a decade. A benefit of THB 2000 per month is equivalent to around 86 percent of the THB 2,329 per month poverty line, based on the US\$5.5/day (2011 PPP) benchmark.
- **An increase of the State Welfare Card payment to 30 percent of the poverty line (THB 700 per month), and an improvement in the targeting of these payments.** Current SWC payments range from THB 200 to THB 300 per month, depending on the beneficiary's household income. At the moment, the program covers a larger proportion of the poor than the rich, but many poorer households remain excluded while many non-poor households are included. For example, about two thirds of the poorest quintile do not receive SWC benefits, while nearly one in five of the middle quintile are SWC beneficiaries. An improvement in targeting which increases the coverage of the bottom 40 percent (while keeping the overall number of beneficiaries constant) would lead to a significant additional impact on poverty reduction (over 1 ppt), over and above the impact of increasing the benefit amount for existing beneficiaries. Recently, eligibility criteria for the SWC have been revised to consider the assets of the household, not just the individual, which is a step in the right direction. Combining such asset and means tests with a proxy-means test could potentially better capture informal income thereby further reducing inclusion errors.

In the medium term, greater investments in delivery systems and reductions in the fragmentation of the social assistance system would lead to fiscal savings and increase the effectiveness of social protection spending. This includes integrating program databases, consolidating eligibility criteria and delivery of benefits, and introducing case management. The establishment of a social registry would enable the social protection system to become more shock responsive, which is especially important given Thailand's significant exposure to natural disasters that are likely to have a greater impact on the livelihoods of the poor and vulnerable. Thailand could also consider changing the way benefits are delivered under the SWC towards electronic delivery of cash into beneficiaries' bank accounts, as was done with COVID-19 top-up payments in 2020. Such a change would increase efficiency of the program as it would allow beneficiaries to better meet their spending needs.






On social insurance, parametric reforms to public pensions, several of which have already been proposed by the SSO, would significantly improve fairness and financial sustainability, and increase the overall coherence of what is currently a fragmented system. The following parametric reforms are recognized as international good practice and are appropriate for both the SSF and the defined benefit scheme for public sector workers:

- Increase retirement age gradually to reach 65 in the long run, allowing the possibility of early retirement with actuarially fair reductions in pensions;
- Shift to lifetime earnings as the base for calculation of the initial pension value;
- Price indexation of pensions in progress;
- In the case of SSF, indexation of the ceiling for pensionable earnings to wage growth.

These measures would make each of the schemes more equitable and sustainable. The retirement age increase would reduce intergenerational inequities as life expectancy continues to increase and equalize public and private sector retirement ages. Moving from end of career to a lifetime average wage base eliminates the inherent bias toward high-skilled workers who typically have steeper age-earnings profiles. It also reduces average pensions and improves the long-run finances of the scheme. Automatic price indexation is the rule in most OECD countries because it ensures that pensioners do not lose purchasing power but reduces the arbitrary differences between cohorts that result from discretionary adjustments to pension values. The SSF benefits would effectively disappear if the ceiling for pensionable earnings is not indexed and remains constant in nominal terms. But in order to ensure the sustainability of the SSF scheme, parametric reforms including increasing the retirement age and the contribution rate (which is low by international standards) are required, in combination with these indexation reforms which would improve the adequacy and equity of the pensions provided.





RESPONDING TO CLIMATE CHANGE

Thailand is highly vulnerable to climate change. With its long coastlines, fragile agricultural systems and susceptibility to extreme weather events, Thailand is ranked as the third most vulnerable country in Southeast Asia to climate change, and the eighth most vulnerable country in the world. Bangkok remains especially vulnerable to flooding, having suffered six major flooding events since 1980, despite the introduction of flood control measures. Cities and economic activities in coastal areas are also vulnerable to storms and coastal erosion. These climate vulnerabilities have significant implications for the macro-fiscal outlook. Potential costs in the range of 10-20 percent of GDP by mid-century (relative to a no-climate impact scenario) are possible, based on World Bank analysis in other comparable countries and given Thailand's vulnerability to climate shocks. Damage to physical capital and infrastructure will reduce production. Labor productivity may be affected by increased temperatures and/or greater incidence of disease or illness. Some economic activities, including tourism, may lose international competitiveness. GDP impacts would translate to a reduction in tax revenues and public spending needs are likely to increase. For example, resources will be needed to repair or replace damaged public assets and compensate owners of damaged private assets. Healthcare costs may also increase. Additional uncertainty could negatively impact investment and asset prices.

While Thailand is not a large emitter of greenhouse gas emissions, in the absence of further policy action its emissions will increase as its economy grows. Thailand's CO₂ emissions accounted for less than 0.9 percent of the global total in 2018. Its per capita emissions are comfortably below the global average but are higher than those in several other ASEAN countries, reflecting higher income levels. Thailand has pledged to reduce greenhouse gas emissions by 20 percent below a business-as-usual baseline level by 2030, which allows only a small increase in emissions between 2020 and 2030.

Fiscal policy can play a critical role in reducing Thailand's contribution to climate change, and in adapting to its impacts. Reductions in carbon emissions can be achieved by combining well-designed tax policies that raise the price of carbon with regulatory and other non-tax instruments. The revenues raised from these instruments could be used to support other climate policies, including climate adaptation investments which would reduce some (but not all) of the economic costs of climate change. Measures to reduce emissions could also bring a range of other benefits, including a reduction in the economy's carbon intensity and dependence on imported fuel, an increase in competitiveness (including due to associated technological advances); improvements in air quality; and increased access to international finance to help fund adaptation measures.



This report recommends:

- **Establishment of an Emissions Trading Scheme for the manufacturing sector.** Model estimates indicate that an ETS with a cap that reduces emissions by 44 mtCO₂eq would require a carbon price of THB 908/tCO₂ on energy and process emissions from the manufacturing sector. While high compared to carbon prices in some other countries, this would be around one third of the current price applied in Europe. Such an ETS could raise THB 194 billion annually by 2030 (0.8 percent of GDP), if all allowances are auctioned. If a proportion of revenues is recycled, there could also be positive GDP impacts, including because of a reduction in the fossil fuel intensity of output and reduced fuel imports. Negative impacts on international competitiveness are unlikely to be substantial because Thailand is not a major exporter of carbon-intensive products. Moreover, with multinational companies facing pressure to remove high carbon producers from their supply chains, an ETS would reduce the competitiveness risks associated with inadequate action on carbon emissions.
- **Adjustment of existing excise duties on road transport fuel to reflect the fuel's carbon content.** Currently there are excise duties on petroleum, but other transport fuels are not taxed and the Oil Fund effectively subsidizes fuel when commodity prices are high. Rates of excise duty could be adjusted to better reflect the carbon content of the fuels that are used, which could incentivize more biofuel blending. This would effectively establish a carbon tax for the sector without needing the creation of a new instrument.
- **The promotion of a switch toward electric vehicles** to meet stated government targets, including by using additional revenues from the carbon taxes on fuel to pay for some of the near-term costs, including the provision of charging infrastructure, electrification of the public fleet and/or incentives for early adopters (e.g. taxis).
- **A significant scale up in adaptation spending**, focused on: i) improved water resource management, including additional investments in riverbanks and drainage systems to reduce the impacts of high rainfall, in line with existing plans; ii) protecting against flood damage in Bangkok; iii) increasing the climate resilience of transport and other public infrastructure, including retrofitting existing infrastructure where necessary.
- **Investment in reforestation** which would provide both adaptation benefits (protection against storms, floods, and coastal erosion, regulation of the water cycle, and support for agricultural production) and mitigation benefits (absorption of GHG emissions). This could be funded by a combination of increases in public spending, private sector investment in commercial forests, international support through REDD+, and the use of offset mechanisms in a carbon pricing scheme.

The overall fiscal cost of responding to climate change could be 1 percent of GDP annually by 2030 and 1.5 percent by 2040 (Table ES2). The cost of climate adaptation in Thailand is uncertain and will depend on the policy mix but based on cross-country analysis it could reach around 1.6 percent of GDP in the 2030s. As most adaptation measures are public goods, much of this cost is likely to be borne by the government. The cost of other (largely mitigation) measures is projected to be broadly offset by positive revenue impacts from carbon pricing. A carbon price to reduce emissions in the manufacturing sector could raise up to 1 percent of GDP in additional revenues by 2040. Revenues from fuel excise duties (around 1.2 percent of GDP currently) would also rise in the near term with the introduction of duties that reflect the carbon content of fuel but would subsequently fall as vehicles are electrified in line with government targets. Excise duties from car purchases (0.8 percent of GDP) would also decline given that lower tax rates are applied to low-carbon vehicles. It is assumed that other climate-related costs, including in the transport and forestry sectors, will require comparatively modest net public contributions. Based on these assumptions, the net cost of climate change to Thailand's public sector will be around 1 percent of GDP by 2030, rising to 1.5 percent by 2040.

Table ES2: Indicative impacts of climate-related policies on Thailand's fiscal balance (% of GDP)

	2025	2030	2035	2040
Adaptation costs	-0.6	-1.6	-1.6	-1.6
Manufacturing carbon pricing	0.3	0.8	1.0	1.0
Fuel excise duties	0.3	0.2	-0.1	-0.7
Vehicle excise duties	-0.2	0.0	0.0	0.0
Other transport measures	-0.4	-0.2	-0.2	-0.1
Forestry sector costs	-0.1	-0.1	-0.1	-0.1
Total	0.0	-1.0	-1.1	-1.5



MAKING FISCAL POLICY MORE PRO-POOR

Fiscal policy can be a key instrument for achieving distributional objectives. This report uses the Commitment to Equity (CEQ) method to estimate the distributional consequences of Thailand's public revenues and expenditures on household welfare. It quantifies the impact of these fiscal activities on both short-term inequality and poverty and assesses how effectively they redistribute income between the rich and the poor. The analysis aims to inform reforms to improve the poverty and distributional impacts of fiscal policies.

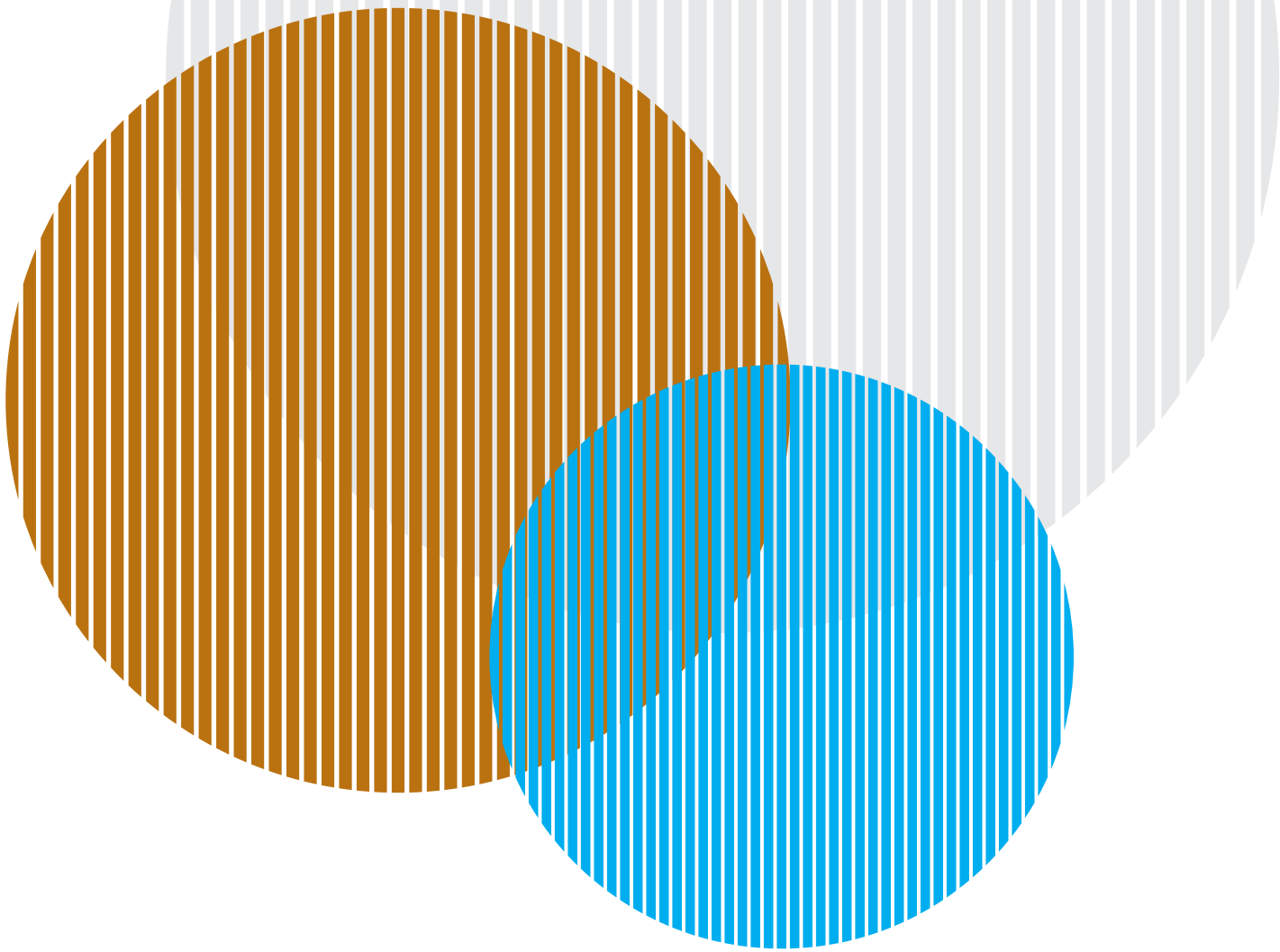
Thailand's fiscal policy currently acts to reduce both poverty and inequality. In total, fiscal policy reduces the Gini Index of inequality in Thailand by 4.5 points when considering only cash benefits of transfers and subsidies, and 9.7 points when also including health and education in-kind benefits. In the international context, the cash impact on inequality is tenth best out of 59 countries with available CEQ data, and fourth best out of 24 UMICs. However, when non-cash benefits are included, the fiscal impact is less progressive compared with other countries. Poverty also falls significantly as a result of fiscal policy, with the low burden of indirect taxation for the poor more than offset by the value of social assistance benefits. Thailand's poverty rate is estimated to be 2.6 percentage points lower as a result of fiscal policy. This is eleventh best out of 56 countries with comparable data and sixth best among UMICs.

The reforms proposed in this report would increase revenue and boost spending in ways that are consistent with further progressive impacts on poverty and inequality. As noted above, spending on health, education and social protection is comparatively low in Thailand, as is collection of tax revenues. But there are strategies to increase both in ways that are consistent with further reductions in both poverty and inequality. These strategies are fully aligned with the specific recommendations in this report. They include:

- Increasing direct taxation, especially from personal income taxes
- Increasing indirect taxation on general consumption via reforms to VAT
- Increasing health taxes on tobacco, alcohol, and sugar-sweetened beverages, as well as introducing digital and carbon taxes
- Increasing spending on health and education
- Avoiding spending on subsidies as a means of mitigating higher fuel and food prices
- Increasing spending on direct transfers and improving their targeting

As a specific example of a set of pro-poor fiscal policy measures, a combination of VAT and social assistance reforms could increase net revenues by around 0.6 percent of GDP, while significantly reducing poverty and inequality. VAT exemptions and preferential rates are an expensive tax expenditure and an inefficient way of providing support to the poor; while they are often on staple goods which represent a larger share of poor consumption, they are also consumed by richer households and usually in larger quantities, meaning that more of the tax expenditures go to richer households. As noted above, increasing the VAT base rate from 7 percent to 10 percent and cutting exemptions, as recommended in this report, could increase VAT revenues substantially. The impact on the poor could be more than offset by additional targeted cash transfers (consistent with the reforms to the Old Age Allowance and State Welfare Card payments outlined above) at a cost well below the additional VAT revenues generated. As another point of comparison, the total cost of these additional cash transfers would be about the same as the cost of the diesel price subsidies and fuel excise tax reductions provided in 2022, but the impact on poverty would be about nine times as large, given that much of the benefit of the fuel price interventions goes to non-poor households.





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