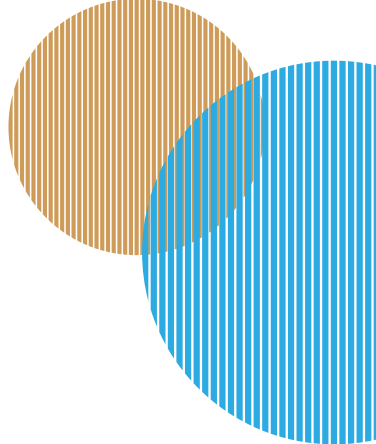




WORLD BANK GROUP



# THAILAND PUBLIC REVENUE AND SPENDING ASSESSMENT

# PROMOTING AN INCLUSIVE AND SUSTAINABLE FUTURE

JUNE 2023



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# **CHAPTER 1**

# **ENSURING FISCAL**

# **SUSTAINABILITY**



# Chapter 1: Ensuring Fiscal Sustainability

## 1.1 Introduction

**1. Thailand has traditionally maintained a conservative approach to fiscal policy, with budget deficits and public debt remaining contained prior to the pandemic.** Nevertheless, the government's fiscal response to COVID-19 was substantial, causing deficits to widen sharply between 2020 and 2022, and debt to rise above 60 percent of GDP. As such, over the next few years fiscal consolidation will be required, and fiscal policy will need to balance ongoing support for a still-fragile economic recovery with the maintenance of longer-term fiscal sustainability. Over the longer term, structural upward pressures on public spending – including those associated with an aging population – will pose further challenges for fiscal management.

**2. This chapter looks in detail at the combination of policy measures needed to ensure fiscal sustainability over the medium-term and long-term.** It begins by introducing the macro-fiscal context and outlining the evolution and characteristics of Thailand's public debt, and assesses the fiscal risks associated with the COVID-related debt increase. It considers the pros and cons of different pathways for fiscal consolidation over the medium term, and the specific case for a more measured pace of consolidation that prioritizes public investment. It then considers a range of longer-term scenarios for public expenditure – accounting for spending needs associated with aging, social protection, human capital development, and climate adaptation/mitigation – and assesses the additional revenue mobilization effort required to sustainably finance these needs.<sup>2</sup> The scenarios used are based on analysis and recommendations from the subsequent chapters in this PER. Annexes to this chapter assesses the set-up for fiscal policy making in Thailand, reviewing the effectiveness of fiscal rules and institutions in promoting desirable fiscal outcomes, and proposing reform options.

**3. The analysis indicates that to meet Thailand's public spending needs while maintaining debt at sustainable levels, substantial revenue reforms will be required.** These include raising the value-added tax (VAT) rate and reducing exemptions; expanding the personal income tax (PIT) base and rationalizing PIT deductions and allowances; and expanding property tax collection (see Chapter 2 for a more detailed discussion). These reforms could raise revenues by around 3.5 percentage points of GDP, which would allow identified spending needs to be met while keeping public debt contained over the longer-term.

## 1.2 Macro-fiscal context

**4. 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 a decline in growth. Over the decade to 2019, GDP growth slowed to an annual average of just 3.3 percent. Investments 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 second half of 2022, later than most regional peers.

**5. Thailand's conservative approach to fiscal policy since the turn of the 21<sup>st</sup> century allowed the government to respond to the pandemic without jeopardizing fiscal sustainability.** While revenues have historically remained below international benchmarks, overall spending has also been restrained. This meant that fiscal deficits and public debt were contained prior to the pandemic, allowing Thailand the fiscal space to implement a substantial fiscal response to COVID-19. Spending rose, revenues declined, and fiscal deficits widened sharply between 2020 and 2022, with public debt rising above

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<sup>2</sup> The longer-term scenarios build on analysis in The Macroeconomic and Fiscal Impact of Aging in Thailand (2021) which assesses the implications of aging and aging-related spending for fiscal sustainability.

60 percent of GDP. Nevertheless, there are several factors that act to mitigate Thailand's exposure to public debt-related risks, including the high share of domestically held and local currency-denominated debt

**6. Revenues have remained stable at relatively low levels through much of the last two decades.** Averaging around 16 percent of GDP, Thailand's tax revenue is low by the standards of upper-middle income countries, as well as regional and OECD comparators. Thailand has a sizeable structural 'tax gap' – the difference between tax collection capacity, based on the performance of peers at a similar income level, and actual tax revenue – estimated at 5.6 percent of GDP. While the efficiency of VAT collection is high, the current VAT rate at 7 percent is well below the regional average of 11 percent and the world average of nearly 16 percent. Personal income tax (PIT) collection in Thailand is also well below cross-country benchmarks. Despite relatively low tax-free thresholds, only about 30 percent of the labor force pays personal income tax, well below the levels of peer countries, suggesting low compliance rates.

#### **Box 1-1: Who are Thailand's peers?**

In each of these chapters, Thailand is benchmarked against structural, aspirational, and regional peers. These comparisons are made to provide a sense of where Thailand already performs well – according to the key criteria of adequacy, sustainability, efficiency, effectiveness, and equity – and in which areas there may be scope for improvement.

A flexible approach to benchmarking has been adopted depending on the topic being addressed and data availability. **Structural peers** have been selected from that subset of countries with similar levels of income per capita and similar challenges with respect to revenue mobilization (limited dependence on natural resources, high levels of informality) and expenditure (aging population, vulnerability to climate change). On this basis, the selected structural peers are China, Belarus, and Vietnam. Cross-country averages for the full set of upper-middle income countries (UMICs) are also referenced in some cases. **Regional peers** include Indonesia, Malaysia, Philippines, and Vietnam (the full set of East Asia Pacific countries is referenced in some cases). Higher income **aspirational peers** include Bulgaria, Chile, Uruguay, and Costa Rica. Korea, Japan, and other OECD countries are also included as aspirational peers in some cases.

**7. General government revenues moved broadly in line with economic activity since the onset of the pandemic, with only a moderate decline in tax buoyancy.** Revenue declined by about 1 percentage point of GDP between 2019 and 2022, continuing the downward trend that has been observed since the mid-2010s. Value-added tax (VAT) and corporate income tax revenue—which represent about 60 percent of total revenue—dipped in 2020 before improving modestly in line with the economic recovery. Personal income tax revenue has held steady at 2 percent of GDP since FY19. However, excise tax revenue declined over the same period, as domestic lockdown measures prompted a reduction in fuel imports. Government response measures, including a deferral of tax payment deadlines and an additional personal income tax deduction on the purchase of goods and services, also contributed to the decline in tax revenue. In 2022, excise tax revenue declined by a further quarter percentage point of GDP due to the reduction of the excise tax on diesel, which formed part of the government's response to high fuel and food prices resulting from the Ukraine war.

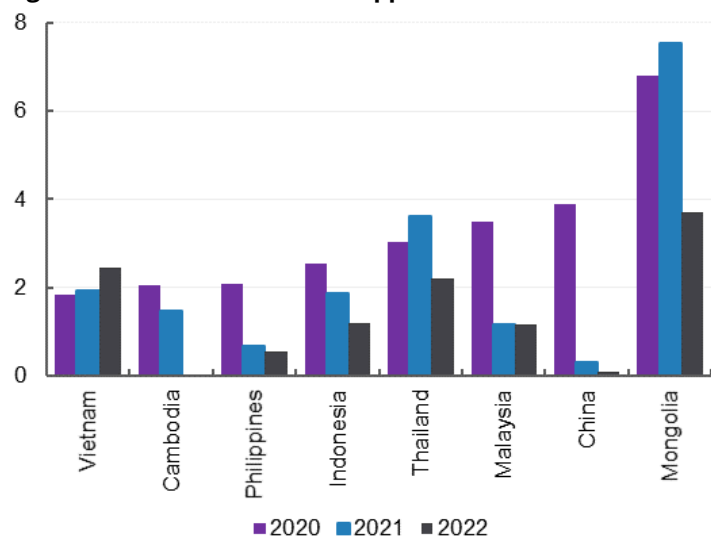
**8. Over the decade prior to the pandemic, public spending was also low given Thailand's income level, and relative to its structural, aspirational, and regional peers.** Between 2013 and 2019, general government expenditure fluctuated within a tight band of between 21.3 and 22.2 percent of GDP, closely aligned with the level of government revenue. Spending on more rigid expenditure items (wage bill, interest) remained generally contained, while the level of capital spending was broadly aligned with international benchmarks. Education and health spending have been prioritized in the budget while relatively low as a proportion of GDP, consistent with constraints in the overall spending envelope. While social protection spending had been rising even prior to the pandemic, it remained low compared with regional peers, with spending on social assistance less than 1 percent of GDP in 2019.

**9. The government responded to the pandemic with an increase in spending that was relatively large compared with other countries in the region (Figure 1-1 and Figure 1-2).** In March and April 2020, the cabinet approved a COVID-19 relief and recovery package amounting to 2.2 trillion baht, or 12.9 percent of GDP. The fiscal response centered on a Parliament-approved emergency decree – in force until the end of FY2021 – to borrow up to 1 trillion baht (about 6 percent of GDP) off-budget to fund cash transfers, the medical response, and economic and social rehabilitation in the aftermath of COVID-19. This was subsequently followed by the approval in May 2021 of an additional 500 billion baht in borrowing to fund further measures under the same three categories. The vast majority was ultimately used for relief



measures (Figure 1-3). A response of this magnitude was deemed necessary given that the pandemic had relatively severe economic effects on Thailand, due largely to its dependence on tourism and merchandise trade, with significant impacts on the poorest and most vulnerable. As of January 2023, 96.4 percent of the THB 1.5 trillion emergency borrowing for COVID-19 responses had already been disbursed, with the remainder available for disbursement in 2023 (Figure 1-4). Much of the remainder of the support consisted of soft loans to SMEs (implemented by the Bank of Thailand and Specialized Financial Institutions) and liquidity support.

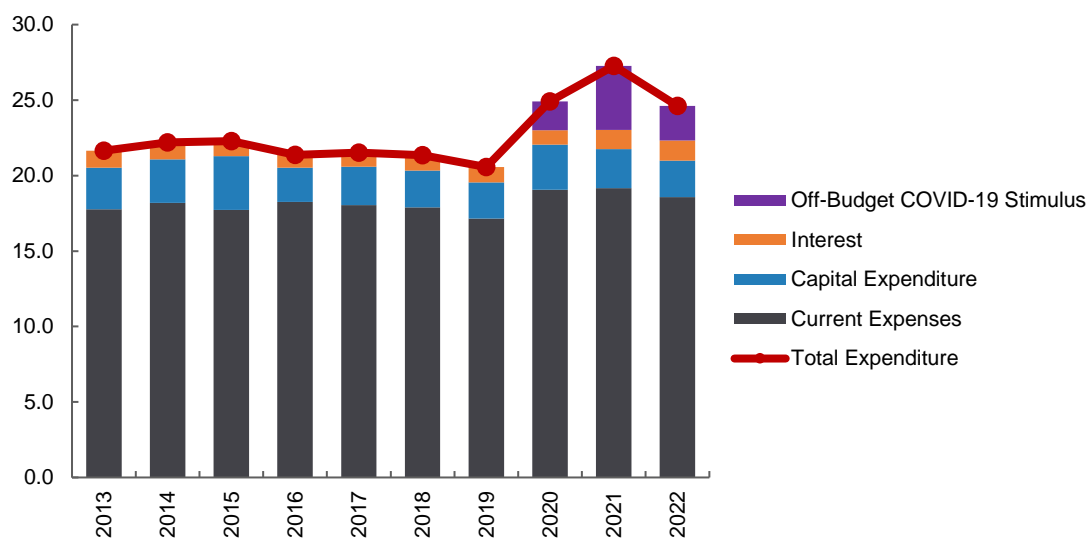
**Figure 1-1: COVID-19 related support to households and firms (% of GDP)**



Source: World Bank EAP Update, April 2022

**Figure 1-2: General Government Expenditures**

(% of fiscal year GDP, GFS basis)



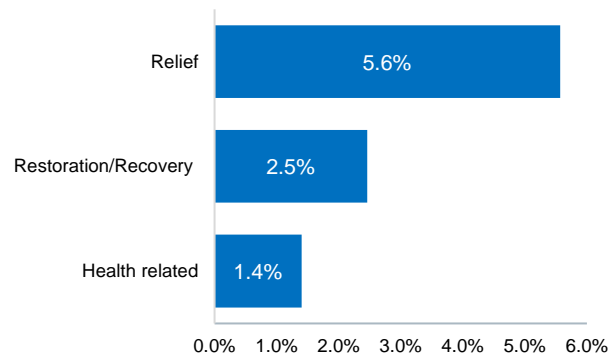
Source: Fiscal Policy Office, Ministry of Finance.

**10. Additional fiscal measures were announced in 2022 to mitigate the rising cost of living due to the war in Ukraine, slowing the planned consolidation in spending.** To counteract price pressures and support vulnerable households, in March 2022 the government announced new fiscal measures amounting to THB 77 billion (0.5 percent of GDP). The set of measures included energy subsidies, reductions in the fuel excise tax, transfer payments for low-income households and taxi drivers (including through the state welfare card scheme), a cap on electricity prices for lower-income households, and cuts to the employers’ and employees’ social security contributions (see Chapter 3 for more details). These

were followed by further measures to mitigate the impact of increases in the cost of living, announced in July. Despite these additional measures, overall spending declined slightly in FY22, as the response to COVID-19 tapered. Though some of the subsidy measures were targeted at lower-income households, subsidies on diesel and cooking gas incur a large relatively fiscal cost and tend to be relatively inefficient in terms of their impact on poverty reduction (see also Chapter 8).

**Figure 1-3: The 1.5 trillion-baht loan decree was used primarily to fund relief measures.**

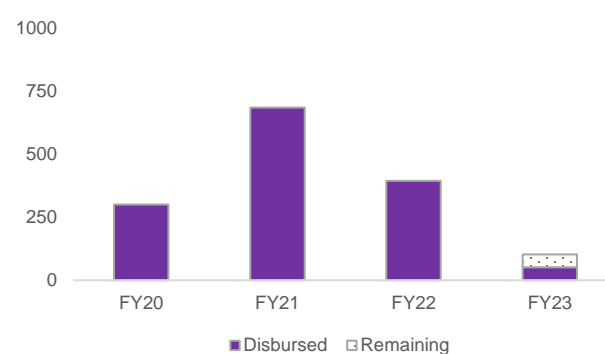
(Allocation of budget, % of fiscal year GDP)



Source: NESDC

**Figure 1-4: The government has borrowed to finance off-budget fiscal stimulus in FY 2020 to FY 2023.**

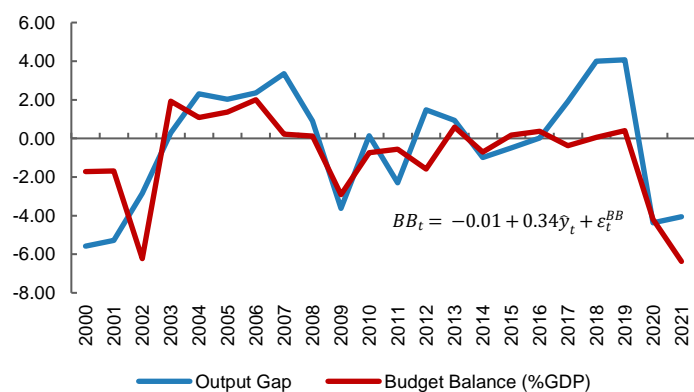
(THB Billion)



Source: NESDC

**11. Prior to the pandemic, fiscal deficits had remained contained on average, with evidence of mild countercyclicality.** Between 2003 and 2019, the budget was broadly balanced, with an average fiscal surplus of 0.2 percent of GDP, and the deficit peaking at just 2.2 percent of GDP in 2009. Since 2011, fiscal outcomes have remained within an even tighter +1 to -1 percent of GDP range. Nevertheless, a statistical regression analysis of the fiscal balance on the output gap suggests that the budget was mildly countercyclical even prior to the pandemic (Figure 1-5). This means that the net impact of public spending and revenue collection has been to stabilize the economy: supporting economic activity at times of weakness, and moderating growth when it is strong. This stabilizing influence is mainly due to the response of revenue, which tends to decline during downturns and increase during upswings, smoothing overall economic activity through these periods.

**Figure 1-5: The fiscal stance was mildly countercyclical prior to the pandemic**

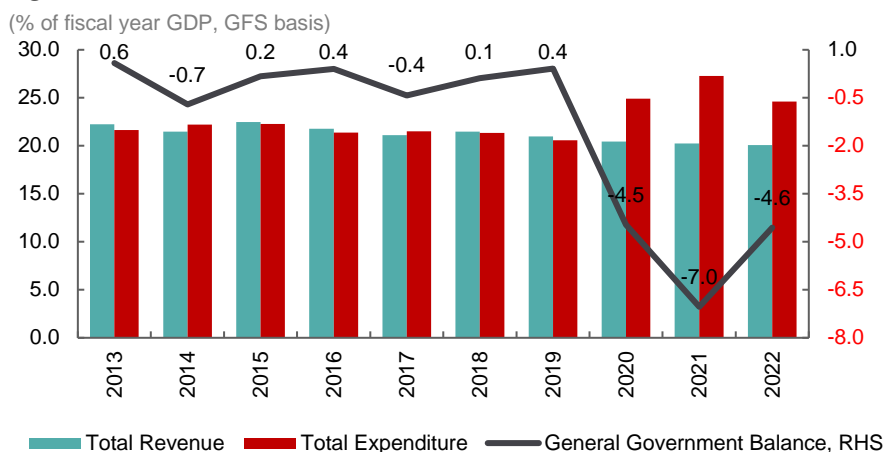


Source: Fiscal Policy Office, Ministry of Finance; World Bank staff calculation

Note: The equation showing the relationship between the budget balance and the output gap is estimated on pre-pandemic data from 2000 to 2019.

**12. With revenues declining and spending sharply higher, the fiscal deficit widened substantially during the pandemic (Figure 1-6).** The fiscal deficit widened to 7 percent of GDP in FY2021 as the authorities implemented large-scale fiscal support to shore up the economy. This was the largest deficit in Thailand since the late 1990s, when the deficit reached 9 percent of GDP due to the significant impact of the Asian financial crisis.

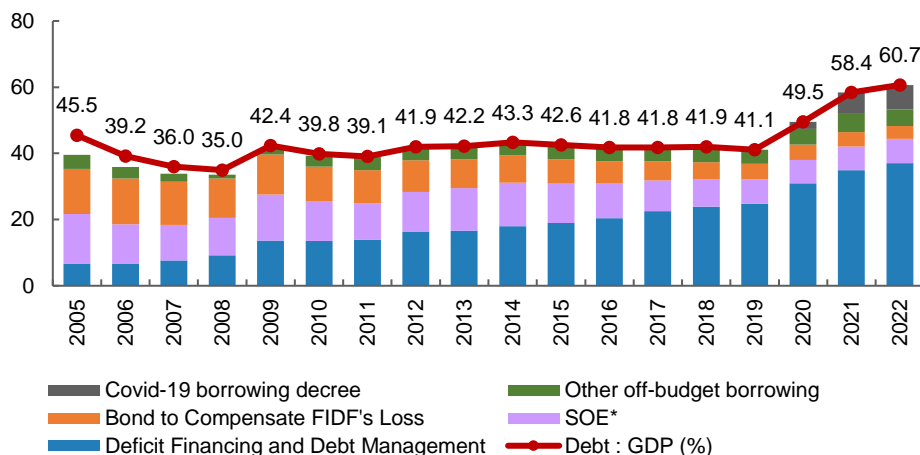
**Figure 1-6: General Government Deficit**



Source: Fiscal Policy Office, Ministry of Finance; World Bank staff projections

**13. The exceptional fiscal response to the pandemic saw total public sector debt rise by around 20 percent of GDP (Figure 1-7).** Prior to the pandemic, Thailand’s conservative fiscal policy had meant that public debt has declined since the early 2000s. Public debt remained stable at between 40-45 percent of GDP over the decade to 2019, well below statutory thresholds (see section 1.5), and relatively contained compared to regional and global benchmarks. But COVID-19 saw public debt rise to 60.7 percent of GDP at the end of September 2022, exceeding the previous peak of 57.8 percent of GDP in 2000. Around two-thirds of the increase in the debt ratio since 2019 was due to the increase in the primary deficit, with much of the remainder attributable to the sharp contraction in GDP in 2020. Government debt accounted for over 82 percent of total public debt, while SOE debt accounted for about 13 percent, and debts accrued by specialized financial institutions (SFIs) accounted for 5 percent.

**Figure 1-7: Public Debt (% of GDP)**



Source: PDMO

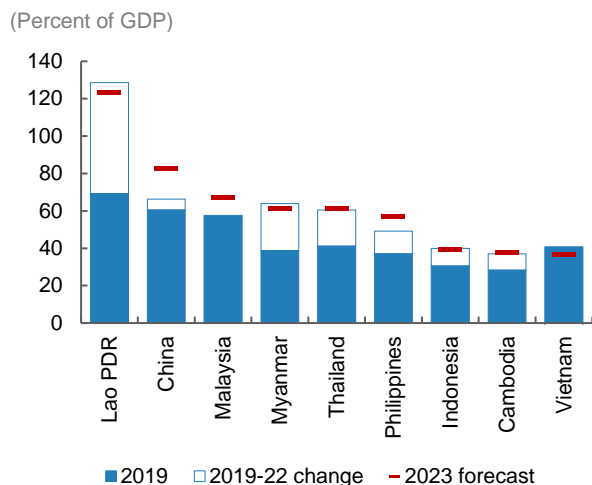
Note: Gap between 2005-2011 is FIDF Debt.

**14. 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 change was consistent with the Fiscal Responsibility Act, under which the government is mandated to review and, if appropriate, revise the public debt ceiling at least once every three years (see section 1.5). Raising the ceiling allowed the government to fully utilize the THB 1.5 trillion in borrowing authorized for the COVID-19 response effort during FY2020-22.

**15. Although public debt has risen to historically high levels, several factors mitigate the associated fiscal risks.** Despite the sharp increase since 2019, public debt remains below levels in many peers (Figure 1-8), and domestic borrowing costs have not increased substantially, with real yields negative. As a result, debt service remains low as a proportion of

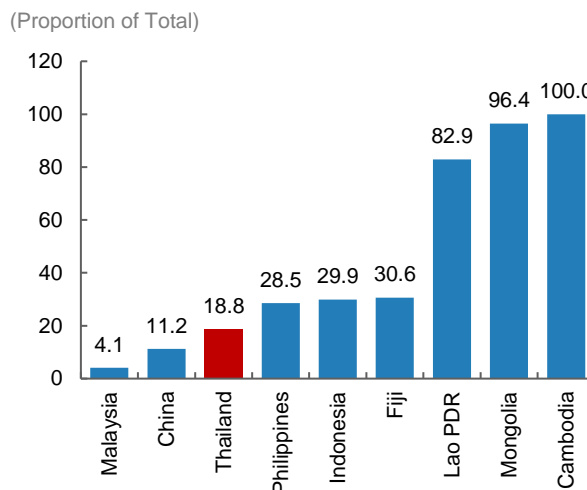
total revenue, at less than 15 percent. Only a small proportion of Thailand's public debt is denominated in foreign currency (Figure 1-9), and appetite for local-currency government debt has remained resilient. Moreover, almost 90 percent of public debt is held by Thai residents (Figure 1-10), and the average term to maturity is in line with emerging market averages (Figure 1-11). Together, these characteristics limit debt-related risks associated with capital outflows and exchange rate depreciation.

**Figure 1-8: General Government Debt in Emerging EAP Economies**



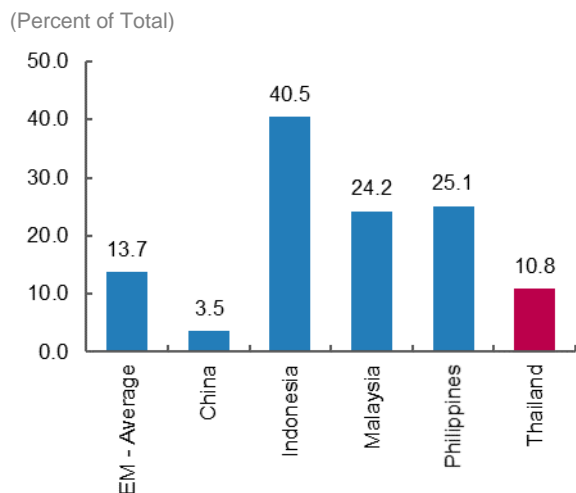
Source: IMF Fiscal Monitor Database

**Figure 1-9: Share of Public Debt Denominated in Foreign Currency**



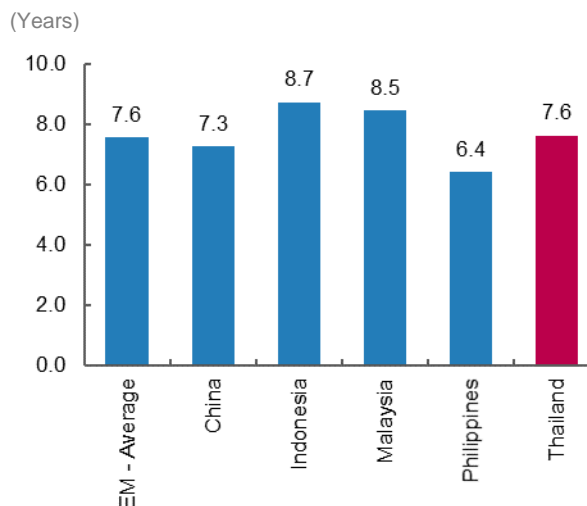
Source: World Bank East Asia and Pacific Economic Update April 2022

**Figure 1-10: Non-Resident Holdings of General Government Debt, 2021**



Source: IMF Fiscal Monitor Database

**Figure 1-11: Average Term to Maturity, 2022**



Source: IMF Fiscal Monitor Database

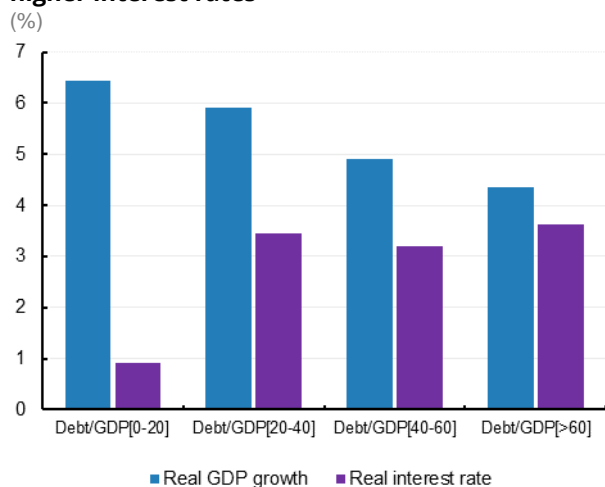


## 1.3 Options for medium-term fiscal consolidation

**16. While risks currently remain manageable, fiscal consolidation will be required over the medium term to ensure public debt sustainability.** In a ‘no-consolidation’ scenario in which primary fiscal deficits continue at the average level observed over the period from FY2020 to FY2022 (4.4 percent of GDP), public debt would increase to 80 percent of GDP by 2030, 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. Even at public debt levels of around 60 percent of GDP, Thailand is subject to higher fiscal costs and risks than was the case prior to the pandemic when public debt stood at around 40 percent of GDP. These include:

- **Higher debt service costs:** even holding interest rates constant, a higher debt stock implies higher interest payments, with the potential to crowd out other public spending. A higher debt stock implies higher future amortization requirements and added pressure to either roll over maturing government debt or pay it down. Alternatively, higher debt implies higher net public financing needs, which again have the potential to crowd out other spending.
- **Higher risks of an adverse shift in interest rates and/or growth:** In EMDEs, interest rates are sensitive to fiscal deficits and risk premia on interest rates can increase suddenly (Subramanian and Felman 2021). Domestic market participants may demand higher yields to the extent that there are concerns about debt sustainability. Cross-country evidence indicates that higher debt stocks correspond to lower economic growth and higher interest rates. These in turn lower the maximum primary deficit a government can run while maintaining a stable debt level. In particular, higher debt stocks result in a commensurately higher risk that the interest rate ( $r$ ) rises above the GDP growth rate ( $g$ ) (Figure 1-12 and Figure 1-13). This worsens debt dynamics, as it implies that the growth in the overall debt burden due to cumulating interest charges exceeds the growth in the capacity of the economy to pay down this debt.

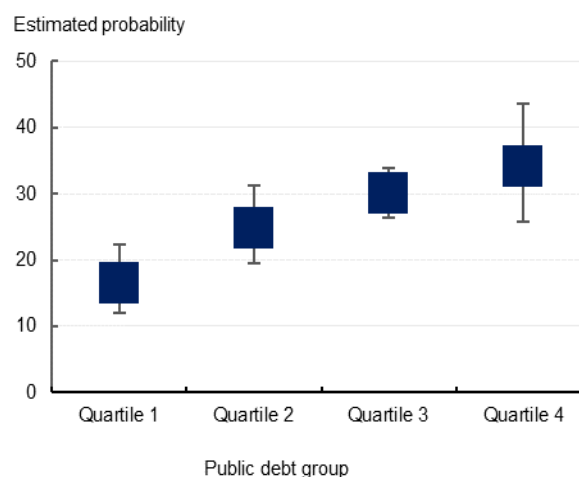
**Figure 1-12: Higher government debt has corresponded to lower economic growth and higher interest rates**



Source: World Bank EAP Update, April 2021

Note: The sample includes 50 developing (of which 10 EAP) countries with at least 10 observations on  $r-g$  and public debt over GDP over the period 2000–2019.

**Figure 1-13: The probability that the interest rate rises above the economic growth rate increases with the level of debt**



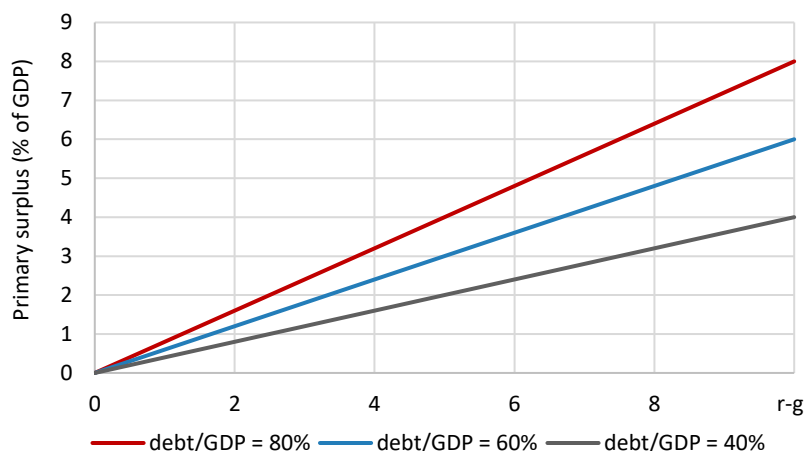
Source: World Bank EAP Update, April 2021

Note: Quartiles 1 – 4 refer to the quartiles of the public debt to GDP distribution, based on the same sample as the previous chart. For each quartile, the chart plots the estimated probabilities (and the associated 90 percent confidence intervals) that the average  $r-g$  over five years is positive, following at least two consecutive years of negative  $r-g$ .

- **Reduced fiscal space available to respond to a future economic shock:** In the case of an exogenous sharp rise in interest rates or reduction in growth (e.g., due to US monetary policy tightening) the minimum primary surplus that the government needs to run to keep debt stable at any given level rises at higher debt levels

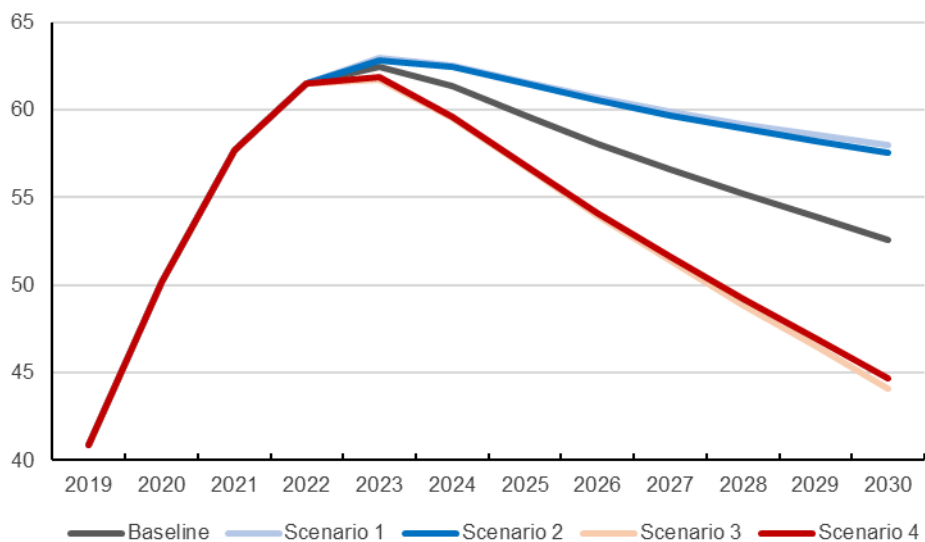
(Figure 1-14).<sup>3</sup> Being forced to run large primary surpluses to maintain debt sustainability is suboptimal during economic shocks, when fiscal stimulus is needed to stabilize the economy.

**Figure 1-14: Minimum Primary Surplus Needed to Stabilize Public Debt to GDP**



17. Nevertheless, to the extent that the economy can benefit from additional support, there is scope for the government to moderate the pace of its fiscal consolidation without jeopardizing debt sustainability. Here we use a customized macro-structural model to estimate the impacts of different fiscal consolidation paths, compared with the baseline in which public debt declines to 55 percent of GDP in 2028 (Figure 1-15). Four illustrative scenarios are run around this baseline (Table 1-1). Scenarios 1 and 2 model a fiscal consolidation that is *slower* than in the baseline, so that public debt declines to 60 percent of GDP by 2028 rather than 55 percent. In scenario 1, the consolidation is slower because *current* spending from 2023 onwards is higher than in the baseline projection (0.8 percentage points of GDP higher in 2028). In scenario 2, the consolidation is slower because *capital* spending is higher than in the baseline projection.<sup>4</sup> Scenarios 3 and 4 model a fiscal consolidation that is *faster* than the baseline, so that public debt declines to 50 percent of GDP by 2028.

**Figure 1-15: Public Debt to GDP, Baseline and Medium-Term Fiscal Consolidation Scenarios**



<sup>3</sup> Specifically, the required primary surplus to stabilize debt to GDP at any given level increases with the difference between the interest rate ( $r$ ) and the growth rate ( $g$ ) when  $r - g > 0$ .

<sup>4</sup> The quantitative adjustments to current and capital spending in these scenarios are calculated as those adjustments necessary to yield the corresponding debt paths in Table 1-1 and Figure 1-15.

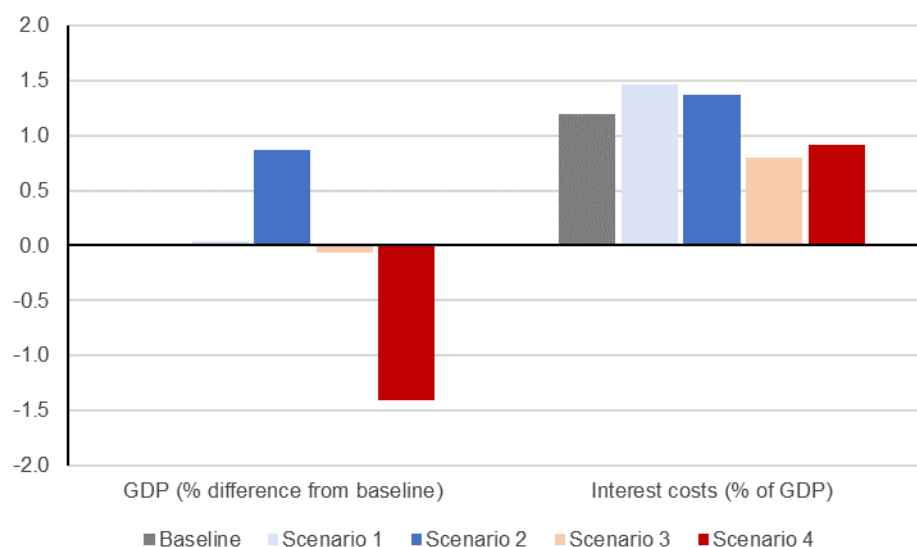
**Table 1-1: Medium-Term Fiscal Consolidation Scenarios**

% of GDP	Current	Baseline projection	Sc. 1: Slower consolidation, preserve current spending	Sc. 2: Slower consolidation, increase capital spending	Sc. 3: Faster consolidation, cut current spending	Sc. 4: Faster consolidation, cut capital spending
	2022	-----2028-----				
Debt	61.5	55	60	60	50	50
Revenues	20.4	20.8	Increase current spending by 0.8 ppts of GDP (relative to baseline projection)	Increase capital spending by 0.8 ppts of GDP (relative to baseline projection)	Reduce current spending by 1.2 ppts of GDP (relative to baseline projection)	Reduce capital spending by 1.2 ppts of GDP (relative to baseline projection)
Current primary spending	21.4	18.4				
Capital spending	3	2.6				

\* Descriptions of Scenarios 1 through 4 are relative to the baseline projection.

**18. A slower consolidation would result in higher GDP over this period, but also higher debt service costs.**<sup>5</sup> The relatively higher rates of public spending associated with scenarios 1 and 2 add to overall demand, with multiplier effects as that spending recirculates in the economy. Additional public investment (scenario 2) also has a supply-side impact, increasing potential output over the medium-term. At the same time, the risks to fiscal sustainability associated with debt at 60 percent of GDP are expected to remain manageable, particularly if domestic appetite for baht-denominated debt remains robust. The main costs of a slower consolidation are larger debt service requirements and less fiscal space to respond to future shocks. Interest costs rise when the pace of consolidation is slower, both because the stock of debt remains higher for longer and because there is an endogenous increase in interest rates (Figure 1-16).

**Figure 1-16: Impacts on GDP and Interest Costs in 2030 under Various Fiscal Consolidation Scenarios**



**19. The most 'growth-friendly' approach to fiscal consolidation would combine an increase in capital spending with a reduction in current spending (Scenario 2).** Under this scenario, current spending would stabilize over the medium term at about 1 percentage point of GDP higher than pre-pandemic averages. This implies a decline of 3 percentage points from 2022 levels, consistent with an unwinding of pandemic-related spending measures. Capital spending, on the other hand, would increase slightly from 2022 levels (rather than declining as it does in the baseline). In this scenario, average annual GDP growth would be around 0.1 ppt faster over the period 2023-30, and the level of GDP would be almost

<sup>5</sup> MFMod (the World Bank macro model) is a macrostructural model, which has been customized for Thailand. It builds out various interactions between fiscal and monetary policy, economic aggregates such as labor, GDP, the current account balance and prices and the supply of the economy in terms of potential GDP via capital stocks and structural employment.

1 ppt higher in 2030. Conversely, a faster fiscal consolidation driven by additional constraint in capital spending (Scenario 4) would significantly reduce GDP. On the other hand, Scenarios 1 and 3 show that the GDP impacts of adjustments to current spending are estimated to be only marginal.

**20. There are several reasons why the economic returns to public investment are larger than the returns to current spending.** First, while both public investment and public consumption directly impact domestic demand, some current spending takes the form of cash transfers rather than consumption. Cash transfers – a particularly important part of the response to COVID-19 – raise household incomes but have less of a direct impact on GDP to the extent that a portion of the transfer is saved rather than spent. Compared with public investment, public consumption is also more likely to leak to imports, limiting its impact on GDP. Second, public investment is more likely to boost the productive capacity of the economy over the medium term, including by ‘crowding in’ private investment. On the other hand, public consumption is more likely to be inflationary, prompting a monetary policy response. The model estimates indicate that the short and medium-term multipliers associated with a marginal increase in public investment spending are indeed larger than those associated with an equivalent increase in current spending.

**21. 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 (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 – while raising potential output over the medium term. Doing so would imply a slower fiscal consolidation than would otherwise be the case, but the debt-related costs and risks associated with this path are expected to be manageable.

**22. The longer-term fiscal analysis that follows in the next section incorporates the fiscal and growth impacts of this medium-term increase in public investment spending.** The longer-term “reform” scenarios presented in Section 1.5 are fully consistent with a slower consolidation in the medium-term, with public debt still at around 60 percent of GDP in 2028 (i.e. in line with Scenario 2), and public investment increasing over the same period as described above. Chapter 3 provides a more detailed rationale for increased public investment spending, given declines in infrastructure quality over the past decade. It also provides an overview of the public investment pipeline and the opportunities that exist to overcome bottlenecks currently delaying public investment projects.

## 1.4 Meeting structural spending needs

**23. There are several policy areas – including education, social protection, and climate adaptation – where increased spending is a near-term priority.** Increased spending in these areas is needed as soon as possible to promote better outcomes now and to establish the conditions for stronger, more resilient, and more inclusive economic growth over the longer term. Education spending at the pre-primary and secondary level is comparatively low and learning outcomes are weak relative to peers: 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. With respect to social assistance, Thailand’s response to COVID-19 was impressive but temporary. A permanent, targeted increase in the Old Age Allowance and other social welfare benefits has the potential to significantly improve the lives of Thailand’s most vulnerable after the worst impacts of the pandemic recede, at a manageable fiscal cost. Finally, increased investment in climate adaptation is required as a matter of priority to mitigate the inevitable social and economic costs of climate change, to which Thailand is particularly vulnerable given its long coastlines, fragile agricultural systems and susceptibility to extreme weather events.

**24. 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 public health services and social protection mechanisms (including pensions) in line with changing demographics, and to support inclusive growth. The challenge will be to pursue these various 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.

**25. This section analyzes the long-term fiscal paths implied by revenue and expenditure policy measures that attempt to address this challenge.** The rationale for these particular policy measures and the quantification of their longer-term fiscal impacts is outlined in more detail in the chapters that follow. They include: i) tax reforms (Chapter 2); ii) increasing the efficiency of health spending (Chapter 4); iii) increasing the efficiency and adequacy of education spending

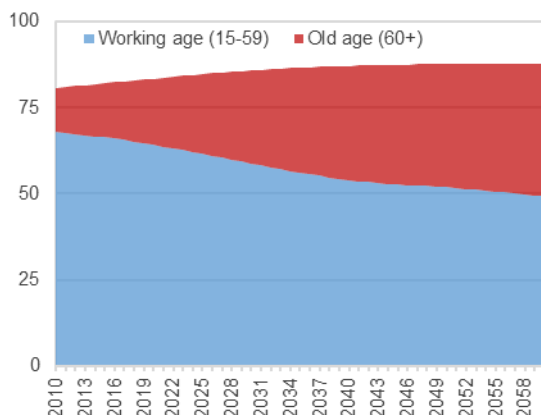
(Chapter 5); iv) increasing the Old Age Allowance (Chapter 6); v) raising other social assistance spending (Chapter 6); and vi) adopting spending and revenue policy measures that respond to a changing climate (Chapter 7). This section begins by assessing key aging-related challenges to the fiscal accounts and long-term growth, which are captured by the baseline projection. The marginal impacts of each of these revenue and expenditure reforms on this baseline projection are then analyzed in turn. Finally, we assess the cumulative impact of these reforms (taken together) on longer-term fiscal sustainability, and the sensitivity of these fiscal projections to different assumptions for longer-term economic growth.

## The Fiscal Impacts of Aging and Implications for the Baseline Projection

**26. A rapidly aging population will 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 (Figure 1-17). Under the baseline projection, the combined fiscal cost of the Old Age Allowance (OAA) and civil service pensions are projected to rise from 1.8 percent of GDP in 2019 to 3.6 percent in 2050, assuming that the per recipient size of these benefits increases with GDP per capita. This is without allowing for any discrete increase in the OAA, which is currently among the lowest social pension benefits in the world (World Bank, 2021).<sup>6</sup> The total fiscal cost of healthcare is projected to rise from 2.9 percent of GDP to 3.5 percent over 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 (Figure 1-18 and see Chapter 4 for more details).

**Figure 1-17: Share of working age and aging population**

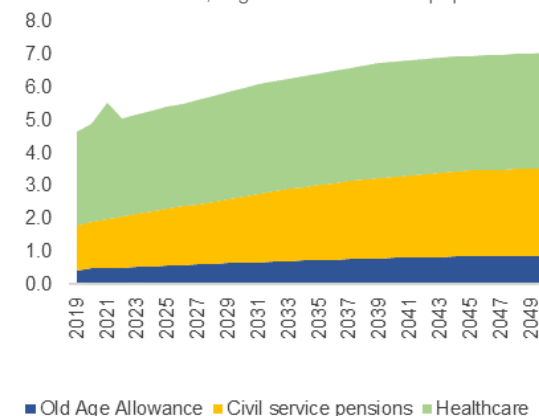
Percent share of total population



Source: WB analysis, data from UN

**Figure 1-18: Aging-related spending and healthcare costs versus rising share of elderly**

Left: Percent of GDP, Right: Percent of total population



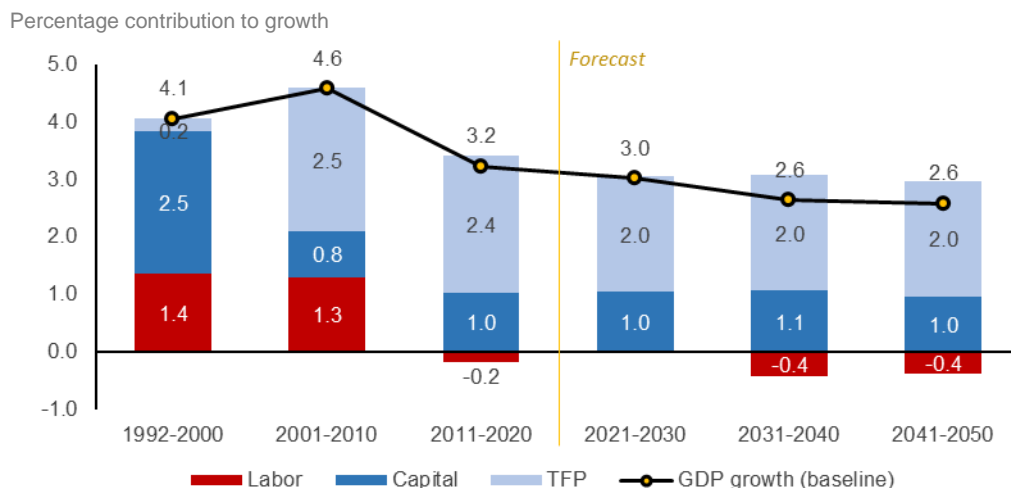
Source: WB analysis, data from UN, IMF, WHO, DOP

**27. Aging also acts to constrain potential growth, which, in the absence of offsetting measures, will make it more difficult to maintain fiscal sustainability.** Since 2003, Thailand's growth rate has been below the average growth rate of upper-middle-income countries (World Bank, 2021).<sup>7</sup> This is partly due to sluggish investment in physical capital and slower human capital growth. Looking ahead, long-term projections based on the Long-Term Growth Model (LTGM) show that growth is expected to decline over the coming decades, from 3.2 percent on average in 2011-2020 to 2.6 percent in 2041-2050 (Figure 1-19). 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 has fiscal implications to the extent that it makes it more difficult to raise the revenues required to match spending needs.

<sup>6</sup> Lamanna, F. and J. Sharpe. 2021. Towards Social Protection 4.0: An Assessment of Thailand's Social Protection and Labor Market Systems. Washington, D.C.: World Bank.

<sup>7</sup> Bandaogo, M. and R. Van Doorn. The Macroeconomic and Fiscal Impact of Aging in Thailand. Washington, D.C.: World Bank.

**Figure 1-19: Contribution to long-term growth – baseline**

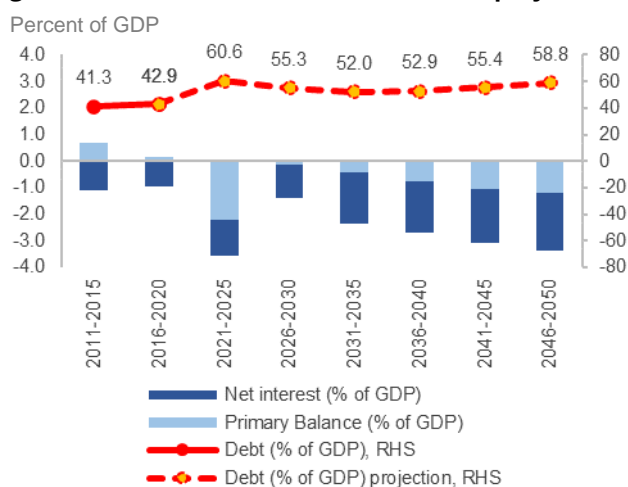


Source: WB analysis

**28. Under the baseline projection, which accounts for these impacts of aging, public debt does not return to pre-pandemic levels over the forecast horizon.** Public debt is projected to remain between 50 to 60 percent of GDP, with the impact of rising spending pressures offset by the projection of ongoing (albeit slower) economic growth (Figure 1-20 and Figure 1-21). In the absence of reforms, revenue collection is assumed to continue to remain stable over the forecast horizon at just under 21 percent of GDP. In contrast, primary expenditures are expected to increase over the forecast horizon from 19.5 percent of GDP in 2019 to 22.1 percent in 2050, mainly due to the impacts of aging noted above.

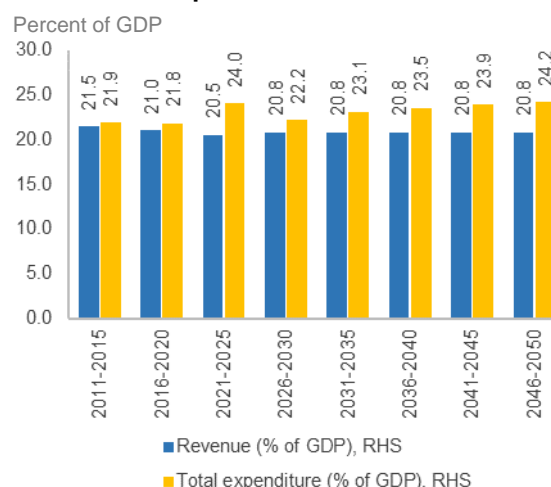
**29. This baseline projection does not incorporate additional longer-term expenditure needs in the areas of social assistance, education, or climate adaptation.** Nor does it account for potential reforms to increase revenue mobilization. The fiscal impacts of each of these policy measures are estimated below.

**Figure 1-20: Public debt stock and general government balance under the baseline projection**



Source: WB analysis, data from FPO, PDMO

**Figure 1-21: In the baseline, fiscal revenues remain stable while expenditures rise**



Source: WB analysis, data from FPO, PDMO

## Revenue Reforms (see Chapter 2)

**30. Revenue collection in Thailand lags its regional, income level, and aspirational peers.** As previously noted, tax revenues and overall revenues have been stable at around 16 percent and 21 percent of GDP respectively over 2016-2020, lower than in structural peers and upper-middle income countries. The tax gap is estimated to be around 5.6 percent of GDP. This gap can be narrowed by pursuing reforms to: (a) adjust the VAT rate and exemptions; (b) broaden the personal



income tax base and streamline allowances, (c) improve tax compliance on e-commerce; and (d) expand property tax collection.

**31. By implementing these measures at a gradual pace over the remainder of the decade, revenue could increase to 24.3 percent of GDP by 2030 from 20.9 percent in the baseline scenario (Figure 1-22).<sup>8</sup>** Among the reforms proposed, several could be implemented relatively quickly from a technical perspective, including increasing the VAT rate, streamlining VAT exemptions, and rationalizing personal income tax allowances. Others – such as broadening the personal income tax base, and increasing property tax collections – are likely to take longer, to the extent that they require changes to slower-moving variables such as compliance and informality rates, or improvements in administrative capacity. In this report, we allow for a relatively gradual implementation of revenue reforms, given that Thailand’s economic recovery from recent shocks is still somewhat fragile (as at the end of 2022), and acknowledging that some of the measures proposed will require more time than others that are more ‘stroke of the pen’ in nature. Nevertheless, as Thailand has a comparatively sound fiscal position currently, even such a gradual increase in revenues over the next eight years would create the required fiscal space for additional spending now (see section 1.5).

**32. Raising the VAT rate and removing exemptions could substantially increase tax revenue and would also be progressive. Thailand collects significantly less VAT than expected given its income.** This is largely because the rate of 7 percent is among the lowest of upper-middle income countries. Raising the VAT rate from 7 percent to 10 percent is estimated to raise revenue by up to 1.6 percent of GDP. The low VAT base is another driver of low tax potential, largely attributable to the prevalence of exemptions, 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. The combination of an increase in the VAT rate to 10 percent and removal of exemptions is estimated to raise revenue to GDP by 2.4 percent.

**33. Personal income tax (PIT) revenue can be raised by addressing compliance issues and streamlining allowances and deductions.** 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. The analysis in Chapter 2 indicates that Thailand has the potential to raise personal income tax (PIT) revenue by 0.7 percent of GDP by incentivizing tax filing and compliance, and by removing most income tax deductions and allowances, many of which are regressive to the extent that they tend to benefit high-income earners only.

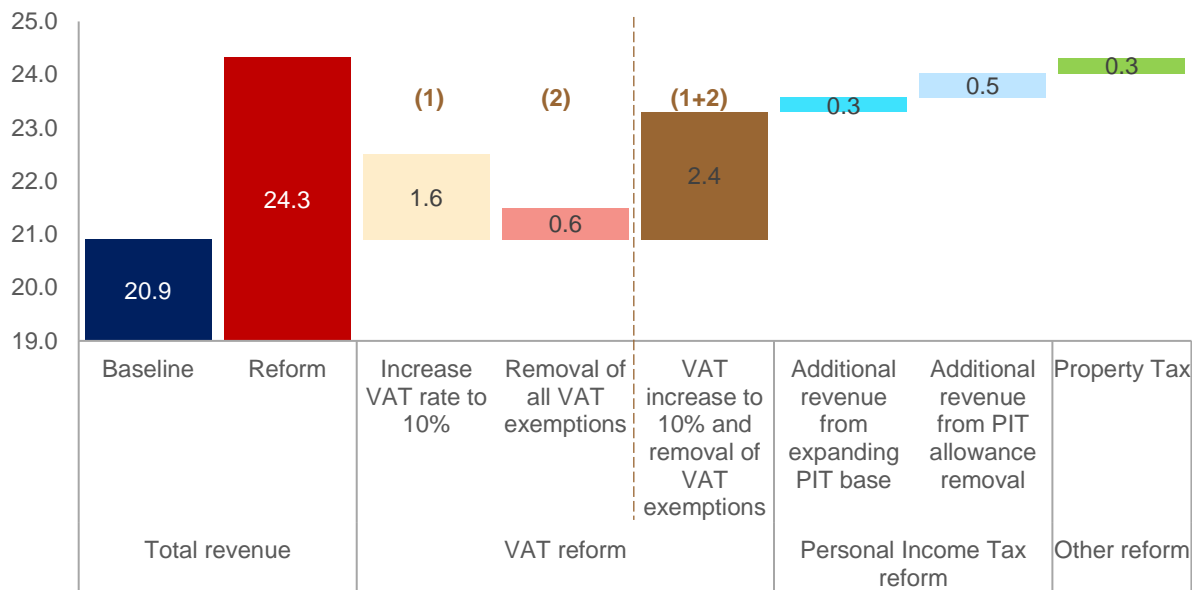
**34. Property tax is a low-distortion, growth-friendly tax instrument, but Thailand’s property tax collections prior to the pandemic were relatively low at 0.2 percent of GDP, below the UMIC average of 0.5 percent.** This gap could be closed by ensuring regular updates of the appraisal value and adopting simplified valuation approaches based on market values.

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<sup>8</sup> The impact of additional revenues from carbon pricing in the manufacturing sector are excluded from this projection, as over the longer term they would be broadly offset by the cost of other climate mitigation measures proposed in this report.

**Figure 1-22: Additional revenue from each reform effort versus baseline**

2030, percent of GDP



Source: WB analysis

### Health Reforms (see Chapter 4)

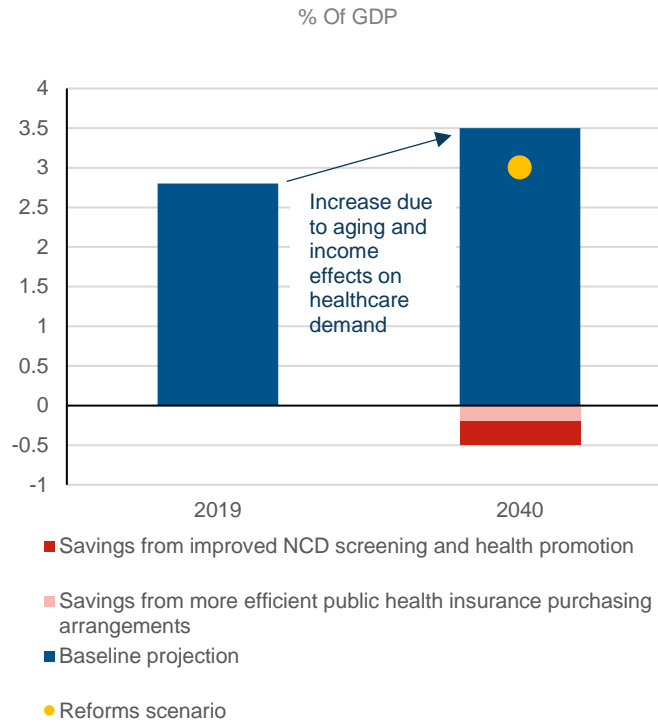
**35. With pressures on the health system expected to rise, the continued achievement of good health outcomes will require a combination of additional resources and efficiency gains.** Thailand's aging population and rising incidence of NCDs is likely to see public health costs escalate over time. The introduction and expanded use of new drugs, procedures, and other medical technologies – alongside growing pressure to cover these in public health insurance schemes – will put further upward pressures on health spending.

**36. 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 non-communicable diseases (NCDs).** In particular, better integration would facilitate improved screening of hypertension and diabetes and the provision of follow-up care to outpatients. This in turn could help reduce financing needs, by reducing the need for complex later-stage NCD treatments that are more costly than prevention or routine care.

**37. The design of public health insurance purchasing arrangements and mechanisms could also be improved.** Steps should be taken to ensure that the management of the Civil Service Medical Benefits Scheme (CSMBS) and other schemes has the expertise required to implement strategic purchasing. Three reforms to the CSMBS have the potential to increase efficiency: (i) require that beneficiaries select and register with a contractor provider; subsequently, (ii) change the provider payment for outpatient services from retrospective fee-for-service to prospective risk-adjusted capitation payment; and (iii) change the budget from open-end to close-end.

**38. These reforms would improve spending efficiency and reduce costs.** It is estimated that these specific reforms, taken together, 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 (Figure 1-23).

**Figure 1-23: Public health spending in baseline and reform scenarios**



## Education Reforms (see Chapter 5)

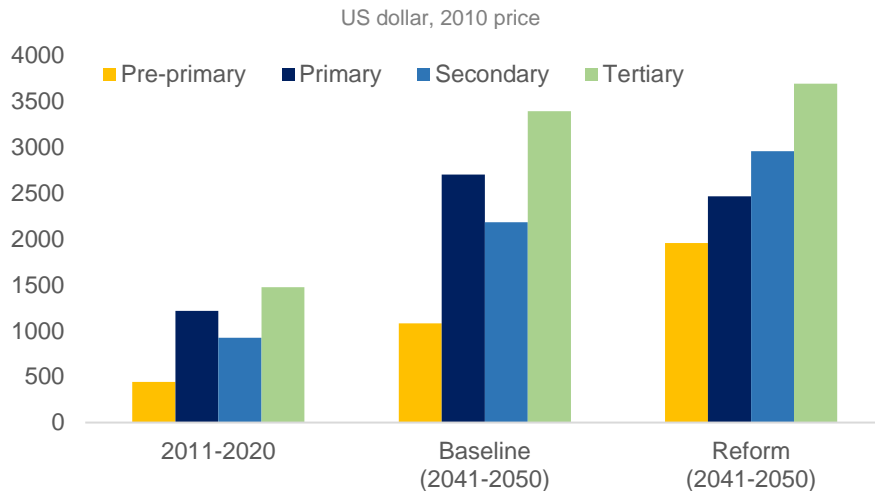
**39. Boosting Thailand's growth potential and facilitating its shift into a high-income economy will require a focus on raising productivity by developing human capital and skills.** Thailand's quality of human capital is lagging its regional peers, in part because of poor education outcomes. Despite a large increase in per-student spending, Thai students' performance in the PISA mathematics and science assessments remained stagnant at low levels between 2000 and 2018, and declined significantly in reading.

**40. 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. On the other hand, spending at the pre-primary and secondary level is comparatively low.

**41. 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. But this reallocation would only provide a portion of the resources necessary to bring pre-primary and secondary spending to international benchmarks, as envisaged in the reform scenario. Additional resources would be drawn on to ensure the adequacy of overall education spending (Figure 1-24).

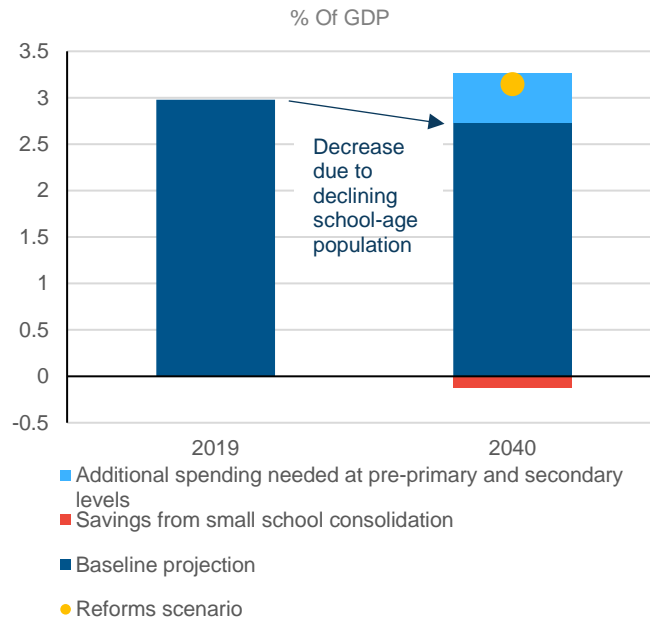
**42. Though the implementation of these reforms requires additional spending on education, the positive impacts on human capital are expected to ultimately drive faster potential growth.** These reforms would require additional annual education spending of around 0.5 percent of GDP. At the same time, 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 increase in human capital would help to drive faster GDP growth: 2.9 percent on average from 2025 to 2050, as compared with the baseline projection of 2.7 percent.

**Figure 1-24: Public spending per student in the baseline versus education reforms**



Source: WB analysis

**Figure 1-25: Public education spending in baseline and reform scenarios**



### Increasing the Old Age Allowance (see Chapter 6)

**43. In 2019, the OAA covered 9.1 million elderly, or around 71 percent of the over-60 population, but the amount of the benefit is very low.** In 2018, the OAA represented just 8.9 percent of average household consumption and the benefit level of THB 600-1,000 per month is far below the national poverty line. If the OAA was to increase with GDP per capita, OAA spending would increase from 0.4 percent of GDP in 2019 to 0.9 percent by 2050 as the population ages and the number of recipients increases, but the benefit provided would remain very low by international standards, and fail to compensate for the inadequate coverage provided by Thailand’s social insurance schemes.

**44. Increasing the OAA to the poverty line for all recipients would be an expensive reform: similar impacts on poverty and inequality can be achieved with a more targeted and less expensive approach.** Increasing the OAA benefit – so that the benefit amount is equivalent to the national poverty line of 2,329 baht per month – would increase the cost of the scheme to 2.9 percent of GDP by 2040. Poverty and inequality (as measured by the Gini Index) would be lower by 2.7 points and 1.5 points, respectively. Increasing the OAA benefit to poorer beneficiaries to 2,000 baht per month, while

tapering or leaving the current allowance unchanged for higher income recipients, would be a much more cost-effective reform option. OAA spending would rise to 1.5 percent of GDP by 2040, while the impact on poverty and inequality would only be marginally lower.

### Increasing other Social Assistance (see Chapter 6)

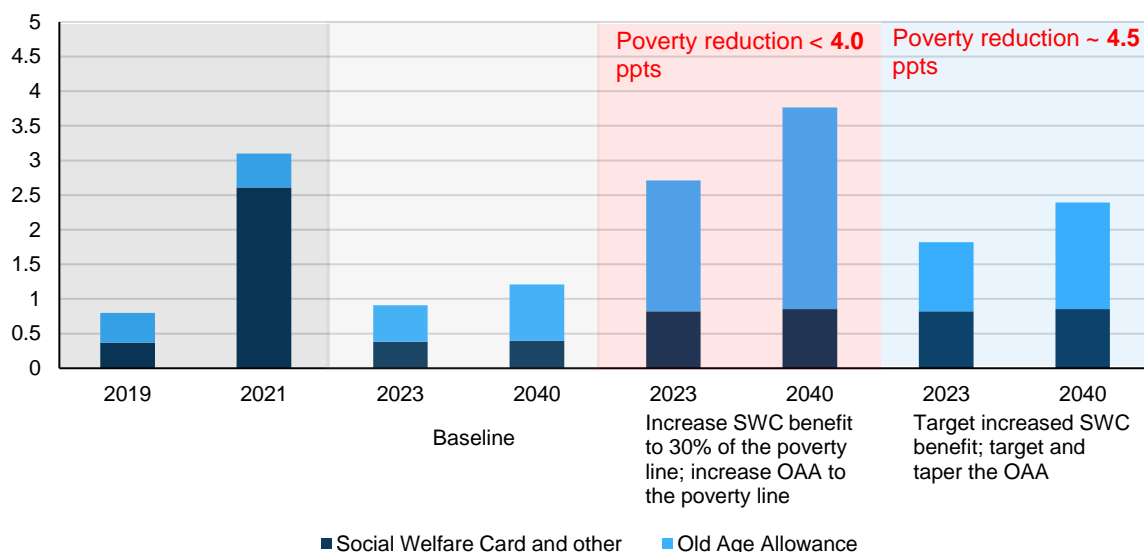
**45. In 2020, spending on social assistance was more than tripled to mitigate the impact of COVID-19 but this remarkable response is only intended to be temporary.** Spending on social assistance excluding the OAA is projected to return to the level prior to the pandemic under the baseline projection, well below the EAP average, and significantly below the average for countries with similar GDP per capita. Given such low benefit levels in absolute terms and relative to household consumption, it is important to consider reform options that provide sufficient benefits to the lower income households, in a more targeted manner. There is now an opportunity to permanently expand social assistance and reduce fragmentation across programs, improving efficiency and impact. Increasing benefit amounts 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.

**46. Increasing the benefit to the State Welfare Card holders would require an increase in social assistance spending: this increase would be much more cost-effective if targeting was improved.** Benefit payments to State Welfare Card holders are one of the main government tools to protect the most vulnerable. Current SWC payments range from THB 200 to THB 300 per month, depending on the beneficiary's household income, which is only a fraction of the poverty line. Raising the benefit levels to 30 percent of poverty line (i.e. THB 700 per month) while keeping the current beneficiaries unchanged would lead to an increase in social assistance spending (excluding OAA) from 0.4 percent of GDP in 2019 to 0.8 percent of GDP in 2019 to 0.8 percent of GDP. As a result, it will reduce poverty by 1.9 points and inequality by 0.9 points. But 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) at the same cost.

**47. The recommended targeted OAA and State Welfare Card reforms would require higher spending, but could have substantial impacts on poverty reduction (Figure 1-26).** The targeted OAA and SWC reforms outlined above are projected to cost 2.4 percent of GDP in 2040, significantly above the 1.2 percent of GDP projected in the no-reform baseline. However, this cost would be significantly lower than the cost of implementing untargeted alternatives (3.8 percent of GDP in 2040). At the same time, the targeted approach is likely to have a larger overall impact on poverty reduction (4.5 ppts versus less than 4.0 ppts with untargeted payments), reflecting the distributional benefits of capturing a larger proportion of poorer recipients and excluding those beneficiaries who are less in need of the assistance.

**Figure 1-26: Social Assistance scenarios**

Percent of GDP



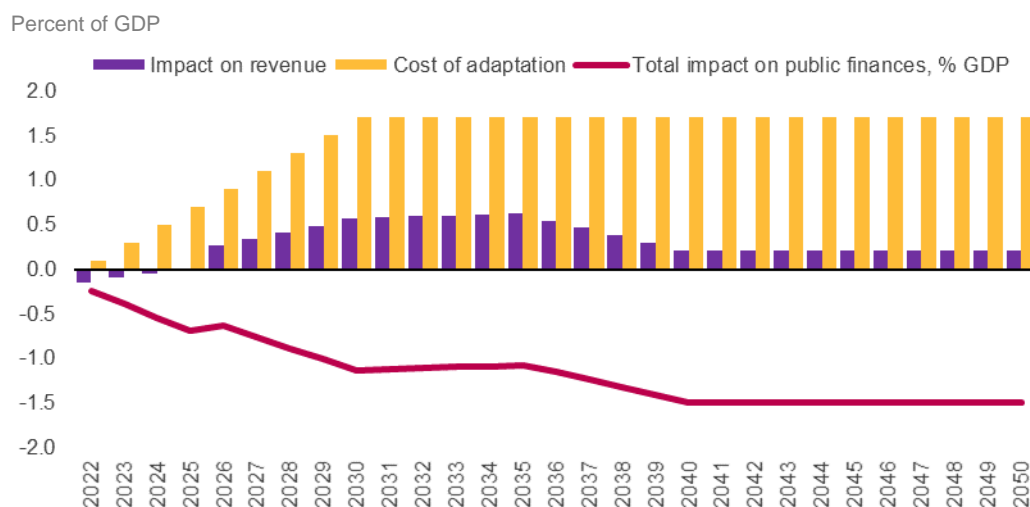
Source: WB analysis,

## Responding to a changing climate (see Chapter 7)

**48. Thailand is highly vulnerable to climate change: fiscal policy can play a critical role in adapting to its impacts, and in reducing Thailand's carbon emissions.** 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. 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. 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 the considerable economic costs of climate change and bring a range of other benefits.

**49. The overall fiscal cost of responding to climate change could be 1 percent of GDP annually by 2030 and 1.5 percent by 2040.** The cost of climate adaptation in Thailand will depend on the policy mix, but based on cross-country analysis it could increase from near zero today to 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 excises 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 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 over the longer term (there would be some medium-term costs involved in incentivizing the switch to electric vehicles). 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 (Figure 1-27).

**Figure 1-27: Climate adaptation revenue and fiscal cost**



Source: WB analysis

## 1.5 Implications for longer-term fiscal sustainability

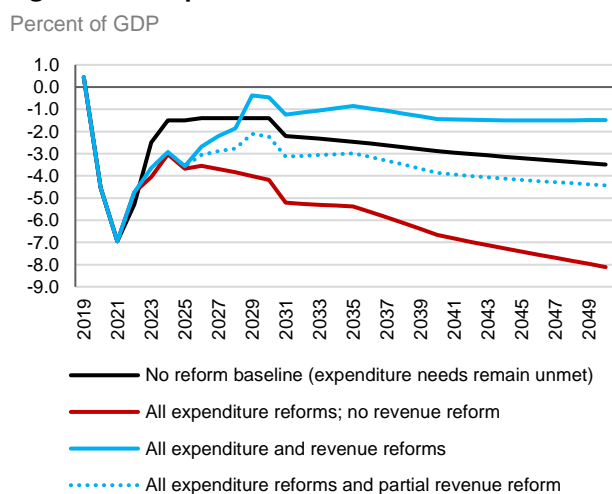
**50. The key message of this report is that meeting Thailand's longer-term public spending needs while maintaining debt sustainability will require an increase in revenue.** In the absence of revenue reforms, the additional expenditures required to implement all of the reform options in the areas of social assistance, education and climate adaptation outlined above could cause the fiscal deficit to exceed 8 percent of GDP and the public debt stock to increase to 115 percent of GDP in 2050 (Figure 1-28 and Figure 1-29). On the other hand, with efforts on tax reform, revenue collection could rise by around 3.5 percentage points of GDP (to 24.3 percent), and these expenditures could be covered even as public debt declines to below 2023 levels over the long term. Less effort on the revenue mobilization or spending efficiency



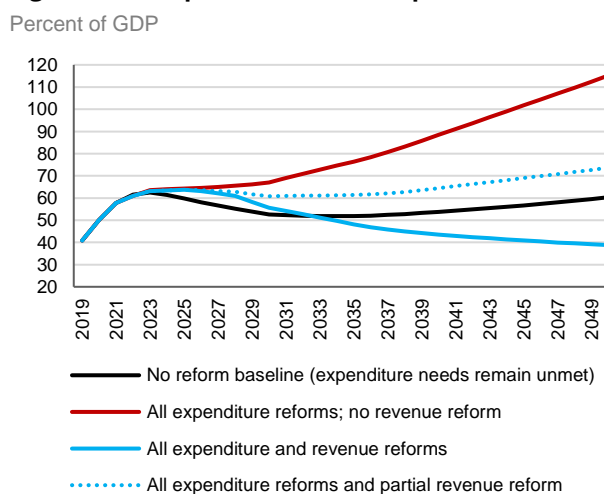
front would lead to commensurately higher deficit and debt levels: in a scenario in which the revenue effort was only half of what is assumed in the ‘all reforms’ scenario, debt would rise above 70 percent of GDP by the end of the projection period. Note that fiscal consolidation in the ‘all reforms’ 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.

**51. 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 1-28 and 1-29, 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. 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.

**Figure 1-28: Impact of reforms on the fiscal balance**



**Figure 1-29: Impact of reforms on public debt**



Source: WB analysis

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.

**Table 1-2: Impact of revenue and expenditure reforms on fiscal outcomes (percent of GDP, and ppt deviation from baseline)**

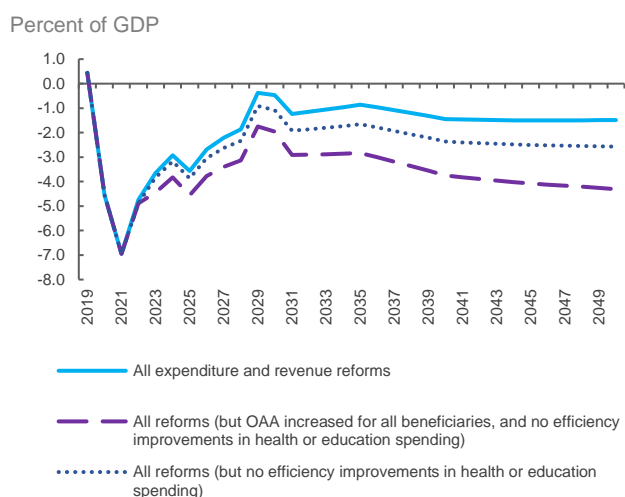
	2019	All spending reforms*, no revenue reform		All reforms, including revenue reform	
		2030	2050	2030	2050
<b>Revenue</b>	20.9	<b>21.3</b>	<b>20.6</b>	<b>24.3</b>	<b>24.5</b>
		+0.5	-0.2	+3.5	+3.7
<b>Primary Expenditure</b>	19.5	<b>24.1</b>	<b>24.5</b>	<b>24.1</b>	<b>24.5</b>
		+3.1	+2.5	+3.1	+2.5
<b>Primary surplus/deficit</b>	1.5	<b>-2.8</b>	<b>-3.9</b>	<b>0.2</b>	<b>0.0</b>
		-2.6	-2.7	+0.4	+1.2
<b>Public debt</b>	40.9	<b>67.0</b>	<b>115.2</b>	<b>55.6</b>	<b>38.8</b>
		+14.5	+54.9	+3.1	-21.6

\*All spending reforms include an increase in public investment through to 2030, consistent with the slower medium-term fiscal consolidation path described above.

**52. Of the potential spending reforms assessed in this report, the level and targeting of the Old Age Allowance is the most important determinant of the public debt trajectory.** Lifting the OAA close to the poverty line for all beneficiaries (to THB 2000 per month) would put significant additional pressure on the fiscal position and debt trajectory, compared with the ‘all reform’ scenario which assumes that the increased OAA is only provided to poorer recipients (Figure 1-30 and Figure 1-33). It is therefore important to explore more targeted approaches to the OAA which would have similarly large impacts on poverty and inequality, but at a much more manageable fiscal cost.

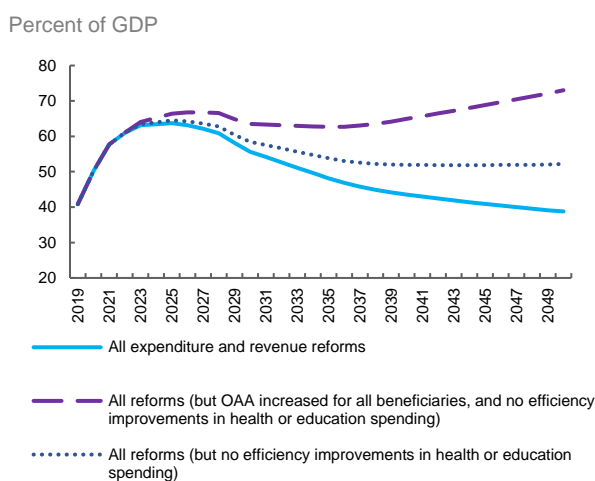
**53. Improving the efficiency of spending on health and education is also important to keep the public debt trajectory contained.** The health and education reforms included in the ‘all reforms’ scenario include measures to improve the efficiency of spending, including by improving the healthcare service delivery system and public insurance purchasing arrangements, and by consolidating small schools and providing primary students with better access to teachers and educational resources. Failing to achieve these efficiency gains would also result in increased fiscal pressures over time (Figure 1-30 and Figure 1-33).

**Figure 1-30: Impact of spending efficiency on the fiscal balance**



Source: WB analysis

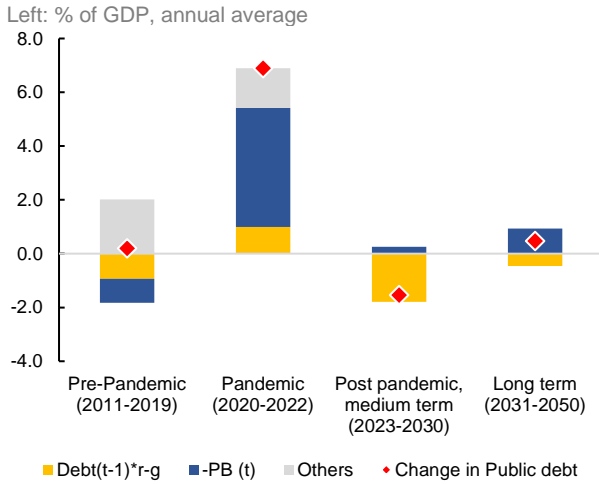
**Figure 1-31: Impact of spending efficiency on public debt**



Source: WB analysis

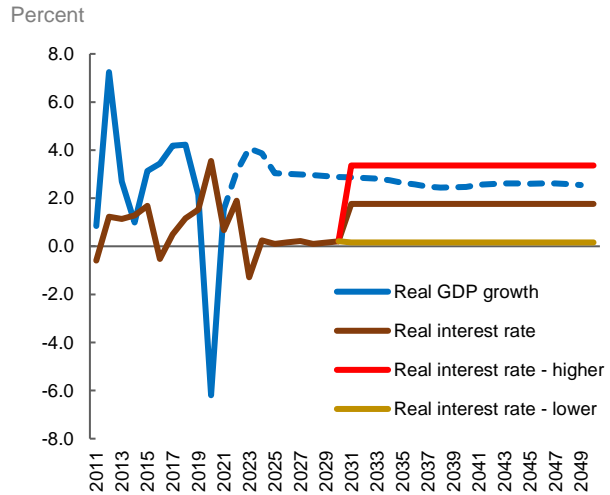
**54. Beyond revenues and spending, another important determinant of fiscal sustainability is how deficits are financed.** In addition to the primary balance, changes in the public debt to GDP ratio are also dependent on the difference between the interest rate (i.e. the average rate paid on the overall public debt stock) and the rate of economic growth. If the cost of financing were to rise, debt dynamics will worsen for any given primary deficit and GDP growth rate (see Figures 1-32 and 1-33). Nevertheless, to the extent that Thailand’s public debt remains predominantly baht-denominated and held by Thai residents, with a long term to maturity, exposure to exchange rate and interest rate shocks should remain manageable. Innovative green financing options such as sustainability bonds and REDD+ financing may also help to reduce the overall cost of public financing.

**Figure 1-32: Drivers of debt to GDP path**



Source: WB analysis

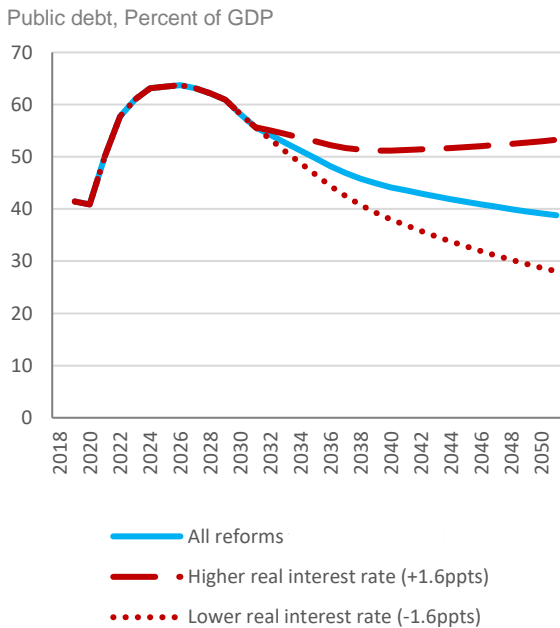
**Figure 1-33: Real GDP projections and alternative interest rate scenarios**



Source: WB analysis

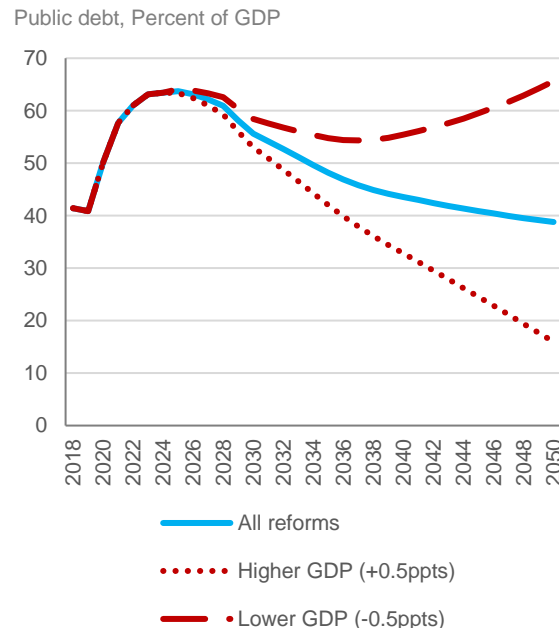
**55. Long-term fiscal outcomes are highly dependent on economic growth.** If real GDP growth was to average 2.4 percent per year between 2025 and 2050 rather than the 2.9 percent projected when all reform options are implemented – due to weaker than expected public or private investment, more pronounced aging impacts on the labor force, or more modest growth in total factor productivity – public debt would rise to around 66 percent of GDP by 2050 after accounting for the impact of all revenue and spending reforms (Figure 1-35). Conversely, faster average growth of 3.4 percent per year would make it significantly easier to ensure longer-term fiscal sustainability, though would not remove the need for revenue reforms.

**Figure 1-34: Sensitivity of public debt path in response to higher/lower real interest rate**



Source: WB analysis

**Figure 1-35: Sensitivity of public debt path in response to higher/lower GDP**



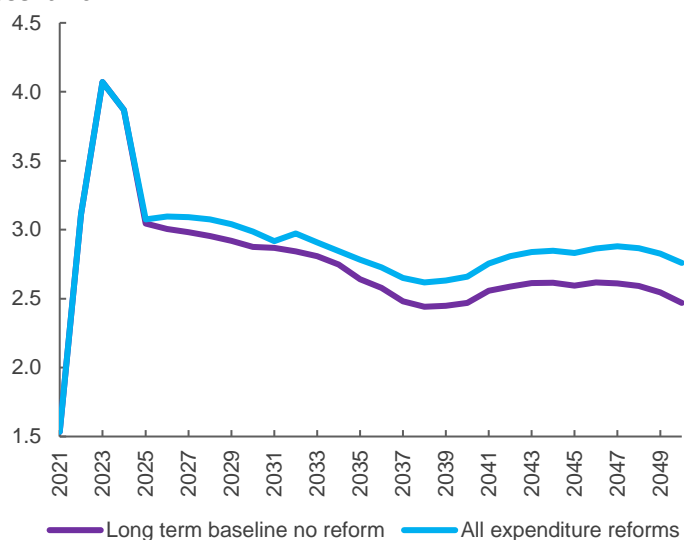
Source: WB analysis

**56. This implies that 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.<sup>9</sup> These are in addition to the reforms considered in Chapter 5 to improve the quality of basic education. Manufacturing sector productivity can 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, as per section 1.3, an increase in the level and/or efficiency of public investment could boost the productive capacity of the economy and crowd in private investment, while at the same time providing critical demand-side stimulus in the near term to help promote the recovery from COVID-19.

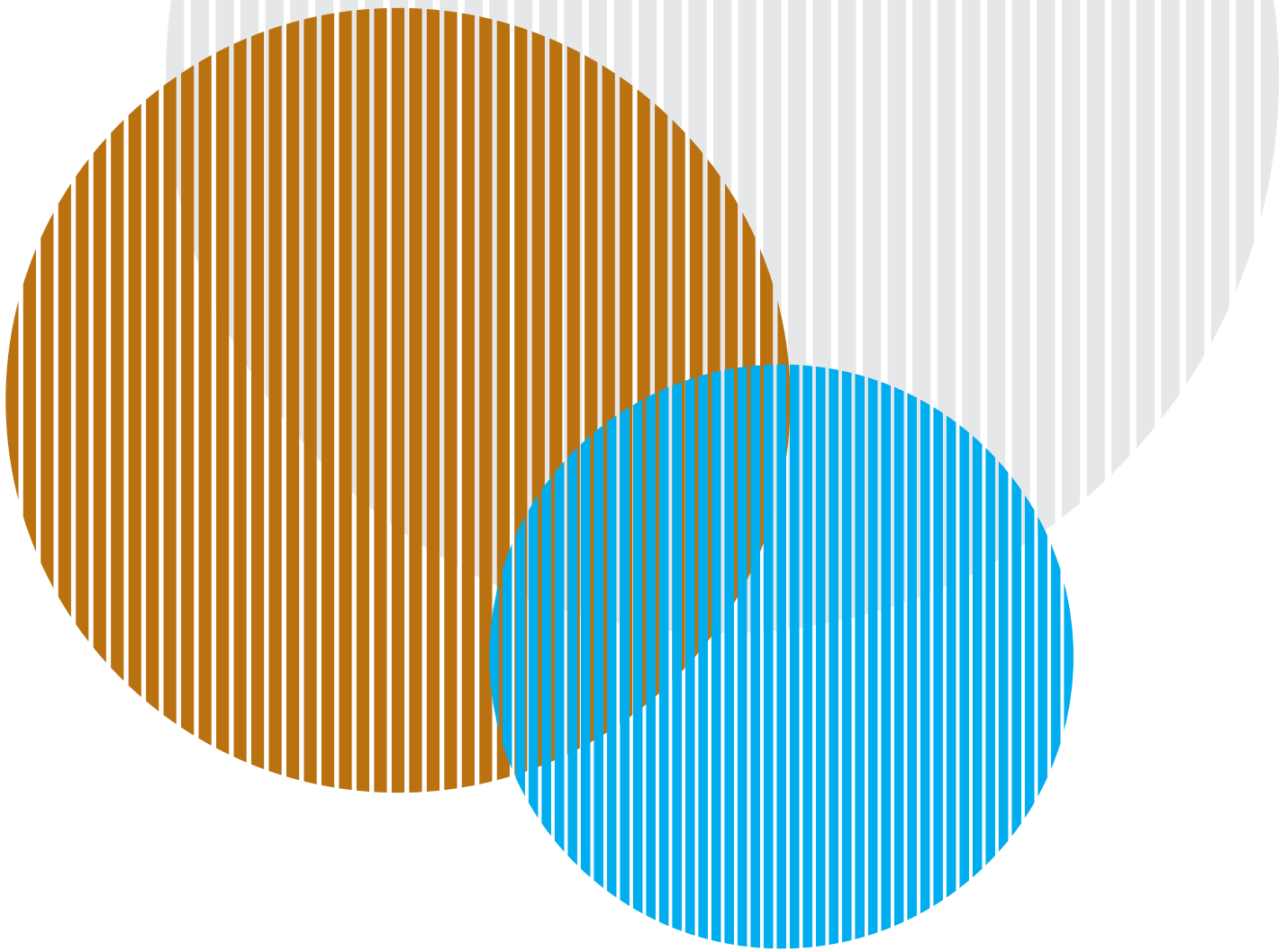
**57. Conversely, sustainable fiscal policy can have a significant impact on growth. There are two main channels.** The first is that additional public investment in physical and human capital, as captured by the public investment and education reforms in the “All reform” scenario, will increase the productive capacity of the economy over the longer term and thereby raise the potential growth rate (Figure 1-36). 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.

**Figure 1-36: Impact of public investment in physical and human capital on GDP growth in the “All reforms” scenario**



**58. 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 (see Annex 1-1: Reforming Fiscal Rules). 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 (see Annex 1-2: Reforming Fiscal Institutions). 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.

<sup>9</sup> Bandaogo, M. and R. Van Doorn. The Macroeconomic and Fiscal Impact of Aging in Thailand. Washington, D.C.: World Bank.



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