



Photo credit: © UNICEF/UN0203763/Zehbrauskas

# UNICEF and Thailand Development Research Institute<sup>1</sup> **WORKING PAPER**

## Sustainable Financing of Social Protection in Thailand

October 2022

### Abstract

*Increased investment on social protection is an effective strategy for the Royal Thai Government to achieve its long-term social and economic goals. While insufficient spending on social protection might help reduce short-term pressure on public resources, it can also result in long-term losses due to lack of development of human capital and higher poverty and inequality, which all contribute negatively to long-term economic growth. To reassure Thailand's policymakers about Thailand's future public spending capacity, this working paper presents a fiscal space forecast which depicts different economic growth scenarios and projects available resources for the government under each scenario. The analysis presented demonstrates that Thailand has the fiscal space to increase spending on social*

---

<sup>1</sup> This paper is authored by Dr Pawin Siriprapanukul, with supervisory advice from Dr Somchai Jitsuchon of Thailand Development Research Institute (TDRI), and technical comments from Sarah Shahyar, Dr Kontee Nuchsuwan, Potcharapol Prommatat, and Khwanploy Cheechang from UNICEF Thailand.

Note: An earlier version of this analysis has benefited from comments from Dr Rungporn Roengpityato, Director of Monetary Policy Department, Bank of Thailand; Mr Pongnakorn Pochakorn, Senior Expert on Macro Economic Policy, Fiscal Policy Office, Ministry of Finance; and Dr Suphannada Lowhachai, Policy and Plan Analyst, Office of the National Economics and Social Development Council

*protection in both the base case and better case scenarios. Furthermore, fiscal sustainability can be substantially improved if suitable measures are put in place to increase government revenue as a percentage of GDP.*

## Key messages

- Thailand has sufficient fiscal space to increase its spending on key social protection measures without risks to fiscal sustainability.
- Investment on social protection and key social services will lead to long-term social and economic benefits, including poverty reduction, human capital development, and enhanced social cohesion and labour force participation.
- Tax reforms can play an important role in creating additional fiscal space.

## Executive Summary

Thailand, like many other countries, has spent substantial amounts to combat the effects of the COVID-19 pandemic, resulting in a deficit, substantial borrowing, and increased public debt. This has led policymakers to be cautious when making decisions about future public spending. However, there remains a need for the government to spend more, including on key social sectors. Strengthening social protection and investing more in human capital, quality education and health is a sure strategy to address the fundamental problems the country is facing, including a rapidly ageing population, inequality, poverty, and stagnant economic growth. It can also help the country to achieve the long-term development goals highlighted in its National Strategy and 13<sup>th</sup> National Economic and Social Development Plan, as well as the Agenda 2030 for Sustainable Development. Failing to invest more and properly on social protection and other social sectors would jeopardize the country in the long-term.

This working paper aims to address the concerns of policymakers who may think that the country might not have sufficient fiscal space to accommodate more social protection spending. The analysis shows that under the projected macroeconomic conditions, the country will indeed have sufficient fiscal space to increase its spending on key social services without any risks to fiscal sustainability. Furthermore, fiscal sustainability can be substantially improved if suitable measures are put in place to increase government's revenue as a percentage of GDP.

This paper presents different scenarios of the country's economic growth and projects available resources for the government under each scenario. After exploring the economic situation since 1997, we use 3 per cent as our long-term GDP growth rate and 1.5 per cent as our long-term inflation rate in our base scenario. In our better case scenario, the long-term growth rate is at 4 per cent, while in our worst-case scenario, the rate is at 1.5 per cent. In every scenario, we apply the GDP growth rate and inflation rate in 2022 and 2023 from the September 2022 forecast of the Bank of Thailand (GDP growth at 3.3 per cent and 3.8 per cent, respectively, and inflation at 6.3 per cent and 2.6 per cent, respectively).

We define fiscal space as extra government expenditure that would push the ratio of public debt to GDP up to 70 per cent, which is the current ceiling set by the State Fiscal and Financial Policy Commission under the State Fiscal and Financial Disciplines Act 2018. In constructing our scenarios, we have also ensured that the government budget in each fiscal year aligns with the deficit ceiling according to section 21 of Public Debt Management Act, and that the space keeps increasing to allow for the continuation of any projects initiated in any given year.

We see that even under the current situation, which shows a declining trend in the ratio of government revenue to GDP, Thailand has the fiscal space to increase spending on social sectors in both the base and better case scenarios. For the base case scenario, the fiscal space ranges from 216,580 million baht to 886,709 million baht in 2023 and 2042 respectively. The fiscal space under the better case scenario is even greater, ranging from 216,580 million baht to 2,222,098 million baht in 2023 and 2042 respectively. Only in the worst-case scenario, which we believe to be very unlikely, is the fiscal space negative. We also see that the Thai government can create additional fiscal space by improving revenue collection through tax reform.

Based on this fiscal space forecast, we strongly believe that the Thai government should invest more on social protection to achieve long-term social and economic benefits. This investment decision should be made without delay because Thailand faces many fundamental problems, such as persistent inequalities and heightened risk of chronic poverty, which can be addressed with broader and more effective social protection measures. The decision to invest more on social protection should not be hindered by concerns over fiscal sustainability as the fiscal space is highly likely to be available. Moreover, the long-term benefits of investing on social protection and key social services, including higher economic growth prospects, should eventually help improve the fiscal condition of the country.

# Contents

- 1. Introduction ..... 5
- 2. Macroeconomic Conditions and Fiscal Space Projection ..... 6
  - Macroeconomic Conditions ..... 6
  - Government Deficit and Public Debt ..... 8
  - Components of Government Expenditure and Revenue ..... 11
  - Fiscal Space Projections ..... 14
- 3. Discussion of Fiscal Policy Options ..... 20
- References ..... 23
- Annex I: Fiscal Space Model ..... 24

## 1. Introduction

The COVID-19 pandemic has caused governments around the world to incur significant public debt resulting from large increases in spending to counter the severe economic downturn and sharp decrease in revenue. It is therefore unsurprising that, as the pandemic begins to fade, many governments, including the Thai government, might attempt to restore their country's fiscal position with cautious planning on government spending. Consequently, there is a risk that spending on social protection might be restrained as well.

However, evidence shows that insufficient spending on social protection, even though it might help reduce short-term pressure on public resources, can result in long-term losses due to delays in the development of human capital and higher poverty and inequality, which all contribute negatively to long-term economic growth. This is particularly the case for Thailand, which has experienced high levels of inequality, both in terms of income, wealth and, more importantly, human capital among the Thai population, for some time. The consequence is that Thailand has been trapped in middle-income country status for more than two decades, mainly because the country's labour force has insufficient productivity levels to support the high-value economic and business world. A rapidly ageing population makes the need to enhance human capital even more urgent, while limiting spending on social protection will delay the country's ability to address this pressing issue. Emerging evidence that Thailand might be facing a new problem of 'chronic poverty', where a substantial fraction of the Thai population risk becoming trapped in poverty regardless of the macroeconomic conditions, makes the issue of sufficient social protection spending even more important.

It is therefore critical to explore the trade-off between short-term fiscal considerations and long-term goals of human-centred development, as well as poverty and inequality reduction. All stakeholders need to have a common understanding of the possible scenarios in terms of the economic growth and resources available, as well as the implications of different investment options in the medium- and long-term on the country's productivity, growth and poverty reduction. Common understanding will help foster discussion around the availability of resources for social protection, which can involve expanding government revenue and reprioritizing expenditure. Often, decisions regarding the optimal level of social protection expenditure cannot be disassociated from the wider macroeconomic and fiscal frameworks.

This working paper has been prepared to demonstrate different scenarios of the Thai economy and fiscal position under current fiscal and economic constraints, and the consequences for the financing of social protection, in order to maximize its benefits to the country, both socially and economically.

The report consists of two parts: Section 2 explains Thailand's macroeconomics conditions and our fiscal space projection model, while Section 3 contains a discussion of fiscal space options and key suggestions to create additional fiscal space.

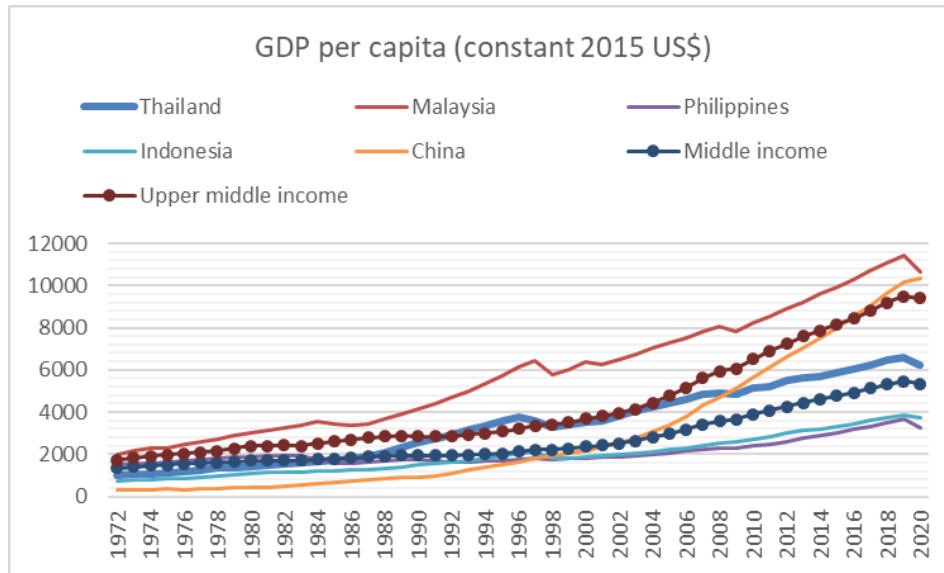
## 2. Macroeconomic Conditions and Fiscal Space Projection

In this section, we show different scenarios of economic growth for Thailand and project available resources for the government in each scenario. We start by exploring recent macroeconomic conditions in Thailand and set up our main scenarios. After that, we explore the fiscal data of Thailand, including government revenue, government spending and public debt. Lastly, we project the main fiscal variables and show the fiscal space available in each scenario.

### Macroeconomic Conditions

Currently, Thailand is an upper-middle income country. During 1970–1995, the country’s performance in terms of economic and social development was among the top worldwide. But this progress was affected by the Asian financial crisis in 1997, after which economic growth significantly slowed down. In the last two decades, the country has been struggling to attain the status of a higher income country, yet it is caught in the so-called middle-income trap. Figure 1 shows real GDP per capita of Thailand in comparison with some selected countries and country groups.

**Figure 1:** GDP per capita of Thailand and some selected countries/country groups during 1972–2020

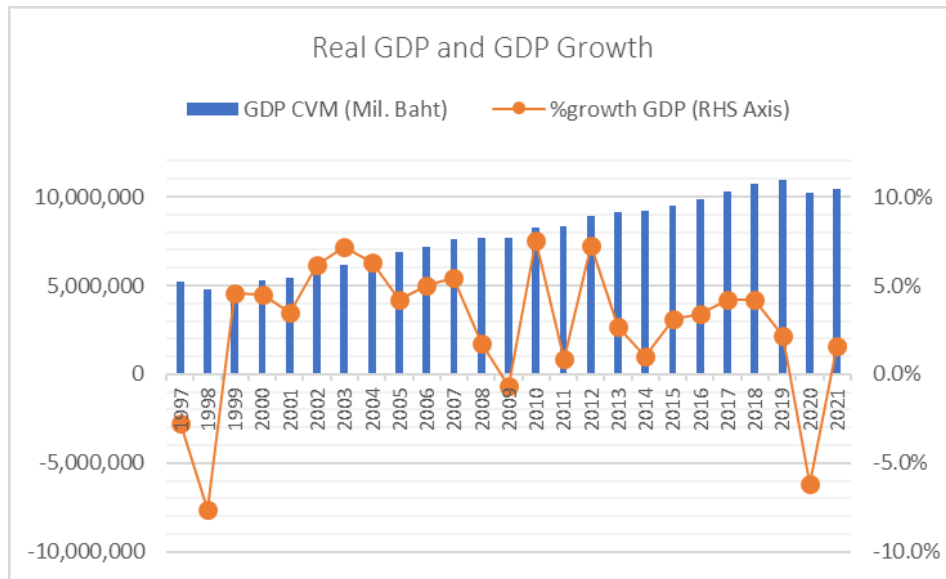


Source: World Bank National Accounts data, and OECD National Accounts data

Since 1997, the GDP growth rate of Thailand has been fluctuating (see Figure 2). The country enjoyed a relatively high economic growth rate during 2000–2007 until the sub-prime crisis in 2008–2009. It also faced a severe flooding in 2011. Then, in 2020, Thailand was hit hard by the COVID-19 pandemic, and it is expected that the country will take a few years to return to 2019 levels.

As Figure 2 shows, the relatively low average growth rate since 1997 (25-year average), at 2.76 per cent per year, is primarily due to two major economic crises during this period. If we consider the average growth rate since 2002 (20-year average), it goes up to 3.35 per cent per year, which is also close to the average growth rate in the most recent five years (excluding 2020) of 3.11 per cent per year.

Figure 2: Real GDP and GDP growth of Thailand during 1997–2021



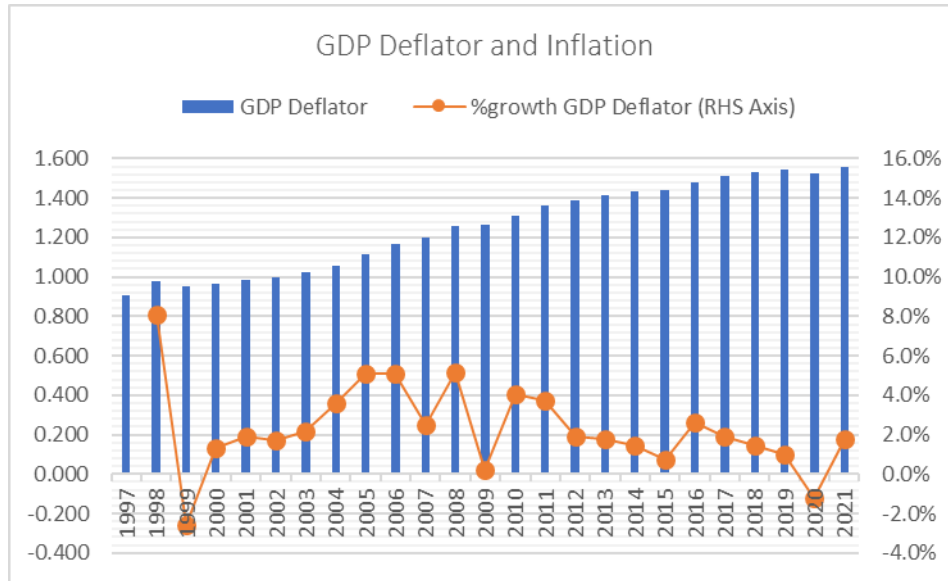
Average	25 Years	2.76%
	20 Years	3.35%
	15 Years	2.55%
	10 Years	2.34%
	5 Years	1.18%
	5 Years (excl. 2020)	3.11%

Source: Office of the National Economic and Social Development Council

Turning to the rate of inflation, Figure 3 shows the GDP deflator and the growth rate that this study uses to represent the inflation rate. The average inflation rate since 1997 (25-year average) is 2.39 per cent. However, the inflation rate has dropped significantly in the last decade. The 10-year average inflation rate of the country is 1.34 per cent per year, while in the last 5 years (excluding 2020) the average inflation rate was 1.75 per cent per year. Even with recent spikes of inflation, at 3.9 per cent and 5.4 per cent in the first two quarters of 2022, our baseline long-term inflation forecast does not change as we believe central banks around the world are working actively to fight this inflation.



Figure 3: GDP deflator and inflation rate of Thailand during 1997–2021



Average	25 Years	2.39%
	20 Years	2.33%
	15 Years	1.93%
	10 Years	1.34%
	5 Years	0.98%
	5 Years (excl. 2020)	1.75%

Source: Office of the National Economic and Social Development Council

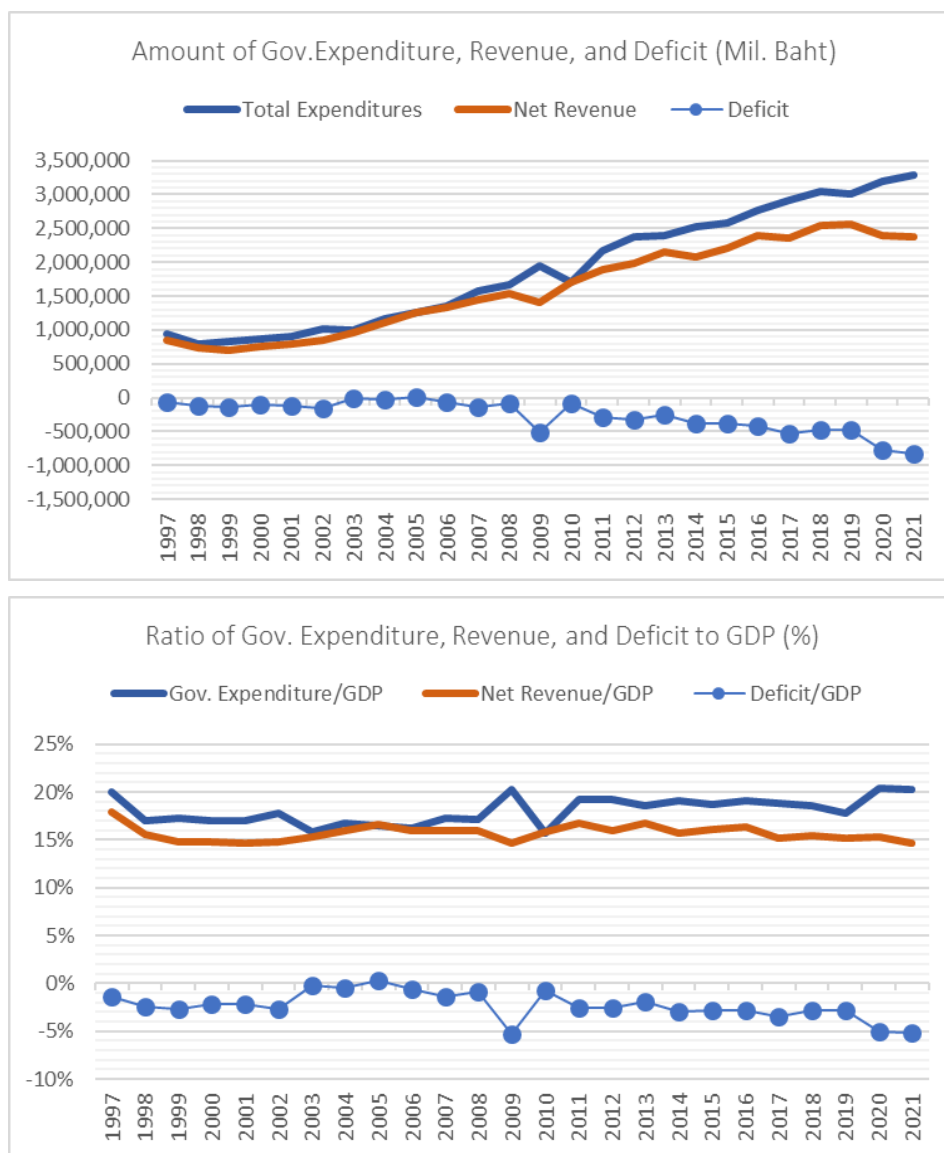
### Government Deficit and Public Debt

In this study, our focus is on the budget of the central government of Thailand. Apart from the central government, there are numerous state agencies. For example, according to the Fiscal Policy Office (2019) there are 115 extra budgetary funds, 56 state-owned enterprises (SOE), and 7,852 Local Administrative Organizations (LAOs). Moreover, the agencies in each category are diverse. Many of these agencies, especially the big ones, for example the Social Security Fund, National Health Fund and Student Loan Fund, deserve their own analyses and are therefore not the focus of this study.

The central government of Thailand has been in budget deficit since 1997, with only one exception in 2005. Moreover, the trend has changed from reducing deficit to GDP during 1998–2005 to increasing deficit to GDP from 2006 onward. The ratio rose to around 3 per cent of GDP even before the COVID-19 crisis hit. This was caused by both the continual increase in government expenditure and the lower growth rate of government net revenue (see the lower part of Figure 4).



Figure 4: Amount and ratio to GDP of total expenditure and net revenue of the Thai government during 1997–2021



Source: Budget in Brief, fiscal year 1997–2021, and Fiscal Policy Office

On the expenditure side, the Fiscal Policy Office (2021) states that compulsory spending – including government officer compensation, interest payments on public debt, welfare spending for government officers, and welfare spending for the general public – keeps increasing, accounting for around 57.9 per cent of total government budget in 2021. This does not include other transfers to LAOs (5.6 per cent of fiscal budget in 2021) and repayments to public enterprises for implementing some government programmes in the past (1.5 per cent of fiscal budget in 2021). Moreover, the State Fiscal and Financial Disciplines Act, B.E. 2561 (2018) states that capital expenditures must account for not less than 20 per cent of the fiscal budget and must not be less than the amount of deficit in that fiscal year. There is, therefore, relatively little room for the government to initiate new programmes or to cut down budget spending.

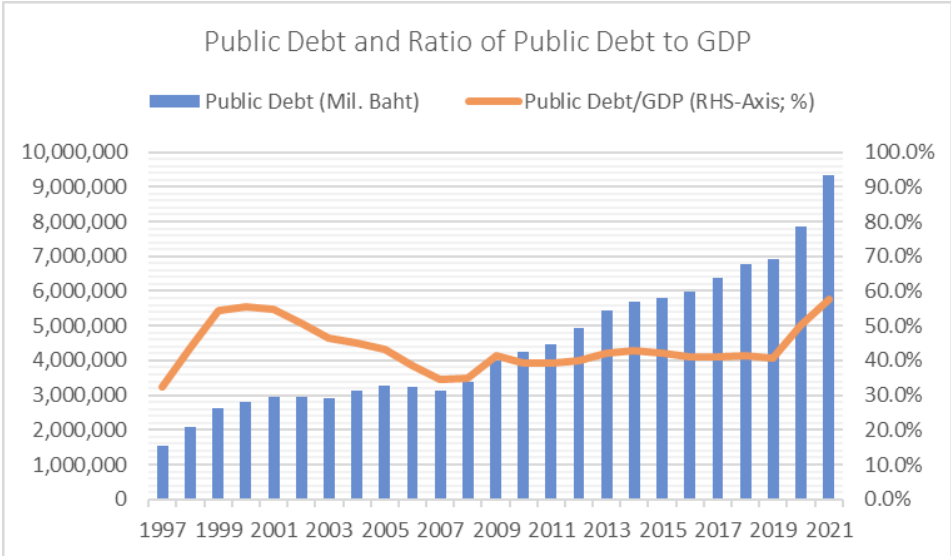
On the revenue side, many income tax restructures have taken place since 1997, all of which have decreased tax rates. The personal income tax (PIT) rate has been reduced from 5–37 per cent to 0–35 per cent, with a wider income bracket in the lower rates, while higher value and new deductibles and allowances have been introduced. The corporate income tax (CIT) rate has also been reduced from 30 per cent to 20 per cent. Moreover, the policy to increase income tax base does not show significant improvement, as the informal sector has stayed relatively large (around 68 per cent of all labourers were in the informal sector in 2021) and has shrunk very slowly in the past two decades. For consumption tax, the government has kept the VAT rate at 7 per cent for more than two decades. The tax is widely perceived as regressive, yet political parties lack the intention to increase the rate back to 10 per cent (by law, it should be no higher than 10 per cent). Moreover, the rapid movement toward e-commerce, which cannot be taxed as effectively as traditional commerce, has resulted in the decline of the ratio of consumption tax to GDP in recent years.

In comparison with GDP, the budget deficit has grown from around 2.5 per cent during 1998–2002 to around 3.7 per cent during 2017–2021. Government expenditure has gradually grown from around 17 per cent of GDP to around 19 per cent. In the last decade, the ratio of government net revenue to GDP shows a clear downward trend (see the lower part of Figure 4).

Continual budget deficit results in increased public debt. The amount and ratio of public debt to GDP are simple fiscal indicators that can reflect the fiscal vulnerability of a country. Figure 5 shows the value of public debt of Thailand and its ratio to GDP between 1997–2021. With a relatively small amount of government deficit and relatively strong GDP growth during 1999–2007, the ratio of public debt to GDP improved from around 54.4 per cent in 1999 to 34.6 per cent in 2007. The ratio jumped during 2008–2009 due to the sub-prime crisis and stayed at around 40 per cent for the next decade.

The COVID-19 crisis caused Thailand’s ratio of public debt to GDP to jump up again. This time, the ratio is expected to go over 60 per cent, a level which Thailand has never exceeded before. In addition to the large deficit in 2020–2021, the government borrowed extra resources through the 1-trillion-baht and 0.5-trillion-baht loan decrees. These were made by the State Fiscal and Financial Policy Commission under the State Fiscal and Financial Disciplines Act, B.E. 2561 (2018) to lift the public debt ceiling from 60 per cent of GDP to 70 per cent in 2020. The most updated figure (from July 2022) is at 60.75 per cent.

Figure 5: Amount and ratio to GDP of public debt of Thailand during 1997–2021



Source: Public Debt Management Office

Although the movement in the ratio of public debt to GDP looks alarming, the structure of the debt is, in fact, in good shape. Data from the Public Debt Management Office<sup>2</sup> in March 2022 show that 93.7 per cent of total public debt is long-term, with an average duration of around 9 years, and 98.2 per cent of total public debt is domestic debt. Moreover, when compared to the ratio of public debt to GDP for other countries in the region at the end of 2020<sup>3</sup>, Thailand's ratio (50.5 per cent) is still smaller than that of the Philippines (53.5 per cent), Malaysia (60.7 per cent), and Singapore (131 per cent). With the current condition, the ratio of public debt to GDP at 70 per cent does not look hazardous to the country, especially if the resources from additional debt are used wisely.

## Components of Government Expenditure and Revenue

There are a lot of classifications of government expenditure in the Budget Brief issued by Budget Bureau. However, in this report, we focus on the functional classification of expenditures or functional expenditures. This classification is consistent with the classification of the functions of government provided by the International Monetary Fund (IMF) in their Government Finance Statistics (GFS) methodology<sup>4</sup>. Figure 6 shows the ratio to GDP of the functional expenditures of the Thai government during 1997–2021.

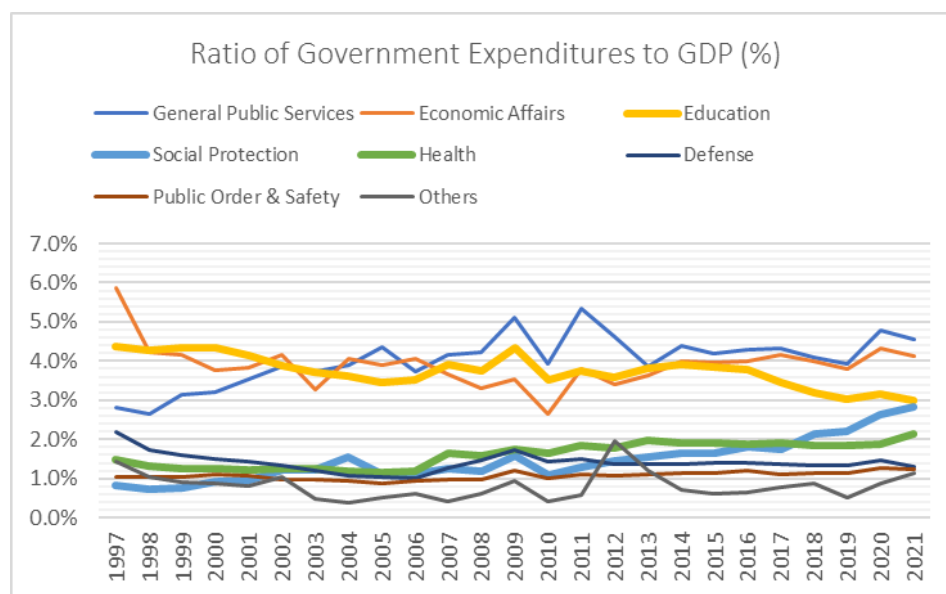
---

<sup>2</sup> See <https://www.pdmo.go.th/en/public-debt/debt-outstanding>

<sup>3</sup> See <https://tradingeconomics.com/country-list/government-debt-to-gdp>

<sup>4</sup> The expenditure is divided into 10 functions: **1) General public services**, which cover administrative and legislative activities, monetary and fiscal management, central personnel administration, statistical services, foreign affairs, economic assistances, research and development on general governmental services, loan repayments, and transfers to LAOs; **2) Defense**, which covers territorial defense by the Ministry of Defense and the civilian sector, including territorial defense volunteers and local administration officers; **3) Public Order and Safety**, which covers judiciary services, police forces, fire brigades, and penitentiary institutions along with research and development on internal peace keeping; **4) Economic Affairs**, which cover general economic, commercial, and labour affairs, agriculture, forestry, fishing and hunting, fuel and energy, mining, manufacturing, and construction, transport, communication, research and development on economic affairs, and economic affairs not elsewhere classified; **5) Environmental Protection**, which covers collecting, transforming and eradicating wastes, management of sewage, sewerage treatment system, management and construction of drainage system, protecting air and atmospheric condition, protecting land and surface water, lessening noise pollution, preventing atomic radiation, construction of noise barriers, establishing measures to reduce water pollution, preserve ecological system and scenery along with research and development on the environment; **6) Housing and Community Amenities**, which cover the provision of housing development, housing standards, urban planning, and community development, along with supply of water for consumption, and research and development on housing and community amenities; **7) Health**, which covers provision of public health services performed by the Ministry of Public Health and other government agencies, including planning and administration of hospital and health center operations, the provision of health care information, and research and development on public health; **8) Recreation, Culture and Religion**, which covers sports events, expenditures on cultural and religious activities, the expenditures for radio and television broadcasting, administration of publishing affairs, construction of public parks or recreational areas, libraries, museums, and botanical gardens in conjunction with research and development on recreation, culture, and religion; **9) Education** which covers education administration from pre-primary to university levels, as well as non-formal education, scholarships for students, subsidies to LAOs for education purposes, and research on education; and **10) Social Protection**, which covers social security for loss of income due to illness, compensation to the general public and retiring government employees, provision of shelter to various groups of people, as well as other social assistance such as compensation for loss of property due to disasters, along with research and development on social welfare.

**Figure 6:** Ratio to GDP of functional expenditures of the Thai government during 1997–2021

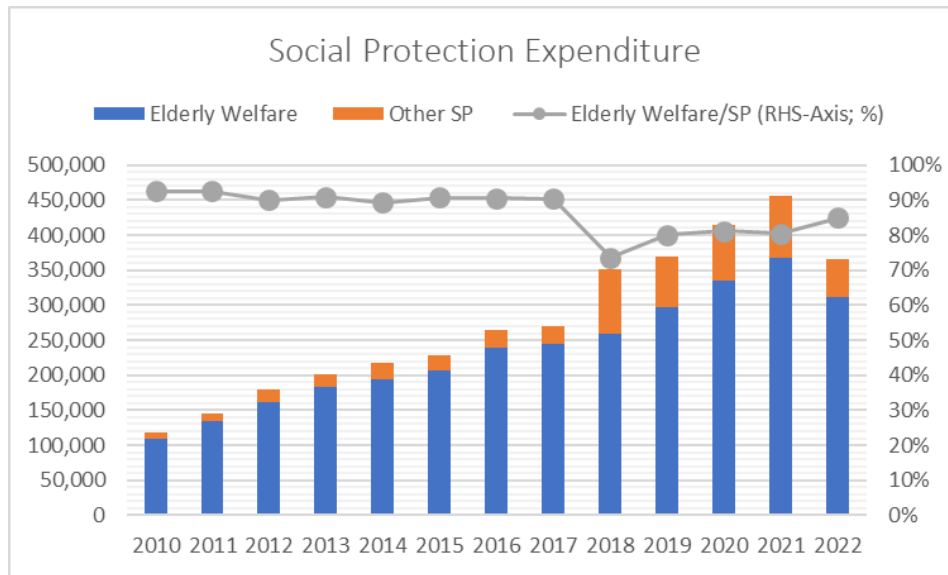


Source: Budget in Brief, fiscal year 1997 - 2021

As shown in Figure 6, the top five functional expenditures recently are general public services, economic affairs, education, social protection, and health, respectively. This is different from situation in 1998–2002, when education was at the top of the list and social protection towards the bottom. Education expenditure has decreased from around 4.4 per cent of GDP to around 3 per cent in the last two decades, while social protection has increased from 0.8 per cent to around 2.6 per cent. Expenditure on general public services has also increased as public debt transactions have grown over time.

Within social protection expenditure, the main component (around 74–93 per cent) is expenditure related to welfare for the elderly (see Figure 7). Meanwhile, the recent increase in other social protection expenditures is mainly due to the State Welfare Card policy initiated in 2016 but funded from the government budget from fiscal year 2018 onwards. Within expenditure for elderly welfare, more than 75 per cent relates to the government pension. If we take the government pension out, between 2018–2022, less than 1 per cent of GDP is left for expenditure in other social protection programmes.

Figure 7: Main components of social protection expenditure during 2010–2022

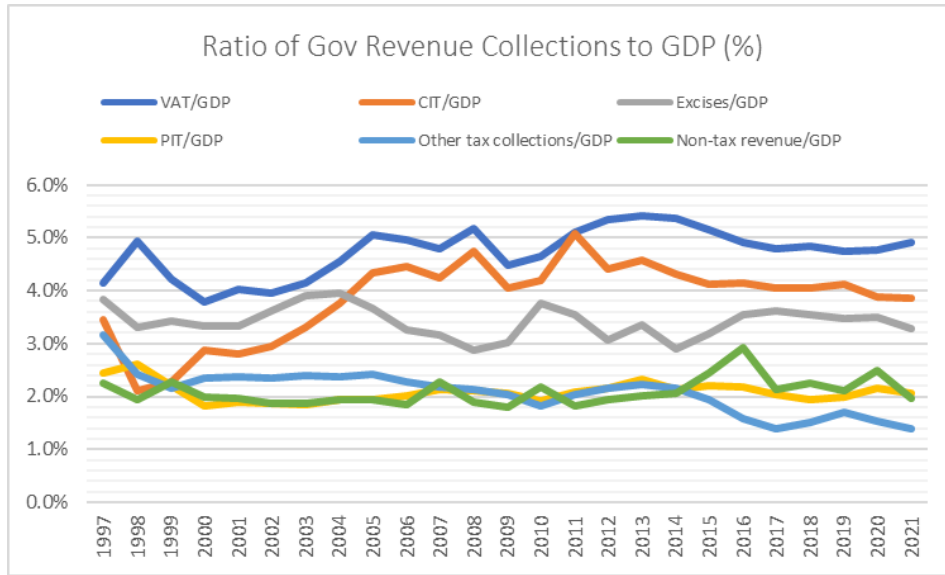


Source: Budget in Brief, fiscal year 2010 - 2022

Turning to the components of government revenue, Figure 8 breaks down the total revenue collection of the Thai government into six main sources and shows their proportion to overall GDP<sup>5</sup>. The main sources of revenue of the Thai government at the present time are VAT, CIT, excises, non-tax revenue, and PIT, respectively. VAT and CIT account for one half of total revenue collection and they tend to decrease when compared to GDP in the last decade. The biggest components of excises in Thailand are oil and car excises (which account for 55.4 per cent of total excise), which have been significantly affected by the COVID-19 crisis. The ratio of PIT to GDP is relatively stable, even it has a progressive structure. Non-tax revenue, which mainly consists of dividends from state-owned enterprises, earnings of the Treasury Department, and service revenues, depends more on economic conditions than the control of the government.

<sup>5</sup> The data come from the Fiscal Policy Office website: <https://www.fpo.go.th/main/Statistic-Database.aspx>

**Figure 8:** Ratio to GDP of functional components of the Thai government expenditure during 1997–2021



Source: Fiscal Policy Office

### Fiscal Space Projections

From the above information, we set up three macroeconomic scenarios: the base case, the better case, and the worst case. The main difference among these scenarios is the assumption on real GDP growth from 2024–2042, which is as follows:

- Base case: real GDP growth at 3% per year
- Better case: real GDP growth at 4% per year
- Worst case: real GDP growth at 1.5% per year.

GDP growth rate in the base case is our realistically expected long-term growth rate for Thailand. It is close to the 20-year average growth rate, which includes the COVID-19 crisis. It is also consistent with the most recent five-year average growth rate, excluding the year 2020. We set the GDP growth rate at 4 per cent in our better case to represent our optimistic scenario. In the worst case, the GDP growth rate is set at 1.5 per cent per year, which is close to the 10-year average growth rate of the country, including the year 2020. This is a very pessimistic scenario, and we see little possibility that it will happen.

In every case, GDP growth in 2022 and 2023 are assumed to be 3.3 per cent and 3.8 per cent, respectively, while the inflation rates in 2022 and 2023 are assumed to be 6.3 per cent and 2.6 per cent, respectively. These are according to the latest forecast from the Bank of Thailand (September 2022). In every case, the inflation rate between 2024–2042 is fixed at 1.5 per cent, which is our long-term inflation rate. Table 1 summarizes our assumptions on these three scenarios.

**Table 1:** Assumptions in the three macroeconomic scenarios

Year	2022	2023	2024-2042
	<i>Base Case</i>		
Real GDP growth	3.3%	3.8%	3.0%
Inflation rate	6.3%	2.6%	1.5%
	<i>Better Case</i>		
Real GDP growth	3.3%	3.8%	4.0%
Inflation rate	6.3%	2.6%	1.5%
	<i>Worst Case</i>		
Real GDP growth	3.3%	3.8%	1.5%
Inflation rate	6.3%	2.6%	1.5%

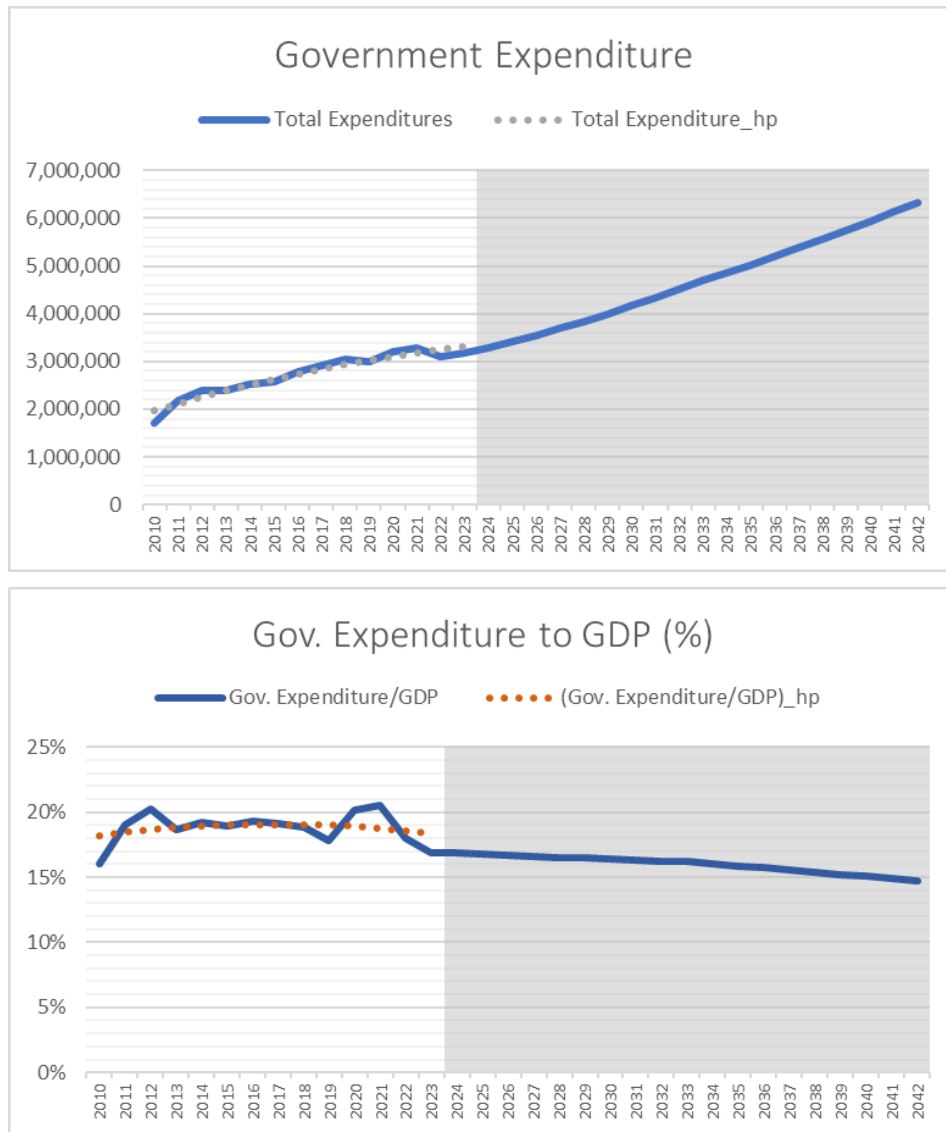
In projecting GDP into the future, the GDP growth rates above are applied to GDP data within a calendar year, to coincide with the forecasting practices of various agencies, including the Bank of Thailand. The projected values are then recalculated into GDP for a fiscal year. Figures for GDP within a fiscal year will be compared with fiscal data to make them consistent within a time period, and to ensure that the values are comparable with figures announced by fiscal authorities.

Our Fiscal Space Model (presented in Annex I of this report) is used to project the fiscal space of Thailand into the future. The model tries to extend the trends of spending and revenue collection of the government in the previous 25 years into the next 20 years, until 2042. The model considers what the fiscal space in the next two decades will look like if the development of the fiscal situation continues as it has been in the last two and a half decades.

Figure 9 shows our forecast values on total government expenditure and its ratio to GDP in 2024–2042 as well as the actual data during 2010–2023. It can be said that our forecast values on government expenditures follow the actual trend in 2010–2023. These forecast values will be used in every scenario of this projecting exercise. According to the forecast, the total government expenditure grows on average 3.7 per cent per year between 2023–2042. The ratio of total expenditure to GDP in our base case falls gradually from 16.9 per cent in 2023 to 14.7 per cent in 2042 as the expenditure growth rate is lower than the nominal GDP growth rate in our base case.



**Figure 9:** Forecast values of total expenditure and ratio of total expenditure to GDP (base case) of the Thai government during 2023–2042



Source: Authors' calculation

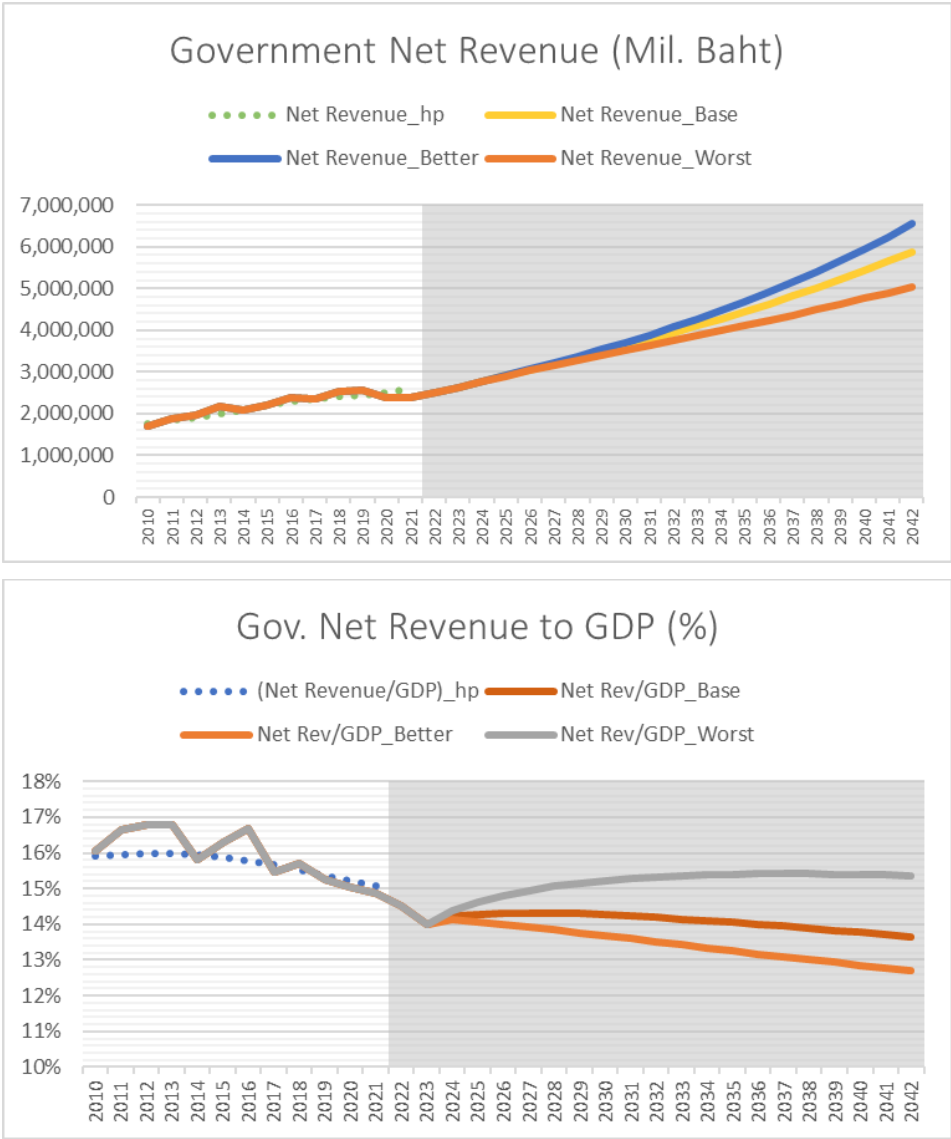
Figure 10 shows the forecast values on net government revenue and its ratio to GDP in 2022–2042, along with the actual data in 2010–2021, in the three different scenarios. According to the forecast, the net government revenue in our base case grows on average 4.4 per cent per year. Its ratio to GDP then falls gradually from 14.9 per cent in 2021 to 13.7 per cent in 2042.

In our better case, the average growth rate of net government revenue during 2022–2042 is 4.9 per cent per year. With long-term nominal GDP growth rate at 5.5 per cent, the ratio of net revenue to GDP falls from 14.9 per cent in 2021 to 12.7 per cent in 2042. Then, in our worst case, the average growth rate of net government revenue is 3.7 per cent per year. With long-term nominal GDP growth at 3 per cent, the ratio of net revenue to GDP grows from 14.9 per cent in 2021 to 15.4 per cent in 2042.

The reason for falling revenue to GDP ratio in the base and better case scenarios is primarily driven by our revenue projection, influenced by the trend in previous decades where tax policy had been fairly relaxed. We intend to use this approach so that the implied fiscal space falls more on the conservative

side to ensure that the predicted fiscal space is not 'too optimistic'. We will discuss the implication for fiscal space in the last section of this report, when there is further discussion of how to restore the ratio of revenue to GDP.

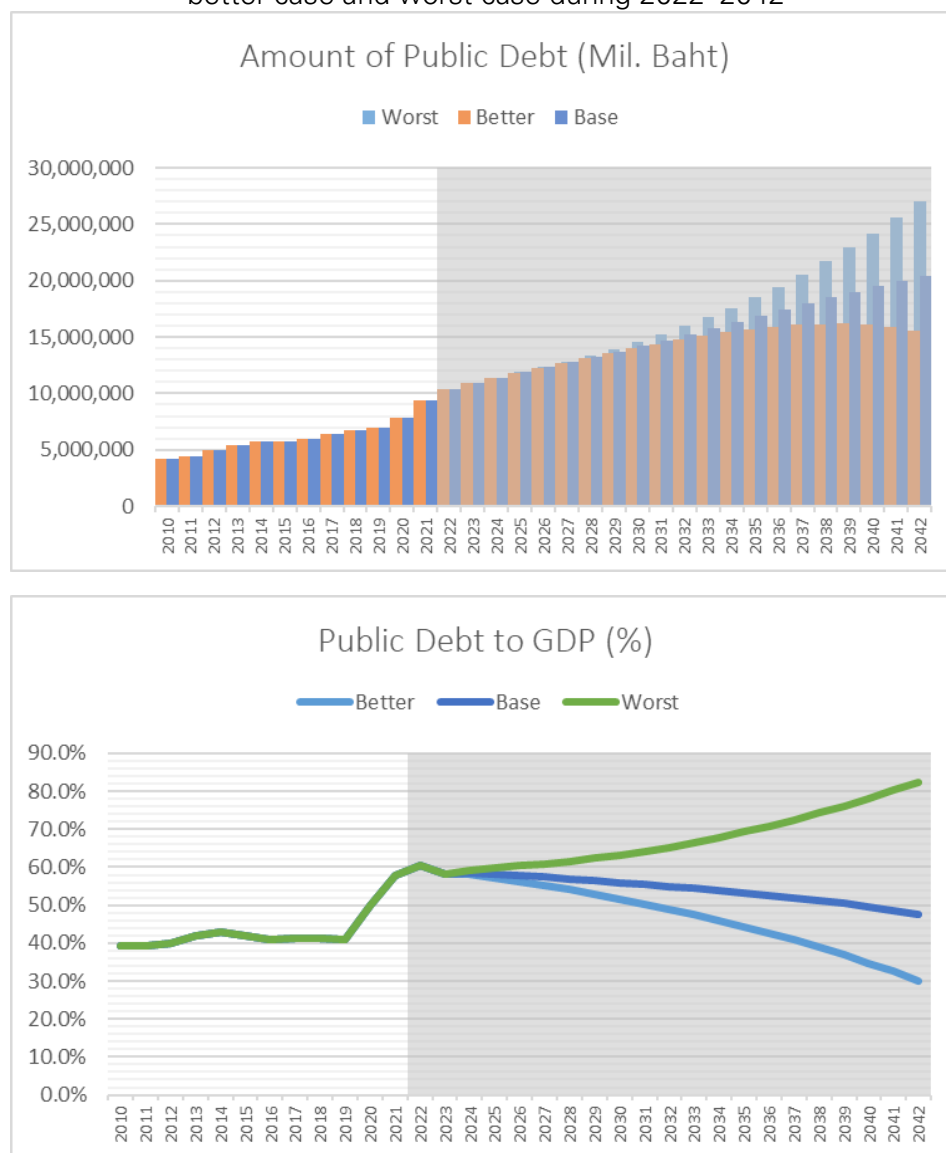
**Figure 10:** Forecast values of net revenue and ratio of net revenue to GDP of the Thai government in base case, better case, and worst case during 2022–2042



Source: Authors' calculation

The forecast values of total government expenditure and net government revenue can be used to construct our forecast values of public debt. Figure 11 shows the values of forecasted public debt and its ratio to GDP during 2022–2042 in our base, better, and worst-case scenarios.

**Figure 11:** Forecast values of public debt and ratio of public debt to GDP of the Thai government in better case and worst case during 2022–2042



Source: Authors' calculation

In our base case scenario, the ratio of public debt to GDP reaches a peak of 60.5 per cent at the end of fiscal year 2022 and gradually declines after that. In our better case, the public debt to GDP ratio peaks at 60.5 per cent in 2022 as well. In our worst case, public debt decreases during 2022–2023, but quickly rises after that. The ratio keeps increasing and exceeds 70 per cent in 2036.

Table 2 presents our fiscal space estimates in the three different scenarios. We define fiscal space as the extra government expenditure that would push the ratio of public debt to GDP closer to 70 per cent, which is the current ceiling set by the State Fiscal and Financial Policy Commission under the State Fiscal and Financial Disciplines Act 2018. In our estimation, we also make sure that the government budget in each fiscal year aligns with the deficit ceiling according to section 21 of Public Debt Management Act. The space should also keep increasing to allow continuation of any projects initiated in any given year.

**Table 2:** Fiscal space estimates in three different scenarios during 2023–2042

Year	Amount (Mil. Baht)			Proportion to Total Budget (%)		
	Base Case	Better Case	Worst Case	Base Case	Better Case	Worst Case
2023	216,580	216,580	0	6.8%	6.8%	0.0%
2024	279,719	279,719	0	8.5%	8.5%	0.0%
2025	328,166	328,166	0	9.6%	9.6%	0.0%
2026	366,074	387,388	0	10.3%	10.9%	0.0%
2027	380,632	439,709	0	10.3%	11.9%	0.0%
2028	395,969	499,627	0	10.3%	13.0%	0.0%
2029	412,121	551,858	0	10.3%	13.8%	0.0%
2030	429,136	607,711	0	10.3%	14.6%	0.0%
2031	446,596	675,380	0	10.3%	15.6%	0.0%
2032	464,521	746,968	0	10.3%	16.6%	0.0%
2033	482,926	822,571	0	10.3%	17.6%	0.0%
2034	500,183	928,444	0	10.3%	19.2%	0.0%
2035	517,791	1,044,941	0	10.3%	20.9%	0.0%
2036	535,760	1,167,482	-210,063	10.3%	22.6%	-4.0%
2037	554,098	1,306,814	-462,662	10.3%	24.5%	-8.5%
2038	572,962	1,458,914	-479,570	10.3%	26.5%	-8.5%
2039	661,216	1,635,421	-555,487	11.5%	28.8%	-9.5%
2040	712,856	1,808,681	-636,195	12.0%	30.9%	-10.5%
2041	828,237	2,007,837	-659,149	13.5%	33.3%	-10.5%
2042	886,709	2,222,098	-747,890	14.0%	35.8%	-11.5%

Source: Authors' calculation

According to Table 2, the government has extra fiscal space of 216.6–886.7 billion baht or 6.8–14 per cent of total expenditure in the base case scenario. The extra space expands to 216.6–2,222.1 billion baht or 6.8–35.8 per cent of total expenditure in the better case. For the worst-case scenario, the fiscal space is negative from 2036 onwards. This case would entail the Thai government having to cut down some expenditures after 2035.

An interesting observation from the above projection exercise is that long-term GDP growth is very important to create extra fiscal space in the future. An additional long-term GDP growth rate of one per cent, which turns the base case to the better case, expands fiscal space significantly, especially after 2030. On the other hand, a long-term GDP growth rate reduction of 1.5 per cent will worsen the fiscal situation significantly, as not only there would be no extra fiscal space left, but expenditure would also need to be trimmed down from the present trend to maintain the fiscal situation of the country.

One possible insurance to prevent the negative impact of lower GDP growth to the fiscal situation and bolster fiscal space for social protection is to embark on a more comprehensive tax policy. Section 3 of this report will discuss this in more detail.

### 3. Discussion of Fiscal Policy Options

There are many key takeaway messages from the previous sections: (a) Thailand's economic performance has slowed down in the last two decades because of both internal and external factors; (b) Government social protection expenditure has grown relatively quickly, but still constitutes a small portion of overall government expenditure; and (c) Fiscal space in our base projection is available, albeit tight, and the space depends heavily on the long-term GDP growth rate of the economy. As for concern over sufficient fiscal space in the short-term, Thailand can create additional fiscal space by improving government revenue collection.

There are a number of tax collection efforts that the government can consider. The followings are some suggestions:

- **Increase VAT rate from 7% to 10%:** The actual VAT rate according to the Revenue Code is 10 per cent. However, the government has continuously issued royal decrees to maintain the VAT rate at 7 per cent, which makes Thailand's VAT rate one of the lowest in the world<sup>6</sup>. Thailand's current VAT rate is lower than that of Vietnam, Cambodia, Lao PDR or Indonesia (all of which have a 10 per cent VAT rate). Increasing the VAT rate to 10 per cent would increase Thailand's net government revenue by 150–200 billion baht at the present time and is thus a convenient and efficient potential source of additional government revenue. With an exemption in the VAT structure that considers low-income people, we argue that the tax is in fact less regressive than widely believed. In absolute terms, most VAT revenue is contributed by middle- and high-income households, so if the spending made possible by a higher VAT rate benefits poorer households/individuals, or even uniformly, a VAT rate increase will result in reduced levels of inequality. Moreover, an increase of VAT rate from 7 per cent to 10 per cent under the case that tax incidence is forward shifting will increase the price by just 2.8 per cent<sup>7</sup>. Siriprapanukul (2022) simulates this VAT rate increase in a computable general equilibrium (CGE) model of Thailand and finds minor effects on the GDP growth of the country.
- **Expand income tax base and restructure tax deductions:** The income tax base could be expanded and tax deductions could be restructured to improve the equitability of the tax system and increase government revenue. For PIT, only around 10 per cent of the total labour force currently pay tax, and its deductions mostly benefit those on high-incomes. For CIT, the current system of tax benefits and deductions unequally benefits large corporations. There is also large tax expenditure (more than 120 billion baht) for businesses that receive in tax benefits from the Board of Investment (BOI). We estimate that restructuring the income tax base through expansion, deduction and tax expenditure could increase government revenue by up to 160 billion baht. Accelerating the process of labour market formalization can also help increase income tax; there is ample room to do this in Thailand, due to the high level of labourers working in informal sectors or working informally.
- **Reduce exemptions and reductions in the land and building tax:** The land and building tax in Thailand has been in place since 2020. However, the Ministry of Finance issued royal decrees to reduce land and building tax payments by 90 per cent in 2020–2021. The full implementation of the tax is expected in 2022 and is projected to generate an extra 30 billion

---

<sup>6</sup> See <https://taxsummaries.pwc.com/quick-charts/value-added-tax-vat-rates#anchor-S>

<sup>7</sup> If tax incidence is forward shifting, i.e., tax burden falls entirely on consumers, the before-tax price of 100 units will change from 107 units to 110 units, which represents a 2.8 per cent increase in the final price.

baht this year. Moreover, if the exemptions and reductions in the land and building tax structure were reduced, the tax could generate much higher extra income for local governments. The central government can indirectly benefit through the reduction in subsidies to local governments. Other property taxes might also be considered such as the capital gain tax on stock exchanges, and a windfall tax for property owners benefiting from government infrastructure construction projects.

- **Consider other tax reforms:** Some other tax reform might also be considered such as new or higher excise tax/rate, online transactions, etc.

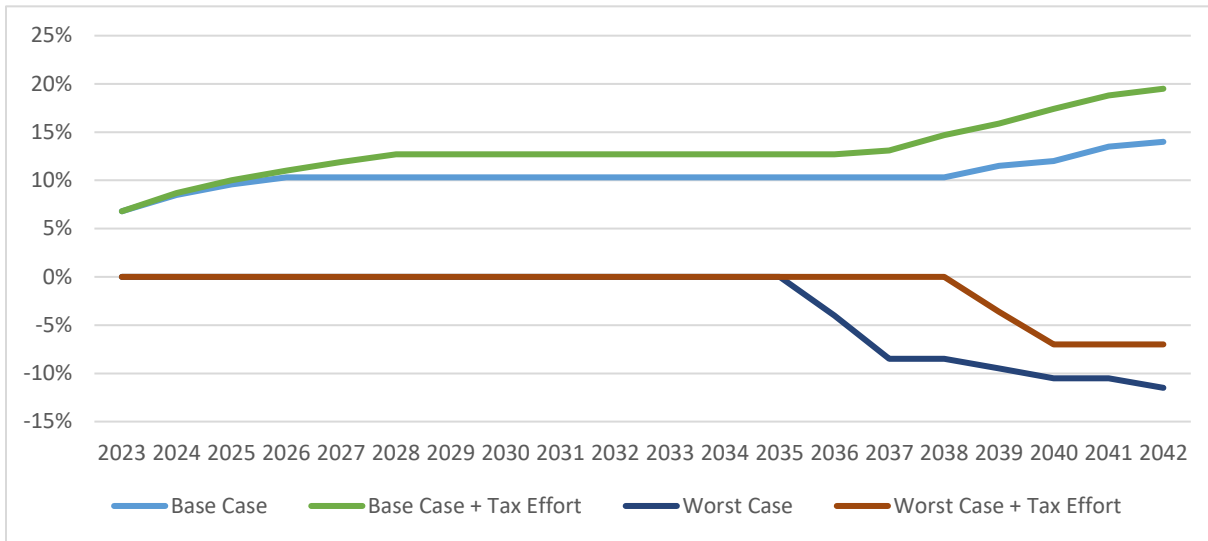
These extra resources have the potential to at least prevent the downward trend of the revenue to GDP ratio in our model. To see their impacts on fiscal space, we constructed two additional scenarios, which are “base case + tax effort” and “worst case + tax effort” scenarios, assuming that net revenue is increased by 10 per cent in each case to reflect this. This tax effort can generate extra fiscal space of between 6–291 billion baht, or up to 5.5 per cent of GDP, in our base case during 2024–2042, allowing it to accommodate additional funding for social protection measures. For the worst case, this assumed tax effort can lower budget cuts in order to maintain the debt to GDP ratio within the 70 per cent limit (see Table 3 and Figure 12). More stringent tax efforts would make the situation even better.

**Table 3:** Fiscal space estimates in five different scenarios during 2023–2042

Year	Amount (Mil. Baht)				Proportion to Total Budget (%)			
	Base Case	Base Case + Tax Effort	Worst Case	Worst Case + Tax Effort	Base Case	Base Case + Tax Effort	Worst Case	Worst Case + Tax Effort
2023	216,580	216,580	0	0	6.8%	6.8%	0.0%	0.0%
2024	279,719	285,824	0	0	8.5%	8.7%	0.0%	0.0%
2025	328,166	340,613	0	0	9.6%	10.0%	0.0%	0.0%
2026	366,074	388,761	0	0	10.3%	11.0%	0.0%	0.0%
2027	380,632	436,340	0	0	10.3%	11.9%	0.0%	0.0%
2028	395,969	483,311	0	0	10.3%	12.7%	0.0%	0.0%
2029	412,121	501,780	0	0	10.3%	12.7%	0.0%	0.0%
2030	429,136	521,128	0	0	10.3%	12.7%	0.0%	0.0%
2031	446,596	540,822	0	0	10.3%	12.7%	0.0%	0.0%
2032	464,521	560,866	0	0	10.3%	12.7%	0.0%	0.0%
2033	482,926	581,262	0	0	10.3%	12.7%	0.0%	0.0%
2034	500,183	600,517	0	0	10.3%	12.7%	0.0%	0.0%
2035	517,791	620,077	0	0	10.3%	12.7%	0.0%	0.0%
2036	535,760	639,947	-210,063	0	10.3%	12.7%	-4.0%	0.0%
2037	554,098	680,923	-462,662	0	10.3%	13.1%	-8.5%	0.0%
2038	572,962	788,034	-479,570	0	10.3%	14.7%	-8.5%	0.0%
2039	661,216	878,675	-555,487	-202,807	11.5%	15.9%	-9.5%	-3.6%
2040	712,856	990,800	-636,195	-407,725	12.0%	17.4%	-10.5%	-7.0%
2041	828,237	1,102,576	-659,149	-421,508	13.5%	18.8%	-10.5%	-7.0%
2042	886,709	1,177,371	-747,890	-435,717	14.0%	19.5%	-11.5%	-7.0%

Source: Authors' calculation

Figure 12: Fiscal space estimates (% of GDP)



Source: Table 3

We believe our study demonstrates that the Thai government should concentrate on investing more on social protection for long-term social and economic benefits. The decision to invest more on social protection should be made without any delay because Thailand is facing many fundamental problems, such as the middle-income trap, that are arguably due to inadequate investment in human capital. Thailand’s stubbornly high levels of inequality and the heightened risk of chronic poverty could be alleviated with broader and more effective social protection for vulnerable groups. The decision to invest more on social protection should not be hindered by excessive concern over fiscal sustainability, as this working paper demonstrates that fiscal space is likely to be available, especially if the government is willing to keep the new upper limit of public debt to GDP at the current level of 70 per cent. Moreover, the long-term benefits of higher economic growth through increased social protection spending – including poverty reduction, human capital development, social cohesion, labour force participation and heightened entrepreneurship – should eventually help improve the country’s fiscal condition. Tax reforms can also play an important role in increasing fiscal space both in the short- and long-term. Last but not least, how social protection policies are implemented is as important as increasing social protection spending. The principle of ‘leaving no one behind’ should be followed strictly, beginning by recognizing the potentially significant exclusion errors in many of the ongoing government measures (such as the State Welfare Card scheme and Child Support Grant) and either attempting to minimize these errors or, better yet, making some of the most important social protection schemes universal.



## References

Fiscal Policy Office (2019). Fiscal Risk Statement 2019. Ministry of Finance. [In Thai.]

Fiscal Policy Office (2021). Fiscal Risk Statement 2021. Ministry of Finance. [In Thai.]

International Monetary Fund (2014). Government finance statistics manual 2014. Washington, D.C.: International Monetary Fund.

Siriprapanukul, P. (2022). Policy Monitoring in Relation to Inequality Situation. [In Thai.] Chapter 7 in Pitidol, T., Kongcharoen, C., Siriprapanukul, P., Chawanote, C., and Jenmana, T. (2022). Social Monitoring on Inequalities in Thailand [in Thai]. Final Report Submitted to Thailand Science Research and Innovation, Center for Research on Inequality and Social Policy, Faculty of Economics, Thammasat University.

## Annex I: Fiscal Space Model

Our fiscal space model intends to project government expenditure and government net revenue in a way that follow the trends of the actual data in the last 25 years. These variables, then, will be used to construct the ratio of public debt to GDP and the fiscal space.

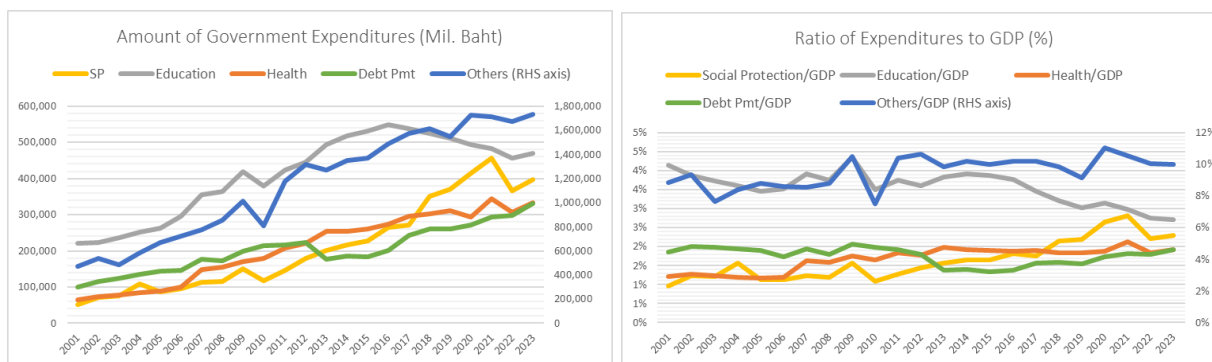
The model can be divided into three main components: 1) forecasting government expenditure; 2) forecasting government revenue; and 3) forecasting public debt and fiscal space. The details of each component are as follows:

**Forecasting government expenditure:** Government expenditure is classified into functional expenditures. The five main components of government expenditure are:

- Social protection (SP) expenditure
- Education expenditure
- Health expenditure
- Public debt transactions expenditure
- Other government (Others) expenditure

Public debt transactions expenditure is a part of the general public services expenditure in the usual functional classification. Figure A1 shows these functional expenditures in the last 23 years.

**Figure A1:** Amount and ratio to GDP of main functional expenditures of the Thai government during 2001–2023



Source: Budget in brief fiscal year 2001–2023

Trend component is extracted from each functional expenditure using Hodrick-Prescott filter. For SP, health, and other expenditures (Others), the trend components will be extended into the future according to regression equations. The equations, in which variables with *\_hp* extension represent trend components, are as follows:

- Social Protection (SP):

$$SP\_hp_t = 1.050 SP\_hp_{t-1} + 0.987 Elders_t$$

$$(152.91)^{***} \quad (6.30)^{***}$$

$$R^2 = 0.999, \text{ Adjusted } R^2 = 0.999$$

- Health:

$$Health\_hp_t = -207,859,632.21 + 27,352,932.41 \text{ Ln}(t)$$

$$(-35.58)^{***} \quad (35.62)^{***}$$

$$R^2 = 0.990, \text{ Adjusted } R^2 = 0.990$$

- Others:

$$Others\_hp_t = 81,792.330 + 0.984 Others\_hp_{t-1}$$

$$(10.22)^{***} \quad (152.78)^{***}$$

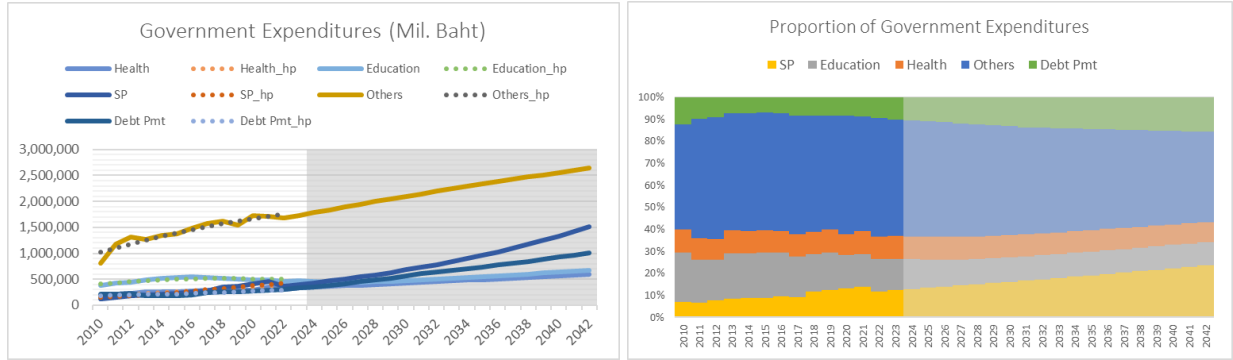
$$R^2 = 0.999, \text{ Adjusted } R^2 = 0.999$$

where *Elders* represents number of populations with age 60 and over, and *t* represent years in A.D. Note that the numbers in parentheses are t-statistics and \*\*\* indicates that the statistics are statistically significant at 1 per cent significant level.

For education expenditure, the current trend is extended to the year 2028 and the growth rate is assumed to be 3 per cent after that to reflect the need for quality education in the future. Debt payment is calculated from two main conditions, which are: (1) a principal repayment of 3 per cent of total government budget; and (2) interest and other costs on debt increasing from 2.1 per cent of total public debt in 2023 to 3 per cent in 2031 (9 years) and staying at 3 per cent after that. The conditions are set in accordance with the Fiscal Responsibility Act B.E. 2561, recent behaviour in debt payment, current public debt duration, and the long-term average of the interest and other costs on public debt.

Figure A2 presents forecast values of these functional expenditures. The forecast values, which are in the shaded area, are presented with actual data and trend components in the figure. The second part of the figure shows the proportion of each functional expenditure to total government expenditure in each fiscal year. It can be said that our forecast values on government expenditures follow the actual trend that occurred between 2010–2022.

**Figure A2:** Forecast values of main functional expenditures of the Thai government during 2024 - 2042



Source: Authors' calculation

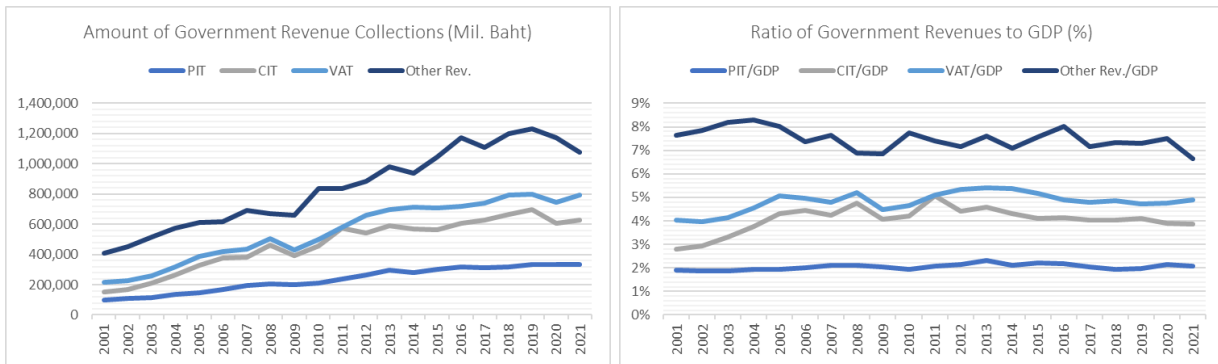
These forecast values on government expenditures are used in every scenario of this study. According to these forecast values, SP expenditure grows at the rate of 6.4–8.5 per cent in 2023–2042, while the other functional expenditures grow 2.0–5.6 per cent, on average, in the same period. Total expenditure grows on average 3.6 per cent per year during 2023–2042, reflecting a growth from 3.1 trillion baht in 2022 to 6.3 trillion baht in 2042.

**Forecasting government revenue:** Forecasts on total government revenue collection are divided into four components:

- Personal Income Tax (PIT)
- Corporate Income Tax (CIT)
- Value-Added Tax (VAT)
- Other government revenue.

Figure A3 shows these revenues of the Thai government from 2001–2021.

**Figure A3:** Amount and ratio to GDP of main revenue collections of the Thai government during 2001–2021



Source: Fiscal Policy Office

Like the expenditure side, trend components are extracted from each revenue collection using the Hodrick-Prescott filter. After that, the trend components are extended into the future, using regression equations. The equations are as follows:

- PIT:

$$PIT_{hp_t} = 0.970 PIT_{hp_{t-1}} + 74469.432 FML_{t-1}$$

(64.89)\*\*\*      (5.29)\*\*\*

$$R^2 = 0.998, \text{ Adjusted } R^2 = 0.998$$

- CIT:

$$CIT_{hp_t} = 0.789 CIT_{hp_{t-1}} + 0.010 GDP_{hp_t}$$

(11.62)\*\*\*      (3.77)\*\*\*

$$R^2 = 0.995, \text{ Adjusted } R^2 = 0.995$$

- VAT:

$$VAT_{hp_t} = 0.655 VAT_{hp_{t-1}} + 0.027 FINCON_{hp_t}$$

(9.31)\*\*\*      (5.57)\*\*\*

$$R^2 = 0.998, \text{ Adjusted } R^2 = 0.998$$

- Other Revenue:

$$OthRev_{hp_t} = 50,664.75 + 0.310 OthRev_{hp_{t-1}} + 0.048 GDP_{hp_t}$$

(9.85)\*\*\*      (2.12)\*\*      (4.75)\*\*\*

$$R^2 = 0.999, \text{ Adjusted } R^2 = 0.999$$

where *FML* represents formalization level of working condition, reflected by the ratio of labours under section 33 of Social Security Act to the total employment<sup>8</sup>. The numbers in parentheses are t-statistics, \*\*\* and \*\* indicate that the statistics are statistically significant, at 1 per cent significant level and 5 per cent significant level, respectively.

Figure A4 presents forecast values of these revenue collections under our base case. The forecast values, which are in the shaded area, are presented with actual data and trend components in the figure. It can be said that our forecast values on government revenue collections follow the actual trend during 2010–2021.

The sum of the four revenue collections mentioned above yields the total revenue collection of the government. This total revenue collection will be deducted with tax returns and transfers to local administrative organizations, which are assumed to have a similar pattern to the previous ten years. The last two components of Figure A4 present forecast values of the total revenue collection and net revenue of the government, which is the result of tax returns and transfers deduction, and their ratios compared to GDP.

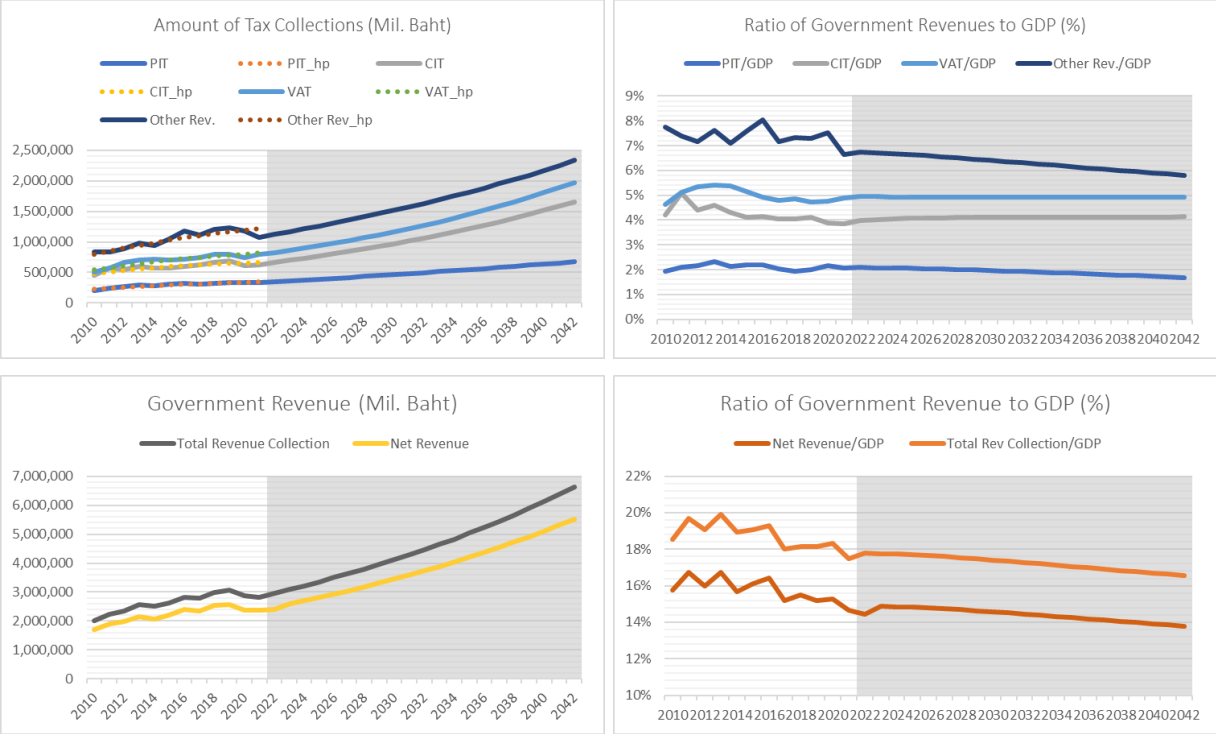
---

<sup>8</sup> Our calculation of the formalization level does not include government officers. However, according to data of Office of the Civil Service Commission (OCSC), the manpower in public civil service has been relatively constant (between 2.1 – 2.3 million) over the last 10 years (for more details, see <https://www.ocsc.go.th/sites/default/files/document/thai-gov-manpower-2563.pdf>). We think that our main results will not be affected by the inclusion of this manpower.

Since the forecast values on government revenues are affected by GDP, they are different in each scenario. Figure A5 presents the forecast values of net government revenue among the three scenarios in this study. In our better case, the net government revenue in 2022–2042 increases on average by 5.7 per cent per year when compared with the base case. In our worst case, the net government decreases on average by 7.5 per cent.

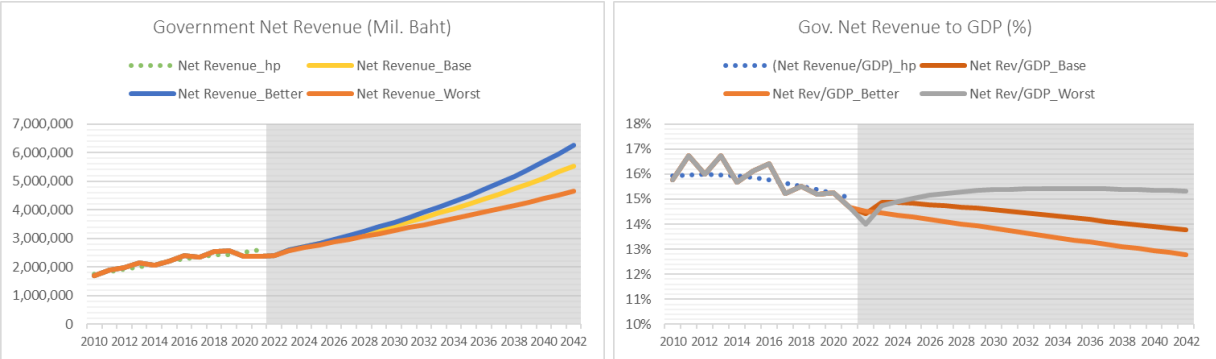
Looking at the ratio of government net revenue to GDP, in our better case scenario the ratio declines from 14.5 per cent in 2022 to 12.8 per cent in 2042. In our worst-case scenario, the ratio increases from 14 per cent in 2022 to 15.3 per cent in 2042. Recall that the ratio in our base case is 14.4 per cent in 2022 and 13.8 per cent in 2042.

**Figure A4:** Forecast values of revenue collections of the Thai government during 2022–2042



Source: Authors’ calculation

**Figure A5:** Forecast values of net revenue and ratio of net revenue to GDP of the Thai government in base case, better case, and worst case during 2022–2042



Source: Authors’ calculation

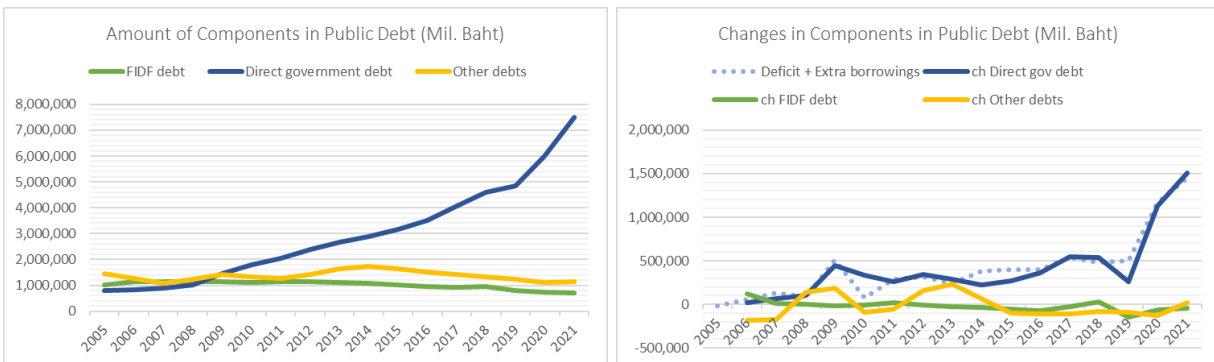
**Forecasting on public debt:** In forecasting public debt, we divide the debt into three components:

- Direct government debt
- Government debt to facilitate Financial Institutions Development Fund (FIDF) loss (FIDF debt)
- Other debt (i.e. SOEs debt and other government agencies debt)

Figure A6 shows these components of public debt during 2005–2021. According to the figure, the only component of public debt that has continued to grow in the past 17 years is direct government debt. FIDF debt, meanwhile, has been decreasing since 2012, when the government issued a royal act enabling the Bank of Thailand to collect fees from financial institutions to pay back this component of debt. For other debts, the amount fluctuates around 1.1–1.7 trillion baht during 2005–2021.

When considering the changes in each component, the change in direct government debt in each fiscal year is consistent with the amount of government deficit plus with extra-budgetary government borrowings. The change in FIDF debt has been negative since 2012, except for 2018 which was followed by an extra negative change in 2019. The change in the other debt component fluctuates around zero.

**Figure A6:** Amount and change of components in public debt of Thailand during 2005–2021



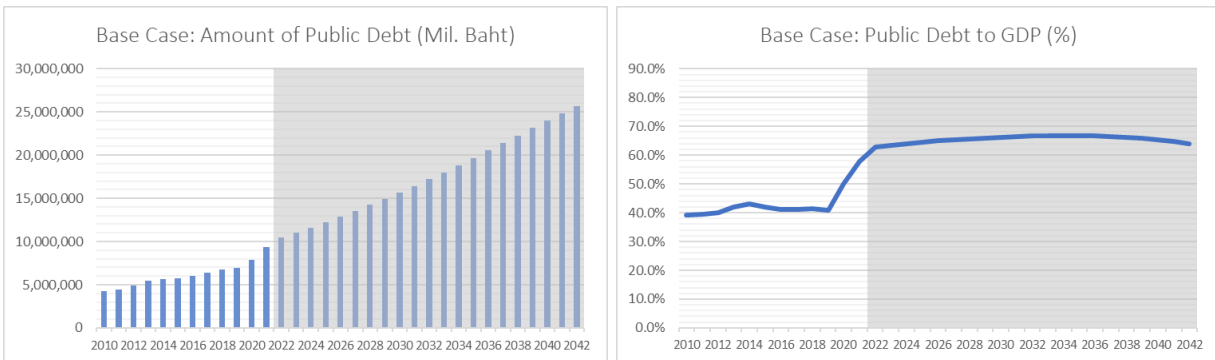
Source: Public Debt Management Office

In this study, forecasts on government expenditure and government revenue are combined with information on extra-budgetary borrowings to construct the amount of direct government debt into the future. The FIDF debt is assumed to reduce by 55.9 billion baht per year, consistent with the average change in FIDF debt during 2016–2020. The other debts component is assumed to stay constant at 1.25 trillion baht, according to the average value of the component in the most recent five years.

Our forecast on the amount of public debt and the ratio of debt to GDP are shown in Figure A7. The forecast values, which are in the shaded area, are presented with actual data in the figure. In our base case scenario, the public debt grows from 9.3 trillion baht in 2021 to 23.6 trillion baht in 2042, while the ratio of public debt to GDP grows to 62.9 per cent in 2022, reaching a peak at 66.8 per cent in 2035, and gradually declines after that.



**Figure A7:** Forecast values of public debt and ratio of public debt to GDP  
in base case during 2022–2042



Source: Authors' calculation

Forecast values of public debt and ratio of public debt to GDP in our better and worst-case scenario, in comparison with our base case, are shown in Figure 10 in Section 2 of this report. These values of public debt will be used to calculate the fiscal space available to the government during 2022–2042.