# EE 442
# Economics of Public Revenue

# Topic 12
# Public Debt

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# Public Debt

1. Debt Measurement

2. Consequences of Government Deficits

3. Choices between debt and taxes

4. Fiscal Policy and Budget Deficit

# Budget Structure
# FY 2018 - 2019

*(in million baht)*

| Budget Structure | FY 2018 | | FY 2019 | |
|---|---|---|---|---|
| | Amount | + / - % | Amount | + / - % |
| **1. Expenditures** | **3,050,000.0** | **4.3** | **3,000,000.0** | **-1.6** |
| **(% GDP)** | **18.6** | | **17.1** | |
| - Current expenditures | 2,236,946.2 | 3.8 | 2,272,656.3 | 1.6 |
| (% of the total budget) | 73.3 | | 75.8 | |
| - Expenditures for replenishment of treasury account balance | 49,641.9 | 83.3 | - | -100.0 |
| (% of the total budget) | 1.6 | | - | |
| - Capital expenditures | 676,469.6 | 2.6 | 649,138.2 | -4.0 |
| (% of the total budget) | 22.2 | | 21.6 | |
| - Principal repayments | 86,942.3 | 7.1 | 78,205.5 | -10.0 |
| (% of the total budget) | 2.9 | | 2.6 | |
| **2. Receipts** | **3,050,000.0** | **4.3** | **3,000,000.0** | **-1.6** |
| (% GDP) | 18.6 | | 17.1 | |
| - Revenues | 2,499,641.9 | 5.5 | 2,550,000.0 | 2.0 |
| - Domestic borrowings | 550,358.1 | -0.5 | 450,000.0 | -18.2 |
| **3. Gross Domestic Product (GDP)** | **16,426,400.0** | **6.3** | **17,560,000.0** | **6.9** |

*N.B. : 1. Budget expenditures for FY 2018 include additional budget of 150,000 million baht.*
*2. Gross Domestic Product (GDP) according to the National Economic and Social Development Board's announcement on Thai Economic Performance in Second Quarter and Economic Outlook for 2018 as of August 20, 2018*

*Sources : 1. Bureau of the Budget*
*2. Ministry of Finance*
*3. Office of the National Economic and Social Development Board*

## Table II-12
## Domestic Borrowing for Financing Budget Deficit

*(in million baht)*

| Fiscal Year | Budget Appropriation (1) | Legitimate Maximum Domestic Borrowings* (2) | Domestic Borrowing Plan (3) | (3) as Percentage of (1) |
|---|---|---|---|---|
| 2003 | 999,900.0 | 227,941.4 | 174,900.0 | 17.5 |
| 2004 | 1,163,500.0 | 260,024.3 | 99,900.0 | 8.6 |
| 2005 | 1,250,000.0 | 290,061.0 | - | - |
| 2006 | 1,360,000.0 | 306,549.8 | - | - |
| 2007 | 1,566,200.0 | 357,632.4 | 146,200.0 | 9.3 |
| 2008 | 1,660,000.0 | 368,421.6 | 165,000.0 | 9.9 |
| 2009 | 1,951,700.0 | 441,280.9 | 441,060.5 | 22.6 |
| 2010 | 1,700,000.0 | 380,736.7 | 350,000.0 | 20.6 |
| 2011 | 2,169,967.5 | 460,037.2 | 400,000.0 | 18.4 |
| 2012 | 2,380,000.0 | 513,483.2 | 400,000.0 | 16.8 |
| 2013 | 2,400,000.0 | 519,319.6 | 300,000.0 | 12.5 |
| 2014 | 2,525,000.0 | 547,257.5 | 250,000.0 | 9.9 |
| 2015 | 2,575,000.0 | 559,560.0 | 250,000.0 | 9.7 |
| 2016 | 2,776,000.0 | 604,793.4 | 390,000.0 | 14.0 |
| 2017 | 2,923,000.0 | 649,549.5 | 552,921.7 | 18.9 |
| 2018 | 3,050,000.0 | 679,553.8 | 550,358.1 | 18.0 |
| 2019 | 3,000,000.0 | 662,564.4 | 450,000.0 | 15.0 |

*N.B. 1. * Domestic borrowings in each fiscal year for financing budget deficit will not exceed*
- *20 percent of the total budget, plus*
- *80 percent of the principal repayment.*

2. *Figures for FY 2004 include additional budget of 135,000 million baht.*
3. *Figures for FY 2005 include additional budget of 50,000 million baht.*
4. *Figures for FY 2009 include additional budget of 116,700 million baht.*
5. *Borrowings for financing budget deficit of FY 2009 included borrowings of 97,560.5 million baht for the Additional Budget Act of FY 2009 and the amount of 94,000 million baht to accommodate the event of expenditures exceeding revenue resulting from the resolution of the cabinet meeting of April 17, 2009.*
6. *Figures for FY 2011 include additional budget of 99,967.5 million baht.*
7. *Figures for FY 2016 include additional budget of 56,000 million baht.*
8. *Figures for FY 2017 include additional budget of 190,000 million baht.*
9. *Figures for FY 2018 include additional budget of 150,000 million baht.*

## Table II-13
## Actual Domestic Borrowings and Principal Repayment

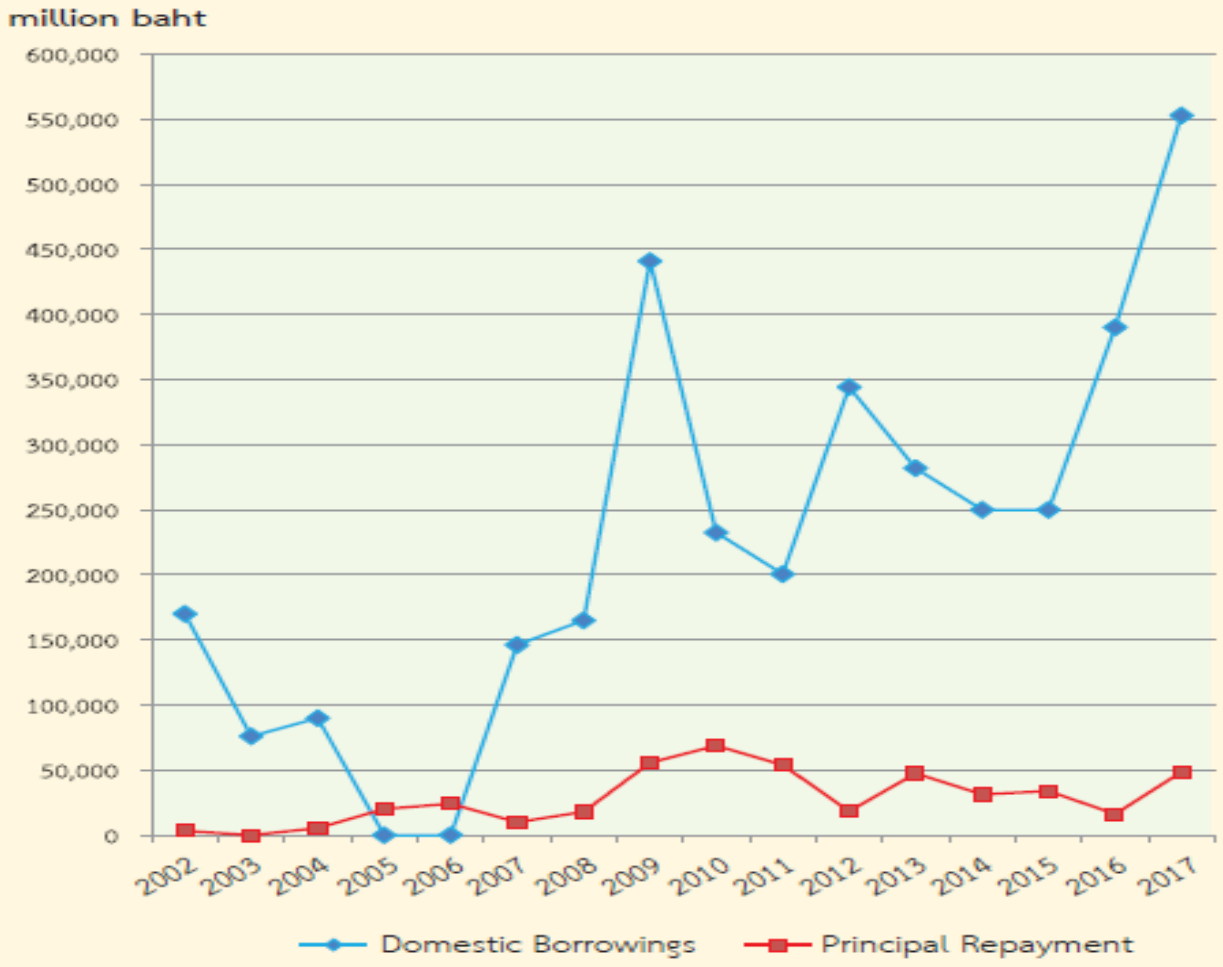
*(in million baht)*

| Fiscal Year | Domestic Borrowings (1) | Principal Repayment (2) | Net Borrowings (1) - (2) |
|---|---|---|---|
| 2002 | 170,000.0 | 3,312.7 | 166,687.3 |
| 2003 | 76,000.0 | 18.3 | 75,981.7 |
| 2004 | 90,000.0 | 5,354.1 | 84,645.9 |
| 2005 | - | 20,017.7 | -20,017.7 |
| 2006 | - | 24,140.0 | -24,140.0 |
| 2007 | 146,200.0 | 10,015.1 | 136,184.9 |
| 2008 | 165,000.0 | 18,014.5 | 146,985.5 |
| 2009 | 441,060.5 | 55,606.0 | 385,454.5 |
| 2010 | 232,575.5 | 68,764.9 | 163,810.6 |
| 2011 | 200,666.0 | 53,879.2 | 146,786.8 |
| 2012 | 344,084.3 | 18,367.8 | 325,716.5 |
| 2013 | 281,948.8 | 47,586.5 | 234,362.3 |
| 2014 | 250,000.0 | 31,318.4 | 218,681.6 |
| 2015 | 250,000.0 | 34,000.0 | 216,000.0 |
| 2016 | 390,000.0 | 16,296.8 | 373,703.2 |
| 2017 | 552,921.7 | 48,506.6 | 504,415.1 |

*Source : Public Debt Management Office, Ministry of Finance.*

**Figure II-4**

Actual Domestic Borrowings
and Principal Repayment
FY 2002–2017



# Table IV-1

# Treasury Account Balances

*(in million baht)*

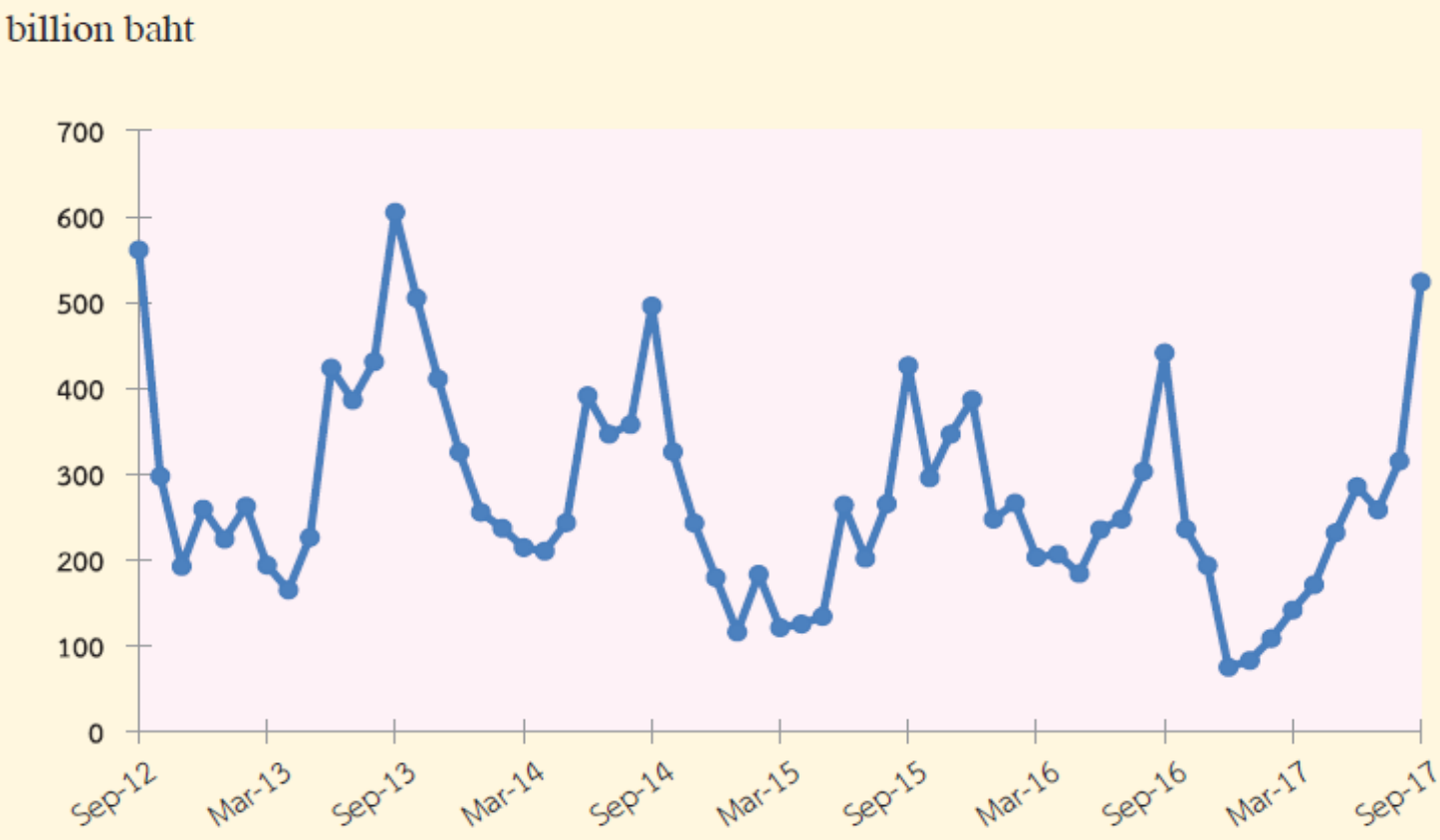
| Item \ Fiscal Year | FY 2013 | FY 2014 | FY 2015 | FY 2016 | FY 2017 |
|---|---|---|---|---|---|
| Revenues | 2,164,882.1 | 2,068,482.2 | 2,197,023.5 | 2,338,895.1 | 2,330,787.2 |
| Expenditures | 2,430,342.7 | 2,446,162.8 | 2,560,154.6 | 2,778,056.6 | 2,864,993.4 |
| Budget cash balances | -265,460.6 | -377,680.6 | -363,131.1 | -439,161.5 | -534,206.2 |
| Non-budget cash balances | 1,047.9 | 21,383.3 | 30,171.1 | 64,279.5 | 63,742.5 |
| Overall cash balances | -264,412.7 | -356,297.3 | -332,960.0 | -374,882.0 | -470,463.7 |
| Domestic borrowing | 281,948.8 | 250,000.0 | 250,000.0 | 390,000.0 | 552,921.7 |
| Treasury cash balances | 17,536.1 | -106,297.3 | -82,960.0 | 15,118.0 | 82,458.0 |
| Treasury account balances | 605,051.8 | 495,746.7 | 426,181.7 | 441,299.7 | 523,757.7 |

*Source : The Comptroller General's Department*

**Figure IV-1**

Treasury Account Balances

FY 2013-2017



# Table IV-2
# Principal Outstanding Debt as of July 31, 2018

*(in million baht)*

| Type of Loans | Direct Government Loans | Debt Guaranteed | Total |
|---|---|---|---|
| **Domestic Debt** | **5,171,247.9** | **713,576.4** | **5,884,824.3** |
| Growth rate : increase / (decrease) [1] | 9.9 | (6.8) | 7.5 |
| % of budget [2] | 169.5 | 23.4 | 192.9 |
| % of GDP [3] | 31.5 | 4.3 | 35.8 |
| **External Debt [4]** | **80,042.3** | **74,852.6** | **154,894.9** |
| Growth rate : increase / (decrease) | (17.3) | (12.9) | (15.3) |
| % of budget | 2.6 | 2.5 | 5.1 |
| % of GDP | 0.5 | 0.4 | 0.9 |
| **Total** | **5,251,290.2** | **788,429.0** | **6,039,719.2** |
| Growth rate : increase / (decrease) | 9.3 | (7.4) | 6.8 |
| % of budget | 172.2 | 25.8 | 198.0 |
| % of GDP | 31.9 | 4.8 | 36.7 |

*N.B. 1. Increase/decrease in growth rates in comparison with those of July 31, 2017*
*2. As a proportion of the FY 2018 budget of 3,050,000 million baht which already includes additional budget expenditures for the fiscal year.*
*3. GDP in 2018 is estimated at 16,426,400 million baht according to the NESDB's announcement on Thai Economic Performance in Second Quarter and Economic Outlook for 2018, as of August 20, 2018.*
*4. Exchange rate 1 US$ = 33.4853 baht*
*5. The aforementioned data do not include debts not guaranteed by the government.*

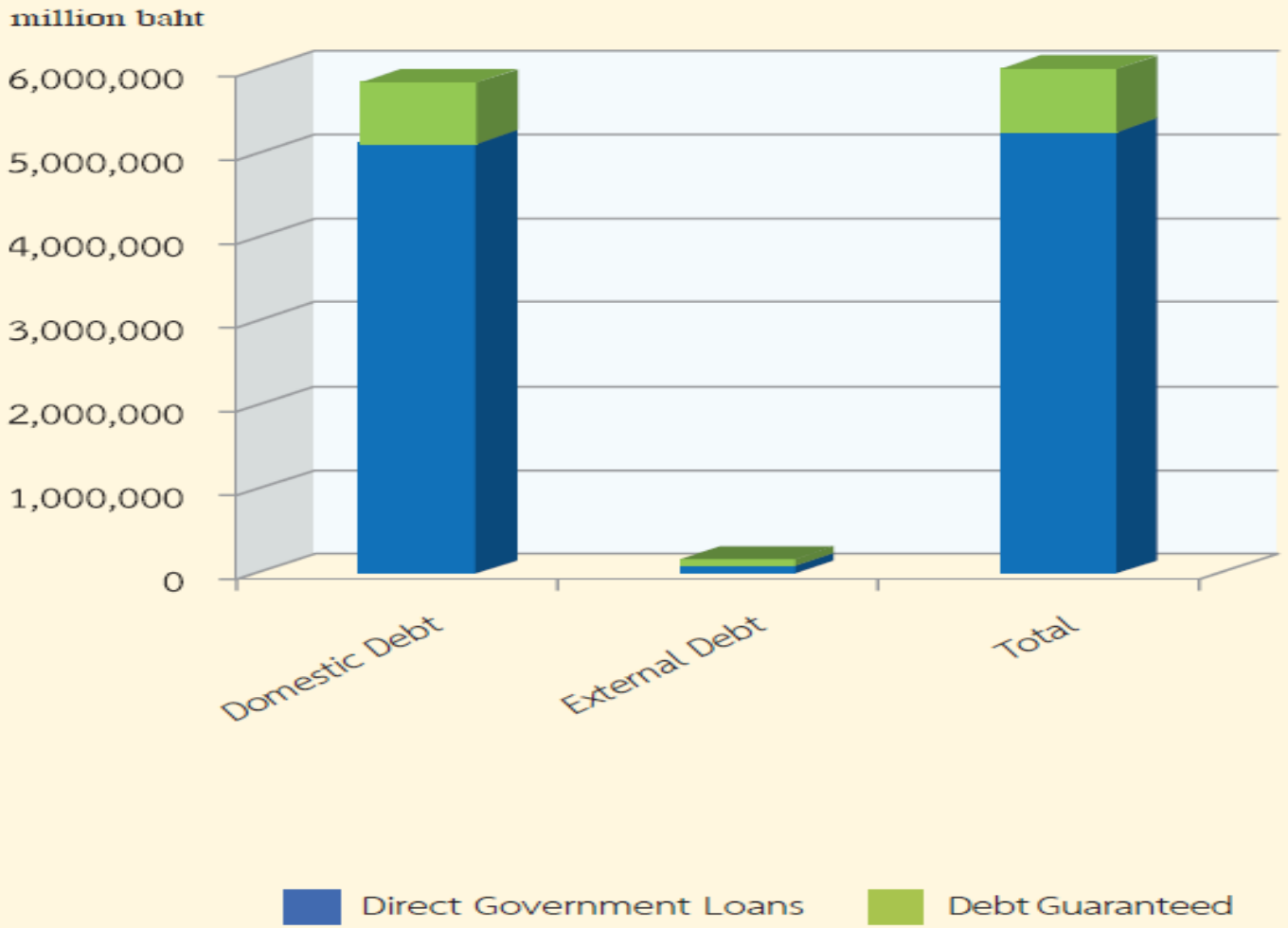
*Source : Public Debt Management Office, Ministry of Finance.*

**Figure IV-2**

Principal Outstanding Debt

as of July 31, 2018

A Total of 6,039,719.2 million baht



# Table IV-3
# Principal Outstanding for Domestic Debt
# as of July 31, 2018

*(in million baht)*

| Sources | Direct Government Loans | Debt Guaranteed | Total |
|---|---|---|---|
| 1. Bank of Thailand | 216,677.0 | 125,386.0 | 342,063.0 |
| 2. Deposit-Taking Financial Institutions | 1,417,986.0 | 251,632.4 | 1,669,618.4 |
| 3. Other Financial Institutions and Others | 3,536,584.9 | 336,558.0 | 3,873,142.9 |
| **Total** | **5,171,247.9** | **713,576.4** | **5,884,824.3** |

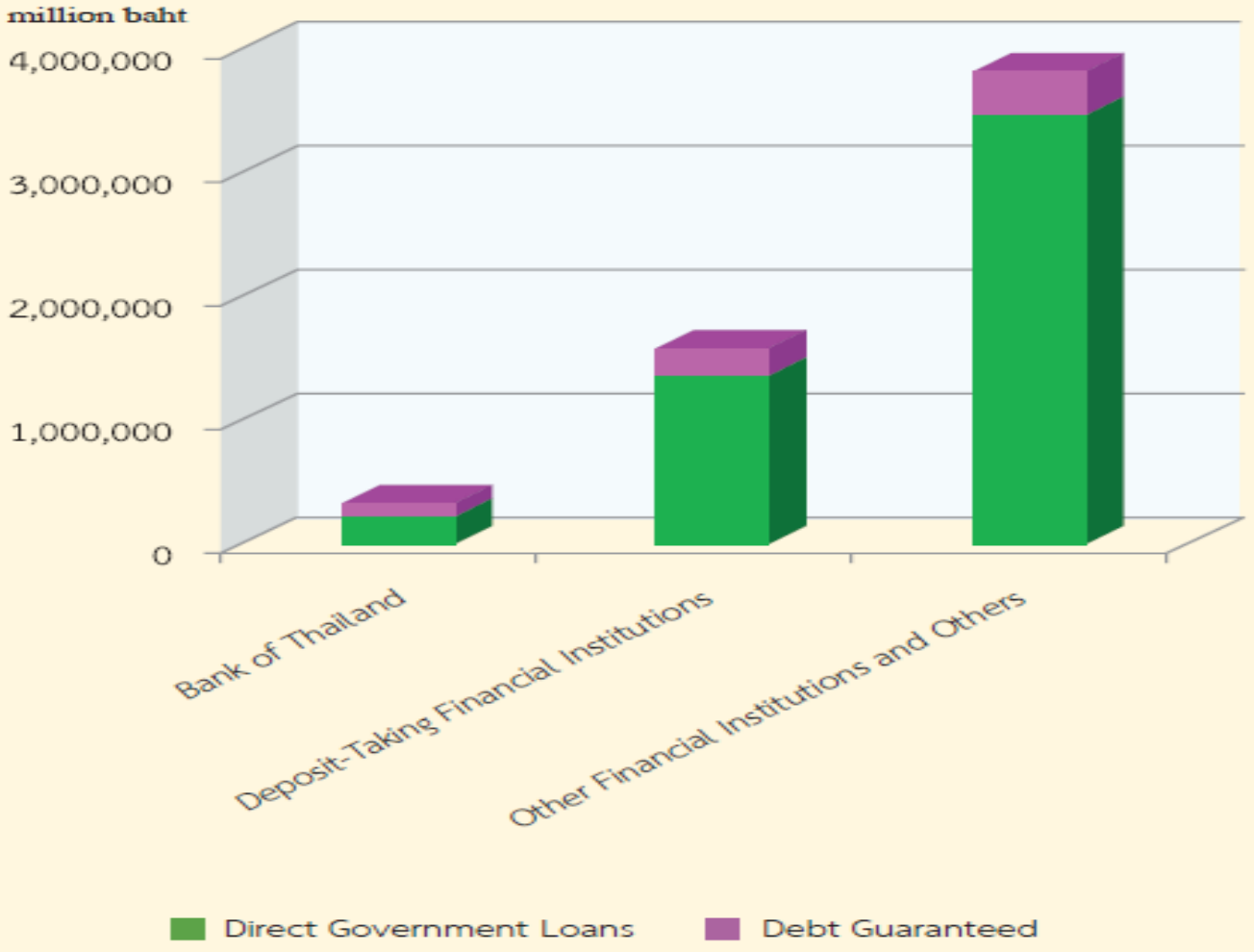
*Sources : 1. Public Debt Management Office, Ministry of Finance.*
*2. Bank of Thailand.*

**Figure IV-3**

Principal Outstanding for Domestic Debt

as of July 31, 2018

A Total of 5,884,824.3 million baht



## Table IV-5
## Principal Outstanding for External Debt
## as of July 31, 2018

*(in million US$)*

| Sources | Direct Government Loans | Debt Guaranteed | Total |
|---|---|---|---|
| 1. World Bank (IBRD) | 1,021.1 | - | 1,021.1 |
| 2. ADB | 220.8 | - | 220.8 |
| 3. JICA | 1,205.7 | 2,201.3 | 3,407.0 |
| 4. International Capital Market | - | - | - |
| 5. Others | 5.9 | 23.8 | 29.7 |
| **Total** | **2,453.5** | **2,225.1** | **4,678.6** |

*N.B.*
1. *Exchange rate 1 US$ = 33.4853 baht*
2. *External debts which have been swapped under the exchange risk management scheme will be converted at the rate of that executing date.*
3. *The principal outstanding includes Euro Commercial Paper.*
4. *Number of decimal points relates to data announced on the website, www.pdmo.go.th*

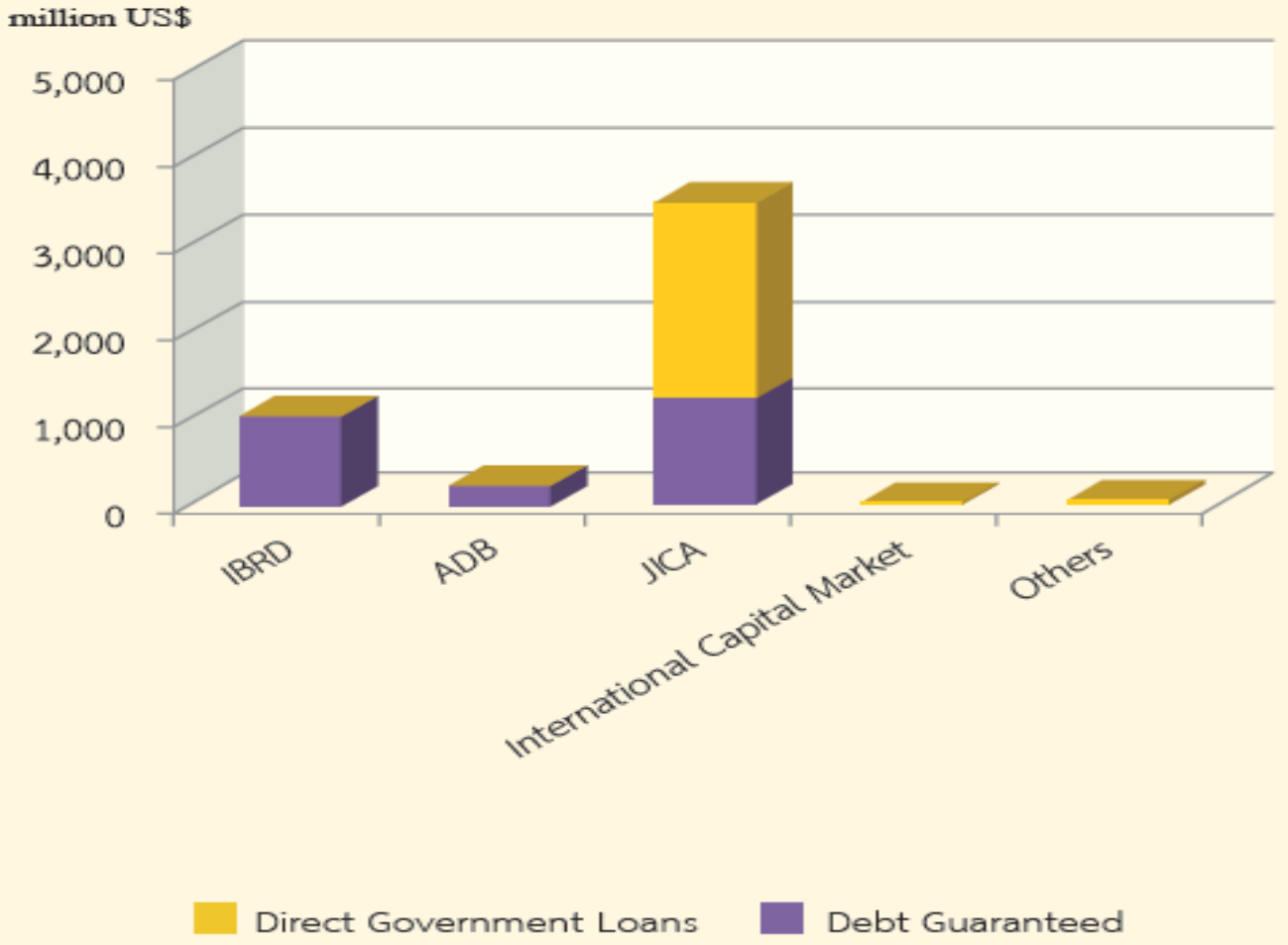
*Source : Public Debt Management Office, Ministry of Finance.*

**Figure IV-4**

Principal Outstanding for External Debt

as of July 31, 2018

A Total of 4,678.6 million US$



# Table IV-6
# Direct Government Loans

*(in million US$)*

| Sources \ Fiscal Year | FY 2015 | FY 2016 | FY 2017 | FY 2018 | FY 2019 |
|---|---|---|---|---|---|
| 1. World Bank (IBRD) | - | - | - | - | - |
| 2. ADB | - | - | - | 99.4 | - |
| 3. JICA | 345.1 | 1,671.2 | - | - | - |
| 4. International Capital Markets | 150.0 | - | - | - | - |
| 5. Other | - | - | - | - | - |
| **Total** | **495.1** | **1,671.2** | **-** | **99.4** | **-** |

*N.B* *1. Figures for FY 2015-2017 are results according to the Public Debt Management Plan.*

*2. Figures for FY 2018 are stipulated under the Public Debt Management Plan Second Amendment approved by the cabinet on July 3, 2018.*

*Source : Public Debt Management Office, Ministry of Finance.*

## *1. Debt Measurement*

The **deficit** over a time period is the excess of spending over revenues. If revenues exceed expenditures, there is a **surplus**.

The **debt** at a given time is the cumulative excess of past spending over past receipts. Thus, in a year with a deficit the debt goes up; in a year with a surplus, the debt goes down.

## *Effects of Inflation*

In standard calculations of the deficit, taxes are viewed as the only source of government revenue. However, when the government is a debtor and the price level changes, changes in the real value of the debt may be an important source of revenue.

# *Capital versus Current Accounting*

Current spending refers to expenditures for services that are consumed within the year such as salaries for government officers.

Capital spending refers to expenditures for durable items that yield services over a long time, such as dams.

*Tangible Assets*

The government has not only massive financial liabilities but vast tangible assets as well.

However, public discussion has focused almost entirely on the government's financial liabilities, and not its tangible assets.

They argued that the omission of tangibles leads to a highly misleading picture of the government's financial position

# *Implicit Obligations*

A bond is simple a promise to make certain payments of money in the future.

But bonds are not the only method that the central government uses to promise money in the future. It can do so by legislation.

# How big is the national debt?

The answer depends on which assets and liabilities are included in the calculation, and how they are valued.

The answer also depends on your purposes.

# *2. Consequences of Government Deficits*

Future generations either have to retire the debt or refinance it.

When the legal burden is on future generations does not mean that they bear a real burden. The answer depends on the assumptions that we make about economic behavior.

# *Lerner's View*

- Assume that the government borrows from its own citizens so the obligation is an *internal debt*.

- Internal debt creates no burden for the future generation.

- When the debt is paid off, there is a transfer of income from one group of citizens (those who do not hold bonds) to another (bondholders).

- The future generation as a whole is no worse off. Its consumption level is the same as it would have been.

- When the country borrows from abroad to finance current expenditure, this is an *external debt*.

- Suppose that the money borrowed from overseas is used to finance current consumption. The future generation certainly bears a burden, because its consumption level is reduced by an amount equal to the loan plus the accrued interest that must be sent to foreign lenders.

- If the loan is used to finance capital accumulation, the outcome depends on the project's productivity.

If the marginal return on the investment is greater than the marginal cost of funds obtained abroad, the future generation is better off.

If the project's return is less than the marginal cost, the future generation is worse off.

# *An Overlapping Generations Model*

In Lerner's model, a "generation" consists of everyone who is alive at a given time.

*An overlapping generations model* defines a "generation" as everyone who was born at about the same time. So at any given time several generations coexist simultaneously.

The analysis of a simple overlapping generation model shows how the burden of a debt can be transferred across generations.

- Assume that the population consists of equal numbers of young, middle-aged, and old people.
- Each generation is 20 years long, and each person has a fixed income of 12,000 bahts over the 20-year period.
- There is no private saving (everyone consumes their entire income.)
- This situation is expected to continue forever.

**Table 4: Overlapping Generations Model**

| | The period 2020-2040 | | |
|---|---|---|---|
| | Young | Middle-aged | Old |
| 1. Income | 12,000 | 12,000 | 12,000 |
| 2. Government borrowing | -6,000 | -6,000 | |
| 3. Government provided consumption | 4,000 | 4,000 | 4,000 |
| | \| | \| | |
| | \| | \| | |
| | The Year 2040 | | |
| | \| | \| | |
| | \| | \| | |
| Young | Middle-aged | Old | |
| 4. Government raises taxes to pay back the debt -4,000 | -4,000 | -4,000 | |
| 5. Government pays back the debt | +6,000 | +6,000 | |

- Now assume that the government decides to borrow 12,000 bahts to finance public consumption.
- The loan is to be repaid in the year 2040.

The internal-external distinction in Lerner's model is irrelevant here, even though the debt is all internal, it creates a burden for the future generation.

The generational accounting involves the following steps.

1. Take a representative person in each generation and compute the present value of all taxes she pays to the government.

2. Compute the present value of all transfers received from the government.

3. The difference between the present value of the taxes and the transfers is the “net tax” paid by a member of that generation.

We will know how government policy redistributes income across generations by comparing the net taxes paid by different generations.

The main contribution of the *generational accounts* framework is to focus our attention on the lifetime (rather than annual) consequences of government fiscal policies.

# *Neoclassical Model*

The intergenerational models assume that the taxes levied to pay off the debt affect neither work nor savings behavior.

The intergenerational models do not allow for the fact that economic decisions can be affected by government debt policy, and changes in these decisions will affect the person who bears the burden of the debt.

The Neoclassical model says that when the government initiates a project, whether financed by taxes or borrowing, resources are removed from the private sector.

We usually assume that when tax finance is used, most of the resources removed come at the expense of consumption.

When the government borrows, it competes for funds with individuals and firms who want the money for their own investment projects.

- It is assumed that debt has most of its effect on private investment.
- Debt finance leaves the future generations with a smaller capital stock.
- The debt imposes a burden on future generations through its impact on capital formation.

The key role in the neoclassical analysis is the assumption that government borrowing reduces private investment which is called *crowding out hypothesis*.

Government's demand for credit (I) → the interest rate (r) ↑ → private investment becomes more expensive → less private investment.

# *Ricardian Equivalence*

Our analysis so far has ignored the potential importance of individuals' intentional transfers across generations.

Ricardian equivalence:

present tax cuts → future tax burden

The agents are assumed to be foresighted.

Therefore an increase in debt cannot stimulate the aggregate demand, and as a result, the increase in debt has no real effects.

The consumers will react to changes in the government's budget based on the following assumptions.

1. Consumers follow the permanent income hypothesis.

Individuals are supposed to be foresighted and rational.

Critics: Consumers may choose their consumptions simply according to their current disposable income, and they also fail to compare the value of increased current income to future tax burden.

2. Consumers behave as they are immortal.

Critics: If the agent realizes that the government will collect the postponed taxes after he dies, then his consumption decisions may change.

Barro argued that parents take care their children's welfare, and the parents know that their children will pay higher taxes to compensate the deficits. So the parents save more instead of consuming more, and leave larger bequests to their children to help pay higher taxes in the future.

Critics: Some economists doubt that there exists such an intra-family transfer between family members.

1. The first critic is about the possibility of existence of this intra-family transfers.

2. The second issue is whether the motive of bequest is altruistic or something else.

3. Consumers face no liquidity constraints.

Critics: Most microeconometric evidence suggests that some households are liquidity constrained.

4. Bonds must be repaid at some time.

5. Lump-sum taxation: If taxes are based on future income, then high income later leads to high repayments, high consumption now will not need to be repaid if later income is lower.

Critics: This assumption may not be possible since the distortionary taxation like income taxes changes the relative prices and it also affects the timing of taxes.

Ricardian equivalence debate refers to the proposition that a rise in bond sales now leads to a rise in savings, since they will have to be repaid.

In the early 1980s, the US federal deficit increased while private saving actually fell.

## *3. Choices between debt and taxes*

We have different views.

1. Benefits-Received Principle

This principle states that the beneficiaries of a particular government spending program should have to pay for it.

## 2. Intergenerational Equity

This view suggests that it is make sense to transfer income from rich to poor generations the same way as we transfer income from rich to poor people within the generation.

# 3. Efficiency Consideration

The choice between tax and debt finance is just a choice between the timing of the taxes.

With tax finance, one large payment is made at the time the expenditure is undertaken.

With debt finance, many small payments are made over time to finance the interest due on the debt.

From the excess burden point of view, 2 small taxes are not equivalent to one big tax. Two small taxes are preferred.

This argument ignores another important consideration. That is to the extent the increase in debt reduces the capital stock, it creates an additional excess burden.

The crowding out issue is important in the discussion of the intergenerational burden of the debt and central to the efficiency issue.

No crowding out: Taxes distort only labor supply choices and debt finance is unambiguously superior on efficiency grounds.

If the crowding out occurs, tax finance becomes more attractive.

As long as the empirical evidence on crowding out is inconclusive, we cannot know for sure the relative efficiency merits of debt and tax finance.

# 4. Macroeconomic Considerations

Functional finance approach: use taxes and deficits to keep aggregate demand at the right level, and don't worry about balancing the budget.

When unemployment is very low, extra government spending may lead to inflation, so it is necessary to draw off some spending power from the private sector by increasing taxes.

When unemployment is high, running a deficit is a sensible way to stimulate demand.

# 5. Moral and Political Consideration

This view says that the decision between tax and debt finance is a moral issue.

Too much reliance on deficits reflects moral failing,

Morality requires self-restraint. Deficits are indicative of a lack of restraint so deficits are immoral.

Another argument against deficit spending is a political one.

Some economists argue that the political process tends to underestimate the costs of government spending and to overestimate the benefits. The discipline of a balanced budget may produce a more careful weighing of benefits and costs, thus preventing the public sector from growing beyond its optimal size.

# *4. Fiscal Policy and Budget Deficit*

## Tools for fiscal policy

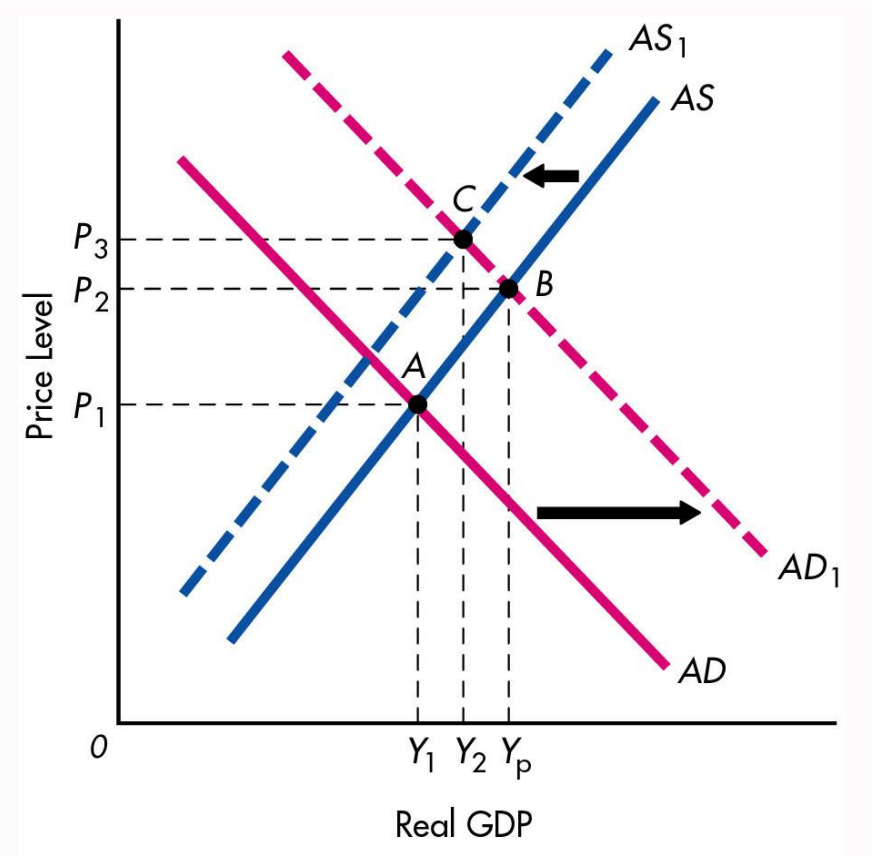
- Taxes
  - Direct taxes (income tax, property tax, etc.)
  - Indirect taxes (VAT, excise tax, import-export tax, etc.)
- Government expenditures
  - Pure public goods (national defend, justice system, etc.)
  - Impure public goods (education, health care, cleaning system, etc.)

# Tax policy and government expenditure analysis

**Government increases its expenditure (G) by imposing more taxes.**

**G ↑ → AD shifts to the right.**

**T ↑ → ↓ work incentive → AS shifts to the left.**



# Crowding Out effect

- Increasing in government expenditure which is financed by debt (government borrows money for spending) → crowding out effect
- Demand for government borrowing → r ↑
- High r → ↑ cost → private investment ↓ → crowding out some or all national income which is increased from increasing in government spending.
- Private investment is crowding out.

# The other effects from budget deficit and public debts

- Private investment crowding out → ↓ future capital accumulation (future output ↓)
- r ↑ → baht appreciate → foreign currency and import goods are cheaper → more import → net export ↓ → GDP ↓
- High public debt (because of budget deficit) → high interest payment.

# Macroeconomic stability

- Fiscal policy implementation has to concern about budget deficit because:
  - When budget deficit increased → ↑ demand in the economy → affect inflation and balance of payment.
  - Budget deficit → ↑ public debt → affect fiscal sustainability.
  - If we do not pay attention at “budget constraint”, it will lead to some crisis such as fiscal or financial crisis and reduce economic confidence.
  - What is “budget constraint”? How will it affect fiscal policies?

# What is budget constraint?

- National income identity:

  Budget deficit (G-T) = net private saving (S-I) + current account deficit (M-X)

  - Twin deficit identity: (G-T) = (S-I) + (M-X)
  - (S-I) = (G-T) – (M-X)
  - When budget deficit ↑ → net private saving has to be ↑ (crowding out effect of private investment or increasing in saving (Ricardian equivalence)) or ↑ in current account deficit.
- Financing:

  (G -T) = foreign borrowing + domestic borrowing + printing money + reducing in asset value

# The affects on Macroeconomics

- Printing money is a method of financing budget deficit. As long as monetary base increases at the same rate as GDP, the government can print money without increasing in inflation. If the elasticity of demand for money equals to one, monetary base will increase at the same rate as GDP.

If the rate of growth of monetary base is higher than GDP, it will create inflation. The inflation from printing more money will reduce the real value of government debt and create government revenues (seignorage revenue). Thus, the government will have an incentive to expand supply of money. The independence central bank normally tries to limit the ministry of finance to printing more money to reduce the real value of government debt.

- The second method of financing budget deficit is reducing the international reserves or reducing the other assets (such as privatization.)

The consequence from reducing the international reserves is the value of domestic currency may be decreased.

- The third method of financing budget deficit is domestic borrowing or borrowing from aboard.

# Fiscal sustainability

- Fiscal sustainability assessment will tell us the performance of our current fiscal policies implementation and monetary policies which are related to budget deficit, interest rate and real economic growth.
- Some sets of government policies may not lead to fiscal sustainability if the government cannot pay back its loans.
- Fiscal sustainability assessment is the basic criteria for selecting the combination between fiscal and monetary policies which will lead to long-term sustainability.

# Debt-GDP ratio

Debt as of Feb 29, 2020 → 7,027,911.88 Million baht

DEBT/GDP → 41.44%

GDP = 16,960,574.42 Million baht

Source: Public Debt Management Office, Ministry of Finance

# Thailand state financial and fiscal discipline act 2018

- Public Debt / GDP $\leq 60\%$
- Debt Service / Estimated revenue $\leq 35\%$
- Public Debt in foreign currency / Total public debt $\leq 10\%$
- Debt Service in foreign currency / revenue from export (goods and services) $\leq 5\%$