

Current Issues in Thailand's Public Expenditure, Debt Management and Macroeconomic stability

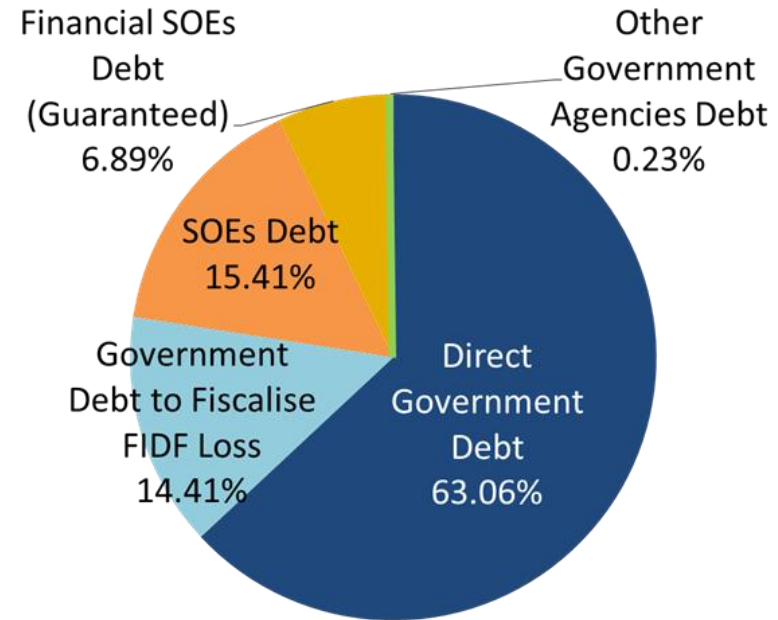
Ranee Itarat

**Economics of Public Expenditure, Thammasat University
31 November 2017**

Public Debt Management Act B.E. 2548 (2005)

Public Debt Definition:

1. Direct government debts: budget deficit, infrastructure investment projects, economic stimulation, crisis management, on-lend to government agencies and State Owned Enterprises (SOEs)
2. Non-financial SOEs debts, both government guaranteed and non guaranteed (SOEs include privatized companies)
3. Financial SOEs debt that government guaranteed
4. Other public organizations debts such as Energy Fund
5. Not included local government debts



Public Debt Management :

- incur debt through loans or guarantees
- debt repayment
- debt restructuring
- other activities involving public debt

10% of Annual Budget

external borrowing criteria

Who are the main sources of Thailand's external borrowing?



1. Favourable Terms and Conditions

- High ratio of capital investment with long tenure (15 – 40 years)
- Grace period (5 – 10 years)



2. Know-how Transfer

- Knowledge and Technology transfer
- Technical assistant project and expertise



3. Match Nature of Project and Diversified Sources

- Mega or long term project (10-30 years)
- Imported contents
- Avoid crowding out effect
- Reserve budget for other loans

10% of Annual Budget

Public Debt Management Act is the MAIN borrowing framework

A Borrowing Ceiling to Finance Budget Deficit

20% of Annual Budget



80% of Principal Repayment Expenditure

B Ceiling for Government Guaranteed + Borrowing for THB On lending

20% of Annual Budget

- Support SOEs Investment Project

C Borrowing Ceiling to promote Economic and Social Development

10% of Annual Budget

- Enable government's long-term investment project
- Borrow in foreign currency and have import content
(avoid crowding out and FX neutral)
- Or borrow in THB if domestic market allowed

Government, under parliament's approval and public awareness, can issue the emergency decrees to maintain economic stability and stimulate economy



Emergency Decree authorizing the MOF to Secure Loans for Economic Restoration and Development Fund B.E. 2541 (A.D. 1998) 500 billion THB



Emergency Decree authorizing the MOF to Secure Loans for Restoring and Strengthening the Financial Institutions System Development B.E. 2541 (A.D. 1998) 300 billion THB



Emergency Decree authorizing the MOF to Secure Loans for Strengthening and Developing the Financial Institutions System Phase II B.E. 2545 (A.D. 2002) 780 billion THB



Emergency Decree authorizing the MOF to Secure Loans for Restoring and Strengthening Economic Security B.E. 2552 (A.D. 2009) 400 billion THB



Water Resource Management and Country Development Decree B.E. 2555 (A.D. 2012) 350 billion THB



Disaster Insurance Fund Decree B.E. 2555 (A.D. 2012) 50 billion THB



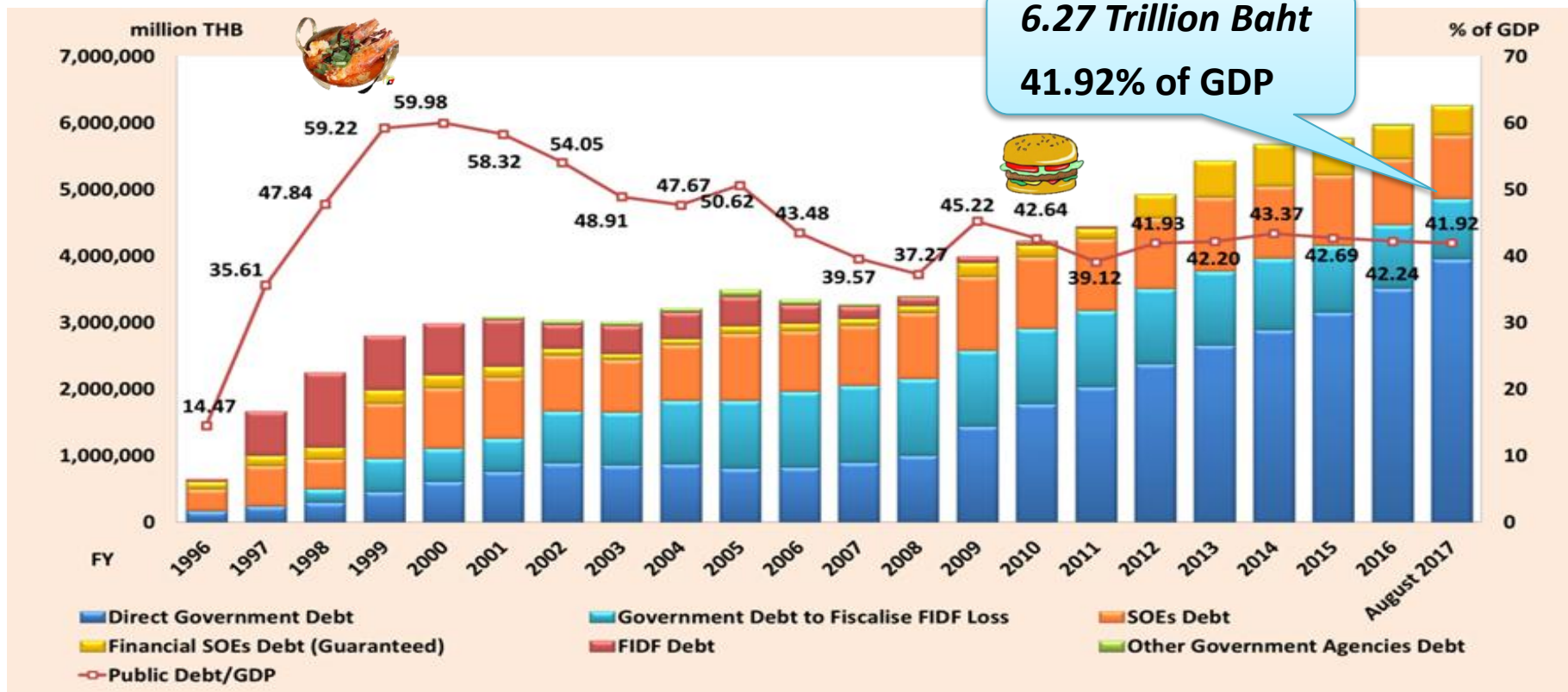
Sustainability Framework

Public Debt/GDP: $< 60\%$

Principal & Interest Payment/Budget Expenditure: $< 15\%$

Investment Expenditure/Budget Expenditure: $> 25\%$

Public Debt levels remain under sustainability framework

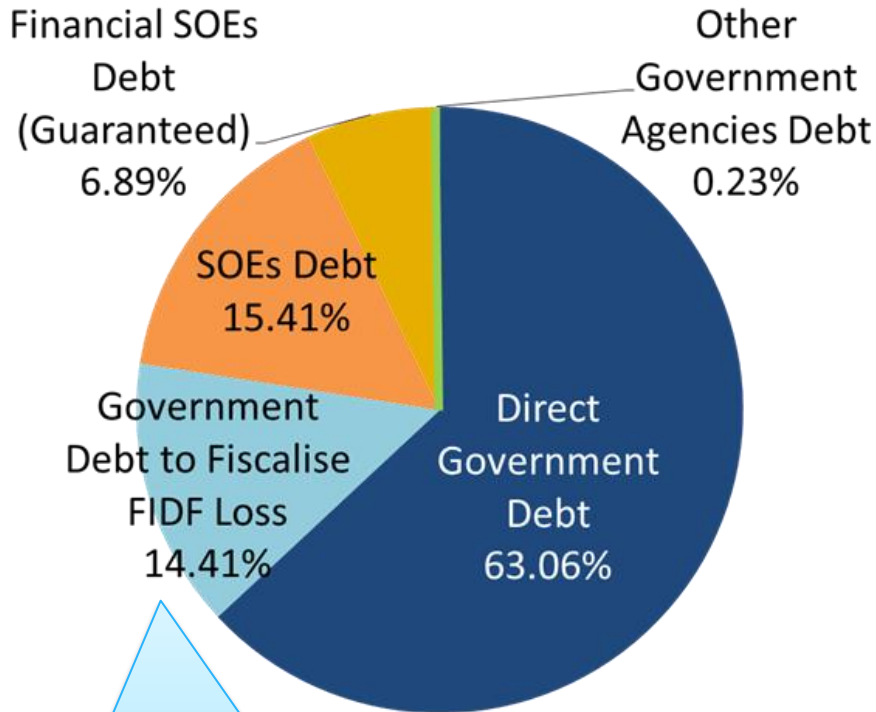


Components of Public Debt

Public Debt Outstanding as of August 2017	Amount (million THB)	% of GDP
Direct Government Debt	3,956,825.19	26.43
Government Debt to Fiscalise FIDF Loss	904,437.54	6.04
SOEs Debt	966,596.76	6.46
Financial SOEs Debt (Guaranteed)	432,369.05	2.89
Other Government Agencies Debt	14,643.50	0.10
Total	6,274,872.04	41.92

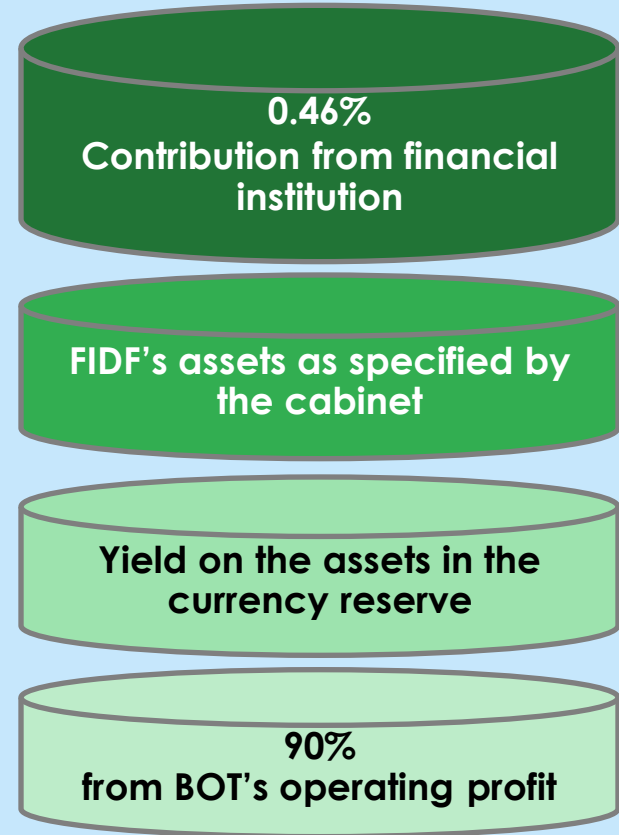
FIDF debt will be paid off within 15 years

% of total Outstanding Debt



FIDF debt burden has been accountability of the BOT since an enactment of FIDF loan Management Emergency Decree B.E. 2555. The law required the BOT repay entire principal and interest of the loan.

Source of fund to repay FIDF outstanding debt



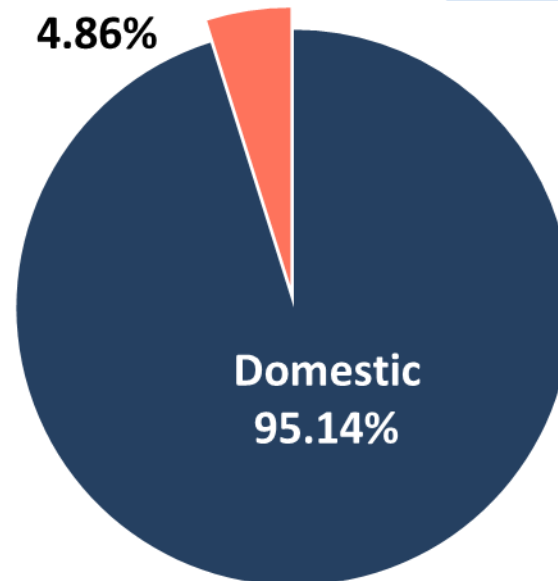
95% of Public Debt is Domestic Borrowing

(As of August 2017)

Unit : million THB

Public Debt Outstanding as of August 2017	Domestic	External
Government Debt	4,764,250.80	97,011.93
SOEs Debt	758,973.39	207,623.37
Financial SOEs Debt (Guaranteed)	431,908.38	460.67
Other Government Agencies Debt	14,643.50	-
Total	5,969,776.07	305,095.97

External
4.86%



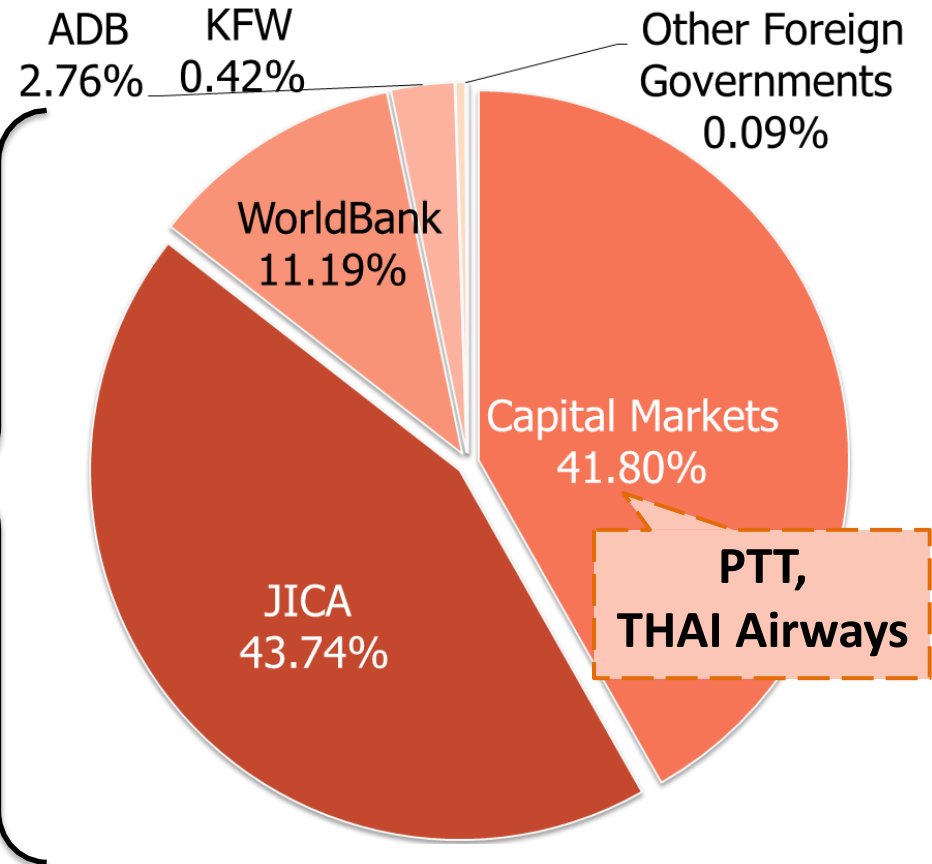
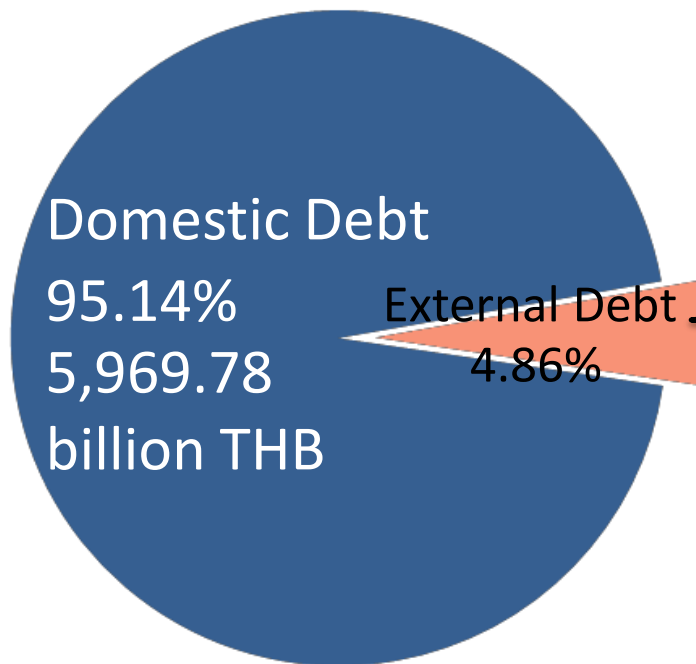
178.84 billion USD

9.16 billion USD

Public External Debt Outstanding

By sources of funding as of August 2017

Public Debt Outstanding
6,274.87 billion THB



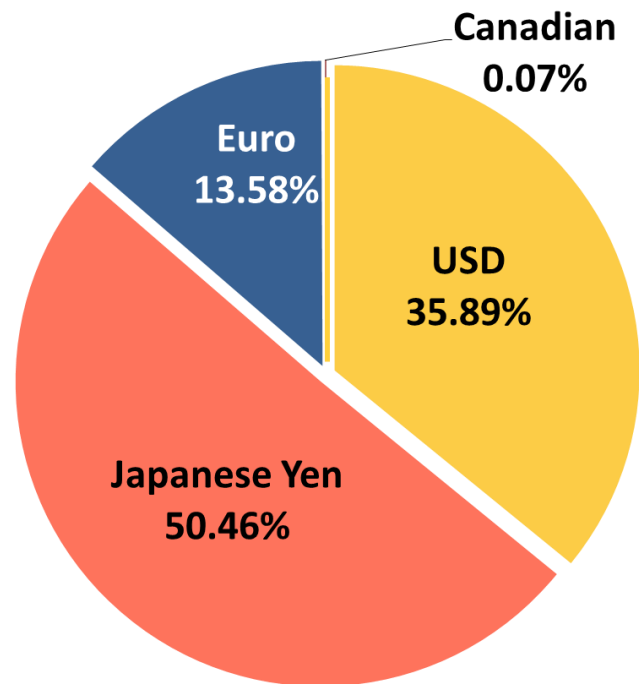
External Debt Outstanding
9,155.13 million USD
305.09 billion THB

Most of remaining Public External Debt is in JPY

(As of August 2017)

Unit: million THB

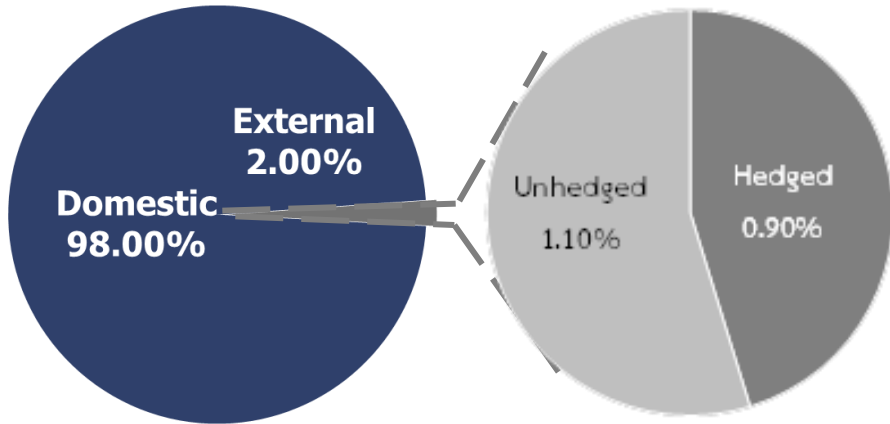
Currency	Direct Government Debt	Guaranteed SOEs Debt (Financial & Non - Financial)	Non-Guaranteed SOEs Debt (Non - Financial)	Total
USD	45,642.23	-	63,846.27	109,488.50
Japanese Yen	51,147.66	84,045.26	18,745.08	153,938.00
Euro	-	1,366.28	40,081.15	41,447.43
Canadian	222.04	-	-	222.04
Total	97,011.93	85,411.54	122,672.50	305,095.97



The FX risk is taken into account in Public Debt Management Plan

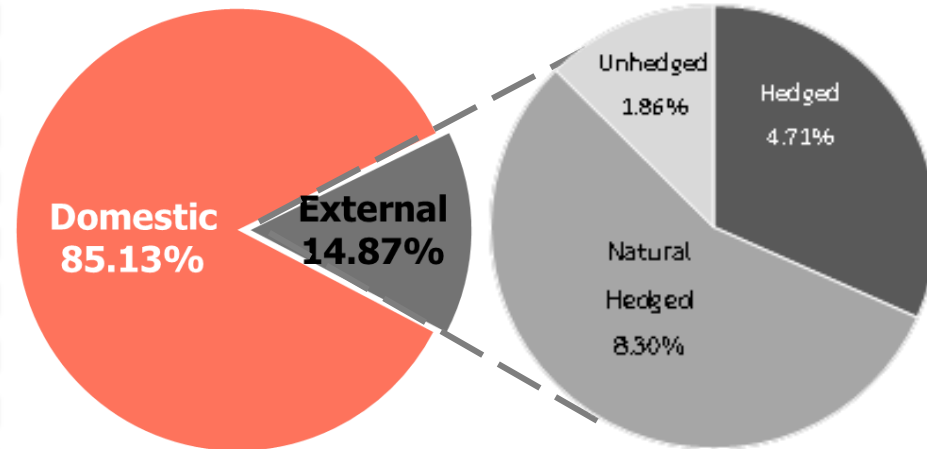
(As of August 2017)

Government



**External Government Debt:
97,011.93 million THB
(31.80% of Total External
Debt)**

SOEs



**External SOEs Debt:
208,084.04 million THB
(68.20% of Total External Debt)**

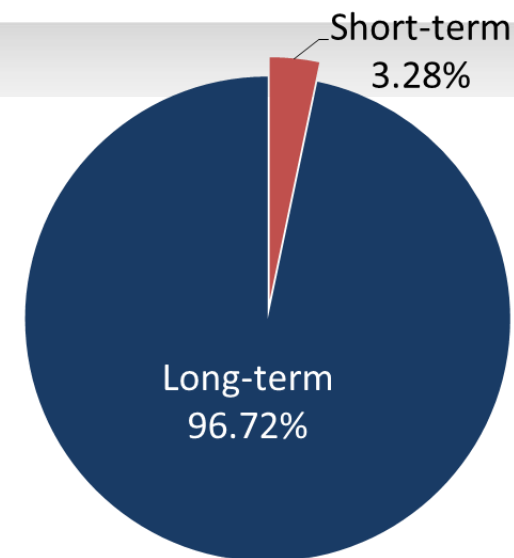
Most Public Debt has long maturity

(As of August 2017)

By Instrument...

Unit : million THB

Public Debt Outstanding as of August 2017	Long-term	Short-term
Government Debt	4,705,124.08	156,138.65
SOEs Debt	957,827.81	8,768.95
Financial SOEs Debt (Guaranteed)	391,288.85	41,080.20
Other Government Agencies Debt	14,643.44	0.06
Total	6,068,884.18	205,987.86

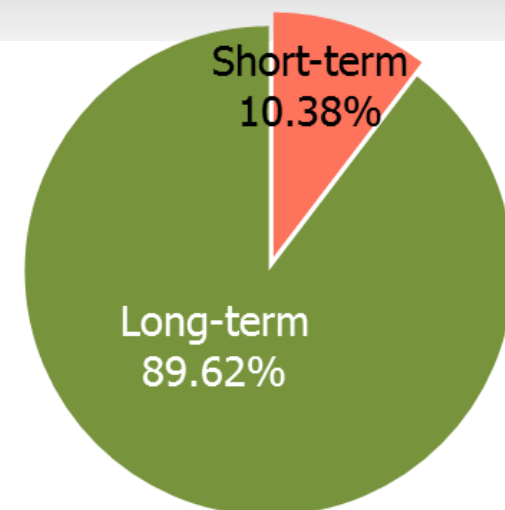


Note: Short term debt refers to the debt outstanding figures having the maturity less than 12 months.

By Remaining Maturity...

Unit : million THB

Public Debt Outstanding as of August 2017	Long-term	Short-term
Government Debt	4,450,290.98	410,971.75
SOEs Debt	818,234.12	148,362.64
Financial SOEs Debt (Guaranteed)	350,587.95	81,781.10
Other Government Agencies Debt	4,677.49	9,966.01
Total	5,623,790.54	651,081.50

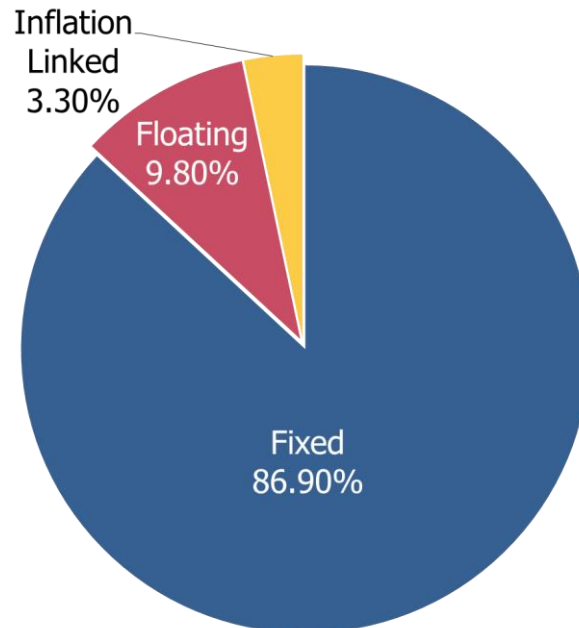


Note: Short term debt refers to the debt outstanding figures having the remaining maturity less than 12 months.

Average Time to Maturity of Public Debt

(As of August 2017)

Average Time to Maturity at the end of August 2017 (Unit: Years)			
	Public Debt	Government Debt	SOEs Debt
Total	9.66	11.12	4.67
- Fixed rate	10.61	11.97	5.41
- Floating rate	2.04	2.27	0.24
- Inflation-Linked	7.31	7.31	-
- Domestic Currency	9.75	11.21	4.19
- Foreign Currency	7.44	5.41	8.38
Average Cost (%/year)	3.53	3.57	3.38

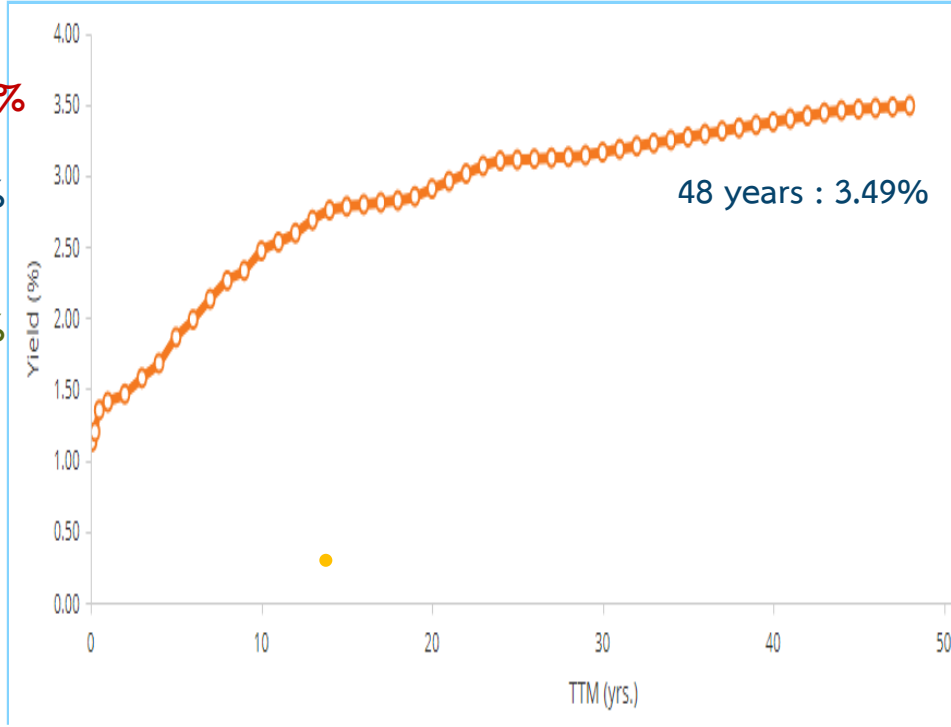
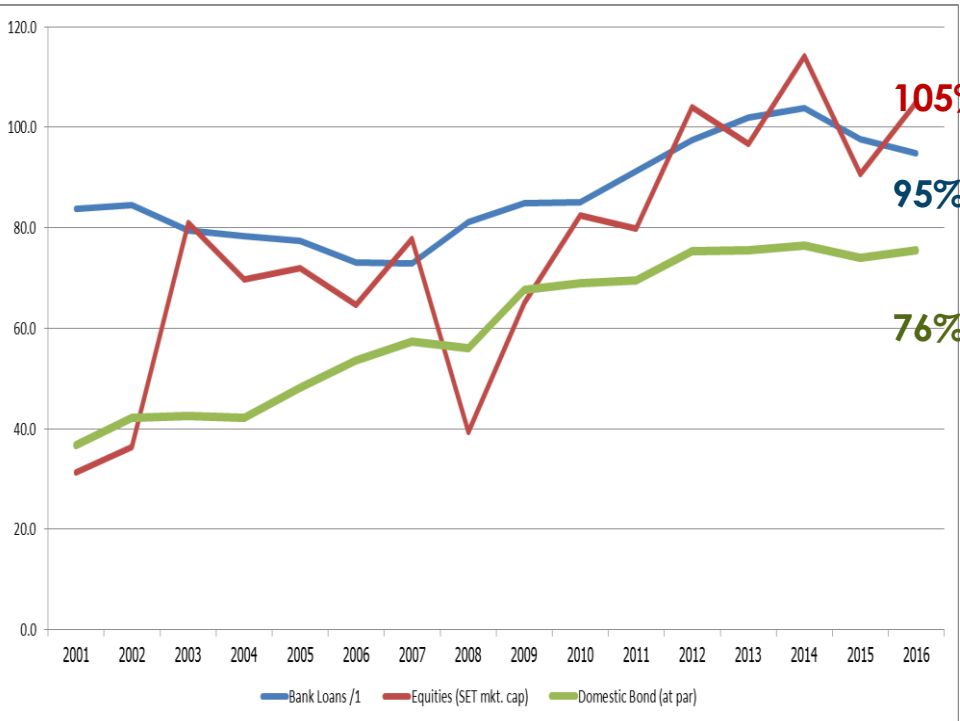


Our domestic financial markets are more balanced and proved to be able to absorb recent shocks well

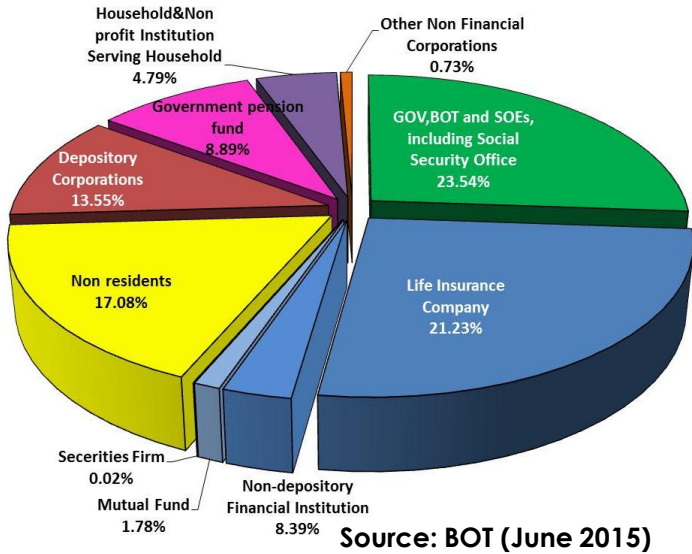
Cost Lowered
 ATM Lengthened
 Well-Balanced Fixed : Floating Ratio

Bond Market Cap. = 10.86 Trillion THB (Govt Bond = 4 tril THB)

Government Bond Yield remains low level
 (as of 30 October 2017)



Wide group of investors support stability in government portfolio

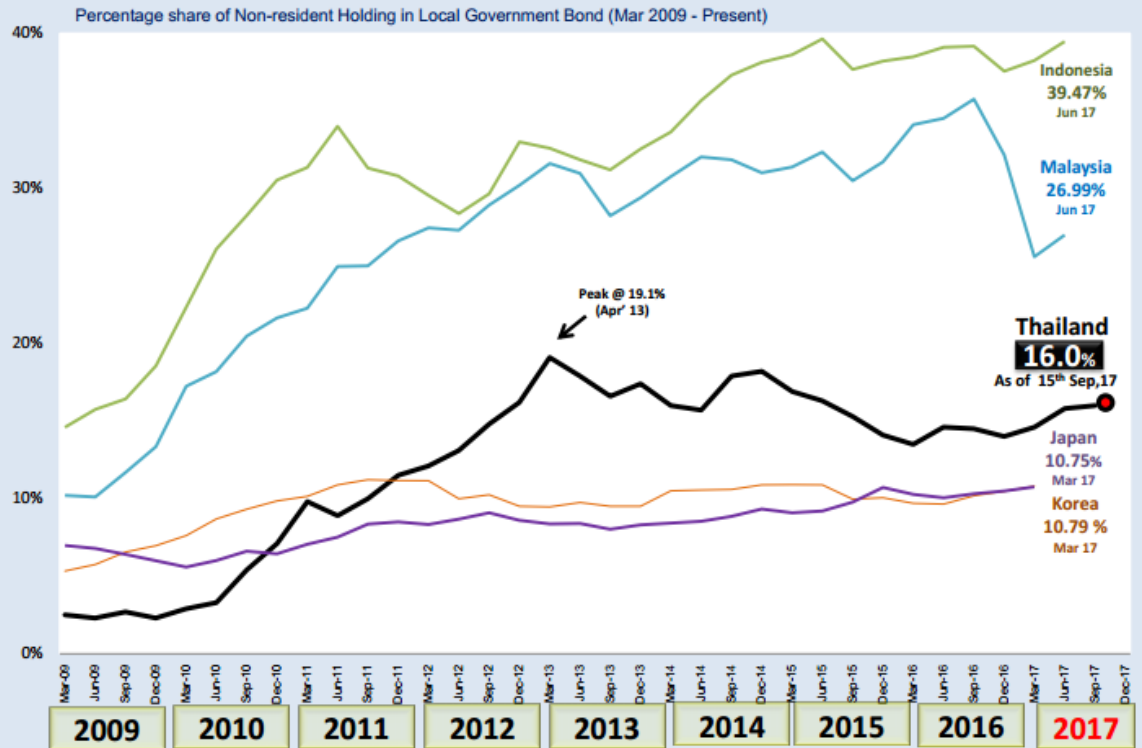


Relatively moderate share of NR holding in GOVT bond

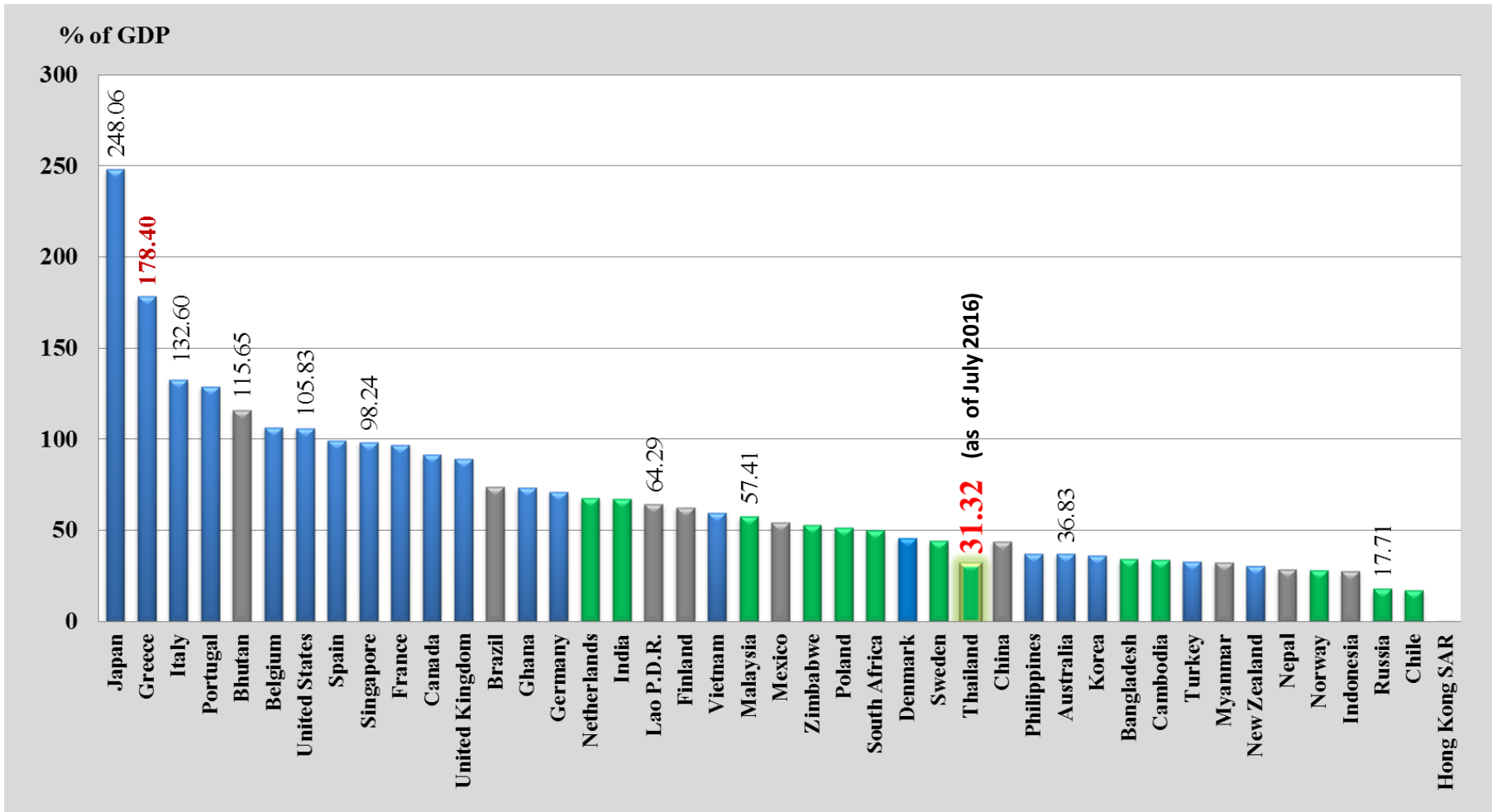
Peers Comparison

Non-Resident Holding in Thai GOVT Bond is 699,678 THB mil.

or 16.0% of Total GOVT Bond Outstanding



Thailand's Debt to GDP stood at moderate level compare to other countries



Source : World Economic and Financial Surveys, Fiscal Monitor, April 2016, International Monetary Fund (IMF)

Note : - Factual and estimate debt level at end of CY2015.

Financing criteria : High financial viable

High financial viable : SOEs undertake investment



Expressway



Airport



Electricity



Energy

SOE revenue/
borrowing

Project
Finance

PPPs

Infrastructure
Fund

Financing criteria : Low financial viable

Low financial – High economic viable : Government undertakes investment



Rapid Transit System



Public Health



Road system



Education

Budget

Government borrowing

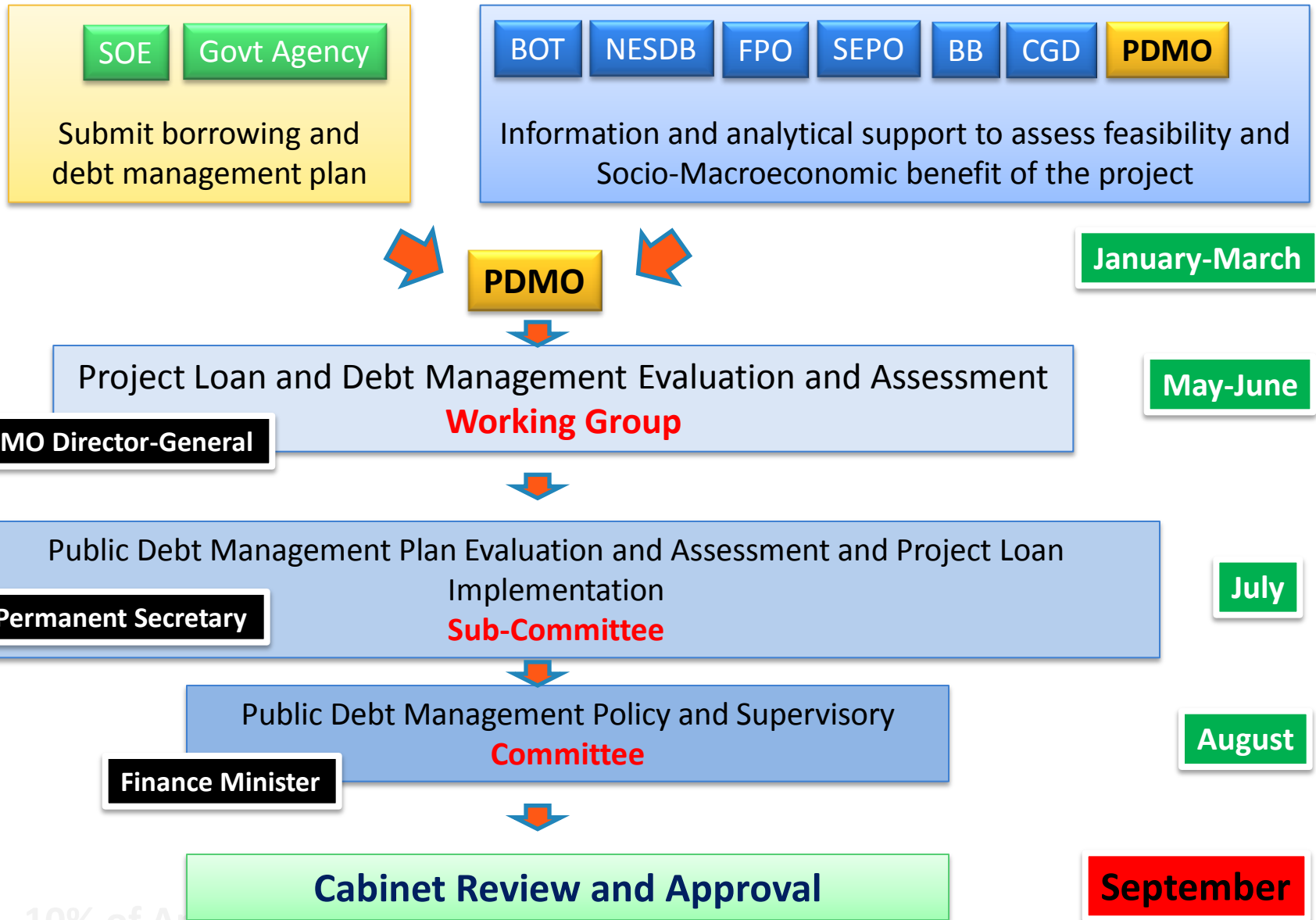
PPPs

PDMO

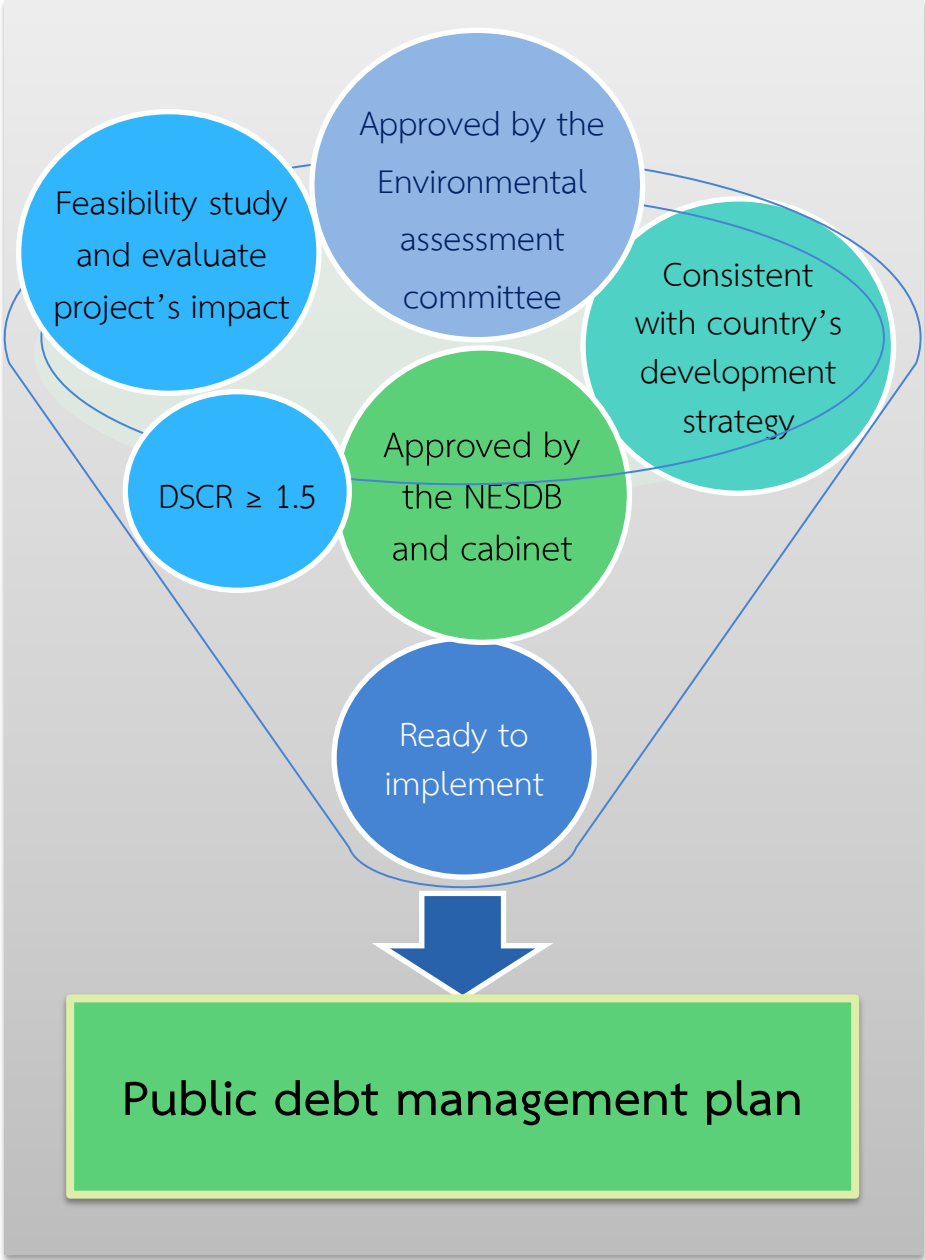
Financing Source

Financing Source/Sector	Metropolitan Mass Transit	Provincial Rail Network	Highways /Motorway	Water transport	Air transport
Annual Budget	<ul style="list-style-type: none"> ▪ Land acquisition ▪ Consultants 	<ul style="list-style-type: none"> ▪ Land acquisition ▪ Consultants 	<ul style="list-style-type: none"> ▪ Land acquisition ▪ Consultants 	<ul style="list-style-type: none"> ▪ Land acquisition ▪ Consultants ▪ Construction 	
Government Borrowing	<ul style="list-style-type: none"> ▪ Civil Works 	<ul style="list-style-type: none"> ▪ Civil Works ▪ Signaling System 	<ul style="list-style-type: none"> ▪ Civil Works 	<ul style="list-style-type: none"> ▪ Civil Works (Large Projects) 	
SOE Revenue & Borrowing	<ul style="list-style-type: none"> ▪ NGV Bus ▪ Rolling Stock 	<ul style="list-style-type: none"> ▪ Rolling Stock 			<ul style="list-style-type: none"> ▪ Consultants ▪ Civil Works ▪ Equipment and tools
PPPs			<ul style="list-style-type: none"> ▪ Civil Works 		
Infrastructure Funds	<ul style="list-style-type: none"> ▪ Rolling Stock 	<ul style="list-style-type: none"> ▪ Rolling Stock 	<ul style="list-style-type: none"> ▪ Fee collection system ▪ Maintenance 		

Public Debt Management Plan



Projects consideration to put into public debt management plan



Summary of Public Debt Management Plan in FY2018

million THB

FY 2018 Public Debt Management Plan	Amount (Million Baht)		
	Domestic	External	Total
1. New Borrowing	632,182.28	19,755.99	651,938.27
1.1 Government	507,250.69	8,304.00	515,554.69
1.2 State-Owned Enterprises	124,931.59	11,451.99	136,383.58
1.3 Other State Agencies	-	-	-
2. Debt Management	843,776.63	168,695.61	1,012,472.24
2.1 Government	596,755.98	96,819.79	693,575.77
- Refinancing	596,755.98	5,250.00	602,005.98
- Risk Management	-	91,569.79	91,569.79
2.2 State-Owned Enterprises	247,020.65	71,875.82	318,896.47
- Refinancing	218,326.65	646.90	218,973.55
- Risk Management	28,694.00	71,228.92	99,922.92
2.3 Other State Agencies	-	-	-
Total Public Debt Management Plan	1,475,958.91	188,451.60	1,664,410.51

Government Borrowing Ceiling and Plan in FY2018

(classified by legal framework)

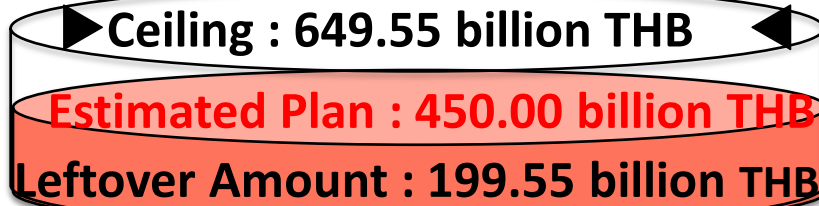
A

**Financing budget deficit
& refinance gov't guaranteed debt**

20% of annual budget expenditure



80% of principal repayment budget

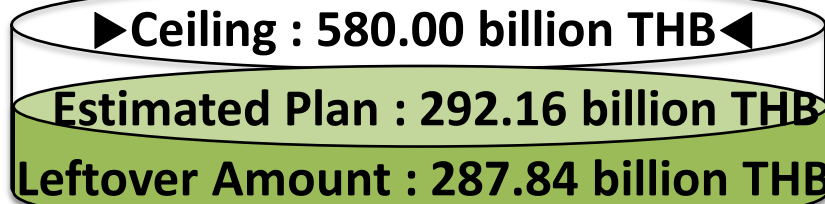


- FY 2018 Annual Budget Expenditure
(2.90 trillion THB)

- FY 2018 Principal Repayment Budget
(86.94 billion THB)

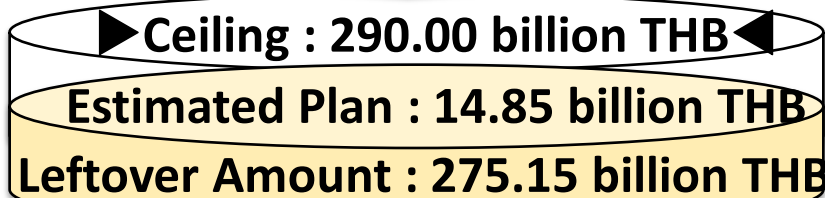
B

**Undertaking guaranteed
& THB on lending up to 20% of annual budget**



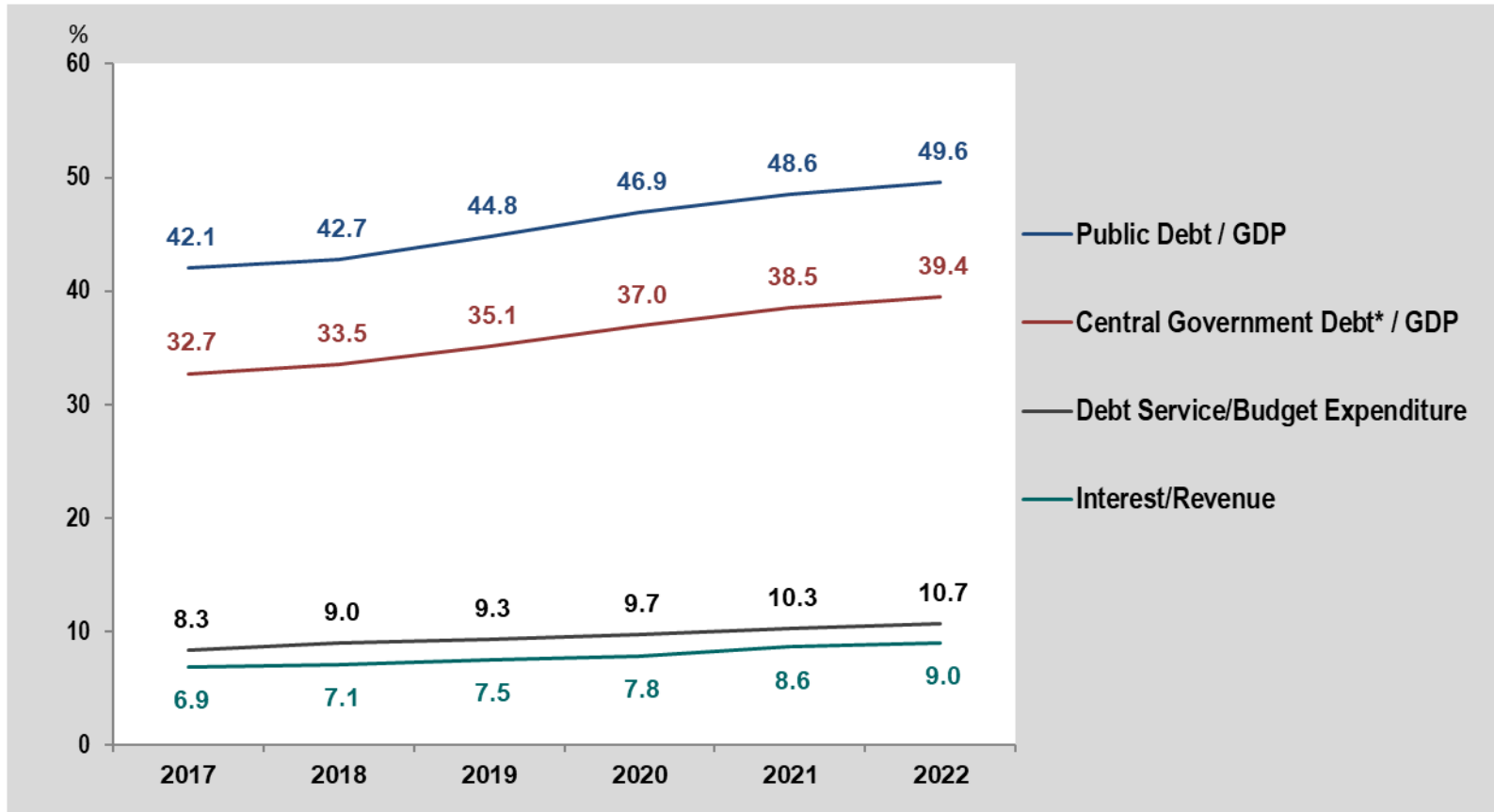
C

**Promoting Economic
& Social Development up to 10% of annual budget***



* Including (1) Debt to Finance Economic Stimulus Package through Water Management and Road System Improvement (2) Greater Mekong Sub-region Highway Project, and (3) ECP loan (Govt's on-lending to Thai Airways)

Medium-Term Debt Projection

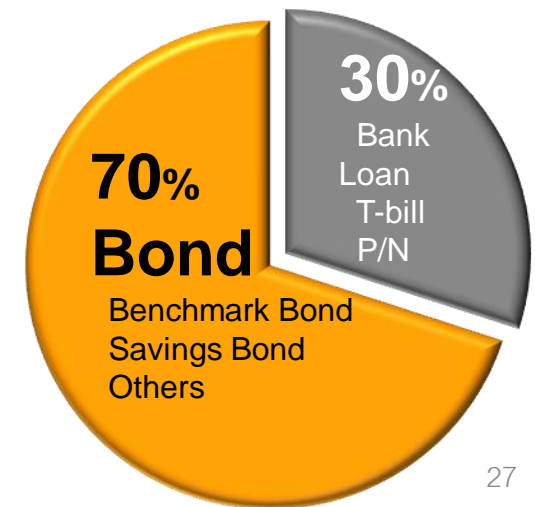


*Central Government Debt includes Direct Government Debt and FIDF Debt

As of August 2017

Government Fund Raising Strategies

- Lowest cost subject to acceptable level of risk
- Balancing : Short and Long term bonds
 - : Fixed and Float instruments
- Committed Benchmark Bond Supply
- Support Bond Market Development



Government Financing Instruments

Instruments

Long-Term Debt Instruments

Short-Term Debt Instruments

Benchmark Bond

3-5-7-10-15-20-30-50 yrs

- Main Government's financing instrument (5-50 yrs)
- Building the benchmark yield curve for SOEs and private sectors
- Building liquidity in secondary market

Inflation-Linked Bond (ILB) Amortized Bond (LBA)

- Create alternative option for investment and broaden investors base
- Suitable financing instrument for government mega-project investment

Saving Bond

- Promote private saving (3-10 yrs)
- Sustainable Government financing instrument

Foreign Currency Bond (FX bond)

(\$USD, Euro, Yen, Yuan,...)
Last issuance in 2006

- In case of tight liquidity
- Absorb the gov't project investment (import content)
- Prevent the crowding out effect

Term-Loan (Bank loan)

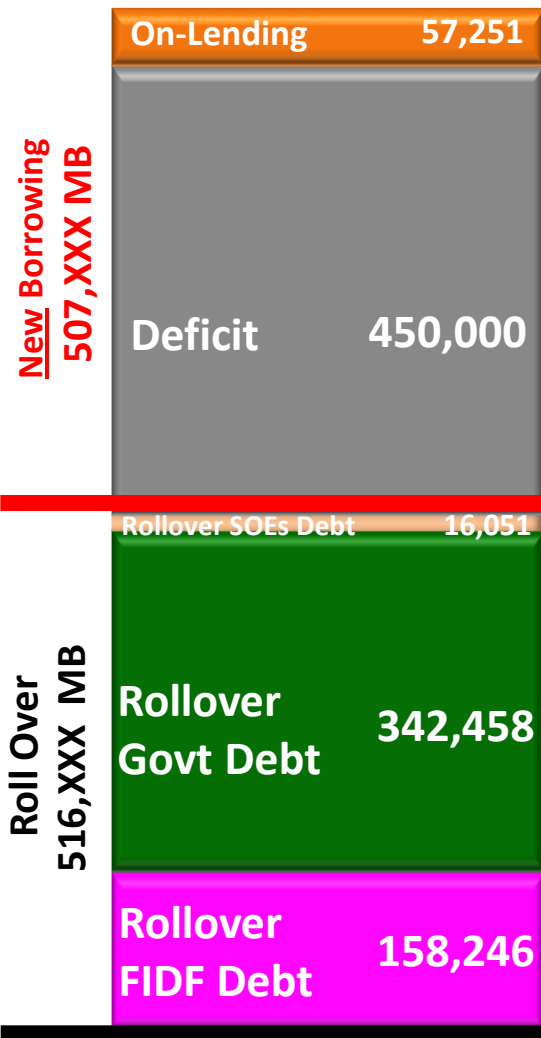
- Correspond with project disbursement which depend on progress of implementation

Promissory Note (PN)/ R-Bill

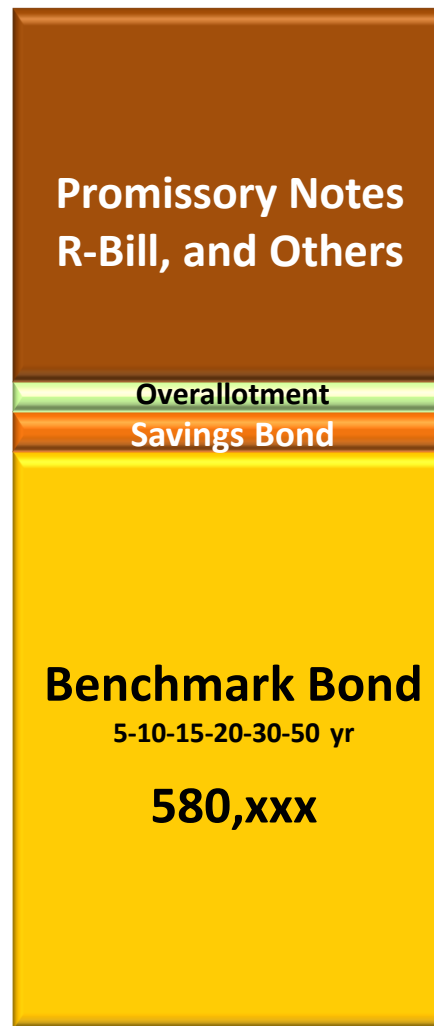
- For restructuring debt (refinancing ST debt and prepayment)

Treasury Bill (T-Bill)

- Cash Management for the mismatch of Gov't revenue and expenditure (1, 3 and 6 months)



By Bills



By Instruments

Benchmark Bond Auction Plan

Tenors	Symbol	Auction Size (Billion Baht)	Times	Total Issuance (Billion Baht)
5	LB22DA	24 - 40	6 - 7	180 - 210
10	LB26DA	12 - 18	6 - 7	90 - 110
15	LB316A	11 - 15	5 - 6	70 - 90
20	LB366A	10 - 13	5 - 6	60 - 80
30	LB466A	10 - 13	5 - 6	60 - 80
50*	LB676A	11 - 15	5 - 6	70 - 90

Remark : * New Issue in FY2018

Note : Coupon of 50-yr Benchmark Bond will be announced later

Remark : 1. Exclude external funding for both new borrowing and rollover debt with amount of 111,xxx THB mil
2. Exclude T-Bill rollover debt with amount of 80,000 THB mil

Portfolio Benchmark for FY2018 and Medium-Term (FY2022)

Approved by Public Debt Management Policy and Supervisory Committee (on August 11, 2017)

Scope: Government Debt including FIDF and on-lending

COST AND RISK INDICATORS		Current Benchmark	FY2018	MTDS FY 2022
Foreign Exchange Risk	Unhedged external debt (% of total debt)	Reduce FX Exposure	Reduce FX Exposure	Reduce FX Exposure
Interest Rate Risk	Fixed rate debt (% of Total)	85 -90	≥ 85	≥ 85
	Debt refixing in 1yr (% of total)	15 - 20	15 - 20	18 -24
	Average time to re-fixing: ATR (years)	8 -10	For internal use	For internal use
Refinancing Risk	Average time to maturity: ATM (years)	9 - 10	≤ 12	≤ 14
	Debt maturing in 1yr (% of total)	8 - 12	8 - 12	10 – 14
	Debt maturing in 3yr (% of total)	30 - 35	30 - 35	25 -30
	Debt maturing in 5 yr (% of total)	45 -50	For internal use	For internal use
Inflation-Linked Bond (% of total)		-	< 5	< 5

Debt management guideline for SOEs based on Asset-Liability Management (ALM) Concept

Risk Identification

1. Government Debt + SOE Debt serviced from budget expenditure
2. SOE Debt serviced by SOE revenue (possible contingent liability)

Foreign Exchange rate Risk

- SOE that has revenue in Thai Baht should hedge the foreign exchange exposure by use of financial tools e.g. cross currency swap, forward contract, or purchase foreign currency and keep in foreign currency deposit (FCD)
- New borrowing in foreign currency should be hedged as soon as possible
- For SOE that has revenue in foreign currency, SOE should consider natural hedging by managing the currency of expenses to match with that of revenue

Interest rate risk

- Given the financial market condition, SOE should manage portion of fixed rate debt and floating rate debt taking into account level of cost and risk acceptable that is acceptable to SOE
- SOE should monitor and evaluate the impact of interest rate change on debt servicing costs regularly

Refinancing Risk

- SOE should consider borrowing term that matches with the duration of investment projects to reduce asset and liability mismatch
- SOE should smooth debt profile to avoid refinancing risk, especially debt maturing in 1-3 years, given its borrowing capacity and borrowing tools available



Public Infrastructure Investment In Thailand



Transport Infrastructure Investment Action Plan (Priority Project) Year 2016

20 Projects / 1,796,385.77 THB



Motorway 3 Projects / 160,420 M.THB (9.06%)

1	Pattaya - Mabtaput	20,200 M.THB
2	Bangpa In - Saraburi - Nakhon Ratchasima	84,600 M.THB
3	Bang Yai - Baan Pong - Kanchanaburi	55,620 M.THB



Double Track Rail Network (Meter Gauge) 5 Routes / 118,025.78 M.THB (6.67%)

1	Jira Rd. - Khonkaen	26,004.90 M.THB
2	Marbkabao - Jira Intersection	29,853.18 M.THB
3	Nakornpathom - Hua Hin	20,036.53 M.THB
4	Prachuab kirikhan - Chumporn	17,290.63 M.THB
5	Lopburi - Paknumpo	24,840.54 M.THB



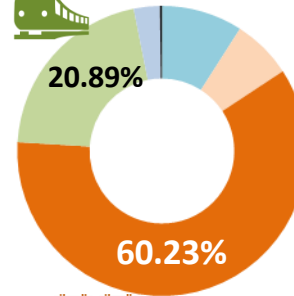
Double Track Rail Network (Standard Gauge) 4 Routes / 1,065,823.53 M.THB (60.23%)

1	Nong Khai - Khonkean - Kangkoi - Chachoengsao - Mabtaput	369,148.63 M.THB
2	BKK-Chiangmai HSR Dev project	449,473.75 M.THB
3	Bangkok - Hua Hin	94,673.16 M.THB
4	Bangkok - Rayong	152,528.00 M.THB



Mass Transit Dev. 5 Projects / 396,613.91 M.THB (20.89%)

1	Orange line (Cultural Center - Minburi)	110,116.86 M.THB
2	Pink line (Karai - Minburi)	56,690.99 M.THB
3	Yellow line (Ladprao - Samrong)	54,644.00 M.THB
4	SRT Light Red Line in suburb zone	44,157.76 M.THB
5	Purple line (Taopoon - Ratburana)	131,004.30 M.THB



Suvarnabhumi International Airport Phase II 1 Projects / 51,607.15 M.THB (2.91%)

1	Suvarnabhumi International Airport Phase II	51,607.15 M.THB
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Maritime Transport Dev. 2 Projects / 3,895.34 M.THB (0.22%)

1	Laem Chabang Sea Port A	1,864.19 M.THB
2	Laem Chabang Shipping Center Development Phase I	2,031.15 M.THB



Double Track Rail Network 10 Projects / 408,616.28 M.THB (45.62%)

1	Huahin – Prachuap Khiri Khan	10,239.58 M.THB
2	Chumporn – Surat Thani	23,384.91 M.THB
3	Surat Thani – Songkha	51,823.83 M.THB
4	Hat Yai – Padang Beza	7,941.80 M.THB
5	Paknampho – Den Chai	56,066.25 M.THB
6	Den Chai – Chiang Mai	59,924.24 M.THB
7	Den Chai – Chiang Rai – Chiang Khong	76,978.82 M.THB
8	Khonkaen – Nong Khai	26,065.75 M.THB
9	Jira - Ubonratchathani	35,839.74 M.THB
10	Ban Pai – Nakorn Phanom	60,351.91 M.THB



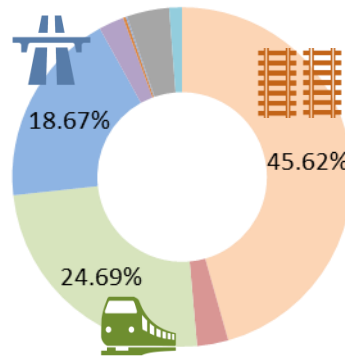
Commuter Train 2 Projects / 26,639.07 M.THB (2.97%)

1	Dark Red : Rangsit – TU Rangsit	7,596.94 M.THB
2	Light Red Extension : Taling Chan – Siriraj And Taling Chan - Saraya	19,042.13 M.THB



Mass Transit Dev. 6 Projects / 221,148.35 M.THB (24.69%)

1	Blue Line : Bang Kae – Sai 4	21,197.00 M.THB
2	Orange Line : West side	123,354.00 M.THB
3	Dark Green : Samutprakarn – Bang Pu	12,146.00 M.THB
4	Dark Green : Kukot – Lumlukka	9,803.00 M.THB
5	Airport Rail Link Extension (ARL)	31,149.35 M.THB
6	Mass Transit in Phuket	23,499.00 M.THB



Motorway & Expressway 5 Projects / 167,222.65 M.THB (18.67%)

1	Nakorn Phatom – Cha Am	80,600.00 M.THB
2	Hat Yai – TH – Malaysia Border	30,500.00 M.THB
3	Rama 3 – Dao Kanong – Outer Ring (West)	31,244.00 M.THB
4	Northern Route N2 & E-W Corridor	14,382.00 M.THB
5	Exp. Kratu - Patong	10,496.65 M.THB



Road Facilitation 5 Projects / 21,473.29 M.THB (2.40%)

1	Truck Rest Area on the main road	550.00 M.THB
2	Intermodal Facility – Chiang Khong	2,365.81 M.THB
3	Cross-border Logistics Center Nakorn Phanom	1,053.62 M.THB
4	Reginal Logistics Center (9 border provinces)	8,065.84 M.THB
5	Regional Logistics Center (8 regional cities)	9,438.02 M.THB



Public Bus Procurement 1 Project / 2,272.22 M.THB (0.25%)

1	Public Bus Procurement and Stations	2,272.22 M.THB
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Common Ticket System 1 Project / 1,355.34 M.THB (0.15%)

1	Common ticket system	1,355.34 M.THB
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Maritime Transport Dev. 3 Projects / 36,081.24 M.THB (4.03%)

1	Ferry Service across Gulf of Thailand	-
2	Dev. Of Ferry Terminal	981.70 M.THB
3	Lam Cha Bang Phase 3	35,099.54 M.THB



Air Transport Dev. 3 Projects / 10,949.11 M.THB (1.22%)

1	Regional airport development	7,685.50 M.THB
2	Baggage System Upgrade at BKK Airport	3,263.61 M.THB
3	MRO Dev. at U-Tapao Airport	-

Project Status for Transport Infrastructure Investment Action Plan (Priority Projects) Year 2016 and 2017 (55 Projects / 2.55 T.THB)

1

Construction Stage in 2016
7 Projects / 241,927.39 M.THb

- Motorway 3 lines
 - Pattaya - Mabtaput
 - Bangpa In - Saraburi - Nakhon Ratchasima
 - Bang Yai - Baan Pong – Kanchanaburi
- Double Track : Jira Rd. - Khonkaen
- Suvarnabhumi International Airport Phase II
- Maritime Transport Dev. 2 projects
 - Laem Chabang Sea Port A
 - Laem Chabang Shipping Center Development Phase I

4

Cabinet or PPP Committee Approval in 2017
9 Projects / 747,478.42 M.THb

- Motorway Nakorn Phatom – Cha Am
- Expressway 2 lines
 - Northern Route N2 and E-W Corridor
 - Exp. Kratu – Patong
- Double Track Railway 2 lines
 - Den Chai - Chiang Rai - Chiang Khong
 - Ban Pai – Nakorn Phanom
- Light Red Extension : TalingChan–Siriraj and TalingChan- Saraya
- Lam Cha Bang Phase 3
- BKK-Chiangmai HSR (TH-Japan)
- Cross-border Logistics Center Nakorn Phanom

2

Construction in 2017
14 Projects / 728,889.82 M.THb

- Double Track Railway 5 lines
 - Marbkabao - Jira Intersection
 - Nakornpathom - Hua Hin
 - Prachuab kirikhan - Chumporn
 - Lopburi - Paknumpo
 - Huahin – Prachuap Khiri Khan
- Mass Rapid Transit 4 lines
 - Orange line (Cultural Center - Minburi)
 - Pink line (Karai - Minburi)
 - Yellow line (Ladprao - Samrong)
 - Purple line (Taopoon - Ratburana)
- BKK - NakhonRatchasima HSR (TH-China)*
- Intermodal Facility – Chiang Khong
- Regional airport development
- Expressway (Rama 3 – Dao Kanong – Outer Ring (West))
- Baggage System Upgrade at Suwannabhumi Airport

5

Project Preparation
4 Projects / 48,985.56 M.THb

- Motorway Hat Yai-TH-Malaysia Border
- Development of Ferry Terminal
- Regional Logistics Center (9 border provinces)
- Regional Logistics Center (8 regional cities)

3

Procurement Stage
19 Projects / 761,278.74 M.THb

- HSR 2 routes
 - BKK – Hua Hin Route (PPP Project)
 - BKK – Rayong Route (PPP Project)
- Public Bus and Stations
- Mass Rapid Transit 7 lines
 - Blue Line : Bang kae - Puttamonton Sai 4
 - Dark Green : Samutprakarn – Bang Pu
 - Dark Green : Kukot – Lumlukka
 - Orange Line : West side
 - Airport Rail Link Extension (ARL)
 - Red Line : Missing Link
 - Dark Red : Rangsit-TU Rangsit
- Double Track Railway 7 lines
 - Paknampho-Denchai
 - Jira-Ubonratchathani
 - KhonKaen – Nong Khai
 - Chumporn – Surat Thani
 - Surat Thani – Songkha
 - Hat Yai-Padang Beza
 - Den Chai – Chiang Mai
- Maintenance, Repair, and Operating supplies (MRO) Dev. At U-Tapao Airport
- Common ticket system

6

Policy driven projects
2 Projects / 24,049.00 M.THb

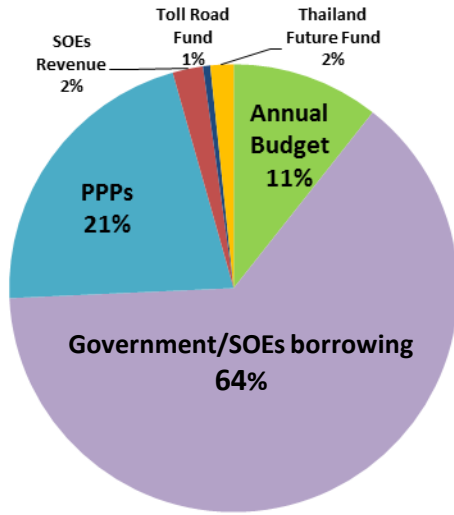
- Truck Rest Area on the main road
- Mass Rapid Transit in Phuket

>> * HSR (TH-China) in Kaeng-Koi Route - Mabtaput and Nakhon Ratchasima-Nong Kai Route are NOT included.

>> Ferry Service across Gulf of Thailand are NOT included

Government borrowing remains major tool

While PPPs increasingly becomes a prominent method



Sources of Fund	Total investment cost		Action Plan 2016		Action Plan 2017	
	Million THB	% of total cost	Million THB	% of total cost	Million THB	% of total cost
Annual Budget	286,370.26	10.64	212,235.19	11.81	74,135.07	8.28
Government/SOEs borrowing	1,713,460.93	63.65	1,137,558.24	63.32	575,902.69	64.29
PPPs	574,381.47	21.34	376,889.79	20.98	197,491.68	22.05
SOEs Revenue	58,911.66	2.19	55,502.55	3.09	3,409.11	0.38
Toll Road Fund	14,200.00	0.53	14,200.00	0.79	-	-
Thailand Future Fund	44,819.00	1.66	-	-	44,819.00	5.00
Total	2,692,143.32	100.00	1,796,385.77	100.00	895,757.55	100.00

Infrastructure Investment Projection for **FY2017-FY2024**

Infrastructure Investment Projection	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	Total
Action Plan 2016	1,801.37	18,960.45	63,147.65	221,201.74	321,226.36	292,253.80	244,346.45	99,537.76	55,664.26	-	1,318,139.84
Action Plan 2017	-	-	5,722.53	60,982.65	177,622.10	224,491.50	226,556.22	124,817.36	41,327.63	13,564.12	875,084.11
Total	1,801.37	18,960.45	68,870.18	282,184.39	498,848.46	516,745.30	470,902.67	224,355.12	96,991.89	13,564.12	2,193,223.95
Borrowing Plan	-	2,805.46	23,736.30	81,102.45	260,236.00	325,210.28	348,292.08	166,421.78	76,510.25	8,950.56	1,293,265.16
Disbursement (as of August 2017)	-	2,805.46	11,841.30	-	-	-	-	-	-	-	14,646.76

Action Plan 2016 >> The estimated disbursement of the infrastructure investment FY2017-2024 is less than the total investment plan because the cabinet **REDUCED** the amount of some projects as a result of currently reference prices and unnecessary items.

>> Standard Gauge (TH-China) in Kaeng-Koi Route and Nakhon Ratchasima-Nong Kai Route are **NOT** included.

Action Plan 2017 >> Truck Rest Area on the main road and Mass Transit in Phuket are **NOT** included.