



PDMO Annual Market Dialogue

FY2017

8th September, 2016

Public Debt Management Office, Ministry of Finance, Kingdom of Thailand

**Bond Market Development Bureau
Public Debt Management Office, Ministry of Finance**



เรื่องเพื่อหารือ / รับฟังความคิดเห็น

1. ผลการออกตราสารหนี้รัฐบาล ประจำปีงบประมาณ พ.ศ. 2559
2. ผลการการแลกเปลี่ยนพันธบัตรรัฐบาลรุ่น LB176A ในปีงบประมาณ พ.ศ. 2559
3. แผนการระดมทุนและแผนการดำเนินงานในปีงบประมาณ พ.ศ. 2560
4. แผนการลงทุนและความก้าวหน้าในการดำเนินโครงการโครงสร้างพื้นฐาน



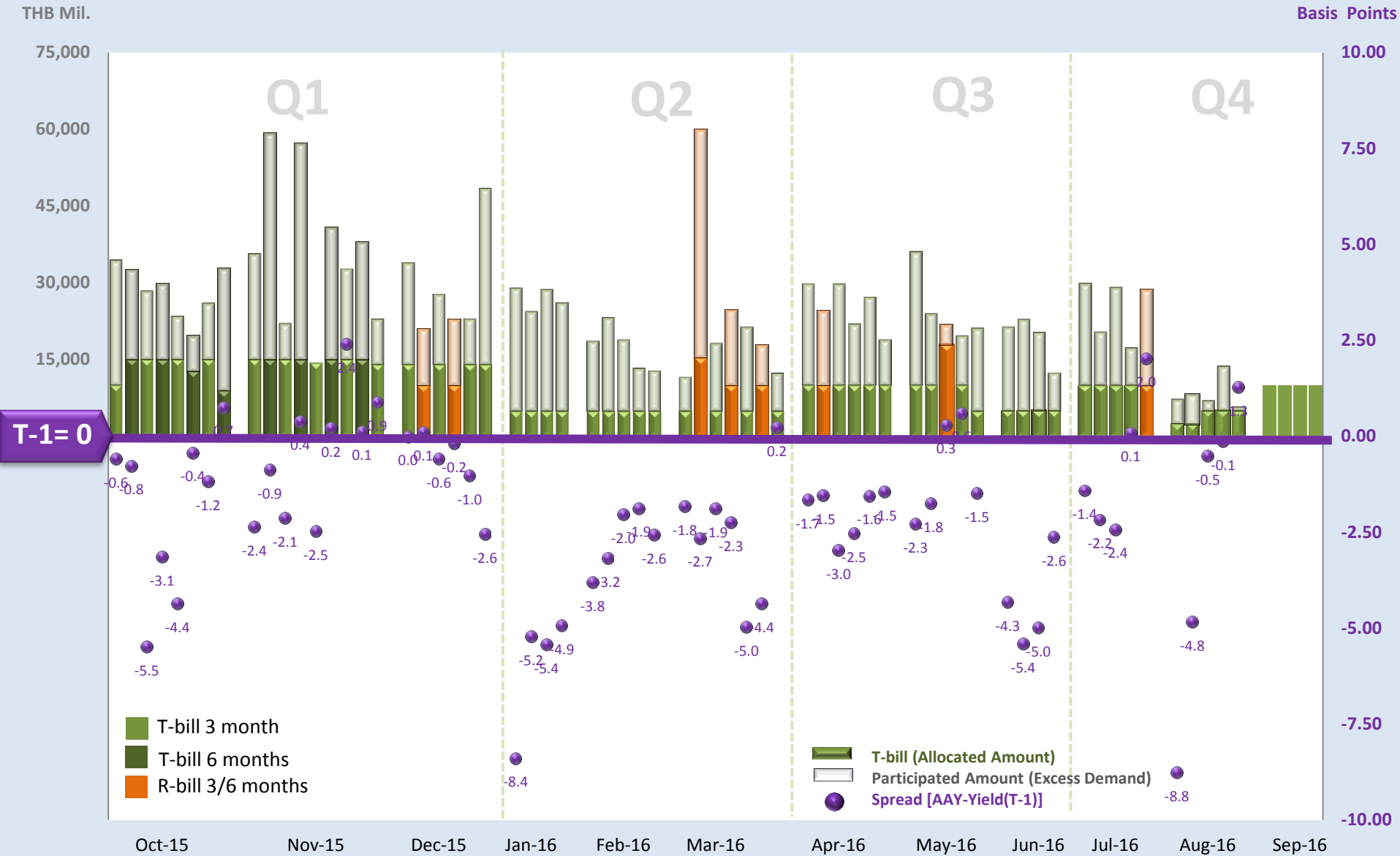
1. ผลการออกตราสารหนี้รัฐบาล ประจำปีงบประมาณ พ.ศ. 2559

- รายงานผลการออกตั๋วเงินคลังในปีงบประมาณ
- รายงานผลการออกพันธบัตรรัฐบาล Benchmark

FY2016

T-Bill Auction Result

- ✓ Low Cost of Funding
- ✓ High Volume of Short-term Demand

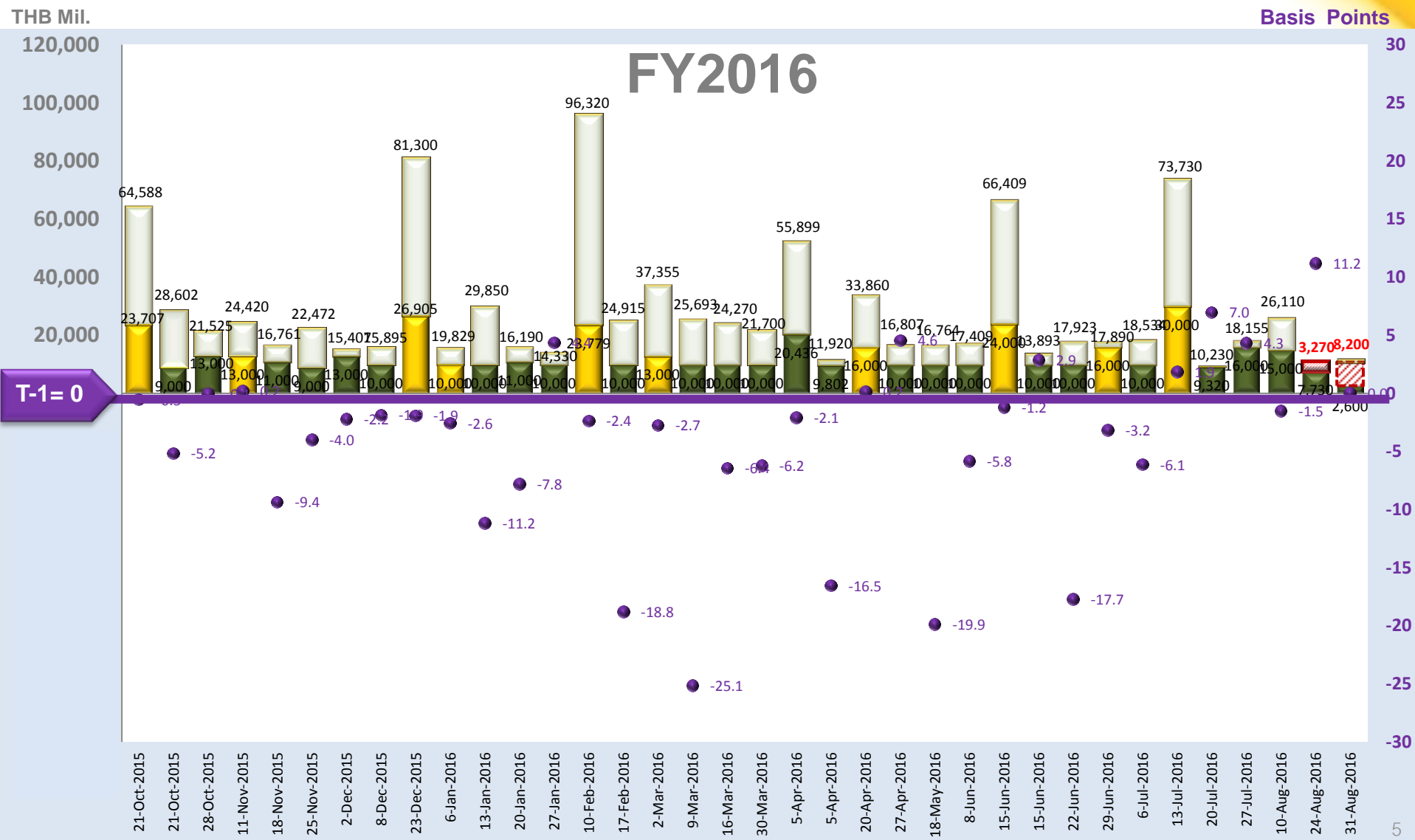




FY2016-Present GOVT Bond Auction Results

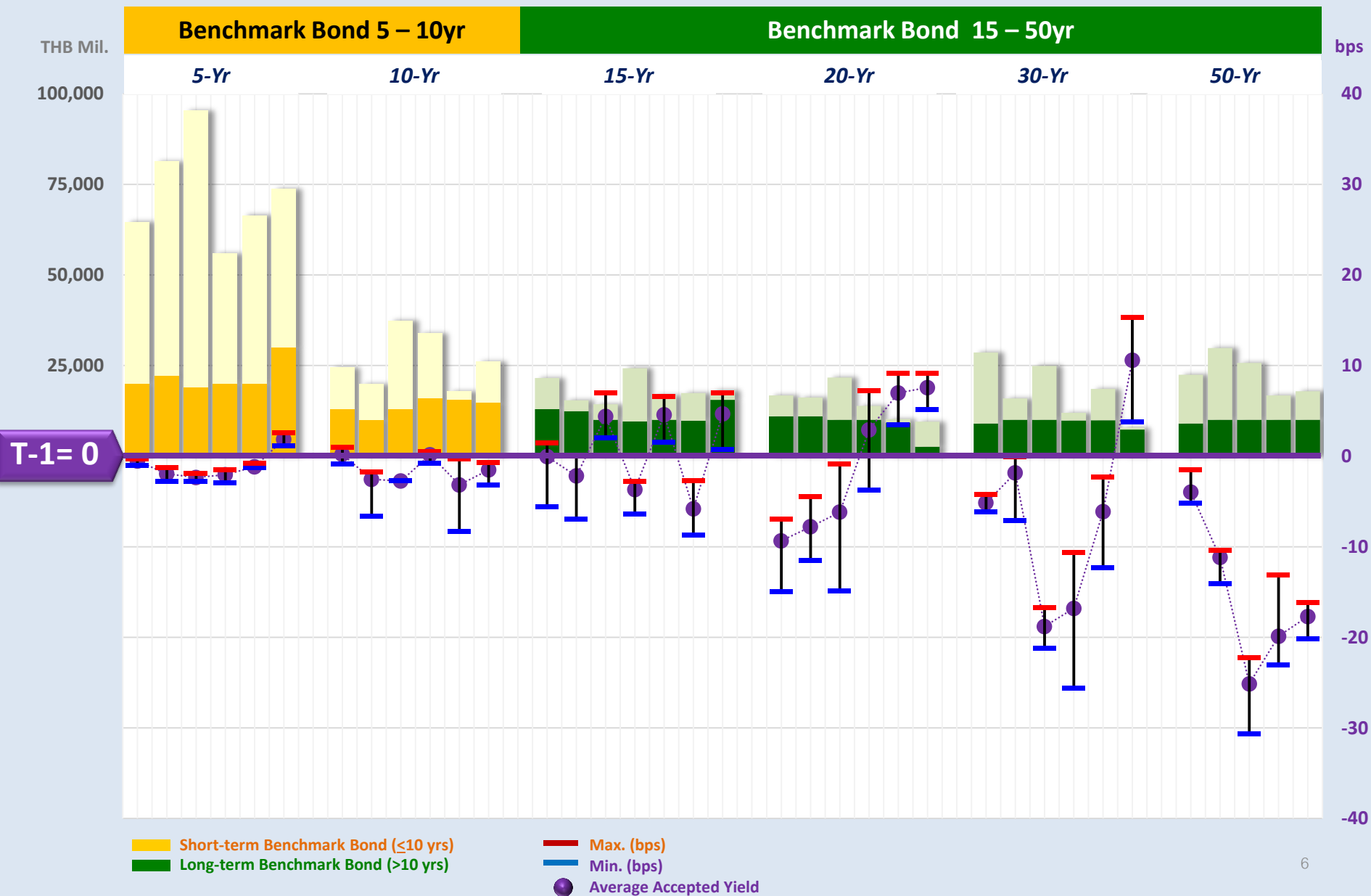
Classified by Auction Schedule

- Short-term Benchmark Bond (≤ 10 yrs)
- Long-term Benchmark Bond (> 10 yrs)
- Inflation-linked Bond
- Amortized Bond
- Participated Amount (Excess Demand)
- Spread [AAY-Yield (T-1)]





FY2016 – Present GOVT Bond Auction Results *Classified by Tenor*





Benchmark

Tenors	FY2015	FY2016	%Chang
	Amounts (MB.)	Amounts (MB.)	
5 Yrs.	155,558	168,827	9%
10 Yrs.	73,198	83,000	13%
15 Yrs.	73,476	82,000	12%
20 Yrs.	-	53,830	N.A.
30 Yrs.	49,255	56,532	15%
50 Yrs.	36,760	62,000	69%
Amortize 25 Yrs.	53,970	-	N.A.
Total	442,217	506,189	14%



2. ผลการการแลกเปลี่ยนพันธบัตรรัฐบาลรุ่น LB176A ในปีงบประมาณ พ.ศ. 2559

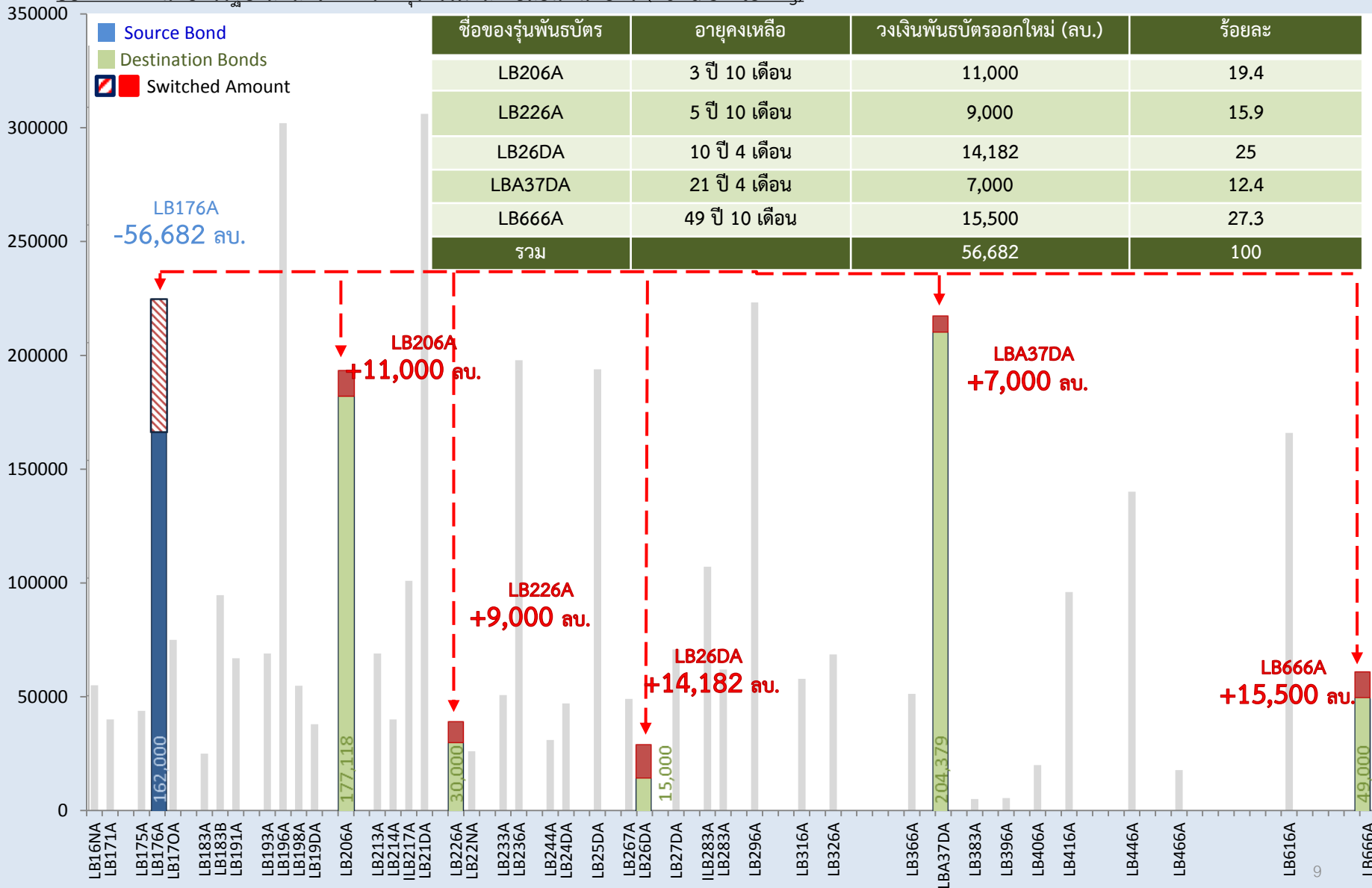
- รายงานผลการแลกเปลี่ยนพันธบัตร สำหรับพันธบัตรรัฐบาล รุ่น LB176A



ผลการแลกเปลี่ยนพันธบัตร สำหรับพันธบัตรรัฐบาลรุ่น LB176A

- ความเสี่ยงลดลง : 218,683 ลบ. ⇨ 162,000 ลบ.
- หนี้ที่แลกมีอายุยาวขึ้น : จาก 9 เดือน ⇨ 20 ปี 9 เดือน
- เพิ่มสภาพคล่อง : ออกพันธบัตรใหม่ = 56,682 ลบ.

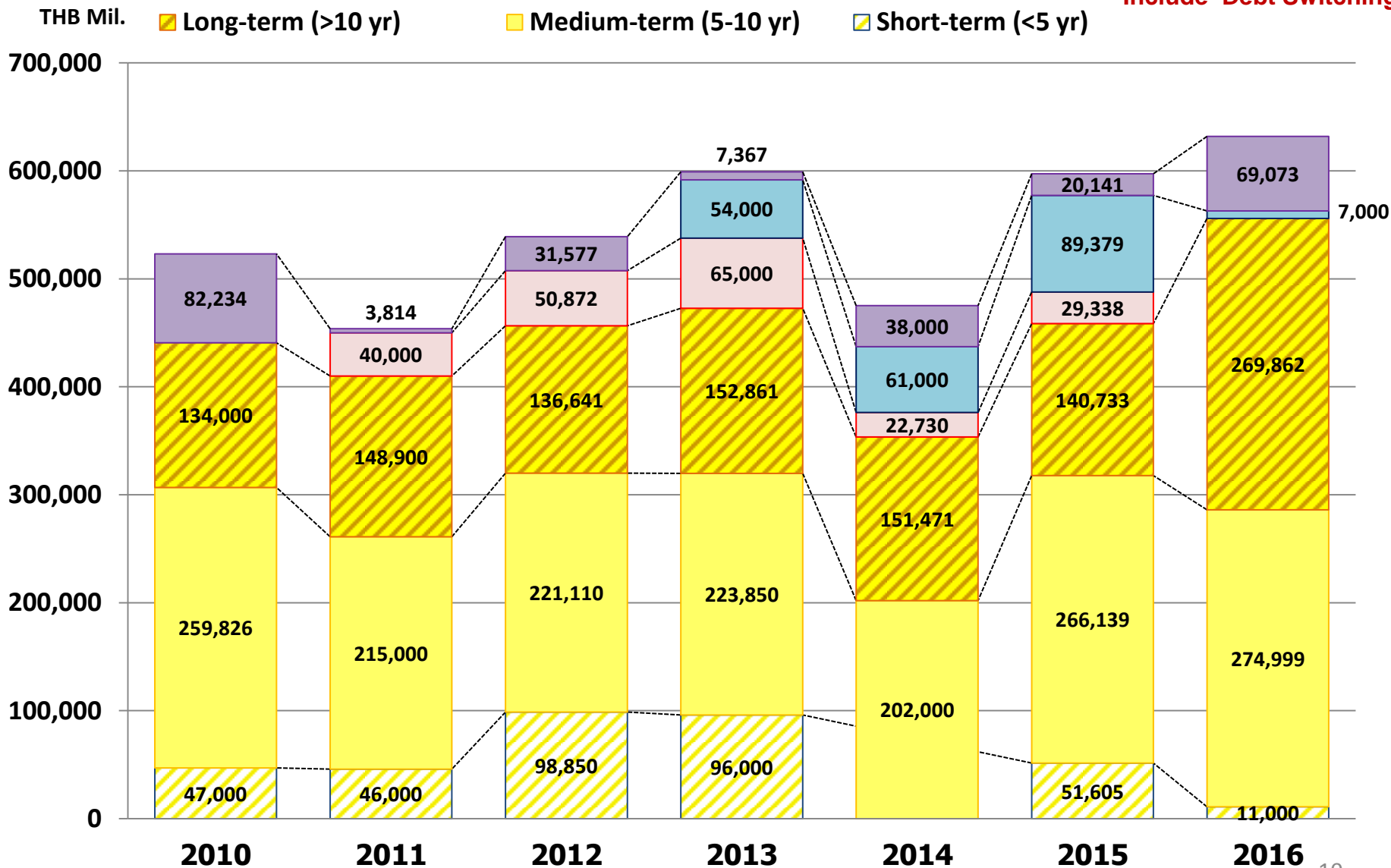
ล้านบาท
ยอดคงค้างพันธบัตรรัฐบาลหลังจากการทำธุรกรรมแลกเปลี่ยนพันธบัตร (Bond Switching)



Historical Changes in Thai Government Bonds Issuance by Bond Types

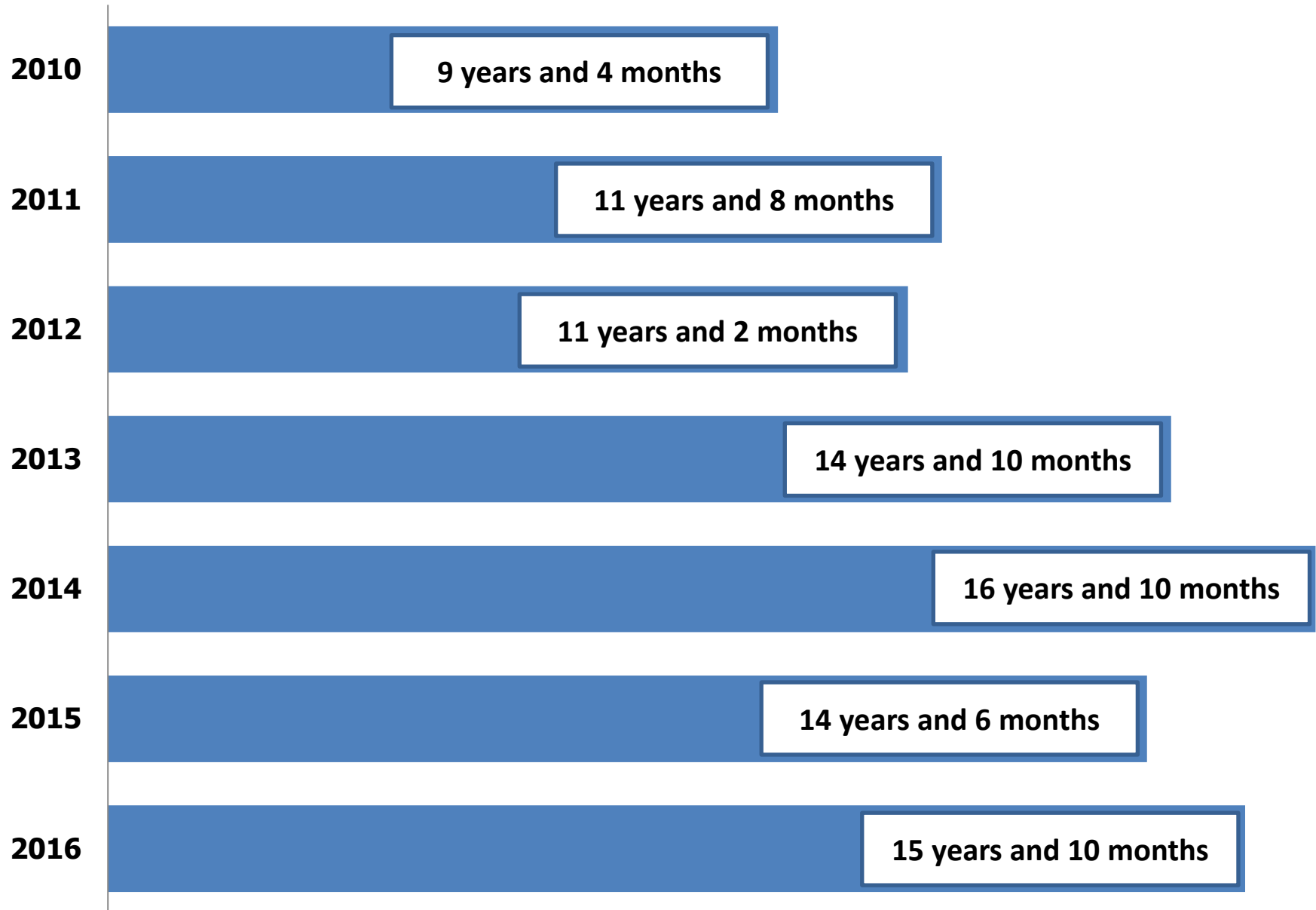
- Saving Bonds
- Amortizing Bonds
- Inflation-Linked
- Long-term (>10 yr)
- Medium-term (5-10 yr)
- Short-term (<5 yr)

* Include Debt Switching



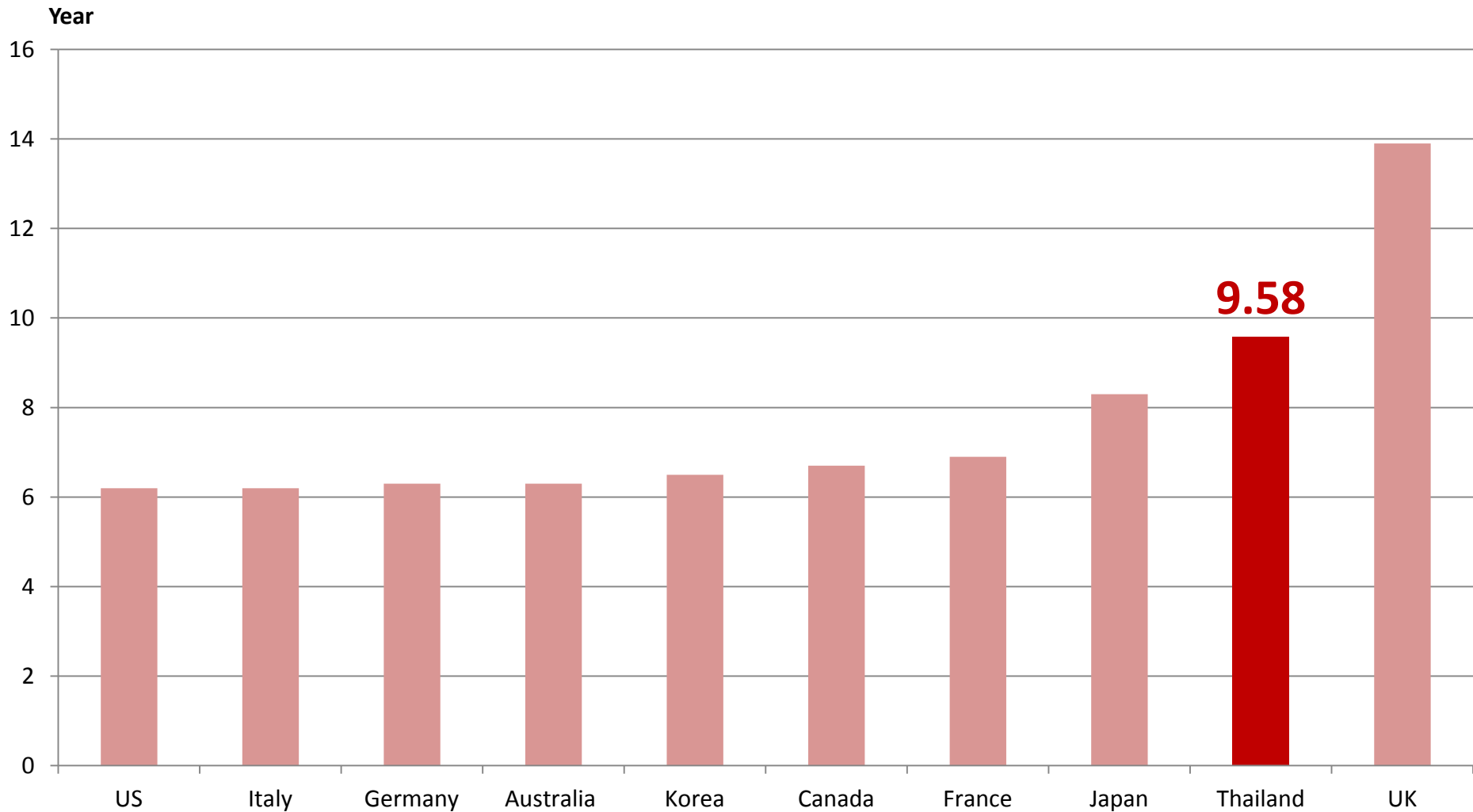


The Average Maturity of Thai Government Bonds Issuance





Average Maturity in year of the debt stock by country



Note : Korea As of 20

US Italy Germany Australia Canda France UK As of 2015

Thailand As of Jan 2016

Japan As of May 2016

Source : Debt Management Office UK and OECD

Linking CGIF & BAHT BOND to the Development of Bond Market

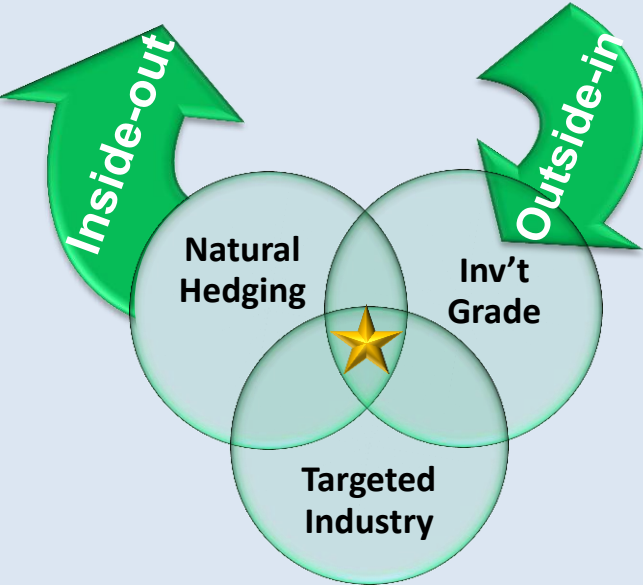
CGIF



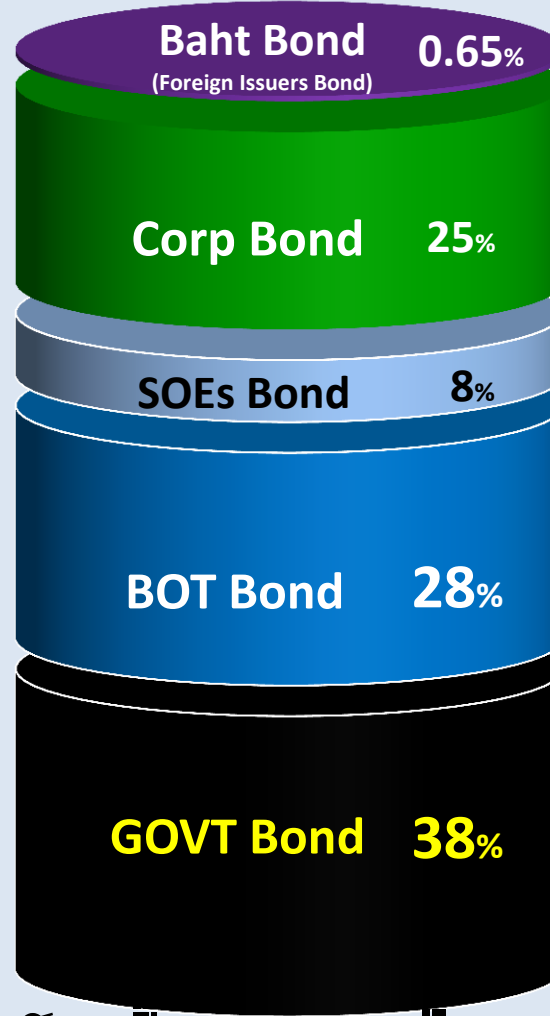
Inaugural
(Noble, Hong Kong)

THB 2,850 Mil.

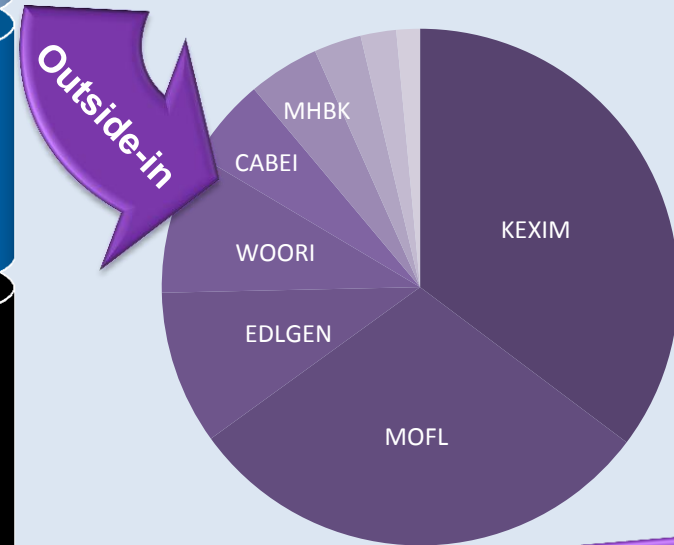
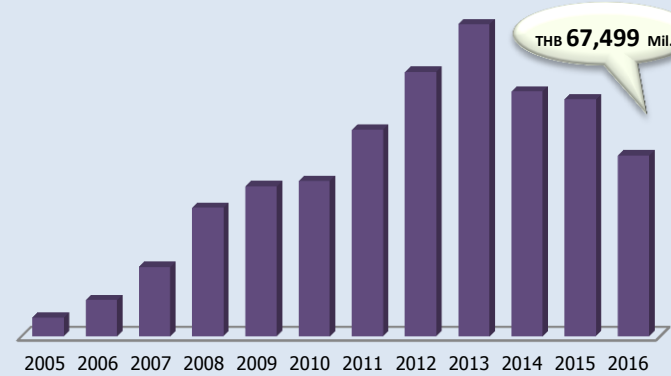
2013 2014 2015 2016 2017 2018 2019 2020



Total Outstanding 10,457,440 THB Mil.
(As of 7th Sep, 2016)



BAHT BOND



What next?

- Broadening Issuer Base : AEC
- Becoming bond market leader of the region

Why now?

→ Entering ASEAN Economic Community (AEC)



BAHT BOND ISSUERS FOR 2016

1/2559

(1 Jan 2016 - 30 Sep 2016)

Malayan Banking Berhad (Maybank)
Australia and New Zealand Banking Group (ANZ)
National Bank of Abu Dhabi (NBAD)
Central American Bank for Economic Integration (CABEI)

2/2559

(1 May 2016 - 31 Jan 2017)

Ministry of Finance, Lao PDR (MOFL)

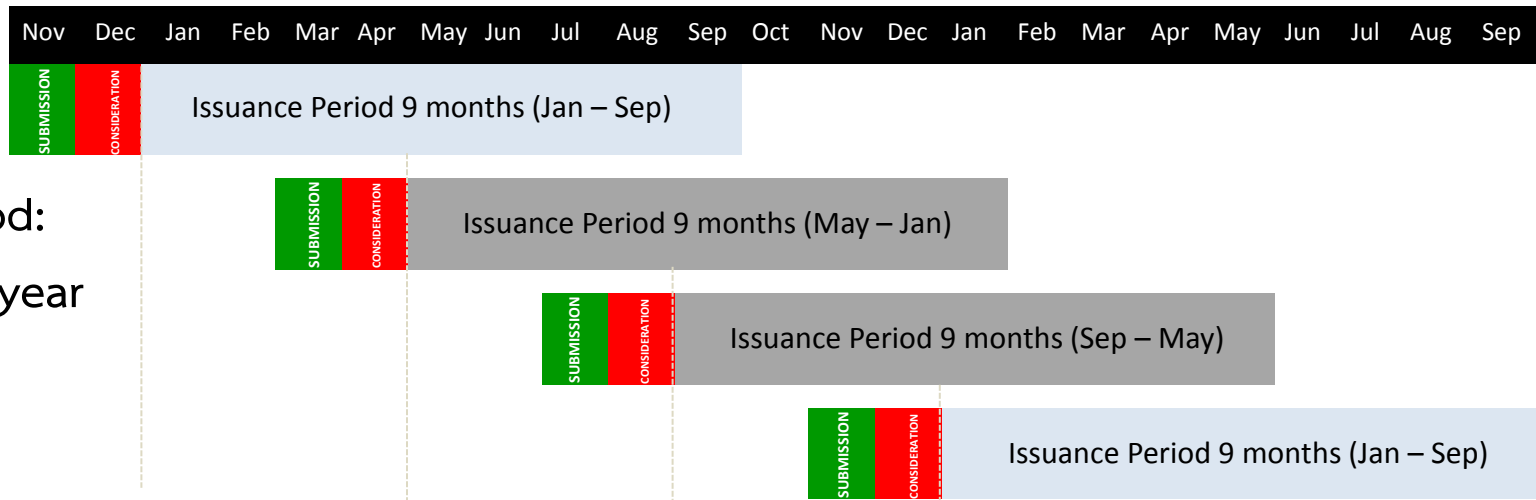
3/2559

(1 Sep 2016 - 31 May 2017)

Trina Solar (Singapore) Science & Technology PTE. LTD.
(Trina Solar (Singapore))
KNM Group Berhad (KNM Group)



Baht Bond SUBMISSION PERIOD



Submission period:
3 Round per year
Issuance period:
9 month



3. แผนการระดมทุนและแผนการดำเนินงานในปีงบประมาณ พ.ศ. 2560

- แผนการออกตั๋วเงินคลัง ปีงบประมาณ พ.ศ. 2560
- แผนการออกพันธบัตรรัฐบาล ปีงบประมาณ พ.ศ. 2560

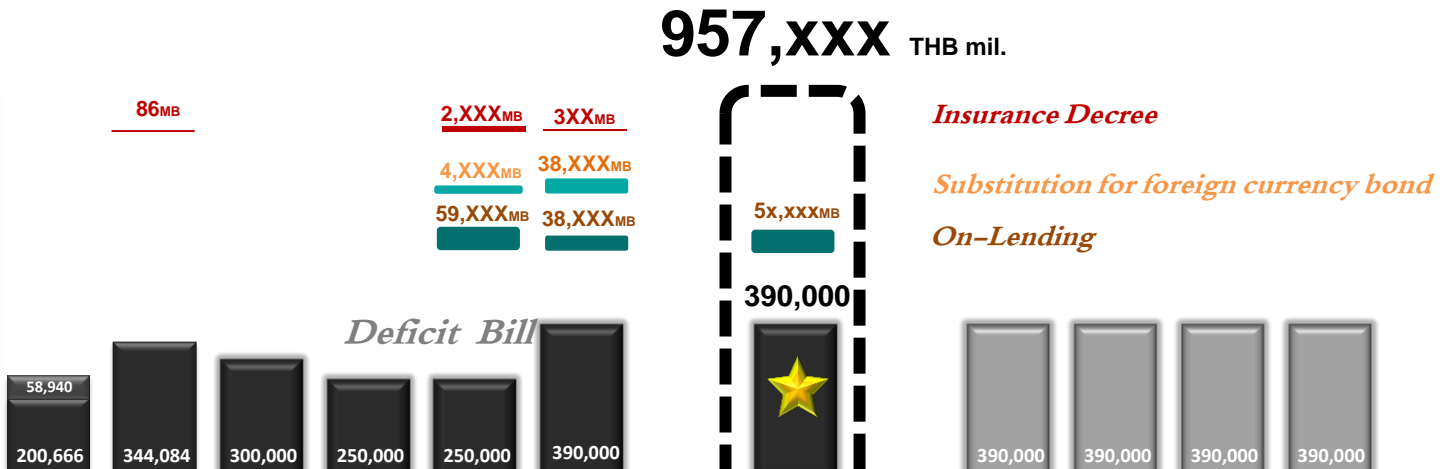
2016 - 2022

Government Funding Needs

700 - 950 THB Bil. per Year

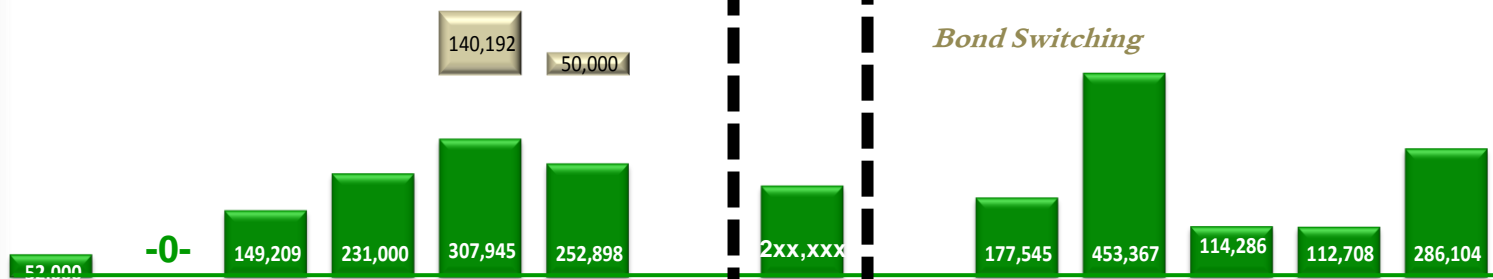
New Borrowing

350 - 450 THB Bil.
Per year
(2016-2022)

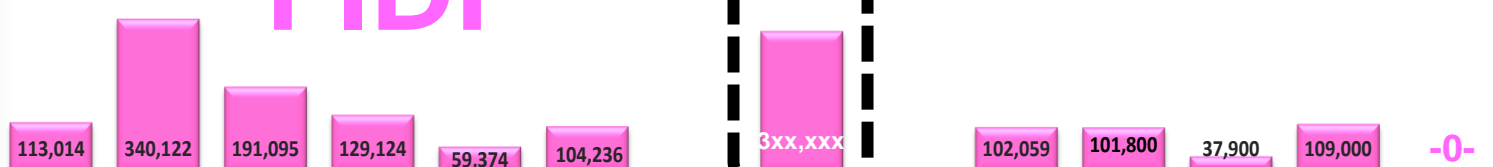


GOVT

Rollover
350 - 500 THB Bil.
Per year
(2016-2022)



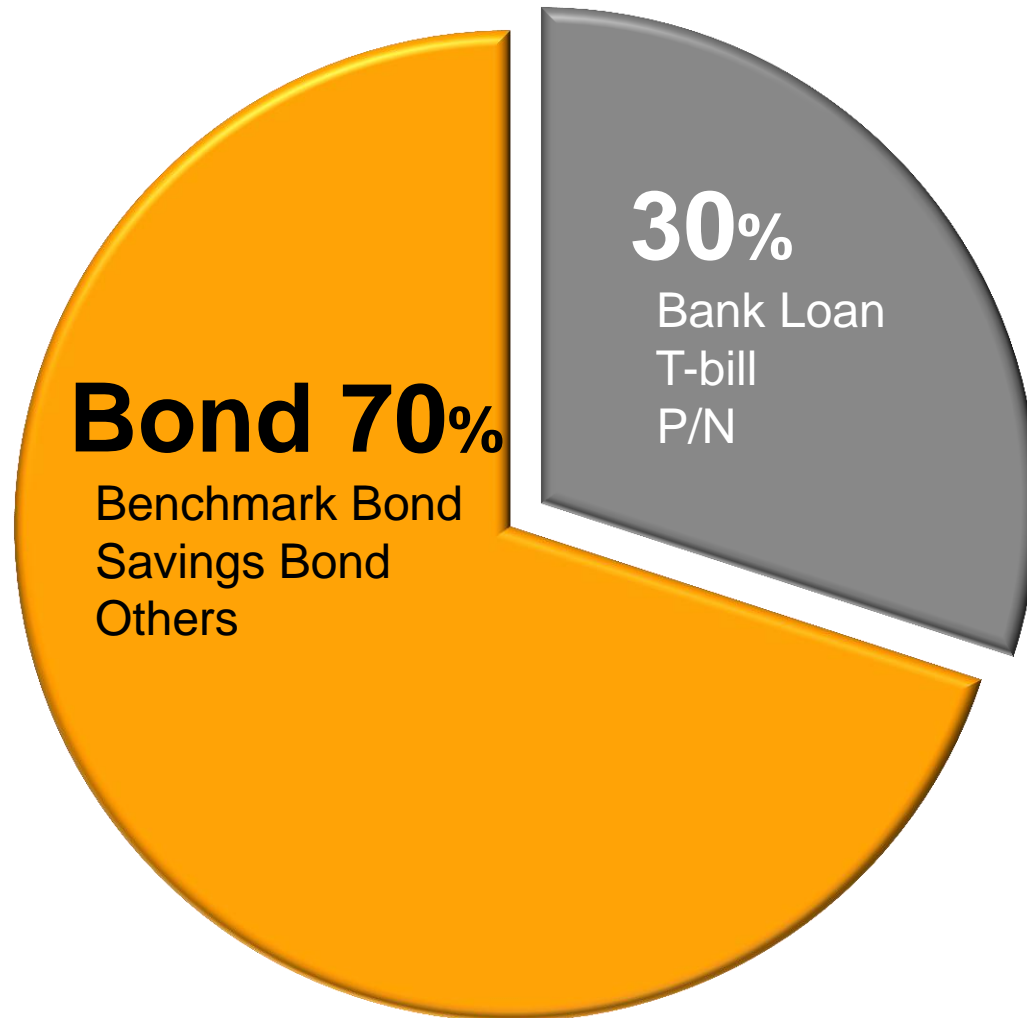
FIDF



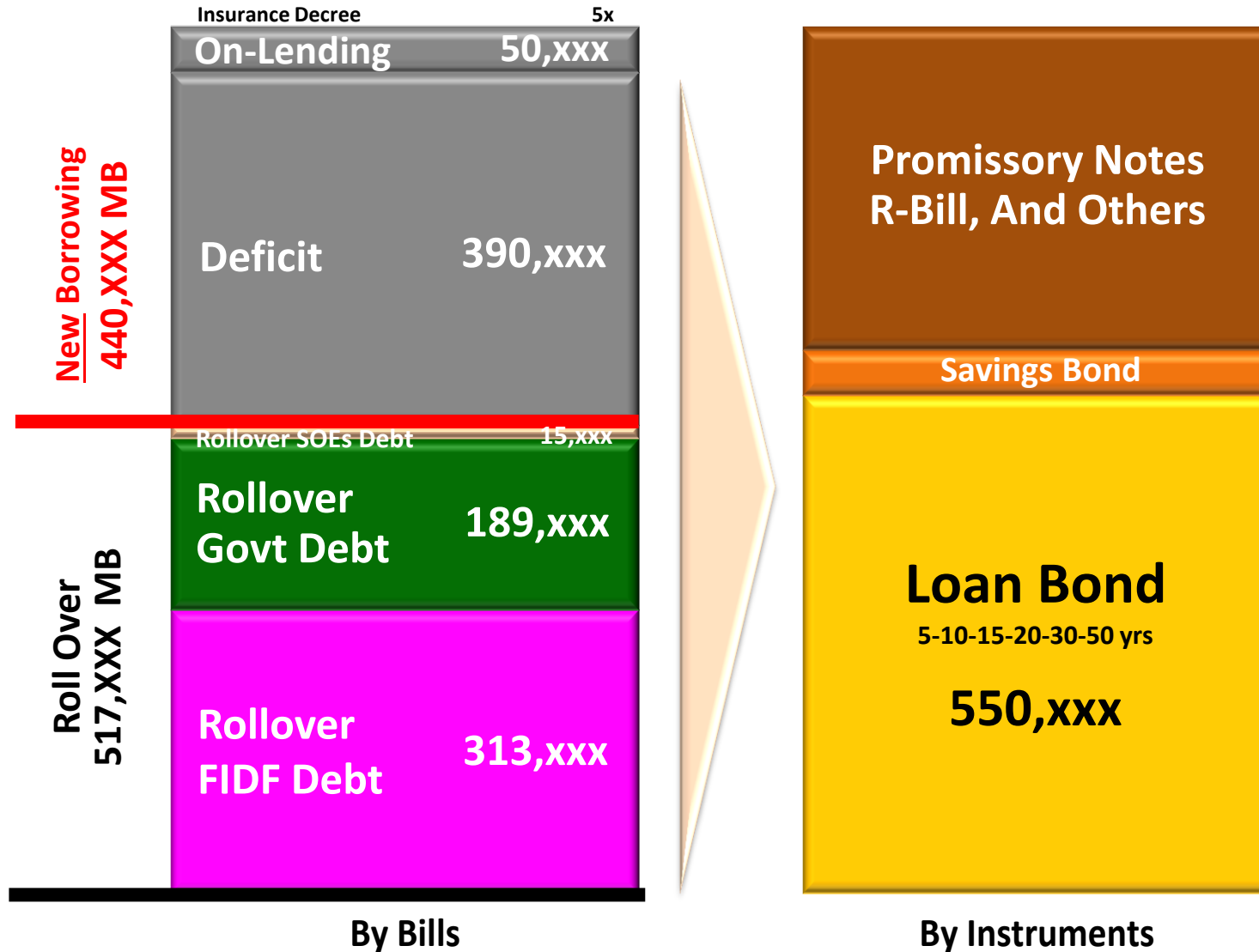
FY2017



Government Fund Raising Strategy



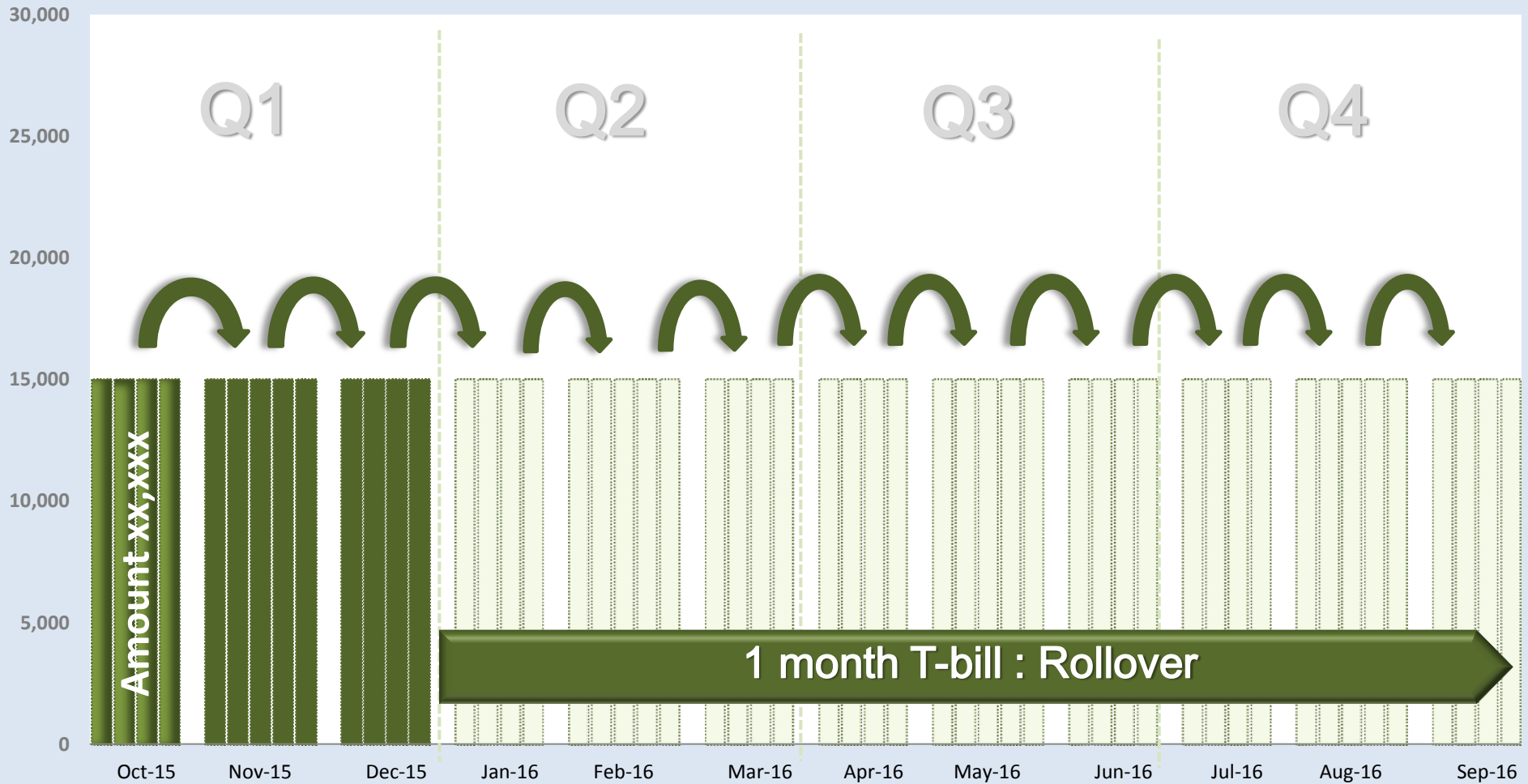
-Tentative-



- Remark :**
1. Exclude external funding for both new borrowing and rollover debt with amount of 71,xxx
 2. Exclude T-Bill rollover debt

3 & 6 months T-bill : Issue on demand

THB Mil.



ALL FY2017 Benchmark Bond is approximately 550 Bil.

60% of FY2017 Funding Needs 957 Bil.



THB Mil.

500,000

400,000

300,000

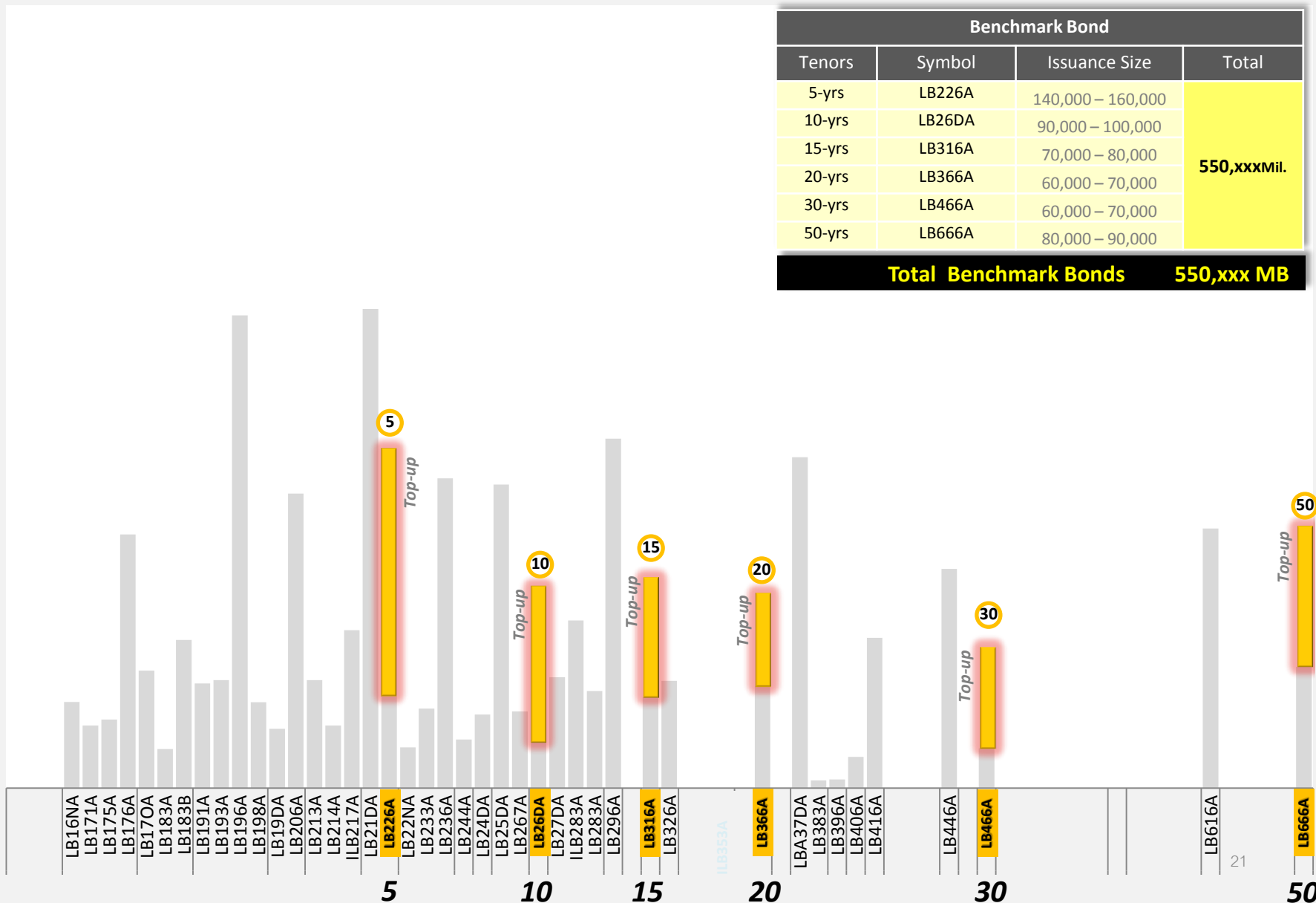
200,000

100,000

0

TTM

Benchmark Bond			
Tenors	Symbol	Issuance Size	Total
5-yrs	LB226A	140,000 – 160,000	550,xxxMil.
10-yrs	LB26DA	90,000 – 100,000	
15-yrs	LB316A	70,000 – 80,000	
20-yrs	LB366A	60,000 – 70,000	
30-yrs	LB466A	60,000 – 70,000	
50-yrs	LB666A	80,000 – 90,000	
Total Benchmark Bonds			550,xxx MB





Benchmark Bond Auction Plan in FY2017

Tenors	Symbol	Coupon	Auction Size	Frequency	Total Issuance
5	LB226A	1.875%	20,000 – 30,000	5 - 6	140,000 – 160,000
10	LB26DA	2.125%	18,000 – 20,000	5 - 6	90,000 – 100,000
15	LB316A	3.65%	14,000 - 16,000	5 - 6	70,000 – 80,000
20	LB366A	3.40%	11,000 – 13,000	5 - 6	60,000 – 70,000
30	LB466A	2.875%	11,000 – 13,000	5 - 6	60,000 – 70,000
50	LB666A	4.00%	14,000 – 16,000	5 - 6	80,000 – 90,000

Remark: Including Greenshoe Option for 5-yr Benchmark Bond



สำนักงานบริหารหนี้สาธารณะ
PUBLIC DEBT MANAGEMENT OFFICE

4. แผนการลงทุนและความก้าวหน้าในการดำเนินโครงการโครงสร้างพื้นฐาน



สำนักงานบริหารหนี้สาธารณะ
PUBLIC DEBT MANAGEMENT OFFICE



Financing Infrastructure Investment Kingdom of Thailand



Jindarat Viriyataveekul

Executive Director of the Public Infrastructure Project Financing Bureau
Public Debt management Office, Ministry of Finance, Thailand

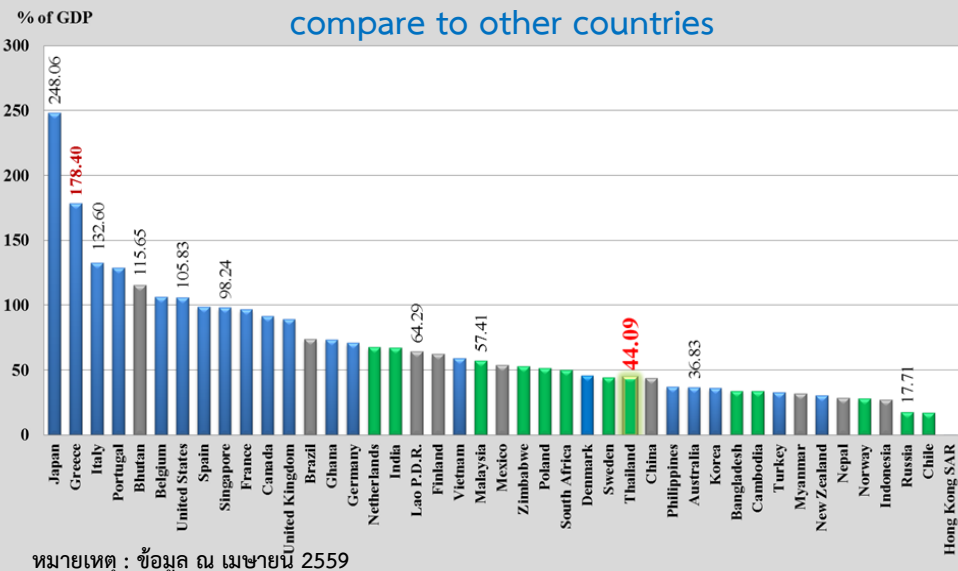
MARKET DIALOUGE
8 September 2016

Content

- ❑ **Current State of Thailand Transportation Infrastructure**
- ❑ **Transport Infrastructure Development Master Plan
2015-2022**
- ❑ **Financing Transportation Investment**

Current Situation: Public Debt VS Thailand Competitiveness

Thailand's Public debt to GDP stood at moderate level



THE IMD WORLD COMPETITIVENESS SCOREBOARD 2016

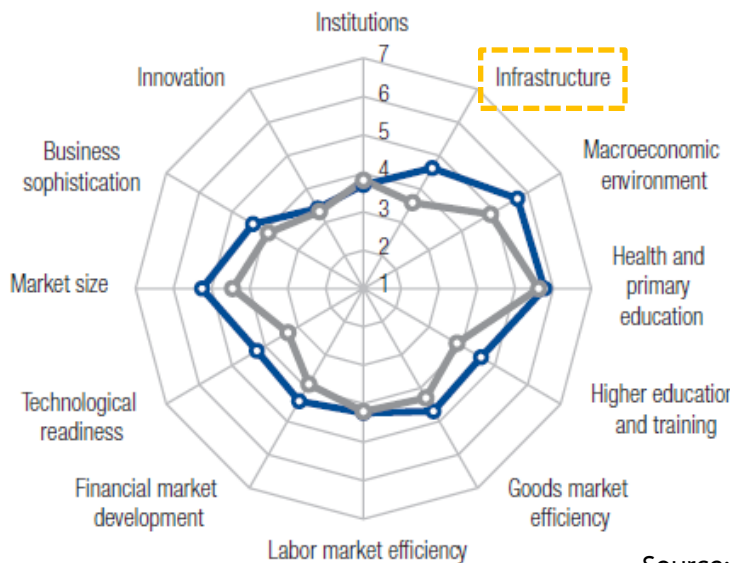
WCY 2016	Country	WCY 2015	Change	WCY 2016	Country	WCY 2015	Change
1	Hong Kong	2	▲ 1	19	Malaysia	14	▼ 5
2	Switzerland	4	▲ 2	20	Finland	20	-
3	US	1	▼ 2	21	Israel	21	-
4	Singapore	3	▼ 1	22	Belgium	23	▲ 1
5	Sweden	9	▲ 4	23	Iceland	24	▲ 1
6	Denmark	8	▲ 2	24	Austria	26	▲ 2
7	Ireland	16	▲ 9	25	Mainland China	22	▼ 3
8	Netherlands	15	▲ 7	26	Japan	27	▲ 1
9	Norway	7	▼ 2	27	Czech Republic	29	▲ 2
10	Canada	5	▼ 5	28	Thailand	30	▲ 2
11	Luxembourg	6	▼ 5	29	South Korea	25	▼ 4
12	Germany	10	▼ 2	30	Lithuania	28	▼ 2
13	Qatar	13	-				
14	Taiwan	11	▼ 3				
15	UAE	12	▼ 3				
16	New Zealand	17	▲ 1				
17	Australia	18	▲ 1				
18	United Kingdom	19	▲ 1				

THAILAND PERFORMANCE

Year	Score
2012	30
2013	27
2014	29
2015	30
2016	28

Source: IMD POSTgraphics

Thailand Global competitiveness 2016



Infrastructure

Value Rank/140

Quality of overall infrastructure	4.0	71
Quality of roads	4.4	51
Quality of railroad infrastructure	2.4	78
Quality of port infrastructure	4.5	52
Quality of air transport infrastructure	5.1	38
Available airline seat km/week, millions*	2,866.9	14
Quality of electricity supply	5.2	56
Mobile telephone subscriptions/100 pop.*	144.4	31
Fixed-telephone lines/100 pop.*	8.5	88

Current State of Transportation Infrastructure in Thailand



Transport Infrastructure Statistics

Road	National Highway	61,747 km.
	Motorway & Expressway	313 km.
	Rural road	47,916 km.
	Local road	110,845 km.
Water	Total International Deep Sea Port	6
	- Laem Chabang Port	7.7 MTEU/year
Rail	Single Track	3,685 km.
	Double and Third Track	385 km.
Air	Airports	36
	- Suvarnabhumi Airport	45 M ppl/y
	- Don Mueang Airport	36 M ppl/y
	- Phuket Airport	6.5 M ppl/y
	- Chiang Mai Airport	8 M ppl/y

Source : MOT, Nov 2015



Current

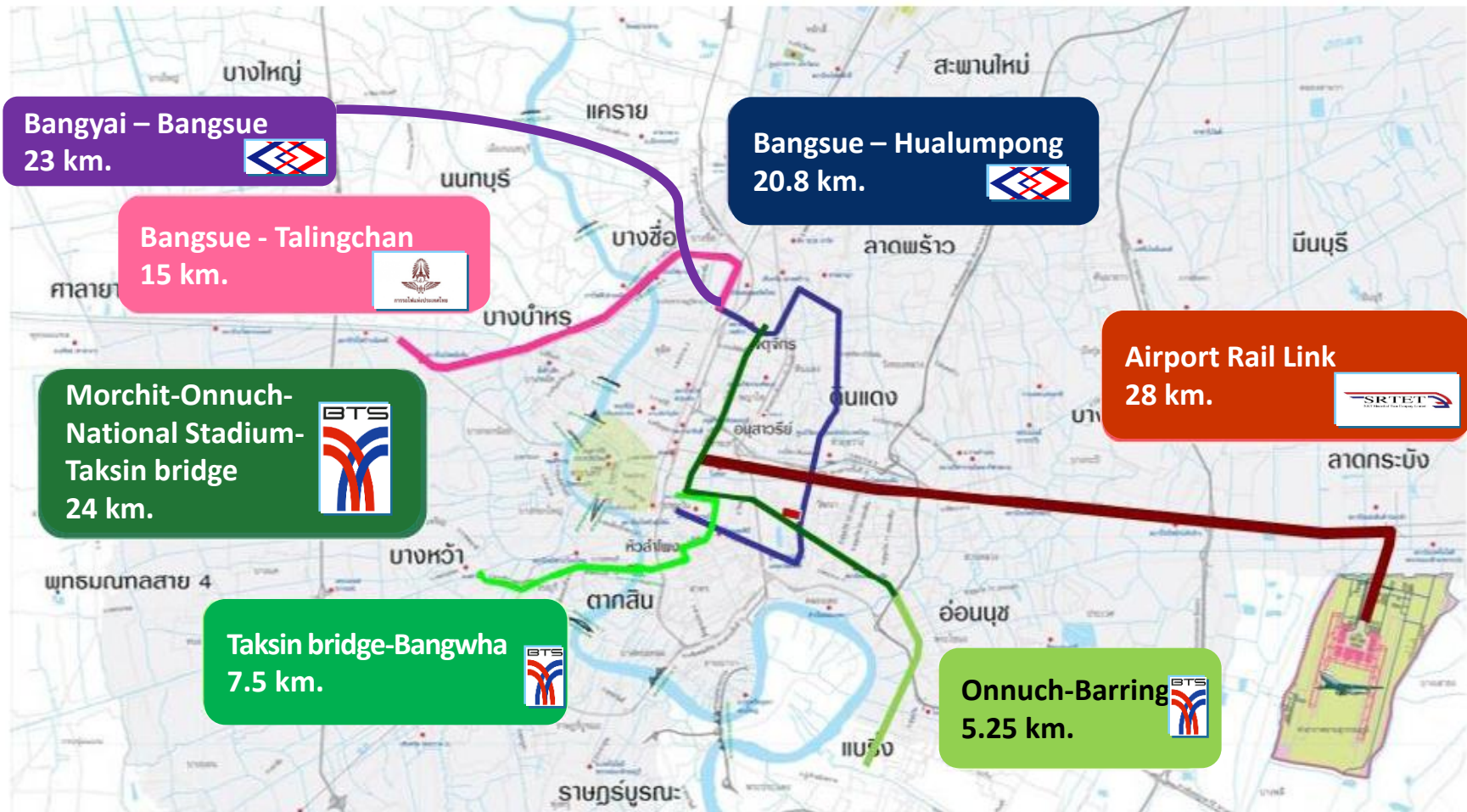
Master Plan

Financing

Current State of Transportation Infrastructure in Thailand

Bangkok Mass Rapid Transit

Total 123 km.



Current

Master Plan

Financing

Master Plan 2015-22 : Thailand Transport Infrastructure Development

Total of 112.8 Bil. USD (equiv. 3.3 Tril. Baht)

* Source: MOT June 2015

Inter-city Rail Network

- Upgrade rail infrastructure and overall system
- Build double-track in 6 main rails with their extension to respective borders

Highway Network

- Develop 4 lane-road networks linking Thailand's key economic regions and borders areas
- Construct new motor ways
- Develop facilities along the main roads such as container yards

Public Transportation Network in Bangkok & Metropolitan

- Extend mass transit railway system in Bangkok and vicinity
- Improve quality of service and safety of mass transit bus as well as to enhance its environment standard

Air Transport Capacity Enhancement

- Enhance airport capacity to be the regional center of air transportation
- Establish the aviation industrial estates

Maritime Transport Development

- Improve seaport on both Thai gulf and Andaman sea

Action Plan 2015-16 : Bidding of 20 Projects

Total of 60 Bil. USD (equiv. 1.796 Tril. Baht)

Inter-city network
160,420 mln baht

Meter gauge
118,026 mln baht

Action plan
2016
1,796,386
mln baht

Maritime
3,895 mln baht

Standard gauge
1,065,824 mln baht

Air Transport
51,607 mln baht

Mass Rapid Transit
396,614 mln baht

Mode	\$Bil.		Sources of Fund			
			Budget	Borrowing	PPPs	SOEs
RAIL - Standard Gauge	35.5	59%	✓	✓	✓	
RAIL - Meter Gauge	3.9	7%	✓	✓	✓	
MRT	13.2	22%	✓	✓	✓	
Motorway	5.3	9%	✓	✓	✓	
Airport	1.7	3%				✓
Maritime Transport	0.1	0%				✓
Total	59.8	100%				

Current

Master Plan

Financing

**Dual Track : 1 m.
gauge
5 routes**

Dual track,
1,435 m
Standard gauge

Highway
Network
3 routes

Public Transportation
Network in Bangkok &
Metropolitan 5 routes

Air transportation
and maritime
transport
development

Construction process

1 Dual-track routes from Jira rd. to Kongkaeng
Approx. 185 Km. Investment budget 26,004 mil baht
Progress 1.9% (expected to finish in May 2019)

Bidding process

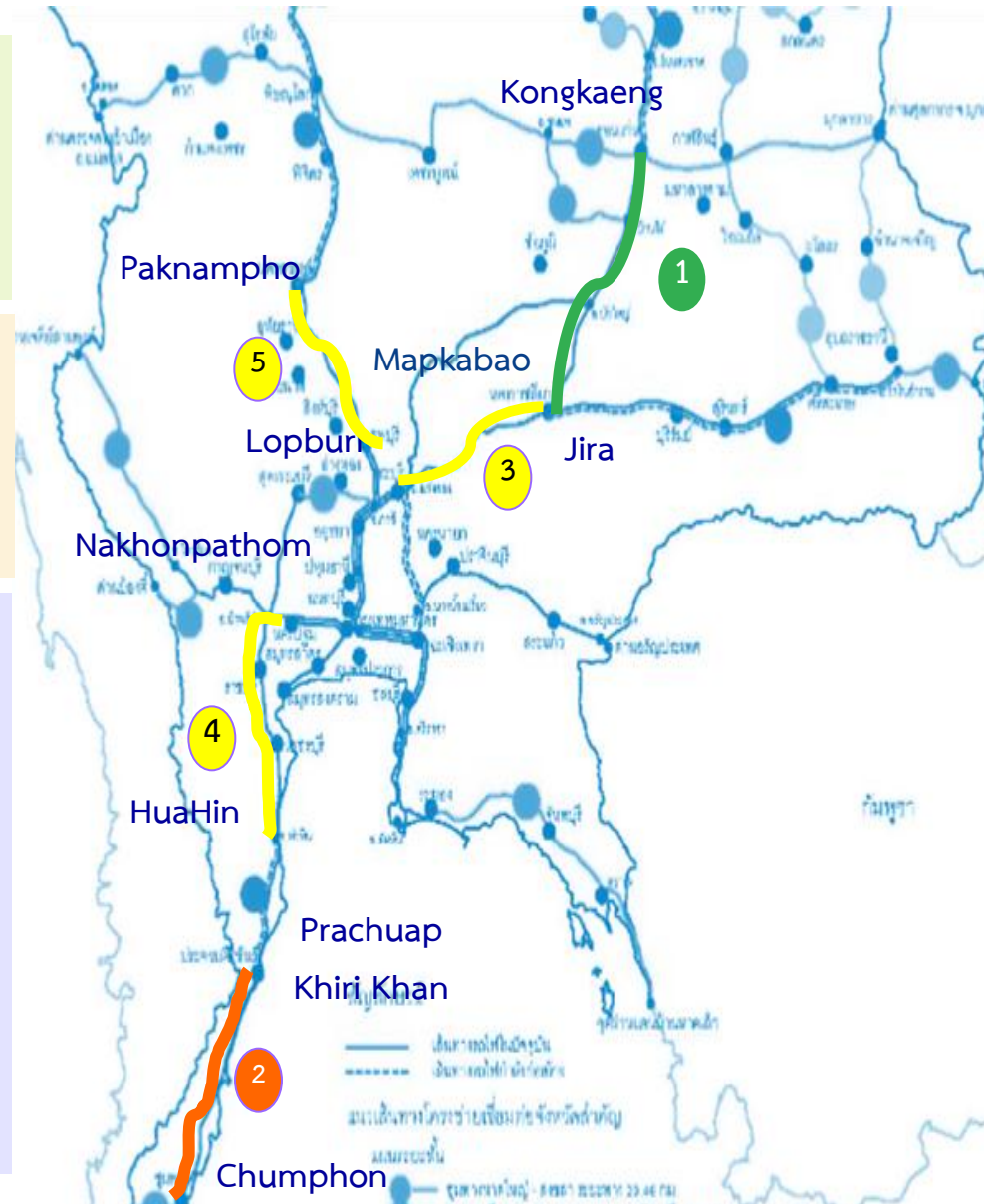
2 Dual-track routes from Prachuap Khiri Khan to
Chumphon Approx. 167 Km. Investment budget 17,249
mil baht. (expected to sign contract in October 2019)

Preparation for cabinet approval

3 Dual-track routes from Mapkabao to Jira
Approx. 132 Km. Investment budget 26,004 mil baht
(expected to finish in November 2019)

4 Dual-track routes from Nakhonpathom to Huahin
Approx. 165 Km. Investment budget 20,036 mil baht
(expected to finish in December 2019)

5 Dual-track routes from Lopburi to Paknampho
Approx. 148 Km. Investment budget 24,840 mil baht
(expected to finish in December 2020)



Current

Master Plan

Financing

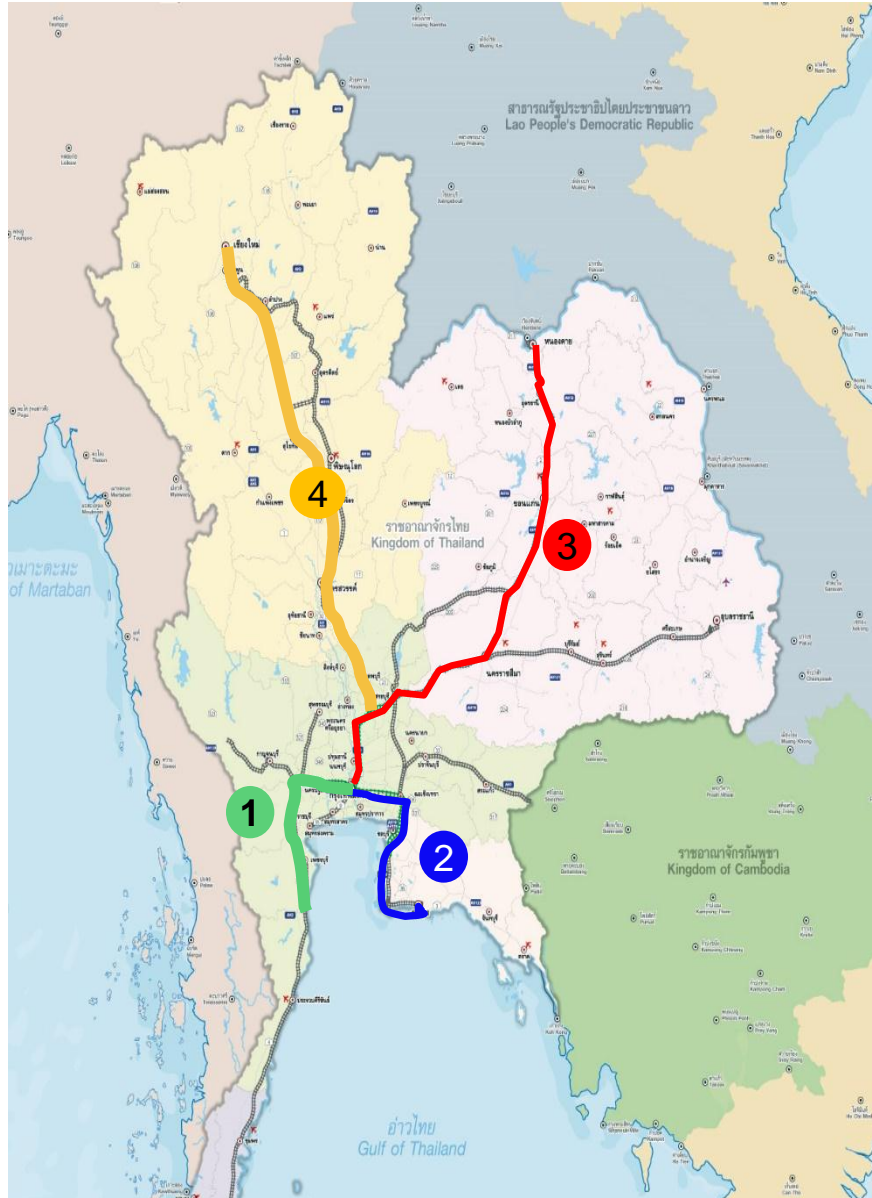
Dual Track : 1 m.
gauge
5 routes

Dual Track: 1.435 m
Standard gauge 4 Routes

Highway
Network
3 routes

Public Transportation
Network in Bangkok &
Metropolitan 5 routes

transportation
and maritime
transport



EIA Approval and Preparation for PPP approval

- 1 Dual- track High speed train from Bangkok to Huahin
Approx. 211 Km. Investment budget 94,673 mil baht.
(expected to propose to PPP committee in October 2016)
- 2 Dual- track High speed train from Bangkok to Rayong
Approx. 193.5 Km. Investment budget 152,528 mil baht.
(expected to propose to PPP committee in October 2016)

Feasibility study

- 3 The joint railway cooperation between Thailand and China from Bangkok- Kaengkhoi- Nongkai and Kaengkhoi – Maptaphut
- 4 The joint railway cooperation between Thailand and Japan from Bangkok – Changmai

Current

Master Plan

Financing

Dual Track : 1
m. gauge 5 routes

Dual Track,
1,435 m
Standard gauge 4

Highway Network 3 routes

Public Transportation
Network in Bangkok &
Metropolitan 5 routes

transportation
and maritime
transport

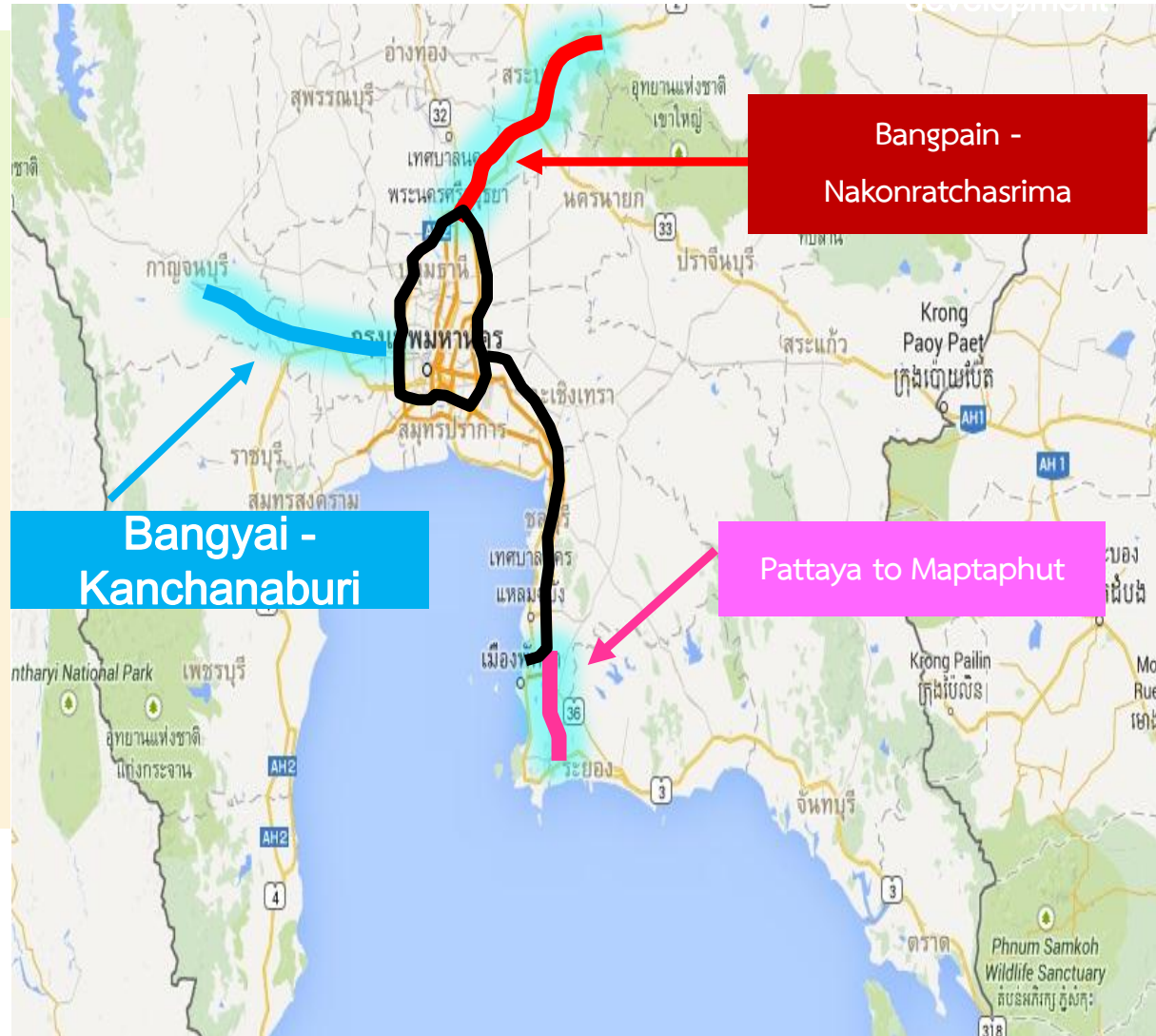
Construction process

Motorway from Pattaya to Maptaphut
Approx. 32 Km. Investment budget 17,819 mil baht. Progress 1.3% (expected to finish in 2019)

Bidding process: Will be constructed in Sep – Dec 2016)

Motorway from Bangpain to Nakhonratchasima Approx. 196 Km. Investment budget 76,600 mil baht.

Motorway from Bangyai to Kanchanaburi Approx. 96 Km. Investment budget 49,120 mil baht.



Current

Master Plan

Financing

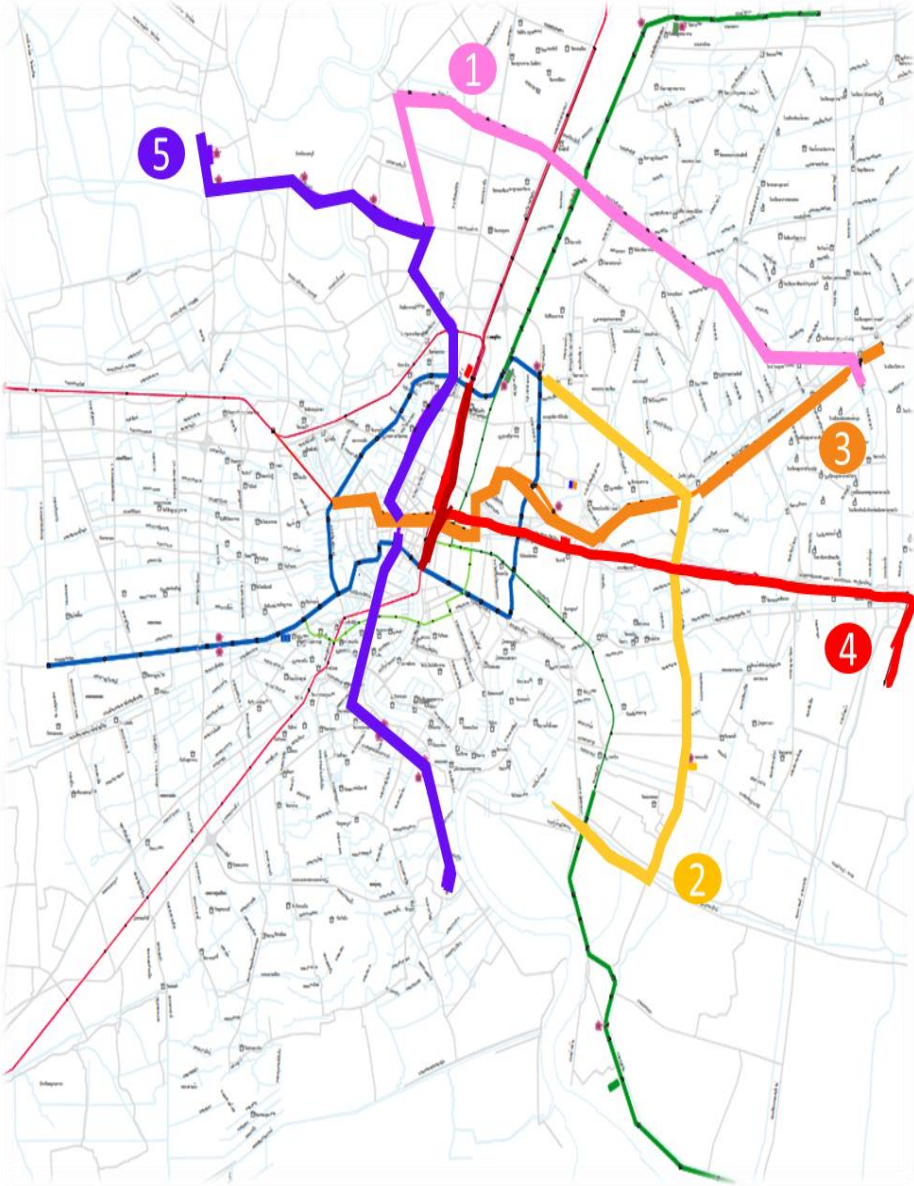
Dual Track : 1
m. gauge 5 routes

Dual Track:
1,435 m
Standard gauge
4 Routes

Highway
Network
3 routes

Public Transportation Network in
Bangkok & Metropolitan
5 routes

transportation
and maritime
transport



Bidding process

1 Pink Line (Kaerai – Minburi)

Approx. 34.5 Km.

Investment budget 56,691 mil baht.

2 Yellow Line (Ladprao – Sumrong)

Approx. 30.1 Km.

Investment budget 54,644 mil baht.

3 Orange Line (Thai Cultural Center - Minburi)

Approx. 21.2 km. Investment budget 92,532 mil baht.

Expected to sign contract in May 2017

- Propose the selection to SEPO in March 2017
- Expected to sign contract in April 2017

Cabinet Approved

4 Light red Line (Bangsue – Phayathai – Makkasan - Huamark) and Dark red Line (Bangsue – Hualumphong)

Approx. 25.9 Km Investment Budget 44,157 Mil baht.

Proposing to Cabinet Approved

5 Purple Line (Taopoon – Ratburana) Approx. 23.6 Km
Investment Budget 131,004 Mil baht. EIA study is also in the approval process.

Current

Master Plan

Financing

Dual Track : 1
m. gauge 5 routes

Dual Track
1,435 m
Standard gauge

Highway
Network
3 routes

Public Transportation
Network in Bangkok &
Metropolitan 5 routes

Air transportation and maritime transport development

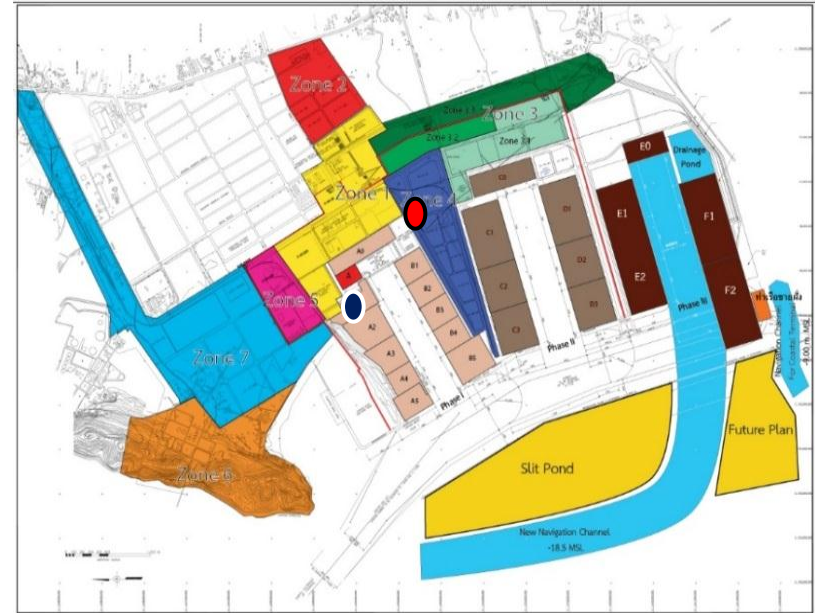
Construction Process

● The Coastal port (Port A) at Laem Chabang Port

Investment budget 1,819.29 mil baht. Progress 13.98%
(expected to finish in November 2017)

● The container depot development at Laem Chabang port phase I Investment budget 2,031 mil baht.

Progress 0.09% (expected to finish in October 2017)



Bidding process

The Suvarnabhumi airport development phase II

Investment budget 50,322 mil baht.

Got the 2 contractors from total 7 contracts
(expected to finish in 2019)

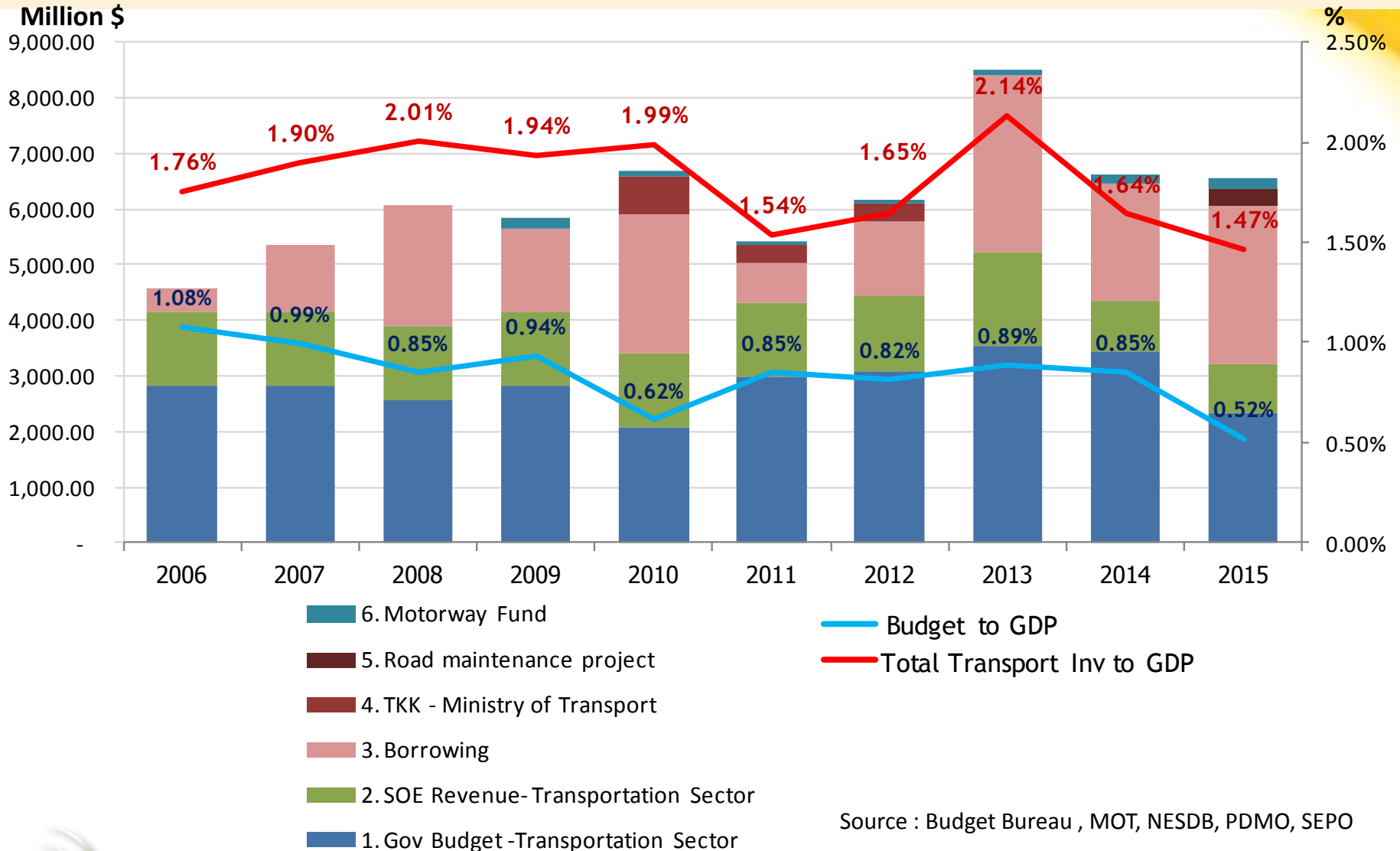


Current

Master Plan

Financing

2006-2015 : Thailand invested Approx. \$6 Billion/Year (1.8% of GDP) in Transport Sector



Source : Budget Bureau , MOT, NESDB, PDMO, SEPO



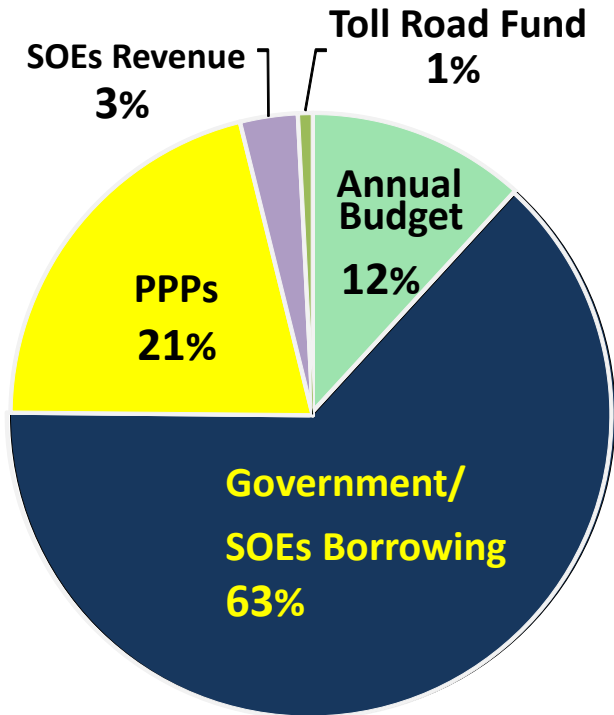
Current

Master Plan

Financing

Financing Transport Investment Action Plan 2016

Borrowing remains major tool while PPPs increasingly becomes a prominent method



Unit : \$ Billion

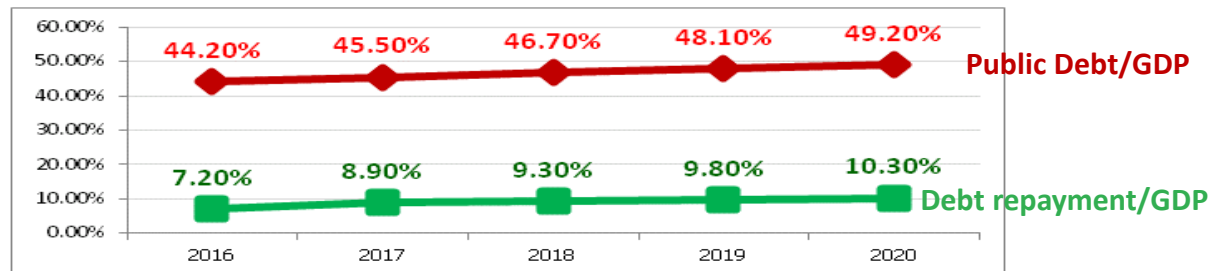
Source of Fund	\$bil	2016	2017	2018	2019-2022
Borrowing	37.9	0.11	0.83	2.29	33.69
Budget	7.1	0.47	1.71	2.18	2.72
SOEs Rev.	1.9	0.06	0.51	0.80	0.49
PPPs	12.6	-	0.42	0.61	11.53
Toll Road Fund	0.5	0.07	0.13	0.14	0.13
Total	59.8	0.70	4.60	6.02	48.66



Infrastructure Financing Options

Sources	Use	Limitations
Budget	projects with local currency return/expenditure	Limited resources
SOE's Revenue	SOE projects with HIGH financial return	SOE's Revenue does not meet its rapid demand of infrastructure investment
Borrowing/Bond/ Debenture	projects with foreign currency return/expenditure	Public Debt should not exceed the fiscal sustainability level at 60% of GDP to ensure stability and credibility
SOE Public Offering/ Privatization	projects with HIGH financial return (Financial Viable)	Needs mature Industry structure and public understanding
PPP	projects with HIGH financial return (Financial Viable)	Alternative source for infrastructure investment and increases private participation but may be restricted in certain subsectors
Infrastructure Fund	Brown Field Projects	Another solution to invest sustainably despite higher cost of capital and more complexity compared to plain debt financing

Fiscal Sustainability



Current

Master Plan

Financing

Sources of Fund: Government or SOEs?

High Financially Viable : SOEs



Expressway



Airport



Electricity



Energy

SOE Revenue/
Borrowing

Project
Finance

PPPs

Infrastructure
Fund

Low Financially Viable with High Economic Return : Government



Rail & MRT



Public Health



Road System



Education

Budget

Government
Borrowing

PPPs






Current

Master Plan

Financing

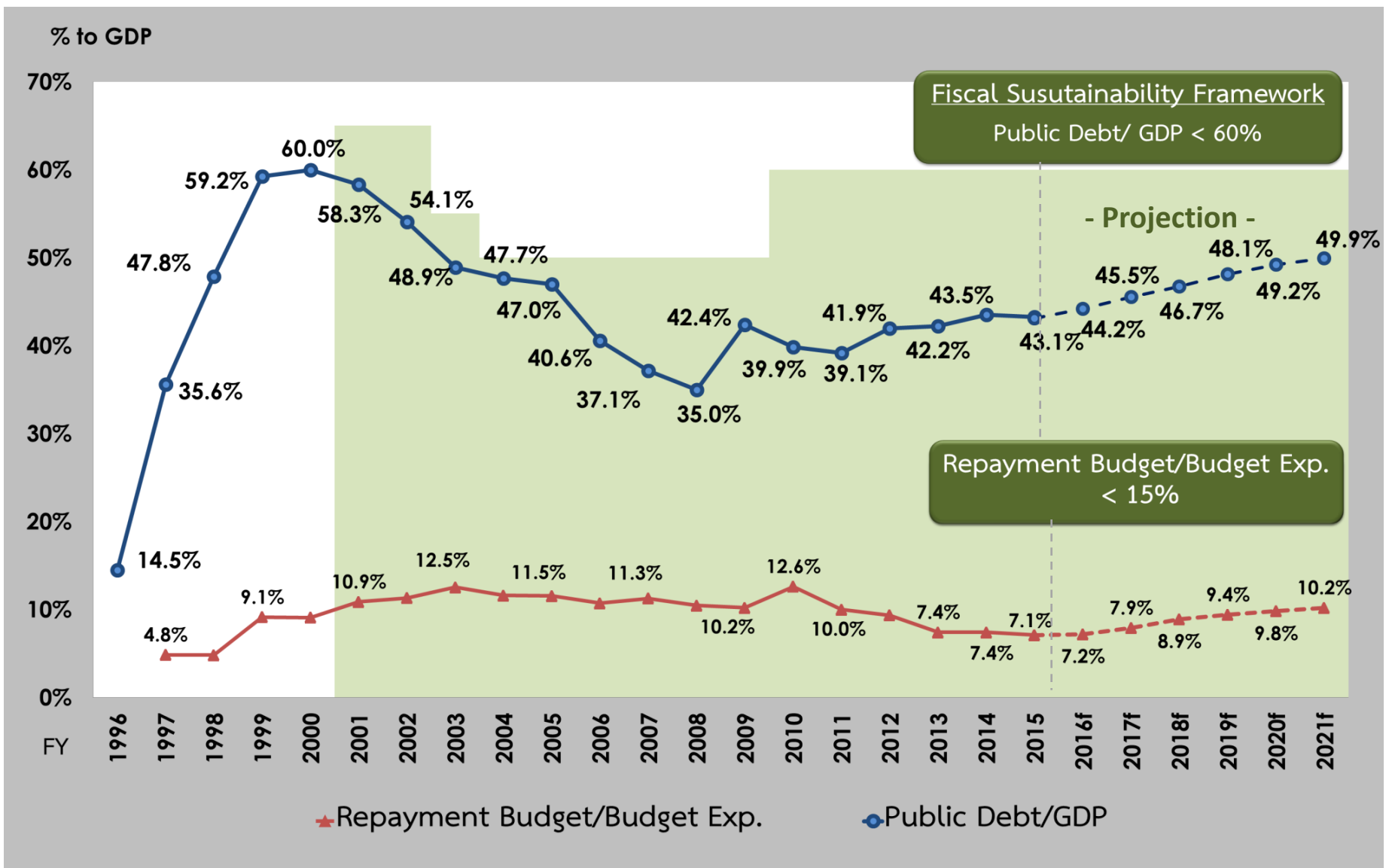


Funding Sources also depend on Purposes of Expenditure

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"> Rolling Stock Signaling System 	<ul style="list-style-type: none"> Rolling Stock 		<ul style="list-style-type: none"> Equipment and tools 	<ul style="list-style-type: none"> Consultants Civil Works Equipment and tools
PPPs			<ul style="list-style-type: none"> Civil Works Fee collection system Maintenance 		
Infrastructure Funds	<ul style="list-style-type: none"> Rolling Stock 	<ul style="list-style-type: none"> Rolling Stock 			



Public debt projection > within Sustainability framework (<60%)



Source : PDMO as of 22 July 2016





Thank you

Q / A