API Manual
RP Reference Yield

The Thai Bond Market Association

October 19,2023

List of Contents

RP Reference yield (T+1)

POST /api/v1/rpreferenceyield/t1

Description: Quotation price from a primary dealer used for referring repo transactions with BOT. The prices are calculated based upon the provided reference yields on the settlement date, today plus one business day (T+1).

Frequency: Daily.

Release schedule: when published RP Reference yield (T+1) data on the iBond website.

Remark:

1. Traded yield is based on 30/360 basis (on coupon payment) which might be different from yield calculated on actual payment.

2. This page is designed to provide reference yield of State-owned enterprise bonds with MOF guarantee, which came from market yield on plain vanilla MTM pages.

3. The Government interpolated yield is calculated from the interpolation method on the ThaiBMA Government bond yield curve with the same maturity. However, the SOE Bonds with short-ended and long-ended issues (under and over the curve) are not included on this page.

4. T-Bill Reference yield is calculated from simple yields of government loan bonds, 1-m Treasury bills, and 3-m Treasury bills with comparative ttm by interpolation method. The simple yield of LB is converted from the average bidding yield to maturity.

5. The above prices are calculated based upon the provided reference yields on the settlement date, today plus one official day (T+1).

6. Duration and convexity of floating rate note Issues are effective duration and effective convexity.

7. For an Inflation-linked bond, Avg. the bid yield shown is Avg. the of the bid real YTM, and the clean price (%), Accrued interest (%), and gross price (%) are all in unadjusted terms. The corresponding adjusted terms can be obtained by multiplying the unadjusted price or accrued interest by the index ratio shown in the last column. The modified duration and convexity are calculated based on Avg. bid real YTM.

8. Avg. bidding yield of LB23DA, LB244A, LB246A, LB24DA, LB267A, LB27DA, LB283A, LB296A, LB356A, LB383A, LB396A, LB406A, LB416A, LB446A, LB716A are synthetic yield derived from ThaiBMA pricing model.

9. Bonds in State-owned enterprise bonds with non-MOF guarantee, SOE(NG), in RP reference yield pages are only rating AAA and reference yield of SOE(NG) came from market yield on plain vanilla MTM pages.

Request body (Method: POST)

Parameter name	Data type	Description	Format
start_period	String	Start date	“yyyy-mm-dd”
end_period	String	End date	“yyyy-mm-dd”

Example Value:


```
{
  "start_period": "2023-11-30T02:28:44.286Z",
  "end_period": "2023-11-30T02:28:44.286Z"
}
```


Responses:

Code	Description
200	Success
400	Bad Request
401	Unauthorized
500	Internal Server Error

Details:

Parameter name	Data type	Length	Description	Example
asof	datetime	19	Data as of yyyy-mm-dd	2023-11-03T00:00:00
bond_type	string	100	Bond type by issuer	Government Bonds
symbol	string	15	ThaiBMA bond symbol	SB23DA
maturity_date	datetime	19	Maturity date (yyyy-mm-dd)	2023-12-13T00:00:00
avg_bidding	number	(6,15)	Average bidding yield	2.191058
govt_interpolated_yield	number	(6,15)	Government interpolation yield by tenor	
ttm	number	(6,15)	Time to maturity: Settlement time until expiration (years)	0.101369863013699
spread	number	(6,15)	Nominal spread	
reference_yield	number	(6,15)	Reference yield	2.191058
dm	number	(6,15)	Discount margin	
settlement_date	datetime	19	Settlement date (yyyy-mm-dd)	2023-11-06T00:00:00
ai	number	(6,15)	Accrued interest (%)	1.024
gross_price	number	(6,15)	The price of a bond including accrued interest (%)	101.05652
clean_price	number	(6,15)	The price of a bond without accrued interest (%)	100.03252
modified_duration	number	(6,15)	The approximate percentage change in price for a given change in yield	0.100271
convexity	number	(6,15)	A measure of the sensitivity of a bond's price to changing interest rates	0.059647
index_ratio	number	(6,15)	Index ratio	
isin_th	string	15	ISIN Code (Thailand)	TH0623033C09

Parameter name	Data type	Length	Description	Example
isin_en	string	15	ISIN Code (International)	-

RP Reference yield (T+2)

POST /api/v1/rpreferenceyield/t2

Description: Quotation price from a primary dealer used for referring repo transactions with BOT. The prices are calculated based upon the provided reference yields on the settlement date, today plus one business day (T+2).

Frequency: Daily

Release schedule: when published RP Reference yield (T+2) data on the iBond website.

Remark:

1. Traded yield is based on 30/360 basis (on coupon payment) which might be different from yield calculated on actual payment.

2. This page is designed to provide reference yield of State-owned enterprise bonds with MOF guarantee, which came from market yield on plain vanilla MTM pages.

3. The Government interpolated yield is calculated from the interpolation method on the ThaiBMA Government bond yield curve with the same maturity. However, the SOE Bonds with short-ended and long-ended issues (under and over the curve) are not included on this page.

4. T-Bill Reference yield is calculated from simple yields of government loan bonds, 1-m Treasury bills, and 3-m Treasury bills with comparative ttm by interpolation method. The simple yield of LB is converted from the average bidding yield to maturity.

5. The above prices are calculated based upon the provided reference yields on the settlement date, today plus one official day (T+2).

6. Duration and convexity of floating rate note Issues are effective duration and effective convexity.

7. For an Inflation-linked bond, Avg. the bid yield shown is Avg. the of the bid real YTM, and the clean price (%), Accrued interest (%), and gross price (%) are all in unadjusted terms. The corresponding adjusted terms can be obtained by multiplying the unadjusted price or accrued interest by the index ratio shown in the last column. The modified duration and convexity are calculated based on Avg. bid real YTM.

8. Avg. bidding yield of LB23DA, LB244A, LB246A, LB24DA, LB267A, LB27DA, LB283A, LB296A, LB356A, LB383A, LB396A, LB406A, LB416A, LB446A, LB716A are synthetic yield derived from ThaiBMA pricing model.

9. Bonds in State-owned enterprise bonds with non-MOF guarantee, SOE(NG), in RP reference yield pages are only rating AAA and reference yield of SOE(NG) came from market yield on plain vanilla MTM pages.

Request body (Method: POST)

Parameter name	Data type	Description	Format
start_period	String	Start date	“yyyy-mm-dd”
end_period	String	End date	“yyyy-mm-dd”

Example value:


```
{
  "start_period": "2023-11-30T02:50:44.608Z",
  "end_period": "2023-11-30T02:50:44.608Z"
}
```


Responses:

Code	Description
200	Success
400	Bad Request
401	Unauthorized
500	Internal Server Error

Details:

Parameter name	Data type	Length	Description	Example
asof	datetime	19	Data as of yyyy-mm-dd	2023-11-03T00:00:00
bond_type	string	100	Bond type by issuer	Government Bonds
symbol	string	15	ThaiBMA bond symbol	SB23DA
maturity_date	datetime	19	Maturity date (yyyy-mm-dd)	2023-12-13T00:00:00
avg_bidding	number	(6,15)	Average bidding yield	2.191058
govt_interpolated_yield	number	(6,15)	Government interpolation yield by tenor	
ttm	number	(6,15)	Time to maturity: Settlement time until expiration (years)	0.098630136986301
spread	number	(6,15)	Nominal spread	2.191058
reference_yield	number	(6,15)	Reference yield	0.925221
dm	number	(6,15)	Discount margin	
settlement_date	datetime	19	Settlement date (yyyy-mm-dd)	2023-11-07T00:00:00
ai	number	(6,15)	Accrued interest (%)	1.031014
gross_price	number	(6,15)	The price of a bond including accrued interest (%)	101.062553
clean_price	number	(6,15)	The price of a bond without accrued interest (%)	100.031539
modified_duration	number	(6,15)	The approximate percentage change in price for a given change in yield	0.097561
convexity	number	(6,15)	A measure of the sensitivity of a bond's price to changing interest rates	0.05777
index_ratio	number	(6,15)	Index ratio	
isin_th	string	15	ISIN Code (Thailand)	TH0623033C09

Parameter name	Data type	Length	Description	Example
isin_en	string	15	ISIN Code (International)	-

RP Reference yield (T+3)

POST /api/v1/rpreferenceyield/t3

Description: Quotation price from a primary dealer used for referring repo transactions with BOT. The prices are calculated based upon the provided reference yields on the settlement date, today plus one business day (T+3).

Frequency: Daily.

Release schedule: When published RP Reference Yield (T+3) data on the iBond website.

Remark:

1. Traded yield is based on 30/360 basis (on coupon payment) which might be different from yield calculated on actual payment.

2. This page is designed to provide reference yield of State-owned enterprise bonds with MOF guarantee, which came from market yield on plain vanilla MTM pages.

3. The Government interpolated yield is calculated from the interpolation method on the ThaiBMA Government bond yield curve with the same maturity. However, the SOE Bonds with short-ended and long-ended issues (under and over the curve) are not included on this page.

4. T-Bill Reference yield is calculated from simple yields of government loan bonds, 1-m Treasury bills, and 3-m Treasury bills with comparative ttm by interpolation method. The simple yield of LB is converted from the average bidding yield to maturity.

5. The above prices are calculated based upon the provided reference yields on the settlement date, today plus one official day (T+3).

6. Duration and convexity of floating rate note Issues are effective duration and effective convexity.

7. For an Inflation-linked bond, Avg. the bid yield shown is Avg. the of the bid real YTM, and the clean price (%), Accrued interest (%), and gross price (%) are all in unadjusted terms. The corresponding adjusted terms can be obtained by multiplying the unadjusted price or accrued interest by the index ratio shown in the last column. The modified duration and convexity are calculated based on Avg. bid real YTM.

8. Avg. bidding yield of LB23DA, LB244A, LB246A, LB24DA, LB267A, LB27DA, LB283A, LB296A, LB356A, LB383A, LB396A, LB406A, LB416A, LB446A, LB716A are synthetic yield derived from ThaiBMA pricing model.

9. Bonds in State-owned enterprise bonds with non-MOF guarantee, SOE(NG), in RP reference yield pages are only rating AAA and reference yield of SOE(NG) came from market yield on plain vanilla MTM pages.

Request Body (Method: POST)

Parameter name	Data type	Description	Format
start_period	String	Start date	“yyyy-mm-dd”
end_period	String	End date	“yyyy-mm-dd”

Example value:


```
{
  "start_period": "2023-11-30T02:52:40.334Z",
  "end_period": "2023-11-30T02:52:40.334Z"
}
```


Responses:

Code	Description
200	Success
400	Bad Request
401	Unauthorized
500	Internal Server Error
200	Success

Details:

Parameter name	Data type	Length	Description	Example
asof	datetime	19	Data as of yyyy-mm-dd	2023-11-03T00:00:00
bond_type	string	100	Bond type by issuer	Government Bonds
symbol	string	15	ThaiBMA bond symbol	SB23DA
maturity_date	datetime	19	Maturity date (yyyy-mm-dd)	2023-12-13T00:00:00
avg_bidding	number	(6,15)	Average bidding yield	2.191058
govt_interpolated_yield	number	(6,15)	Government interpolation yield by tenor	
ttm	number	(6,15)	Time to maturity: Settlement time until expiration (years)	0.095890410958904
spread	number	(6,15)	Nominal spread	
reference_yield	number	(6,15)	Reference yield	2.191058
dm	number	(6,15)	Discount margin	
settlement_date	datetime	19	Settlement date (yyyy-mm-dd)	2023-11-08T00:00:00
ai	number	(6,15)	Accrued interest (%)	1.038027
gross_price	number	(6,15)	The price of a bond including accrued interest (%)	101.068587
clean_price	number	(6,15)	The price of a bond without accrued interest (%)	100.03056
modified_duration	number	(6,15)	The approximate percentage change in price for a given change in yield	0.094851
convexity	number	(6,15)	A measure of the sensitivity of a bond's price to changing interest rates	0.055908
index_ratio	number	(6,15)	Index ratio	
isin_th	string	15	ISIN Code (Thailand)	TH0623033C09

Parameter name	Data type	Length	Description	Example
isin_en	string	15	ISIN Code (International)	-