

## Treasury Bills Index – Average Duration

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T-Bills Index is constructed to be a benchmark of the movement and return for investing in all Treasury Bills in the Thai market. It replicates all available T-Bills into one synthetic bond by weighted-averaged by their outstanding units.

### Calculation Example

**January 02, 2002**

Criteria to choose T-Bills into the basket

- 1) Outstanding Unit is not equal to zero on today **and** last working day
- 2) If duration < 1 Month (or 28/365 year), use zero yield on the day its duration = 1M (if the day is holiday, use the earlier working day)

Symbol	TTM	Par	Unit	TTM * Par * Unit	Par * Unit
TB02123B	0.05753425	1000	5000000	287,671,235.00	5,000,000,000.00
TB02130B	0.07671233	1000	2000000	153,424,658.00	2,000,000,000.00
TB02206A	0.09589041	1000	5000000	479,452,055.00	5,000,000,000.00
TB02213A	0.11506849	1000	5000000	575,342,465.00	5,000,000,000.00
TB02220A	0.13424658	1000	5000000	671,232,875.00	5,000,000,000.00
TB02227A	0.15342466	1000	5000000	767,123,290.00	5,000,000,000.00
TB02306A	0.17260274	1000	5000000	863,013,700.00	5,000,000,000.00
TB02313A	0.19178082	1000	5000000	958,904,110.00	5,000,000,000.00
TB02320A	0.21095890	1000	5000000	1,054,794,520.00	5,000,000,000.00
TB02327A	0.23013699	1000	5000000	1,150,684,930.00	5,000,000,000.00
TB02403A	0.24931507	1000	5000000	1,246,575,345.00	5,000,000,000.00
TB02410A	0.26849315	1000	3000000	805,479,453.00	3,000,000,000.00
TB02424A	0.30684932	1000	3000000	920,547,945.00	3,000,000,000.00
TB02508A	0.34520548	1000	5000000	1,726,027,400.00	5,000,000,000.00
TB02522A	0.38356164	1000	5000000	1,917,808,220.00	5,000,000,000.00
TB02529A	0.40273973	1000	5000000	2,013,698,630.00	5,000,000,000.00
TB02605A	0.42191781	1000	3000000	1,265,753,424.00	3,000,000,000.00
TB02619A	0.46027397	1000	3000000	1,380,821,919.00	3,000,000,000.00
TB02703A	0.49863014	1000	5000000	2,493,150,685.00	5,000,000,000.00
<b>Sum</b>				<b>20,731,506,859.00</b>	<b>84,000,000,000.00</b>

$$\begin{aligned}
 \text{Average Duration of T-Bills in the basket at time } t &= \frac{\sum_{n=1}^N [TTM_n \times Par_n \times Unit_t(n)]}{\sum_{n=1}^N [Par_n \times Unit_t(n)]} \\
 &= \frac{20,731,506,859.00}{84,000,000,000.00} = 0.24680365
 \end{aligned}$$