



Thai Bond Market Movement in 2016

Highlights

Despite a number of unpredictable external factors namely Fed's interest rate direction, BREXIT and US Presidential election, Thai bond market remains vibrant and continues to grow. In 2016, corporate bond issuance in the primary market reached an all-time high both in term of amount and number of issuers. The secondary market was well-active, supported by strong foreign fund flows particularly during the first three quarters. Bond yields trended upward in reaction to rising US yields from concerns over the US economic policy under the new government.

I. Primary Market

The size of Thai bond market reached THB 10.86 trillion at the end of 2016, increased 8.41% from last year due to continued bond issuance from both government and corporate sectors.

On the government sector, THB 7,528.67 billion of the Bank of Thailand bonds were issued in 2016, increased by 41.58% from the previous year. The issuance of T-Bills amounted to THB 388.63 billion, dropped by 63.52%; while issuance of Government bonds totaled THB 574.99 billion, slightly declined by 6.85% from the previous year. New Issuance of State Owned Enterprise (SOE) bonds totaled THB 145.26 billion in 2016, decreased by 2.51% from 2015.

On the corporate sector, issuance of long-term corporate bonds has made the highest record in the history, totaling THB 812.90 billion or an increase of 36.70% from last year. The number of issuers also reached the highest of 205 companies, compared with 156 companies in 2015. Issuance of commercial paper (maturity less



than 270 days) registered with ThaiBMA totaled THB 931.12 billion, or 8.29% higher than 2015.

Table 1: BOND ISSUANCE REGISTERED AT THAIBMA

Unit: THB Mln			
Type	2015	2016	Growth (%)
Government Bond	617,322	574,995	↓ -7%
Treasury Bills	1,065,416	388,632	↓ -64%
State Own Enterprise Bond	149,001	145,256	↓ -3%
Bank of Thailand Bond	5,317,305	7,528,672	↑ 42%
Long-term Corporate Bond	546,891	758,520	↑ 39%
Commercial Paper	859,709	931,123	↑ 8%
Foreign Bond	25,000	13,780	↓ -45%
Total	8,580,644	10,340,978	↑ 21%

FIGURE 1: Issuance of long-term corporate bond by issue size (Registered & Non-registered)

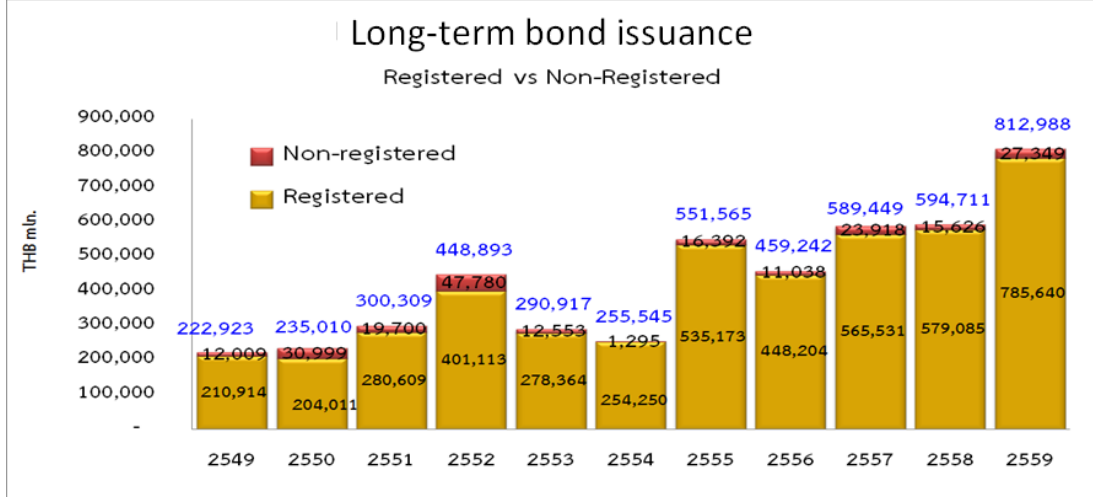


FIGURE 2: Issuance of in Long-term corporate bond by number of issuers (Registered & Non-registered)

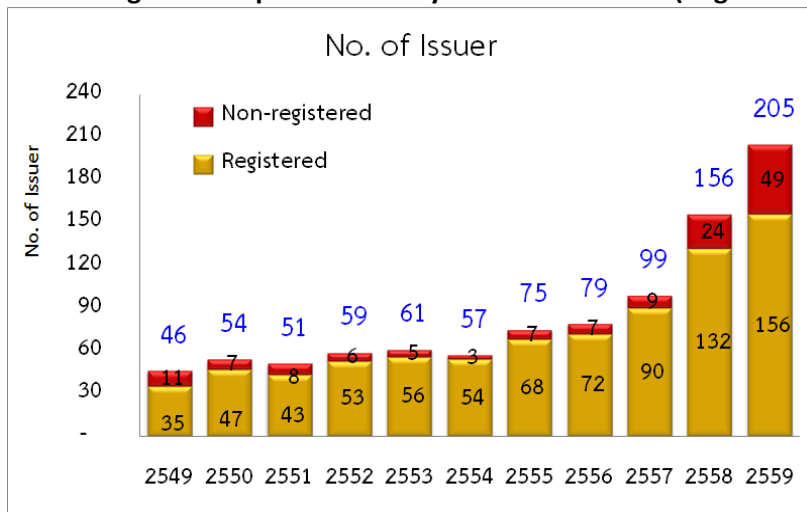
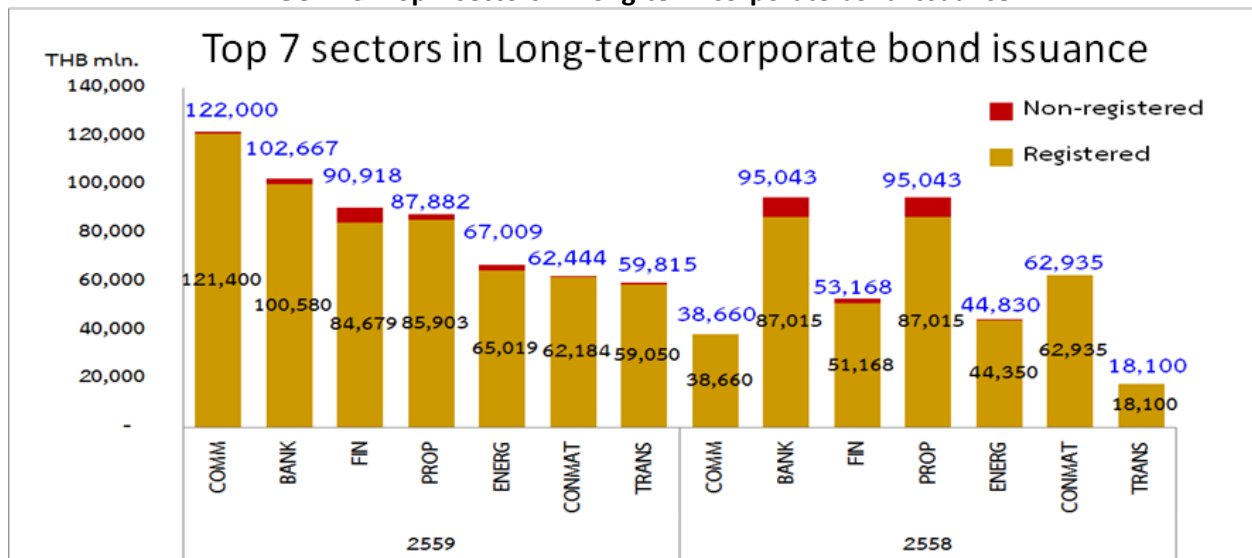




FIGURE 3: Top 7 sectors in Long-term corporate bond issuance



II. Outstanding Value of ThaiBMA Registered Bonds

Government bonds remained the largest segment with a total outstanding value of THB 4,015.81 billion, accounting for 36.95% of total. This was followed by THB 3,136.03 billion Bank of Thailand bonds (28.86%), THB 2,486.52 billion long-term Corporate bonds (22.88%), THB 765.42 billion State-Owned Enterprise bonds (7.04%), THB 326.15 billion Commercial Paper (3.00%), THB 79.85 billion Foreign bonds (0.73%), and THB 55.73 billion T-bills (0.51%).

TABLE 2: THAIBMA REGISTERED BOND OUTSTANDING

Type	Unit: THB Mln		
	2015	2016	Growth
Government Bond	3,724,713	4,015,805	↑ 8%
Treasury Bills	187,702	55,732	↓ -70%
State Own Enterprise Bond	782,498	765,420	↓ -2%
Bank of Thailand Bond	2,823,487	3,136,029	↑ 11%
Corporate Bond	2,416,169	2,812,672	↑ 16%
-Long-term Corporate Bond	2,078,750	2,486,517	↑ 20%
-Commercial Paper	337,418	326,154	↓ -3%
Foreign Bond	88,474	79,845	↓ -10%
Total	10,023,042	10,865,503	↑ 8%



The largest portion of long-term corporate bond outstanding was in Energy & Utilities sector (16%), Banking sector (16%), followed by Commerce sector (12%), Property Development sector (11%), Construction Materials sector (8%), Food and Beverage sector (8%), Financial and Securities sector (9%), and Others (20%).

The majority of corporate bond issuance in 2016 remained in A-rated category, representing 51.9% shares of total corporate bond issuance. This was followed by BBB-rated (16.2%), AA-rated (13.7%) and A-rated (10.6%). The issuance of non-rated bonds increased slightly to 6.1% from 5.3% last year amid strong demand from high networth investors. Overall, investment grade bonds (BBB- and above) accounted for 92.4% of total long-term corporate bond issuance in 2016. **(See Figure 4 and 5)**

FIGURE 4: CORPORATE BOND'S OUTSTANDING VALUE BY BUSINESS SECTOR (as of Dec 30, 2016)

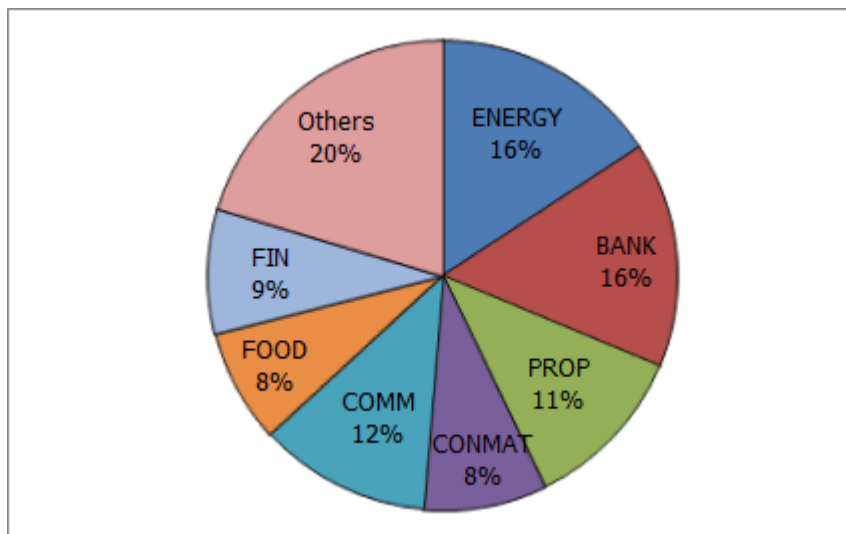
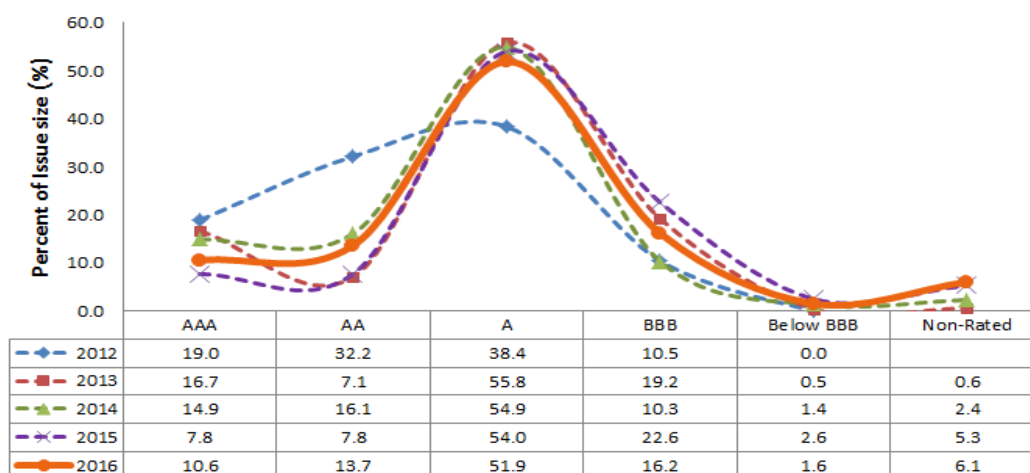




FIGURE 5: PROPORTION OF CORPORATE BOND ISSUER BY RATING



III. Secondary market

In 2016, total outright trading value was THB 22,409.45 billion, 14% higher than in 2015 (*See Table 3*). Trading activities in 2016 continued to concentrate in short-term Bank of Thailand bonds, accounted for THB 16,311.45 billion or 72.79% of the total outright trading value. Government bonds accounted for THB 4,260.84 billion, followed by THB 605.24 billion of long-term Corporate bonds, THB 564.62 billion of T-Bills, THB 451.62 billion of Commercial Paper, THB 193.69 billion of State-Owned Enterprise bonds, and THB 21.98 billion of Foreign bonds.

TABLE 3: THAIBMA OUTRIGHT TRADING AND OUTSTANDING VALUE (THB Mln) BETWEEN 2015 & 2016

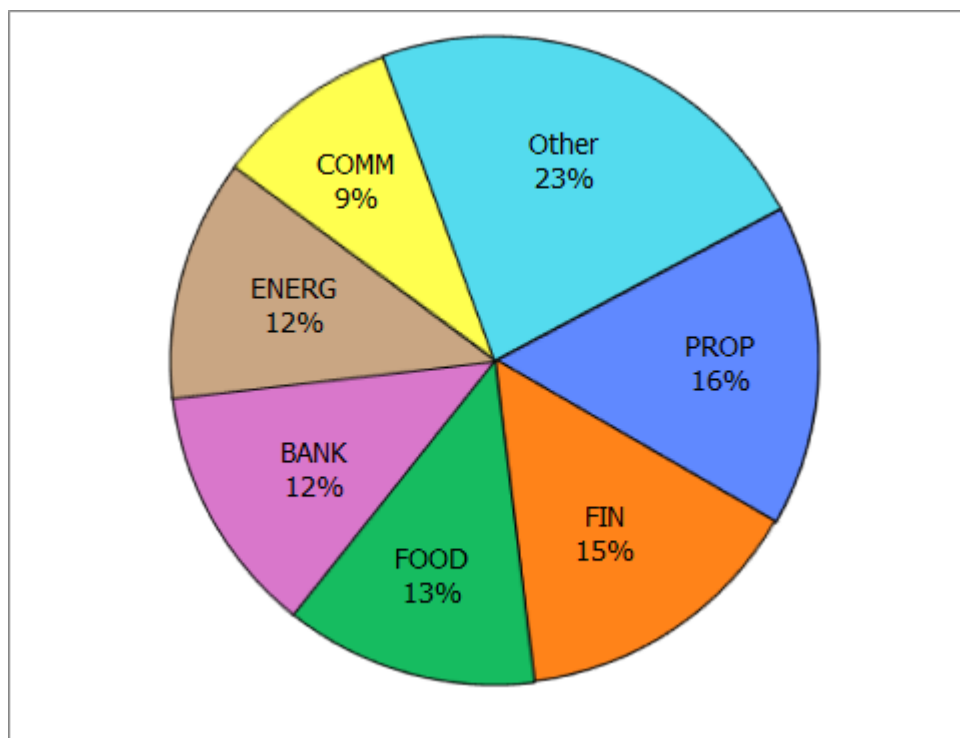
Unit: THB Mln

Type	2015		2016		% Change	
	Outright Trading	Outstanding	Outright Trading	Outstanding	Trading	Outstanding
Government Bond	4,605,344	3,724,713	4,260,841	4,015,805	-7%	8%
State Own Enterprise	244,728	782,498	193,686	765,420	-21%	-2%
T-Bills	1,360,925	187,702	564,616	55,732	-59%	-70%
Bank of Thailand	12,615,669	2,823,487	16,311,454	3,136,029	29%	11%
LT Corporate bond	496,354	2,078,750	605,242	2,486,517	22%	20%
Commercial Paper	311,333	337,418	451,622	326,154	45%	-3%
Foreign Bond	19,484	88,474	21,984	79,845	13%	-10%
Total Value	19,653,835	10,023,042	22,409,446	10,865,503	14%	8%
Total Value (TTM > 1 year)	6,525,785		5,565,709		-15%	
- No. of trading days	243		244		0%	
- Monthly Average	543,815		463,809		-15%	
- Daily Average	26,855		22,810		-15%	
No. of Outright Transaction	145,075		148,366		2%	
- Monthly Average	12,090		12,364		2%	
- Daily Average	597		608		2%	
Dealer Participation	42		40		-5%	



Total outright trading of long-term corporate bonds in 2016 totaled THB 605.24 billion or 2.70% of total outright trading value. The largest portion of corporate bonds outright trading value was in Property sector (16%), followed by Finance sector (15%), Food and Beverage sector (13%), Banking sector (12%), Energy sector (12%), and Commerce sector (9%) . **(See Figure 6).**

FIGURE 6: CORPORATE BOND'S TRADING VALUE BY BUSINESS SECTOR, 2016



IV. Fund flows

Net foreign fund flows into Thai bond market were strong during the first three quarters of 2016, supported largely by BREXIT, Bank of Japan's negative interest rate policy, including attractiveness of Thailand's key economic fundamental. Accumulated net inflows during January to September 2016 totaled THB 167.39 billion. However, outflows of THB 105.31 billion were observed during the last quarter amid the US presidential election which raised global volatility. Nevertheless, total net inflows in 2016 remained positive at THB 62.07 billion. At the

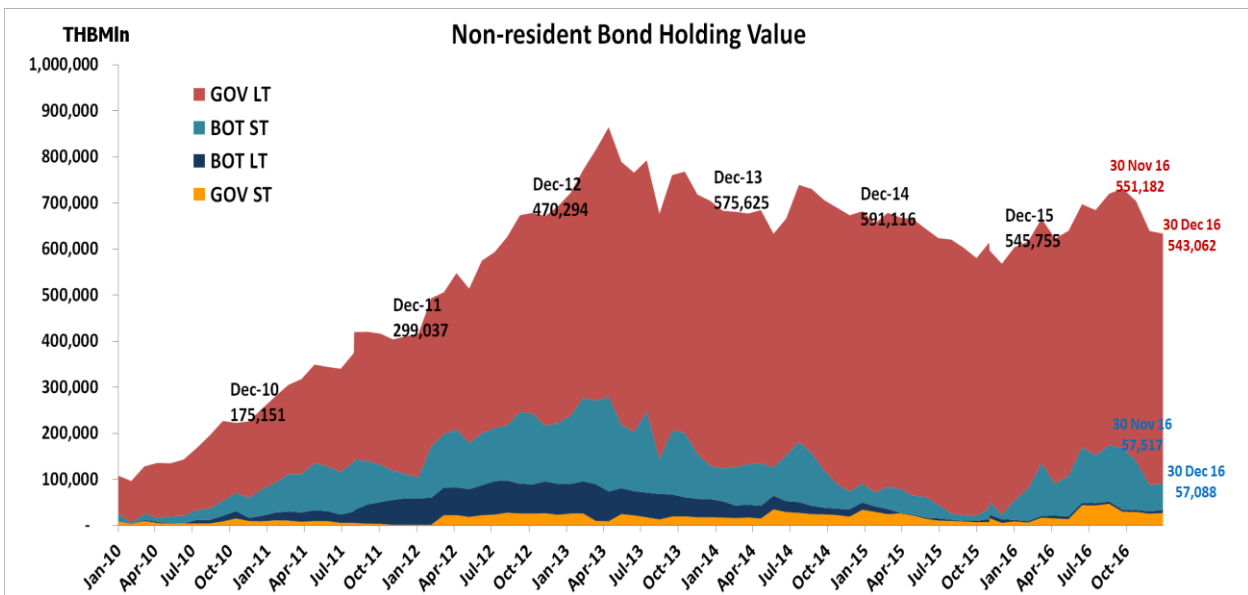


end of 2016, foreign investor holdings of Thai bond increased from THB 568,227 million last year to THB 633,500 million, comprising of 87% long-term bonds and 13% short-term bonds.

TABLE 4: Non-resident net flow in 2016 (Unit: THB million)

Period	Net Flow					Accumulation
	Net Trading	<=1Y Bond Expired	Net Flow	>1Y Bond	All	
End of 2015	3,029	-81,977	-78,948	-31,182	-110,130	-110,130
Jan-16	37,845	-6,484	31,361	2,703	34,064	34,064
Feb-16	40,216	-15,598	24,618	-13,402	11,217	45,281
Mar-16	106,676	-52,637	54,038	-5,785	48,254	93,535
Quarter 1	184,737	-74,719	110,018	-16,483	93,535	93,535
Apr-16	-7,969	-38,890	-46,859	3,849	-43,010	50,524
May-16	26,535	-9,583	16,952	489	17,441	67,966
Jun-16	76,242	-57,053	19,189	37,111	56,300	124,266
Quarter 2	94,808	-105,525	-10,718	41,449	30,731	124,266
Jul-16	6,226	-24,008	-17,783	4,493	-13,290	110,976
Aug-16	44,995	-21,315	23,680	17,440	41,120	152,096
Sep-16	24,416	-20,467	3,949	11,345	15,294	167,390
Quarter 3	75,637	-65,790	9,847	33,278	43,125	167,390
Oct-16	-19,850	-20,848	-40,698	10,821	-29,877	137,514
Nov-16	-43,640	-10,940	-54,580	-15,426	-70,006	67,508
Dec-16	5,280	-3,624	1,656	-7,092	-5,436	62,071
Quarter 4	-58,210	-35,412	-93,621	-11,698	-105,319	
Year to date	296,972	-281,446	15,525	46,546	62,071	

FIGURE 7: Non-resident holding value in 2016





V. Yield Movement and the ThaiBMA Bond Index

Comparing with 2015, government bond yields at the end of 2016 increased in most tenors, except for that of less-than 1 year. The rise of bond yields was obviously driven as a result of the US presidential election and FOMC's rate hike signal during the fourth quarter.

The first quarter of the year saw a significant drop in bond yields across the curve due to sluggishness in the global economies, as evidenced by record-low oil prices and continuation of money easing policies in the EU and Japan. Short term bond yield (2Y) slipped by 19 bps whereas long-term bond yield (10Y) fell 80 bps.

In the second quarter, government bond yields rebounded from Q1/16 although there were massive foreign capital flows into the bond market after the Brexit. Short-term bond yield (2Y) increased 19 bps while long-term bond yield (10Y) went up 31 bps from Q1/16.

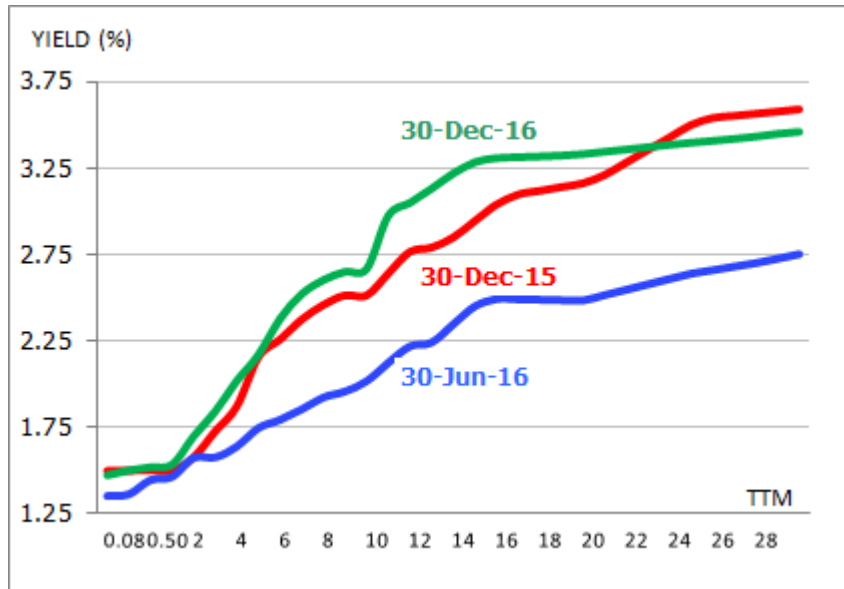
In the third quarter, bond yields in most tenors continued to move upward due to the expectation of Fed's hiking rates. A significant rise in bond yields was seen in the last quarter, following the result of the US's election and FOMC's rate hike signal. At the end of Q4/16 short-term (2Y) and long-term (10Y) bond yields shifted upward to 1.70% and 2.67% respectively. Overall, bond yield increased by 3-34 bps in 2016 except for 1M bond yield that decreased by 3 bps.

Time to maturity	2015	2016				Change from 2015 (bps)
		Q1	Q2	Q3	Q4	
1M	1.50	1.38	1.35	1.41	1.47	-3
1Y	1.50	1.39	1.46	1.50	1.53	+3
2Y	1.57	1.38	1.57	1.56	1.70	+13
5Y	2.16	1.50	1.74	1.79	2.17	+1



10Y	2.51	1.71	2.02	2.10	2.67	+16
15Y	2.94	2.12	2.45	2.52	3.28	+34

FIGURE 8: THAIBMA GOVERNMENT BOND YIELD CURVE MOVEMENT



At the end of year 2016, ThaiBMA government bond’s **total return** bond index closed at 261.55, representing year-to-date return of +1.6%. Returns on ThaiBMA government bond index subgroup 1 (1-3 years), subgroup 2 (3-7 years), subgroup 3 (7-10 years), subgroup 4 (over 10 years) and subgroup 5 (less than 10 years) were 1.36%, 1.12%, 1.35%, 2.10%, and 1.55% respectively. Return on investment grade corporate bonds index was 2.51% in 2016.

VI. Market Liquidity

In 2016, the turnover ratio (outright transaction only) for all types of bonds was 2.06 times, increasing from the ratio of 1.96 times in 2015. In particular, the turnover ratio of Bank of Thailand bonds was 5.20 times, followed by Commercial Paper (1.38 times), Government bonds (1.06 times), Foreign bonds (0.28 times), State-Owned Enterprise bonds (0.25 times), and long term Corporate bonds (0.24 times).



The top five most active issues of Government bonds were LB206A, LB21DA, LB196A, LB176A and LB226A (*See Table 5*), whereas the top five most active State-Owned Enterprise bonds were GGLB16NA, GGLB189A, GGLB262A, GGLB20NA, and GGLB197A (*See Table6*). With regards to long-term Corporate bonds, the top five most active issues were PTTEP296A, BAY174A, DTN207A, BAY193A, and THAI185C (*See Table7*).

TABLE 5: TOP 5 MOST ACTIVE GOVERNMENT BONDS

Issue	Type/ Rating	TTM (Yrs.)	High Yield (%)	Low Yield (%)	Trading Value (THB Mln)	Turnover Ratio (%)	Last Trade Date
Government Bond							
LB206A	Loan Bond	3.49	2.06	1.36	629,749	3.35	30-Dec-16
LB21DA	Loan Bond	4.97	2.39	1.35	623,509	2.04	30-Dec-16
LB196A	Loan Bond	2.45	2.09	1.30	593,305	1.96	30-Dec-16
LB176A	Loan Bond	0.46	1.90	1.14	547,939	3.38	30-Dec-16
LB226A	Loan Bond	5.47	2.41	1.64	237,346	2.05	30-Dec-16

TABLE 6: TOP 5 MOST ACTIVE STATE OWNED ENTERPRISE BONDS

Issue	Type/ Rating	TTM (Yrs.)	High Yield (%)	Low Yield (%)	Trading Value (THB Mln)	Turnover Ratio (%)	Last Trade Date
State Owned Enterprise Bond							
GGLB16NA	Guaranteed	-	1.57	1.39	30,293	0.00	15-Oct-16
GGLB189A	Guaranteed	1.74	1.88	1.42	24,947	0.42	27-Dec-16
GGLB262A	Guaranteed	9.16	2.89	1.76	20,481	1.11	6-Dec-16
GGLB20NA	Guaranteed	3.91	2.25	1.47	12,648	0.45	20-Dec-16
GGLB197A	Guaranteed	2.57	1.79	1.61	9,472	0.38	28-Nov-16

TABLE 7: TOP 5 MOST ACTIVE LONG TERM CORPORATE BONDS

Issue	Type/ Rating	TTM (Yrs.)	High Yield (%)	Low Yield (%)	Trading Value (THB Mln)	Turnover Ratio (%)	Last Trade Date
Corporate Bond							
PTTEP296A	AAA	12.44	3.85	2.61	9,823	0.86	23-Nov-16
BAY174A	AAA	0.26	1.73	1.51	9,279	1.69	29-Dec-16
DTN207A	AA+	3.58	3.28	2.02	8,286	2.07	13-Dec-16
BAY193A	AAA	2.17	2.08	1.57	7,415	0.62	4-Nov-16
THAI185C	A	1.38	3.49	2.23	7,324	1.46	2-Dec-16



VII. Market Participants

In 2016, 79% of the total outright trading value came from transactions between dealers and their clients, whereas 21% was inter-dealer transactions. Major active investors were Asset Management Companies (48%), followed by Foreign Companies (FCO) (11%), Domestic Companies (DCO) (6%), Insurance Companies (3%), Non-Dealer Financial Institutions (NDL) (2%), Individuals (0.1%) and others (9%).

The top ten most active member dealers for outright trading with over 1 year maturity in 2016 comprised of Bangkok Bank Plc (12.38% of market share), Krung Thai Bank Plc (7.75%), The Hong Kong and Shanghai Banking Corporation Limited (HSBC) (7.02%), Standard Chartered Bank (7.00%), CIMB Thai Bank Plc (6.95%), Siam Commercial Bank Plc (6.45%), CITI Bank (6.22%), Kasikorn Bank PCL (6.16%), TMB Bank Plc (6.12%) and KGI Securities Thailand Plc (5.06%). **(See Table 8).**

TABLE 8: TOP 10 MOST ACTIVE MEMBER DEALERS (Exclude < 1 Yr Bonds)

Ranking	Dealers	Outright Trading Value (THB Mln)	Market Share
1	BBL	855,191.58	12.38%
2	KTB	535,853.22	7.75%
3	HSBC	485,405.35	7.02%
4	SCBT	483,912.76	7.00%
5	CIMBT	480,006.88	6.95%
6	SCB	445,379.58	6.45%
7	CITI	429,605.28	6.22%
8	KBANK	425,313.83	6.16%
9	TMB	423,010.77	6.12%
10	KGI	349,401.67	5.06%
	Other	1,996,815.22	28.90%
	Total	6,909,896.14	100.00%



Appendix

TABLE 1 : SIZE OF THAILAND FINANCIAL MARKET

Economic Indicator	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Bank Loans -- THB Billion *	5,738.38	6,221.76	7,368.65	7,661.66	8,591.43	9,612.50	11,075.00	12,140.77	12,872.00	13,218.00	13,789.98
Equities (SET mkt. cap) -- THB Billion **	5,078.70	6,636.07	3,568.65	5,873.10	8,334.68	8,407.70	11,831.45	11,496.76	13,856.28	12,283.00	15,079.27
Bond Market (at par) -- THB Billion ***	4,201.97	4,888.18	5,085.98	5,868.67	6,754.66	7,111.69	8,580.00	8,991.80	9,287.29	10,023.00	10,848.83

Source : *Bank of Thailand, **SET, ***ThaiBMA

TABLE 2 : THAIBMA REGISTERED BONDS BY TTM (as of Dec 30, 2016)

Type of Bond	TTM (Yrs.)	Outstanding (THB Bln.)	# issue
Treasury Bills	0 - 5	50,732.00	6
	Total	50,732.00	6
Government Bond	0 - 5	1,794,921.82	24
	6 - 10	796,613.35	13
	11 - 15	532,370.00	5
	>15	891,899.98	11
	Total	4,015,805.15	53.00
State Agency Bond	0 - 5	3,106,515.79	58
	Total	3,106,515.79	58
State Owned Enterprise Bond	0 - 5	480,532.73	262
	6 - 10	190,947.00	135
	11 - 15	84,681.50	27
	>15	8,000.00	4
	Total	764,161.23	428
Long-term Corporate Bond	0 - 5	1,690,668.65	991
	6 - 10	664,600.82	195
	11 - 15	79,908.00	27
	>15	51,000.00	9
	Total	2,486,177.47	1,222
Commercial Paper	0 - 5	322,694.35	1,483
	Total	322,694.35	1,483
Foreign Bond	0 - 5	60,218.40	24
	6 - 10	17,735.30	8
	11 - 15	1,891.30	1
	Total	79,845.00	33

TABLE 3 : TOP 5 MOST ACTIVE REGISTERED BOND

Government		State Owned Enterprise		Corporate	
Issue	THB Mln.	Issue	THB Mln.	Issue	THB Mln.
LB206A	629,749.25	GGLB16NA	30,292.61	PTTEP296A	9,822.62
LB21DA	623,509.41	GGLB189A	24,946.70	BAY174A	9,279.39
LB196A	593,304.74	GGLB262A	20,480.74	DTN207A	8,286.45
LB176A	547,939.29	GGLB20NA	12,648.32	BAY193A	7,415.34
LB226A	237,346.24	GGLB197A	9,472.30	THAI185C	7,323.98
Total	2,631,848.93	Total	97,840.68	Total	42,127.78



TABLE 4 : THAIBMA GOVERNMENT INTERPOLATION YIELD (%)

Date	1 M	3 M	6 M	1 Y	2 Y	3 Y	5 Y	7 Y	10 Y	12 Y	15 Y	17 Y	20 Y	25 Y	30 Y
30-Dec-15	1.50	1.50	1.50	1.50	1.57	1.73	2.16	2.37	2.51	2.76	2.94	3.10	3.16	3.50	3.59
30-Dec-16	1.47	1.50	1.52	1.53	1.70	1.84	2.17	2.52	2.67	3.05	3.28	3.31	3.33	3.40	3.46
Change (Bps.)	↓ -3	↑ 0	↑ 2	↑ 4	↑ 12	↑ 11	↑ 1	↑ 15	↑ 15	↑ 28	↑ 34	↑ 22	↑ 17	↓ -10	↓ -13

TABLE 5 : THAIBMA BOND INDICES

ThaiBMA Bond Indices (point)	2015	2016	Return (%)
Government Bond Index			
Clean Price	107.89	105.68	↓ -2.05
Gross Price	108.42	106.13	↓ -2.11
Total Return	257.42	261.55	↑ 1.60
Corporate Bond (BBB up) Index			
Clean Price	106.72	105.04	↓ -1.57
Gross Price	107.68	106.00	↓ -1.56
Total Return	214.36	219.74	↑ 2.51

TABLE 6 : BOND RETURN (%)

ThaiBMA Bond Indices (point)	Return (%) - compare	
	Between 2015 & 2016	
Government Bond Total Return Index	↑	1.60%
Maturity Sub Group		
Group 1 (1 < TTM <= 3)	↑	1.36%
Group 2 (3 < TTM <= 7)	↑	1.12%
Group 3 (7 < TTM <= 10)	↑	1.35%
Group 4 (TTM > 10)	↑	2.10%
Group 5 (TTM <= 10)	↑	1.55%
Investment Grade Corporate Bond Index	↑	2.51%

TABLE 7 : TURNOVER RATIO (as of 30 Dec, 2015 & 30 Dec, 2016)

Turn Over Ratio (Times)	2015	2016	Growth (%)
Government Bond	1.24	1.06	↓ -14%
Treasury Bills	7.25	10.13	↑ 40%
State Own Enterprise Bond	0.31	0.25	↓ -19%
State Agency Bond	4.47	5.20	↑ 16%
LT Corporate Bond	0.24	0.24	↑ 2%
Commercial paper	0.92	1.38	↑ 50%
Foreign Bond	0.22	0.28	↑ 25%
Total	1.96	2.06	↑ 5%



FIGURE 1 : GOVERNMENT BOND'S OUTSTANDING BY YEAR TO EXPIRATION (as of Dec 30, 2016)

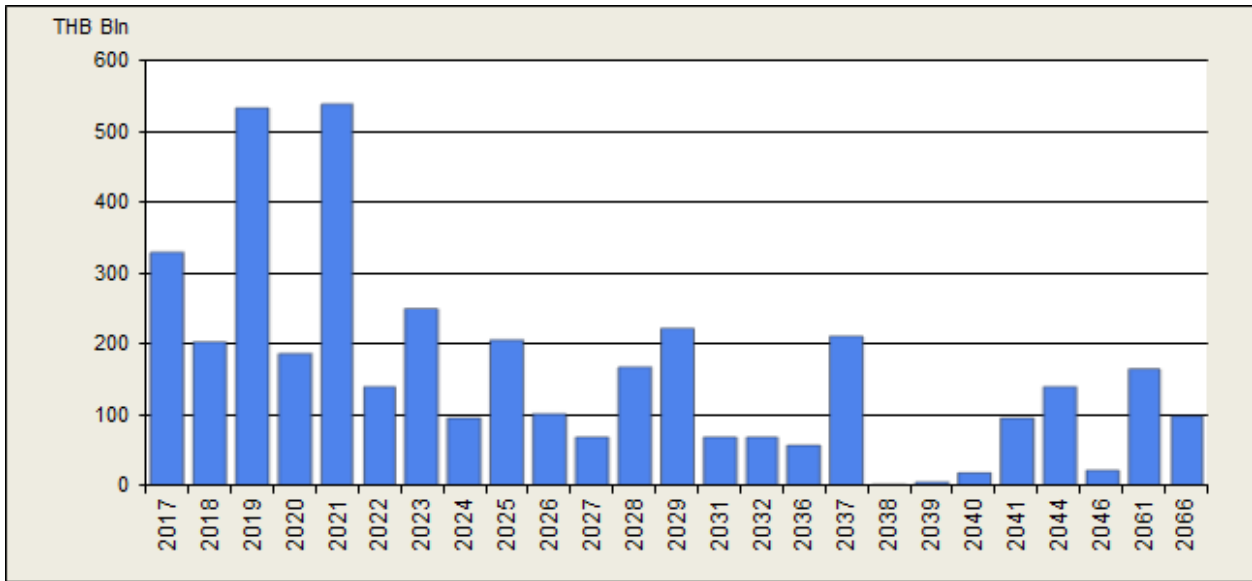


FIGURE 2 : LONG-TERM CORPORATE BOND'S TRADING & OUTSTANDING VALUE BY BUSINESS SECTOR (as of Dec 30, 2016)

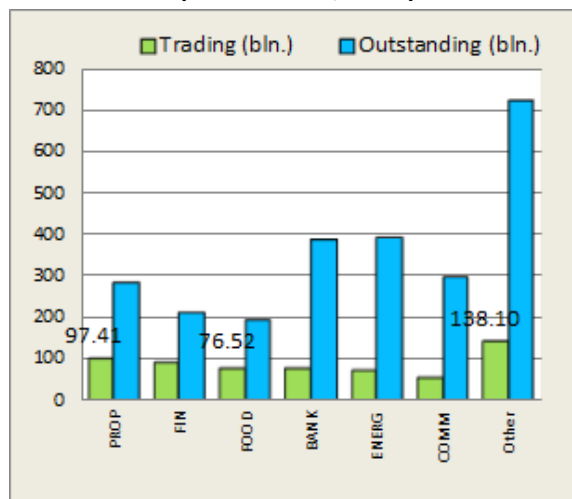


FIGURE 3 : COMPOSITION OF MARKET PARTICIPANTS (Quarterly)

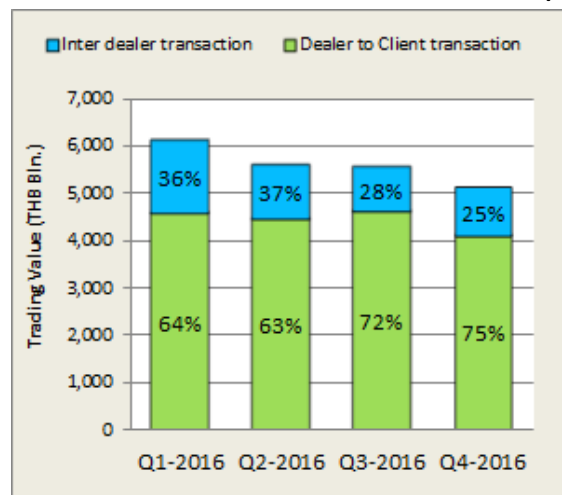




FIGURE 4: COMPOSITION OF DEALER TO CLIENT TRANSACTIONS

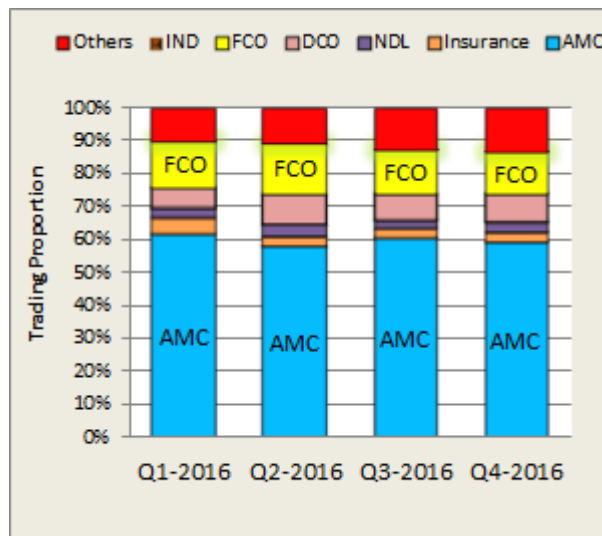
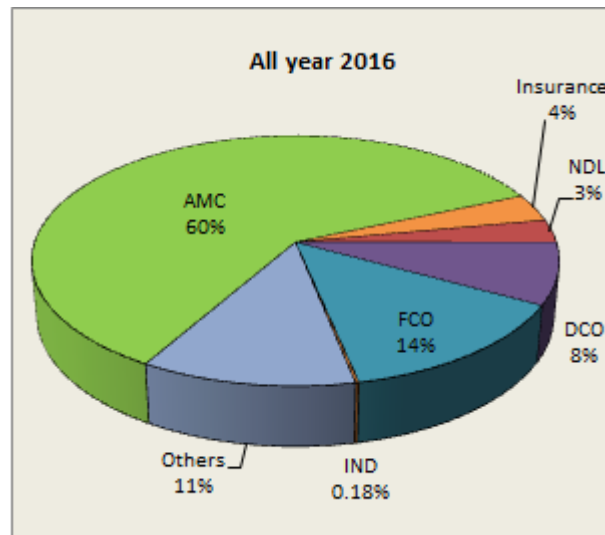


FIGURE 5 : COMPOSITION OF DEALER TO CLIENT TRANSACTIONS IN YEAR 2016



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