

7. Bond Market

For the year 2015, the total volume of bond issuance showed a slight increase. New issues of bonds amounted to NT\$2,090.2 billion, growing by NT\$116.1 billion or 5.88% over the previous year. At the end of 2015, the outstanding amount of bonds issued stood at NT\$10,467.0 billion, an increase of NT\$1,041.7 billion or 11.05% from the previous year end.

In order to meet fiscal funding needs, issuance of central government bonds for 2015 was NT\$605.3 billion, a decrease of NT\$70.0 billion or 10.37% from the previous year.

Corporate bonds exhibited a downtrend in 2015 as corporations issued more bonds in the previous year amid market expectations of a possible rate hike later. Therefore, issuance of corporate bonds for 2015 fell by NT\$92.0 billion, or 25.53%, to NT\$268.4 billion.

In terms of bank debentures, the main purpose for banks to issue bonds was to strengthen their capital base and meet mid- to long-term operation funding needs. For the year as a whole, bank debenture issuance totaled NT\$196.3 billion, decreasing by NT\$201.3 billion or 50.62% over the previous year.

With regard to asset securitization, no new issues were recorded during the year.

Furthermore, the Financial Supervisory Commission (FSC) announced in 2014 that international bonds would not be included in insurers' overseas investment ceilings. Therefore, market demand increased and numerous foreign institutions raised funds in Taiwan. In 2015, foreign institutions issued 139 foreign currency-denominated international bonds in Taiwan totaling NT\$1,006.6 billion, a marked increase of NT\$480.2 billion or 91.21% over the previous year. On the other hand, foreign institutions issued 11 NT dollar-denominated foreign bonds amounting to NT\$5.5 billion, a decrease of NT\$0.5 billion or 8.40% compared to the previous year.

In the secondary market, the Fed's rate hike in 2015 coupled with other countries' expansions of their monetary easing measures caused international financial market turmoil, and thus funds flowed to bond markets to avoid risk. Apart from 30-year government bonds, yields on bonds with different maturities all trended downward. Among the components, the 10-year bond yield reached 1.015% at the end of 2015, down by 59 basis points from 1.602% at the previous year end. Because of abundant liquidity and soft funding demand, repo transactions of bonds fell by NT\$306.7 billion or 0.45% over the previous year to NT\$67,725.7 billion.

Decrease in Government Bond Issuance

With respect to central government bonds, owing to the rise in tax revenues and approaching the ceiling of government bond issuance, central government bond issuance for 2015 contracted by NT\$70.0 billion or 10.37% over the previous year to NT\$605.3 billion.

Taking into account the term structure of government bond maturities, 5-year, 10-year, and 20-year government bonds continued to be issued in 2015, and their issuances were NT\$130.0 billion, NT\$195.0 billion, and NT\$91.8 billion, respectively. In addition, there were also 2-year bond issuances and 30-year bond issuances totaling NT\$62.5 billion and NT\$91.0 billion, respectively, to meet market demand.

In regard to issuing rates, on account of a slowdown in domestic economic growth and successive policy rate cuts announced by the CBC in September and December, the weighted average issuing rates in 2015 on central government bonds with different maturities were all lower than the previous year except 30-year bonds. The weighted average issuing rates on 5-year bonds and 10-year bonds dropped to 0.957% and 1.383% from the previous year's 1.177% and 1.610%, respectively. As 30-year bonds were issued before the announcements of the CBC's rate cuts and were also affected by market expectations of the Fed's rate hike in the middle of 2015, the issuing rate on 30-year bonds rose from the previous year's 2.227% to 2.376%.

Broken down by institutional investors, bonds held by the insurance industry accounted for the largest share at 36.64% in 2015, a decrease of 6.01% over the previous year. Meanwhile, the shares of bonds held by Chunghwa Post, the banking industry, and bills finance companies increased by 1.97%, 2.60%, and 0.46%, respectively, to 30.59%, 26.89%, and 2.67% in 2015. The decline in the share of government bonds held by the insurance industry was because of the crowding out effect triggered by international bonds, which had a higher rate of return. As of the end of 2015, the outstanding amount of government bond issuance was NT\$5,478.8 billion, an increase of NT\$140.3 billion or 2.63% from the previous year end.

In terms of bonds issued by governments of special municipalities, the government of Kaohsiung Special Municipality issued a new bond in 2015 with an amount of NT\$8.2 billion. At the end of 2015, the outstanding amount of bonds issued by governments of special municipalities stood at NT\$90.6 billion, down by NT\$11.1 billion or 10.93% from the previous year end.

Contraction in Corporate Bond Issuance

For the year 2015, the issuing amount of corporate bonds shrank by NT\$92.0 billion, or 25.53%, to NT\$268.4 billion. The contraction was mainly due to faltering demand for funds from relevant industries amid the slide in domestic exports and the plunge in international raw material prices.

Issues and Outstanding Values in Bond Market by Category

Unit: NT\$ Billion

Year/ Month	Total		Central Government Bonds		Local Government Bonds*		Corporate Bonds		Bank Debentures		Beneficiary Securities**		Foreign & Int'l Bonds***	
	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding
2013	1,268.6	8,289.1	641.9	5,068.2	-	141.3	466.0	1,865.3	110.3	1,029.8	8.0	135.1	42.4	49.4
2014	1,974.1	9,425.3	675.3	5,338.5	-	101.7	360.4	2,013.0	397.5	1,273.6	8.5	118.7	532.4	579.9
2015	2,090.2	10,467.0	605.3	5,478.8	8.2	90.6	268.4	2,004.2	196.3	1,285.9	-	94.5	1,012.0	1,513.0
2015/ 1	155.4	9,465.9	66.8	5,325.3	-	101.7	16.5	2,016.2	10.6	1,273.1	-	108.2	61.5	641.3
2	245.8	9,662.5	63.5	5,348.8	-	101.7	8.5	2,018.1	13.2	1,283.8	-	108.1	160.7	801.9
3	248.2	9,744.9	75.0	5,293.8	-	101.7	24.4	2,025.4	35.8	1,301.8	-	107.9	113.0	914.3
4	96.2	9,780.6	30.0	5,323.8	8.2	109.9	8.9	2,015.1	10.6	1,279.1	-	100.0	38.6	952.7
5	201.6	9,944.5	60.0	5,383.8	-	109.9	25.5	2,022.7	17.9	1,278.7	-	98.8	98.2	1,050.6
6	230.9	10,095.7	60.0	5,443.8	-	99.3	39.7	2,040.1	52.9	1,286.4	-	98.2	78.3	1,127.9
7	167.3	10,125.7	60.0	5,393.8	-	99.3	32.9	2,047.4	2.7	1,288.0	-	98.0	71.7	1,199.1
8	175.2	10,220.1	30.0	5,393.8	-	99.3	52.8	2,076.6	13.6	1,297.6	-	97.8	78.9	1,255.0
9	182.1	10,278.3	35.0	5,353.8	-	99.3	22.9	2,078.9	20.2	1,314.0	-	97.7	104.1	1,334.7
10	188.9	10,418.5	65.0	5,418.8	-	99.3	12.6	2,077.8	5.8	1,311.1	-	94.9	105.5	1,416.6
11	55.1	10,430.2	30.0	5,448.8	-	90.6	18.1	2,073.8	1.2	1,300.4	-	94.5	5.8	1,422.2
12	14.3	10,467.0	30.0	5,478.8	-	90.6	5.8	2,004.2	11.9	1,285.9	-	94.5	95.8	1,513.0

Notes: * Referring to bonds issued by governments of special municipalities.

** Including those purchased back by originators for credit enhancement.

*** Including NT dollar and foreign currency-denominated bonds issued in Taiwan by international financial institutions.

Sources: 1. *Financial Statistics Monthly*, CBC.

2. Banking Bureau, Financial Supervisory Commission.

3. Department of Foreign Exchange, CBC.

As the policy rates were lowered twice in 2015, the weighted average issuing rates on 3-year, 5-year, 7-year, and 10-year corporate bonds all decreased by 16, 10, 10, and 13 basis points from a year earlier to 1.106%, 1.373%, 1.634% and 1.815%, respectively. At the end of 2015, the outstanding amount of corporate bonds was NT\$2,004.2 billion, falling by NT\$8.8 billion or 0.44% from the previous year end.

Significant Slide in Bank Debenture Issuance

A total of 26 financial institutions issued bank debentures in 2015 in support of their funding needs, with an issuance amount of NT\$196.3 billion, showing a decrease of NT\$201.3 billion or 50.62% over the previous year. The decline was accounted for by the following factors: (1) the amendment of the Insurance Act in 2014, whereby insurance companies' investments in international bonds issued in Taiwan would no longer be included in the overseas investment ceiling, stimulated substantial issuance of US dollar bank debentures in Taiwan during that year, leading to a higher base effect; (2) domestic economic downturn lowered demand for funds.

Regarding the purpose of issuance, the issuance of NT dollar bank debentures was to bolster capital adequacy and support mid- to long-term operation funding needs. The majority of the issuance, or 97.67%, went for subordinated debts. With respect to the issuance of foreign currency bank debentures, the main purpose was to meet rising demand for foreign currency loans and support mid- to long-term foreign currency funding needs. Senior bank debentures with lower issuing rates made up the largest share of 96.37% in total issuance.

In terms of the volume of issuance, the major types of NT dollar bank debentures issued were 10-year debentures and debentures without maturity ranges, accounting for shares of 41.76% and 34.75% in total issuance, respectively. The share of bank debentures without maturity ranges went up by 11.12% from the previous year. As for foreign currency bank debentures, 30-year bank debentures accounted for the lion's share of 64.34%. At the end of 2015, the outstanding amount of bank debentures was NT\$1,285.9 billion, expanding by NT\$12.3 billion or 0.97% from the previous year end.

No New Issues in Asset Securitization

As the housing market posted a downtrend, enterprises were less willing to issue real estate securitization products, and banks turned cautious toward financial asset securitization. As a result, new issues of asset securitization products were nil in 2015.

Two financial asset securitization products matured and the principal was repaid. In addition, the net worth of real estate securitization products changed. Therefore, the outstanding amount of asset securitization decreased by NT\$24.2 billion or 20.40% from the previous year end to NT\$94.5 billion.

Slight Decrease in Foreign Bond Issuance and Marked Increase

in International Bond Issuance

Foreign bonds refer to NT dollar-denominated corporate bonds issued in Taiwan by foreign institutions. The foreign bonds currently in circulation are convertible corporate bonds issued by offshore companies listed on the stock exchange market or over-the-counter market in Taiwan. For the year 2015, issuance of foreign bonds amounted to NT\$5.5 billion, showing a decrease of NT\$0.5 billion or 8.40% from a year earlier. At the end of the year, the outstanding amount of foreign bonds was NT\$9.6 billion, increasing by NT\$0.3 billion or 3.64% over the previous year end.

On the other hand, international bonds refer to corporate bonds issued in Taiwan by foreign institutions and are currently denominated in foreign currencies. Issuance of international bonds in 2015 grew by NT\$480.2 billion or 91.21% from the previous year to NT\$1,006.6 billion. This was mostly because the market had been expecting a rate hike by the Fed since the beginning of the year, which enhanced the willingness for US dollar-denominated bond issuance. In terms of the currency composition of international bonds, issuance of US dollar-denominated, RMB-denominated, and AUD-denominated bonds amounted to NT\$858.4 billion, NT\$139.3 billion and NT\$8.9 billion, respectively, making up shares of 85.28%, 13.83% and 0.88% in total issuance in 2015. At the end of the year, the outstanding amount of international bonds was NT\$1,503.4 billion, an increase of NT\$932.9 billion or 163.50% over the previous year end.

Downtrend in Bond Yields and Contraction in Transactions

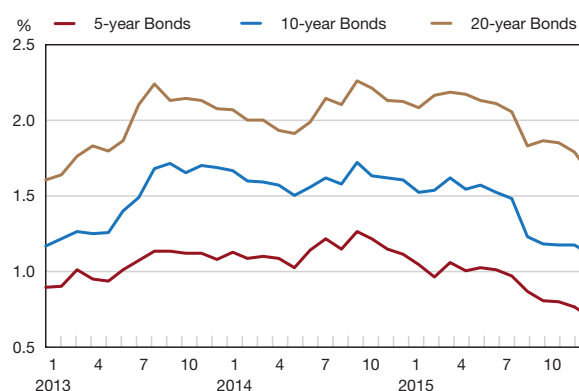
For the second half of 2015, the slowdown in the domestic economy and a tumbling stock market enhanced investors' risk aversion, inducing higher demand for domestic bonds, and leading the 10-year local bond yield to decline, which reached 1.1858% on September 24. Subsequently, on the back of sluggish domestic economic growth and successive policy rate cuts, the 10-year local bond yield continued to trend downward, and ended 2015 at 1.015%, 59 basis points lower than the 1.602% of the previous year end. The average yield on 10-year government bonds for the year was 1.3522%, down by 24 basis points from 1.5904% over the previous year.

Furthermore, average yields on 5-year, 7-year, 10-year, 15-year, and 20-year government bonds for the year 2015 dropped by 18, 8, 24, 35, and 5 basis points, respectively, compared to the previous year. As for 30-year bonds, their poor liquidity and the crowding out effect triggered by international bonds weakened the demand for 30-year government bonds. Consequently, the average yield on 30-year government bonds moved up by 17 basis points over the previous year.

In terms of transaction volume, as demand for funds softened and market liquidity was abundant, the volume of repo transactions exhibited a downtrend, falling by NT\$1,015.0 billion or 1.90% for the year. Conversely, outright transactions expanded by NT\$708.3 billion or 4.82% over the previous year owing to increased transactions of international bonds. As a result, total bond transactions for 2015 decreased by NT\$306.7 billion or 0.45% from the previous year to NT\$67,725.7 billion.

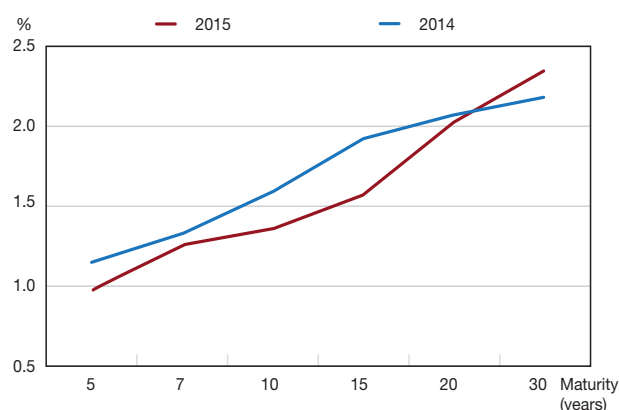
By type of bonds, government bonds accounted for 67.59% of total bond transactions with an annual trading volume of NT\$45,778.7 billion. The second most actively traded were corporate bonds, making up 26.65% of total transactions with an annual trading volume of NT\$18,047.4 billion.

Yield on Central Government Bonds with Different Maturities



Source: TPEX.

Yield Curve of Central Government Bonds



Source: TPEX.

Bank debentures came in third, accounting for 3.80% of total transactions with an annual trading volume of NT\$2,574.3 billion. Foreign and international bonds and asset securitization products made up marginal shares of 1.91% and 0.05% in total transactions, with their respective annual trading reaching NT\$1,290.7 billion and NT\$34.7 billion.

Bond Transactions in the Over-the-Counter Market

Unit: NT\$ Billion

Year/ Month	Total	Outright Transactions		Repurchase Agreement Transactions	
		Amount	Share(%)	Amount	Share(%)
2013	69,226.1	13,695.3	19.8	55,530.8	80.2
2014	68,032.4	14,706.0	21.6	53,326.4	78.4
2015	67,725.7	15,414.3	22.8	52,311.4	77.2
2015/ 1	6,159.0	1,569.5	25.5	4,589.4	74.5
2	3,885.4	824.7	21.2	3,060.7	78.8
3	6,369.7	1,717.4	27.0	4,652.3	73.0
4	5,325.9	1,166.4	21.9	4,159.4	78.1
5	5,048.6	1,235.2	24.5	3,813.4	75.5
6	5,184.2	1,288.2	24.8	3,896.0	75.2
7	5,587.6	1,337.6	23.9	4,250.0	76.1
8	6,601.4	1,680.6	25.5	4,920.9	74.5
9	6,105.7	1,264.0	20.7	4,841.7	79.3
10	5,885.3	1,105.1	18.8	4,780.2	81.2
11	5,460.4	1,117.3	20.5	4,343.1	79.5
12	6,112.5	1,108.2	18.1	5,004.3	81.9

Source: TPEx.

Turnover in Bond Market by Category

Unit: NT\$ Billion

Year/ Month	Total	Government Bonds	Corporate Bonds		Bank Debentures	Beneficiary Securities	Foreign & int'l Bonds
			Nonconvertible	Convertible			
2013	69,226.1	51,490.5	14,863.4	807.0	1,948.5	76.4	40.3
2014	68,032.1	49,776.5	14,296.9	753.9	2,483.3	89.5	632.4
2015	67,725.7	45,778.7	17,396.9	650.5	2,574.3	34.7	1,290.7
2015/ 1	6,159.0	4,340.2	1,502.1	63.9	189.4	3.5	59.9
2	3,885.4	2,422.1	1,099.0	38.6	158.4	2.9	164.4
3	6,369.7	4,299.5	1,609.6	68.3	250.6	5.2	136.5
4	5,325.9	3,593.8	1,384.6	61.3	210.9	2.7	72.5
5	5,048.6	3,299.5	1,309.2	58.4	243.7	2.1	135.7
6	5,184.2	3,307.1	1,461.3	56.2	249.1	3.2	107.3
7	5,587.6	3,687.5	1,500.3	56.0	213.2	4.3	126.2
8	6,601.4	4,679.3	1,532.9	49.3	248.5	2.2	89.3
9	6,105.7	4,186.8	1,514.1	47.5	226.1	3.2	128.0
10	5,885.3	3,978.6	1,534.2	47.4	199.5	1.6	124.0
11	5,460.4	3,778.4	1,403.5	49.7	185.4	1.6	41.7
12	6,112.5	4,205.8	1,546.1	53.9	199.4	2.1	105.2

Source: TPEx.