

7. Bond Market

For the year of 2014, the total volume of bond issuance showed a significant increase. New issues of bonds amounted to NT\$1,881.7 billion, growing by NT\$617.5 billion or 48.84 percent over the previous year. At the end of 2014, the outstanding amount of bonds issued stood at NT\$9,329.6 billion, an increase of NT\$1,045.8 billion or 12.62 percent from the previous year end.

In order to support fiscal funding needs, issuance of central government bonds for 2014 increased by NT\$33.4 billion, or 5.21 percent, to NT\$675.3 billion.

Corporate bonds exhibited a downtrend in 2014 as corporations issued more corporate bonds in the previous year amid market expectations of a possible rate hike later. Therefore, issuance of corporate bonds for 2014 decreased by NT\$105.6 billion, or 22.67 percent, to NT\$360.4 billion.

With respect to 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\$397.5 billion, increasing by NT\$287.2 billion or 260.43 percent over the previous year.

In terms of asset securitization, only one new product was issued in 2014. Added with the volume of products on a revolving issuance basis, the outstanding balance of asset securitization products slightly increased by NT\$0.5 billion, or 6.40 percent, to NT\$8.5 billion over the previous year.

Furthermore, the Financial Supervisory Commission (FSC) announced in 2014 that insurers are allowed to invest in international bonds without them counting toward the cap on insurers' foreign investments. Therefore, market demand increased and numerous foreign institutions gradually raised funds in Taiwan. In 2014, foreign financial institutions issued 50 foreign currency-denominated bonds totaling NT\$440.0 billion, whereas foreign bonds issued in Taiwan by international financial organizations recorded no new issues during the year.

In the secondary market, owing to the Fed's gradual reduction of asset purchases and geopolitical tensions in the Middle East and Ukraine, funds flowed to US government bonds on account of risk aversion, leading US bond yields to decline. Therefore, domestic government bond yields exhibited a downward trend for the first half of 2014. Entering the second half of the year, yields on bonds with different maturities trended upward, yet later fluctuated as they were affected by the Fed's announcement of the ending of its asset purchase program, expansion of quantitative easing measures by the ECB and the BoJ, and the decline in international oil prices. Of the components, the 10-year bond yield reached 1.6015 percent at the end of 2014, down by 0.0782

percentage points from 1.6797 percent at the previous year end. As demand for repo transactions was softened by abundant market liquidity, annual transactions contracted by NT\$1,194.0 billion or 1.72 percent over the previous year to NT\$68,032.1 billion. In addition, only one fixed income fund remained in the market with a volume of NT\$3.4 billion at the end of 2014.

Rise in Government Bond Issuance

On account of the rise in long-term bond yields, the amount of central government bonds issued with certain maturities was less than the amount open for bid. As a result, central government bond issuance for 2014 totaled NT\$675.3 billion, less than the expected amount of NT\$695.0 billion, yet still showing an increase of NT\$33.4 billion or 5.21 percent, compared with the previous year.

Issues of 5-year, 10-year, and 20-year government bonds were NT\$182.4 billion, NT\$215.0 billion, and NT\$125.0 billion, respectively. Moreover, there were also 2-year bond issuances worth NT\$35.0 billion and 30-year bond issuances worth NT\$117.9 billion to meet market demand.

In regard to issuing rates, the weighted average issuing rates on the central government bonds with maturities above 5 years in 2014 were all higher than the previous year on account of the Fed's decision to end asset purchases. The weighted average issuing rate on 10-year bonds rose to 1.610 percent from the previous year's 1.535 percent. However, the higher liquidity of short-term bonds led to stronger market demand. Therefore, the rate on 2-year bonds continued to fall from the previous year's 0.727 percent to 0.658 percent.

In terms of bonds issued by governments of special municipalities, new issues were nil in 2014.

In sum, the outstanding amount of government bond issuance was NT\$5,440.2 billion in 2014, an increase of NT\$230.7 billion or 4.43 percent from the previous year end.

Slowdown in Corporate Bond Issuance

For the year of 2014, corporate bond issuance shrank from a year earlier exhibited a downtrend as corporations issued more bonds in 2013 amid market expectations of a possible rate hike later. Therefore, the issuing amount of corporate bonds for 2014 decreased by NT\$105.6 billion, or 22.67 percent, to NT\$360.4 billion.

State-owned enterprises issued bonds worth NT\$93.6 billion, making up 26 percent of total corporate bond issuance in 2014. In the private sector, Formosa Plastics Group topped the list with its yearly bond issuance reaching NT\$43.0 billion, while Hon Hai Precision Industry Company Ltd. accounted for the second largest share of bond issuance with an amount of NT\$39.2 billion. Additionally, the combined bond issues of steel and iron companies exceeded NT\$30.0 billion.

Owing to the rise in long-term bond yields, weighted average issuing rates on 5-year, 7-year,

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
2012	1,434.6	7,752.8	665.0	4,776.3	23.4	158.1	482.5	1,619.5	180.4	1,022.1	76.9	148.3	6.2	28.5
2013	1,264.3	8,283.8	641.9	5,068.2	-	141.3	466.0	1,865.3	110.3	1,029.8	8.0	135.1	38.1	44.1
2014	1,881.7	9,329.6	675.3	5,338.5	-	101.7	360.4	2,013.0	397.5	1,273.6	8.5	118.7	440.0	484.1
2014/ 1	164.4	8,342.9	100.1	5,088.3	-	141.3	41.1	1,892.6	20.7	1,038.4	-	135.8	2.5	46.6
2	79.9	8,368.1	70.0	5,128.3	-	141.3	5.9	1,892.5	2.0	1,034.2	2.0	125.3	-	46.6
3	93.1	8,341.5	40.0	5,093.3	-	126.4	24.2	1,912.0	28.9	1,046.5	-	116.8	-	46.6
4	51.8	8,370.4	35.0	5,128.3	-	126.4	3.8	1,897.7	13.0	1,054.0	-	117.5	-	46.6
5	152.8	8,478.6	60.0	5,188.3	-	118.1	52.8	1,930.0	40.0	1,081.5	-	114.3	-	46.6
6	190.3	8,625.5	72.9	5,261.1	-	118.0	45.8	1,952.3	62.1	1,124.5	-	113.3	9.6	56.2
7	176.8	8,700.0	70.0	5,261.1	-	109.1	62.2	1,992.4	-	1,124.5	6.5	118.5	38.2	94.4
8	151.0	8,816.1	35.0	5,296.1	-	109.1	19.7	1,989.7	9.7	1,121.7	-	118.5	86.6	181.0
9	251.1	8,910.5	40.0	5,226.1	-	109.1	26.0	2,000.8	42.8	1,133.9	-	117.2	142.4	323.4
10	200.0	9,044.7	64.5	5,250.6	-	109.1	27.9	2,012.2	42.7	1,166.3	-	118.1	65.0	388.4
11	198.1	9,213.4	57.9	5,308.5	-	101.8	11.5	2,008.5	71.1	1,230.7	-	117.9	57.6	446.0
12	172.4	9,329.6	30.0	5,338.5	-	101.7	39.7	2,013.0	64.6	1,273.6	-	118.7	38.1	484.1

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.

10-year, and 15-year corporate bonds for 2014 were all higher than those in the previous year, reaching 1.4741 percent, 1.7316 percent, 1.9460 percent, and 2.0800 percent, respectively. At the end of 2014, the outstanding amount of corporate bonds was NT\$2,013.0 billion, rising by NT\$147.7 billion or 7.92 percent from the previous year end.

Marked Increase in Bank Debenture Growth

A total of 27 financial institutions issued bank debentures in 2014, mainly in support of their mid-to long-term operation funding needs. For the year as a whole, bank debenture issuance totaled NT\$397.5 billion, expanding by NT\$287.2 billion or 260.43 percent over the previous year. The issuance included US dollar bank debentures worth US\$5.4 billion issued by eight domestic financial institutions and renminbi bank debentures worth RMB6.0 billion issued by three domestic financial institutions. The majority of the issuance, or 57.64 percent, went for subordinated debts to bolster capital adequacy.

In terms of the volume of issuance, the major types of bank debentures issued were 7-year and 10-year bank debentures, making up shares of 16.68 percent and 22.79 percent in total issuance, respectively. The weighted average issuing rates on 5-year, 6-year, 7-year and 10-year bank debentures were higher than the previous year because of rising long-term bond yields.

At the end of the year, the outstanding amount of bank debentures was NT\$1,273.6 billion, growing by NT\$243.8 billion or 23.67 percent from the previous year end.

Decline in Asset Securitization

As housing prices remained high, enterprises became lukewarm about issuing real estate securitization products, and banks turned cautious toward financial asset securitization. As a result, only one new asset securitization product was issued in 2014. The amount of asset securitization product issuance, combined with that of revolving issuance, totaled NT\$8.5 billion for the whole year, increasing by NT\$0.5 billion or 6.40 percent.

In addition to the slightly rising issuance of asset securitization products, five financial asset securitization products matured and the principal was repaid. Therefore, the outstanding amount of asset securitization decreased by NT\$16.4 billion or 12.14 percent from the previous year end to NT\$118.7 billion.

Significant Growth in Foreign and International Bonds Issuance

Foreign bonds, NT dollar-denominated bonds issued in Taiwan by international financial organizations, had been all repaid at the end of February 2013 and recorded no new issues for the year of 2014. On the other hand, international bonds refer to bonds issued in Taiwan by foreign financial institutions and are currently denominated in foreign currencies. Meanwhile, the FSC announced in June 2014 that insurers are allowed to invest in international bonds without them counting toward the cap on insurers' foreign investments. As a consequence, market demand increased and numerous foreign institutions gradually raised funds in Taiwan. Issuance by foreign financial institutions for the year of 2014 increased by NT\$401.9 billion or 1,056.28 percent from the previous year to NT\$440.0 billion. At the end of the year, the outstanding amount of international bonds and foreign bonds was NT\$484.1 billion, an increase of NT\$440.0 billion or 997.83 percent over the previous year end.

Fluctuation in Bond Yields and Contraction in Transactions

For the first half of 2014, affected by the Fed's gradual reduction of asset purchases, political unrest in the Middle East and geopolitical tensions between Russia and Ukraine, funds flowed to US government bonds for risk aversion, leading the 10-year local bond yield to decline along with the US 10-year bond yield and hit a yearly low of 1.4679 percent on May 21. After June, on the back of a buoyant stock market and market expectations of possible early withdrawal of QE in the US, the yield on the benchmark government bond reached a yearly high of 1.7570 percent on September 19.

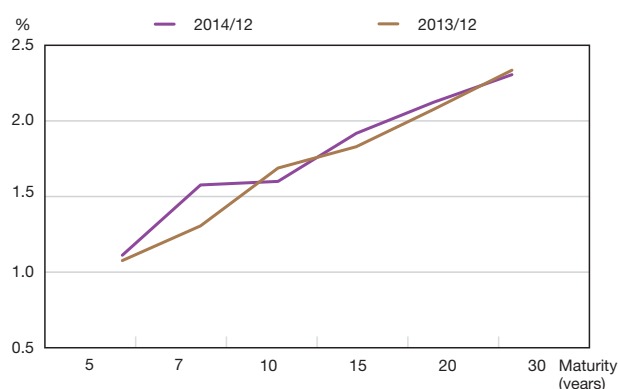
Later in the year, as the IMF revised down its global economic growth forecast and volatility in international financial markets heightened, the US bond yield trended downward, sending the 10-year bond yield to descend to 1.5976 percent on October 17. Afterwards, with the Fed's decision

to end its bond-buying program and continued expansion of monetary stimulus measures by the ECB and the BoJ, investor demand for safety was more subdued, causing the US bond yield to rebound from a slump.

In December, market concerns over intensifying deflationary pressures from the plunge in international oil prices dragged down US bond yields. Nevertheless, there was only a slight decrease in the 10-year local bond yield because of the crowding out effect triggered by increased issuance of international bonds. The 10-year bond yield mainly fluctuated between 1.57 percent and 1.65 percent, and finally ended 2014 at 1.6015 percent, 0.0782 percentage points lower than the 1.6797 percent of the previous year end. The average yield on 10-year government bonds for the year was 1.6040 percent, up by 0.1484 percentage points from 1.4556 percent over the previous year.

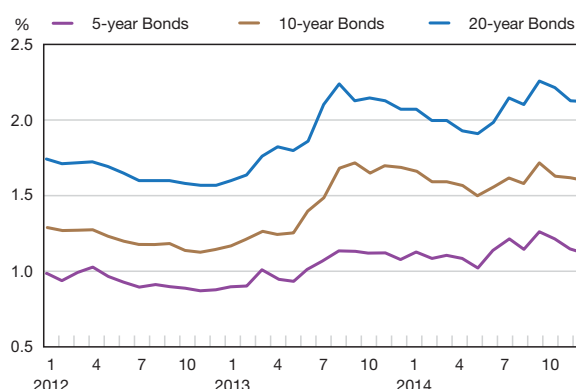
For the year of 2014, average yields on government bonds of every maturity range were similar to the previous year, except for the average yield on the 7-year bond which showed a bigger uptrend compared to 2013. The yield curve was not much different from that of the previous year.

Yield Curve of Central Government Bonds



Source: TPEX.

Yield on Central Government Bonds with Different Maturities



Source: TPEX.

In terms of transaction volume, as demand for repo transactions was softened by abundant market liquidity, the volume of repo transactions fell by NT\$2,204.6 billion or 3.97 percent for the year. On the other hand, outright transactions expanded by NT\$1,010.6 billion or 7.38 percent over the previous year owing to increased transactions of international bonds. As a result, total bond transactions for 2014 decreased by NT\$1,194.0 billion or 1.72 percent from the previous year to NT\$68,032.1 billion.

By type of bonds, government bonds accounted for 73 percent of total bond transactions with an annual trading volume of NT\$49,776.4 billion. The second most actively traded were corporate bonds, making up 22 percent of total transactions with an annual trading volume of NT\$15,050.5

billion. Bank debentures came in third, accounting for 4 percent of total transactions with an annual trading volume of NT\$2,483.4 billion. Foreign and international bonds and asset securitization products each made up marginal shares of less than 1 percent in total transactions, with their respective annual trading reaching NT\$632.3 billion and NT\$89.5 billion.

Bond Transactions in the Over-the-Counter Market

Unit: NT\$ Billion

Year/ Month	Total	Outright Transactions		Repurchase Agreement Transactions	
		Amount	Share(%)	Amount	Share(%)
2012	86,551.7	18,435.8	21.3	68,115.9	78.7
2013	69,226.1	13,695.3	19.8	55,530.8	80.2
2014	68,032.1	14,705.9	21.6	53,326.2	78.4
2014/ 1	4,886.6	1,042.9	21.3	3,843.7	78.7
2	4,714.3	1,104.0	23.4	3,610.3	76.6
3	6,029.1	1,289.1	21.4	4,740.0	78.6
4	6,232.2	1,262.9	20.3	4,969.3	79.7
5	5,575.1	1,210.5	21.7	4,364.6	78.3
6	5,539.0	1,502.8	27.1	4,036.2	72.9
7	6,114.7	1,452.6	23.8	4,662.1	76.2
8	5,942.2	1,265.3	21.3	4,676.9	78.7
9	5,918.2	1,355.3	22.9	4,562.9	77.1
10	5,844.2	1,335.5	22.9	4,508.7	77.1
11	5,341.3	976.3	18.3	4,365.0	81.7
12	5,895.2	908.7	15.4	4,986.5	84.6

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			
2012	86,551.7	68,974.8	14,442.9	1,150.0	1,859.2	103.4	21.4
2013	69,226.1	51,490.5	14,860.0	806.9	1,941.4	76.4	50.9
2014	68,032.1	49,776.4	14,296.6	753.9	2,483.4	89.5	632.3
2014/ 1	4,886.6	3,586.6	1,057.0	68.7	162.4	5.5	6.4
2	4,714.3	3,649.1	863.4	60.7	129.9	5.8	5.4
3	6,029.1	4,720.8	1,019.7	62.9	207.3	9.1	9.3
4	6,232.2	4,903.3	1,038.2	60.0	218.6	7.1	5.0
5	5,575.1	4,220.5	1,055.0	51.1	238.1	6.8	3.6
6	5,539.0	4,154.5	1,091.1	57.8	213.9	7.2	14.5
7	6,114.7	4,539.4	1,242.1	71.3	194.5	8.7	58.7
8	5,942.2	4,404.3	1,187.9	64.0	177.4	9.0	99.6
9	5,918.2	4,148.1	1,276.7	70.4	229.3	10.7	183.0
10	5,844.2	4,154.6	1,361.2	60.6	185.1	8.3	74.4
11	5,341.3	3,581.7	1,361.6	54.4	235.2	6.6	101.8
12	5,895.2	3,713.5	1,742.7	72.0	291.7	4.7	70.6

Source: TPEX.