

6. Bond Market

For the year 2019, new issues of bonds stood at NT\$1,808.2 billion, falling by NT\$108.1 billion or 5.64% over the previous year. Meanwhile, the total outstanding of bonds issued amounted to NT\$13,872.1 billion at the end of 2019, an increase of NT\$408.0 billion or 3.03% from the previous year end.

To support debt refinancing operations of the Central Government Debt Service Fund and to raise funds for the central government general budget and special budget, issuance of central government bonds totaled NT\$410.0 billion for 2019, increasing by 18.05% from the previous year.

Corporate bond issuance in the year showed a marginal decrease of 2.31% to NT\$402.8 billion, mainly resulting from lower funding needs of enterprises.

With regard to bank debentures, the amount of issuance totaled NT\$162.2 billion for 2019, sliding by 29.07% over the previous year primarily because of reduced issuance of US dollar-denominated bank debentures.

For the entire year, foreign currency-denominated international bonds issued in Taiwan by foreign institutions stood at NT\$776.5 billion, representing a decrease of 14.30% compared to the previous year. As for NT dollar-denominated foreign bonds issued by foreign institutions, the volume of issuance recorded a year-on-year increase of 148.72% to NT\$17.5 billion in 2019.

In the secondary market, annual average yields on bonds with varying maturities all displayed a downtrend in 2019 in reflection of ample domestic liquidity and the Fed's policy rate reductions. For 10-year government bonds, the yield slipped to 0.736%, 21 basis points lower than the previous year.

Moreover, as narrower yield spreads led to a less vibrant bond market, annual transactions contracted by 10.70% to NT\$57,888.5 billion for the entire year.

Significant Increase in Government Bond Issuance

Central government bond issuance rose markedly by NT\$62.7 billion or 18.05% from the previous year to NT\$410.0 billion in 2019. The growth was to support debt refinancing operations of the Central Government Debt Service Fund and to raise funds for the central government general budget as well as special budget.

In regard to the total volume of government bonds issued by the Ministry of Finance, 10-year bonds made up the lion's share with NT\$170.0 billion, followed by 5-year bonds with NT\$90.0 billion,

while 2-year, 20-year, and 30-year government bonds registered issuance of NT\$20.0 billion, NT\$85.0 billion, and NT\$45.0 billion, respectively.

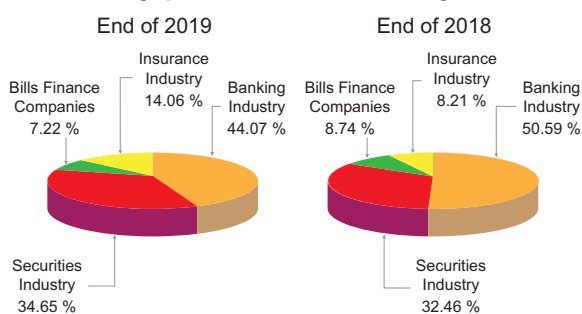
In terms of issuing rates, sufficient domestic liquidity and three policy rate cuts announced by the Fed during the year brought down the weighted average issuing rates on central government bonds with varying maturities. The issuing rate on 30-year bonds recorded the largest decline of 38 basis points, followed by a 28 basis point slide in the issuing rate on 20-year bonds.

Broken down by institutional investor, bonds held by the banking industry accounted for a dominant share at 44.07%, followed by the securities industry with a share of 34.65%. The share of bond holdings of the insurance industry went up whereas that of the banking industry fell in 2019. This was because many international bonds were redeemed before maturity and insurers invested the redeemed amount in government bonds instead, lowering the banking industry's probability of winning bond auctions.

As of the end of 2019, the total outstanding of central government bond issuance stood at NT\$5,483.3 billion, down by NT\$75.3 billion or 1.35% from the previous year end.

In respect of bonds issued by governments of special municipalities, all new bonds in 2019 were issued by the government of Kaohsiung Special Municipality with a total amount of NT\$33.8 billion. At the end of the year, the outstanding amount of bonds issued by governments of special municipalities reached NT\$67.7 billion, expanding considerably by NT\$23.8 billion or 54.20% from the previous year end.

**Shares of Government Bond Holdings
(by Institutional Investor)**



Source: Department of the Treasury, CBC.

Modest Decrease in Corporate Bond Issuance

Corporate bonds refer to NT dollar- or foreign currency-denominated bonds issued in Taiwan by domestic corporations. For the year 2019, the issuing amount of corporate bonds dropped slightly by NT\$9.5 billion or 2.31% to NT\$402.8 billion, largely reflecting weakened funding needs of corporations on account of faltering exports.

With regard to bond maturities, 5-year corporate bonds made up the majority of the issuance with a share of 48.57%, followed by 7-year bonds with a share of 22.06%. The six largest corporate

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 Bonds		Int'l Bonds	
	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding	Issues	Outstanding
2017	2,122.1	12,575.4	400.0	5,594.8	0.0	41.6	385.7	1,937.8	189.5	1,227.3	0.0	11.4	7.7	14.5	1,139.2	3,748.1
2018	1,916.3	13,464.1	347.3	5,558.6	14.8	43.9	412.3	2,022.6	228.7	1,317.1	0.0	5.0	7.1	15.1	906.1	4,501.8
2019	1,808.2	13,872.1	410.0	5,483.3	33.8	67.7	402.8	2,113.1	162.2	1,313.7	5.3	8.4	17.5	26.7	776.5	4,859.2
2019/ 1	110.5	13,417.9	55.0	5,491.6	0.0	43.9	17.3	2,023.0	8.0	1,309.3	0.0	5.0	0.2	14.4	30.0	4,530.6
2	60.8	13,418.1	30.0	5,481.6	0.0	43.9	7.0	2,012.2	2.5	1,311.8	0.0	5.0	0.0	14.0	21.3	4,549.5
3	275.2	13,589.3	45.0	5,446.6	0.0	43.9	3.5	2,003.1	14.7	1,323.5	0.0	5.0	0.0	13.5	212.0	4,753.7
4	141.2	13,655.4	25.0	5,435.6	0.0	43.9	53.1	2,048.3	9.0	1,315.2	0.0	5.0	1.5	14.9	52.6	4,792.5
5	159.3	13,770.0	25.0	5,460.6	0.0	43.9	49.4	2,068.2	1.6	1,311.2	0.0	5.0	1.4	16.1	82.0	4,865.0
6	193.6	13,837.2	30.0	5,457.7	15.0	48.9	64.9	2,090.0	36.8	1,335.4	0.0	5.0	0.0	15.6	46.9	4,884.5
7	135.4	13,866.8	25.0	5,422.7	0.0	48.9	41.1	2,102.9	11.1	1,344.3	0.0	5.0	0.0	14.3	58.2	4,928.6
8	140.2	13,947.7	25.0	5,447.7	0.0	48.9	29.8	2,084.2	11.0	1,349.2	0.0	5.0	0.0	13.8	74.4	4,998.8
9	128.4	13,844.1	50.0	5,417.7	0.0	48.9	39.2	2,094.7	28.5	1,355.6	0.0	4.5	0.0	13.2	10.7	4,909.4
10	129.2	13,845.6	30.0	5,413.3	18.8	67.7	32.2	2,102.7	6.6	1,347.0	0.0	4.0	1.0	13.9	40.6	4,897.0
11	188.8	13,906.9	40.0	5,453.3	0.0	67.7	26.5	2,110.5	15.7	1,343.9	0.0	3.6	12.4	26.0	94.2	4,902.0
12	145.6	13,872.1	30.0	5,483.3	0.0	67.7	38.9	2,113.1	16.7	1,313.7	5.3	8.4	1.1	26.7	53.6	4,859.2

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

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

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

2. Banking Bureau, Financial Supervisory Commission.

3. Department of Foreign Exchange, CBC.

bond issuers were Taiwan Power Company, Cathay Financial Holdings, Advanced Semiconductor Engineering Inc., Far Eastern New Century Corporation, Taiwan Cement Corporation, and Nan Ya Plastics, with a combined issuance amount of NT\$151.0 billion, accounting for 37.50% of total issuance.

At the end of 2019, the outstanding amount of corporate bonds totaled NT\$2,113.1 billion, an increase of NT\$90.5 billion or 4.48% from the previous year end.

Deceleration in Bank Debenture Issuance

A total of 23 domestic banks issued bank debentures in 2019 in support of their funding needs, with an issuance amount of NT\$162.2 billion, slipping by NT\$66.5 billion or 29.07% over the previous year. The contraction was mostly attributable to decreased issuance of US dollar-denominated bank debentures amidst investor expectations of the Fed's rate cuts.

The main purpose for banks to issue NT dollar bank debentures was to strengthen their capital base and support mid- to long-term operation funding needs. The majority of the issuance went for subordinated debts with a share of 54.13%.

In respect to foreign currency bank debentures, the purpose of issuance was to meet mounting demand for foreign currency loans and support mid to long-term foreign currency funding needs.

As a consequence, senior bank debentures with lower issuing rates accounted for the largest share of total issuance, with an amount of NT\$0.9 billion.

As for the maturity of new issues, perpetual debentures made up a dominant 35.18% of total NT dollar bank debenture issuance, while 10-year, 5-year, and 3-year debentures accounted for 20.30%, 18.35%, and 10.72%, respectively. Debentures of the other maturity ranges made up a combined share of 15.45%.

In 2019, issuance of foreign currency bank debentures was primarily composed of 5-year and 10-year debentures, with respective shares of 66.72% and 33.28%. At the end of the year, the outstanding amount of bank debentures reached NT\$1,313.7 billion, down by NT\$3.4 billion or 0.26% from the previous year end.

Increase in Asset Securitization Products

New issues of asset securitization products totaled NT\$5.3 billion for the entire year. The outstanding amount of asset securitization climbed by NT\$3.4 billion or 67.26% from the previous year end to NT\$8.4 billion.

Growth in Foreign Bond Issuance

Foreign bonds are defined as NT dollar-denominated corporate bonds issued in Taiwan by foreign enterprises. The foreign bonds currently in circulation are corporate bonds issued by offshore companies listed on the Taiwan Stock Exchange or the Taipei Exchange (the over-the-counter market).

During 2019, foreign bond issuance amounted to NT\$17.5 billion, rising significantly by NT\$10.5 billion or 148.72% from a year earlier. The growth was mainly because the Danish energy company, Ørsted, issued green bonds in Taiwan for an amount of NT\$12.0 billion. At the end of the year, the outstanding amount of foreign bonds stood at NT\$26.7 billion, an increase of NT\$11.6 billion or 76.71% over the previous year end.

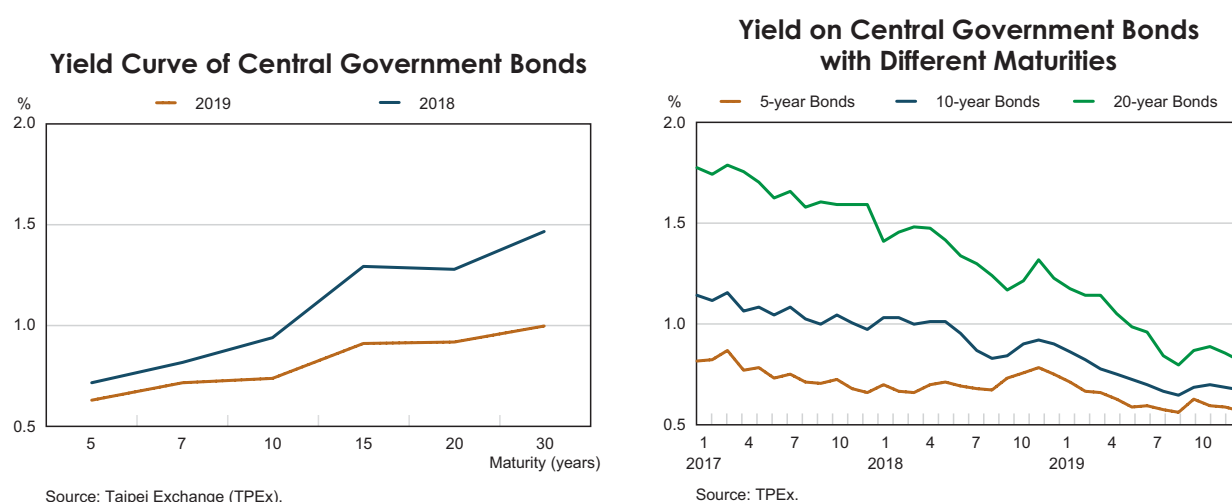
Contraction in International Bond Issuance

International bonds refer to corporate bonds issued in Taiwan by foreign institutions and are currently denominated in foreign currencies. For the year 2019, issuance of international bonds went down by NT\$129.6 billion or 14.30% from a year before to NT\$776.5 billion. The contraction was because some insurers' total foreign investment amounts (including investments in international bonds) had approached the statutory cap and they turned to invest in exchange-traded funds (ETFs) that held bonds issued overseas.

In respect of currency composition, issuance of US dollar-denominated, RMB-denominated, ZAR-denominated, and AUD-denominated bonds in 2019 reached NT\$721.4 billion, NT\$26.7 billion, NT\$16.8 billion, and NT\$11.6 billion, respectively. At the end of the year, the outstanding amount of international bonds stood at NT\$4,859.1 billion, up by NT\$357.3 billion or 7.94% over the previous year end.

Slide in Average Government Bond Yields and Drop in Transactions

Abundant domestic liquidity and the Fed's successive rate reductions in 2019 combined to send government bond yields lower. The yield on 10-year government bonds trended down and averaged 0.736% for the entire year, around 21 basis points lower than the 0.942% of the previous year.



Compared to the previous year, the average yield curve of government bonds shifted downward for the year 2019. The average yield on 30-year bonds posted the biggest decline of 47 basis points from a year before, while that on 15-year bonds came second with a decrease of 39 basis points. On the other hand, average yields on 5-year, 7-year, and 20-year bonds in 2019 moved down by eight, ten, and 36 basis points, respectively, over the previous year.

In terms of transaction volume, as narrower yield spreads led to a less vibrant domestic bond market, annual transactions shrank by NT\$6,933.6 billion or 10.70% to NT\$57,888.5 billion for the entire year.

By type of bonds, the majority of total bond transactions went for government bonds with a share of 62.01% and an annual trading volume of NT\$35,896.7 billion. The second most actively traded were corporate bonds, contributing to 31.36% of total transactions with an annual trading

volume of NT\$18,155.1 billion. Bank debentures came in third, accounting for a smaller share of 4.69% with an annual trading volume of NT\$2,713.1 billion.

Meanwhile, international bonds, foreign bonds, and asset securitization products made up marginal shares of 1.62%, 0.29%, and 0.03% in total transactions, with their respective annual trading registering NT\$937.5 billion, NT\$168.4 billion, and NT\$17.7 billion.

Turnover in Bond Market by Category

Unit: NT\$ Billion

Year/ Month	Total	Government Bonds	Corporate Bonds		Bank Debentures	Beneficiary Securities	Foreign Bonds	Int'l Bonds
			Nonconvertible	Convertible				
2017	61,583.5	39,532.0	17,202.1	887.2	2,295.8	21.7	57.9	1,586.8
2018	64,822.1	42,369.8	17,553.2	983.1	2,665.3	12.5	88.5	1,149.7
2019	57,888.5	35,896.7	17,103.2	1,051.9	2,713.1	17.7	168.4	937.5
2019/ 1	5,453.7	3,502.9	1,561.9	80.1	236.4	1.2	6.8	64.4
2	3,882.6	2,580.9	1,016.9	65.4	165.0	1.0	4.9	48.6
3	5,465.2	3,621.4	1,442.5	103.6	215.7	1.2	6.5	74.2
4	5,261.9	3,424.4	1,475.8	85.1	215.8	1.0	10.5	49.4
5	5,524.6	3,449.6	1,642.5	93.4	239.5	1.4	14.2	83.9
6	4,293.1	2,512.8	1,390.1	87.2	213.6	0.6	10.0	78.9
7	5,135.5	3,102.5	1,591.3	96.9	248.7	0.8	19.9	75.4
8	5,036.4	3,094.8	1,504.7	92.1	239.7	0.8	9.0	95.3
9	4,561.5	2,870.8	1,278.1	83.5	257.4	1.9	9.4	60.5
10	4,719.7	2,823.0	1,471.6	85.6	235.3	1.0	12.7	90.6
11	4,109.7	2,332.4	1,329.1	81.3	215.7	0.8	29.3	121.1
12	4,444.7	2,581.3	1,398.8	97.7	230.3	6.1	35.3	95.2

Source: TPEx.