

6. Bond Market

For the year 2021, the total volume of bond issuance registered a marked decrease. New issues of bonds amounted to NT\$2,690.6 billion, decreasing by NT\$704.2 billion or 20.74% over the previous year. At the end of 2021, the total outstanding of bonds issued stood at NT\$15,946.7 billion, rising by NT\$1,162.0 billion or 7.86% 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 reached NT\$617.0 billion for 2021, an increase of 15.33% from the previous year.

Issuance of corporate bonds and bank debentures in the year fell by 14.11% and 29.58% to NT\$723.7 billion and NT\$135.2 billion, respectively. The decreases were mainly because an upswing in benchmark government bond yields amid robust domestic economic growth brought up market rates, leading corporations and banks to reduce the volume of bond issuance.

In 2021, NT dollar-denominated foreign bonds issued in Taiwan by foreign institutions stood at NT\$10.6 billion, representing a substantial decrease of 50.77% over the previous year. As for foreign currency-denominated international bonds issued in Taiwan by foreign institutions, the volume of issuance posted a year-on-year decrease of 35.49% to NT\$1,137.5 billion.

In the secondary market, the yield on 10-year government bonds averaged 0.436% for the entire year, five basis points lower than the previous year. Nevertheless, annual average yields on bonds with different maturities displayed a broad uptrend in 2021, in contrast to the downtrend in the previous year.

In addition, annual transactions totaled NT\$36,138.8 billion, contracting significantly by 31.17% compared to the previous year, mainly reflecting a less vibrant bond market because of narrowing profits from spread trading.

Rise in Government Bond Issuance

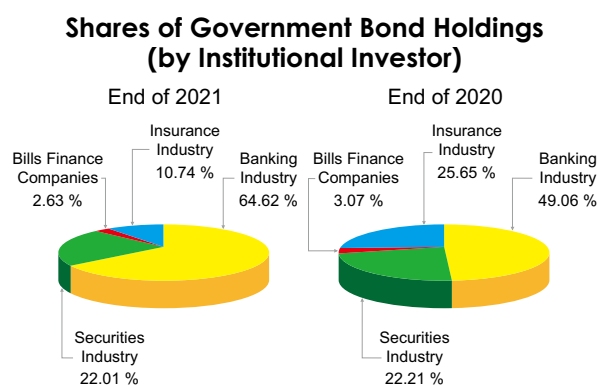
Central government bond issuance recorded a year-on-year increase of NT\$82.0 billion or 15.33% to NT\$617.0 billion in the year 2021. The growth was to support debt refinancing operations of the Central Government Debt Service Fund and to raise funds for the central government general budget and special budget.

Among the total volume of government bonds issued by the Ministry of Finance, 10-year bonds made up the lion's share with NT\$210.0 billion, followed by 5-year bonds with NT\$120.0 billion. 2-year,

7-year, 20-year, and 30-year government bonds recorded issuance of NT\$60.0 billion, NT\$32.0 billion, NT\$130.0 billion, and NT\$65.0 billion, respectively.

Broken down by institutional investor, bonds held by the banking industry (including Chunghwa Post) accounted for the largest share at 64.62% primarily on account of an increase in demand for government bonds by Chunghwa Post. The securities industry came in second with a share of 22.01%, similar to that in the previous year. Meanwhile, the insurance industry made up a share of 10.74%, smaller than the previous year because the insurance industry increased its external investment position owing to a larger yield spread between the US and Taiwan government bonds.

As of the end of 2021, the total outstanding of central government bond issuance stood at NT\$5,674.5 billion, rising by NT\$150.0 billion or 2.72% from the previous year end.



Source: Department of the Treasury, CBC.

With respect to bonds issued by governments of special municipalities, new bonds issued by the government of Taipei Special Municipality and the government of Kaohsiung Special Municipality in 2021 reached NT\$30.0 billion and NT\$36.6 billion, respectively, with a combined amount of NT\$66.6 billion. At the end of the year, the outstanding amount of bonds issued by the governments of all special municipalities stood at NT\$164.9 billion, expanding considerably by NT\$64.9 billion or 64.89% from the previous year end.

Decrease in Corporate Bond Issuance

Corporate bonds refer to NT dollar- or foreign currency-denominated bonds issued in Taiwan by domestic corporations. In 2021, the issuing amount of corporate bonds stood at NT\$723.7 billion, sliding by NT\$118.8 billion or 14.11%. The decrease was mainly because an uptick in benchmark government bond yields sent market rates higher, thereby slightly reducing corporations' demand for bond issuance.

In terms of bond maturities, 5-year corporate bonds accounted for a dominant share of the issuance at 50.92%, while 7-year bonds came in second with a share of 26.40%. At the end of 2021, the outstanding amount of corporate bonds grew by NT\$390.7 billion or 15.07% to NT\$2,983.5 billion from the previous year end.

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
2019	1,808.3	13,872.3	410.0	5,483.3	33.8	67.7	402.8	2,113.4	162.2	1,313.7	5.3	8.4	17.5	26.7	776.5	4,859.2
2020	3,394.9	14,784.7	535.0	5,524.5	40.5	100.0	842.5	2,592.8	192.0	1,255.7	0.0	5.3	21.5	44.6	1,763.3	5,261.8
2021	2,690.6	15,946.7	617.0	5,674.5	66.6	164.9	723.7	2,983.5	135.2	1,234.0	0.0	5.3	10.6	51.6	1,137.5	5,833.0
2021/ 1	362.0	15,086.7	70.0	5,594.5	10.0	110.0	36.0	2,609.1	3.0	1,243.3	0.0	5.3	0.6	45.0	242.4	5,479.5
2	219.0	15,125.7	65.0	5,599.5	0.0	110.0	1.2	2,606.5	9.3	1,247.6	0.0	5.3	0.0	44.8	143.5	5,512.1
3	138.4	14,999.5	25.0	5,514.5	0.0	110.0	29.6	2,622.0	3.0	1,221.1	0.0	5.3	0.0	44.4	80.9	5,482.2
4	265.6	15,160.1	30.0	5,544.5	22.9	132.9	63.3	2,655.0	7.8	1,209.6	0.0	5.3	0.0	44.3	141.6	5,568.5
5	244.8	15,287.0	60.0	5,574.5	0.0	132.9	91.8	2,723.7	22.4	1,219.5	0.0	5.3	0.5	44.8	70.2	5,586.4
6	249.4	15,338.0	55.0	5,569.5	0.0	132.9	98.4	2,767.6	3.0	1,206.9	0.0	5.3	0.0	44.4	93.1	5,611.5
7	216.6	15,465.4	30.0	5,599.5	0.0	132.9	45.2	2,767.0	2.5	1,206.9	0.0	5.3	0.3	44.6	138.5	5,709.2
8	237.9	15,651.0	97.0	5,696.5	0.0	132.9	99.0	2,839.2	14.1	1,215.3	0.0	5.3	0.0	44.1	27.8	5,717.7
9	224.0	15,699.8	65.0	5,654.5	0.0	132.9	101.4	2,915.2	10.5	1,207.8	0.0	5.3	0.0	43.9	47.2	5,740.2
10	215.4	15,829.5	30.0	5,654.5	20.0	151.2	51.3	2,944.9	14.6	1,215.6	0.0	5.3	2.1	45.7	97.4	5,812.3
11	119.0	15,815.8	30.0	5,614.5	13.7	164.9	27.2	2,942.3	18.3	1,229.2	0.0	5.3	1.1	46.6	28.6	5,813.0
12	198.4	15,946.7	60.0	5,674.5	0.0	164.9	79.4	2,983.5	26.8	1,234.0	0.0	5.3	6.0	51.6	26.3	5,833.0

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

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

Sources: 1. *Financial Statistics Monthly* (February 2022), CBC.

2. Banking Bureau, Financial Supervisory Commission.

3. Department of Foreign Exchange, CBC.

Reduction in Bank Debenture Issuance

In 2021, domestic banks issued bank debentures in support of their funding needs, with an issuance amount of NT\$135.2 billion, down by NT\$56.8 billion or 29.58% over the previous year. The contraction was largely because market rates went up owing to rising benchmark bond yields, leading to reduced senior bank debenture issuance by banks.

In respect of the maturity of new issues, perpetual debentures made up the largest share of total issuance at 40.47%, while 7-year, 5-year, and 10-year debentures accounted for 20.81%, 19.70%, and 16.47%, respectively. Debentures of the other maturity ranges made up a marginal share of 2.94%.

At the end of the year, the outstanding amount of bank debentures totaled NT\$1,234.0 billion, representing a year-on-year decrease of NT\$21.7 billion or 1.73%.

Asset Securitization Products Remained Unchanged

New issues of asset securitization products were nil in 2021 and no principal was repaid for existing asset securitization products. The outstanding amount of asset securitization remained at NT\$5.3 billion from the previous year end.

Slide in Foreign Bond Issuance

Foreign bonds are defined as NT dollar-denominated corporate bonds issued in Taiwan by foreign enterprises. For the year 2021, foreign bond issuance dropped substantially by NT\$10.9 billion or 50.77% from a year before to NT\$10.6 billion. The decrease mostly reflected a higher base effect resulting from the NT\$15.0 billion worth of green bonds issued in Taiwan by a Danish energy company, Ørsted, in the previous year. At the end of the year, the outstanding amount of foreign bonds reached NT\$51.6 billion, increasing by NT\$7.0 billion or 15.64% over the previous year end.

Drop in International Bond Issuance

International bonds currently refer to foreign currency-denominated corporate bonds issued in Taiwan by foreign institutions. During 2021, issuance of international bonds fell by NT\$625.8 billion or 35.49% from a year before to NT\$1,137.5 billion. The contraction was primarily because a rebound in US Treasury yields led to a decrease in US dollar-denominated bond issuance. At the end of the year, the outstanding amount of international bonds stood at NT\$5,833.0 billion, representing a year-on-year increase of NT\$571.2 billion or 10.86%.

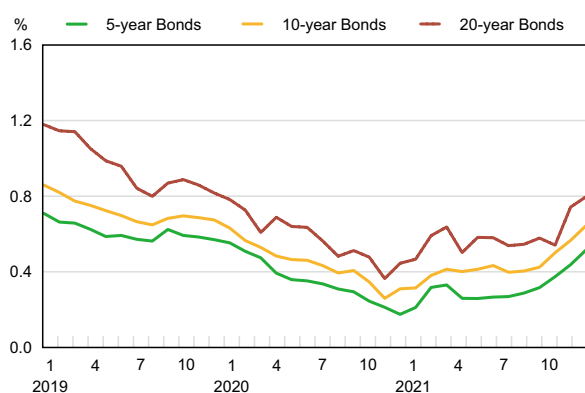
Uptrend in Average Government Bond Yields and Decline in Transactions

Despite a surge in US inflation bringing up US Treasury yields, Taiwan government bond yields recorded a smaller increase than US bond yields owing to ample domestic liquidity. Government bond yields, in contrast to the downtrend in the previous year, displayed a broad uptrend in 2021, whereas the trading volume of the secondary government bond market for the past two years trended downward. Looking at the volume-weighted average yields, the 10-year government bond yield modestly slid and averaged 0.436%, five basis points lower than the 0.483% of the previous year.

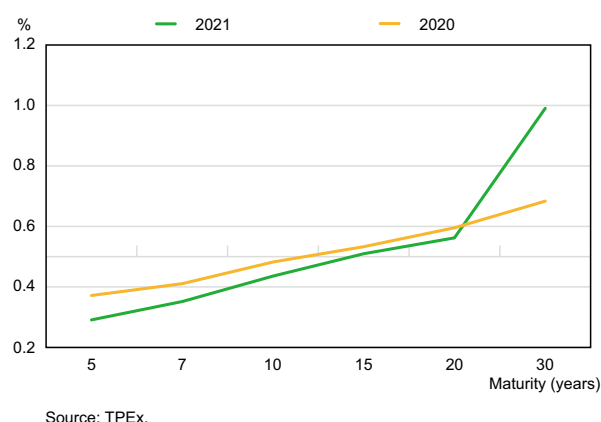
Among government bonds of the other maturity ranges, average yields on 5-year, 7-year, 15-year, and 20-year bonds in the year moved down by eight, six, two, and three basis points, respectively, over the previous year.

On the other hand, the average yield on 30-year bonds in 2021 went up by 31 basis points compared to the previous year. This was because 30-year bonds were mainly issued in the primary market. However, the issuance of 30-year bonds during the year only occurred in February and December. An uptrend in market rates in the year brought the 30-year bond yield of December markedly higher than that of February. In addition, the trading volume of December was also larger than that of February. As a result, when looking at the volume-weighted average yields, the average yield on 30-year bonds in 2021 was higher than the previous year.

Yields on Central Government Bonds with Different Maturities



Yield Curve of Central Government Bonds



In terms of transaction volume, annual transactions fell by NT\$16,366.0 billion or 31.17% to NT\$36,138.8 billion for the entire year as narrower yield spreads led to a less vibrant domestic bond market.

By type of bonds, the majority of total bond transactions went for corporate bonds with a share of 47.47% and an annual trading volume of NT\$17,155.4 billion. The second most actively traded were government bonds, contributing to 43.05% of total transactions with an annual trading volume of NT\$15,557.9 billion. Bank debentures came in third, accounting for a smaller share of 5.60% with an annual trading volume of NT\$2,024.9 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				
2019	57,888.5	35,896.7	17,103.2	1,051.9	2,713.1	17.7	168.4	937.5
2020	52,504.7	28,776.6	17,254.7	1,297.6	2,891.9	2.1	434.9	1,846.9
2021	36,138.8	15,557.9	15,807.2	1,348.2	2,024.9	0.5	393.0	1,007.0
2021/ 1	3,632.9	1,870.7	1,274.8	103.9	176.1	0.0	29.0	178.4
2	2,562.7	1,227.8	902.5	76.3	141.9	0.0	22.2	191.9
3	3,455.1	1,673.4	1,339.4	112.6	191.9	0.0	31.1	106.8
4	2,834.9	1,215.8	1,216.3	115.9	163.7	0.0	33.5	89.6
5	2,904.0	1,166.7	1,317.8	126.6	185.3	0.0	34.2	73.4
6	2,803.7	1,130.6	1,326.5	101.3	161.0	0.0	25.4	58.9
7	2,791.5	1,122.6	1,311.6	109.4	165.5	0.0	32.1	50.4
8	3,152.2	1,365.6	1,424.0	112.5	167.7	0.0	31.6	50.7
9	3,057.3	1,263.2	1,438.5	105.1	159.0	0.0	31.1	60.4
10	3,014.6	1,302.9	1,345.2	109.7	158.3	0.0	37.0	61.5
11	2,870.9	1,099.9	1,378.1	146.8	176.3	0.0	35.3	34.5
12	3,059.0	1,118.8	1,532.4	128.1	178.2	0.5	50.5	50.4

Source: TPEX.