

Financial Developments



II. Financial Developments

1. Overview

In 2023, affected by the delayed spillover effects of monetary tightening by major countries in 2022, economic growth in major economies slowed down, and funding demand weakened. Against this backdrop, the annual growth rate of the monetary aggregate M2 exhibited a downtrend. Despite a brief decline back into the reference range in June, the rate exceeded the upper limit of the range again in July and August. Thereafter, net capital outflows led the annual growth rate of M2 to fall back within the reference range in the final four months of the year.

In terms of interest rates, banks' posted interest rates and the weighted average interest rates on deposits and on loans moved upward, reflecting the Bank's five hikes in the policy interest rates and two hikes in the required reserve ratios between March 2022 and March 2023. Owing to tighter liquidity conditions, the interbank overnight call loan rate, bills market rates, and the average 10-year government bond yield increased over the previous year.

In regard to the exchange rate, during the course of the year, the NT dollar against the US dollar broadly depreciated. At the end of 2023, the NT dollar depreciated by 0.1% against the US dollar compared with a year earlier; on a daily average basis, the NT dollar also depreciated by 4.4% compared with the previous year. In the stock market, spurred by the ongoing buzz surrounding artificial intelligence and the US stock market rallies, the Taiwan Stock Exchange (TWSE) Capitalization Weighted Stock Index, the TAIEX, was on the rise, and the daily average trading value increased.

Growth in M2 and Bank Loans and Investments Both Declined

In early 2023, declining exports weakened corporate capital funding demand. However, the introduction of a renewed Preferential Housing Loans for the Youth program in August resulted in an increase in the annual growth rate of housing loans, offsetting the sluggish corporate lending growth. At the end of 2023, the annual growth rate of bank loans and investments stood at 6.58%, slightly higher than the 6.38% at the end of 2022. Nevertheless, the average annual growth rate for the entire year decreased from 7.39% in 2022 to 5.92% in 2023. With slower growth in bank loans and investments reducing the demand for money, the annual growth rate of M2 (measured on a daily average basis) declined to 6.25% in 2023 from the 7.48% registered in 2022, within the Bank's 2.5% to 6.5% reference range for the year.

Both Deposit and Loan Interest Rates Increased

In response to intense inflation pressures and in order to rein in inflation expectations, the Bank

raised the policy rates by 0.125 percentage points in the quarterly meeting of March 2023. As a result, the posted interest rates on bank deposits moved upwards. At the end of 2023, the average posted interest rate on one-year time deposits of the five major domestic banks edged up from 1.45% at the end of the previous year to 1.48%, and the weighted average interest rate on their newly-extended loans increased by 0.439 percentage points to 1.885% in 2023.

For domestic banks as a whole, the weighted average interest rate on deposits was 0.94%, increasing by 0.41 percentage points over the previous year. Meanwhile, the weighted average interest rate on loans was 2.33%, increasing by 0.48 percentage points.

Money Market Rates Generally Increased

During 2023, short-term liquidity conditions tightened mainly owing to the spillover effects of major central banks' monetary tightening since 2022, concerns over instability in the US and European banking systems in March 2023, the Bank's interest rate hike in late March, and consecutive net foreign capital outflows for four months starting in July. The weighted average overnight call loan rate generally showed an upward trend in 2023, rising from a low of 0.560% in January to 0.686% in December. The annual average interest rate was 0.646%, increasing by 0.383 percentage points from the previous year.

With regard to the bills market, money market rates broadly increased in 2023, while their yearly average rates were all higher than those of the previous year amid tight market liquidity. The average 1-30 day commercial paper rate in the secondary market was 1.20% in 2023, increasing by 0.51 percentage points over the previous year.

10-Year Government Bond Yield Became Higher than Last Year

In 2023, higher inflation led the yields on US government bonds to increase. Coupled with the Bank's policy rate hikes, the turnover-weighted average of the yield on Taiwan's benchmark 10-year government bond rose by 12 basis points over the previous year to 1.21%.

In terms of issuance, as the Central Government Debt Service Fund renewed maturing government bonds and increased issuance to meet budget needs, the total issuance amount of government bonds decreased by NT\$42.1 billion over the previous year.

NT Dollar Against the US Dollar Broadly Depreciated

In 2023, the NT dollar against the US dollar broadly depreciated. At the beginning of the year, inflationary pressures in the United States eased and the US dollar weakened; coupled with foreign capital inflows to Taiwan, the NT dollar appreciated against the US dollar towards a yearly high of 29.700 on February 2. Then, as the Fed raised interest rates by 0.25 percentage points

and US economic data was better than expected, the US dollar strengthened and the NT dollar depreciated. After the collapse of Silicon Valley Bank in March, the market reduced expectations of an aggressive Fed interest rate hike, causing the US dollar to fall and the NT dollar to appreciate. Subsequently, amid persisting inflation, the Fed delivered three 0.25 percentage point rate hikes in March, May, and July. Additionally, escalating tensions in the Middle East in October increased market demand for safe-haven assets, also bolstering the US dollar. Furthermore, foreign portfolio investors began to realize profits in Taiwan's stock market from July onwards, resulting in net capital outflows that drove a continuous depreciation of the NT dollar against the US dollar. In November and December, as the Fed kept its policy rate unchanged and US inflation rates were lower than expected, the US dollar weakened and the NT dollar appreciated against the US dollar. At the end of 2023, the NT dollar depreciated by 0.1% against the US dollar compared with the end of the previous year. On a daily average basis, the NT dollar depreciated against the US dollar by 4.4% in 2023.

Stock Index Rose and Trading Value Increased

From the beginning to the middle of 2023, the TAIEX was driven upwards by the easing of inflationary pressures and monetary tightening in the US, increasing demand for AI technologies, and bullish runs of US tech stocks. In the second half of the year, though, the US sovereign debt credit rating downgrade, China's property sector debacles and its central bank's rate cuts, US stock corrections, and foreign investor selloffs of TAIEX shares combined to lead to downward swings through to the end of October. Afterwards, the TAIEX was boosted by market expectation of the end of the Fed's tightening cycle and an anticipated holiday shopping boom, as well as foreign investor net purchases of local stocks. As a result, the TAIEX followed the US stock rebound to rally and closed the year at an all-year high, up by 26.8% over the end of the previous year. The daily average trading value on the TWSE increased by 15.9% from 2022 to NT\$264.3 billion in 2023.

2. Banking Sector

Number of Monetary Financial Institutions

At the end of 2023, the number of monetary financial institutions (defined hereafter in this chapter as excluding the central bank) marginally decreased to 405. The number of domestic banks decreased by one as Jih Sun International Bank was merged into Taipei Fubon Commercial Bank Co., Ltd. As for money market mutual funds, the number remained zero after the last remaining fund was liquidated in May 2017. The numbers of the other types of monetary financial institutions all stood unchanged.

In addition to monetary financial institutions, the number of financial holding companies was 15, the same as 2022.

Number of Monetary Financial Institutions by Type

Types of Institutions	End of 2023	End of 2022	Annual Change
Total Number of Main Offices	405	406	-1
Domestic Banks	39	40	-1
Foreign and Mainland Chinese Banks	31	31	0
Credit Cooperatives	23	23	0
Credit Departments of Farmers' and Fishermen's Associations	311	311	0
Chunghwa Post	1	1	0
Total Number of Branches	6,079	6,074	5
Local Branches	5,866	5,863	3
Overseas Branches	154	152	2
Offshore Banking Units	59	59	0

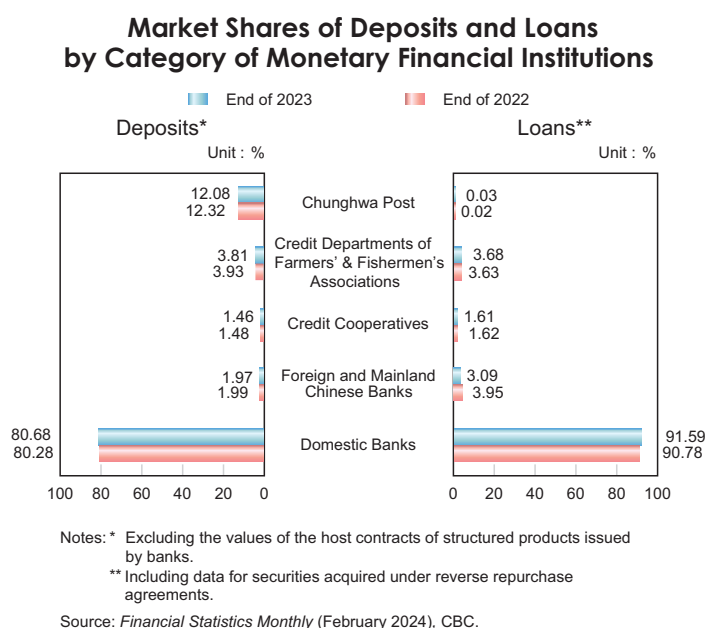
Sources: 1. *Financial Statistics Monthly* (February 2024), CBC.
2. Department of Financial Inspection, CBC.

Market Shares of Deposits and Loans

At the end of 2023, domestic banks maintained a dominant role in the deposit market, with the market share rising to 80.68%. This was primarily due to a more sizeable increase in the deposits of domestic banks, resulting from continued credit growth and ample market liquidity. By contrast, the deposit market shares shrank for the other types of monetary institutions, with the departments of

savings and remittances of Chunghwa Post taking up a share of 12.08%, the credit departments of farmers' and fishermen's associations 3.81%, branches of foreign and Mainland Chinese banks 1.97%, and credit cooperatives 1.46%.

In terms of loans, the market share of domestic banks continued to climb to 91.59%, mainly because an increase in house-purchasing loans in the second half of the year offset soft demand for funds by enterprises due to sluggish exports. In contrast, foreign and Mainland Chinese banks' market share slipped to 3.09%. Chunghwa Post's market share slightly rose to 0.03%, reflecting an increase in lending to bills finance companies. As for the other institution types, the market share of credit departments of farmers' and fishermen's associations edged up to 3.68%, whereas that of credit cooperatives continued to fall to 1.61%.



Main Uses of Funds in Monetary Financial Institutions

At the end of 2023, the total amount of funds in monetary financial institutions was NT\$66,276 billion, increasing by NT\$3,966 billion compared to the end of 2022. The combined share of transaction and non-transaction deposits was around 87%. The balances of transaction deposits and non-transaction deposits posted annual growth rates of 3.73% and 9.96%, respectively.

In the case of fund uses, bank loans still accounted for over 50% of total uses of funds at the end of 2023. Due to a decrease in growth of loans to the private sector, the annual growth rates of NT dollar loans decreased from 8.92% at the end of the previous year to 6.02%. Net foreign assets accounted for a share of 10.45%, higher than the 9.06% recorded a year ago owing to the increase in investment in foreign securities.

Portfolio investments by monetary financial institutions measured on a cost basis changed from a decline of 0.55% at the end of the previous year to a growth of 12.77%, mainly due to an increase in investment in commercial paper. Banks' purchases of certificates of deposit issued by the central bank accounted for a share of 12.19%, lower than the 13.71% recorded a year ago.

Main Uses of Funds in Monetary Financial Institutions¹

Unit: NT\$ billion

	End of 2023			End of 2022			Annual Change	
	Balance	Share (%)	Annual Growth Rate (%)	Balance	Share (%)	Annual Growth Rate (%)	Balance	Share (%)
Funds Balance								
Transaction Deposits ²	23,711	35.78	3.73	22,858	36.68	2.42	853	-0.90
Nontransaction Deposits ³	33,922	51.19	9.96	30,850	49.51	5.94	3,072	1.68
NT Dollar Deposits	24,958	37.66	8.41	23,023	36.95	7.11	1,935	0.71
Foreign Currency Deposits ⁴	8,964	13.53	14.52	7,828	12.56	2.65	1,136	0.97
Government Deposits	1,494	2.25	4.79	1,426	2.29	10.92	68	-0.04
Other Items	7,149	10.78	-0.37	7,176	11.52	-2.73	-27	-0.74
Total	66,276	100.00	6.36	62,310	100.00	3.67	3,966	0.00
Uses:								
Net Foreign Assets ⁴	6,926	10.45	22.68	5,645	9.06	10.40	1,280	1.39
Loans	38,065	57.43	5.54	36,067	57.88	7.59	1,998	-0.45
NT Dollar Loans	37,433	56.48	6.02	35,306	56.66	8.92	2,127	-0.18
Foreign Currency Loans ⁴	632	0.95	-17.01	761	1.22	-31.34	-130	-0.27
Portfolio Investments ⁵	8,420	12.70	12.77	7,467	11.98	-0.55	954	0.72
Purchases of CDs Issued by CBC	8,079	12.19	-5.44	8,544	13.71	-9.01	-465	-1.52
Deposits with CBC	4,786	7.23	4.35	4,586	7.37	0.45	200	-0.14

Notes: 1. Monetary Financial Institutions include Domestic Banks, Local Branches of Foreign and Mainland Chinese Banks, Credit Cooperatives, Credit Departments of Farmers' and Fishermen's Associations, Chunghwa Post and Money Market Mutual Funds.

2. Including checking accounts, passbook deposits and passbook savings deposits.

3. Including time deposits, time savings deposits, foreign currency deposits, postal savings deposits, non-residents' NT dollar deposits, repurchase agreements and money market mutual funds.

4. Excluding valuation changes in the exchange rate of the NT dollar against foreign currencies.

5. Measured at original costs.

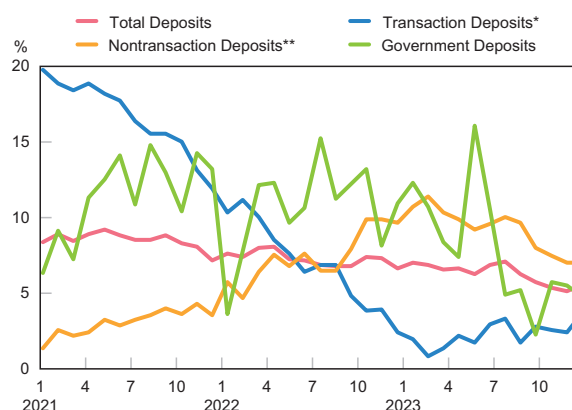
Source: *Financial Statistics Monthly* (February 2024), CBC.

Deposits

Because of net capital outflows and slower growth in loans and investments, the annual growth rate of deposits held by monetary financial institutions decreased to 5.62% by the end of 2023 from 6.63% a year earlier. Regarding the composition of deposits, the drop in the annual growth rate was mainly due to slower growth in nontransaction deposits and government deposits.

In terms of nontransaction deposits, its annual growth rate decreased to 7.02% by the end of 2023 from 9.69% a year earlier due to slower growth in foreign currency deposits.

Annual Growth Rates of Deposits



Notes: * Including checking accounts, passbook deposits and passbook savings deposits.

** Including time deposits, time savings deposits, foreign currency deposits, postal savings deposits, nonresidents' NT dollar deposits, repurchase agreements, and money market mutual funds.

Source: *Financial Statistics Monthly* (February 2024), CBC.

However, its share in total deposits went up to 57.37% by the end of 2023 from 56.62% a year earlier.

The annual growth rate of foreign currency deposits decreased to 3.35% by the end of 2023 from 17.20% a year earlier and its share also shrank to 15.17% from 15.50%. This was primarily owing to weak exports in 2023, which resulted in reduced inward remittances of overseas sales revenues. Moreover, corporate demand for foreign currency softened, as reflected by lower demand for foreign currency borrowing and a shift from foreign currency deposits to NT dollar time deposits. Meanwhile, the increase in net investment in overseas long-term bonds and notes by pension funds further contributed to this trend.

In 2023, the annual growth rate of time deposits (including negotiable certificates of deposit) experienced a drop in May, mainly due to the reinstatement of the deadline for corporate income tax settlement and declaration, which usually is set at the end of May. A resultant wave of more corporate tax payments using time deposits compared to the same month of the previous year caused the annual growth rate of time deposits to drop to a yearly low of 4.32%. However, for all the other months, the annual growth rates of time deposits generally showed an uptrend. This was because some enterprises moved their foreign currency deposits into NT dollar time deposits, and the amount of cash dividends distributed by enterprises decreased compared to the previous year. At the end of 2023, the annual growth rate of time deposits rose to 10.66% from 6.37% a year earlier, with its share rising to 11.77% from 11.23%.

In 2023, the annual growth rate of time savings deposits rose before dropping. The increase in the first half of the year was driven by the impact of rising interest rates. In pursuit of higher returns, some individuals migrated from passbook savings deposits into time savings deposits, and some pension funds allocated more funds to time savings deposits. This led to a peaking in the annual growth rate of time savings deposits, reaching 13.68% in May. However, in the second half of the year, as the AI boom drove stock market rallies and spurred investment enthusiasm, some individuals and pension funds paused migration of passbook savings deposits into time savings deposits, which led to a decrease in the annual growth rate of time savings deposits. Nonetheless, by the end of 2023, the annual growth rate of time savings deposits still increased to 10.84% from 9.83% by the end of 2022, and its share also increased to 18.10% from 17.25%.

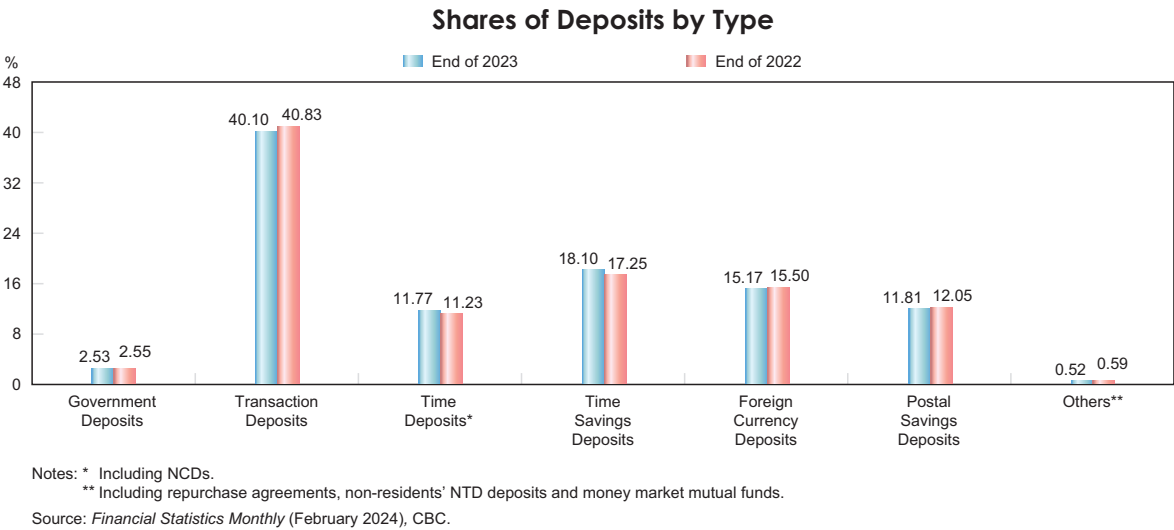
Regarding postal savings deposits, the annual growth rate declined from 4.45% by the end of 2022 to 3.50% by the end of 2023, and its share in total deposits decreased from 12.05% to 11.81%.

In terms of transaction deposits, its annual growth rate increased to 3.73% by the end of 2023 from 2.42% a year earlier. This increase was because the annual growth rate of passbook savings deposits rose and the annual growth rate of passbook deposits turned positive. However, its share in total deposits shrank to 40.10% by the end of 2023 from 40.83% a year earlier.

In the beginning of 2023, the annual growth rate of passbook savings deposits decreased from 3.80% at the end of the previous year to 3.17% at the end of March, driven by the rise in interest rates. However, later in the year, thanks to the government's one-off universal tax rebate program and the gradual uptick in the stock market, the annual growth rate of balances in securities giro accounts turned positive. Additionally, in the second half year, as the shift of passbook savings deposits into time savings deposits slowed down, the annual growth rate of passbook savings deposits went up to 4.26% by the end of 2023.

The annual growth rate of passbook deposits turned positive by the end of 2023. Although the economic slowdown in 2023 weakened demand for short-term operational funds by enterprises, there was a lower base effect because the funds from property and casualty insurers' passbook deposits shifted to policyholders' passbook savings deposits during the pandemic in 2022. Furthermore, the amount of corporate tax payments using passbook deposits increased less, and the amount of cash dividends distributed by enterprises decreased compared to the previous year, leading the annual growth rate of passbook deposits to turn positive.

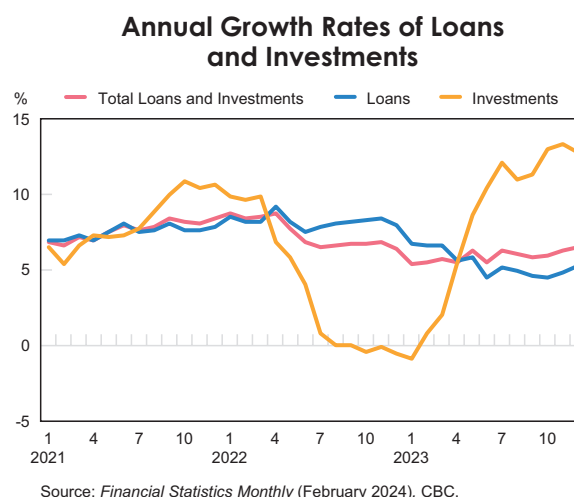
With regard to government deposits, the annual growth rate experienced a significant increase in May as the end-of-May deadline for corporate income tax settlement and declaration, which was postponed to the end of June 2023, was reinstated. This change led to a significant surge in tax revenue compared to the same period in the previous year, causing the annual growth rate of government deposits to reach a yearly high at 16.11%. However, for the other months, the annual growth rates of government deposits generally showed a downtrend because of the decline in economic growth momentum in 2023, resulting in a slowdown in government tax revenue growth. Also, the national treasury disbursed relevant funds under the universal tax rebate program as well as post-pandemic recovery plans, leading to a decrease in the annual growth rate of government



deposits to 4.79% by the end of 2023 from 10.93% a year earlier. Its share in total deposits slightly decreased to 2.53% from 2.55%.

Bank Loans and Investments

The annual growth rate of loans and investments of monetary financial institutions was 6.58% at the end of 2023, up from 6.38% at the end of 2022. Growth in loans slowed to an annual pace of 5.30% at the end of 2023 from 7.94% at the end of the previous year, whereas growth in portfolio investment rose to positive territory at 12.77% at the end of 2023 from -0.55% a year earlier.



Loans by Sector

The annual growth rate of private sector loans extended by banks (defined in the following paragraphs as including domestic banks and local branches of foreign and Mainland Chinese banks) continued to slip to 5.33% at the end of 2023 from 7.46% a year earlier. The fall was largely due to sluggish exports, a moderation in the housing market, and weakening demand for bank borrowing as some investment companies raised funds by issuing bonds and commercial paper. The annual growth rate of loans to government enterprises dropped to 6.98% as of the end of 2023 from 81.52% a year earlier, as Taiwan Power Company and the CPC Corporation met their funding needs by issuing bonds and commercial paper rather than bank borrowing. Meanwhile, the annual growth rate of loans to government agencies declined further from -1.63% to -5.93% at the end of 2023 owing to a larger repayment by the government thanks to increased tax revenues.

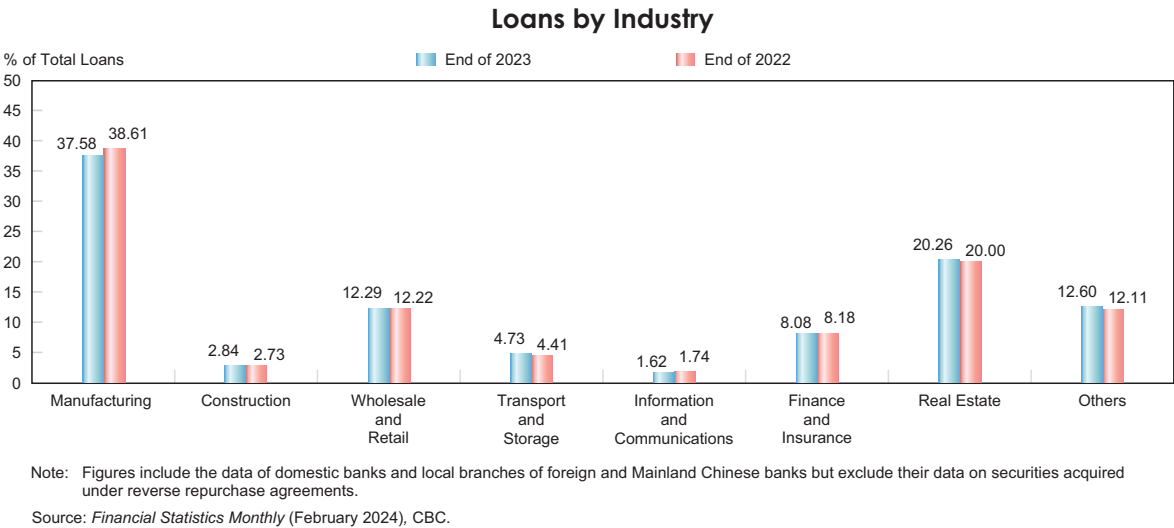
In terms of loan composition, loans extended to the private sector and government enterprises accounted for 93.52% and 2.87% of total loans at the end of 2023, higher than the 93.16% and 2.82% recorded at the end of 2022. Loans extended to government agencies accounted for 3.61% at the end of 2023, lower than 4.02% at the end of 2022.

Loans by Industry

Broken down by industry sector, bank loans to the manufacturing sector continued to account for the largest portion, at 37.58% at the end of 2023 compared to 38.61% at the end of 2022, with its annual growth rate also down from 10.01% to 0.93%. This was mainly attributable to a decrease in loans extended to computers, electronic and optical products manufacturing as export growth

declined in 2023. While the share of loans extended to the construction industry increased to 2.84%, its annual growth rate dropped from 11.49% to 7.93% at the end of 2023, reflecting the housing market slowdown.

The share of loans extended to the real estate industry expanded; however, its annual growth rate trended down because of slower growth in construction loans. Meanwhile, the share of loans extended to the wholesale and retail industry climbed up, whereas its annual growth rate continued to decline amid trade headwinds in 2023. Both the share and the annual growth rate of loans to the finance and insurance industry slipped as the industry raised funds by issuing bonds and commercial paper, reducing demand for bank borrowing.



Consumer loans

The annual growth rate of consumer loans extended by banks increased from 6.16% at the end of 2022 to 6.37% at the end of 2023. Among them, house-purchasing loans increased NT\$660.4 billion or 7.04% in 2023, a faster year-on-year increase than 6.52% in 2022 mainly because of an increase in loan origination for newly-built housing units in the latter half of 2023 and the introduction of new Preferential Housing Loans for the Youth in August boosting loan applications. As for the shares of various types of consumer loans, house-purchasing loans remained the largest component, with its share increasing from 84.77% at the end of 2022 to 85.30% at the end of 2023. Car loans accounted for 1.87%, increasing from 1.75%, mainly because the shortage of car parts eased and the delivery volume of imported cars increased. Meanwhile, house-repairing loans, revolving credit for credit cards, employee welfare loans, and other consumer loans accounted for 0.34%, 0.89%, 0.33%, and 11.27%, respectively.

Portfolio Investment

Owing to valuation changes, portfolio investment by monetary financial institutions, measured at fair value, recorded a year-on-year increase of NT\$1,095.5 billion, while the increase was smaller, at NT\$953.4 billion, when measured on a cost basis.

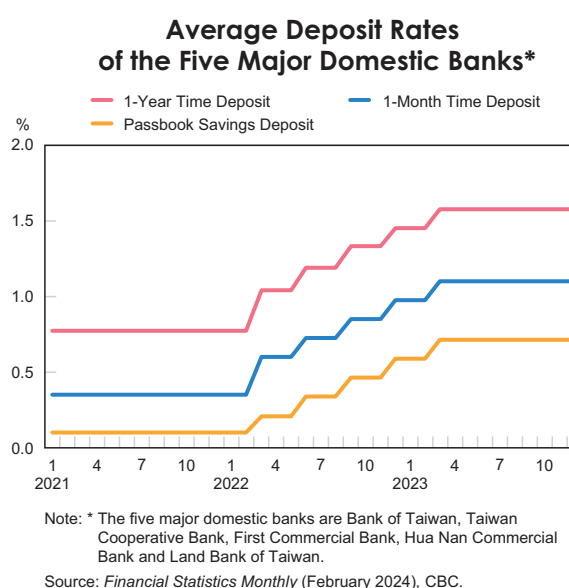
Portfolio investment by monetary financial institutions, measured on a cost basis, returned to positive territory, registering 12.77% in 2023 compared to -0.55% in 2022. This was mainly driven by ample liquidity in the banking system, together with a rebound in corporate bonds and commercial paper issuance as market interest rates stabilized when central banks in the US and Europe as well as the Bank kept the policy rates unchanged.

In terms of tool types, government bonds accounted for a share of 51.84%, lower than the 56.12% recorded a year ago because of a year-on-year decrease in net issuance of government bonds. As such, banks increased investment in corporate bonds and commercial paper. At the end of 2023, commercial paper accounted for a share of 21.00%, higher than a year ago. In addition, corporate bonds accounted for a share of 19.52%, edging up from the end of 2022.

Bank Interest Rates

The Bank raised the policy rates by 0.125 percentage points in March 2023, in order to contain domestic inflation expectations. As a result, banks' posted interest rates on deposits and loans trended upward. In the case of the five major domestic banks, the average fixed rates on one-month and one-year time deposits moved upward to 1.10% and 1.58% at the end of March 2023 from 0.98% and 1.45% at the end of February, respectively, while remaining steady for the rest of the year.

In view of the slow decline of domestic inflation and the potential impact of lingering global uncertainties on the strength of the domestic economic recovery, the Bank decided to keep the policy rates on hold in June, September and December in 2023. The Bank also stressed that it would continue to pay attention to the monetary policy trends of major economies, downward risks of Mainland China's economy, as well as changes in international raw material prices, geopolitical risks, extreme weather, etc., and their impact on the domestic economic and financial situation

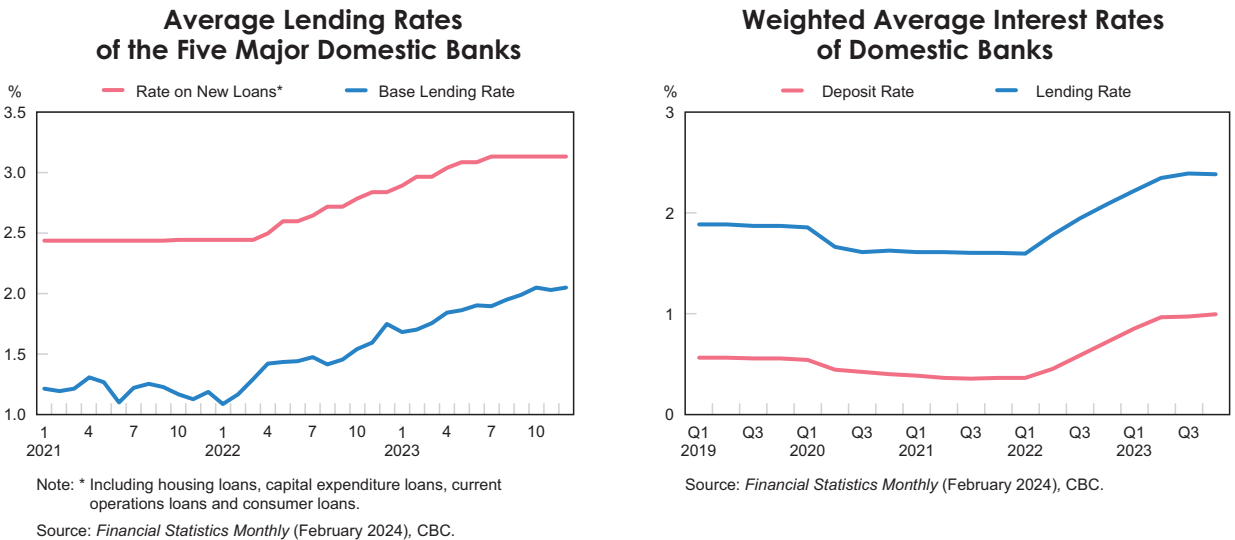


and adjust monetary policy as necessary to maintain price stability and financial stability.

The weighted average rates on deposits and loans of domestic banks generally showed an upward trend in 2023. In terms of deposit interest rates, the Bank's policy rate hikes in December 2022 and March 2023 guided banks' posted interest rates on deposits upward, causing the weighted average interest rate to rise to 0.96% in the second quarter of 2023 from 0.72% in the fourth quarter of the previous year. Then, owing to the increase either in the amount or in the share of time deposits in total deposits, the rate rose further to 0.99% in the fourth quarter of the year. On the whole, the weighted average interest rate on total deposits of domestic banks was 0.94% in 2023, which was 0.41 percentage points more than that recorded in the previous year.

In terms of loan interest rates, after the Bank's March policy rate hike, banks successively increased their base lending rates and the index rates on adjustable-rate mortgages. In addition, there was a decrease in lower-rate borrowings from governments. As a result, the weighted average interest rate on new loans of the five major domestic banks roughly trended upward from 1.679% in January to 2.051% in December. For the year as a whole, the rate increased from 1.446% in the previous year to 1.885%, up by 0.439 percentage points. Excluding central government loans, the weighted average interest rate on new loans increased from 1.483% in the previous year to 1.899% in 2023, up by 0.416 percentage points. Moreover, the average base lending rate increased to 3.133% at the end of 2023 from 2.837% at the previous year-end.

The Bank's policy rate hike led the weighted average loan rate to increase from 2.08% in the fourth quarter of 2022 to 2.34% in the second quarter of 2023. Then, in the third quarter, the weighted average interest rate on loans of domestic banks continued to rise to 2.39% because local governments and government enterprises paid down more loans and some banks successively



increased their base lending rates. In the fourth quarter, the weighted average loan rate moved downward to 2.38% because of the introduction of competitive loan rate schemes by some banks and repayment of high-interest rate loans by some firms. For the year as a whole, the weighted average interest rate on loans of domestic banks was 2.33%, which was 0.48 percentage points more than that recorded in the previous year.

Because the increase in the average lending rate was more than that in the average deposit rate, the average interest rate spread between deposits and loans widened to 1.39 percentage points in 2023, which was 0.07 percentage points more than that recorded in the previous year.

3. Money Market

From March 2022 to March 2023, the Bank raised policy rates five times, and the interbank overnight call loan rate and bills market rates also swung up. Although the policy rates remained unchanged later in the year, money market rates still fluctuated at high levels. Consequently, financial institutions had weaker demand for interbank call loans, and the total turnover in the interbank call loan market for the year 2023 fell by 10.52% over the previous year. However, the year-end balance for 2023 rose by 14.37%, reflecting a longer duration of the period between the year-ends of the Gregorian and Lunar calendars (from Dec.29, 2023 to Feb.7, 2024, compared to the period from Dec.30, 2022 to Jan.19, 2023) that increased bank willingness to extend interbank loans before the end of 2023.

With regard to the short-term bills market in 2023, the total turnover recorded an increase of 14.50% from a year before. At the end of the year, the total issuance of short-term bills grew by 9.66% to meet corporate funding needs, while the outstanding amount of short-term bills went up by 15.81% compared to the previous year end.

Reduction in Interbank Call Loans

As market interest rates had trended up and demand for interbank call loans had softened amid the Bank's monetary policy tightening since 2022, total annual turnover of interbank call loans reached NT\$23,077.2 billion in 2023, decreasing by NT\$2,712.8 billion or 10.52% over the previous year.

With respect to borrowers, domestic banks still made the largest contribution to total transactions with a share of 75.92%, followed by bills finance companies, foreign and Mainland Chinese banks, and Chunghwa Post, with shares of 11.40%, 11.32%, and 1.35%, respectively.

The amount borrowed by domestic banks declined by NT\$2,103.8 billion or 10.72% from a year earlier. The contraction was primarily because the Bank reduced the issuance of 364-day and 2-year negotiable certificates of deposit (NCDs) to increase market liquidity, and rising tax revenues in the year drove down the government's demand for borrowing from banks, weakening domestic banks' funding needs.

As for foreign and Mainland Chinese banks, they obtained NTD funds through Taiwan's interbank swap markets, leading to reduced demand for borrowing in 2023. Therefore, the amount borrowed by foreign and Mainland Chinese banks registered a year-on-year decrease of NT\$417.3 billion or 13.77%.

The amount borrowed by bills finance companies rose by NT\$112.1 billion or 4.45% compared

with a year ago. The growth was largely because bills finance companies expanded the business of underwriting commercial paper in order to enhance profits from spread trading, resulting in higher funding needs. Meanwhile, the amount borrowed by Chunghwa Post slid by NT\$303.8 billion or 49.33% over the previous year.

In terms of lenders, domestic banks remained the largest supplier of funds, making up 60.23% of total transactions in 2023. Foreign and Mainland Chinese banks came in second with a share of 37.29%, followed by Chunghwa Post and bills finance companies making up 2.33% and 0.15% of total transactions, respectively.

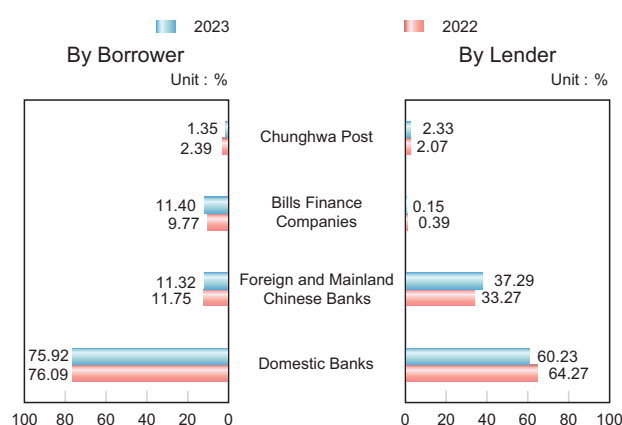
The amount of call loans made by domestic banks dropped by NT\$2,676.9 billion or 16.15% compared with the previous year, reflecting less available funds at hand as domestic banks increased investments in enterprises and personal loans showed faster growth in the second half of the year.

Foreign and Mainland Chinese banks slightly increased their interbank lending by NT\$27.2 billion or 0.32% over the previous year in order to enhance their profits considering money market rates stayed at relatively high levels in 2023.

On the other hand, in response to tighter funding conditions at the quarter ends, Chunghwa Post provided more interbank lending that crossed quarter ends in support of banks' funding needs. As a result, the amount of call loans made by Chunghwa Post expanded by NT\$1.9 billion or 0.35% from a year before.

As for bills finance companies, the amount lent by this group went down by NT\$64.9 billion or 65.15% over the previous year because of less available funds at hand.

Composition of Interbank Call Loan Market by Participant



Source: Financial Statistics Monthly (February 2024), CBC.

In terms of maturity, interbank overnight call loans remained the most actively traded instrument in the market with a predominant share of 45.55%, down by 0.66 percentage points from that of the previous year. The second were those with a maturity of one week, rising by 0.66 percentage points to 37.55% over the previous year, while the share of loans with a two-week maturity slipped by 1.33 percentage points to 10.13%.

Rise in Short-Term Bill Transactions

For the year 2023, newly issued short-term bills stood at NT\$20,478.6 billion. Commercial paper made up a dominant 94.69% of the new issues, followed by NCDs with a share of 3.99%.

Newly issued short-term bills posted a year-on-year increase of NT\$1,803.8 billion or 9.66% in 2023. The growth was mainly attributable to commercial paper with an increased issuance of NT\$2,093.7 billion to meet corporate funding needs despite an uptick in short-term bills market rates.

In contrast, issuance of NCDs shrank by NT\$315.0 billion from the previous year. This was because, when part of the NCDs reached maturity, some banks did not renew the issuance of NCDs after assessing their own funding conditions or corporate holders did not renew their purchases in order to free up funds for other purposes.

Overall, the amount of the total issuance of short-term bills was larger than that of the total repayments for short-term bills. Consequently, the outstanding of short-term bills reached NT\$3,348.0 billion as of the end of 2023, representing an increase of NT\$457.0 billion or 15.81% from that of the previous year end.

Short-Term Bills Market

Unit: NT\$billion

Year	Total		Treasury Bills		City Treasury Bills		Commercial Paper		Banker's Acceptances		Negotiable Certificates of Deposit	
	Issues	Year-End Outstanding	Issues	Year-End Outstanding	Issues	Year-End Outstanding	Issues	Year-End Outstanding	Issues	Year-End Outstanding	Issues	Year-End Outstanding
2014	10,840.6	1,641.2	244.9	130.0	10.0	0.0	9,919.5	1,306.8	24.1	4.3	642.2	200.2
2015	11,512.8	1,677.7	233.7	90.0	-	-	10,426.0	1,346.6	20.8	3.5	832.3	237.6
2016	12,778.5	1,873.5	217.3	90.0	-	-	11,371.3	1,480.1	18.3	4.1	1,171.6	299.4
2017	14,878.5	2,154.5	220.0	25.0	-	-	13,077.8	1,709.0	19.4	4.2	1,561.3	416.4
2018	14,971.9	2,223.1	160.0	30.0	-	-	12,965.0	1,760.6	18.5	4.0	1,828.5	428.5
2019	14,927.3	2,353.2	314.0	65.0	-	-	13,613.6	2,034.1	14.0	2.6	985.7	251.5
2020	16,005.2	2,747.2	336.6	125.0	-	-	14,824.7	2,344.3	13.0	2.8	830.9	275.1
2021	17,254.0	2,911.2	320.0	115.0	-	-	16,107.5	2,560.1	17.8	4.5	808.7	231.6
2022	18,674.8	2,891.0	230.0	30.0	-	-	17,296.9	2,584.8	15.9	2.7	1,131.9	273.5
2023	20,478.6	3,348.0	260.0	30.0	-	-	19,390.6	3,000.9	11.1	2.3	816.9	314.8

Source: *Financial Statistics Monthly* (February 2024), CBC.

The total turnover of short-term bills in 2023 grew by NT\$7,016.3 billion or 14.50% to NT\$55,416.2 billion. Of the total transactions, commercial paper still made up the lion's share of 96.73%, while NCDs came in with the second largest share of 2.71%.

In respect of market participants, private enterprises were still the largest player in the market

with a dominant share of 47.73%, followed by banks and bills finance companies with shares of 26.10% and 14.77%, respectively.

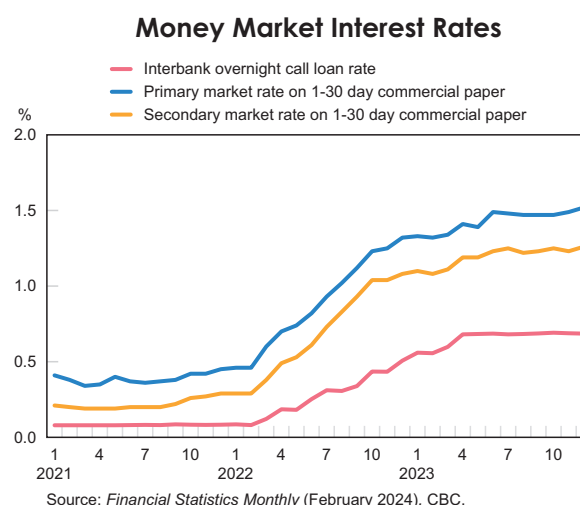
Broad Uptrend in Money Market Rates

In 2023, the weighted average interbank overnight call loan rate displayed a broad uptrend. With the Bank's policy rate hikes in December 2022 and March 2023, the US and European banking sector turmoil, as well as the end-of-quarter effect, the interbank overnight call loan rate swung up to 0.681% in April 2023 from 0.507% in December 2022.

Later in the year, on account of income tax collections and enterprises' dividend payouts in May, as well as four consecutive months of net foreign capital outflows since July, the interbank overnight call loan rate trended up and recorded an all-year high of 0.691% in October.

In November, net foreign capital outflows turned into net inflows. However, with the year end approaching, considering the need to boost lending before the year end and to meet the regulatory capital adequacy ratio requirements, banks became cautious about fund allocation. Through the Bank's open market operations, the interbank overnight call loan rate modestly went down to 0.686% in December.

The primary market rate on commercial paper with a maturity of 1-30 days moved upwards from 1.33% in January to 1.52% in December. Meanwhile, the secondary market rate on commercial paper with a maturity of 1-30 days also rose from 1.10% in January to 1.26% in December.



Growth in Money Market Funds

The Bank's policy rate rises for the past two years have sent the yields of domestic money market funds higher, attracting more investors to make purchases. In addition, with market expectations of the rate hike cycle nearing an end, some banks reduced the issuance of deposits with longer maturities, driving a shift of capital flows into money market funds.

At the end of 2023, there were a total of 36 money market funds in Taiwan and the total assets stood at NT\$863.5 billion with an increase of NT\$82.1 billion or 10.51% from the previous year end.

With regard to portfolio composition, the largest use of funds was short-term bills with a share of 49.47% at the end of the year. Following short-term bills were bank deposits and repurchase agreements, accounting for 39.89% and 10.02% of the total money market funds, respectively.

Portfolio Composition of Money Market Funds

Unit: NT\$billion

Year/Month End	Total	Bank Deposits		Short-Term Bills		Repurchase Agreements		Bonds	
		Amount	Share (%)	Amount	Share (%)	Amount	Share (%)	Amount	Share (%)
2021	851.4	437.2	51.35	327.8	38.50	86.1	10.11	0.4	0.04
2022	781.4	208.4	26.67	474.4	60.71	95.0	12.16	3.6	0.46
2023	863.5	344.5	39.89	427.2	49.47	86.5	10.02	5.4	0.62
2023/ 1	761.8	231.6	30.40	447.4	58.73	80.0	10.50	2.8	0.37
2	778.1	263.8	33.90	430.1	55.28	81.4	10.46	2.8	0.36
3	798.1	266.8	33.43	450.3	56.42	78.3	9.81	2.7	0.34
4	839.1	280.3	33.40	458.0	54.58	98.1	11.69	2.8	0.33
5	805.1	300.4	37.31	438.8	54.50	63.4	7.87	2.5	0.32
6	789.0	290.6	36.83	425.5	53.93	70.3	8.91	2.5	0.33
7	849.3	290.5	34.21	464.7	54.72	91.5	10.77	2.6	0.30
8	836.5	283.1	33.84	470.3	56.22	80.5	9.62	2.5	0.32
9	832.3	302.7	36.37	458.6	55.10	68.5	8.23	2.5	0.30
10	866.2	316.0	36.48	466.1	53.81	80.3	9.27	3.8	0.44
11	843.9	321.9	38.14	445.2	52.75	72.2	8.56	4.6	0.55
12	863.5	344.5	39.89	427.2	49.47	86.5	10.02	5.4	0.62

Source: Securities Investment Trust & Consulting Association of the R.O.C.

4. Foreign Exchange Market

The NT Dollar Exchange Rate

In 2023, on a daily average basis, the NT dollar appreciated against the Japanese yen and the renminbi (RMB) but depreciated against the euro, the US dollar and the Korean won. The trade-weighted nominal effective exchange rate index of the NT dollar decreased by 2.1% on a daily average basis. The exchange rate movements of the NT dollar vis-à-vis each of the above foreign currencies are as follows.

During the course of the year, the NT dollar against the US dollar depreciated broadly. At the beginning of the year, inflationary pressures in the United States eased amid market expectations that the Fed might slow down its pace of interest rate hikes. As the US dollar weakened, coupled with capital inflows to Taiwan, the NT dollar appreciated against the US dollar towards a yearly high of 29.700 on February 2. Then, the Fed raised interest rates by 0.25 percentage points, with Fed Chair Jerome Powell indicating that maintaining a tight monetary policy stance for a period might be necessary to achieve price stability; as a result, the US dollar strengthened and the NT dollar depreciated. After the collapse of Silicon Valley Bank in March, the market reduced expectations of a strong Fed interest rate hike, causing the US dollar to fall and the NT dollar to appreciate. Subsequently, amid persisting inflation, the Fed raised interest rates by 0.25 percentage points in March, May, and July. Additionally, escalating tensions in the Middle East in October increased market demand for safe-haven assets, also bolstering the US dollar. Furthermore, foreign portfolio investors began to realize profits from July onwards, resulting in net capital outflows that drove a continuous depreciation of the NT dollar against the US dollar. In November and December, as the Fed kept its policy rate unchanged and US inflation rates were lower than expected, the US dollar weakened and the NT dollar appreciated against the US dollar. At the end of 2023, the NT dollar depreciated by 0.1% against the US dollar compared with the end of the previous year. On a daily average basis, the NT dollar depreciated against the US dollar by 4.4% in 2023.

In the first half of 2023, the NT dollar depreciated against the euro, while in the second half, it fluctuated within a certain range. At the beginning of the year, inflationary pressures in the euro area remained high. As the European Central Bank (ECB) raised interest rates by 0.5 percentage points in February and again in March despite the Swiss Credit crisis, the euro strengthened and the NT dollar depreciated against the euro. Then, three more rate hikes by 0.25 percentage points in May, June, and July also sent the euro higher, and the NT dollar against the euro thus weakened. After another

rate hike by 0.25 percentage points in September, poor economic data and easing inflation in the euro area led to market expectations that the ECB would soon end its tightening cycle, causing the euro to depreciate. Subsequently, as the ECB kept its policy rates unchanged in both October and December and announced the cessation of reinvestment under the Pandemic Emergency Purchase Programme (PEPP) before 2024, the euro strengthened and the NT dollar depreciated against the euro. Compared with the end of the previous year, the NT dollar depreciated against the euro by 3.8% at the end of 2023. On a daily average basis, the NT dollar depreciated against the euro by 6.9%.

In 2023, the NT dollar generally appreciated against the yen. In the first half of the year, the Bank of Japan (BoJ) maintained an extremely loose monetary policy, keeping the yen under pressure. However, the collapse of the Silicon Valley Bank in March stimulated safe-haven demand, leading the yen to appreciate temporarily. In July, the BoJ raised its economic growth forecast, driving the yen to strengthen, and the NT dollar depreciated against the yen. The BoJ's emphasis on maintaining loose monetary policy and the smaller-than-expected adjustment of the yield curve control (YCC) policy at the end of October weakened the yen, and the NT dollar thus appreciated against the yen. In late November, Japan's core CPI inflation rate turned higher than the previous month, which raised market expectations that the BoJ might end its loose monetary policy earlier. As a result, the yen appreciated and the NT dollar depreciated against the yen. In mid-December, the BoJ kept its policy interest rates unchanged, causing the NT dollar to appreciate against the yen. Compared to the end of 2022, the NT dollar appreciated by 6.9% against the yen by the end of 2023. In terms of average exchange rates, the NT dollar appreciated by 2.1% against the yen compared to the previous year.

In the first half of 2023, the NT dollar initially depreciated against the RMB and then appreciated, while the exchange rate fluctuated within a narrow range in the second half of the year. At the beginning of the year, China reopened its borders and implemented monetary, fiscal, and housing market support policies. Market expectations for its economic recovery were optimistic, supporting the RMB and leading the NT dollar to depreciate against the RMB. Then, tensions escalated between the United States and China, and the RMB depreciated further on an easing of monetary policy by the People's Bank of China (PBoC). Entering the second half of the year, China attempted to stabilize the RMB exchange rate through measures such as adjusting the counter-cyclical factor in the central parity quotation and altering the required reserve ratio for foreign currency deposits, which supported the RMB and led to NTD depreciation against the RMB. In early December, the international credit rating agency Moody's revised down China's sovereign credit outlook, causing the NT dollar to appreciate against the RMB. Compared to the end of 2022, the NT dollar appreciated by 1.9% against the RMB by the end of 2023. In terms of average exchange rates, the

NT dollar also appreciated by 0.5% against the RMB compared to the previous year.

In 2023, the NT dollar first appreciated and then depreciated against the won. At the beginning of the year, the won appreciated due to the Bank of Korea's (BoK's) rate hike. In the following months, the BoK decided to keep the policy rate unchanged, leading to market expectations that South Korea's rate hike cycle was nearing its end. This resulted in an appreciation of the NT dollar against the won. In July, with the BoK indicating potential future rate hikes and a rise in South Korean government bond yields, driving net foreign capital inflows, the won strengthened. In October, though improvements in South Korea's exports and a record low unemployment rate supported the

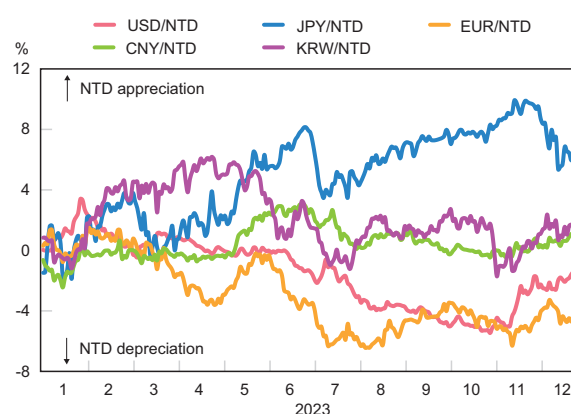
Annual Changes of NTD Exchange Rate Against Major Currencies

	NTD/USD	NTD/EUR	NTD/JPY	NTD/CNY	NTD/KRW
Exchange Rate (2023/12/29)	30.735	34.011	0.2173	4.3338	0.0237
Exchange Rate (2022/12/30)	30.708	32.709	0.2324	4.4175	0.0244
Annual Change	-0.1%	-3.8%	6.9%	1.9%	2.7%
Average Exchange Rate (2023)	31.150	33.682	0.2217	4.3973	0.0239
Average Exchange Rate (2022)	29.777	31.357	0.2264	4.4198	0.0231
Annual Change	-4.4%	-6.9%	2.1%	0.5%	-3.4%

Source: Department of Economic Research, CBC.

won, the BoK decided to freeze the policy rate, leading to narrow fluctuations of the NT dollar exchange rate against the won. Thereafter, with the BoK maintaining its policy rate and milder-than-expected inflation data released in late December, it raised market expectations for a BoK rate cut, strengthening the NT dollar against the won. Compared with the end of 2022, the NT dollar appreciated by 2.7% against the Korean won at the end of 2023. On a daily average basis, the NT dollar depreciated by 3.4% against the won in 2023.

Percentage Changes of NT Dollar Against Major Currencies (Compared with End-2022)



Source: Department of Economic Research, CBC.

Foreign Exchange Trading

Trading in the Taipei foreign exchange market increased in 2023. Total net trading volume for the year was US\$9,341.0 billion, representing an 8.8% year-on-year increase. The daily average turnover was US\$37.8 billion in 2023.

In terms of trading partners, transactions between banks and non-bank customers accounted for 30.6% of the total turnover, while interbank transactions made up 69.4%, including 21.7% for transactions among local banks and 47.7% for those between local banks and overseas banks.

As far as traded currencies were concerned, NT dollar trading against foreign currencies accounted for 45.1% of the total trading volume, of which trading against the US dollar made up a dominant 43.5%. Transactions in third currencies contributed to 54.9% of the total trading volume, with trading in currency pairs of USD-RMB, USD-euro, and USD-yen accounting for respective shares of 19.7%, 8.4%, and 8.1%. Compared with 2022, NT dollar trading against foreign currencies increased by 1.2% while transactions in third currencies increased by 16.0%.

With respect to types of transactions, the major types were foreign exchange swaps and spots, accounting for 51.1% and 38.6% of total turnover, respectively. Compared with 2022, the trading volumes of forwards, swaps, options, and cross currency swaps increased, whereas those of spots and margin

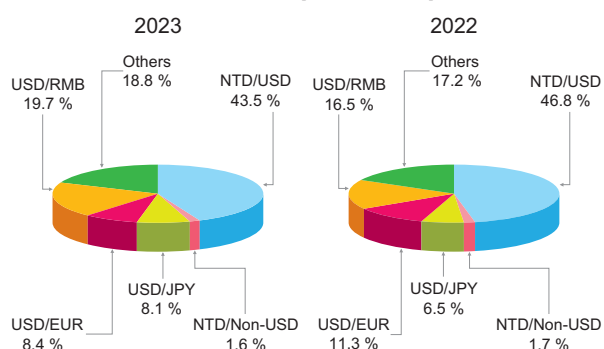
Turnover of Major Products in the Taipei Foreign Exchange Market

Unit: US\$ billion

Year	Spots	Forwards	Forex Swaps	Margin Trading	Options	Cross Currency Swaps	Total
2019	3,079.5	662.0	4,007.1	6.4	213.7	45.3	8,014.0
2020	3,408.8	503.7	4,110.9	7.3	206.0	34.5	8,271.0
2021	3,584.5	507.6	3,839.4	4.7	222.7	29.1	8,188.1
2022	3,658.9	522.1	4,174.0	6.6	206.0	14.9	8,582.6
2023	3,608.3	681.0	4,773.8	4.2	258.3	15.6	9,341.0
2022-2023 Annual Growth Rate (%)	-1.4	30.4	14.4	-36.4	25.4	4.0	8.8

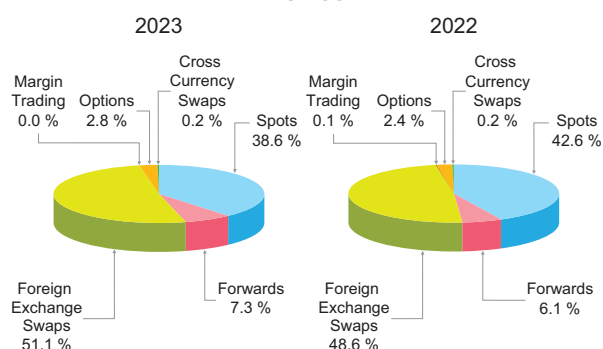
Source: Department of Foreign Exchange, CBC.

Composition of Foreign Exchange Transactions by Currency Pair



Source: Department of Foreign Exchange, CBC.

Composition of Foreign Exchange Transactions by Type of Product



Source: Department of Foreign Exchange, CBC.

trading decreased.

For other foreign currency derivatives, including forwards, swaps, and options based on foreign currency interest rates, stock price indices, commodity prices, and credit derivatives, their combined turnover was US\$260.8 billion. Of this amount, interest rate-related derivatives accounted for the lion's share at 98.4% with US\$256.6 billion, decreasing by 16.6% from the previous year. Interest rate futures accounted for the majority of this decrease.

Turnover of Other Products in the Taipei Foreign Exchange Market

Unit: US\$billion

Year	Interest Rate-Related Products				Commodity-Related Products	Stock Index Options	Credit Derivatives	Total
	Interest Rate Swaps	Interest Rate Options	Foreign Currency Interest Rate Futures	Subtotal	Commodity Options			
2019	70.8	12.4	96.8	180.0	3.8	0.4	1.0	185.1
2020	52.1	9.6	34.9	96.6	3.1	0.1	0.4	100.2
2021	79.0	10.7	104.3	194.0	4.1	0.4	0.6	199.2
2022	90.4	14.7	202.6	307.6	2.9	0.3	0.8	311.7
2023	79.8	8.6	168.3	256.6	1.8	1.9	0.5	260.8
2022-2023 Annual Growth Rate (%)	-11.7	-41.4	-16.9	-16.6	-39.5	448.1	-39.9	-16.3

Note: "Forward agreements" is excluded from the table because the turnover has been zero since 2017.

Source: Department of Foreign Exchange, CBC.

Renminbi Business

Renminbi investment tools became even more diversified during 2023. By the end of 2023, there were 65 domestic banking units (DBUs) and 56 offshore banking units (OBUs) engaging in renminbi business. The balance of renminbi deposits amounted to RMB130.8 billion; renminbi remittances totaled RMB2,424.2 billion in 2023; renminbi settlement through the Taipei Branch of the Bank of China totaled RMB5,706.1 billion.

Renminbi Business Conducted by Financial Institutions

Unit: RMB Billions

Business Items	Amount
Deposit balance (including NCDs, end of 2023)	130.8
Total remittances (February 2013 to December 2023)	19,465.2
Total settlement through the Taipei Branch of the Bank of China (February 2013 to December 2023)	49,204.0
Total value of 204 RMB-denominated bonds issued (as of the end of 2023)	135.5
Accumulated premium receipts from RMB-denominated investment-linked insurance business (February 2013 to December 2023)	21.8
Accumulated premium receipts from RMB-denominated traditional insurance business (April 2014 to December 2023)	9.7

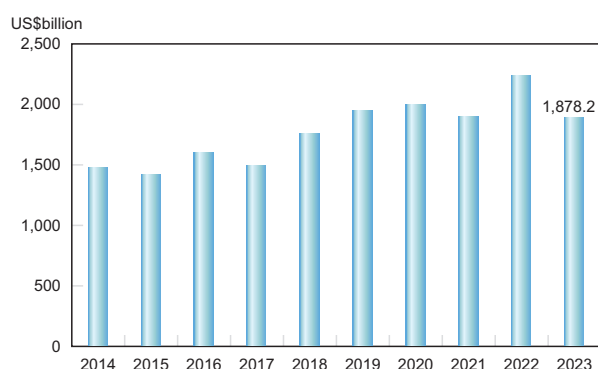
Source: Department of Foreign Exchange, CBC.

Foreign Currency Call Loan & Swap Markets

The transaction volume in the foreign currency call loan market in 2023 was US\$1,878.2 billion, a decrease of 15.7% over the previous year. Of this amount, US dollar transactions accounted for a dominant share with US\$1,734.9 billion, making up 92.4% of the total while decreasing by 16.2% from 2022. Renminbi transactions reached RMB685.1 billion in 2023, making up a share of 5.2% of the total and recording a year-on-year fall of 19.7% in volume. Japanese yen transactions reached ¥1,452.6 billion in 2023, representing a small share of 0.5% of the total with a year-on-year decrease of 50.8% in volume. The amount of euro transactions amounted to around €2.0 billion, with a modest share of 1.0%. Other currencies accounted for a combined 0.9% of the total transaction volume. The balance of foreign currency call loan transactions stood at US\$57.2 billion at the end of 2023.

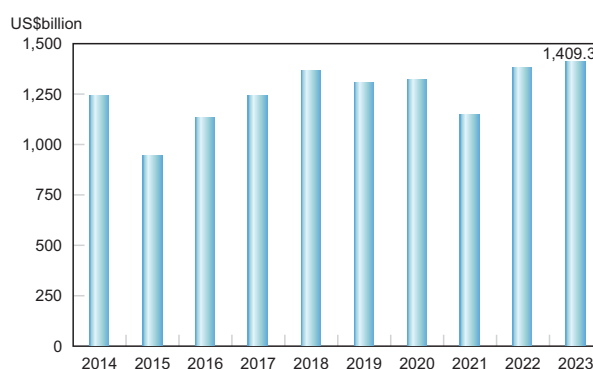
The volume of foreign currency-NTD swap transactions reached US\$1,409.3 billion, 2.7% more than 2022, while the balance was US\$274.6 billion at the end of 2023.

Transactions in the Foreign Currency Call Loan Market



Source: Department of Foreign Exchange, CBC.

Transactions in the Foreign Currency Swap Market



Source: Department of Foreign Exchange, CBC.

OBU Assets

There were 59 OBUs at the end of 2023, with 35 of them operated by domestic banks and the other 24 by foreign banks. The total assets of all OBUs increased to US\$277.3 billion at the end of the year, representing an increase of US\$11.2 billion, or 4.2%, from the previous year end owing to increasing portfolio investments. Domestic banks' OBUs made up 89.9% of these combined assets with an amount of US\$249.2 billion, and the OBUs of foreign banks accounted for 10.1% of the total with US\$28.1 billion.

In terms of the uses of funds, portfolio investments represented the majority share of 44.0% of total OBU assets with an amount of US\$122.0 billion. Claims on financial institutions and loans to non-financial institutions came in second and third place, accounting for 28.2% and 25.3% of total OBU

assets. In terms of the destinations for funds, Asia accounted for the majority with a share of 46.0%, followed by America at 33.7%.

The OBUs' main source of funds came from due to financial institutions, making up 50.1% of total liabilities and equity. Deposits of non-financial institutions accounted for 40.8% of the total. The main funding origin of OBUs was Asia, accounting for 64.1%, followed by America with a share of 25.4%.

Forex trading turnover of all OBUs increased by 41.7% to US\$1,187.9 billion, of which US\$610.4 billion went for spot transactions, US\$184.1 billion for forward transactions, and US\$393.5 billion for forex swap transactions. Compared with the previous year, the growth rates of trading of spots, forwards, and forex swaps were 25.1%, 37.3%, and 82.1%, respectively.

For OBUs, total turnover of other derivatives products decreased by 0.7% to US\$433.9 billion over the previous year. Of this amount, options transactions registered a turnover of US\$171.4 billion, making up 39.5% of the total.

Balance Sheet of OBUs in Banking System

Unit: US\$billion

Year / Month (End of month)	Loans to Non-financial Institutions	Portfolio Investment	Claims on Financial Institutions	Other Assets	Total Assets= Total Liabilities & Equity	Deposits of Non-financial Institutions	Due to Financial Institutions	Securities Issued	Other Liabilities & Equity
2019/12	80.2	72.2	58.4	11.0	221.9	86.7	110.8	0.0	24.3
2020/12	79.0	86.0	61.9	12.5	239.5	91.1	124.9	0.0	23.5
2021/12	78.5	93.7	68.2	9.5	249.9	104.5	125.1	0.0	20.3
2022/12	76.0	108.2	75.7	6.2	266.1	117.7	128.0	0.0	20.5
2023/12	70.2	122.0	78.3	6.7	277.3	113.3	138.8	0.0	25.2
2022/12-2023/12 Growth Rate (%)	-7.6	12.7	3.4	8.2	4.2	-3.8	8.4	0.0	23.4

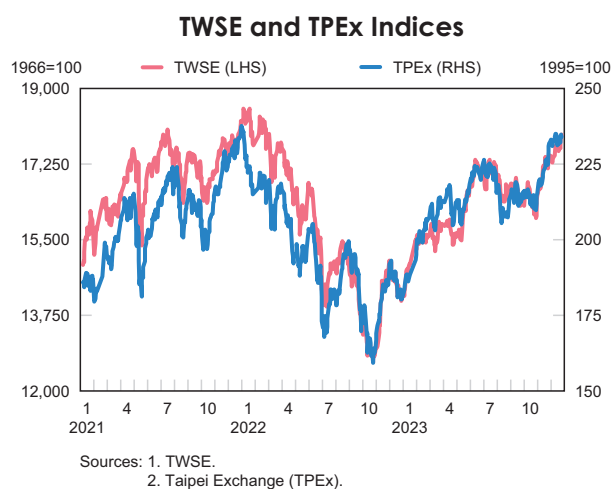
Sources: *Financial Statistics Monthly*, CBC; Department of Foreign Exchange, CBC.

5. Stock Markets

From the beginning to the middle of 2023, the TAIEX was driven upwards by the easing of inflationary pressures and monetary tightening in the US, gradual relaxation of pandemic-containment measures at home, increasing demand for AI technologies, and bullish runs in US tech stocks. In the second half of the year, though, the US sovereign debt credit rating downgrade, China's property developers' financial debacles and its central bank's rate cuts, US stock corrections, and net foreign sales on the TWSE combined to lead to downward swings through to the end of October. Afterwards, the TAIEX was boosted by market expectation of end of the Fed's tightening cycle and an anticipated holiday shopping boom, and foreign investor net purchases of local stocks. As a result, the TAIEX followed the US stock rebound to rally and closed the year at an all-year high, up by 26.8% over the end of the previous year.

Most TWSE stock groups recorded price rises in 2023, except for four groups, namely Plastics, Glass & Ceramics, Shipping & Transportation, and Biotech & Medical Care. Among the top gainers, share prices of Electric Machinery and of Electronics surged by 39.5% and 39.1% on the back of the nascent AI boom as well as US tech stock rallies. Automobile shares also rose significantly by 30.3% amid strong car sales. Chemicals share prices increased by 26.7% on rising demand for carbon reduction solutions. Overall, the daily average trading value on the TWSE amounted to NT\$264.3 billion in 2023, gaining by 15.9% over the previous year.

In the over-the-counter stock market, the Taipei Exchange Capitalization Weighted Stock Index (TPEX) rose by 29.8% year on year at the end of 2023, with all categories posting share price rises. Building Material & Construction gained the most with a surge of 44.2%, reflecting solid profits of construction firms as domestic housing prices remained high. Electronics shares saw a rise of 42.8% and Cultural/Creative Industries came in third with a rise of 42.7%. Over all, the daily average trading value on the Taipei Exchange (TPEX) amounted to NT\$70.5 billion, up by 16.5% from the previous year.



The TWSE Market

Listings Increased and Capitalization Rose to Record Highs

At the end of 2023, the number of TWSE listings increased by 26 over the previous year to a total of 997. The par value of total shares rose by 1.9% year on year to NT\$7.6 trillion, and total market capitalization expanded considerably by 28.4% to a historical record of NT\$56.8 trillion amid the year's stock rallies. Meanwhile, the total number of Taiwan depositary receipts (TDRs) remained 10 as of the end of the year.

Major Statistics of the TWSE Market

Year/Month	Stock Price Index (end of period)	Daily Average Trading Value (NT\$billion)	Turnover Rate (%)	Market Capitalization (NT\$billion)	Net Buying Positions (NT\$billion)		
					Foreign Investors Net Buy/Sell	Securities Investment Trust Companies Net Buy/Sell	Securities Dealers Net Buy/Sell
2021	18,218.8	378.2	176.6	56,282.0	-454.1	70.1	-96.4
2022	14,137.7	228.0	115.4	44,266.0	-1,232.7	284.2	-293.8
2023	17,930.8	264.3	121.2	56,842.1	275.4	237.3	-262.0
2023/ 1	15,265.2	178.4	4.9	47,783.7	200.8	12.0	23.8
2	15,503.8	213.2	7.9	48,553.0	25.6	14.6	-22.0
3	15,868.1	221.5	10.2	49,781.6	-2.2	37.8	-24.2
4	15,579.2	218.1	7.6	48,913.3	-53.2	-0.9	-6.6
5	16,579.0	244.5	10.3	52,041.8	176.2	9.5	65.2
6	16,915.5	302.1	11.4	53,113.7	26.9	-3.3	44.5
7	17,145.4	364.9	14.2	53,861.6	-83.9	-17.9	-1.4
8	16,634.5	321.6	13.5	52,292.0	-124.0	56.2	-91.5
9	16,353.7	249.1	9.7	51,467.1	-166.0	63.6	-92.5
10	16,001.3	248.5	9.9	50,464.1	-144.9	40.7	-54.5
11	17,433.9	271.4	10.8	55,123.5	240.0	4.7	-12.5
12	17,930.8	292.0	10.8	56,842.1	180.1	20.2	-90.3

Source: Securities and Futures Bureau, FSC.

TAIEX Swung Upwards

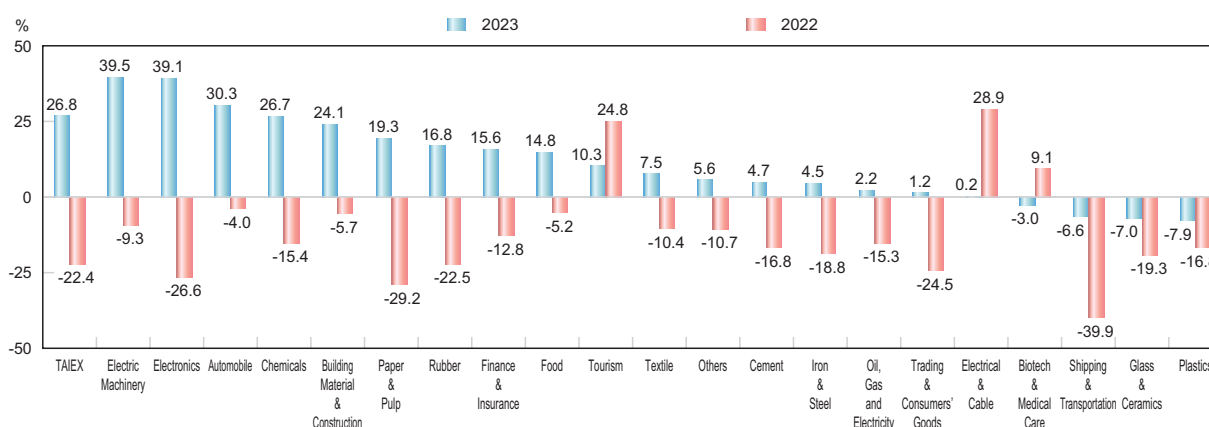
In the first half of 2023, the TWSE was boosted by a host of favorable developments as pressures of US inflation and monetary tightening abated, pandemic containment measures at home were gradually lifted, global AI products saw rising demand, and US tech stocks surged, leading to upward fluctuations in the TAIEX toward 17,335 points on June 15. However, dampened by China's real estate debt distress and policy rate cuts, US stock market corrections, and net stock selling by foreign investors, the TAIEX trended downwards and reached 16,001 points at the end of October. Thereafter, domestic stocks were buoyed alongside US market rallies owing to market expectations of the Fed to wrap up its monetary tightening cycle and foreign

investors' TWSE net buying ahead of the holiday shopping season. The TAIEX climbed upwards in the remaining months to a yearly peak of 17,931 points at year-end, representing an annual increase of 26.8%.

Broken down by subcategory, only four groups, namely Plastics, Glass & Ceramics, Shipping & Transportation, and Biotech & Medical Care, saw price declines. Among the gainers, the best performance was posted by Electric Machinery stocks with a 39.5% gain, followed by the 39.1% rise in Electronics stocks, both benefiting from the AI boom and US tech rallies. Strong car sales boosted Automobile share prices, which gained the third most at 30.3%. Reflecting rising demand for special technologies and applications (such as carbon capture) for energy transition, Chemicals share prices grew by 26.7%. Building Material & Construction stocks also had a 24.1% price gain on the back of strong profits sustained by high housing prices.

Among the declining categories, plastics share prices retreated the most with a fall of 7.9% as soft demand for synthetic resins (generally called plastics) weakened petrochemical raw material prices. Glass & Ceramics was the second worst group, dropping by 7.0% as major firms underperformed in earnings. Shipping & Transportation share prices declined by 6.6% because international container and bulk freight rates continued to be soft. Biotech & Medical Care declined by 3.0%, affected by NASDAQ Biotechnology Index downtrends.

TWSE Stock Price Changes by Industrial Group



Source: TWSE.

Market Turnover Increased

As domestic individual investors were drawn back to the market by the stock rallies, the TWSE daily average trading value was driven up to NT\$264.3 billion, increasing by 15.9% from the previous year's NT\$228.0 billion. The turnover rate thus went up from 115.4% a year ago to 121.2%.

Foreign Investors Net Bought

In 2023, foreign institutional investors (FINIs) net bought TWSE stocks by an amount of NT\$275.4 billion, reversing a three-year streak of net sales. Meanwhile, local securities investment trust companies posted a net purchase of NT\$237.3 billion, whereas local securities dealers posted a net sale of NT\$262.0 billion.

In the first two months of 2023, FINIs net bought TWSE shares as market sentiment was boosted by US inflation and monetary tightening pressures abating, China's reopening, and a gradual domestic withdrawal from pandemic-related restrictions. In March and April, FINIs turned into net sellers as they adjusted positions on concerns about an uncertain global economic outlook and several bank failures in the US and Europe. The following two months saw FINIs become net buyers again on market optimism amid the AI demand boom and the US debt ceiling deal. Afterwards, the US sovereign credit rating downgrade, China's property sector defaults, escalation of the Israel-Hamas conflicts, and the US expanding semiconductor export bans combined to lead to continuous FINI net sales from July to October. In the final two months, though, FINIs returned to net buying, encouraged by market expectation of the Fed pausing the rate hike cycle, the prospect of year-end holiday shopping, and the US stock rally.

In respect of local securities investment trust companies, they were mostly net buyers except for April, June, and July when they net sold to meet fund redemption demand, to boost financial statements, or to lock in gains from the bull market.

In respect of local securities dealers, who are inclined to conduct short swing trades to buy the rallies and sell the dips, they net bought in January, May, and June in 2023. In the other months of the year, they net sold for portfolio adjustments or profit-taking.

The TPEX Market

Listings and Capitalization Both Increased

At the end of 2023, the number of TPEX listings rose by 8 from the previous year to 816. The total par value increased by 2.1% year on year to NT\$757.9 billion. The TPEX market capitalization, buoyed by rising stock valuations, increased by 30.9% year on year to NT\$5.79 trillion.

TPEX Index Swung Up; Trading Value Rose

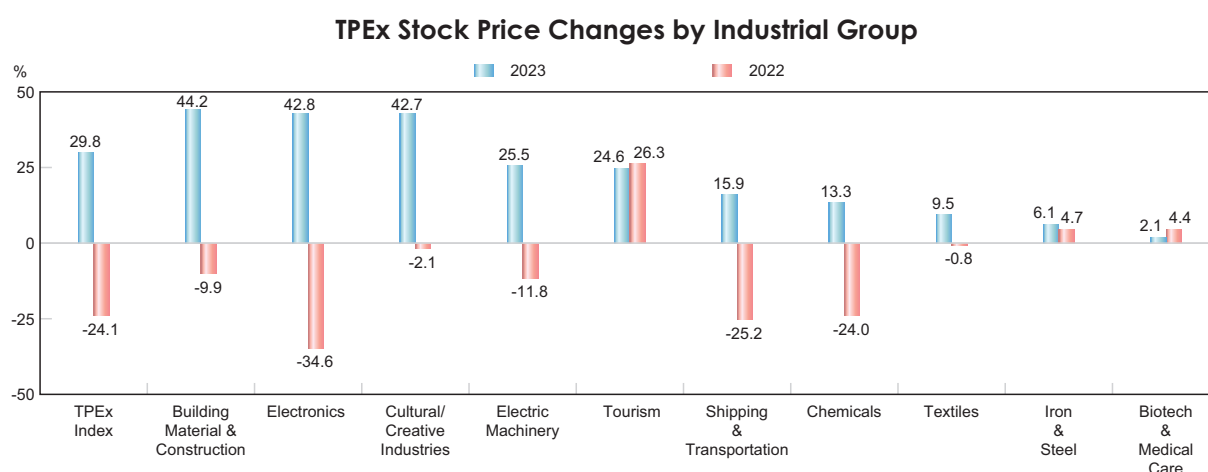
In 2023, the TPEX market moved approximately in line with the TWSE market. The TPEX Index gained momentum from softer US inflationary pressures and less urgency for Fed rate hikes, domestic pandemic containment measures being relaxed, AI-related demand on the rise, and strong US tech

stock rallies. The Index swung up to close the year at 234.0 points, increasing by 29.8% from 180.3 points a year ago.

All TPEX stock groups rose from the previous year. By category, the top performers generally benefited from factors similar to those on the TWSE market. Building Material & Construction came in first with a 44.2% surge owing to strong profits amid continuously high housing prices. The second best gainer was Electronics with a 42.8% rise on the AI demand boom and US tech rallies, followed by a 42.7% rise in Cultural/Creative Industries thanks to a thriving video game industry.

By type of institutional investor, foreign investors and local dealers net sold TPEX securities worth NT\$81.8 billion and NT\$353.6 billion, respectively, while local securities investment trust companies net bought NT\$48.5 billion.

Amid a bullish market and increased local investor enthusiasm, the TPEX recorded higher daily average trading value at NT\$70.5 billion, up by 16.5% from NT\$60.5 billion the previous year.



Source: TPEX.

Key Measures for the Stock Markets

Key measures for Taiwan's stock markets in 2023 included the following:

- (1) February 24: In view of the stock markets stabilizing, the Financial Supervisory Commission (FSC) announced the withdrawal of the four stimulus measures implemented since October 2022. The changes were: (1) Raising the cap on intraday securities-based lending (SBL) short sales from 10% back to 30%; (2) Lowering the maintenance margin requirement for short trading from 120% to 90%; (3) Removing the measure of relaxing the scope of collateral to cover the margin deficiency; (4) Lifting

the ban on short sales of a stock at prices lower than the previous session's close when that closing price marks a one-day fall of no less than 3.5%.

- (2) April 13: The National Stabilization Fund withdrew from the local stock markets on account of an international stock market recovery with global inflation easing and major central banks' rate hike pace slowing. This round of supportive intervention was the longest in history, lasting 275 days. The invested amount and profits were both the third highest on record, at NT\$54.5 billion and NT\$11.3 billion, respectively.
- (3) April 21: The Parliament passed the partial amendments to the *Securities and Exchange Act* and the *Securities Transaction Tax Act*. Major changes include: (1) Lowering the shareholding disclosure threshold of major shareholders from 10% to 5%; (2) Raising the maximum amount of relevant administrative fines for securities-related enterprises from NT\$4.8 million to NT\$6 million; (3) Lowering the securities transaction tax rate for sales of shares in the warrant hedge accounts of securities firms from 0.3% to 0.1%, effective November 2023 for five years.
- (4) August 7: The Taiwan Carbon Solution Exchange (TCX), jointly invested by the TWSE and the National Development Fund, was inaugurated, with the aim of fostering energy transition through carbon credit trading.
- (5) December 22: The TCX began trading and completed the first batch of international carbon credit transactions. Twenty-seven publicly-traded companies collectively purchased carbon credits equivalent to 88.5 thousand metric tons of carbon dioxide emissions, valued at around NT\$25 million in total.

6. Bond Market

The total volume of bond issuance recorded a decrease for the year 2023. New issues of bonds stood at NT\$1,580.0 billion, dropping by NT\$72.7 billion over the previous year. At the end of 2023, the total outstanding bonds issued amounted to NT\$16,952.2 billion, an increase of NT\$633.1 billion or 3.88% 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, central government bond issuance for 2023 reached NT\$478.0 billion, down by NT\$42.1 billion over the previous year.

Issuance of corporate bonds in the year totaled NT\$773.3 billion, significantly rising by NT\$300.2 billion from a year before, primarily resulting from higher corporate funding needs.

Bank debenture issuance amounted to NT\$62.7 billion, a substantial decrease of NT\$86.2 billion compared to the previous year, largely because banks held sufficient capital and reduced the issuance of subordinated bank debentures.

NT dollar-denominated foreign bonds issued in Taiwan by foreign institutions stood at NT\$3.9 billion, slipping by NT\$6.9 billion from 2022. Meanwhile, foreign currency-denominated international bonds issued in Taiwan by foreign institutions contracted by NT\$251.5 billion over the previous year to NT\$242.4 billion.

In the secondary market, the Fed's policy rate hikes drove up US Treasury yields, leading to an upswing in Taiwan government bond yields. The yield on 10-year government bonds averaged 1.21% in 2023, 12 basis points higher than the previous year.

Moreover, annual transactions reached NT\$35,406.4 billion, increasing by NT\$1.5 billion compared to the previous year.

Slide in Government Bond Issuance

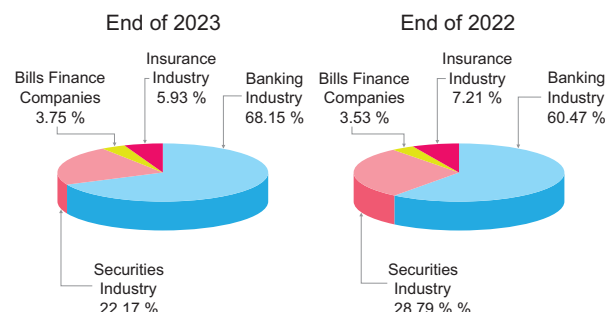
In order to support debt refinancing operations of the Central Government Debt Service Fund and to raise funds for the central government general budget and special budget, central government bond issuance amounted to NT\$478.0 billion in 2023, down by NT\$42.1 billion from a year ago. Government bonds were available with various maturity periods from 2 years, 5 years, 10 years, 20 years, to 30 years.

Broken down by institutional investor, bonds held by the banking industry made up the lion's share at 68.15%, primarily on account of higher demand for government bonds by Chunghwa Post.

The securities industry came in second with a smaller share than the previous year at 22.17% as profits from spread trading narrowed. Meanwhile, the share of bonds held by the insurance industry decreased to 5.93% mainly because the insurance industry increased their external investment positions, leading to a decline in the share of bond holdings.

As of the end of 2023, the total outstanding amount of central government bond issuance stood at NT\$5,912.5 billion, up by NT\$113.0 billion or 1.95% compared to 2022.

Shares of Government Bond Holdings (by Institutional Investor)



Source: Department of the Treasury, CBC.

In addition, new bonds issued by the governments of all special municipalities in 2023 reached NT\$19.7 billion. At the end of the year, the outstanding amount of bonds issued by the governments of all special municipalities stood at NT\$147.6 billion, a decrease of NT\$3.1 billion or 2.02% 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
2021	2,690.6	15,947.1	617.0	5,674.5	66.6	164.9	723.7	2,983.9	135.2	1,234.0	0.0	5.3	10.6	51.6	1,137.5	5,833.0
2022	1,652.7	16,319.1	520.1	5,799.5	0.0	150.7	473.1	3,125.2	148.9	1,255.4	5.9	11.2	10.9	55.1	493.9	5,921.9
2023	1,580.0	16,952.2	478.0	5,912.5	19.7	147.6	773.3	3,564.4	62.7	1,221.5	0.0	5.9	3.9	50.0	242.4	6,050.2
2023/ 1	108.4	16,349.2	48.0	5,822.5	0.0	148.7	51.2	3,135.4	4.5	1,252.1	0.0	10.1	0.0	55.0	4.7	5,925.3
2	129.4	16,388.9	65.0	5,822.5	0.0	148.7	0.0	3,126.0	4.3	1,251.9	0.0	9.7	1.6	55.1	58.5	5,975.1
3	121.4	16,383.4	60.0	5,807.5	0.0	148.7	41.1	3,153.6	16.6	1,256.4	0.0	9.2	0.0	54.9	3.7	5,953.1
4	142.7	16,487.1	30.0	5,837.5	11.6	158.3	88.8	3,231.3	6.5	1,246.2	0.0	8.8	0.0	54.9	5.9	5,950.2
5	154.8	16,577.9	55.0	5,892.5	0.0	158.3	68.9	3,249.5	0.0	1,244.0	0.0	8.4	0.0	54.9	30.8	5,970.4
6	181.5	16,701.3	30.0	5,897.5	8.1	166.4	111.2	3,332.8	9.0	1,251.0	0.0	8.1	0.0	54.2	23.2	5,991.3
7	122.7	16,700.5	25.0	5,877.5	0.0	166.4	85.4	3,372.0	1.3	1,245.2	0.0	7.8	0.5	54.5	10.5	5,977.2
8	142.0	16,753.2	30.0	5,872.5	0.0	166.4	92.4	3,441.4	4.3	1,243.6	0.0	7.5	0.2	52.4	15.0	5,969.5
9	140.9	16,775.8	50.0	5,847.5	0.0	166.4	61.8	3,471.0	3.7	1,238.6	0.0	7.2	0.1	52.1	25.2	5,993.0
10	159.9	16,898.7	30.0	5,877.5	0.0	151.3	98.5	3,557.4	5.2	1,241.6	0.0	7.1	0.4	50.5	25.9	6,013.3
11	97.7	16,941.1	25.0	5,882.5	0.0	149.1	32.5	3,561.7	1.2	1,240.3	0.0	6.9	0.2	50.1	38.8	6,050.5
12	78.5	16,952.2	30.0	5,912.5	0.0	147.6	41.5	3,564.4	6.0	1,221.5	0.0	5.9	0.9	50.0	0.0	6,050.2

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

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

Sources: 1. Financial Statistics Monthly (February 2024), CBC.

2. Banking Bureau, Financial Supervisory Commission.

3. Department of Foreign Exchange, CBC.

Substantial Increase in Corporate Bond Issuance

Corporate bonds refer to NT dollar- or foreign currency-denominated bonds issued in Taiwan by domestic corporations. In 2023, the issuing amount of corporate bonds totaled NT\$773.3 billion, increasing by NT\$300.2 billion from a year before as a result of higher corporate funding needs.

In terms of bond maturities, 5-year corporate bonds accounted for a dominant share of the issuance at 42.75%, followed by 10-year bonds with a share of 26.93%. At the end of 2023, the outstanding amount of corporate bonds grew by NT\$439.2 billion or 14.05% to NT\$3,564.4 billion over the previous year.

Decline in Bank Debenture Issuance

In 2023, domestic banks issued bank debentures with an amount of NT\$62.7 billion, falling by NT\$86.2 billion compared to a year ago, primarily because banks held sufficient capital and reduced the issuance of subordinated bank debentures.

In respect of the maturity of new issues, 5-year debentures made up the largest share of total issuance at 32.98%, while 7-year bonds came in second with a share of 25.01%.

At the end of the year, the outstanding amount of bank debentures stood at NT\$1,221.5 billion, a decrease of NT\$33.8 billion or 2.70% from a year before.

Contraction in Asset Securitization Products

New issues of asset securitization products were nil in 2023. The outstanding amount of asset securitization slid by NT\$5.3 billion or 47.39% from the previous year end to NT\$5.9 billion.

Drop in Foreign Bond Issuance

Foreign bonds are defined as NT dollar-denominated corporate bonds issued in Taiwan by foreign institution. The foreign bonds currently in circulation are mostly corporate bonds issued by offshore companies listed on the TWSE or the TPEX (the over-the-counter market).

For the year 2023, foreign bond issuance declined by NT\$6.9 billion from a year before to NT\$3.9 billion. At the end of the year, the outstanding amount of foreign bonds reached NT\$50.0 billion, a decrease of NT\$5.1 billion or 9.29% over the previous year end.

Reduction in International Bond Issuance

International bonds currently refer to foreign currency-denominated corporate bonds issued in Taiwan by foreign institutions. During 2023, issuance of international bonds contracted significantly by NT\$251.5 billion from a year before to NT\$242.4 billion. The decrease reflected that foreign institutions reduced international bond issuance because of an upswing in US dollar-denominated market rates.

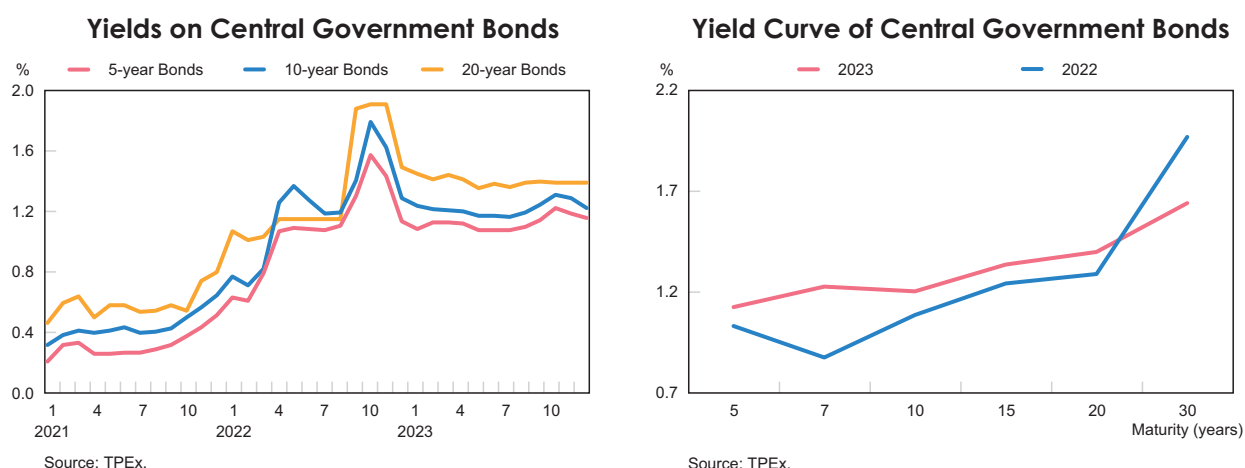
With respect to currency composition, the majority of total international bond issuance went for US dollar-denominated bonds with a share of 93.25%, followed by Australian dollar-denominated bonds at 3.10%. At the end of the year, the outstanding amount of international bonds stood at NT\$6,050.2 billion, representing a year-on-year increase of NT\$128.3 billion or 2.17%.

Uptrend in Average Government Bond Yields and Slight Increase in Transactions

For the year 2023, the Fed's policy rate hikes pushing up US Treasury yields, combined with the Bank's policy rate rise in the first quarter, sent Taiwan government bond yields higher. However, Taiwan government bond yields recorded a smaller increase than US bond yields owing to ample domestic liquidity. Looking at the volume-weighted average yields in 2023, the 10-year government bond yield rose to 1.21%, 12 basis points higher than the 1.09% registered in the previous year.

Among government bonds of the other maturity ranges, average yields on 5-year and 20-year bonds went up by 9 and 11 basis points, respectively, over the previous year.

On the other hand, the average yield on 30-year bonds in 2023 moved down by 33 basis points compared to the previous year. This was because 30-year bonds were mainly issued in the primary market. When the issuance of 30-year bonds occurred in November 2022, market rates were at high levels. Later, with market rates experiencing a downtrend, when 30-year bonds were issued in May and November 2023, market rates were relatively lower than November 2022. Therefore, if looking at the volume-weighted average yields, the average 30-year bond yield in 2023 was lower than the previous year.



In respect of transaction volume, annual transactions only rose by NT\$1.5 billion or 0.004% to NT\$35,406.4 billion. Of the components, outright transactions of government bonds fell by NT\$167.8 billion or 3.26%, whereas repurchase agreement (repo) transactions of government bonds increased by NT\$169.3 billion or 0.56% from a year before.

By type of bonds, the majority of total bond transactions went for corporate bonds with a share of 56.56% and an annual trading volume of NT\$20,025.3 billion. The second most actively traded were government bonds, contributing to 36.48% of total transactions with an annual trading volume

of NT\$12,916.4 billion. Bank debentures came in third, accounting for a share of 3.71% with an annual trading volume of NT\$1,312.3 billion.

Meanwhile, foreign bonds, international bonds, and asset securitization products made up marginal shares of 1.63%, 1.61%, and 0.02% in total transactions, with their respective annual trading registering NT\$578.5 billion, NT\$568.3 billion, and NT\$5.5 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				
2021	36,138.8	15,557.9	15,807.2	1,348.2	2,024.9	0.5	393.0	1,007.0
2022	35,404.9	13,137.8	17,473.1	1,502.5	1,980.0	26.7	537.3	747.5
2023	35,406.4	12,916.4	18,011.0	2,014.3	1,312.3	5.5	578.5	568.3
2023/ 1	2,186.2	870.8	1,065.0	91.0	99.8	1.2	30.7	27.6
2	2,735.1	1,119.7	1,284.5	134.9	115.4	0.0	44.8	35.8
3	3,264.8	1,339.3	1,462.4	177.3	167.3	0.8	64.5	53.3
4	2,515.4	892.7	1,303.4	132.3	114.7	1.3	39.3	31.9
5	2,930.1	1,069.4	1,464.3	182.6	119.7	0.8	44.9	48.4
6	3,113.7	1,174.6	1,527.8	199.8	119.3	0.3	43.6	48.3
7	3,004.8	1,036.1	1,579.8	185.8	96.8	0.6	52.3	53.4
8	3,174.8	1,117.0	1,689.3	199.0	82.7	0.0	43.0	43.9
9	3,013.1	1,080.3	1,565.2	168.7	100.4	0.0	43.4	55.2
10	3,057.9	1,083.5	1,617.9	145.6	95.9	0.4	58.3	56.3
11	3,138.3	1,062.7	1,661.6	186.6	97.8	0.1	55.8	73.8
12	3,272.3	1,070.5	1,789.9	210.7	102.5	0.0	58.1	40.6

Source: TPEx.