Central Bank of the Republic of China (Taiwan)

Financial Stability Report

May 2025 | Issue No. 19

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About the Financial Stability Report

Key points of the task to promote financial stability

Promoting financial stability not only is one of the operational objectives pursued by the Central Bank of the Republic of China (Taiwan), but also lays the cornerstone for the effective implementation of monetary policy. To achieve this objective, in addition to serving as lender of last resort when necessary, the Bank regularly monitors the financial system and the overall economic and financial environment. This allows it to be constantly aware of the potential vulnerabilities and risks that could threaten financial stability so that the relevant financial authorities and market participants can respond in a timely manner to avoid financial turbulence.

In its work to promote financial stability, the Bank focuses primarily on the risks that could affect the stability of the overall financial system. Nevertheless, the Bank still pays close attention to the status of individual institutions as their weaknesses can trigger systemic risks.

Purpose of this report

The Financial Stability Report is issued annually. The aims of this report are to offer insight into the state of Taiwan's financial system and its potential vulnerabilities and risks, and to spark broad-based discussion that will enhance awareness of risk among market participants and spur them to take responsive action in a timely manner. This does not mean, however, that the risks mentioned in this report are sure to occur. Furthermore, this report is intended to serve as a reference for financial authorities, market participants, and others interested in the subject. Readers are advised to interpret or quote the information contained herein with caution.

Definition of financial stability

There is as yet no universally accepted definition of "financial stability." Defined positively, "financial stability" can be thought of in terms of the financial system's ability to: (1) facilitate an efficient allocation of economic resources both spatially and intertemporally; (2) assess and manage financial risks; and (3) withstand adverse shocks. From a negative view, "financial instability" refers to the occurrence of currency, banking, or foreign debt crises, or inability of the financial system to absorb adverse endogenous or exogenous shocks and allocate resources efficiently, with the result that it cannot facilitate real economic performance in a sustained manner.

Note:	***Except as otherwise noted, all data and information cited in this report are current as of April 30, 2025.***

Abstract

In 2024, global economic growth was moderate, accompanied by easing inflationary pressures. Taiwan similarly experienced steady economic growth and a gradual decline in inflation rates. Overall profitability of the corporate sector exceeded market expectations and household financial health remained sound, while housing market transactions showed signs of cooling. Under this macro environment, Taiwan's financial markets operated smoothly, and financial institutions maintained robust performance. Meanwhile, domestic systemically important payment systems functioned in an orderly manner. On the whole, Taiwan's financial system remained broadly stable. Nevertheless, in view of adverse factors such as the uncertainty surrounding US tariff policies and climate change, the Bank will continue to pay close attention to subsequent developments and take appropriate policy measures in a timely manner to promote financial stability.

International and domestic macro environments and the impacts of US tariff policies

As for international economic and financial conditions, major central banks gradually shifted toward a more accommodative monetary policy stance in 2024. Amid moderate global economic growth, easing inflationary pressures, and widespread expectations of lower interest rates, global financial conditions became more accommodative. However, since early 2025, heightened uncertainty surrounding US tariff policies has triggered significant turbulence in global financial markets, leading to tighter global financial conditions and posing potential downside risks to global economic growth and inflation.

Domestically, Taiwan's economy demonstrated steady growth in 2024, while inflation gradually moderated. Listed companies on both the Taiwan Stock Exchange (TWSE) and the over-the-counter (OTC) market reported increases in revenue and profitability. Moreover, corporate leverage ratios remained within acceptable levels, and the short-term debt servicing capacity improved. Household financial conditions remained sound, with credit quality staying satisfactory. Although housing market activity showed signs of cooling, mortgage burdens continued to weigh on homebuyers. Since early 2025, the spillover effects of US tariff policies

have likely constrained Taiwan's economic growth momentum, placed pressure on corporate operations and household debt-servicing capacity, and indirectly affected the performance of the housing market. Accordingly, close monitoring of these developments is warranted.

Financial markets, institutions, and infrastructures in Taiwan maintained smooth operations

In 2024, the outstanding amount of issuance and trading volume of bills and bonds both expanded steadily. Domestic stock indices repeatedly hit record highs amid active market trading, while the foreign exchange (FX) market remained dynamically stable. Domestic banks continued to post record-high profits, supported by sound asset quality and capital adequacy. Life insurance companies experienced a notable rebound in profits and an increase in average risk-based capital (RBC) ratios. Bills finance companies also reported improved profitability, with capital levels remaining adequate. Furthermore, domestic systemically important payment systems functioned smoothly.

From early 2025 onwards, uncertainty surrounding the Trump administration's policy direction triggered a sharp decline in domestic stock indices, followed by a gradual recovery. Although the NT dollar exchange rate exhibited increased short-term volatility, it remained relatively stable over the longer term. Meanwhile, the money and bond markets operated with limited fluctuations. The asset quality of financial institutions remained resilient, with no significant deterioration observed to date. However, if US tariff policies were to undermine the debt servicing capacity of the corporate and household sectors – the main borrowers of financial institutions – this could lead to increased credit default risks, which in turn would adversely affect the profitability and capital adequacy of financial institutions. Moreover, heightened volatility in both domestic and international financial markets could dampen the investment performance of financial institutions, particularly for life insurance companies, which maintain sizable investment exposures across both domestic and foreign markets and are more susceptible to market risks. The Bank will continue to closely monitor developments in US tariff policies and related negotiations with major economies, with the aim of identifying emerging risks and responding prudently.

Measures to promote financial stability and in response to the impact of US tariff policies

The Bank raised its policy rates by 0.125 percentage points (pps) in March 2024 and conducted open market operations for the purpose of adjusting liquidity in the banking system. To curb excessive allocation of banks' credit resources to the real estate market, the Bank adjusted its selective credit control measures twice in conjunction with raising the reserve requirement ratios on NT dollar deposits. Additionally, the Bank adopted a FX policy to safeguard the dynamic stability of the NT dollar exchange rate. In parallel, the Financial Supervisory Commission (FSC) continued to revise financial regulations and strengthen supervisory measures to support sound business operations of financial institutions and to promote financial stability.

In response to the impacts of US tariff policies, the Executive Yuan launched a NT$93 billion investment plan in April 2025 to promote 20 support measures aimed at assisting domestic industries. At the same time, the Bank has implemented four exchange rate stabilization mechanisms to dynamically address fluctuations in the FX market, and established a comprehensive liquidity provision mechanism to ensure ample liquidity within the banking system. The FSC also launched measures aimed at promoting financial stability, while the relevant ministries actively introduced complementary support initiatives, including financing, subsidies, and tax incentives.

The Bank will take appropriate measures in a timely manner to promote financial stability

In 2024, Taiwan's financial markets operated in an orderly manner, financial institutions remained sound, and major payment systems functioned smoothly. Overall, Taiwan's financial system remained broadly stable. However, since early 2025, growing uncertainty surrounding US tariff policies, together with geopolitical tensions and climate change, has emerged as a key risk that may adversely affect global economic prospects and financial stability, posing potential risks to Taiwan's financial stability. The Bank will continue to closely monitor these developments and assess their impact on domestic economic and financial conditions. It remains committed to taking timely and appropriate measures to safeguard domestic financial stability.

I. Overview

Macro environmental risk factors

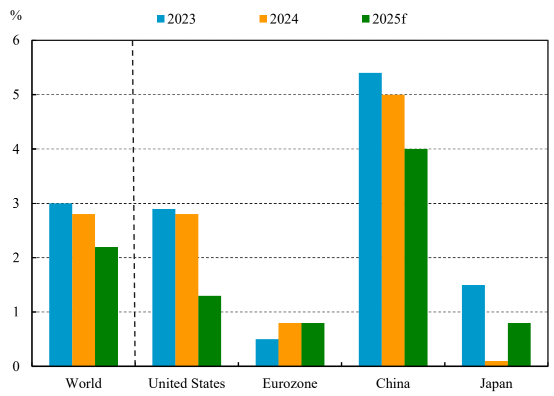
International economic and financial conditions

Global economic growth was moderate in 2024, with inflationary pressures easing and financial conditions remaining broadly accommodative

In 2024, as major central banks gradually shifted toward a more accommodative monetary policy stance, the global economy posted moderate growth. According to S&P Global Market Intelligence (hereafter S&P Global),[1] the global economic growth rate for 2024 was estimated at 2.8% (Chart 1.1), although economic performance varied among major economies. With declines in international oil and grain prices and a deceleration in nominal wage growth, the global consumer price index (CPI) inflation rate dropped to 4.5%.

With inflation steadily converging toward central bank targets, most central banks shifted to a more accommodative monetary stance. Supported by widespread expectations of interest rate cuts and improved investor sentiment, volatility in global financial markets declined during the first three quarters of the year. As a result, global financial conditions became more accommodative, although a slight tightening was observed from October onwards. Amid easing inflationary pressures, global stock markets generally experienced a gradual recovery, while US government bond yields showed a volatile trend during the first half of 2024. In the second half of the year, however, concerns over a potential economic slowdown, elevated inflation, and increased government bond supply – stemming from newly adopted

Chart 1.1 Global economic growth rates



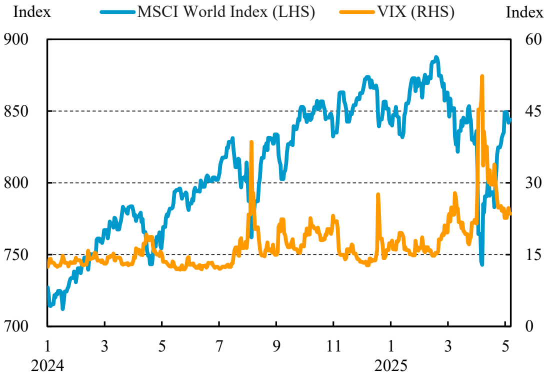
Note: Figures for 2025 are S&P Global Market Intelligence estimates.
Source: S&P Global Market Intelligence (2025/5/15).

[1] S&P Global Market Intelligence (2025), *Global Executive Summary*, May.

US fiscal policies – contributed to an upward movement in 10-year US government bond yields.

Uncertainty in trade policies exerted negative effects on global economic growth and inflation, leading to a noticeable tightening in financial conditions

Chart 1.2 MSCI World Index and VIX Index



Source: Bloomberg.

Following US President Trump's inauguration in January 2025, a series of tariff measures were announced, further heightening uncertainty in the global trade environment. These actions posed downside risks to the global economy and financial markets, while also increasing the unpredictability of monetary policy decisions for central banks worldwide.

Moreover, after the announcement of reciprocal tariffs by the US on April 2, 2025,[2] China responded with retaliatory measures that further escalated US-China trade tensions and heightened the risk of economic decoupling between the two nations. These developments would exert substantial pressure on China's export-oriented economy and were expected to significantly dampen its growth momentum.

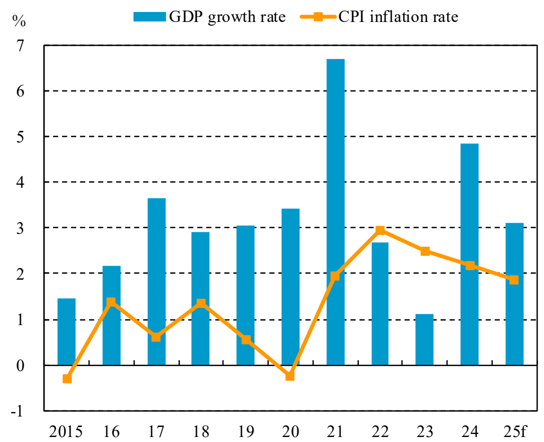
The announcement of reciprocal tariffs also triggered a sharp decline in global stock markets over several days, fueled a surge in risk-off sentiment, and drove a marked spike in the VIX index (Chart 1.2). However, on April 9, after the Trump administration announced a 90-day suspension of reciprocal tariffs for all economies except China, global stock markets rebounded considerably, and the VIX index declined sharply. Meanwhile, US bond yields fluctuated markedly amid heightened uncertainty surrounding tariff policies. Thereafter, repeated shifts in tariff policies caused greater market volatility, contributing to a clear tightening of global financial conditions.

[2] Starting on April 5, the US government imposed a uniform baseline 10% tariff for all imports. Furthermore, beginning on April 9, discounted reciprocal tariffs were implemented against countries deemed by the US to engage in unfair trade practices. Under this measure, the tariff rate was set at 32% for Taiwan, 34% for China, 24% for Japan, and 20% for the EU.

Domestic macro environment

Taiwan experienced steady economic growth and a gradual decline in domestic inflation rates; however, downside risks to the economy persisted

Chart 1.3 Economic growth rate and CPI inflation rate of Taiwan



Note: Figures for 2025 are DGBAS forecasts released on May 28, 2025.
Sources: CBC and DGBAS.

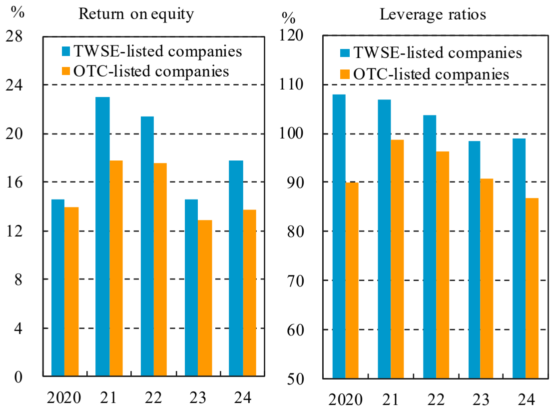
In 2024, Taiwan's economic growth rate expanded by 4.84%, supported by robust export performance driven by the rapid development of emerging technology applications, coupled with an increase in private investment momentum.[3] Meanwhile, domestic inflation eased gradually, with the annual CPI and core CPI growth rates falling to 2.18% (Chart 1.3) and 1.88%, respectively.

Looking ahead to 2025, with domestic demand and exports expected to retain growth momentum, the Bank projected in March that Taiwan's economic growth rate would reach 3.05%, while annual CPI inflation was forecast to decline further to 1.89%. In addition, in light of heightened uncertainty surrounding US tariff policies, the DGBAS projected in May that economic growth could slow significantly in the second half of the year. Nevertheless, benefiting from better-than-expected export performance in the first half of 2025, the DGBAS subsequently revised its full-year economic growth forecast to 3.10%, slightly below its February projection. The annual CPI inflation forecast was also revised downward to 1.88%, marking the lowest level since 2021. However, the spillover effects arising from the US announcement of reciprocal tariff policies are likely to amplify downside risks to the domestic economy and therefore warrant close attention.

[3] Data cited from the DGBAS in this report, including Taiwan's economic growth rate, GDP, and CPI figures, are based on its press release published on May 28, 2025.

Overall profitability of the corporate sector[4] outperformed expectations and short-term debt servicing capacity improved, but potential impacts of US tariff policies warrant attention

Chart 1.4 Return on equity and leverage ratios in the corporate sector



Notes: 1. Return on equity = net income before interest and tax/average equity.
2. Leverage ratio = total liabilities/total equity.
Source: TEJ.

In recent years, the rapid advancement of artificial intelligence (AI) has significantly boosted revenues across related industries, leading to improved overall corporate profitability. In 2024, the overall profitability of the corporate sector exceeded market expectations (Chart 1.4, left panel), with major industries such as electronics and shipping reporting higher profits. By the end of the year, listed companies' financial leverage maintained moderate (Chart 1.4, right panel), and both current ratios and interest coverage ratios rebounded, indicating an improvement in overall short-term debt servicing capacity. Moreover, the non-performing loan (NPL) ratio for corporate loans extended by financial institutions declined to a historic low of 0.17% at the end of 2024, reflecting satisfactory credit quality. Nevertheless, the heightened uncertainty surrounding US tariff policies, coupled with ongoing geopolitical tensions worldwide, may exert downward pressure on future earnings growth of the corporate sector. Firms are therefore advised to prudently manage related risks.

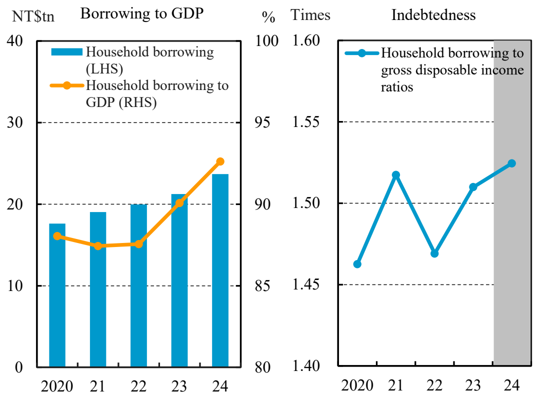
Household indebtedness increased, but financial health remained sound; changes in debt servicing capacity of highly indebted households warrant close attention

Household borrowing reached NT$23.70 trillion at the end of 2024, equivalent to 92.62% of annual GDP (Chart 1.5, left panel), with the annual growth rate rising to 11.52%. The ratio of household borrowing to total disposable income also edged up to 1.52 (Chart 1.5, right panel), indicating a rising debt burden. Meanwhile, the household debt servicing ratio ascended to 48.32%, suggesting increased short-term debt servicing pressure. However, household net worth[5] in Taiwan remained robust, standing at nearly eight times GDP as of 2023, reflecting a healthy financial condition. The NPL ratio of household borrowing from financial institutions further increased to 0.14% at the end of 2024, but remained low, reflecting overall satisfactory

[4] In this report, the corporate sector refers to the non-financial corporate sector.
[5] Household net worth includes household net non-financial assets and net financial assets.

credit quality. Nevertheless, uncertainty stemming from the tariff policies introduced by the Trump administration has triggered greater volatility in financial markets, thereby elevating financial risks for households. Should labor market conditions deteriorate, household debt servicing capacity of some households – particularly those with higher debt levels – could be adversely affected. Accordingly, it is important to closely monitor developments in this segment.

Chart 1.5 Household indebtedness



Note: Total disposable income in shaded area is a CBC estimate.
Sources: CBC, JCIC, and DGBAS.

Real estate transactions declined and price growth moderated, while the mortgage burden remained heavy

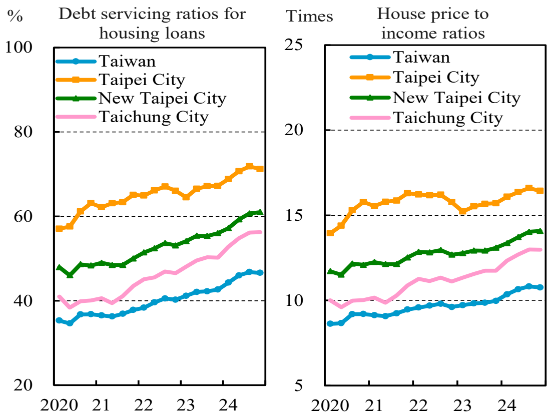
In the first half of 2024, transactions in the housing market remained active. In response, the Bank implemented its sixth round of selective credit control measures in June. Moreover, in the second half of the year, the Ministry of Finance (MOF) requested state-owned banks to strengthen the review process for the new Preferential Housing Loans for the Youth.[6] In August, the Bank urged banks to proactively monitor the total volume of mortgage loans and, in September, introduced a seventh round of selective credit control measures. As a result, the total number of building ownership transfers declined month by month, with a year-on-year decrease of 22.11% recorded from January to March 2025. Regarding real estate prices, the housing market experienced strong momentum in early 2024. The national housing price index released by the Ministry of the Interior (MOI) reached a peak of 151 in 2024 Q4. The Cathay housing price index (for newly built houses) and the Sinyi housing price index (for existing houses) also rose quarter by quarter, peaking at 218 and 167 in 2024 Q4, respectively. The Cathay housing price index hit a high of 220 in 2025 Q1, albeit at a slower pace, while the Sinyi housing price index declined moderately to 166. Taiwan's debt servicing ratio for housing loans and house price-to-income ratio saw a gradual upward trend from 2024 Q1 to Q3 and slightly decreased in Q4. Among the six metropolitan areas, Taipei City remained the most unaffordable (Chart 1.6).

The Bank adjusted its selective credit control measures twice, in June and September 2024, and in August urged banks to proactively monitor the total volume of mortgage loans. As a

[6] The enhanced project, new Preferential Housing Loans for the Youth, has been implemented since August 1, 2023, with applications open until July 31, 2026.

result, the annual growth rate of outstanding loans for house purchases and refurbishments extended by banks has declined month by month since October 2024. Following the Bank's successive policy rate hikes and adjustments to the reserve requirement ratios on NT dollar deposits, the interest rate on mortgage loans gradually rose to 2.264% in March 2025, a new high since January 2009. At the end of March 2025, the NPL ratio of housing loans granted by domestic banks was around 0.07%, while the NPL ratio of construction loans, after a brief uptick, declined to 0.19% as banks wrote off their bad debts. Both ratios remained at low levels, indicating that risk management in real estate lending remained sound and that the effect of recent credit control measures began to emerge. In parallel, the Bank persistently conducted targeted examinations on mortgage loans, while other government agencies continued to amend regulations to strengthen the supervisory framework, supporting the sound development of the real estate market. Since 2025, transactions in the housing market have gradually cooled. Meanwhile, lingering uncertainties surrounding US economic and trade policies could indirectly affect the domestic housing market through impacts on the broader economy and financial markets. These developments could weigh on the asset quality of financial institutions. The Bank will monitor these developments closely and continue to remind borrowers to remain alert to interest rate risks.

Chart 1.6 Debt servicing ratios for housing loans and house price to income ratios



Notes: 1. Debt servicing ratio for housing loans = median monthly housing loan payment/median monthly household disposable income.
2. House price to income ratio = median house price/median annual household disposable income.

Source: Housing Price Affordability Indicator Statistics, Construction and Planning Agency of the MOI.

Financial system assessment

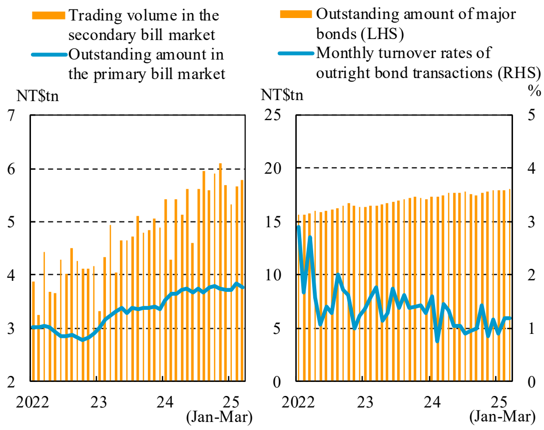
Financial markets

Outstanding amount of issuance and trading volume of bills and bonds expanded year on year

At the end of 2024, the outstanding amount of bills issued in the primary market rose by 10.91% year on year, mainly driven by stronger corporate funding needs that led to a surge in the issuance of commercial paper (CP). Correspondingly, the trading volume expanded by 17.94% year on year, reaching NT$65.36 trillion, with the annual growth rate recorded at 10.76% in

2025 Q1 (Chart 1.7, left panel). Meanwhile, the outstanding amount of bond issuance grew by 4.75% compared to the end of the previous year, continuing to reach new record highs. This was primarily fueled by elevated corporate bond issuance. Although trading volume in the secondary market[7] expanded 7.71% year on year, the outright transaction volume declined by 18.27%. As a consequence, the average monthly outright turnover rate of major bonds [8] trended downward in 2024, and declined further to a record low of 0.90% in January 2025. Although the rate rebounded to 1.09% in March, it remained at a relatively low level (Chart 1.7, right panel).

Chart 1.7 Primary and secondary bill and bond markets



Notes: 1. Major bonds include government bonds, international bonds, corporate bonds, and financial debentures.
2. Monthly turnover rate = trading value in the month/average outstanding amount of bonds issued. Average outstanding amount of bonds issued = (outstanding amount at the end of the month + outstanding amount at the end of last month)/2.

Sources: CBC and FSC.

Following the Bank's policy rate hike in March 2024, the interbank overnight call loan rate trended upwards before stabilizing. Nevertheless, liquidity in financial markets remained ample. Affected by the Bank's policy rate hike and the rebound in US government bond yields, Taiwan's benchmark 10-year government bond yields (hereinafter referred to as domestic bond yields) trended downwards after reaching a nearly two-year high, and later rebounded. In 2025 Q1, domestic bond yields peaked at 1.677% and then declined. Looking ahead, heightened uncertainty surrounding the tariff policies introduced by the Trump administration, coupled with monetary policy divergences among major central banks, may intensify volatility in global bond yields, potentially influencing domestic bond yield movements. Therefore, interest rate risks related to bond investments by domestic financial institutions warrant close attention.

Stock indices hit record highs before experiencing sharp volatility and a significant correction

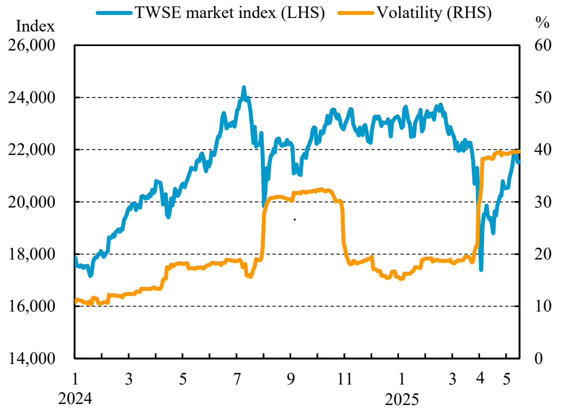
In July 2024, the Taiwan Stock Exchange Weighted Index (TAIEX) reached a historical high of 24,390. Thereafter, the TAIEX underwent a sharp correction but partially recovered, closing at 23,035 by year-end, posting a year-on-year increase of 28.47%. Volatility rose during the period but gradually stabilized. In 2024, trading activity in the stock market remained robust,

[7] Includes repo and outright transactions.
[8] Includes government bonds, international bonds, corporate bonds, and financial debentures.

with the annual turnover rate by trading value on the TWSE market rising to 135.40%, reflecting ample market liquidity.

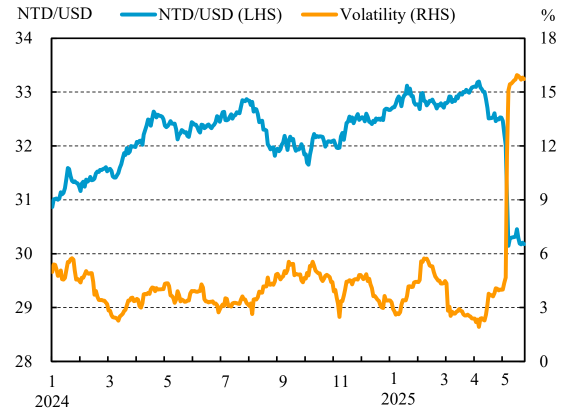
In 2025 Q1, the domestic stock markets remained volatile and continued to consolidate. Following the announcement of the US reciprocal tariff policies in early April, domestic stock markets plunged, accompanied by a sharp surge in volatility (Chart 1.8). Subsequently, as market sentiment gradually stabilized and foreign investors stepped up purchases of domestic stocks, the market rebounded swiftly, albeit with volatility remaining high. In light of the recent uncertainties stemming from the ongoing impacts of US tariff measures and escalating geopolitical risks – factors that could undermine global economic prospects and weigh on international and domestic stock markets – close monitoring of domestic market developments is warranted.

Chart 1.8 TWSE market index and volatility



Note: Volatility refers to the annualized standard deviation of 60-day daily index returns.
Sources: TWSE and CBC.

Chart 1.9 Movements of NT dollar exchange rate against US dollar



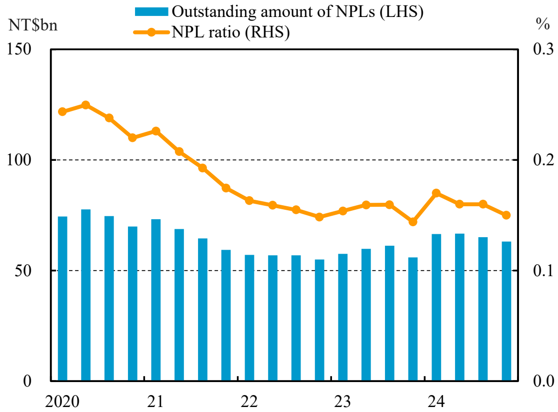
Note: Volatility refers to the annualized standard deviation of 20-day daily returns.
Source: CBC.

NT dollar appreciated against the US dollar following earlier depreciation, accompanied by elevated volatility

In 2024, the US dollar appreciated, leading to the depreciation of most major Asian currencies. The NT dollar exchange rate stood at 32.781 against the US dollar at the end of 2024, posting a depreciation of 6.24% from the end of the previous year, ranking mid-range among Asian peers. However, from January to April 2025, the NT dollar turned to appreciate against the US dollar following earlier depreciation. This appreciation accelerated, fueled by sustained foreign capital inflows into domestic stock markets and heightened expectations of NT dollar appreciation, which boosted the supply of US dollars. Moreover, in 2024, foreign investors repatriated funds owing to profit-taking and dividend payouts, leading to a decline in the nominal effective exchange rate (NEER) index of the NT dollar, which dropped to 101.10 at the end of the year. Since the beginning of 2025, the NT dollar has appreciated significantly against the US dollar, with its NEER rising to 105.85 as of May 20.

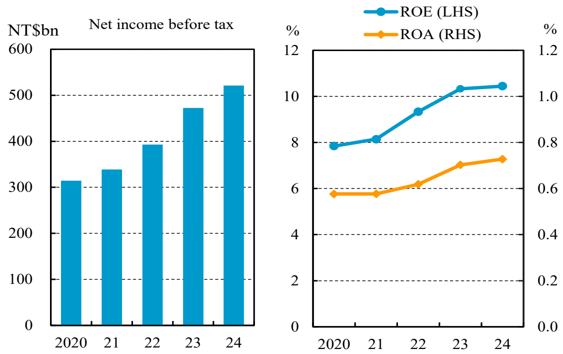
The volatility of the NT dollar exchange rate against the US dollar ranged from 2.27% to 5.74% in 2024, with an annual average of 3.97%. In early May 2025, the volatility of the NT dollar surged (Chart 1.9). Nevertheless, the average volatility of the NT dollar for the period from January 1 to May 20 stood at 5.32%, which remained lower than those of other major currencies. This suggests that the NT dollar has remained relatively stable over the long term.

Chart 1.10 NPLs of domestic banks



Note: Excludes interbank loans.
Source: CBC.

Chart 1.11 Profitability of domestic banks



Notes: 1. ROE = net income before tax/average equity.
2. ROA = net income before tax/average total assets.
Source: CBC.

Financial institutions

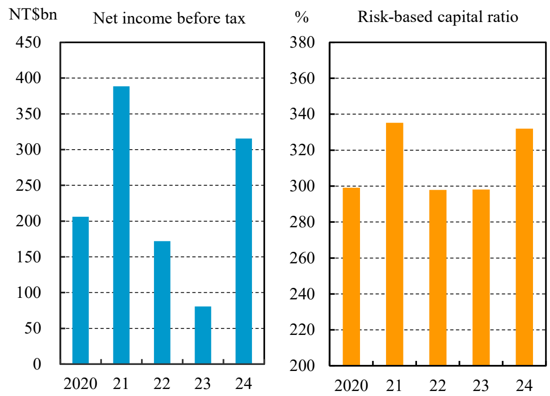
Domestic banks achieved record-high profits while maintaining sound asset quality and adequate capital levels

In 2024, the growth of customer loans extended by domestic banks accelerated, while credit concentration in corporate loans decreased slightly. Meanwhile, the share of real estate-secured lending declined as well. The average NPL ratio registered a low level of 0.15% at the end of the year (Chart 1.10), reflecting sound asset quality. Provisions for loan losses remained sufficient. The credit quality of overseas commercial real estate (CRE) exposures showed a modest improvement at the end of 2024, but underlying vulnerabilities remained elevated. Additionally, the exposure of domestic banks to China, as a percentage of net worth, descended further to a new low of 18%. Nonetheless, considering China's ongoing internal economic challenges and the external tariff pressures, the potential economic and financial risks are expected to increase and therefore warrant constant close attention.

In 2024, benefiting from increases in net gains from financial asset valuations and disposals, along with a substantial rise in net fee income, domestic banks' pre-tax net income grew by 10.31% year on year, reaching a new historical high of NT$521.3 billion (Chart 1.11, left panel). The average return on equity (ROE) and the return on assets (ROA) also went up to 10.45% and 0.73%, respectively (Chart 1.11, right panel), reflecting a notable improvement in profitability. The capital adequacy ratio edged down to 15.03% but remained at an adequate level.

Life insurance companies reported notable profit recovery and improved RBC ratios amid higher market risk

Chart 1.12 Net income before tax and RBC ratio of life insurance companies



Note: Figures for RBC ratios exclude insurance companies taken into receivership by the FSC.
Source: TIGF.

In 2024, owing to growth in net investment income, life insurance companies recorded a considerable increase in pretax income, surging by 291.24% year on year to NT$315.5 billion (Chart 1.12, left panel). The average RBC ratio also rose to 331.95% at the end of 2024 (Chart 1.12, right panel), while the average equity to asset ratio[9] rebounded to 7.62%.

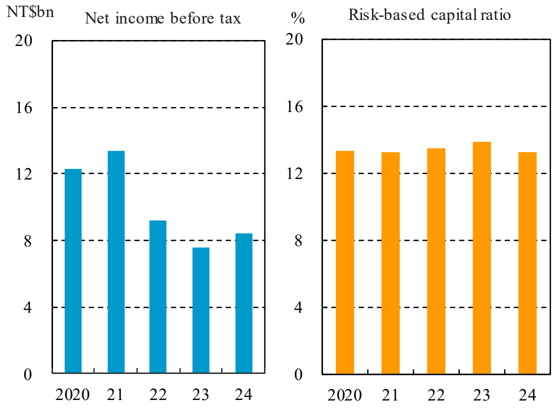
Foreign investment positions of life insurance companies kept growing and reached NT$23.03 trillion at the end of 2024, along with a sustained increase in domestic securities investments, which amounted to NT$6.40 trillion. In April 2025, the announcement of reciprocal tariff measures by the US triggered a sharp downturn in global stock markets and substantial volatility in US Treasury yields. Although financial markets temporarily stabilized thereafter, the large positions of financial assets measured at fair value rendered life insurers susceptible to market fluctuations and thus amplified stock investment and interest rate risks. Additionally, the NT dollar appreciated sharply in early May 2025, leading to higher FX risks for unhedged positions. Although premium income exceeded insurance benefit payouts in 2024 Q4 – resulting in a net cash inflow – the overall net cash outflow for the full year still widened compared to the previous year. In response, the FSC has strengthened its monitoring of life insurers' liquidity. At the end of 2024, cash positions held by life insurers were sufficient to meet their cash outflow needs. That said, future developments in market and liquidity conditions warrant continued close attention.

[9] Assets are exclusive of the assets of insurance products in separate accounts.

Bills finance companies saw growth in guarantee business and improved profitability, though liquidity risks persisted

The amount of CP guaranteed by bills finance companies rose by 4.53% year on year at the end of 2024, while the concentration of credit secured by real estate also climbed. The ratio of guaranteed advances edged up to 0.54%, although the overall credit quality remained sound.

Chart 1.13 Net income before tax and capital adequacy ratio of bills finance companies



Source: CBC.

The pre-tax net income of bills finance companies grew by 10.31% year on year to NT$8.4 billion in 2024 (Chart 1.13, left panel), primarily driven by higher income from the disposal of debt instruments and increased net interest income. The average capital adequacy ratio declined to 13.26% at the end of 2024 (Chart 1.13, right panel), yet all companies remained well above the statutory minimum requirement of 8%. However, bills finance companies still tend to rely on short-term funding to support long-term investments, indicating that liquidity risk remains elevated.

Financial infrastructure

Domestic payment systems functioned smoothly, with ongoing expansion in e-payment consumption

The CBC Interbank Funds Transfer System (CIFS) operated smoothly in 2024, with total settlement amounts reaching 22.7 times the annual GDP. The transaction value processed by the Interbank Financial Information System (IFIS) also increased by 18.88% compared to 2023. The overall consumption expenditure via various e-payment instruments[10] rose by 13.37%, mainly supported by the ongoing improvements to shared infrastructure for domestic retail payments, which enhanced the convenience and accessibility of e-payments. In addition, the Bank continued to urge the Financial Information Service Co., Ltd. (FISC) to work collaboratively with e-payment service providers and financial institutions in expanding the application scenarios of TWQR (the unified QR code payment standard) on the cross-

[10] Non-cash payment instruments include credit cards, debit cards, electronic tickets, electronic payment accounts, and automated clearing house (ACH) interbank collection.

institution e-payment platform, and in promoting the development of a cross-border payment service. These efforts aim to support the development of a sound and integrated payment ecosystem in Taiwan.

Other measures to strengthen the financial system

Given that the capital adequacy ratio is a key indicator for assessing the risk-bearing capacity of domestic banks, the FSC amended and promulgated relevant regulations regarding the calculation methods for regulatory capital and risk-weighted assets, with the aim of strengthening the resilience of Taiwan's financial system. Furthermore, to facilitate a smooth transition for domestic insurers to the new-generation solvency regime and the adoption of the International Financial Reporting Standard (IFRS) 17 "Insurance Contracts" starting from 2026, the FSC continues to implement a series of localization and transitional adjustment measures.

Considering that climate risks may affect the financial system via the real economy, most central banks and financial supervisory authorities around the world have successively introduced climate-related supervisory initiatives. These measures are primarily implemented through stress testing, scenario analysis, and enhanced information disclosure to better assess and manage climate-related risks. In this regard, the FSC has been refining its climate change scenario analysis model, while the Bank continues to collect and analyze relevant information, to support future assessments of climate change risks and the potential applications of macroprudential instruments.

Moreover, to promote Taiwan as an Asian asset management hub, the FSC unveiled five major policy initiatives, comprising 16 strategic measures. These are being advanced through regulatory easing and cross-agency collaboration. In line with these efforts, the Bank revised FX regulations by raising the annual cumulative FX settlement threshold for nationals, removing the previous annual quota on discretionary investment in foreign currency (FC)-denominated securities, and relaxing currency restrictions on loans secured by the beneficial rights of specific money trusts denominated in FCs.

Overall, Taiwan's financial system remained broadly stable throughout 2024, though the potential impacts of uncertainty surrounding US tariff policies warrant close attention

In 2024, both the primary and secondary markets for bills and bonds in Taiwan continued to expand. Domestic stock indices repeatedly hit new highs amid active market trading. The NT dollar showed a moderate depreciation trend against the US dollar, while exchange rate volatility remained relatively low. Domestic banks, life insurance companies, and bills finance companies all recorded improved profitability, maintained sound asset quality, and reported adequate capital levels. In addition, domestic payment and settlement systems operated smoothly. Overall, Taiwan's financial system remained broadly stable throughout the year.

From early 2025 onwards, uncertainty surrounding the Trump administration's policy stance triggered a sharp decline in domestic stock indices, followed by a gradual rebound. The NT dollar exchange rate also experienced increased short-term volatility; nevertheless, it remained relatively stable over the longer term. Meanwhile, the money and bond markets showed limited volatility. The asset quality of financial institutions remained resilient, as no significant deterioration has been observed and average NPL ratios stayed near historical low levels. However, should US tariff policies undermine the debt servicing capacity of the corporate and household sectors, which are the main borrowers of financial institutions, there could be adverse impacts on the asset quality, profitability, and capital adequacy of financial institutions. Moreover, increasing volatility in both domestic and international financial markets could dampen the investment performance of financial institutions, particularly life insurance companies, which hold substantial investment portfolios across domestic and foreign markets and are more susceptible to market risks. The Bank will continue to closely monitor developments in US tariff policies and related negotiation dynamics with major economies, with the aim of identifying potential risks and adopting appropriate, prudent responses as needed.

Measures to promote financial stability and in response to the impact of US tariff policies

Measures undertaken by the Bank and the FSC to promote financial stability

Measures undertaken by the Bank to promote financial stability

In 2024, both Taiwan's CPI and core CPI inflation rates declined. However, in view of a possible electricity rate hike, the Bank raised its policy rates by 0.125 pps in March 2024 to curb inflation expectations and maintain price stability. In addition, the Bank conducted open market operations in line with prevailing economic and financial conditions to maintain reserve money at an appropriate level. This was primarily achieved through the issuance of negotiable certificates of deposit (NCDs).

Moreover, the Bank introduced two further amendments to the *Regulations Governing the Extension of Mortgage Loans by Financial Institutions* in June and September 2024. Key measures included lowering the loan-to-value (LTV) ratio caps for housing mortgages and unsold housing unit loans, while also introducing targeted relief measures. Meanwhile, the Bank also raised the reserve requirement ratios on NT dollar deposits twice during the year to reinforce quantitative monetary credit management and enhance the effectiveness of its selective credit control measures. In August, the Bank further requested banks to independently manage the aggregate volume of their real estate loans. It also conducted targeted financial inspections to ensure that financial institutions fully complied with applicable regulations, with the aim of addressing the overconcentration of credit in real estate lending. In addition, the Bank continually adopted a flexible FX rate policy and undertook appropriate administrative measures. These included strengthening off-site monitoring to ensure that forward transactions were based on genuine needs and urging banks to enhance their exchange rate risk management. These efforts helped support the dynamic stability of the NT dollar exchange rate and maintain orderly conditions in the FX market, thereby ensuring sound financial development.

Measures undertaken by the FSC to maintain financial stability

The FSC has worked to strengthen the capital deployment of the insurance sector by promoting the channeling of insurance capital toward domestic public infrastructure and mitigating currency mismatches in insurers' asset allocation. Additionally, in order to support insurers in enhancing asset-liability management, the FSC released revised draft regulations with the aim of ensuring that insurers maintain adequate solvency levels.

To encourage financial institutions to effectively use emerging technology, the FSC issued guidelines for AI applications in the financial industry, providing a reference framework for the adoption, utilization, and management of AI systems. These guidelines will enhance risk control in AI applications within the financial sector. The FSC also strengthened the supervision of Virtual Asset Service Providers (VASPs) and reinforced cybersecurity defense mechanisms in the financial sector to facilitate sound development of virtual asset services and to enhance the overall cybersecurity resilience of the financial system.

Government measures in response to US tariff policies

In response to the impacts of US tariff policies, the Executive Yuan announced the *Support*

Program for Strengthening Taiwan's Export Supply Chain in Response to US Tariffs on April 4, 2025. The program included a planned investment of NT$88 billion to implement 20 support measures aimed at assisting domestic industries in navigating trade-related challenges. Subsequently, on April 24, 2025, the Executive Yuan further approved a draft of the *Special Act for Strengthening Economic, Social, and Homeland Security Resilience in Response to Global Challenges*, which increased the program's budget by NT$5 billion to a total of NT$93 billion, to further support industrial upgrading, transformation, and equipment renewal for affected enterprises. In parallel, the Bank has implemented four mechanisms to stabilize the exchange rate through dynamic responses to fluctuations in the FX market, and established a comprehensive liquidity provision mechanism to ensure sufficient liquidity within the banking system. The FSC also launched measures aimed at promoting financial stability, while the relevant ministries actively introduced complementary support initiatives, including financing, subsidies, and tax incentives.

The Bank will take appropriate measures to safeguard financial stability

In 2024, Taiwan's economy recorded steady growth, while inflation gradually eased. Against this backdrop, Taiwan's financial markets remained sound, financial institutions maintained solid operations, and the financial infrastructure functioned smoothly. Overall, Taiwan's financial system remained broadly stable.

However, since early 2025, the spillover effects of US tariff policies have undermined global financial market stability, dampened global economic growth prospects, and intensified inflationary pressures in many economies. These developments may further transmit negative effects from the real economy to the financial system, thereby posing potential risks to Taiwan's financial stability.

In addition, downside risks from China's economy, geopolitical tensions, climate change, and supply chain shifts may adversely affect global economic development and financial stability. In view of these numerous downside risks to the economic and financial outlook, the Bank will continue to pay close attention to evolving developments and their potential impact on domestic economic and financial conditions. The Bank will also take appropriate measures in a timely manner to safeguard financial stability.

II. Macro environmental risk factors

2.1 International economic and financial conditions

In 2024, monetary policies of major central banks gradually shifted toward easing. The global economy experienced moderate growth, while inflationary pressures eased alongside improvements in labor market conditions. These developments, coupled with market expectations of future interest rate cuts, led to accommodative financial conditions.

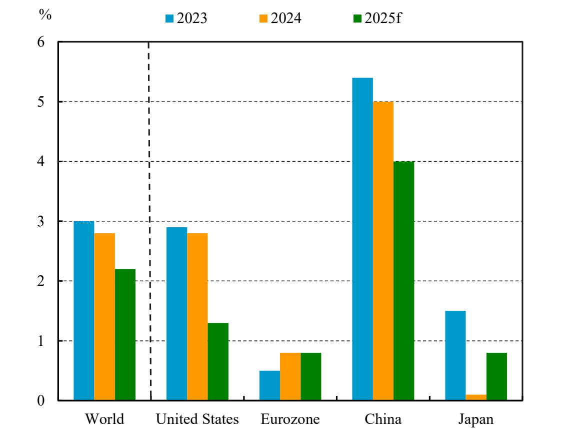
Looking ahead to 2025, US tariff policies are expected to exert adverse effects on global economic growth and inflation. In particular, the heightened uncertainty stemming from the tariff measures has already triggered significant volatility in global financial markets and led to a notable tightening of financial conditions. If financial asset prices continue to correct, and volatility in the sovereign bond markets persists, the risks to financial stability could increase and therefore warrant close and ongoing attention.

2.1.1 International economic and financial conditions in 2024

Global economic growth remained steady, and inflationary pressures eased

Although global economic growth in 2024 slowed compared to 2023, it remained stable as major central banks gradually shifted toward a more accommodative monetary stance. According to S&P Global,[11] the global economic growth rate for 2024 was estimated at 2.8% (Chart 2.1), with economic performance diverging across major economies.

Chart 2.1 Global economic growth rates



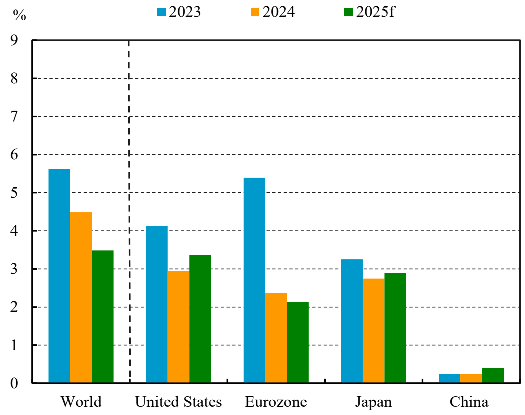
Note: Figures for 2025 are S&P Global Market Intelligence estimates.
Source: S&P Global Market Intelligence (2025/5/15).

In the US, economic momentum was strong, supported by resilient consumer spending. In

[11] See Note 1.

the euro area, although manufacturing and goods exports remained weak, continued expansion in private consumption led to slightly higher growth than in 2023. In contrast, China's growth momentum was subdued owing to a sluggish property market and weak consumer demand, accompanied by rising deflationary risks. Japan's economic growth has slowed to near stagnation, primarily reflecting temporary production halts in the auto industry caused by certification violations, as well as the effects of a high base from the previous year.[12]

Chart 2.2 Global headline inflation indices



Note: Figures for 2025 are S&P Global Market Intelligence estimates.
Source: S&P Global Market Intelligence (2025/5/15).

As international oil and grain prices declined, and nominal wage growth slowed amid a gradually stabilizing labor market, global inflation in 2024 eased from the decades-high levels seen in recent years. According to S&P Global,[13] the global CPI inflation rate fell to 4.5% in 2024, down from 5.6% in 2023 (Chart 2.2), indicating a broad moderation in inflationary pressures. While core goods price inflation declined notably, services price inflation remained somewhat sticky and continued to run above pre-COVID-19 averages, resulting in slower progress toward disinflation in some economies.

Global financial conditions eased

In 2024, as post-pandemic pressures stemming from supply chain disruptions and surging commodity prices gradually subsided, global labor markets became more balanced and inflation steadily converged toward central bank targets. Most central banks adopted a more accommodative monetary stance, with the US, the euro area, and the UK all cutting their policy rates. Supported by widespread expectations of declining interest rates and improved investor sentiment, volatility in global financial markets declined. As a result, financial conditions eased considerably compared to the end of 2023, although they tightened slightly after October.

In an effort to revive sluggish economic growth, China intensified its monetary easing efforts, which led to a narrowing of credit spreads on corporate bonds. Consequently, financial conditions shifted rapidly from restrictive to expansionary, with a notably steeper decline in

[12] Japan's economic growth accelerated significantly in 2023, driven by a surge in inbound tourism.
[13] See Note 1.

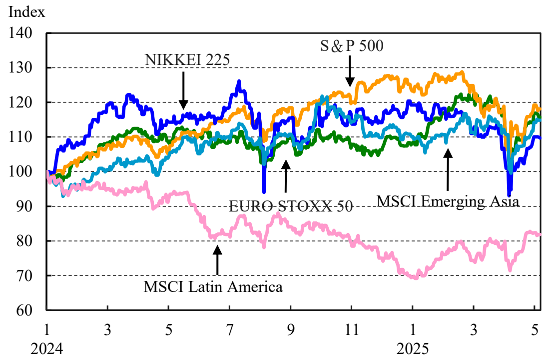
financial condition indicators compared to other major economies.

Financial markets rebounded steadily

Amid easing inflation in 2024, global stock markets, with the exception of Latin America, staged a gradual recovery. However, in August, owing to weaker-than-expected earnings guidance in the technology sector and growing concerns over the US economic outlook, US stock markets turned downward, dragging down stock markets in other economies as well. Since October, US stocks have recovered, buoyed by optimism following Trump's election victory. Nonetheless, heightened uncertainty over trade policy has limited upward momentum in other markets (Chart 2.3).

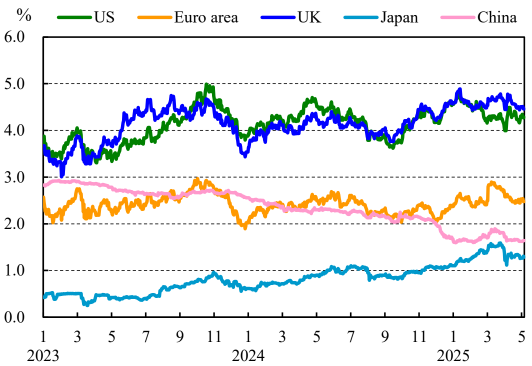
In the bond market, US government bond yields were highly volatile throughout the first half of 2024. Although the Federal Reserve System (Fed) began a rate-cutting cycle in the second half of the year, uncertainty surrounding the terminal rate persisted, driven by recession fears, elevated inflation, and increased government bond issuance under new US fiscal policies. These factors led to a rise in the term premium on long-term government bonds, pushing 10-year yields higher (Chart 2.4).

Chart 2.3 Major international equity indices



Notes: 1. January 1, 2024 = 100.
2. The EURO STOXX 50 refers to a stock index consisting of the largest 50 stocks in the 12 major economies of the euro area.
Source: Bloomberg.

Chart 2.4 10-year government bond yields in major economies



Source: Bloomberg.

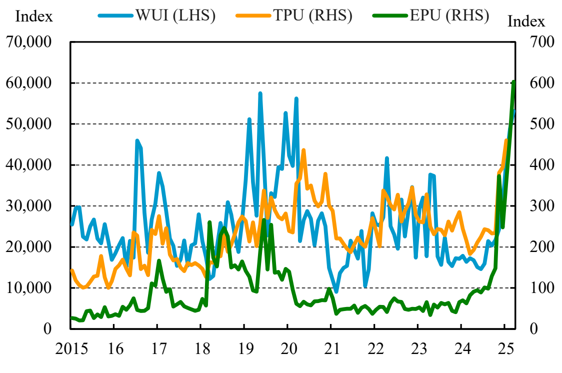
2.1.2 Impact of Trump's tariff policies on the global economy and financial markets

Uncertainty in trade policy exerts negative effects on global economic growth and inflation

In October 2024, as markets began to anticipate Donald Trump's potential re-election, investors engaged in the so-called "Trump trade" in response to the perceived implications of his proposed tariff policies. Initially, markets reacted positively to expectations of tax cuts, propelling financial markets to higher levels. Nevertheless, Trump's policies were perceived as aggressive and unpredictable, exerting varied impacts on economic growth momentum, inflation, and financial markets across major economies. The uncertainty surrounding trade policy, with a particular focus on tariff measures, intensified considerably. Correspondingly, global policy uncertainty indices registered a significant increase (Chart 2.5), reflecting rising market concerns over changes in the future trade landscape. These concerns may have far-reaching effects on global supply chain restructuring, cross-border capital flows, and portfolio allocation strategies.

Following President Trump's inauguration in January 2025, a series of tariff measures were announced, including reciprocal tariffs targeting major global trading partners.[14] These actions heightened uncertainty in the global trade environment and posed downside risks to the world economy and financial markets. The widespread use of tariffs has also further increased the unpredictability of monetary policy decisions among central banks worldwide. The Fed chair Jerome Powell emphasized that, while tariffs may cause a temporary rise in inflation, the Fed must balance its dual mandate of price stability and maximum employment. The European Central Bank (ECB), despite cutting rates again in April 2025, also underscored the highly uncertain environment and refrained from providing forward guidance on interest rates, highlighting its flexible and cautious policy stance.

Chart 2.5 Policy uncertainty indices

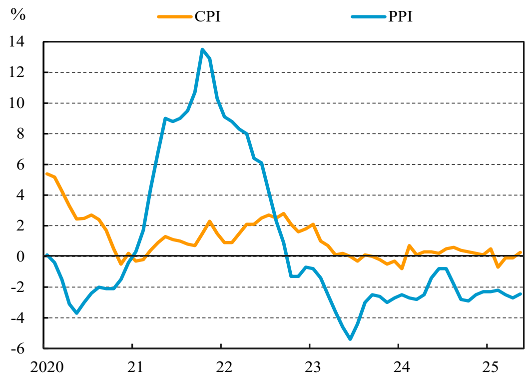


Note: The uncertainty measures are indices that quantify media attention to global news related to world uncertainty (WUI), economic policy uncertainty (EPU), and trade policy uncertainty (TPU).
Source: IMF (2025), *World Economic Outlook*, April

[14] See Note 2.

Although the US has recently announced a 90-day pause on the reciprocal tariff measures, policy uncertainty and adverse economic spillovers are likely to persist. S&P Global[15] projects that global economic growth will moderate to 2.2% in 2025 (Chart 2.1), marking the weakest pace since the 2008 global financial crisis, excluding the COVID-19 pandemic. Concurrently, the US CPI annual growth rate is anticipated to rise to 3.4% (Chart 2.2). The US tariff measures are expected to have a particularly strong impact on Canada, Mexico, China, and the US itself. As tariffs constrain capital formation, their effects will likely expand over time. The International Monetary Fund (IMF)[16] projects that global GDP will be reduced by 0.6 pps by 2027. Even so, the inflationary pressures stemming from tariff hikes will be partially offset by the disinflationary effects from reduced economic activity. As a result, global inflation is forecast to edge up only marginally, by approximately 0.1 pps between 2025 and 2026.

Chart 2.6 CPI and PPI movement in China



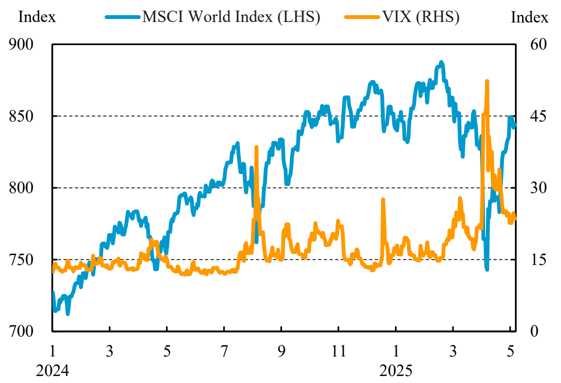
Note: The data in the chart are monthly figures, each comparing the given month with the same month of the previous year.
Source: S&P Global Market Intelligence (2025/5/15).

After Trump announced the implementation of reciprocal tariffs, China responded with retaliatory measures. Both countries subsequently raised tariff rates in succession, triggering “an upward spiral of tariffs” that further escalated US-China trade tensions and even resulted in economic decoupling between the two nations. These developments would exert substantial pressure on China’s export-oriented economy. Apart from external challenges, China is also grappling with internal economic headwinds, including a persistently sluggish real estate sector, elevated local government debt burdens, and subdued domestic demand caused by weak consumer confidence. The IMF[17] projects that China’s economic growth rate will fall to 4.0% in 2025. Meanwhile, S&P Global[18] expects a notable increase in the probability that China’s annual CPI growth will ease to 1.0%. The producer price index (PPI) has also remained weak (Chart 2.6), signaling a mounting risk of the economy entering a deflationary spiral. Given China’s role as a key global manufacturing exporter, the simultaneous escalation of the US-China trade tensions and rising internal deflationary risks in China may lead to cascading effects on global prices and trade conditions.

15 See Note 1.
16 IMF (2025), “Chapter 1: Global Prospects and Policies,” *World Economic Outlook*, April.
17 See Note 16.
18 See Note 1.

Global financial markets experienced substantial disruptions following US tariff measures, accompanied by a noticeable tightening in financial conditions

Chart 2.7 MSCI World Index and VIX Index



Source: Bloomberg.

In the first quarter of 2025, US tariff policies sparked investor anxiety over the possibility of stagflation, culminating in the weakest performance of US equities since 2022. Following the Trump administration's April 2 announcement of reciprocal tariffs, global stock markets plunged over several days, risk-off sentiment dominated, and the VIX index spiked sharply. However, on April 9, when the Trump administration announced a 90-day suspension of reciprocal tariffs for all economies except China, both global stock markets and the VIX index stabilized, revealing how investor sentiment and market dynamics are highly reactive to developments in trade policy (Chart 2.7). In bond markets, US bond yields have fluctuated markedly amid heightened uncertainty surrounding tariff policies since the beginning of 2025. In Japan, a policy rate hike in early 2025, coupled with renewed inflationary pressures, drove government bond yields sharply higher, reaching levels unseen since 2008. However, yields later retreated owing to intensified market risk aversion triggered by the US reciprocal tariff measures. In China, amid escalating trade tensions with the US, expectations of a more accommodative monetary policy stance by the People's Bank of China have increased, placing downward pressure on long-term government yields (Chart 2.4).

Prior to the announcement of US tariff policies, stock valuations in most advanced economies were at elevated levels, and corporate bond spreads had tightened. Thereafter, repeated shifts in tariff policies caused a pronounced rise in market volatility, contributing to an evident tightening in financial conditions. In contrast, emerging economies outside China experienced a more moderate degree of financial tightening, as relatively stable exchange rates helped offset the adverse effects of falling stock prices.

2.2 Domestic macro environment

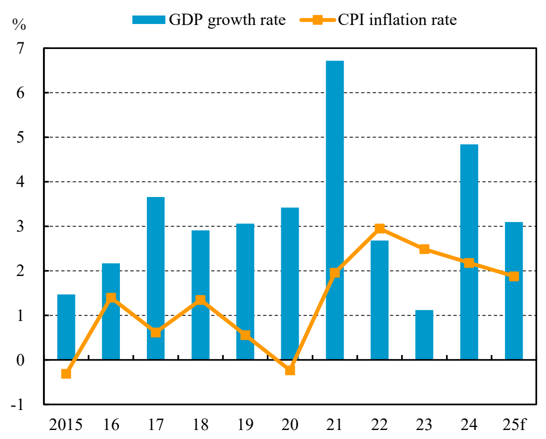
In 2024, strong exports and investment supported steady economic growth, with falling inflation and a recovering housing market. In early 2025, the economy continued to grow, but encountered some external uncertainties, such as US reciprocal tariffs. If these risks escalate, they could adversely impact the corporate sector, household sector, and real estate market stability, warranting close monitoring and prudent responses.

2.2.1 Domestic economic conditions

In 2024, continued growth in emerging technology applications boosted export dynamics of related domestic supply chains and led to profit growth in the corporate sector. Coupled with an increase in private investment momentum, the annual economic growth rate hit 4.84%, reflecting steady expansion. Meanwhile, the CPI and core CPI growth rates fell to 2.18% and 1.88%, respectively, indicating a sustained gradual downward trend in inflation (Chart 2.8).

Looking ahead to 2025, with domestic demand and exports expected to maintain growth momentum, the Bank forecasted in March that the annual economic growth rate would reach 3.05%. Inflation is expected to decline gradually, with annual CPI inflation forecasted to ease to 1.89% and annual core CPI (1.79%) likely to stay below 2% for the second consecutive year. However, given the high uncertainty surrounding US tariff policies, the DGBAS forecasted in May that economic growth could slow significantly in the second half of 2025. Nevertheless, strong exports of AI and high-performance computing equipment in the first half of the year, along with early inventory buildup by clients in response to US tariff measures, led to better-than-expected export performance. Accordingly, the DGBAS revised its 2025 economic growth forecast to 3.10%, slightly down by 0.04 pps from its February forecast. Additionally, falling international oil and raw material prices, combined with the appreciation of the NT dollar against the US dollar, are expected to ease import cost pressures and curb domestic inflation. As a result, the DGBAS lowered its 2025 annual CPI inflation forecast to 1.88%, the lowest level since 2021.

Chart 2.8 Economic growth rate and CPI inflation rate of Taiwan



Note: Figures for 2025 are DGBAS forecasts released on May 28, 2025.
Source: DGBAS.

Nevertheless, the spillover effects of the US announcement of reciprocal tariff policies are likely to exacerbate economic uncertainties both domestically and globally. Should the tariffs be fully implemented, demand for Taiwan's information and communication technology products may be postponed or weakened, dampening export momentum across related supply chains. Furthermore, if Taiwan's traditional industries are subject to higher tariff rates compared to those imposed on competitor economies, their export competitiveness could be undermined, limiting export growth and, in turn, potentially amplifying downside risks to the economy. Several investment banks currently estimate that a 32% tariff on Taiwan could lower the 2025 economic growth rate by 0.4 to 1.1 pps,[19] while the DGBAS and the National Development Council project a decline of 0.43 to 1.61 pps.[20]

On the other hand, US tariff policies could also generate positive effects for Taiwan's economy. Taiwan's AI and other emerging technology-related supply chains maintain a global competitive edge, which may sustain overall export performance. Strong demand for these technologies, along with inventory buildup by firms in the first and second quarters of 2025, is expected to support corporate investment. In addition, divergent reciprocal tariff rates across countries could allow Taiwanese firms to benefit from order reallocation. In May 2025, S&P Global forecasted Taiwan's economic growth at 2.88%, up by 0.26 pps from its April estimate. As for domestic prices, the inflationary impact of US reciprocal tariffs on Taiwan is expected to be limited. However, recent years have seen shorter adjustment cycles in core CPI, reflecting volatility in international commodity prices, geopolitical risks, and climate change related factors. These developments may reshape Taiwan's inflation dynamics and pose new challenges for monetary policy formulation and implementation (Box 1).

[19] Specifically, the estimates were provided by Nomura (assessed on April 3, 2025; a reduction of 0.4 pps), Goldman Sachs (April 4, 2025; a reduction of 1.0 pp), and Bank of America and Standard Chartered (April 4, 2025; a reduction of 1.1 pps).

[20] Referencing the minutes of the 7th plenary meeting of the Economics Committee, 3rd session of the 11th congress of the Legislative Yuan, held on April 9, 2025, and the DGBAS special report, "Impact of the Trump Administration's Reciprocal Tariff Policy on Taiwan's Stock and FX Markets, Economic Growth, Prices, and Real Estate Market, and Response Measures," released on April 10, 2025.

Box 1
Exploring the recent changes in Taiwan's inflation structure through price adjustment intervals

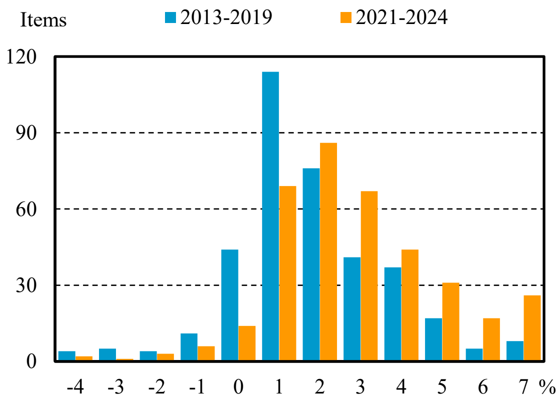
During the post-pandemic period from 2021 to 2022, as global vaccine coverage gradually increased and economic activity progressively resumed, the world began to emerge from the shadow of the pandemic, and demand started to recover. However, supply chain bottlenecks stemming from the pandemic, which had not yet been fully alleviated, together with geopolitical tensions such as the Russia-Ukraine war, disrupted the global supply-demand balance, thereby driving up international prices of major commodities, including energy and food. Taking the United States and the euro area as examples, these factors, coupled with tight labor markets in the post-pandemic era, forced firms to implement frequent and sizable price modifications to maintain profit margins. The shift in price adjustment intervals, in addition to exerting upward pressure on inflation across economies, has affected price rigidity and shaped inflation expectations. As a result, these structural changes in pricing behavior have become a focus for central banks in major economies such as the US and the euro area. In light of these developments, this box attempts to construct an index measuring the price adjustment intervals of various items in Taiwan's CPI. This index assesses changes in Taiwan's inflation structure before and after the pandemic (i.e., from 2016 to 2019 and from 2021 to 2024), as a general reference.

1. Impact and empirical findings on post-pandemic inflation and price adjustment interval changes

1.1 Recent changes in Taiwan's inflation structure

Observing historical price changes in Taiwan, inflation generally followed a low and stable trend before 2020, with the annual CPI inflation rate typically fluctuating around 1%. Between 2013 and 2019, of the 368 items surveyed in Taiwan's CPI, 114 items had an average annual growth rate of 0% to 1%, accounting for about one-third of the total items and indicating relatively mild price changes. Nonetheless, since 2021, owing to

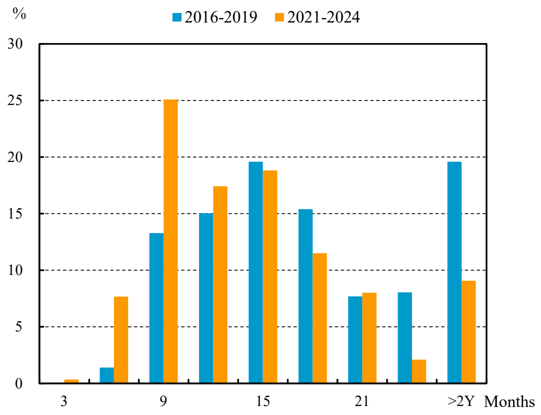
Chart B1.1 Year-on-year growth rate distribution of Taiwan's 368 CPI pricing items



Source: DGBAS.

global supply chain bottlenecks, geopolitical tensions like the Russia-Ukraine war, and climate change, the imported prices of raw materials such as crude oil and food have surged. This cost pressure originating from the supply side has gradually been transmitted to various components of the domestic CPI, driving a notable upward trend in the prices of many domestic commodities. Among the abovementioned 368 pricing items in Taiwan's CPI basket, 185 items had an average annual growth rate higher than 2% from 2021 to 2024, making up 50.3% of the total items, far more than the 108 items (29.3%; see Chart B1.1) from 2013 to 2019. It signals that inflationary pressures have extended to a broader range of daily consumer items since 2021, suggesting a possible structural shift in overall inflation and implying that price adjustment intervals across various product items in Taiwan have changed. Furthermore, Price et al. (2023)[1] also found a considerable uptick in the frequency of price changes in certain US manufacturing and service industries commencing in 2021, indicating that after inflation started climbing, US firms began to adjust prices more frequently and adopted a strategy of "gradual, modest price modifications," allowing consumers to progressively adapt to the rising price environment rather than a large change all at once.

Chart B1.2 Changes in price adjustment intervals of core CPI items over the past 36 months (2% price increase threshold)



Source: Yu (2024).

1.2 Recent changes in the price adjustment intervals of core prices

According to the weighting statistics of the 2021-based CPI pricing items published by the DGBAS, core inflation components (excluding energy, fruit, and vegetables) accounted for 287 of the 368 pricing items in Taiwan's CPI basket, representing more than 90% of the total CPI weight. In other words, the overall CPI changes are strongly affected by the pricing dynamics of its internal components. To analyze differences in price adjustment intervals, a further comparison of the two periods before and after the pandemic, namely from 2016 to 2019 and from 2021 to 2024, was conducted using a total of 48 months of data for each period, under the 2% price increase threshold. The results showed that the adjustment interval for core CPI items shortened from 17.4 months before the pandemic to 12.5 months after the pandemic, suggesting that the overall price adjustment frequencies had increased significantly. Moreover, the distribution of core CPI price adjustment intervals also exhibited a marked shift to the left as shown in the chart (Chart B1.2):

(1) Core items with adjustment intervals shorter than half a year (less than six months) accounted for only 1.4% of all core items before the pandemic (2016-2019), but rose to 8% after the pandemic (2021-2024), indicating that short-term price changes had increased significantly.

(2) Core items with adjustment intervals longer than two years (24 months or more) accounted for 19.58% of all core items before the pandemic, but decreased to 9.1% after the pandemic, reflecting a reduction in long-term price rigidity.

These estimates reveal that the price adjustment intervals of many core consumer items in Taiwan, previously characterized by price rigidity, have shortened since 2021. This suggests that the changes in international raw material prices, geopolitical risks, and climate change are gradually reshaping Taiwan's current inflation structure. The shifting price adjustment intervals across various product categories not only challenge consumers' previous perceptions of those intervals but also lead to more pronounced public sensitivity to inflation.[2]

2. Conclusion

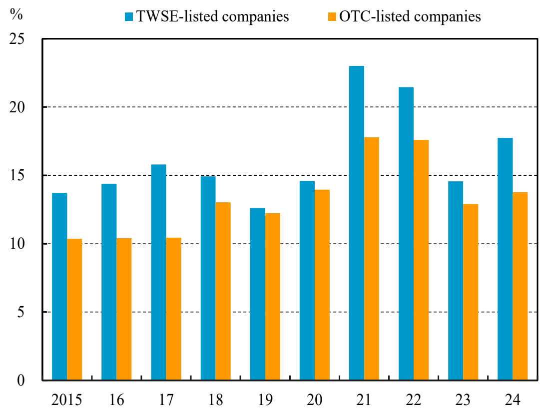
Stabilizing price fluctuations and maintaining consumer purchasing power are crucial for stabilizing society and remain key policy concerns for the government. Central banks worldwide, in accordance with their legal mandates, primarily focus on maintaining price stability as their top monetary policy objective. They employ tools such as guiding market interest rates and controlling the money supply to mitigate the adverse economic effects of inflation volatility. In recent years, Taiwan's core CPI price adjustment intervals have significantly shortened, reflecting that unexpected factors, including international raw material price fluctuations, geopolitical risks, and climate change, may be reshaping Taiwan's current inflation structure. This poses new challenges for the Bank's formulation and implementation of monetary policy. The Bank will continue to closely monitor changes in price adjustment frequencies across various items and adjust monetary policy in a timely manner to achieve price stability, maintain financial stability, and fulfill its legal duties to support economic development in line with the aforementioned objectives.

Notes: 1. Price, A. David, Tim Sablik, and Matew Wells (2023), "How the Pandemic Era Changed Price-Setting," *Econ Focus*, Federal Reserve Bank of Richmond, Fourth Quarter.
2. Yu, Hsin-Jung (2024), "Exploring the Recent Changes in Inflation Structure through Price Adjustment Intervals: A Case Study of Taiwan," *CBC Internal Report*.

2.2.2 Corporate sector

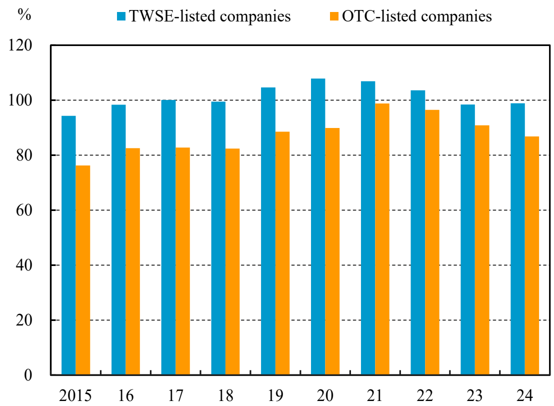
In recent years, as AI has rapidly advanced, revenues in related industries have increased significantly. In 2024, the overall profitability of the corporate sector exceeded market expectations. By the end of the year, listed companies maintained moderate levels of financial leverage and demonstrated improved short-term debt servicing capacity. The NPL ratio for corporate loans granted by financial institutions hit a new low, reflecting sound credit quality in the corporate sector. Nevertheless, with heightened uncertainty over US tariff policies, which could impact future profitability and debt servicing capacity of the corporate sector, close attention should be paid to the impact of subsequent developments on the credit quality of financial institutions.

Chart 2.9 Return on equity in corporate sector



Note: Return on equity = net income before interest and tax/average equity.
Source: TEJ.

Chart 2.10 Leverage ratios in corporate sector



Note: Leverage ratio = total liabilities/total equity.
Source: TEJ.

Revenue increased substantially and overall profitability surpassed market expectations

As global economic growth recovered steadily, strong demand for emerging technologies such as AI boosted export momentum across related supply chains. In 2024, the net operating revenues of TWSE- and OTC-listed companies reached NT$38.64 trillion and NT$2.70 trillion, respectively, representing notable year-on-year increases of 12.73% and 7.16%. This pushed profit before tax in the corporate sector to NT$4.65 trillion, a surge of 30.5% from the previous year, with overall profitability surpassing market expectations. Additionally, the average ROEs for TWSE- and OTC-listed companies rose to 17.74% and 13.76%, respectively (Chart 2.9).

Corporate leverage remained moderate, and short-term debt servicing capacity improved

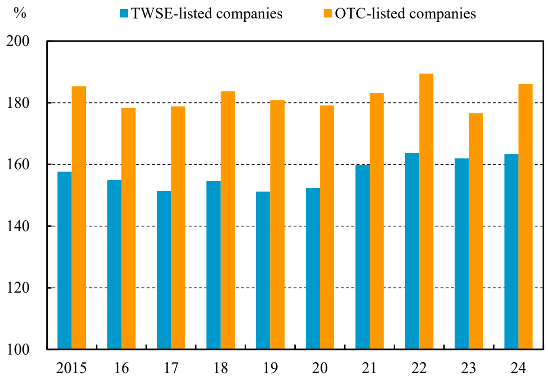
As market demand rebounded, firms increased their investments, resulting in a slight increase in the average leverage ratio of TWSE-listed companies from 98.44% at the end of the previous year to 98.88% at the end of 2024. Meanwhile, OTC-listed companies, which adopted relatively conservative financing strategies, saw their average leverage ratio decline from 90.89% to 86.78% (Chart 2.10), suggesting that overall corporate leverage remained at a moderate level.

At the end of 2024, the current ratios of TWSE- and OTC-listed companies rose from 161.97% and 176.60% a year earlier to 163.38% and 186.14%, respectively (Chart 2.11). In addition, the average interest coverage ratio increased from 10.83 times and 13.18 times at the end of the previous year to 14.98 times and 13.35 times, respectively, primarily because of a reduction in interest expenses (Chart 2.12), indicating improved overall short-term debt-servicing capacity.

An increase in foreign currency liabilities among TWSE-listed companies warrants prudent exchange rate risk management

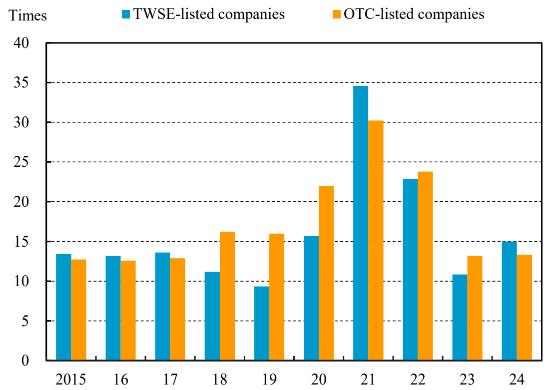
As of the end of September 2024, TWSE-listed companies saw a notable rise in foreign currency liabilities, raising the foreign currency liability-to-equity ratio from 23.45%

Chart 2.11 Current ratios in corporate sector



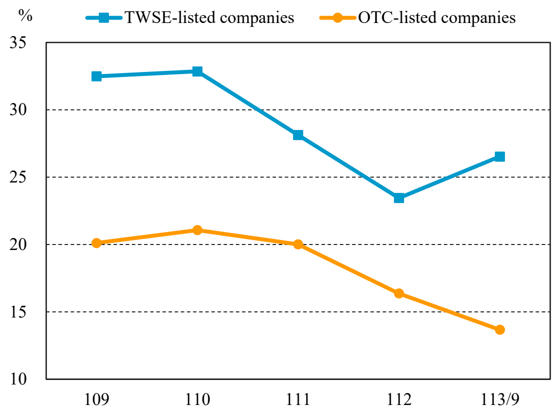
Note: Current ratio = current assets/current liabilities.
Source: TEJ.

Chart 2.12 Interest coverage ratios in corporate sector



Note: Interest coverage ratio = income before interest and tax/interest expenses.
Source: TEJ.

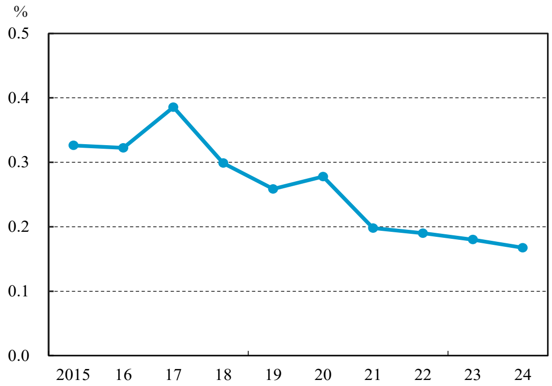
Chart 2.13 Foreign currency liability-to-equity ratios in corporate sector



Source: TEJ.

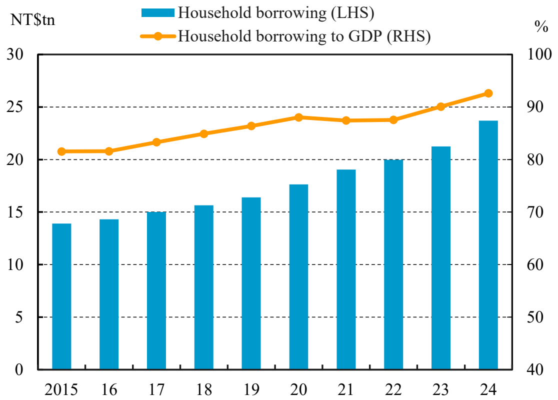
at the end of the previous year to 26.53%. In contrast, the same ratio for OTC-listed companies continued to decline, falling from 16.36% to 13.67% (Chart 2.13). The announcement of reciprocal tariff policies by the US has significantly increased uncertainty surrounding global trade and supply chains, which is expected to weigh on global economic growth. In addition, ongoing geopolitical tensions could intensify volatility in FX markets, thereby affecting the ability of both TWSE- and OTC-listed companies to service their foreign currency debts. In light of these risks, prudent exchange rate risk management is advisable.

Chart 2.14 NPL ratio of corporate loans



Source: JCIC.

Chart 2.15 Household borrowing to GDP



Sources: CBC, JCIC, and DGBAS.

Credit quality remained sound as the NPL ratio of the corporate sector continued to reach a new low

At the end of 2024, the NPL ratio for corporate loans extended by financial institutions [21] declined to a new low of 0.17% from 0.18% a year earlier (Chart 2.14). This indicates that the overall credit quality of the corporate sector remained sound.

Given the recent announcement by the Trump administration to impose reciprocal tariffs, Taiwan's corporate sector is expected to face challenges such as a decline in exports, reduced output value, and lower revenue. These developments may negatively impact future profit growth momentum and debt-servicing capacity. Therefore, close attention should be paid to the impact of subsequent developments on the credit quality of financial institutions.

2.2.3 Household sector

In 2024, household borrowing expanded continually, resulting in a slight increase of household indebtedness. Meanwhile, short-term household debt servicing pressure tightened marginally.

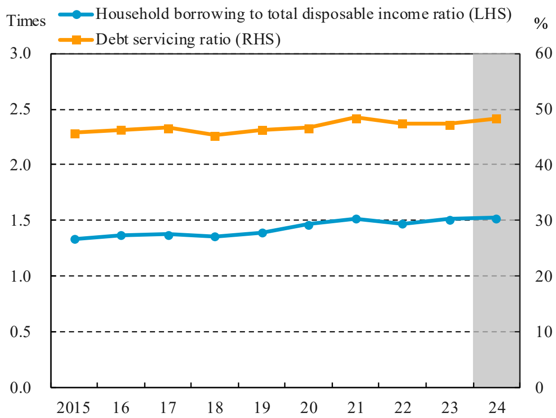
[21] Based on JCIC statistics on loans by financial institutions to all enterprises, excluding data from overseas branches of domestic banks.

However, the household sector maintained substantial net worth, reflecting that the debt servicing capacity of households remained sound. Moreover, the NPL ratio of household borrowing from financial institutions grew slightly but stayed at a low level, indicating sound credit quality of household borrowing. Nevertheless, in 2025, the potential rise in utility rates is likely to increase household expenditures, while the volatility in equity and bond markets driven by the Trump administration's tariff policies and the spillover effects on the domestic labor market may place pressure on household wealth and income. Therefore, changes in the debt servicing capacity of some households with higher debt burdens warrant close attention.

Chart 2.16 Household indebtedness in selected countries

Note: Figures are as of the end of 2024.
Sources: Fed, BoJ, BoK, ABS, IMF, DGBAS, JCIC, and CBC.

Chart 2.17 Household indebtedness and debt servicing ratio



Note: Total disposable income in shaded area is a CBC estimate.
Sources:CBC, JCIC, and DGBAS.

Household borrowing continually expanded

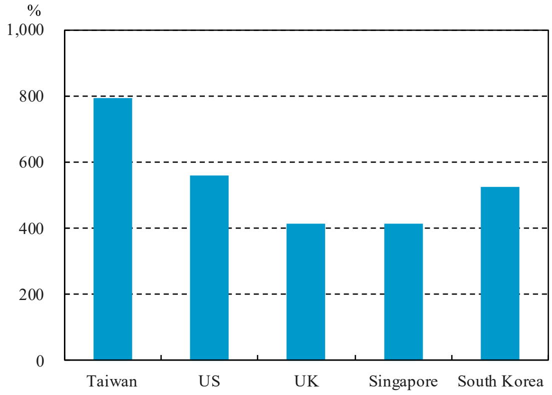
Household borrowing reached NT$23.70 trillion at the end of 2024, equivalent to 92.62% of the year's annual GDP (Chart 2.15), higher than the 90.07% of the previous year. The main purpose of household borrowing was to purchase real estate, accounting for 61.29% of the total.

Household borrowing maintained an upward trend, with the annual growth rate rising to 11.52%, mainly attributable to the purposes of real estate purchase and working capital needs. Compared to other countries, household borrowing to GDP in Taiwan was higher than those in the US, Japan, and South Korea, and the growth rate of household borrowing in Taiwan was also relatively high. The impact of household borrowing growth on household debt burden warrants attention (Chart 2.16).

Household indebtedness increased slightly but net worth remained substantial

The ratio of household borrowing to total disposable income[22] continually increased to 1.52 in 2024, reflecting an increasing household debt burden. Moreover, with the rise in interest rates on bank loans, the debt servicing ratio also climbed to 48.32% (Chart 2.17), indicating that short-term household debt servicing pressure tightened. However, household net worth[23] in Taiwan remained robust, amounting to nearly 8 times the GDP in 2023. Compared to other countries, the household net worth to GDP ratio in Taiwan was significantly higher than those in the US, the UK, Singapore, and South Korea (Chart 2.18), showing that the financial condition of households in Taiwan was sound.

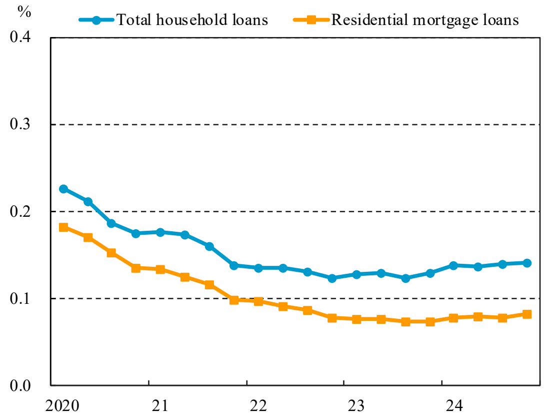
Chart 2.18 Household net worth to GDP



Notes: 1. The household sector herein includes households and non-profit organizations.
2. Figures are as of the end of 2023.
Sources: DGBAS and official websites of selected countries.

The NPL ratios of household borrowing rose marginally but remained at a low level, indicating healthy credit quality

Chart 2.19 NPL ratios of household borrowing



Source: JCIC.

The NPL ratio of household borrowing[24] rose gradually to 0.14% at the end of 2024. Among the categories, the NPL ratio of loans for purchase of real estate rebounded slightly to 0.08% but remained at a low level (Chart 2.19), indicating sound credit quality.

As the minimum wage rose in recent years, real monthly regular earnings for employees registered an annual growth rate of 0.57% in 2024, which helped ease the household debt burden. However, potential increases in utility rates, such as railway fares, electricity, and water charges in 2025, could push up household expenditures. In addition, the tariff policy introduced

[22] Total disposable income = disposable income + rental expenses + interest expenses.
[23] See Note 5.
[24] The data for the household sector herein are on the basis of all financial institutions, excluding overseas branches of domestic banks.

by the Trump administration has intensified fluctuations in equity and bond markets, elevating financial risks for households. Its spillover effects could also weaken the domestic labor market, thereby affecting household income. As a result, changes in the debt servicing capacity of some households with higher debt burdens warrant close attention.

2.2.4 Real estate market

In the first half of 2024, transactions in the housing market grew rapidly, accompanied by an accelerated increase in banks' mortgage loans. The credit concentration in mortgage loans remained high. In the second half of the year, following the MOF's request in June for state-owned banks to strengthen the review process for the Preferential Housing Loans for the Youth,[25] the Bank adjusted its selective credit control measures twice, in June and September. In August, the Bank also urged banks and other financial institutions to proactively monitor overall mortgage loans for the coming year (from 2024 Q4 to 2025 Q4). Therefore, transactions in the housing market cooled down, the growth in house-purchasing loans slowed down moderately, the credit concentration in mortgage loans decreased slightly, and the related credit risk remained well managed.

Transactions in the real estate market declined after a surge

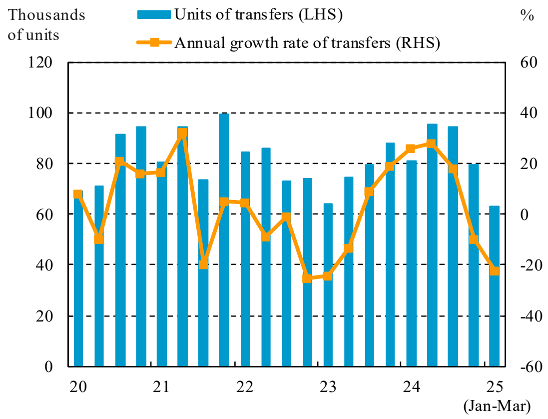
In the first half of 2024, supported by improved economic conditions, strong performance of Taiwan's stock markets, rising public expectations of real estate price increases, the implementation of the Preferential Housing Loans for the Youth, and large deliveries of new home completions, the growth rate of the total number of building ownership transfers increased to 27.23%. Subsequently, in June, the MOF strengthened oversight of the Preferential Housing Loans for the Youth. Moreover, the Bank adjusted its selective credit control measures twice, in June and September 2024. Beginning in August, the Bank also urged banks and other financial institutions to proactively monitor the overall volume of mortgage loans. The aforementioned factors resulted in a continuous decline in the monthly growth rate of the total number of building ownership transfers. Coupled with a higher base period in the same period of the previous year, the growth rate decreased from a high of 28.28% in Q2 to 18.22% in Q3, and further turned into a year-on-year decrease of 10.00% in Q4 (Chart 2.20). However, the total number of building ownership transfers increased to 350 thousand units in 2024, the highest level from 2014 onwards, rising by 14.19% year on year.

[25] The enhanced project, new Preferential Housing Loans for the Youth, has been implemented since August 2023.

In the beginning of 2025, owing to a wait-and-see attitude among homebuyers in the real estate market and a higher base period in the previous year, the total number of building ownership transfers decreased by 22.11% year on year from January to March. The combined total of the six metropolitan areas in April recorded a year-on-year decline of 26.32%.

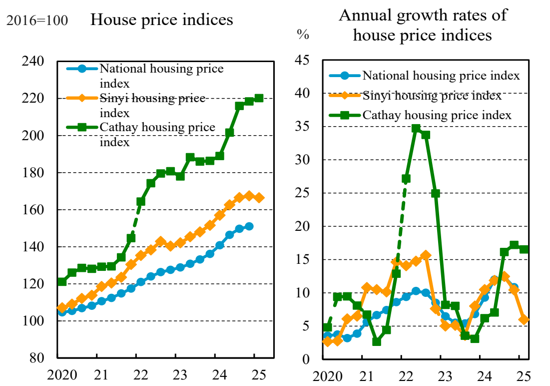
In terms of land transactions, as a result of the slowdown in the housing market in the second half of 2024, the total number of land ownership transfers showed negative growth from October 2024 to March 2025.

Chart 2.20 Number and growth of building transfers



Source: *Monthly Bulletin of Interior Statistics*, MOI.

Chart 2.21 House price indices and annual growth rates



Note: For comparison purposes, all three indices use the same base year of 2016 (2016 average = 100).
Sources: MOI, Cathay Real Estate, and Sinyi Real Estate Inc.

Real estate prices rose, but the pace of increase gradually slowed

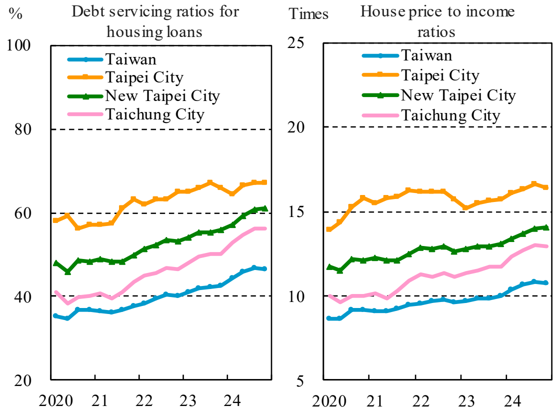
Amid a booming housing market since early 2024, the national housing price index released by the MOI reached a high of 151 in 2024 Q4 (Chart 2.21). However, the quarter-to-quarter growth rates narrowed for two consecutive quarters, and the year-on-year growth rate also slid from the high of 12.40% in Q3.

The Cathay housing price index (for newly built houses) rose quarter by quarter in 2024. It hit a high of 220 in 2025 Q1. Nevertheless, its quarter-on-quarter and year-on-year growth rates declined to 0.78% and 16.52%, respectively. The Sinyi housing price index (for existing houses) rose quarter by quarter in 2024, reaching a peak of 167 in Q4, before declining moderately to 166 in 2025 Q1. The year-on-year growth rate stood at 5.99%, showing a downward trend for the second consecutive quarter (Chart 2.21).

Mortgage burden increased

The debt servicing ratio for housing loans[26] rose in 2024, peaking at 46.80% in Q3 before slightly decreasing to 46.62% in Q4. This decline occurred as housing price growth slowed and the median household disposable income increased, with Taipei City recording the heaviest mortgage burden at 71.21% (Chart 2.22, left panel). Similarly, Taiwan's house price-to-income ratio increased quarter by quarter, reaching 10.76 times in 2024 Q4 (Chart 2.22, right panel).

Chart 2.22 Debt servicing ratios for housing loans and house price to income ratios

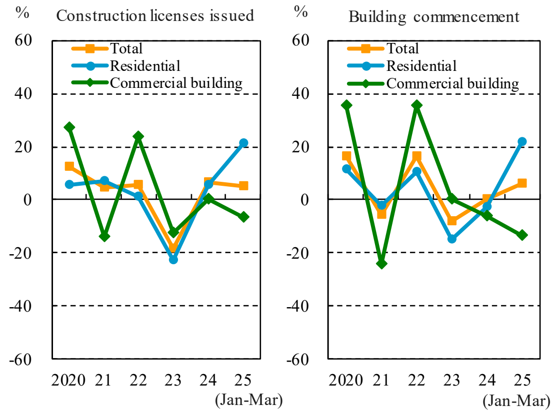


Source: *Statistic on Housing Affordability*, MOI.

Construction licenses issued rose, building commencement kept increasing moderately, and newly built surplus housing (for sale) expanded continuously

Owing to the booming transactions in the housing market, real estate developers aggressively launched new pre-sale residential housing projects in the first half of 2024. Coupled with a lower base period in the previous year, the growth rate of the total floor space of construction licenses issued year-on-year shifted from a decline of 18.30% in 2023 to a rise of 6.68% in 2024. The year-on-year growth rate of total floor space declined to 5.11% in 2025 Q1.

Chart 2.23 Annual growth rates of floor space of construction licenses issued and construction commencement



Note: Commercial building includes buildings for commerce, industry, storage, business and service.
Source: *Monthly Bulletin of Interior Statistics*, MOI.

Meanwhile, the total floor space of construction commencement increased by 0.19% year on year in 2024 and by 6.13% year on year in 2025 Q1, mainly reflecting a slight easing of the labor shortage (Chart 2.23).

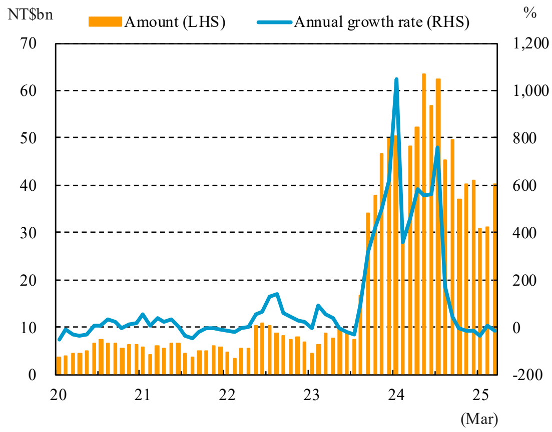
With the completion of construction projects in recent years, the total floor space of usage

[26] Monthly payments of the debt servicing ratio for housing loans are calculated based on 70% of the median national housing price, using average mortgage interest rates, and assuming a 20-year mortgage period.

licenses issued continued to grow, increasing by 6.07% year on year in 2024, but decreasing by 1.40% year on year in 2025 Q1.

According to statistics from the MOI, the number of newly built surplus housing (for sale) units exceeded 100,000 units since 2023 Q4, expanding to 103,100 units by the end of 2024 Q2. Given the ample supply, higher prices, and sales performance under expectations of new residential buildings, the inventory of newly built surplus housing (for sale) might continue to accumulate in the future, which deserves close attention.

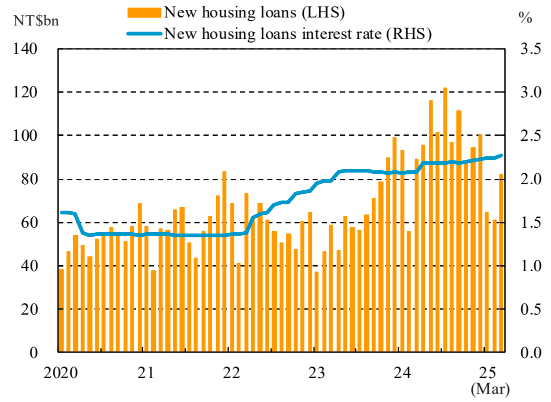
Chart 2.24 Preferential Housing Loans for the Youth from state-owned banks – amount and annual growth rate



Source: *Statistic on Preferential Housing Loans for the Youth*, MOF.

Growth in construction loans and loans for house purchases and refurbishments slowed, while mortgage interest rates slightly rose

Chart 2.25 New housing loans by the dominant five banks – amount and interest rate



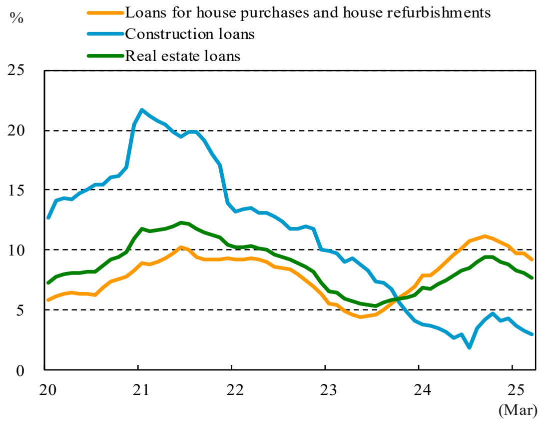
Source: CBC.

The amount of new Preferential Housing Loans for the Youth disbursed by state-owned banks has continuously increased since the beginning of 2024. However, starting in August, as homebuyers adopted a wait-and-see attitude and banks tightened their approval criteria, the disbursement amount of the aforementioned loans shrank. From 2025 onwards, as state-owned banks resumed approvals gradually, the number of accepted applications and the amount disbursed began to rebound. Nevertheless, the annual growth rate of the total lending declined by 16.44% (Chart 2.24). The provision of new housing loans by the dominant five banks[27] has declined gradually since October 2024. For the entire year, the amount reached approximately NT$1.16 trillion, an increase of 51.74% compared to the previous year. However, in 2025 Q1, the amount was NT$207.6 billion, reflecting a year-on-year decrease of 12.88% (Chart 2.25).

[27] The five major banks refer to Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank, Hua Nan Commercial Bank, and Land Bank of Taiwan.

Regarding the interest rate of real estate loans, the Bank raised its policy rates by 0.125 pps in March 2024 and increased the reserve requirement ratios on NT dollar deposits by 0.25 pps in both July and October 2024. In addition, banks enhanced their risk control measures, resulting in a gradual increase in the average interest rate on new housing loans granted by the dominant five banks. The rate reached 2.264% in March 2025, a new high since January 2009 (Chart 2.25).

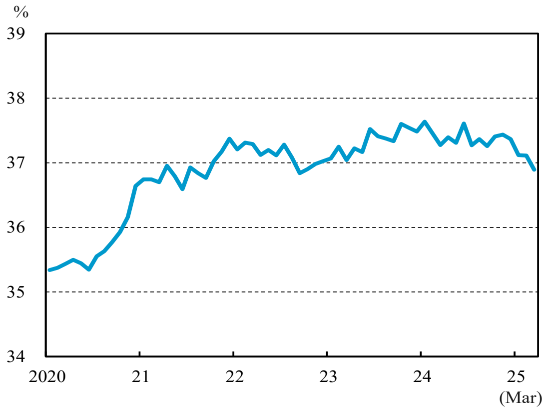
Chart 2.26 Annual growth rates of real estate loans



Note: Real estate loans refer to the aggregate amount of loans for house purchases, house refurbishments, and construction loans.
Source: CBC.

Since the beginning of 2024, driven by strong public demand for loans, the annual growth rate of loans for house purchases and refurbishments granted by banks[28] rose to a high of 11.15% by the end of September. Subsequently, as the Bank strengthened its credit control measures, the annual growth rate gradually declined to 9.26% at the end of March 2025. The annual growth rate of construction loans declined to a low of 1.89% by the end of July 2024. Nevertheless, as construction loans and revolving loans expanded, these loans turned to increase, reaching 4.72% by the end of October. However, with the Bank's credit controls continually effective, the growth rate decreased to 2.97% by the end of March 2025 (Chart 2.26). The outstanding balance of real estate loans registered NT$14.64 trillion and accounted for 36.89% of total loans by the end of March 2025 (Chart 2.27).

Chart 2.27 Real estate loans to total loans



Note: Real estate loans refer to the aggregate amount of loans for house purchases, house refurbishments, and construction loans.
Source: CBC.

Banks' risk management on real estate loans remained satisfactory, with appropriate adjustments to the regulations regarding real estate loans

Even though the Bank continued to reinforce credit control measures,[29] domestic banks

[28] Refers to domestic banks and the local branches of foreign and China's banks.
[29] See "IV. Measures to promote financial stability and in response to the impact of US tariff policies" *Financial Stability Report*, May 2025.

persisted in expanding their housing loans for borrowers without owner-occupied residences. The proportion of their share has exceeded 61% since the end of September 2024, reaching 61.93% by the end of March 2025. In 2024, the weighted average LTV ratio for new housing loans registered 72.27%. Nevertheless, the average LTV ratio for the regulated loans newly granted by banks dropped significantly. As of March 2025, among the regulated loan categories, the inventory of newly built surplus housing and high-priced housing loans extended to natural persons registered the lowest level of 28.56% and 28.84%, respectively.

From October 2024, the NPL ratios of domestic banks' construction loans increased slightly owing to a rise in overdue loans, but subsequently turned to a moderate decline as banks wrote off non-performing assets. The NPL ratios of construction and housing loans granted by domestic banks dropped to 0.19% and 0.07%, respectively, at the end of March 2025.

The Bank and relevant ministries and agencies persistently endeavored to implement and refine associated measures of the Healthy Real Estate Market Plan to ensure a sound real estate market

Since the government launched the Healthy Real Estate Market Plan in December 2020, the Bank and relevant ministries and agencies have successively enhanced related measures. Since then, the Bank has adjusted its selective credit control measures seven times. In addition, the Bank requested banks to independently manage the total amount of real estate loans and strengthen their risk controls on real estate loans in August 2024. As a result, the effectiveness of relevant credit controls has gradually become evident. To achieve the goals of the Bank's real estate credit control measures, the Bank continues to review the implementation of the improvement plans of each bank's self-management of real estate loans on a quarterly basis and persistently conducts targeted examinations of mortgage loans. Furthermore, through the sharing of supervisory information, the Bank collaborates with the FSC to jointly urge the banks to rectify deficiencies in their lending practice. As transactions in the housing market gradually cool down and many uncertainties surrounding US economic and trade policies persist, the spillover effects on the domestic economy and financial markets may indirectly impact the domestic housing market, which could then influence the asset quality of financial institutions. The Bank will closely monitor future developments and continue to remind borrowers to remain vigilant regarding the risk of interest rate fluctuations.

In addition, since July 2024, the MOI has carried out restrictions on the resale of newly built and pre-sale housing units through contract transfers. The MOF also introduced the "House Tax Differential Rates 2.0 Program," which increases the property tax burden on owners holding multiple housing units that are not effectively utilized. Furthermore, the MOF has continued to urge local governments to adjust the assessed tax base of housing and, in February 2025, amended the standards for calculating personal income tax on property transactions involving house sales. All of the abovementioned efforts contributed to the sound development of the real estate market. Moreover, as part of the responsibility related to the implementation of healthy real estate market measures falls under the jurisdiction of local governments, in the future, continued cooperation between central and local governments is required further to refine the relevant measures and ensure their effective enforcement, thereby achieving the goal of sound development of the real estate market.

2.3 General assessment of international and domestic macro environments

As for international economic and financial conditions, major central banks gradually adopted a more accommodative monetary policy stance in 2024. In the meantime, the global economy saw steady growth and inflationary pressures began to ease, along with market expectations of interest rate cuts. All of these contributed to more favorable financial conditions. However, in 2025, the heightened uncertainties stemming from US tariff policies have already triggered significant turbulence in global financial markets and led to a tightening of global financial conditions, potentially posing downside risks to global economic growth and inflation.

Regarding the domestic macro environment, Taiwan's economy grew steadily in 2024, and the price indices declined moderately, reflecting easing inflationary pressures. The corporate sector saw significant revenue growth and profitability that exceeded market expectations. Moreover, their leverage ratios remained at an acceptable level and the short-term debt servicing capacity improved. As for the household sector, borrowing continued to grow, and short-term debt burden trended mildly upwards. However, the financial health of households was sound, supported by their substantial net worth. In the housing market, although transactions declined after a significant increase and the upward trend in housing prices moderated, the financial burden on homebuyers continued growing. On a positive note, the NPL ratios of housing loans remained low, indicating that risk management was still effective.

From the beginning of 2025, US tariff policies have introduced considerable uncertainty to Taiwan's macroeconomic outlook. Should the policies be fully implemented, these could impact the supply chains and competitiveness of Taiwan's information and communication technology products and erode the traditional industries, thereby dampening export momentum and affecting economic performance. Furthermore, they may amplify the downside risks. Preliminary estimates by domestic and foreign institutions suggest that the tariff policies could reduce Taiwan's economic growth rate in 2025 by 0.4 to 1.61 pps. Nevertheless, Taiwan's globally competitive supply chains in emerging technologies such as AI, robust inventory buildup by firms, and potential positive order reallocation are expected to mitigate the impact from the tariff policies. In May 2025, S&P Global also revised Taiwan's economic growth forecast upward by 0.26 pps to 2.88%.

Additionally, the tariff policies may pose several challenges for Taiwan's corporate sector, including declining exports, reduced production and revenue, as well as intensified exchange rate volatility. These factors could, in turn, inhibit growth momentum in profits and impair debt servicing capacity in the future. As for households, a deteriorating labor market may erode disposable income, and increased volatility in stock and bond markets could heighten the financial risks of households. Therefore, close attention should be paid to changes in the debt servicing capacity of some households with higher debt burdens. Regarding the real estate market, the ongoing moderation of housing prices, together with uncertainty about US economic and trade policies which may indirectly affect the domestic housing market through Taiwan's economy and financial markets, may have an impact on financial institutions' asset quality, thus warranting close attention.

In summary, Taiwan's macroeconomic conditions, along with its corporate and household sectors, remain sound at present. However, given the potential direct and indirect effects of the heightened uncertainty stemming from US tariff policies, it is essential to continue paying close attention to the future developments and related spillover effects.

III. Financial system assessment

3.1 Financial markets

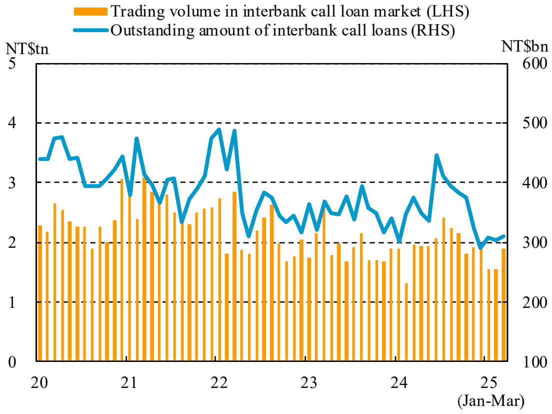
In 2024, both the outstanding amount and trading volume of interbank call loans rebounded, while the market conditions remained stable. Owing to a significant rise in the issuance of CP, the outstanding amount of bill issuance also increased. CP continued to constitute the largest share of the bill trading volume in the secondary market, with the market size steadily expanding, thereby facilitating short-term corporate financing. Meanwhile, the outstanding amount of bond issuance and trading volume in the secondary market continued expanding. Domestic stock indices repeatedly reached record highs and trading was notably active, while the NT dollar showed a moderate depreciation trend in 2024. From the beginning of 2025, driven by uncertainty surrounding US tariff policies and shifting market expectations, equity and FX markets have experienced heightened volatilities. Nevertheless, these markets have begun to stabilize, while the money and bond markets have remained stable.

3.1.1 Money and bond markets

Both the outstanding amount and the trading volume of interbank call loans shifted to an uptrend

In 2024, the average daily outstanding amount of interbank call loans was NT$360.8 billion, an increase of 2.49% year on year, primarily because of banks increasing short-term financing in response to liquidity management needs, which led to a rise in call loan lending.[30] Meanwhile, greater funding demand from bills finance companies also contributed to a

Chart 3.1 Interbank call loan market

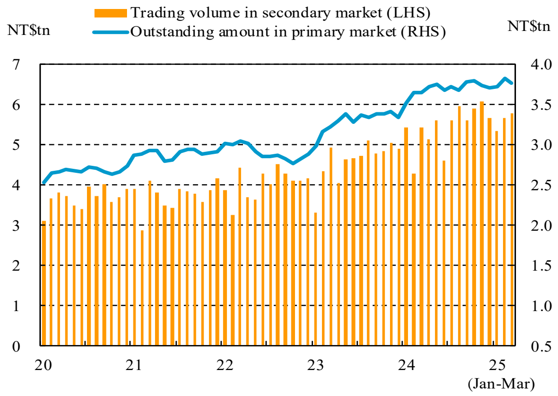


Note: Outstanding amount is the monthly average of daily data.
Source: CBC.

30 In 2024, the average daily outstanding amount of interbank lending from domestic banks increased by 7.72% year on year.

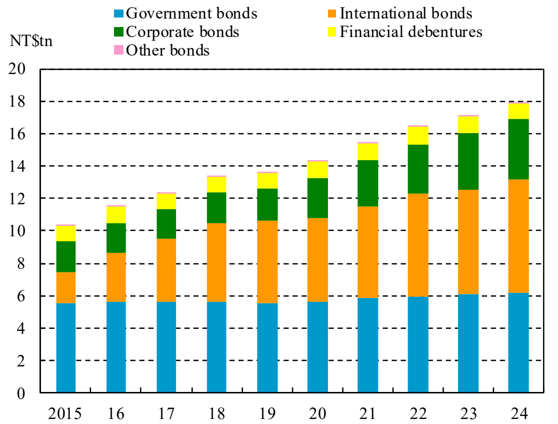
concurrent increase in call loan borrowing.[31] Owing to the heightened market demand for funds, financial institutions raised the amount of funds allocated for liquidity management. Consequently, the trading volume of interbank call loans rose by 2.11% year on year. In 2025 Q1, the average daily outstanding amount of interbank call loans dropped by 9.93% year on year, mainly because bill finance companies reduced their borrowing in the call loan market, while shifting to increased use of short-term repurchase and outright transactions. As a result, the trading volume of interbank call loans also decreased by 3.27% (Chart 3.1).

Chart 3.2 Primary and secondary bill markets



Source: CBC.

Chart 3.3 Bonds outstanding in the primary market



Note: Other bonds include beneficiary securities and foreign bonds.
Source: FSC.

Both the outstanding amount of bill issuance and the bill trading volume in the secondary market expanded year on year

The outstanding amount of bill issuance in the primary market reached NT$3.71 trillion by the end of 2024, showing an increase of NT$365.3 billion or 10.91% year on year. This was mainly driven by higher corporate funding needs, which led to a large increase of NT$271.7 billion in the outstanding amount of CP issuance. Moreover, bank-issued NCDs increased by NT$94.1 billion, while treasury bills remained largely unchanged. In 2025 Q1, the outstanding amount of bill issuance rose by 3.13% year on year as the issuance of CP increased (Chart 3.2).

In 2024, as the outstanding amount of bill issuance expanded, the trading volume in the secondary market rose by 17.94% year on year to NT$65.36 trillion. Among these instruments, CP continued to constitute the largest share of 94.48%, representing a slight decrease from a year earlier. Boosted by seasonal demand ahead of the Lunar New Year, the bill trading volume

[31] In 2024, the average daily outstanding amount of interbank borrowing from bills finance companies increased by 11.97% year on year.

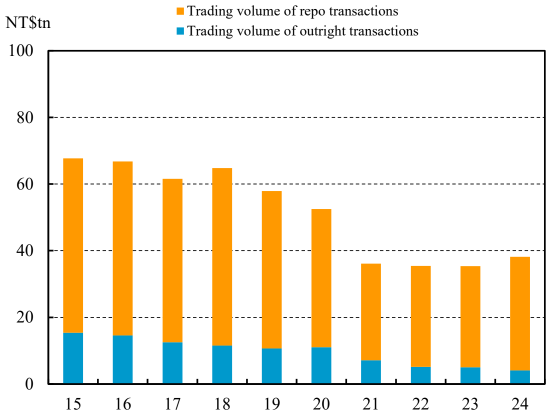
in 2025 Q1 increased significantly by 10.76% compared with the same period of the previous year (Chart 3.2).

The outstanding amount of bond issuance and the trading volume continued to expand; however, the turnover rate of outright bond transactions remained at a low level

The outstanding amount of bond issuance hit a historical high of NT$17.93 trillion at the end of 2024, an increase of 4.75% over the end of the previous year. Corporate bond issuance contributed to a 7.74% rise, owing to strong funding demands from corporations. Meanwhile, as US interest rates declined, the outstanding amount of international bonds issued by foreign entities increased by 7.70% compared to the end of the previous year. However, the outstanding amount of government bonds [32] increased merely by 1.88% (Chart 3.3).

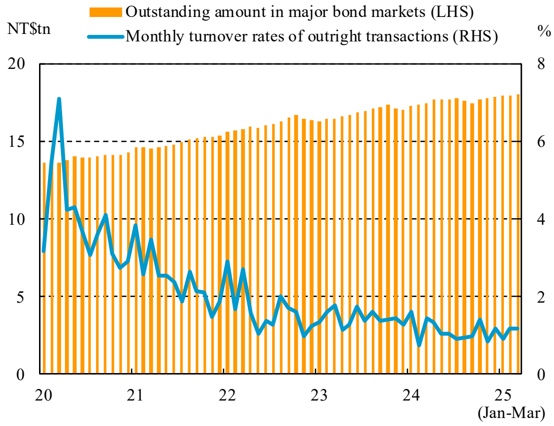
On the other hand, the trading volume in the secondary bond market reached NT$38.14 trillion in 2024, expanding by 7.71% year on year (Chart 3.4). By trading type, outright transaction volume dropped by 18.27% year on year, while repo transaction volume increased by 11.96% year on year. Nevertheless, the overall trading volume has remained at a lower level in recent years.

Chart 3.4 Outright and repo transactions in the bond market



Source: CBC.

Chart 3.5 Outstanding amount in major bond markets and monthly turnover rates of outright transactions



Notes: 1. Major bonds include government bonds, corporate bonds, financial bonds, and international bonds.
2. The monthly turnover rate for outright transactions = (total value of outright transactions in the month) / (average outstanding issuance), where the average outstanding issuance = (the outstanding issuance at the end of the current month + the outstanding issuance at the end of the previous month) / 2.

Source: FSC.

As a result, the average monthly outright turnover rate of major bonds continued on a downward trend, falling to 1.13% in December 2024, and further declining to a record low of

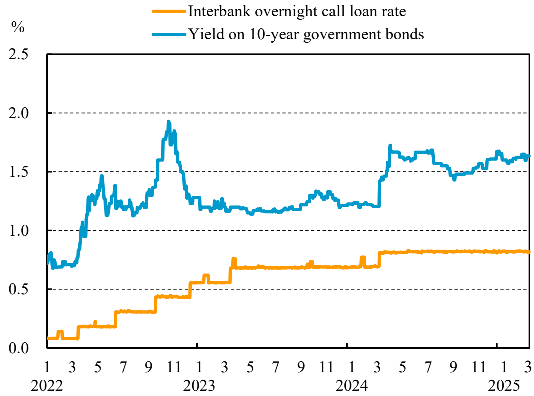
[32] Includes central and local government bonds.

0.90% in January 2025. However, it bounced back to 1.09% in March, though still at a relatively low level (Chart 3.5).

Long-term and short-term market rates increased

In terms of short-term market rates, to curb domestic inflation expectations, the Bank raised the policy interest rates in March 2024. As a result, the interbank overnight call loan rate began to trend upwards and later leveled off. In the second half of 2024, the Bank raised the reserve requirement ratios on NT dollar deposits twice, while foreign investors net sold TWSE stocks and remitted funds outwards. The interbank overnight call loan rate climbed slowly and then fluctuated in a narrow range around 0.820% (Chart 3.6), yet overall market liquidity remained ample.

Chart 3.6 Interbank overnight rate and 10-year government bond yield



Source: Bloomberg.

As for long-term market rates, influenced by the Bank's policy rate hike and the rebound in US government bond yields, domestic 10-year government bond yields rose and reached a two-year high of 1.725% on April 17. Afterwards, following the decline of US government bond yields, domestic 10-year government bond yields gradually trended downwards, hitting a low of 1.430% on September 20 before rebounding (Chart 3.6). In 2025 Q1, domestic 10-year government bond yields reached a high of 1.677% and then trended downwards.

Considering the rising uncertainties surrounding US tariff policies, inflation might be pushed higher and affect market confidence. In addition, factors such as global geopolitical risks and monetary policy divergences among major central banks could lead to heightened market risk aversion in the near future. The volatility of global bond yields will likely intensify, which may affect domestic 10-year government bond yields. Therefore, the interest rate risks of bond investments held by domestic financial institutions are worthy of close attention.

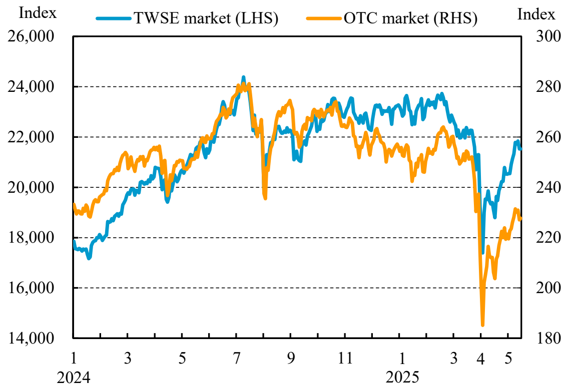
3.1.2 Equity markets

Stock indices repeatedly reached historical highs and trading was notably active in 2024

Stock indices repeatedly reached historical highs

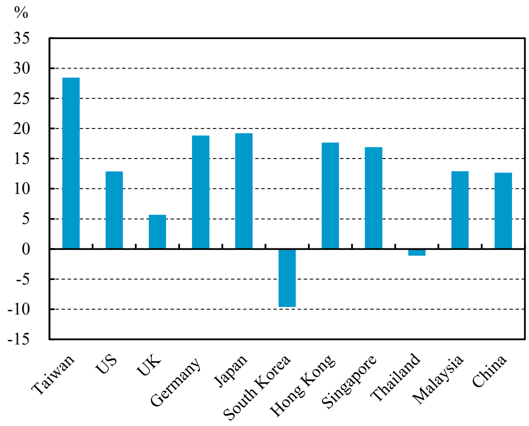
In the first half of 2024, bolstered by favorable factors such as the rallies in international stock markets, continued net buying of TWSE stocks by domestic securities investment trust enterprises, and the popularity of high-dividend equity exchange-traded funds (ETFs), the TAIEX of the TWSE market fluctuated upward, reaching a historical high of 24,390 on July 11. However, owing to a decline in US stock indices and heightened geopolitical tensions in the Middle East, the TAIEX plummeted to a low of 19,831 in August. Subsequently, the TAIEX fluctuated upward to 23,035 at year end (Chart 3.7), posting an increase of 28.47% year on year and surging higher than the major indices in other international stock markets (Chart 3.8). The Taipei Exchange Capitalization Weighted Stock Index (TPEX) of the OTC market closely tracked the movements of the TAIEX during the first three quarters of 2024, though small and mid-cap stocks underperformed in Q4. The TPEX registered 256 at year end and posted an increase of 9.33% year on year.

Chart 3.7 Taiwan's stock market indices



Sources: TWSE and TPEx.

Chart 3.8 Major stock market performance



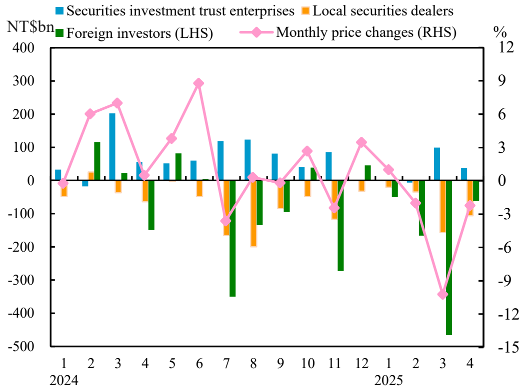
Notes: 1. Changes are figures at the end of 2024 compared to those at the end of 2023.
2. Market performance is based on TWSE Weighted Index for Taiwan, DJIA Index for the US, FTSE-100 Index for the UK, DAX Index for Germany, NK-225 Index for Japan, KOSPI Index for South Korea, Hang Seng Index for Hong Kong, Straits Times Index for Singapore, SET Index for Thailand, Kuala Lumpur Composite Index for Malaysia, and SSE Composite Index for China.

Source: TWSE.

The significant expansion of ETF issuance bolstered the rise in the TAIEX in 2024

In the TWSE market, foreign investors posted net sales of NT$695.1 billion in 2024, mainly driven by profit-taking amid successive record highs in the TAIEX and the depreciation of the NT dollar against the US dollar. Local securities dealers also registered net sales of NT$823.8 billion as they adjusted their shareholdings or took hedging positions. However, as securities investment trust enterprises ramped up their issuance of ETFs, they passively invested in index constituents, resulting in net purchases totaling NT$832.1 billion for the year, which became a major force supporting the TAIEX's uptrend (Chart 3.9).

Chart 3.9 Net buying/selling amount by institutional investors and monthly price changes in the TWSE market

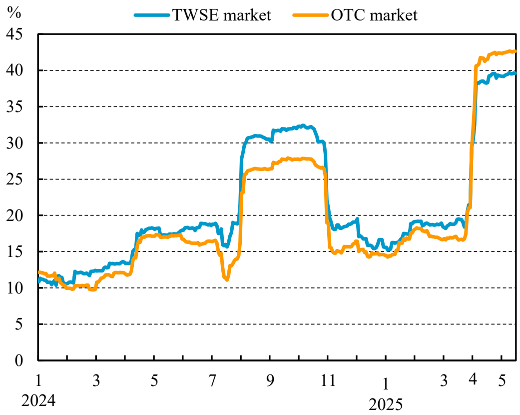


Note: Institutional investors are divided into securities investment trust enterprises, local securities dealers, and foreign investors.
Source: TWSE.

Volatility in the stock markets increased before stabilizing

Impacted by rising uncertainty surrounding the US economy and geopolitical risks in 2024, the volatility in both the TWSE and OTC markets gradually increased, reaching relatively high levels in Q3. Subsequently, it stabilized amid a mix of negative and positive developments, ending the year at 15.23% and 14.25% in the respective markets (Chart 3.10).

Chart 3.10 Stock price volatility in Taiwan's markets



Note: Volatility refers to the annualized standard deviation of 60-day daily index returns.
Sources: TWSE, TPEx, and CBC.

The price-to-earnings (P/E) ratio of the TAIEX rose, reflecting positive market expectations for Taiwan's technology sector

The domestic stock market is dominated by technology stocks, with electronics industry stocks – particularly in semiconductors, electronic components, telecommunications, and information technology services – accounting for over 70% of the TAIEX. The application of AI has fueled strong demand across related supply chains, boosting the earnings of semiconductor and other electronics-related companies in recent years. As a consequence, the P/E ratio of the TAIEX climbed from 10.39 at the end of 2022 to 21.29 at the end of 2024 (Chart 3.11), likely reflecting optimistic investor sentiment toward the future prospects of Taiwan's technology sector. Nevertheless, multiple factors such as underlying fundamentals, industry trends, and domestic and global macroeconomic conditions warrant continued close attention.

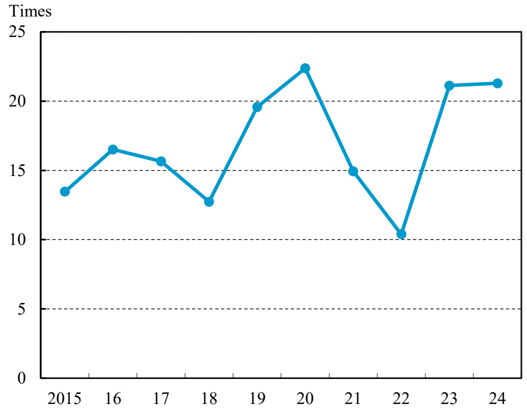
Trading value surged and turnover rates trended upwards

Encouraged by strong interest from resident investors, trading activity in the domestic stock markets was vibrant in 2024. The monthly average trading value in both the TWSE and the OTC markets reached NT$7.69 trillion and NT$1.94 trillion in 2024, respectively, marking increases of 46.10% and 38.02% year on year. As a consequence, the annual turnover rates in terms of trading value rose to 135.40% and 360.49% in the TWSE and the OTC markets (Chart 3.12), respectively, surpassing those in most major international stock markets (Chart 3.13). This indicated that trading in Taiwan's stock markets remained highly active and liquidity remained ample.

Domestic ETF market expanded significantly

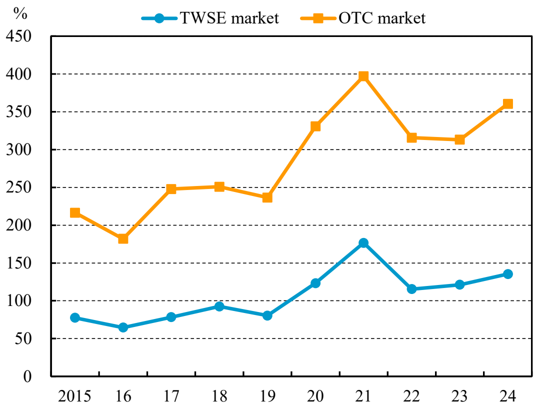
Driven by the strong performance of domestic

Chart 3.11 Price-to-earnings ratio of the TAIEX



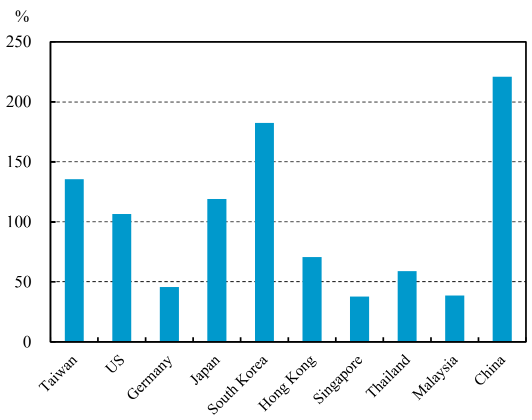
Source: TWSE.

Chart 3.12 Annual turnover rates in Taiwan's stock markets



Sources: TWSE and TPEx.

Chart 3.13 Turnover rates in major stock markets



Note: Figures refer to accumulated turnover rates in 2024.
Source: TWSE.

stock markets and the appeal of high-dividend yields, the size of equity ETFs expanded significantly in 2024. In addition, increased market optimism about interest rate cuts by major central banks around the world contributed to a substantial rise in bond ETFs investing in foreign bonds. The total size of ETFs reached NT$6.4 trillion at the end of 2024, representing a year-on-year increase of 65.11%. The number of ETF funds and total beneficiaries also rose to 260 and 14.37 million, respectively, both hitting historical highs.[33]

In December 2024, the FSC amended relevant regulations to officially allow the issuance of active ETFs and passive multi-asset ETFs, thereby providing investors with more diversified investment options. Nevertheless, considering that ETFs may contribute to stock price co-movements and pose systemic risks, close attention should be paid to market developments and their potential impacts on the financial system (Box 2).

Domestic stock markets have become increasingly volatile amid uncertainty surrounding US tariff policies from the beginning of 2025 onwards

Stock indices experienced sharp volatility and a notable retreat

From January to March 2025, domestic stock markets continued to fluctuate and consolidate. However, following the announcement of the US reciprocal tariff policies on April 2, global stock markets plunged, and the TAIEX and the TPEX also tumbled for several consecutive days. Subsequently, as market sentiment gradually stabilized and foreign investors increased their holdings of domestic stocks, both indices rebounded quickly, closing at 21,526 and 228, respectively, on May 20 (Chart 3.7).

Heavy net selling by foreign investors and local securities dealers triggered steep declines in the stock market

Since the beginning of 2025, mounting uncertainty surrounding US tariff policies has exerted significant funding pressure on the TWSE market. Driven by heightened risk aversion sentiment, foreign investors offloaded and short-sold their holdings of domestic stocks, leading to net sales of NT$743.6 billion by the end of April (Chart 3.9), surpassing the total amount of 2024. Local securities dealers also recorded net sales of NT$318.2 billion. Although securities investment trust enterprises posted net purchases of NT$130.4 billion, the TAIEX continued on a downward trend, suggesting that market confidence remained fragile amid uncertainty

33 Offshore ETFs, futures ETFs, and leveraged/inverse futures ETFs were not included.

surrounding US tariff policies.

Chart 3.14 NTD/USD exchange rate

Source: CBC.

Volatility in the stock markets surged to a multi-year high

The domestic stock markets remained relatively stable in 2025 Q1, while market sentiment deteriorated sharply in April following the announcement of the US reciprocal tariff policies, which pushed up the VIX index and triggered heightened volatility in domestic stock markets. Volatility levels in the TWSE and the OTC markets surged to multi-year highs and remained elevated, registering 39.63% and 42.64%, respectively, on May 20 (Chart 3.10). This reflected sustained caution among market participants amid uncertainty surrounding the Trump administration's policies.

Domestic stock markets are highly correlated with international stock markets. Given the recent uncertainties arising from the ongoing effects of US tariff policies and escalating geopolitical risks, which may disrupt global economic prospects and international stock market performance, as well as adversely affect domestic stock markets, close attention is warranted.

3.1.3 FX market

The NT dollar appreciated after an initial depreciation against the US dollar, while FX market trading volume increased

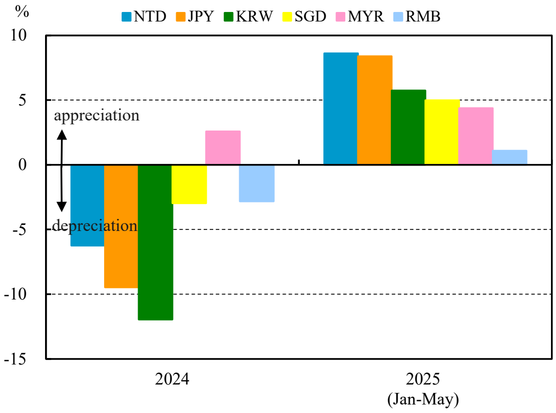
In 2024, most major Asian currencies depreciated against the strong US dollar except for the MYR. The NT dollar exchange rate stood at 32.781 against the US dollar at the end of 2024 (Chart 3.14), depreciating by 6.24% from the end of the previous year. The extent of the NT dollar depreciation was moderate compared to other Asian currencies (Chart 3.15). From January to April 2025, the NT dollar appreciated following a period of depreciation against the US dollar, and remained relatively stable compared to other major currencies. Nevertheless, driven by foreign capital inflows into domestic stock markets and market expectations for NT dollar appreciation, which boosted US dollar supply, the NT dollar appreciated sharply in early May and closed at 30.179 against the US dollar on May 20.

The average daily trading volume in Taiwan's FX market amounted to US$44.6 billion in 2024, marking a 17.90% rise compared to a year earlier, primarily because of an increase in interbank transactions (Chart 3.16). In March 2025, the average daily trading volume amounted to US$48.6 billion, up by 5.68% over the same period of the previous year.

NT dollar exchange rate volatility increased, but remained relatively stable over the long term

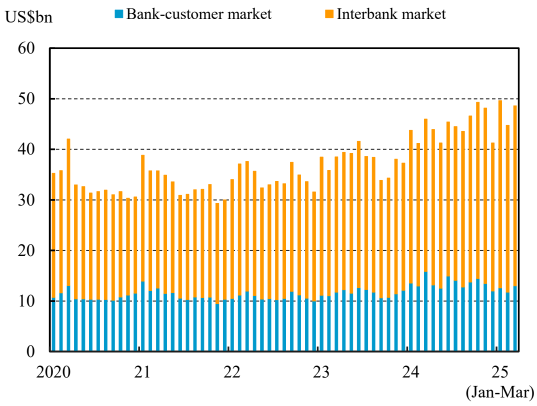
The volatility of the NT dollar exchange rate against the US dollar fluctuated between 2.27% and 5.74% in 2024, with an annual average of 3.97%, which was relatively low compared to those of other major currencies. From January to April 2025, the volatility of the NT dollar exchange rate ranged between 1.92% and 5.73% (Chart 3.17). Driven by foreign capital inflows and market expectations, the volatility of the NT dollar surged in early May. Nevertheless, the average volatility of the NT dollar for the period from January 1 to May 20 was 5.32%, still lower than that of other major currencies, indicating that the NT dollar remained relatively stable over the long term.

Chart 3.15 Exchange rate changes of major Asian currencies against the US dollar



Note: Changes in 2024 are figures at the end of the year compared to those at the end of 2023; changes in the period of Jan-May 2025 are figures on May 20 compared to those at the end of 2024.
Source: CBC.

Chart 3.16 FX market trading volume



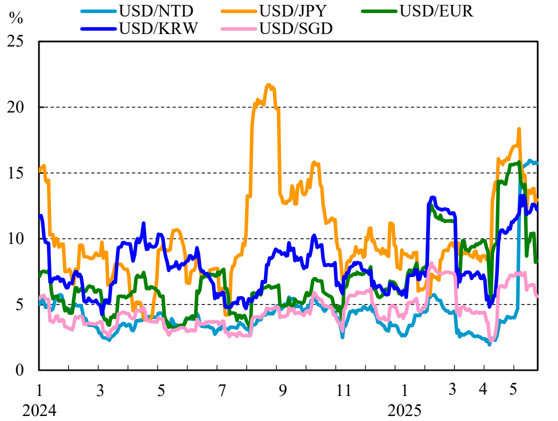
Notes: 1. Trading volume is the monthly average of daily data.
2. The latest data for trading volume are as of March 2025.
Source: CBC.

The nominal and real effective exchange rate indices of the NT dollar fluctuated within a narrow range

In 2024, as foreign investors repatriated funds for profit-taking and dividend distributions, the NEER index of the NT dollar declined to 101.10 at year end, a decrease of 1.89% from 103.05 at the end of 2023. The NEER of the NT dollar fluctuated within a narrow range and remained relatively stable compared to other major Asian currencies. From 2025 onwards, the NT dollar appreciated significantly against the US dollar. The NEER of the NT dollar rose to 105.85 on May 20, registering an increase of 4.70% compared to the end of 2024 (Chart 3.18).

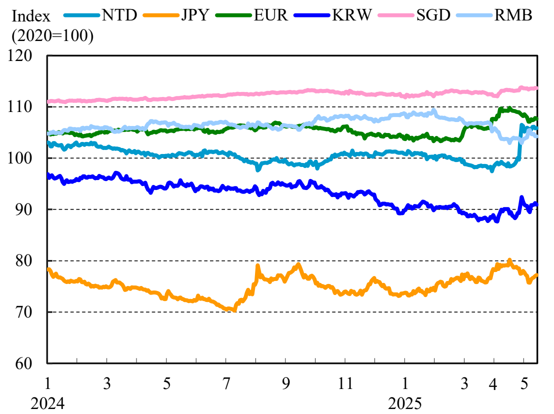
During the same period, the real effective exchange rate (REER) index of the NT dollar also fluctuated within a limited range. It stood at 98.77 in December 2024, a decrease of 0.65% from 99.42 in December 2023. The volatility of the NT dollar's REER remained relatively mild compared to other major Asian currencies. In April 2025, the NT dollar's REER declined to 96.32, a decrease of 2.48% compared to December 2024.

Chart 3.17 Exchange rate volatility of various currencies versus the US dollar



Note: Volatility refers to the annualized standard deviation of 20-day daily returns.
Source: CBC.

Chart 3.18 NT dollar NEER index



Source: BIS.

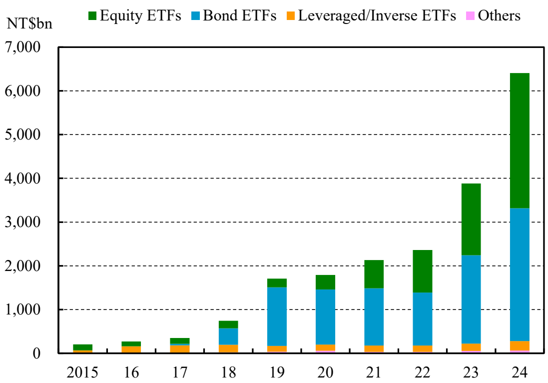
Box 2
The development and supervisory issues of Taiwan's ETF market

The development of Taiwan's ETF market began more than two decades ago. In recent years, the market expanded rapidly, driven by repeated record highs in the domestic equity markets, the appeal of high dividend yields, and expectations of US policy rate cuts. In particular, high-dividend ETFs saw a surge in fundraising that even led some retail investors to terminate time deposits or take out loans to invest in ETFs. This increasingly drew attention across sectors, including from the regulators. This box outlines the development of Taiwan's ETF market, highlights potential risks to investors and the financial system, and analyzes recent market challenges and regulatory responses, in the hope of providing a useful reference for policy deliberation.

1. ETF market development in Taiwan

1.1 ETFs have grown rapidly since 2018, initially driven by bond ETFs and more recently by equity ETFs

Chart B2.1 Types and Sizes of ETFs in Taiwan



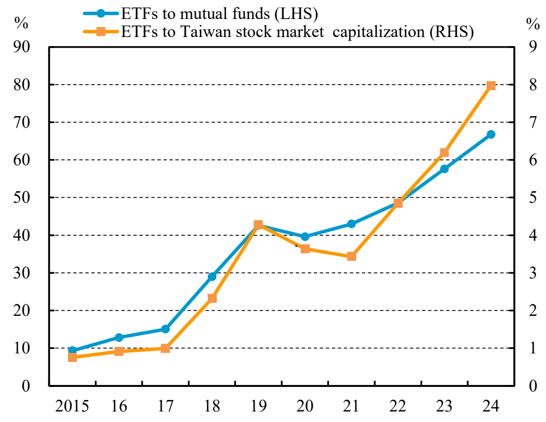
Sources: FSC and SITCA.

The first ETF listed on the TWSE was the Yuanta/P-shares Taiwan Top 50 ETF issued in June 2003. Following the gradual easing of related regulations, the ETF market began to develop, albeit at a slow pace. In 2018, the market experienced a breakthrough as a deregulation move excluded investments by life insurance companies in NTD-denominated bond ETFs from their overseas investment cap. This policy change attracted significant inflows and fueled rapid growth in bond ETFs. In more recent years, repeated record highs in the domestic stock markets and the rising popularity of high-dividend equity ETFs among investors have led to substantial growth in the equity ETF market (Chart B2.1). Meanwhile, expectations of Fed rate cuts starting from the second half of 2023 further boosted demand for overseas bond ETFs.

As of the end of 2024, the fund size of ETFs reached NT$6.4 trillion, representing a remarkable growth of approximately 32 times compared with that of NT$202.1 billion at the end of 2015. The number of ETFs increased sharply from 34 to 260 over the same period, and that of ETF investors also expanded substantially from 240,000 to 14.37

million, reflecting an increase of 60 times.[1] Since March 2023, the fund size of ETFs has officially surpassed that of regular mutual funds issued by domestic securities investment trust enterprises (SITEs). The share of ETFs in Taiwan stock market capitalization has also continued to rise (Chart B2.2), showing that ETFs have become one of the major investment products in Taiwan's capital market.

Chart B2.2 Comparison of the fund size



Sources: FSC and SITCA.

1.2 Trading value increased, but overall turnover rate was relatively low

The trading value of domestically listed ETFs was NT$6.7 trillion in 2024, representing a huge increase of 4.1 times compared to NT$1.6 trillion in 2015. However, over the past three years, the average annual turnover rate by trading value in the ETF market stood at 106.3%, which was lower than that of 124.0% in TWSE stock trading, reflecting not only the rapid expansion of the ETF market but also the fact that, unlike in the stock market, ETF investors usually prefer a "buy and hold" strategy that resulted in a lower frequency of transactions.

1.3 Domestic equity ETFs showed a high concentration in technology stocks

As of the end of 2024, many domestic equity ETFs tracking broad-market indices or adopting high-dividend strategies exhibited a high allocation to technology-related sectors (e.g., electronics and semiconductors), reflecting a notable industry concentration. For example, the top three ETFs by total assets under management were the Yuanta/P-shares Taiwan Top 50 ETF (0050, NT$436.1 billion), the Cathay MSCI Taiwan ESG Sustainability High Dividend Yield ETF (00878, NT$376.3 billion), and the Yuanta/P-shares Taiwan Dividend Plus ETF (0056, NT$363.8 billion). The abovementioned funds allocated 70.7%, 56.0%, and 61.0% of their assets, respectively, to electronics or semiconductor stocks.[2] The high concentration of these industries in domestic equity ETFs may weaken portfolio diversification, thus warranting close attention.

1.4 The recent regulatory approval of active ETFs and passive multi-asset ETFs has contributed to greater product diversification in the ETF market

To promote the development of the asset management market in Taiwan, provide impetus for asset management business growth, and support the policy objective of establishing Taiwan as an "Asian asset management center," the FSC amended relevant regulations in December 2024 to formally permit the issuance of active ETFs and passive multi-asset ETFs. In early May 2025, the first active ETF in Taiwan, the NEXT FUNDS – Nomura Taiwan SMART Select Active ETF (00980A), was listed. More active ETFs are expected to be introduced into the market in the future. However, investors should be aware that the performance of active ETFs is highly dependent on fund managers' investment capabilities and generally involves higher operational risk compared to passive ETFs. In addition, passive multi-asset ETFs may carry different levels of risk depending on their allocation strategies and equity-bond proportions. Investors should carefully evaluate their risk tolerance and select ETF products that align with their investment objectives and styles, ensuring both portfolio security and performance.

2. Potential risks of ETFs and market challenges in Taiwan

ETFs are widely favored by investors for such advantages as risk diversification and trading convenience. However, they may still involve certain risks. Moreover, the rapid expansion of the ETF market may also pose potential impacts to overall financial stability, which warrants close attention.

2.1 Potential risks to investors

(1) **Discount/Premium risk:** ETF prices in the secondary market are determined by market supply and demand. The prices may deviate from their net asset value, resulting in premiums or discounts that affect investors' actual returns.

(2) **Tracking error risk:** Tracking error refers to the difference between the returns of an ETF and those of its underlying index. Common causes of tracking errors include fund expenses, exchange rate differences between the trading currency and the denominated currency, etc.

(3) **Liquidation risk:** If an ETF is delisted upon regulatory approval, investors who purchased the ETF at a premium may be exposed to potential losses due to fund liquidation.

(4) **Liquidity risk:** ETF market makers are responsible for providing bid and ask quotes. If they fail to properly fulfill their quoting obligations or cease to perform such obligations, investors may face the risk of being unable to buy or sell ETFs.

2.2 Potential risks to the financial system

(1) **Systemic risk:** The "basket-trading" feature of ETFs may lead to more synchronized

volume and price movements among constituent securities. This can increase the frequency of simultaneous mass buying or selling, thereby weakening the effect of risk diversification and potentially amplifying systemic risk in the financial market.

(2) Stock price co-movement risk: During the periods of excessive market optimism or heightened uncertainty, herd behavior may emerge as some investors mimic the behavior of others, leading to concentrated buying or selling, thus exacerbating short-term price volatility.

(3) Concentration risk: If the underlying assets are concentrated in a limited number of companies, it may result in excessive correlation among constituent stocks, making the price movements across constituent stocks more aligned and thus reducing the diversification benefits of ETF portfolios.

2.3 Challenges of the ETF market in Taiwan

The recent investment surge in equity ETFs was driven by expectations of Fed rate cuts, domestic stock market rallies and high dividend yields. Meanwhile, repeated record highs in stock markets, combined with aggressive marketing campaigns by SITEs, have triggered a frenzy of buying among investors. Moreover, in order to boost distribution rates to attract investors, some SITEs misused the funds' income equalization reserves or even rebalanced their holdings frequently. Such practices may increase investment costs and erode returns, thereby potentially undermining the long-term interests of investors.

3. Regulatory framework and supervisory enhancements in Taiwan

To safeguard ETF market stability and protect investor interests, the TWSE strengthened product standards and information disclosure requirements for ETFs. The FSC also introduced multiple supervisory measures to promote sound development of Taiwan's ETF market.

3.1. ETF product regulation

Taiwan has not yet enacted dedicated regulations for ETFs. Instead, relevant provisions are dispersed across various regulations governing securities investment trusts, securities exchanges and the self-regulatory rules of the Securities Investment Trust and Consulting Association (SITCA). In addition, the TWSE has imposed eligibility criteria and standards on the components of the underlying indices. These include: (1) the components must be listed on domestic or foreign stock exchanges, (2) the components must be sufficiently diversified, with no single component security exceeding 30% of the index and the cumulative weight of the top five component securities not exceeding 65%,[3] and (3) the components must meet certain liquidity requirements. The TWSE also sets different liquidity standards based on the component characteristics of the index to ensure that ETFs are equipped with reasonable trading and arbitrage mechanisms.

3.2. Reinforcement of index compilation review mechanisms

The FSC required the TWSE and the TPEx to examine past performance when reviewing index compilation, so as to assess whether the constituent securities of an index are likely to be changed frequently. By managing the replacement rate of an index's constituent stocks through retrospective review, it would help to stabilize the investment structure of ETFs.

3.3 Disclosure of dividend sources and distribution orders

The FSC required SITEs to disclose the composition of sources of ETF dividends, so as to enhance market discipline. Furthermore, the distribution order shall be dividends from constituent securities, capital gains, and finally, income equalization reserves. These requirements aim to promote market self-discipline and information transparency, thus preventing investors from being misled.

3.4. Regulation of advertising and marketing activities

The FSC required the SITCA to develop a governance mechanism for advertising collaborations between SITEs and financial influencers and to formulate relevant self-regulatory guidelines. In addition, ETF advertisements are prohibited from using dividend payout rates or distribution amounts as the main headline or the primary promotional message. Moreover, high-dividend ETFs are required to include warning statements such as "no guaranteed income or dividends" to remind investors of ETFs' product nature and associated risks.

3.5. Wide-ranging enhancement of market supervision

The FSC strengthened its oversight of the ETF market through the following measures: (1) Supporting and monitoring SITEs in enhancing their assessment of the concentration and liquidity of constituent securities in the ETFs they issue and the indices they track, in order to keep stock prices and market liquidity from being excessively affected during position building and massive subscription or redemption; (2) Overseeing the TWSE and the TPEx in regular evaluation of ETFs' holdings and in building transaction databases to support stable market operations; (3) Drawing on the *Good Practices Relating to the Implementation of the IOSCO Principles for Exchange Traded Funds – Final Report* published by the International Organization of Securities Commissions (IOSCO) to enhance supervisory measures in the following three aspects, namely product structure, information disclosure, and liquidity provision; (4) underscoring ETFs as a focus in financial examinations, with the findings to serve as a reference for amending relevant regulations and self-regulatory practices.

4. Conclusion

Owing to their strengths in risk diversification, trading convenience, and cost efficiency, ETFs have emerged as an increasingly important tool for asset allocation. In recent years, as the size and the number of participants in Taiwan's ETF market have grown rapidly and product diversity has increased gradually, ETFs have gained significant and undeniable influence on the local financial market. However, rapid market expansion and growing capital concentration may also pose potentially adverse implications for the financial market, such as heightened market volatility, risk contagion, and excessive industry concentration, all of which warrant close attention. In line with its macroprudential supervision duties, the Bank will continue to conduct relevant research and monitor new developments as well as potential risks in Taiwan's ETF market. Additionally, the Bank will, as warranted by changes in the market, share its research findings through the supervisory communication platform in a timely manner, and work jointly with the FSC to safeguard financial stability.

Notes: 1. The number of funds and that of beneficiaries exclude offshore ETFs, futures ETFs, and leveraged/inverse futures ETFs.
2. Data on allocations to electronics and semiconductor stocks were collated from SITE websites as of January 2025.
3. In February 2025, the FSC indicated that if the proposed rule amendments by TWSE are deemed appropriate, the 30% cap on individual securities' weights in ETF underlying indices may be lifted.

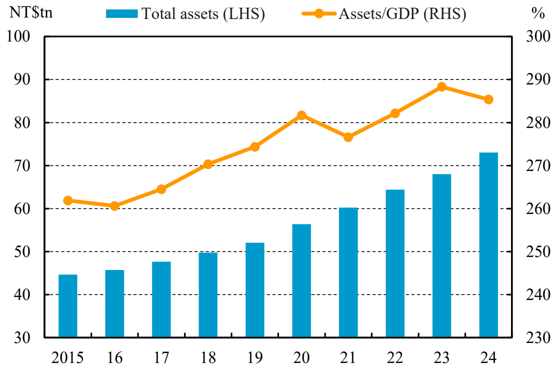
3.2 Financial institutions

In 2024, domestic financial institutions performed well. Domestic banks achieved record-high profits, while maintaining sound asset quality and adequate capital levels. Life insurance companies saw a notable rebound in profits, and their overall capital levels remained satisfactory, yet they still faced elevated market risk. Bills finance companies also experienced stronger profit growth; despite a high liquidity risk, their capital stayed at satisfactory levels. Overall, domestic banks, life insurance companies, and bills finance companies maintained stable and sound operations.

3.2.1 Domestic banks

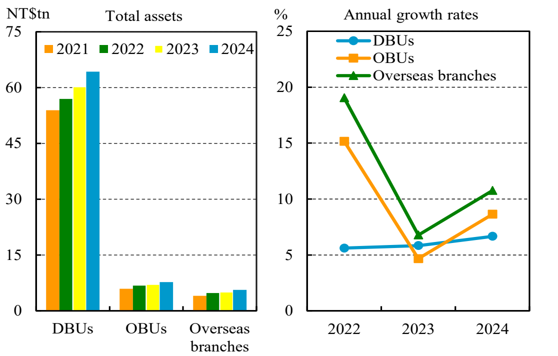
In 2024, the total assets of domestic banks[34] continued to expand, while asset quality improved. The sectoral concentration of corporate loans and the concentration in real estate-secured credit both declined marginally, and exposures to China continued to decline. While credit quality of overseas real estate-secured lending improved moderately, vulnerabilities remained elevated. The estimated value at risk (VaR) associated with market risk exposures increased, albeit with limited impact on capital adequacy ratios. Liquidity in the banking system was ample, and overall liquidity risk remained relatively low. The profits of domestic banks reached a historical high in 2024. Although the average capital adequacy ratio declined slightly, the capacity to absorb losses remained satisfactory.

Chart 3.19 Total assets of domestic banks



Sources:CBC and DGBAS.

Chart 3.20 Total assets of domestic banks by sector



Note: Figures for total assets include interbranch transactions.
Source: CBC.

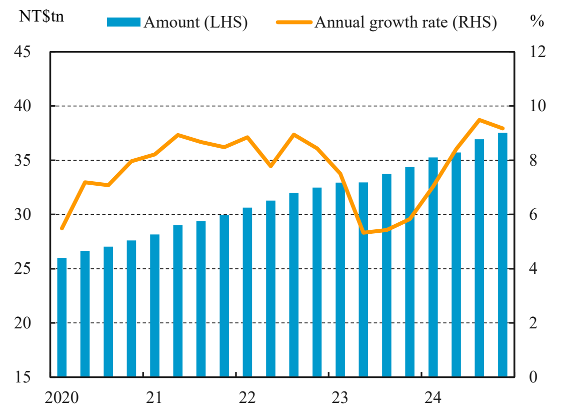
Total assets kept growing

The total assets of domestic banks kept growing in 2024 and reached NT$73.03 trillion at the end of the year, with an annual growth rate of 7.35% compared to 5.66% a

[34] Includes the Agricultural Bank of Taiwan. As of the end of 2024, there were 39 domestic banks in total.

year earlier. Given the relatively larger increase in domestic GDP, the ratio of total assets to annual GDP declined to 285.37% (Chart 3.19). By sector, the annual asset growth rates of offshore banking units (OBUs) and overseas branches rebounded notably, driven by robust growth in both investment and loans. Meanwhile, the asset growth rate of domestic banking units (DBUs) also continued on an upward trend (Chart 3.20).

Chart 3.21 Outstanding loans in domestic banks



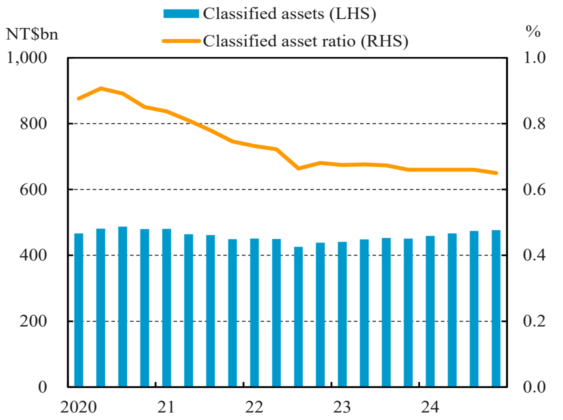
Note: Loans of OBUs and overseas branches are excluded.
Source: CBC.

Credit risk

Customer loan growth accelerated

Customer loans[35] remained the primary source of credit risk for domestic banks. The outstanding customer loans of DBUs stood at NT$37.52 trillion at the end of 2024, accounting for 51.38% of total assets, with the annual growth rate accelerating from 5.83% a year earlier to 9.17% (Chart 3.21). Among these loans, the annual growth rate of household borrowing rose steadily from 7.03% a year earlier to 11.95%, driven by sustained demand for housing loans. The annual growth rate of corporate loans also increased from 5.61% a year earlier to 6.57%, reflecting stronger corporate funding demand amid an improvement in the domestic economy. Moreover, the annual growth rate of government loans rebounded from -5.91% in 2023 to 3.06% as the government stepped up borrowing to support higher public expenditure.

Chart 3.22 Classified assets of domestic banks



Note: Classified asset ratio = classified assets/total assets.
Source: CBC.

Asset quality remained sound

At the end of 2024, the outstanding classified assets[36] of domestic banks amounted to

[35] The term "customer loans" refers to discounting, overdrafts, other loans, and import bill advances, but excludes export bill purchases, collections, and interbank call loans.

[36] Assets of domestic banks are broken down into five categories: normal, special mention, substandard, doubtful, and loss. The term "classified assets" herein includes all assets classified under the latter four categories.

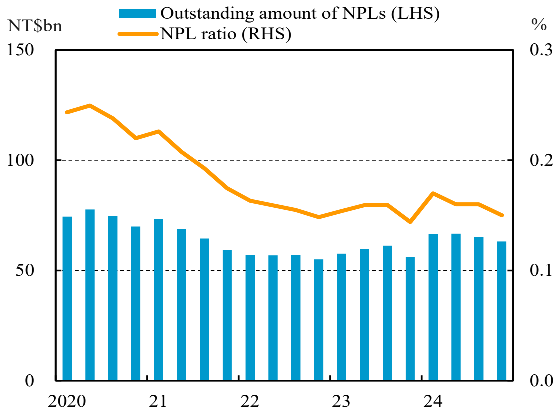
NT$476.4 billion, reflecting a 5.65% increase from a year earlier. Nevertheless, the average classified asset ratio edged down by 0.01 pps to 0.65% (Chart 3.22). Although the amount of the expected losses of classified assets [37] increased by NT$1.8 billion year-on-year to NT$52.3 billion, they only accounted for 8.31% of allowances for doubtful accounts and loss provisions, indicating sufficient provisions to cover expected losses without eroding equity.

The outstanding NPLs of domestic banks registered NT$63.1 billion at the end of 2024, increasing by 12.76% from the end of the previous year. The average NPL ratio also rose slightly from 0.14% to 0.15% over the same period (Chart 3.23). Furthermore, with total provisions showing a smaller increase, both the loan coverage ratio and the NPL coverage ratio dropped to 1.36% and 919.15%, respectively, at the end of 2024 (Chart 3.24). Nonetheless, the overall capacity of domestic banks to cover potential loan losses remained adequate.

The share of real estate-secured credit declined

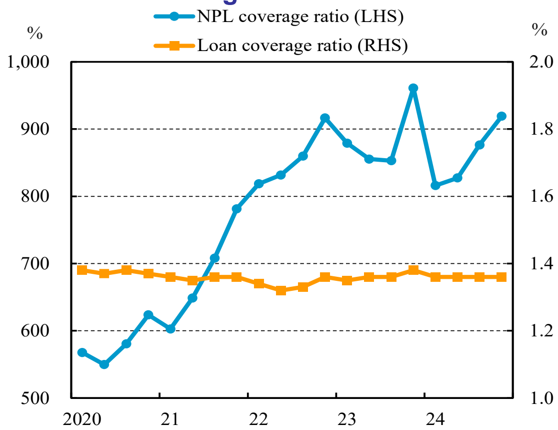
At the end of 2024, real estate-secured credit granted by domestic banks amounted to NT$25.61 trillion, accounting for 57.93% of total credit.[38] The ratio decreased marginally by 0.06 pps from the previous year, indicating a slight reduction in concentration (Chart

Chart 3.23 NPLs of domestic banks



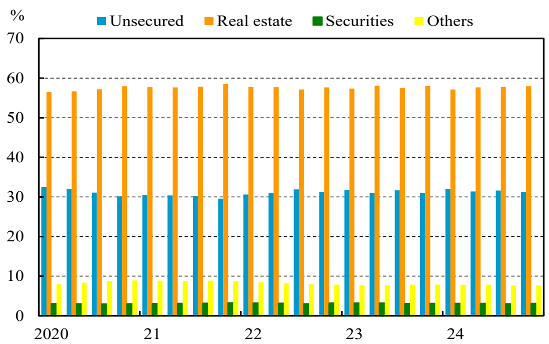
Note: Excludes interbank loans.
Source: CBC.

Chart 3.24 NPL coverage ratio and loan coverage ratio of domestic banks



Notes: 1. NPL coverage ratio = total provisions/non-performing loans.
2. Loan coverage ratio = total provisions/total loans.
3. Excludes interbank loans.
Source: CBC.

Chart 3.25 Credit by type of collateral in domestic banks



Source: CBC.

[37] Such loss refers to losses from loans, acceptances, guarantees, credit cards, and factoring without recourse.
[38] The term "credit" herein includes loans, guarantee payments receivable, and acceptances receivable.

3.25). In the second half of 2024, with the Bank tightening selective credit control measures and banks adopting stricter loan approval processes, housing market transaction volumes declined, and housing price increases moderated. Given that lingering uncertainties over domestic and external economic and financial conditions could dampen homebuying sentiment, and considering the ongoing pressure from inventory overhang of unsold newly-built housing units, future developments in the real estate market should be closely monitored for their potential impact on banks' credit quality.

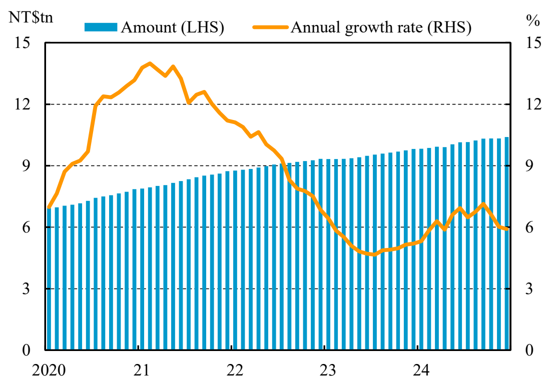
Chart 3.26 Shares of corporate loans of the three largest industries

Notes: 1. Industry share = loans to industry / total corporate loans outstanding.
2. Exposures of OBUs and overseas branches were excluded.

Source: CBC.

Credit concentration in corporate loans slightly decreased

Chart 3.27 Outstanding SME loans in domestic banks



Source: CBC.

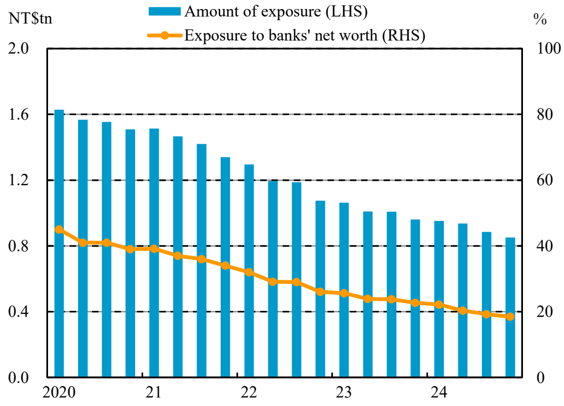
Corporate loans granted by the DBUs of domestic banks (excluding OBUs and overseas branches) stood at NT$16.18 trillion at the end of 2024, with the largest three industries being manufacturing (NT$5.75 trillion), real estate (NT$3.53 trillion), and wholesale and retail trade (NT$2.11 trillion). Combined, these three industries accounted for 70.38% of corporate loans, slightly down from 70.52% in the previous year (Chart 3.26), indicating that credit concentration in corporate loans decreased modestly. Within manufacturing,[39] which was the largest corporate-lending sector, loans to the electronics industry made up the largest share at 33.02% with an amount of NT$1.90 trillion at the end of 2024, expanding slightly from a share of 32.36% in the previous year.

Regarding credit extended to small and medium-sized enterprises (SMEs), the outstanding balance of SME loans granted by domestic banks grew by NT$580.8 billion year on year, reaching NT$10.40 trillion at the end of 2024, with a faster annual growth rate of 5.91% (Chart

[39] Loans to the manufacturing sector are divided into five categories by industry, including: (1) electronics, (2) mining of metals and non-metals, (3) petrochemicals, (4) traditional manufacturing, and (5) others.

3.27). The share of SME loans in total corporate loans declined slightly from 64.69% at the end of the previous year to 64.29%. In addition, the outstanding balance of SME loans guaranteed by the Small and Medium Enterprise Credit Guarantee Fund (SMEG) rose by 19.20% year on year to NT$1.37 trillion at the end of 2024, mainly driven by banks' lending under the government's post-pandemic revitalization loan programs and low-carbon smart loan schemes.

Chart 3.28 Exposures of domestic banks to China



Source: FSC.

Credit quality of overseas CRE showed a slight improvement, but vulnerabilities remained elevated

In the first half of 2024, the credit quality of US and European CRE loans extended by domestic banks deteriorated, driven by weakened demand owing to the post-pandemic shift to remote work, higher borrowing costs, and a sharp decline in office building prices. Although there was a slight improvement in the second half of the year, vulnerabilities remained high. Nonetheless, as the above US and European CRE exposures accounted for less than 0.5% of total loans of domestic banks, the associated risk was deemed manageable.

Considering that vulnerabilities associated with the global CRE sector remain high, several international organizations and foreign regulatory authorities, such as the IMF, the Fed and the Financial Stability Oversight Council, have recently urged that countries should strengthen the monitoring and management of risks associated with CRE loans.[40] Therefore, domestic banks should also take note and closely monitor developments in the credit quality of overseas CRE exposures.

Exposures to China continued to decline, but potential risks increased

At the end of 2024, the exposures of domestic banks to China amounted to NT$0.85 trillion, a decrease of 11.38% from the previous year driven primarily by a 12.47% reduction in credit extended. The above exposures as a percentage of net worth decreased to 18% (Chart 3.28), hitting a new record low and remaining well below the statutory ceiling of 100%.

Given the ongoing adjustment in China's property market, subdued domestic demand, and a shrinking labor force, short-term economic growth in China remains constrained. In addition,

[40] Please refer to IMF (2024), *Global Financial Stability Report*, October; Fed (2024), *Financial Stability Report*, November; FSOC (2024), *Annual Report*, December.

the new US administration's policies have accelerated the decoupling of US industries from China, with further higher tariffs and tighter technology restrictions. These developments may heighten economic and financial risks in China. Accordingly, domestic banks should continue to closely monitor the potential impact on the credit quality of their exposures to China.

Market risk

Estimated VaR for market risk exposures increased

At the end of 2024, among the market risk exposures of domestic banks, net positions in interest rate-sensitive instruments were the largest, followed by net FX positions, while net equity positions were the smallest. Based on the Bank's VaR model,[41] the estimated total VaR for market risk exposures of domestic banks stood at NT$433 billion at the end of 2024, increasing by NT$74.3 billion or 20.71% compared to a year earlier (Table 3.1). Among the components, the interest rate VaR rose by 20.04% year on year owing to higher net positions in debt securities and heightened volatility in short-term US and Taiwanese government bonds. The equities VaR increased by 22.56% as banks significantly expanded their net positions in equity securities. The FX VaR surged by 104.17% compared to the end of the previous year, driven by heightened

Table 3.1 Market risks in domestic banks

Unit: NT$bn

Type of risk	Item	End-Dec. 2023	End-Dec. 2024	Changes	
				Amount	pps
Foreign exchange	Net position	178.5	176.8	-1.7	-0.95
	VaR	2.4	4.9	2.5	104.17
	VaR/net position (%)	1.34	2.77		1.43
Interest rate	Net position	8,723.9	8,924.0	200.1	2.29
	VaR	339.9	408.0	68.1	20.04
	VaR/net position (%)	3.90	4.57		0.67
Equities	Net position	91.9	115.4	23.5	25.57
	VaR	16.4	20.1	3.7	22.56
	VaR/net position (%)	17.85	17.42		-0.43
Total VaR		358.7	433.0	74.3	20.71

Source: CBC.

[41] The Bank's market risk model applies a dynamic Nelson-Siegel term structure model and a multivariate first-order vector autoregressive model (VAR(1)) for interest rate risk, a random walk model for exchange rate risk, and an AR(1)-EGARCH(1,1) model for equity price risk. See CBC (2016), Box 2, *Financial Stability Report (Issue 10)* for details. The model primarily measures net trading book positions affected by market price fluctuations. In addition to assuming a normal distribution, it also supports alternative distributional assumptions including the t-distribution and SGED, providing users with greater flexibility for risk assessment.

volatility in the NT dollar exchange rate against the US dollar (Table 3.1).

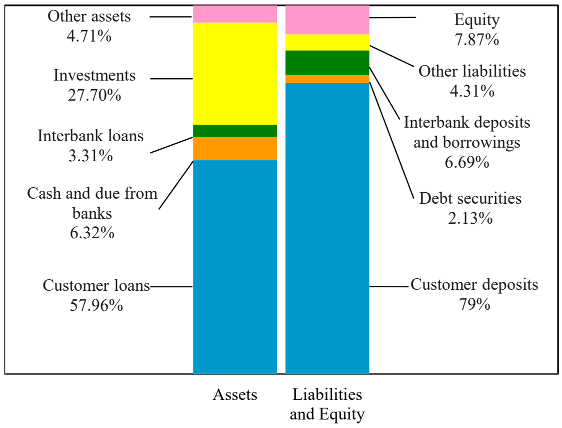
The impact of market risk on capital adequacy ratios was limited

According to the estimation mentioned above, the total VaR would lead to a decrease of 1.44 pps[42] in the average capital adequacy ratio of domestic banks, causing the ratio to drop from 15.03% to 13.59%. Nevertheless, it would still remain above the statutory minimum requirement of 10.5%. Considering that policy uncertainties stemming from a series of tariff hikes and other measures proposed by the Trump administration have amplified financial market volatility, coupled with persistent global geopolitical tensions that may further intensify market turbulence and elevate market risk, related developments warrant close attention.

Liquidity risk

Liquidity in the banking system remained ample

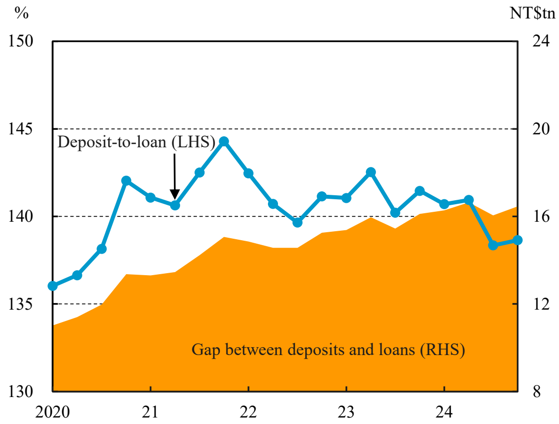
Chart 3.29 Asset/liability structure of domestic banks



Notes: 1. Figures are as of end-December 2024.
2. Equity includes loss provisions. Interbank deposits include deposits with the CBC.

Source: CBC.

Chart 3.30 Deposit-to-loan ratio of domestic banks



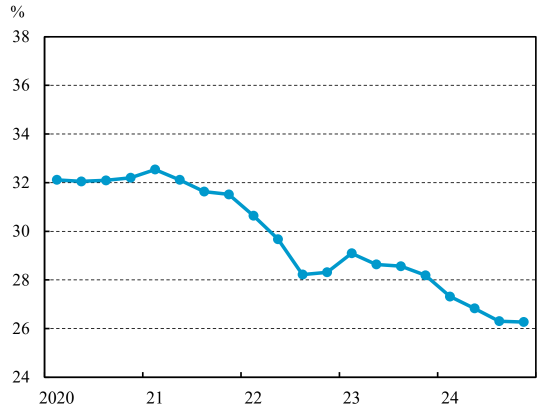
Source: CBC.

The asset and liability structure of domestic banks remained largely unchanged in 2024. In terms of the sources of funds, customer deposits, which tend to be relatively stable, still accounted for the largest share with 79% of the total, followed by equity at 7.87%. As for the uses of funds, customer loans constituted the largest portion at 57.96%, followed by securities investments at 27.70% (Chart 3.29).

[42] Domestic banks had already set aside capital for market risk in accordance with relevant regulations. To avoid double counting, the impacts of market risk on the capital adequacy ratio herein were estimated using capital shortfalls after considering the aforementioned market risk capital.

At the end of 2024, loan growth outpaced deposit growth, resulting in a decline in the average deposit-to-loan ratio of domestic banks to 138.65%, lower than that at the end of the previous year. The funding surplus (i.e., the amount by which deposits exceed loans) was NT$16.46 trillion (Chart 3.30). The overall liquidity position of domestic banks remained abundant.

Chart 3.31 Liquid reserve ratio of domestic banks

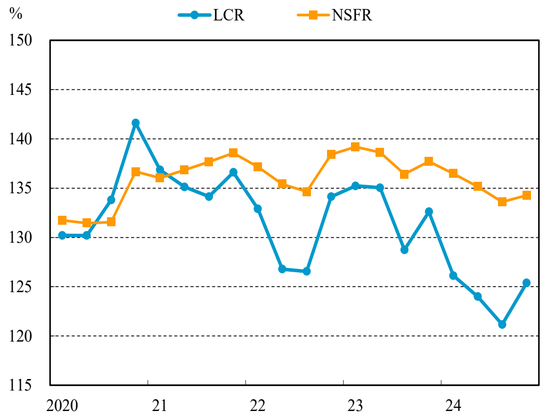


Note: Figures are the average daily data in the last month of each quarter.
Source: CBC.

Overall liquidity risk remained relatively low

The average NT dollar liquid reserve ratio of domestic banks remained well above the statutory minimum standard of 10% throughout 2024, registering 26.27% in December (Chart 3.31), a decrease of 1.92 pps compared to the same period of the previous year, while the ratios of the individual banks each exceeded 15%. At the end of 2024, the average liquidity coverage ratio (LCR) of domestic banks declined to 125.38% from 132.60% at the end of the previous year (Chart 3.32) mainly because significant increases in unsecured wholesale deposits and other deposits led to higher cash outflows. Meanwhile, the average net stable funding ratio (NSFR) of domestic banks fell from 137.71% at the end of the previous year to 134.28% (Chart 3.32), primarily driven by a substantial rise in claims on non-financial institutions with maturities exceeding one year. Nonetheless, as all banks maintained their NSFRs well above the statutory minimum standard,[43] the overall liquidity risk of domestic banks was relatively low.

Chart 3.32 LCR and NSFR of domestic banks



Source: CBC.

[43] According to the *Standards Implementing the Net Stable Funding Ratio of Banks*, the minimum standard for banks is 100%.

Profitability

Profits in 2024 hit new historical highs

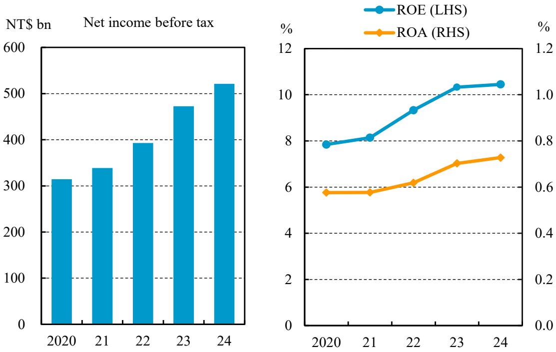
Benefiting from increases in net gains from valuations and in disposals of financial assets, along with a significant rise in net fee income, the net income before tax of domestic banks increased by 10.31% over the previous year to NT$521.3 billion, marking a new historical high. The average ROE and ROA also went up to 10.45% and 0.73%, respectively (Chart 3.33).

In 2024, four small banks posted operating losses. They nonetheless met the statutory minimum capital adequacy requirement, so the impact on the overall financial system was limited. All the other banks remained profitable, with the individual banks' ROE and ROA exhibiting a mixed performance. The number of banks with an ROE of 10% or higher remained unchanged at 16. Meanwhile, six banks recorded ROAs above the international benchmark of 1%, up from five banks in the previous year (Chart 3.34).

Factors that might affect future profitability

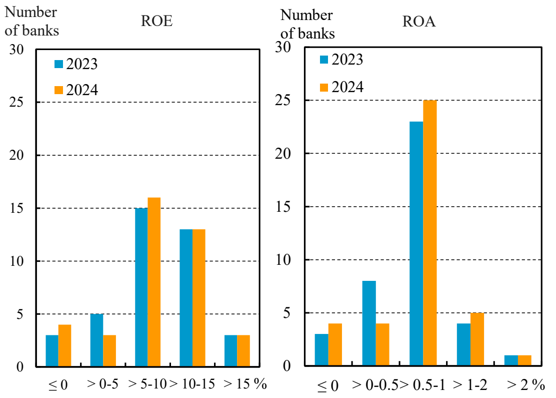
As preferential deposit schemes launched by some banks significantly pushed up deposit rates, the average interest rate spread between deposits and loans of domestic banks narrowed from 1.39% at the end of the previous year to 1.36% at the end of 2024 (Chart 3.35). This could dampen future profitability. Other

Chart 3.33 Net income before tax of domestic banks



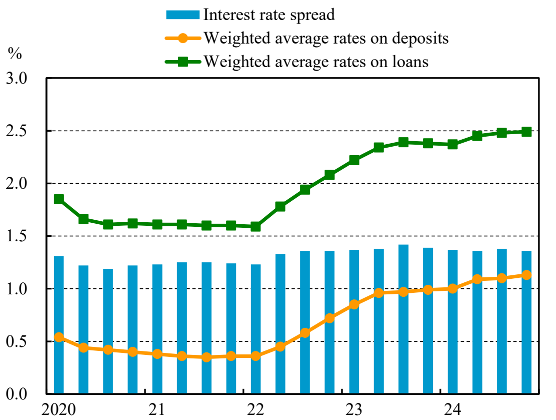
Notes: 1. ROE = net income before tax/average equity.
2. ROA = net income before tax/average assets.
Source: CBC.

Chart 3.34 Domestic banks classified by ROE and ROA



Source: CBC.

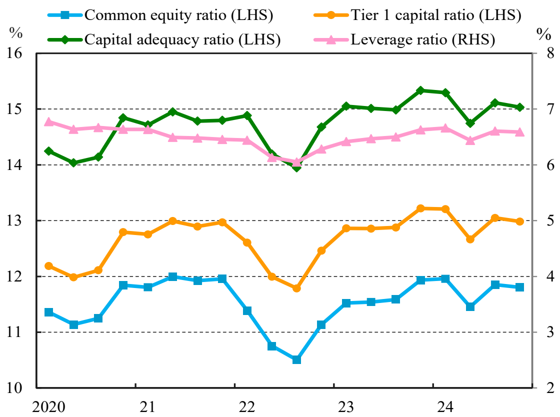
Chart 3.35 Interest rate spread of domestic banks



Notes: 1. Interest rate spread = weighted average interest rates on loans - weighted average interest rates on deposits.
2. The weighted average interest rates on deposits and loans exclude preferential deposits of retired government employees and central government loans.
Source: CBC.

factors that may weigh on profitability include: (1) US tariff policies, which may directly or indirectly undermine the repayment capacity of corporate and household sectors, thereby impacting banks' asset quality and profitability; and (2) mounting global geopolitical risks and high uncertainty surrounding US tariff policies may significantly raise financial market volatility, which could in turn adversely affect the valuation and realized gains of banks' equity and bond investments, ultimately constraining the growth of future investment income.

Chart 3.36 Capital ratios and leverage ratios of domestic banks



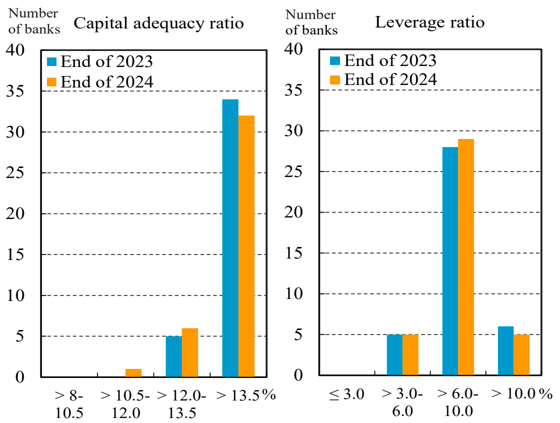
Notes: 1. Common equity ratio = common equity Tier 1 capital/risk-weighted assets.
2. Tier 1 capital ratio = Tier 1 capital/risk-weighted assets.
3. Capital adequacy ratio = regulatory capital/risk-weighted assets.
4. Leverage ratio = Tier 1 capital/total exposure.

Source: CBC.

Capital adequacy

Capital ratios slightly decreased but still showed satisfactory adequacy

Chart 3.37 Capital ratios and leverage ratios of domestic banks



Source: CBC.

In 2024, benefiting from accumulated earnings and a decrease in valuation losses on financial assets, the regulatory capital of domestic banks rose compared to the previous year. However, the expansion in loans led to a greater increase in risk-weighted assets. As a result, the average common equity ratio, Tier 1 capital ratio, and capital adequacy ratio declined to 11.81%, 12.98%, and 15.03%, respectively, at the end of 2024 (Chart 3.36), all slightly lower compared to the end of the previous year.

Among the components of regulatory capital, common equity Tier 1 (CET1) capital accounted for 78.53%. The high proportion of CET1 capital, which features the best loss-bearing capacity, showed that the capital quality of domestic banks was satisfactory. Moreover, the average leverage ratio of domestic banks stood at 6.59% at the end of 2024 (Chart 3.36), down slightly from 6.63% a year earlier but still well above the statutory standard of 3%, indicating that financial leverage remained at a sound level.

All domestic banks had capital ratios and leverage ratios above the statutory minimum

At the end of 2024, the capital ratios of six domestic systemically important banks (D-SIBs) and non-D-SIBs were all above the statutory minimum standards or the relevant capital buffer requirements set by the FSC in 2024.[44] The leverage ratios of all domestic banks also exceeded the statutory minimum standard of 3% (Chart 3.37).

Table 3.2 Systemic risk indicators for the banking system

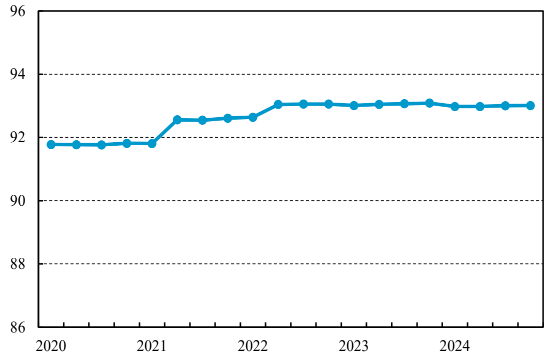
Banking System	Standard & Poor's		Fitch	
	BICRA		BSI/MPI	
	2024/2	2025/2	2023/7	2024/9
Singapore	2	2	aa/2	aa/1
Hong Kong	2	2	a/2	a/2
Japan	3	3	a/3	a/2
South Korea	3	3	a/2	a/2
Taiwan	**4**	**4**	**bbb/2**	**bbb/1**
Malaysia	4	4	bbb/1	bbb/1
Philippines	5	5	bb/1	bb/1
China	6	6	bbb/1	bbb/1
Thailand	7	7	bbb/1	bbb/1
Indonesia	6	6	bb/1	bb/1

Sources: Standard & Poor's and Fitch Ratings.

Credit ratings

Average credit rating level improved

Chart 3.38 Credit rating index of domestic banks



Sources: Taiwan Ratings and Fitch Ratings, index compiled by the CBC.

Of the overall risk assessments of Taiwan's banking system made by credit rating agencies, Standard & Poor's kept Taiwan's Banking Industry Country Risk Assessment (BICRA)[45] unchanged at Group 4 with moderate risk. Compared to other Asian economies, the systemic risk level of Taiwan was the same as that of Malaysia, but much lower than those of the Philippines, China, Thailand and Indonesia. Meanwhile, Fitch Ratings upgraded Taiwan's banking system's rating from bbb/2 to bbb/1 in its Banking System Indicators/Macro-Prudential Indicator (BSI/MPI),[46] citing a projected small decline in the credit-to-GDP ratio of Taiwan's banking system in 2024[47] that could reduce overall vulnerabilities in the macro environment (Table 3.2).

[44] The statutory standards for the common equity ratio, Tier 1 capital ratio, and capital adequacy ratio of non-D-SIBs are 7%, 8.5% and 10.5%, respectively. D-SIBs are required to set aside an additional 2% of buffer capital and 2% of internal management capital according to the requirement of the FSC. The additional capital must be achieved before the end of each of the four years equally starting from the next year after the designated date (the enforcement of the internal management capital requirement was postponed for one year and must be achieved before each year-end of the four years equally from 2022 onwards).

[45] BICRA is scored on a scale from 1 to 10, ranging from the lowest-risk (group 1) to the highest-risk (group 10), which indicates the assessment results by Standard & Poor's of economic and industry risks of a country's banking system.

[46] Fitch Ratings assesses banking system vulnerability with two complementary measures, the BSI and the MPI. These two indicators are brought together in a Systemic Risk Matrix. The BSI represents banking system strength on a scale from aaa (strongest), aa, a, bbb, bb, b, ccc, cc, c to f (fail). The MPI indicates the vulnerability of the macro environment on a scale from 1 (lowest vulnerability), 2, 2* to 3 (highest vulnerability).

[47] See Fitch Ratings (2024), "Macro-Prudential Risk Monitor," September.

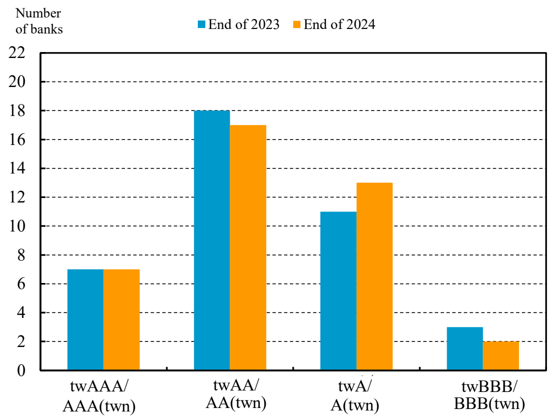
In addition, the weighted average credit rating index[48] was broadly the same as that at the end of the previous year (Chart 3.38). Overall, the credit rating level remained steady.

Rating outlooks for most domestic banks remained stable or positive

As of the end of 2024, most domestic banks maintained credit ratings of twAA/twA (Taiwan Ratings) or AA(twn)/A(twn) (Fitch Ratings) and none had credit ratings lower than twBB/BB(twn) (Chart 3.39).[49] In terms of rating outlooks, except for two banks with a "rating watch – developing" status, those of the rest remained stable or positive.

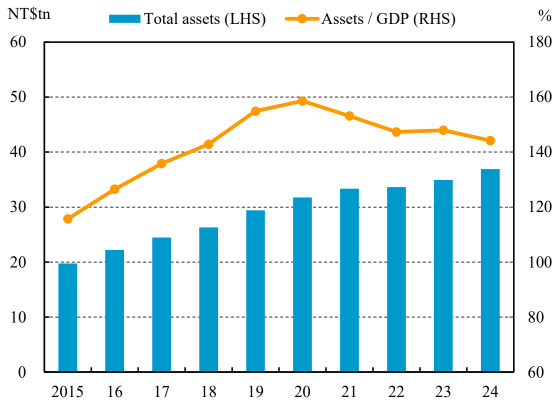
Taiwan Ratings projected that in 2025, Taiwan's banking industry would experience steady growth in both net interest income and fee income, and the NPL ratio would remain at a low level. Furthermore, the banks' sound capital levels would support their resilience against potential economic shocks.[50]

Chart 3.39 Number of domestic banks classified by credit ratings



Sources: Taiwan Ratings and Fitch Ratings.

Chart 3.40 Total assets of life insurance companies



Sources: TIGF and DGBAS.

3.2.2 Life insurance companies

In 2024, the total assets of life insurance companies continued to grow. The average equity to asset ratio improved, and overall credit ratings remained stable. Their profits significantly increased and foreign investment positions continued to expand, but FX risk, interest rate risk, and equity risk all increased. In addition, premium income returned to positive growth, but the net cash outflow for the whole year widened, warranting continued attention to future developments of cash flows.

48 The credit rating index is an asset-weighted average rating score of rated domestic banks, measuring the overall creditworthiness of those banks on a scale from 1 (weakest) to 100 (strongest). The rating score for banks is determined according to their long-term issuer ratings from Taiwan Ratings or national long-term ratings from Fitch Ratings. The higher the index is, the better the bank's overall solvency.

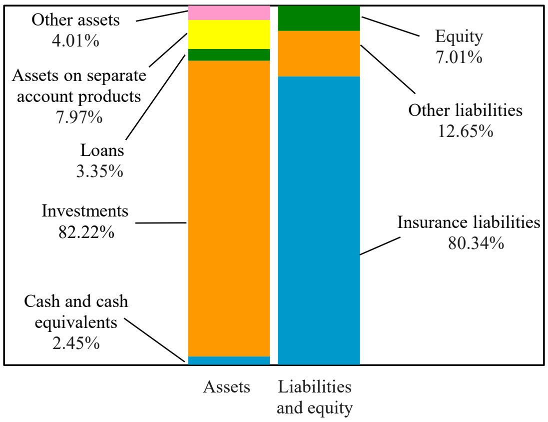
49 Since one bank was downgraded from twAA- to twA+, and the other bank's credit rating changed from twBBB+ to A-(twn) as of switching the rating agency, the number of domestic banks with credit ratings of twAA/AA(twn) decreased by one, twA/A(twn) increased by two, and twBBB/BBB(twn) decreased by one as of the end of 2024.

50 Press release by Taiwan Ratings on December 17, 2024.

Assets kept growing

The total assets of life insurance companies reached NT$36.90 trillion at the end of 2024, equivalent to 144.18% of annual GDP (Chart 3.40). The annual growth rate of total assets increased to 5.72% from 3.81% a year earlier, indicating sustained asset growth. The market structure of the life insurance industry remained roughly unchanged at the end of 2024, as the top three companies in terms of assets held a combined market share of 54.64%.

Chart 3.41 Asset/liability structure of life insurance companies

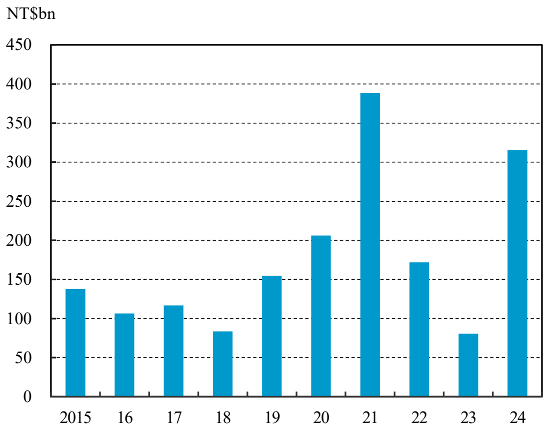


Note: Figures are as of the end of 2024.
Source: TIGF.

Investment positions slightly decreased

In terms of the use of funds of life insurance companies as of the end of 2024, investments continued to take up the primary share of total assets, but the share declined slightly to 82.22%.[51] As for the sources of funds, insurance liabilities accounted for the largest share, comprising 80.34%. Meanwhile, the share of equity increased to 7.01% mainly owing to significant profit growth and the stabilization of the domestic stock market (Chart 3.41).

Chart 3.42 Net income before tax of life insurance companies



Source: TIGF.

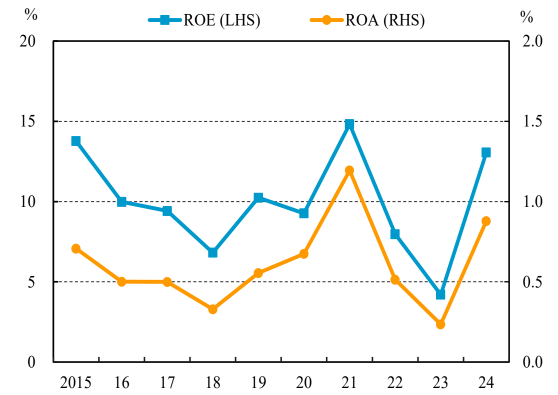
Pretax income rebounded substantially in 2024

Benefiting from the growth in net investment income, life insurance companies posted a pre-tax net income of NT$315.5 billion in 2024, a considerable year-on-year increase of 291.24% from NT$80.6 billion a year earlier (Chart 3.42). Their average ROE and ROA were 13.06%

[51] Foreign investments and domestic portfolio investments (including investments in insurance-related enterprises) made up 62.40% and 16.87% of total assets, respectively.

and 0.88%, respectively, much higher than the 4.20% and 0.24% registered a year earlier (Chart 3.43).

Chart 3.43 ROE & ROA of life insurance companies

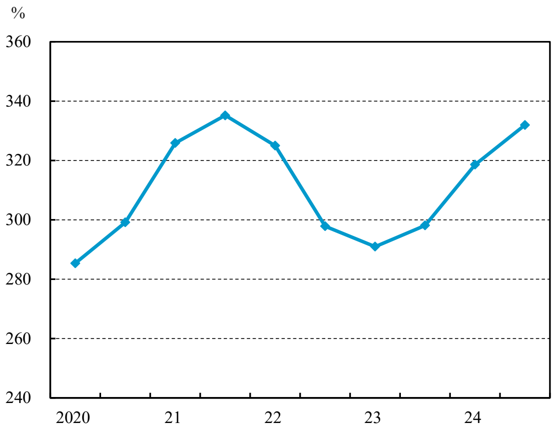


Notes: 1. ROE = net income before tax/average equity.
2. ROA = net income before tax/average assets.
Source: TIGF.

Average RBC ratio and equity to asset ratio both increased

At the end of 2024, the average RBC ratio rose to 331.95% from 298.09% a year earlier, mainly driven by capital injections through the issuance of long-term subordinated bonds and sustained profitability (Chart 3.44).[52] Among life insurers, one life insurance company saw its ratio fall below the statutory minimum of 200% (Chart 3.45).

Chart 3.44 RBC ratio of life insurance companies



Notes: 1. RBC ratio = regulatory capital/risk-based capital.
2. Figures are exclusive of life insurance companies in receivership.
Source: TIGF.

Furthermore, benefiting from higher retained earnings owing to increased profits, the average equity to asset ratio rebounded to 7.62% at the end of 2024, slightly higher than the 7.12% registered a year earlier (Chart 3.46). However, one life insurance company's ratio was still below the statutory minimum of 3%.

Overall credit ratings remained stable

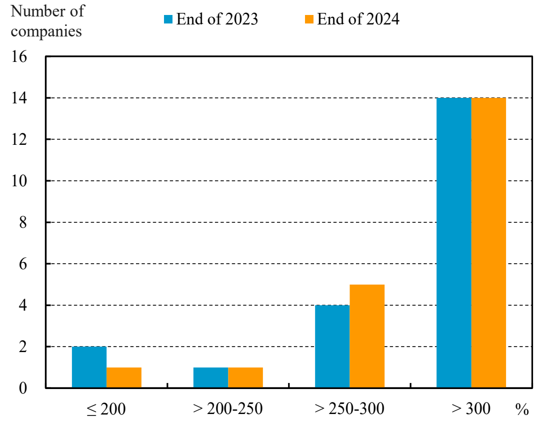
Among the 16 life insurance companies rated by credit rating agencies in 2024, one company was upgraded by Taiwan Ratings to twAA+ due to improved capital adequacy and profitability, while another one was downgraded to twA+ as a result of persistently weak operating performance. The credit ratings for the remaining companies were unchanged. At the year-end, with the exception of one company rated twA-, all the other life insurance companies maintained credit ratings above twA or its equivalent. Among them, the top three companies in terms of assets all retained twAA or twAA+ ratings, representing a strong capacity to meet their financial commitments. As for rating prospects, one company was assigned with a negative outlook due to weak operating performance. Two

[52] Life insurance companies are required to report their capital adequacy ratio data to the regulatory authority every six months.

other companies were placed on CreditWatch Developing and CreditWatch Negative, respectively, due to uncertainties related to a possible merger between their parent companies. The remaining companies were assigned with stable outlooks.

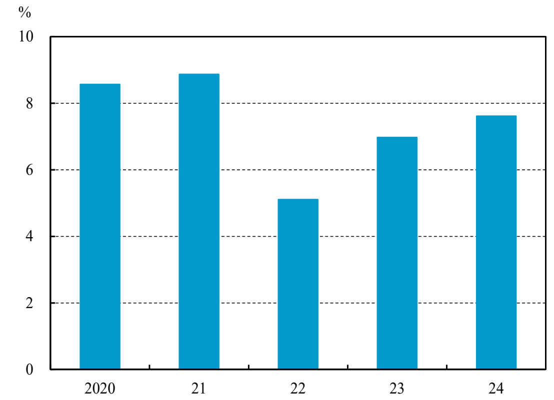
Taiwan Ratings indicated[53] that the profitability of life insurers is expected to maintain steady growth in 2025, ahead of the implementation of the new-generation solvency regime. However, FX risk and market uncertainties remain key influencing factors and warrant continued monitoring.

Chart 3.45 Number of life insurance companies classified by RBC ratios



Source: TIGF.

Chart 3.46 Equity to asset ratios of life insurance companies



Note: For assets, the assets of investment-linked insurance products in separate accounts are excluded.
Source: TIGF.

Amid recent sharp fluctuations in financial markets, foreign investment positions faced higher market risk

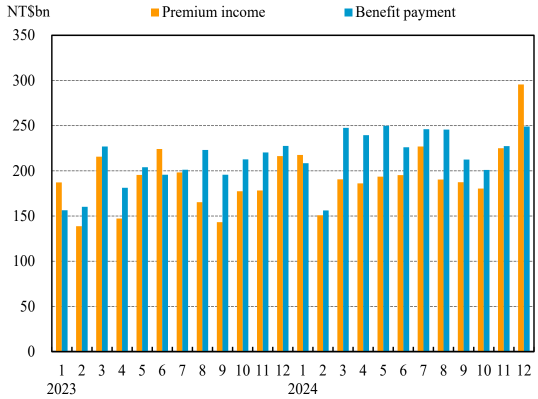
Foreign investment positions of life insurance companies grew continuously and reached NT$23.03 trillion at the end of 2024. Securities investments constituted the largest share, of which about 90% went to bills and bonds and 10% to equities. Domestic securities investments also continued to grow, amounting to NT$6.40 trillion, of which approximately 70% was invested in bonds and 30% in stocks. In April 2025, the announcement of reciprocal tariff policies by the US triggered a sharp downturn in global stock markets and substantial volatility in US Treasury yields. Although financial markets temporarily stabilized following the postponement of the tariff implementation, uncertainties remained elevated. While most bond holdings by life insurers are classified as held-to-maturity, the positions of financial assets measured at fair value remain substantial and are vulnerable to fluctuations in financial markets, resulting in higher risks in related stock investment and interest rate exposure.

Furthermore, foreign investment positions of life insurance companies were primarily

[53] Taiwan Ratings (2024), "2025 Taiwan Credit Outlook," December.

denominated in US dollars. In order to mitigate the impacts of exchange rate fluctuations, life insurance companies actively employed derivative financial instruments for FX hedging, basket currency hedging, as well as the accumulation of FX valuation reserves. To enhance the flexibility of hedging strategies and strengthen capital adequacy, the FSC amended and promulgated the *Directions for the Appropriation of Foreign Exchange Valuation Reserves by Life Insurance Enterprises* (new approach) in September 2024, raising the rates of charge and offset to valuation reserves. As of the end of December 2024, four life insurers had applied for and received approval to adopt the new approach. However, the NT dollar has experienced increased volatility against the US dollar since May 2025, resulting in heightened FX risk for unhedged positions. Continued close monitoring of the potential impact on life insurers is warranted.

Chart 3.47 Premium income and benefit payment of life insurance companies



Note: Benefit payment includes maturity, survival repayment and termination.
Source: Taiwan Insurance Institute.

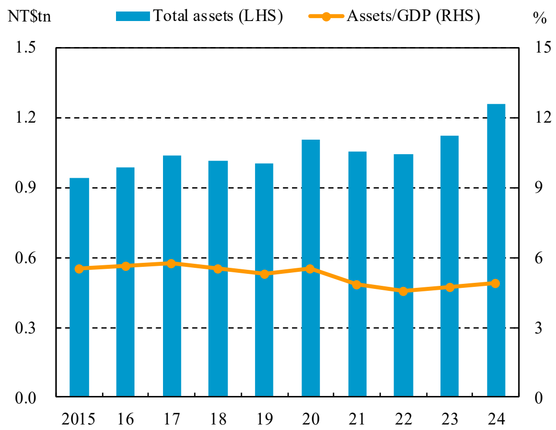
Close attention should be paid to future changes in cash flows

As the US dollar appreciated, there was a surge in policy surrenders in USD-denominated insurance policies. As a result, monthly premium income during the first three quarters of 2024 was mostly lower than benefit payment (Chart 3.47), resulting in a continued widening of net cash outflow. However, in the fourth quarter, net cash flow turned positive and amounted to NT$23.4 billion, supported by a rebound in the sales of investment-linked and interest-sensitive insurance policies. Nevertheless, the total net cash outflow for the year still reached NT$269.6 billion, higher than the NT$217.5 billion recorded in the previous year. At the end of 2024, life insurance companies held NT$903.8 billion in cash and cash equivalents, which was sufficient to cover the cash outflows. That said, the recent sharp appreciation of the NT dollar may exert additional pressure on their cash flows. The FSC has strengthened its monitoring of cash flows from the operating, investing, and financing activities of life insurers. Furthermore, it will adjust regulatory measures as needed in response to market and policy changes to ensure market stability and protect the interests of policyholders.

3.2.3 Bills finance companies

In 2024, the total assets of bills finance companies expanded, along with an increase in their guarantee balances. Meanwhile, there was a higher concentration of credit secured by real estate. Nevertheless, the quality of credit assets remained satisfactory. The capital adequacy ratio trended downwards due to a greater increase in risk-weighted assets. While liquidity risk and interest rate risk were still high, profitability improved.

Chart 3.48 Total assets of bills finance companies

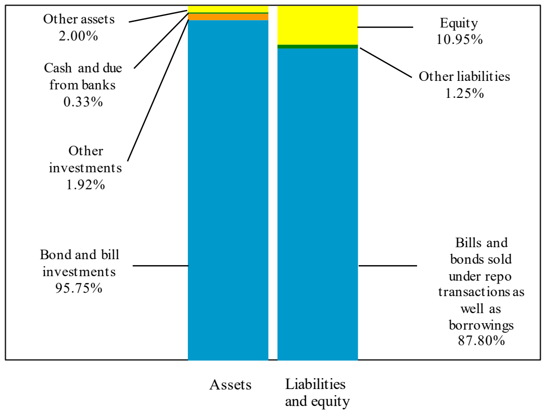


Sources: CBC and DGBAS.

Total assets increased

The total assets of bills finance companies stood at NT$1.26 trillion at the end of 2024, an increase of 11.96% from a year earlier, mainly owing to greater investments in corporate bonds and CP. The ratio of their total assets to annual GDP rose further to 4.90% over the same period (Chart 3.48).

Chart 3.49 Asset/liability structure of bills finance companies



Note: Figures are as of the end of 2024.
Sources: CBC and FSC.

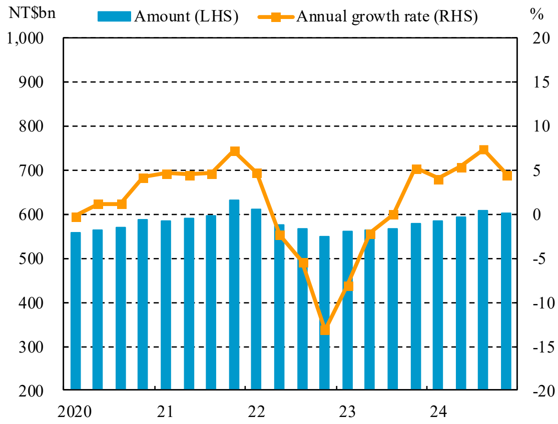
In terms of the asset and liability structure of bills finance companies, bill and bond investments constituted the largest share, at 95.75% of total assets as of the end of 2024. On the liability side, bills and bonds sold under short-term repo transactions as well as borrowings accounted for 87.80% of total liabilities, while the proportion of equity declined to 10.95% (Chart 3.49). The asset and liability structure remained roughly unchanged compared to a year earlier.

Credit risk

Guarantee liabilities increased, and the concentration of real estate-secured credit rose

The amount of CP guaranteed by bills finance companies registered NT$603.9 billion at the end of 2024, increasing by 4.53% year on year (Chart 3.50). This was because of stronger willingness to issue CP driven by a rebound in corporate investment. However, owing to a greater increase in equity, the average ratio of guarantee liabilities to equity declined to a multiple of 4.70 times, and the ratio for each company remained below the regulatory ceiling of 5 or 5.5 times.

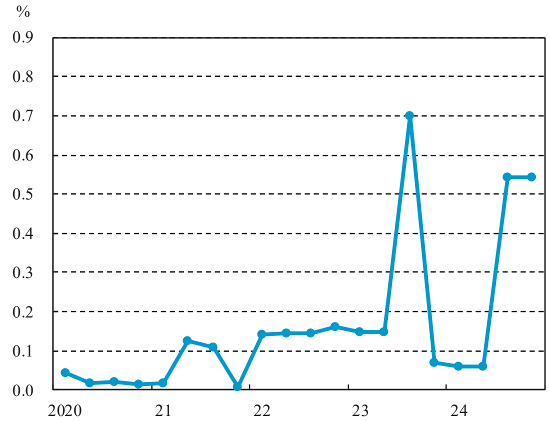
Chart 3.50 Outstanding CP guaranteed by bills finance companies



Source: CBC.

At the end of 2024, guarantees granted to the real estate and construction industries increased to 31.02% of the total credit of bills finance companies. Among these, the proportion of guarantees to the real estate industry regulated by the FSC expanded to 26.67%, still below the regulatory ceiling of 30%. In addition, the share of credit secured by real estate also increased to 41.36%. Considering a recent slowdown in domestic real estate market transactions, still-high housing prices, and ongoing inventory overhang pressures from unsold newly built residential housing units, bills finance companies should monitor closely the potential impacts of these factors on the asset quality of their mortgage-related credit.

Chart 3.51 Guaranteed advances ratio of bills finance companies

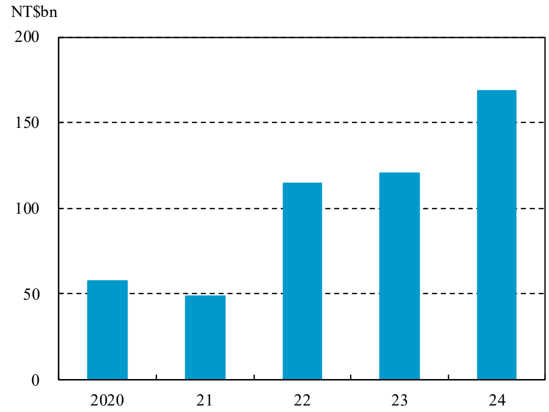


Note: Guaranteed advances ratio = overdue guarantee advances/(overdue guarantee advances + guarantees).
Source: CBC.

Guaranteed advances ratio rose, while credit quality remained sound

At the end of 2024, the guaranteed advances ratio of bills finance companies substantially rose to 0.54% (Chart 3.51), mainly owing to an increase in guaranteed advances triggered by defaults from certain syndicated loan borrowers. Nonetheless, the overall credit quality remained sound. The ratio of credit loss reserves to guaranteed advances[54] dropped to 2.39 times because of a greater increase in the amount of guaranteed advances, but the reserves remained sufficient to cover potential credit losses.

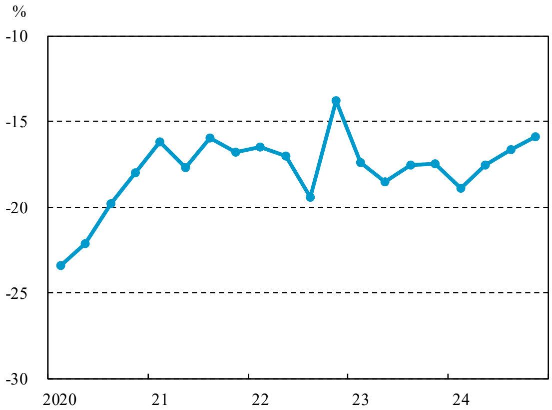
Chart 3.52 Outstanding amount of non-guaranteed CP investments of bills finance companies



Source: CBC.

Investment in non-guaranteed CP issued by the securities industry reached a historical high, and its potential credit risk warrants attention

Chart 3.53 0-30 day maturity gap ratio of bills finance companies



Note: 0-30 day maturity gap ratio = net NTD cash flow within 0-30 days/total assets denominated in NTD.
Source: CBC.

The non-guaranteed CP investment of bills finance companies stood at NT$168.7 billion at the end of 2024, representing an increase of 39.80% year on year (Chart 3.52). This was because bills finance companies increased their holdings of non-guaranteed CP to obtain wider yield spreads between long-term bond investments and short-term reverse repo transactions amid rising interest rates in the primary market. Each company's ratio of non-guaranteed CP investment to equity remained below the ceiling of 2 times. The investment in non-guaranteed CP issued by the securities industry surged from NT$17.2 billion at the end of the previous year to a record high of NT$55.6 billion. This was mainly due to the fact that securities firms actively issued non-guaranteed CP (CP2) to meet their customers' financing needs while expanding securities financing business and investment positions amid the booming stock market in recent years. The securities industry accounted for the biggest share, at 32.82%, of the issuers' total non-guaranteed CP investments, followed by the leasing industry with non-guaranteed CP investments reaching NT$40.3 billion.

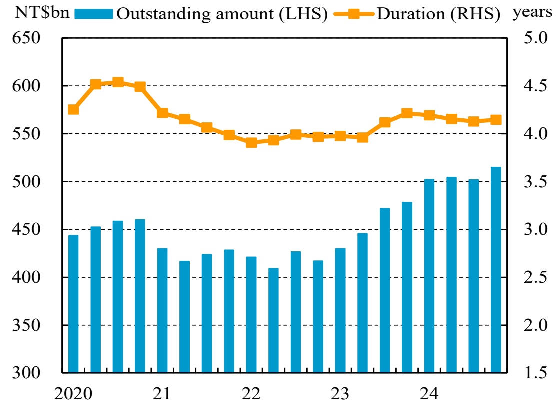
[54] Credit loss reserves to guaranteed advances ratio = (provisions + loss reserves to guarantees)/guaranteed advances.

Considering that the securities and leasing industries could pose higher potential credit risks as they tend to rely on short-term sources for funding long-term investments, such impacts on the asset quality of bills finance companies warrant close attention.

Liquidity risk remained high

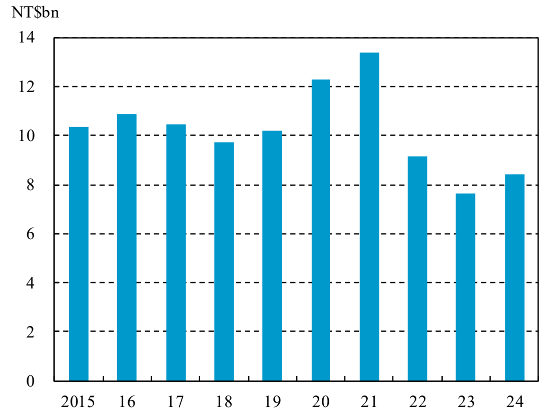
As of the end of 2024, more than 80% of funding for bills finance companies came from short-term interbank borrowing and repurchase agreements with financial institutions, while more than 90% of their assets were invested in bills and bonds, 42.24% of which were long-term bonds. Given the above structure, there continued to be a maturity mismatch between assets and liabilities. Nevertheless, the average ratio of the 0-30 day maturity gap to total NTD-denominated assets trended down to -15.88% at the end of the year (Chart 3.53), reflecting a declining but still high liquidity risk.

Chart 3.54 Outstanding amount of fixed-rate bond investments and bond duration of bills finance companies



Source: FSC.

Chart 3.55 Net income before tax of bills finance companies



Source: CBC.

Moreover, the average ratio of major liabilities[55] to equity rose to 8.55 times at the end of 2024 because the expansion in bill and bond repo transactions resulted in an increase in major liabilities and led to a higher degree of overall financial leverage. However, the leverage ratios of all bills finance companies stayed below the regulatory ceilings of 10 or 12 times.

Interest rate risk of bond investments remained high

In 2024, the outstanding amount of fixed-rate bond investments of bills finance companies increased by 7.70% to NT$514.8 billion with the average duration shortened to 4.15 years (Chart 3.54). Given a myriad of uncertainties surrounding the global economic outlook, the

[55] Major liabilities include call loans, repo transactions, as well as issuance of corporate bonds and CP.

divergence in major central banks' monetary policies could widen, further exacerbating financial market volatility. Therefore, the interest rate risk of bond investments warrants close attention.

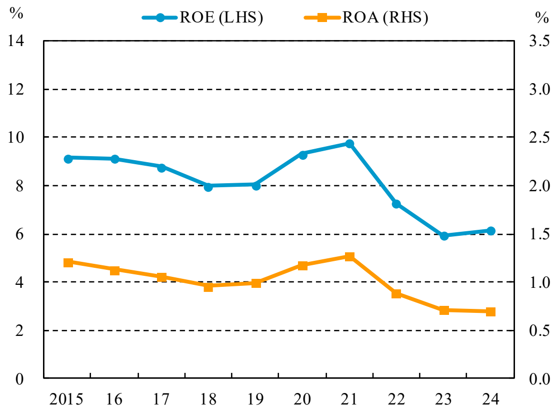
Profitability rebounded

The net income before tax of bills finance companies increased by 10.31% year on year to NT$8.4 billion in 2024 (Chart 3.55). This was due to increases in gains from the disposal of debt instruments and net interest income. Thus, the average ROE rose to 6.16%, while the average ROA decreased to 0.70% because of a greater increase in assets (Chart 3.56).

Average capital adequacy ratio declined

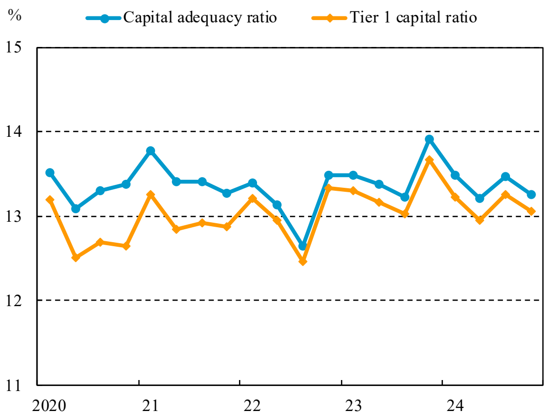
At the end of 2024, the average Tier 1 capital ratio and capital adequacy ratio declined to 13.05% and 13.26%, respectively (Chart 3.57), mainly because of a significant increase in risk-weighted assets resulting from the expansion of CP guarantee business. Notwithstanding, the capital adequacy ratio stayed well above the statutory minimum of 8% for each company.

Chart 3.56 ROE & ROA of bills finance companies



Notes: 1. ROE = net income before tax/average equity.
2. ROA = net income before tax/average assets.
Source: CBC.

Chart 3.57 Average capital adequacy ratios of bills finance companies

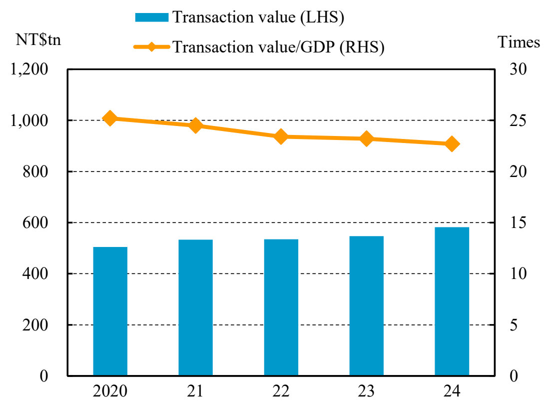


Source: CBC.

3.3 Financial infrastructure

In 2024, Taiwan's payment and settlement systems operated smoothly. Continued progress was made in advancing shared infrastructure for retail payments; for instance, the promotion of the TWQR (common QR code payment standard) has helped drive the widespread adoption and innovative development of electronic payments. The Bank and the FSC also undertook timely regulatory revisions and adopted supervisory measures to facilitate the sound and stable development of the financial sector. Meanwhile, appropriate measures were implemented to address climate-related risks, aiming to mitigate their potential impacts. Furthermore, to position Taiwan as an Asian asset management center, the FSC formulated five major initiatives and proposed 16 implementation strategies, while the Bank supported this effort by amending relevant FX regulations.

Chart 3.58 Funds transferred via the CIFS



Note: GDP in 2024 was published by DGBAS on May 28, 2025.
Sources: CBC and DGBAS.

3.3.1 Payment and settlement systems

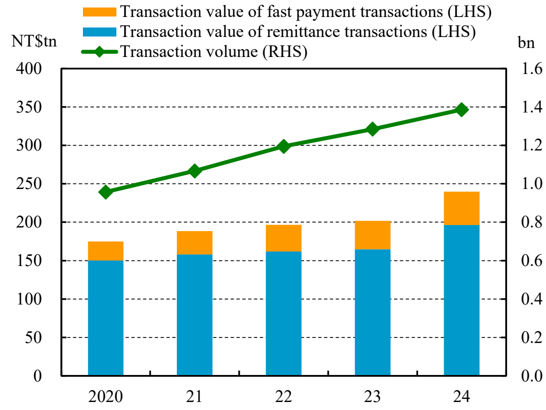
The Bank's CIFS and the FISC's IFIS functioned well in 2024, accompanied by steady growth in transaction values. Meanwhile, the FISC continued to strengthen the shared infrastructure for retail payments. With an increase in public adoption of e-payment instruments, consumer spending via electronic payment continued expanding.

Overview of the CIFS's operation

The CIFS handles large-value interbank funds transfers (e.g., FX, interbank lending, and related transactions) and provides the final settlement of interbank transfers by connecting with various clearing systems, such as those for domestic securities, bills, bonds and retail payments. In 2024, the total value of funds transferred via the CIFS reached approximately NT$582 trillion, nearly 22.7 times the size of the GDP for the year (Chart 3.58).

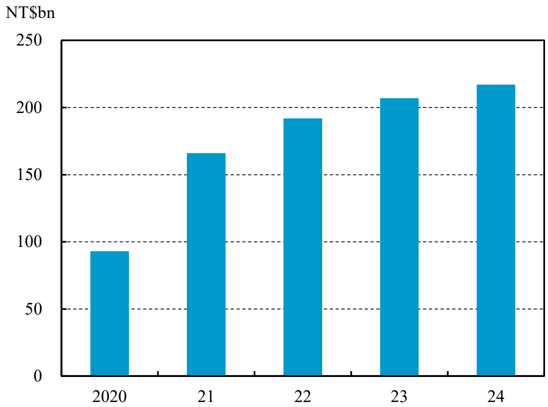
In terms of retail payments, transactions are primarily processed through the IFIS, which utilizes the funds deposited by financial institutions in the Interbank Funds Transfer Guarantee Special Account (hereinafter the Guarantee Account)[56] under the CIFS to clear and settle interbank payment transactions on a trade-by-trade basis,[57] with final settlement completed through the CIFS. In 2024, approximately 1.39 billion transactions were processed by the IFIS, with the value totaling around NT$240 trillion, representing year-on-year increases of 7.93% and 18.88%, respectively. Among these, fast payment transactions[58] amounted to approximately NT$43 trillion, reflecting a 17.53% increase from the previous year (Chart 3.59). The average end-of-day balance of retained clearing funds in the Guarantee Account stood at about NT$217 billion, an annual increase of 4.88% (Chart 3.60), which was deemed sufficient to support 24-hour fast payment transactions.

Chart 3.59 Transaction value and volume processed by the IFIS



Source: CBC.

Chart 3.60 Average end-of-day balance of retained clearing funds in the Interbank Funds Transfer Guarantee Special Account



Source: CBC.

Development of shared infrastructure for retail payments

To address the fragmentation of the e-payment market, the FISC established a shared platform for cross-institution e-payments in October 2021. This platform enables interconnectivity both among e-payment institutions and between e-payment and financial institutions, facilitating the seamless flow of information and funds across these institutions. Through apps set up by e-payment institutions, users can conveniently conduct fund transfers, pay bills and taxes, and

[56] The Guarantee Account, established jointly by financial institutions with the Bank, adopts a pre-funding mechanism. During the operating hours of the CIFS, financial institutions may allocate and deposit clearing funds required for interbank transactions. When the public makes interbank withdrawals or transfers, the FISC system promptly deploys these funds to clear transactions between financial institutions.

[57] Interbank payment transactions include remittances, automated teller machine (ATM) withdrawals, transfers (including online and mobile transfers), tax payments and corporate funds transfers.

[58] A "fast payment transaction" refers to a payment transaction in which funds become available to the payee in real time or near real time, excluding remittance transactions that do not operate on a 24/7 basis.

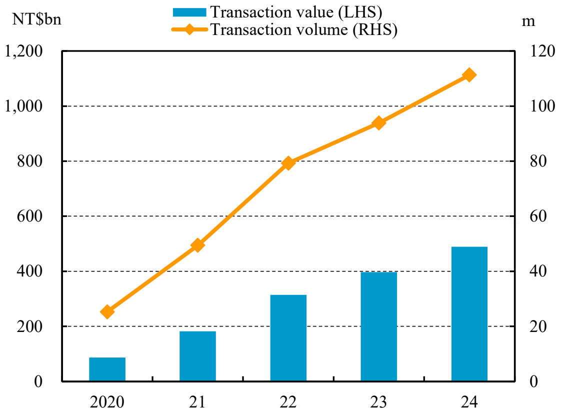
make purchases across various service providers, thereby enhancing overall payment efficiency.

In addition, efforts to promote the use of the TWQR system are ongoing, along with continued expansion of its application scenarios. For example, the TWQR Transit Code,[59] designed to enable cross-sector interoperability between the payment and transportation industries, was officially launched in March 2025, further contributing to the sound development of a nationwide integrated payment ecosystem.

By the end of 2024, 42 banks, nine e-payment institutions, and over 590,000 affiliated merchants had adopted the TWQR system. Over the year, TWQR processed approximately NT$489.5 billion in value across 111 million transactions (Chart 3.61). Compared to the previous year, the transaction value and volume grew by 23.28% and 18.58%, respectively.

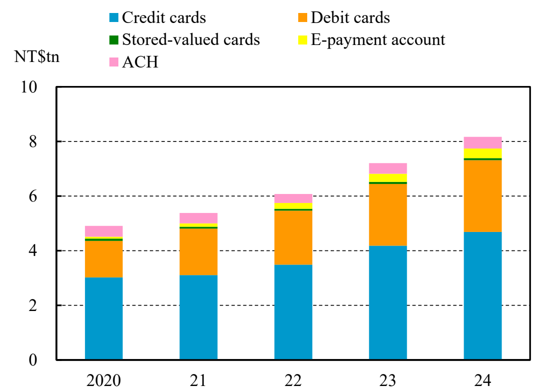
The FISC also expanded the system to promote the development of cross-border payments, launching TWQR cross-border shopping services in 2021 with an initial focus on outbound transactions. The service is currently available in Japan and South Korea for Taiwanese travelers via mobile payment. Going forward, the FISC plans to launch a "TWQR Cross-Border Platform for Inbound Transactions" that will enable merchants in Taiwan to accept payments from foreign tourists using their home-country e-wallets, thereby further expanding the TWQR cross-border mobile payment ecosystem.

Chart 3.61 Transaction value and volume via TWQR



Source: CBC.

Chart 3.62 Consumption via non-cash payment tools



Notes: 1. The consumption statistics of debit cards include consumer purchases with domestic chip bank cards, VISA and other international debit cards, UnionPay cards, and ATM transfers for shopping payments.
2. ACH interbank collection refers to the handling by payment institutions of funds deducted from and transferred to the relevant accounts through the ACH system of the TCH on behalf of customers.

Sources: CBC, FSC and FISC.

[59] The TWQR Transit Code was developed by the FISC via integrating Taiwan's Common QR Code Payment Standard with the Transportation Ticket QR Code Data Format Standard by the Ministry of Transportation and Communications. Utilizing the "Common Platform for Electronic Payment Institutions," the payment systems of the financial institutions and the e-payment institutions are connected, allowing users to conveniently access and use public transportation services simply by presenting the TWQR Transit Code on a payment app.

Domestic consumption via e-payment instruments

In 2024, total domestic spending through e-payment instruments reached NT$8.17 trillion (Chart 3.62), marking a year-on-year increase of 13.37%. Among these instruments, spending via credit cards, debit cards, and e-payment continued to rise, with annual increases of NT$498.4 billion, NT$369.3 billion, and NT$62.6 billion, respectively. This growth was primarily driven by improved user convenience, supported by the ongoing enhancement of shared infrastructure for retail payments.

3.3.2 Amendment to domestic banks' capital regulations in line with international standards

In line with the risk management framework under the finalized reforms of Basel III, the FSC amended the *Methods for Calculating Bank's Regulatory Capital and Risk-Weighted Assets* (RWA) (hereinafter referred to as the *Methods*) in December 2023 and January 2025, respectively (Table 3.3). The *Methods* were implemented in phases starting from January 1, 2025, with the aim of strengthening the resilience of Taiwan's financial system.

Table 3.3 Main amendments of the *Methods for Calculating Bank's Regulatory Capital and RWA*

Items	Main amendments
The first amendment in December 2023	
Standardized Approach for credit risk	● Amended the risk weights for corporate, equity, and retail exposures, as well as the credit conversion factors for off-balance sheet items. The risk weights for equity exposures will be increased gradually through a five-year linear phase-in arrangement ● Introduced due diligence requirement mandating that banks using external credit ratings to calculate capital must conduct reviews at least annually. In addition, the definitions of defaulted exposures were clarified, and related regulations on credit risk mitigation techniques were amended
Internal Ratings-Based (IRB) Approach	● Excluded exposures not eligible for the IRB Approach (e.g., equity exposures), adjusted risk components – including probability of default, loss given default, exposure at default – and improved the internal model validation framework ● Adjusted the qualifications and procedures of application for banks. Following completion of the pilot program, banks must prepare relevant audit reports, obtain approval from the board of directors, and submit the required documents to the FSC for review
New output floor regulations	Required that RWA calculated by banks under the IRB Approach shall be no less than 72.5% of those calculated under the Standardized Approach. If this requirement is not met, capital shall be calculated based on 72.5% of the RWA derived from the Standardized Approach
Operational risk	Revised the capital calculation method by replacing the existing Basic Indicator Approach, Standardized Approach, and Advanced Measurement Approach, with the New Standardized Approach
Leverage ratio	Enhanced the exposure measurement for the leverage ratio and introduced new regulations regarding the treatment of clearing services

Items	Main amendments
The second amendment in January 2025	
Market risk	● Defined the scope and criteria for distinguishing between banking and trading books, and, in principle, prohibited the transfer of positions between the two books ● Introduced a New Standardized Approach for capital calculation to enhance risk sensitivity of RWA measurements ● Outlined the eligibility requirements for banks applying the New Standardized Approach. Banks that do not meet the requirements shall apply the Simplified Standardized Approach. In addition, prior approval from the FSC is required to adopt the Internal Model Approach
Counterparty credit valuation adjustment (CVA) framework	● Classified the capital calculation for CVA risk into two methods: the Basic Approach and the Standardized Approach. Banks intending to adopt the Standardized Approach shall obtain prior approval from the FSC ● Specified that, if the notional amount of a bank's non-centrally cleared derivatives is less than NT$4 trillion, the CVA capital requirement may be set equal to the capital requirement for counterparty credit risk
Securitization exposure	● Amended the definition of securitization transactions to clarify that the cash flows generated from the underlying asset pool must be used to service at least two distinct, stratified risk positions or tranches ● Revised the hierarchy of approaches for calculating capital requirements, which shall follow the order of the Internal Ratings-Based Approach, the External Ratings-Based Approach, and the Standardized Approach. Banks intending to adopt the Internal Ratings-Based Approach shall obtain prior approval from the FSC ● Enhanced the risk sensitivity of the capital calculation method by expanding the set of input parameters used to determine capital requirements
Batch credit guarantees	Raised the portion of batch credit guarantees eligible for a 20% risk weight from half of the guaranteed amount to the actual guaranteed coverage ratio. Banks are also required to comply with the due diligence requirements in accordance with the Standardized Approach for credit risk

Source: FSC.

To assess the impact of the amended *Methods* on banks, the FSC requested 38 domestic banks to conduct trial calculations, of which the results showed a limited impact on domestic banks' relevant financial health indicators.

3.3.3 Localization and transitional measures for the new-generation solvency regime of the insurance industry

To assist domestic insurers in transitioning smoothly to the new-generation solvency regime and to facilitate the adoption of IFRS 17 Insurance Contracts starting 2026, the FSC has introduced a series of localization and transitional adjustment measures to be implemented in four phases. Accordingly, these measures were rolled out successively in July and November 2023, and in April and December 2024.[60]

[60] For details on the localization and transitional adjustment measures introduced in the previous three phases, please refer to Chapter 3.3, "Financial Infrastructure," in the CBC (2024), *Financial Stability Report*, published in May.

The Phase 4 adjustment measures were formulated by the FSC with reference to the Insurance Capital Standard (ICS) issued by the International Association of Insurance Supervisors (IAIS) on December 5, 2024. The FSC also took full account of international practices, feedback from domestic insurance-related organizations and insurers, and the current conditions of Taiwan's insurance market.

The key elements of the Phase 4 adjustment measures include: (1) incorporation of the latest ICS calculation formulas for estimating the present value of insurance liabilities, interest rate risk, non-default spread risk (NDSR),[61] and the tax allowances on RBC; (2) for insurers approved to adopt transitional measures, the RBC set aside before the adoption will serve as the cap on the calculation of Tier 1 Limited (T1L) and Tier 2 (T2) capital; (3) the capital charge ratio for NDSR will follow a 15-year linear phase-in mechanism, increasing in equal annual increments from 0% to 100%; and (4) the capital requirement rates under localized risk test scenarios were revised downward to 10% for mortality, 10% for longevity, 7.5% for morbidity, and 35% for lapse risk.

Regarding the capital charges for interest rate risk, the adjustment of confidence level for VaR, and the criteria for identifying high-interest-rate policies, the FSC will conduct a thorough assessment of the feasibility and appropriateness of related measures after all insurers have completed their trial calculations. Moreover, the FSC will continue revising the capital adequacy regulations for the insurance sector by incorporating all relevant transitional adjustment measures. It will also closely monitor international practices in solvency regimes to facilitate timely review and refinement of the domestic framework.

3.3.4 Latest developments in efforts by domestic and foreign supervisory authorities to address climate risks

Given that climate risks may affect the financial system through their impact on the real economy, the Network for Greening the Financial System (NGFS) recommends that national authorities should strengthen existing prudential supervisory measures to address the adverse effects of climate change.[62] However, owing to the lack of sufficient climate-related data, the challenges in quantifying climate risks, and the risk heterogeneity across sectors, most central banks and financial regulators currently prioritize stress testing, scenario analysis, and enhanced information disclosure as their main tools for assessing and addressing climate-related risks. The FSC continues to refine its climate change scenario analysis model (Table

[61] This refers to the risk that arises even in the absence of default of assets such as bonds. Changes in interest rates may cause shifts in their credit ratings and in turn affect the valuation of both assets and liabilities of the insurer, ultimately leading to volatility in its equity.

[62] NGFS (2020), "Guide for Supervisors Integrating Climate-related and Environmental Risks into Prudential Supervision," May.

3.4) and has required domestic banks to conduct trial calculations. As for climate-related macroprudential instruments, most national authorities are still in the research and review phase.

The Bank continues to collect and study information on key international practices for assessing climate-related risks in the financial sector and on the macroprudential tools employed to address such risks. This information will serve as a valuable reference for future assessments and the potential applications of relevant macroprudential instruments.

Table 3.4 Central banks'/regulators' measures to assess climate risks

Sovereignty	Central banks/regulators	Measures to assess climate risks
US	Fed	Requires the six largest banks to submit the results of their climate risk scenario analyses to gain insights into their strategies and challenges in managing climate-related financial risks
Canada	The Office of the Superintendent of Financial Institutions (OSFI)	1.Collaborates with the Bank of Canada to conduct climate risk scenario analysis 2.Issues climate risk management guidelines for financial institutions 3.Collects climate-related exposure data from financial institutions
Euro area	ECB	1.Assesses the impact of climate change on financial institutions in the euro area through scenario analysis and stress testing 2.Develops macroeconomic models to monitor the effects of climate change on the economy, the financial system, and the transmission channels of monetary policy 3.Publishes statistical indicators related to climate risk – such as carbon footprints of financial institutions' portfolios, physical risk exposures, and green financial instruments – to enhance climate risk data analysis capabilities
UK	BoE	1.Adopts forward-looking approaches to calibrate climate-related risks 2.Has conducted biennial climate change stress tests since 2021 3.Collaborates with relevant government agencies to enhance climate-related information disclosure
Hong Kong	Hong Kong Monetary Authority (HKMA)	1.Revises the CAMEL framework to incorporate climate-related risks and enhance climate risk management assessments 2.Integrates climate-risk stress testing into the HKMA's supervisor-driven stress testing framework 3.Plans to embed climate risk considerations into the

Sovereignty	Central banks/regulators	Measures to assess climate risks
		HKMA's banking supervisory review processes to encourage institutions to enhance their own risk management capabilities
Japan	BoJ	1.Encourages financial institutions to enhance their disclosures in line with the Task Force on Climate-related Financial Disclosures (TCFD) framework, which has been incorporated into Japan's revised Corporate Governance Code 2.Conducts climate-related scenario analysis and stress testing in collaboration with the Financial Services Agency (FSA) 3.Collects climate-related data and refines analytical tools to strengthen research and the assessment of climate change impacts
Australia	Australian Prudential Regulation Authority (APRA)	Carries out climate vulnerability assessments for Australia's five largest banks
Taiwan	FSC	A climate change scenario analysis framework has been established for domestic banks. The 2024 version focuses primarily on the addition of short-term scenarios, updates to medium- and long-term scenario settings, adjustments to methodologies and parameters, inclusion of physical risk assessments for overseas counterparties, and providing the option for banks to adopt dynamic balance sheets upon prior application

Sources: Official websites of central banks or supervisory authorities.

3.3.5 Policies for developing an Asian asset management center and further relaxation of FX regulations

FSC's strategy for developing Taiwan into an Asian asset management hub

To promote Taiwan as an Asian asset management center, the FSC unveiled a strategic development blueprint in September 2024, comprising five major initiatives: (1) strengthening asset management business, (2) integrating financial inclusion and sustainability, (3) promoting wealth management, (4) facilitating investments in public infrastructure, and (5) expanding Taiwan-bound investment. These are supported by 16 detailed implementation strategies. Through regulatory easing and cross-agency collaboration, the FSC aims to achieve two core objectives: (1) retaining domestic capital while attracting foreign investment, and (2) channeling investment into Taiwan to support industrial development. The initiative outlines key milestones to guide implementation – "achieving tangible results within two years, making significant progress within four years, and realizing substantial success within six years." As of April 2025, an array of regulatory relaxations and market-opening measures had already been implemented.

As part of the efforts to strengthen asset management, the FSC has focused on expanding the scale of domestic asset management business, collaborating with Kaohsiung City Government to establish an asset management hub, and encouraging financial institutions to set up operations and collectively conduct pilot runs of related businesses. Under the initiative to integrate financial inclusion and sustainability, the FSC is promoting the Taiwan Individual Saving Account (TISA), a locally tailored financial instrument that encourages long-term investment. In parallel, efforts are underway to develop green financial instruments and cultivate talent in sustainable finance.

In terms of promoting wealth management, the FSC has amended relevant regulations to remove the asset size threshold for banks applying to engage in high-asset management business. Additionally, it is actively supporting the development of family office services and related initiatives. To foster investment in public infrastructure, the FSC has lowered the risk coefficients for fund and venture capital investments in public infrastructure projects, encouraged the insurance sector to increase such investments, and steered capital toward the government-designated "5+2" innovative industries and Taiwan's six core strategic industries. With regard to expanding investment in Taiwan, the FSC is also promoting legal amendments to enable the issuance of Real Estate Investment Trusts (REITs) under a fund structure.

The Bank's adjustments to FX-related regulations in support of asset management policy

To support the FSC's initiative to position Taiwan as an Asian asset management center, the Bank has continued to revise or refine relevant FX regulations. Key measures are as follows:

- In October 2024, the Bank amended the *Regulations Governing the Declaration of Foreign Exchange Receipts and Disbursements or Transactions*, raising the annual cumulative FX settlement threshold for nationals. Specifically, the threshold was increased from US$5 million to US$10 million for associations and individuals, and from US$50 million to US$100 million for companies and firms.

- In December 2024, the Bank authorized securities firms to conduct FC-denominated securities trust business. It also clarified that when banks accept high-asset clients' holdings

– such as foreign bonds, offshore structured products, or FC-denominated structured bonds – as collateral for FC loans, such transactions are exempt from the documentation requirements under the *Directions Governing Banking Enterprises for Operating Foreign Exchange Business*. Additionally, the previous annual quota of US$50 million for discretionary investment in FC-denominated securities was abolished.

- In January 2025, the Bank amended the *Directions Governing Banking Enterprises for Operating Foreign Exchange Business* to relax restrictions for authorized banks to grant loans secured by the beneficial rights of specific money trusts denominated in FCs. Specifically, authorized banks may now grant such loans on behalf of the trustors with no restriction on the currency denomination of the loan proceeds.

3.4 General assessment of Taiwan's financial system

Overall, the financial system in Taiwan remained sound and resilient in 2024. In financial markets, the outstanding amount of bill and bond issuance expanded, and trading volume in the secondary market increased. Domestic stock indices of TWSE- and OTC-listed companies repeatedly hit new highs with active trading. The NT dollar broadly showed a moderate depreciating trend with relatively low volatility. Regarding financial institutions, domestic banks continued to post record-high profits, with sound asset quality and adequate capital levels. Life insurance companies saw a notable rebound in profits, greater momentum for premium income growth, and an increase in the average RBC ratio. Bills finance companies also experienced improved profits, with the guarantee business expanding. With respect to financial infrastructure, domestic payment and settlement systems operated smoothly. The Bank and the FSC made timely regulatory revisions and adopted due supervisory measures to facilitate the stable development of the financial sector. Meanwhile, appropriate measures were implemented to address climate risks with the aim of mitigating potential impacts therefrom. Overall, Taiwan's financial system remained largely stable throughout 2024.

Entering 2025, against a backdrop of uncertainty surrounding the new US administration's policy direction, domestic stock indices declined sharply before gradually rebounding; the NT dollar exchange rate movements became more volatile but remained relatively stable over the longer term; the money and bond markets also continued to exhibit subdued volatility. Meanwhile, the asset quality of financial institutions was not significantly affected under the circumstances, with average NPL ratios remaining at historical lows. However, should the impact of US tariff policies cause Taiwan to record a reduction in exports, declines in corporate revenues, or a rise in unemployment, the debt servicing capacity of corporate and household sectors – the main borrowers of financial institutions – could be impaired. This may result in higher credit default risk, which would in turn adversely affect the asset quality, profitability, and capital adequacy of financial institutions.

Moreover, heighted volatility in both domestic and international financial markets could dampen the investment performance of financial institutions, particularly life insurance companies, which hold sizable investment portfolios in both domestic and foreign markets and are more exposed to market risks. The Bank will continue to closely monitor developments in US tariff policies and related negotiations between the US and other major economies, so as to identify potential risks and to respond in a prudent manner.

IV. Measures to promote financial stability and in response to the impact of US tariff policies

4.1 Measures taken by the Bank and the FSC to promote financial stability in 2024

4.1.1 Measures taken by the Bank to promote financial stability

Since early 2024, Taiwan's inflation rate has generally trended downward. Nevertheless, to anchor domestic inflation expectations, the Bank raised its policy rates in March 2024. Furthermore, to curb excessive allocation of banks' credit resources to the real estate market, the Bank adjusted its selective credit control measures twice, in June and September 2024, with revisions including lowering the cap on the LTV ratios for home loans and unsold housing unit loans. In August, the Bank further required banks to formulate internal plans to manage the overall volume of their real estate loans. The Bank also actively conducted targeted financial inspections to ensure that financial institutions remain fully compliant with applicable regulations. In addition, the Bank continued to maintain flexible FX rate policies aimed at preserving the dynamic stability of the NT dollar exchange rate, thereby supporting the sound development of Taiwan's financial system and sustainable growth of the overall economy.

The Bank raised the policy rates and conducted open market operations

As global inflation gradually eased, Taiwan's CPI and core CPI inflation rates also showed a downward trend. However, in light of a proposed electricity rate hike that could increase inflation expectations, the Bank raised its policy rates by 0.125 pps on March 22, 2024[63] to anchor domestic inflation expectations and maintain price stability. Moreover, to enhance the effectiveness of its selective credit control measures, the Bank raised the reserve requirement ratios on NTD deposits twice, by 0.25 pps on July 1 and on October 1, 2024, to foster sound economic and financial development.

Furthermore, the Bank conducted open market operations and maintained reserve money at an appropriate level, in accordance with domestic and international economic and financial

[63] The Bank raised policy rates six times between March 18, 2022, and March 22, 2024, with a cumulative increase of 0.875 pps. On March 18, 2022, the Bank raised the discount rate, the rate on refinancing of secured loans, and the rate on temporary accommodations by 0.25 pps. Subsequently, at each of the quarterly meetings held on June 17, 2022, September 23, 2022, December 16, 2022, March 24, 2023, and March 22, 2024, the Bank further raised the policy rates by 0.125 pps.

conditions. This was primarily achieved through the issuance of NCDs. At the end of 2024, the outstanding amount of NCDs issued by the Bank was NT$7,332 billion, while the average annual growth rate of reserve money stood at 5.58%. In line with the Bank's policy rate hikes, the weighted average overnight call loan rate rose from 0.69% at the end of 2023 to 0.82% at the end of 2024.

The Bank continued to adopt selective credit control measures to address the overconcentration of credit in real estate lending

Since December 2020, the Bank has adjusted its selective credit control measures on five occasions – in December 2020, and in March, September, December 2021, and in June 2023. These measures have helped mitigate the risks associated with banks' real estate lending. Nevertheless, real estate lending still made up a large proportion of total bank lending. In response, the Bank introduced two further amendments to the *Regulations Governing the Extension of Mortgage Loans by Financial Institutions* in June and September 2024. The revised regulations lowered the cap on the LTV ratio to 50% for a second home loan of a natural person and extended the applicable scope from the restricted "specific areas" to nationwide. In addition, the LTV ratio cap was reduced to 30% for (1) corporate borrowers, (2) high-value housing loans, (3) third or more home loans borrowed by individuals, and (4) loans for unsold housing units. A new provision was also introduced that natural persons who already own real estate are not eligible for a grace period on their first home loans (Table 4.1). This measure aims to further enhance banks' risk management in the banking sector's real estate lending practices. In October 2024, the Bank provided relief measures to accommodate borrowers with inherited properties or actual relocation requirements, thereby supporting the funding needs of non-speculative homebuyers.

Table 4.1 Main amendments to the *Regulations Governing the Extension of Mortgage Loans by Financial Institutions* in June and September, 2024[1]

<table>
<tr><th colspan="2" rowspan="2">Loan types</th><th colspan="3">Loan terms</th></tr>
<tr><th>Prior to the Amendment</th><th>June 13, 2024 Amendment</th><th>September 19, 2024 Amendment</th></tr>
<tr><td colspan="2">Housing loans borrowed by corporates</td><td>LTV ratio cap: 40%,
No grace period</td><td>(unchanged)</td><td>LTV ratio cap: 30%,
No grace period</td></tr>
<tr><td>Natural persons</td><td>High-value housing loan</td><td>LTV ratio cap: 40%,
No grace period</td><td>(unchanged)</td><td>LTV ratio cap: 30%,
No grace period</td></tr>
</table>

<table>
<tr><th colspan="2" rowspan="2">Loan types</th><th colspan="3">Loan terms</th></tr>
<tr><th>Prior to the Amendment</th><th>June 13, 2024 Amendment</th><th>September 19, 2024 Amendment</th></tr>
<tr><td rowspan="3"></td><td>First home loan to a borrower owning building(s) in his/her name</td><td>(nil)</td><td>(nil)</td><td>No grace period</td></tr>
<tr><td>Second home loan</td><td>Housing in the “specific areas”[2];
LTV ratio cap: 70%;
No grace period</td><td>Housing in the “specific areas”[2];
LTV ratio cap: 60%;
No grace period</td><td>Housing nationwide;
LTV ratio cap: 50%;
No grace period</td></tr>
<tr><td>Third (or more) home loan</td><td>LTV ratio cap: 40%,
No grace period</td><td>(unchanged)</td><td>LTV ratio cap: 30%,
No grace period</td></tr>
<tr><td colspan="2">Land loans</td><td>● LTV ratio cap: 50% (10% to be withheld until construction commences)
● Requiring the borrower to submit a substantive development plan for the land purchased, and to undertake in writing a specific time frame to commence construction[3]</td><td>(unchanged)</td><td>(unchanged)</td></tr>
<tr><td colspan="2">Unsold housing unit loans</td><td>LTV ratio cap: 40%</td><td>(unchanged)</td><td>LTV ratio cap: 30%</td></tr>
<tr><td colspan="2">Mortgage loans for idle land in industrial districts</td><td>LTV ratio cap: 40%[4]</td><td>(unchanged)</td><td>(unchanged)</td></tr>
</table>

Notes: 1. The amendment dated June 13, 2024, took effect on June 14, 2024, while the amendment dated September 19, 2024, came into force on September 20, 2024.
2. Specific areas include Taipei City, New Taipei City, Taoyuan City, Taichung City, Tainan City, Kaohsiung City, Hsinchu County, and Hsinchu City.
3. Determination of the “specific time frame”: Financial institutions should carefully verify and assess the actual time required for the borrower to commence construction. The time frame should not exceed 18 months in principle.
4. Exemptions apply under the following conditions: (1) construction on the collateralized land has commenced; or (2) the borrower has submitted a substantive project development plan and a written affidavit stating that construction will commence within one year.

Source: CBC.

Moreover, in August 2024, the Bank employed moral suasion to encourage banks to gradually adjust the total amount of real estate loans for a one-year period from 2024 Q4 to 2025 Q4, based on their respective operational conditions. While this action was aimed at addressing the overconcentration of credit in real estate loans, it was also premised that banks should pay attention not to affect the financing needs of homebuyers without self-occupied residences and of developers engaged in urban renewal and the reconstruction of old and unsafe buildings.

To monitor compliance with regulatory requirements, the Bank has required financial institutions to submit monthly reports on real estate mortgage loans since December 2020 and has conducted off-site monitoring accordingly. If unusual changes or unreasonable deviations are identified in loan portfolios, the Bank would then carry out on-site inspections. Recently, through on-site targeted inspections of real estate lending operations, the Bank identified key areas of non-compliance and will, through enhanced inspections, urge banks to fully comply with relevant regulatory requirements and address the identified deficiencies so as to improve their management of real estate credit risk.

In addition, the Bank adopted monetary tightening in a moderate and gradual manner, which also contributed to strengthening the effectiveness of selective credit control measures. Since the second half of 2024, real estate transactions have decreased, and public expectations of housing price rises have eased. The share of housing loans to individuals without self-occupied residences has increased, while the concentration of credit in real estate loans has declined. These all reflected the progressive effectiveness of the credit control measures. Looking ahead, the Bank will pay close attention to developments related to US tariff policies and their potential impact on the domestic housing market. The Bank will also continue to assess the effectiveness of the selective credit control measures and fine-tune the regulatory measures as needed, with the aim of promoting financial stability and ensuring sound banking operations.

Adopting a flexible FX rate policy to maintain the dynamic stability of the NT dollar exchange rate

As a small and open economy, Taiwan is highly interconnected through trade with other economies. Excessive exchange rate volatility could pose risks to economic development and financial stability. To mitigate such risks, the Bank adopts a managed floating exchange rate regime, under which the NT dollar exchange rate is, in principle, determined by market forces. However, when disorderly movements, such as massive inflows or outflows of short-term capital, or seasonal factors cause excess volatility and disorderly conditions in the FX market with potential adverse impacts on domestic economic development and financial stability, the Bank will maintain the FX market order as needed in line with its policy mandate.

In recent years, massive and frequent movements of international short-term capital flows have overtaken international trade flows and macroeconomic fundamentals as the primary drivers of exchange rate fluctuations in the short term. To mitigate the disruptive effects of such capital movements on the domestic FX market, the Bank conducts "leaning against the wind" operations to maintain order in the FX market when necessary. These actions aim to mitigate exchange rate volatility and foster FX market efficiency. By maintaining the dynamic stability of the NT dollar exchange rate, the Bank supports a stable macroeconomic environment conducive to the sustainable development of Taiwan's economy.

In addition, the Bank continued to adopt appropriate administrative measures to safeguard order in the FX market and promote its sound development. These measures mainly included: (1) monitoring up-to-date transaction information in the FX market through the Real-Time Reporting System for Large-Amount FX Transactions; (2) reinforcing off-site monitoring efforts to ensure that forward transactions are based on genuine needs, thereby mitigating speculative trading in the FX market; (3) urging authorized FX banks to enhance their exchange rate risk management, in order to reduce FX exposures of individual banks and limit systemic risks in the FX market; and (4) reinforcing targeted inspections of FX operations to maintain the discipline of the FX market.

4.1.2 Measures undertaken by the FSC to maintain financial stability

Since the beginning of 2024, the FSC has implemented several key measures to strengthen financial stability. These include the announcement of localization and transitional arrangements for the adoption of the TW-ICS, as well as amendments to the methods for calculating banks' regulatory capital and risk-weighted assets. These efforts aim to support the domestic insurance and banking sectors in smoothly aligning with international standards. In addition, the FSC has strived to strengthen the capital deployment and asset-liability management (ALM) capabilities of the insurance sector. It has also enhanced risk controls regarding AI applications in the financial sector and improved the management of VASPs. Moreover, the FSC has continued to bolster cybersecurity defense mechanisms in the financial sector and to promote measures to stabilize the real estate market. Collectively, these measures are designed to safeguard financial stability.

Strengthening capital deployment and ALM capabilities of the insurance sector

To support life insurance companies in expanding their domestic investments, the FSC reduced the risk coefficients applied to certain infrastructure investments. Specifically, in September and December 2024, the FSC lowered the risk coefficients from 10.18% to 1.28% for insurance companies' investments made through domestic private equity funds or venture capital firms, provided that these investments are fully allocated to domestic public infrastructure projects. These adjustments are intended to channel insurance capital toward domestic public infrastructure and to mitigate currency mismatches in insurers' asset allocation.

Furthermore, in order to strengthen insurers' attention to asset-liability matching, the FSC published a revised draft of the *Regulations Governing the Setting Aside of Various Reserves by Insurance Enterprises* in April 2024. The revision stipulates that the policy value deficiency reserves should be deposited in a special reserve under equity, thereby limiting insurers' earnings distribution with the aim of protecting policyholder interests and ensuring that insurers maintain adequate solvency.

Enhancing risk control in AI applications within the financial sector

In order to encourage financial institutions to effectively leverage technology, the FSC issued the *Guidelines for AI Applications in the Financial Industry* (hereinafter referred to as the *AI Guidelines*) in June 2024. These guidelines were developed in accordance with the *Core Principles and Policies for AI Applications in the Financial Industry*, while also drawing on relevant documents released by international organizations and other countries, as well as insights from academic and industry experts. The *AI Guidelines* adopt a risk-based approach to implementing the core principles. Financial institutions are encouraged to assess the specific risks associated with their AI application scenarios and, based on the six core principles and related considerations,[64] reasonably select appropriate risk mitigation mechanisms and implementation methods. The *AI Guidelines* also serve as a reference for the adoption, utilization, and management of AI systems.

Improving the management of VASPs

To facilitate sound development of virtual asset services, the FSC assisted VASPs in establishing an industry association in August 2024. The FSC also issued six self-regulatory rules covering: (1) listing and delisting review mechanisms, (2) consumer protection, (3) anti-money laundering (AML) and countering the financing of terrorism (CFT), (4) anti-fraud and industry-wide joint defense mechanisms, (5) information security management, and (6) separation and custody of client assets. Penal provisions were also incorporated into these rules to strengthen industry self-regulation. In addition, Article 6 of the *Money Laundering Control*

[64] The six core principles include: (1) establishing governance and accountability mechanisms; (2) emphasizing fairness and human-centric values; (3) safeguarding privacy and customer rights; (4) ensuring system robustness and security; (5) emphasizing transparency and explainability; and (6) promoting sustainable development.

Act (hereafter referred to as the *AML Act*), which came into effect on November 30, 2024, stipulates that VASPs that have not completed AML registration with the FSC are prohibited from providing virtual asset services. Violators are subject to criminal liability.

In line with amendments to the *AML Act*, the FSC promulgated the *Regulations Governing Anti-Money Laundering Registration of Enterprises or Persons Providing Virtual Asset Services* in November 2024. These regulations clarify the types of business activities and registration systems for VASPs, including conditions and procedures for registration, regulatory management of the entities, and transitional provisions, thereby enhancing the AML supervision of VASPs.

Bolstering cybersecurity defense mechanisms in the financial sector

In response to the growing cybersecurity needs arising from the post-pandemic period and digital transformation, advanced economies such as the US and the EU have actively developed cybersecurity defense strategies based on the Zero Trust Architecture.[65] The FSC, drawing on international practices and adapting to the characteristics of Taiwan's financial sector and existing cybersecurity capabilities, issued the *Guidelines for the Adoption of Zero Trust Architecture in the Financial Sector* in July 2024. The guidelines outline a four-level implementation framework – static, dynamic, real-time, and integrated – and suggest that financial institutions adopt a risk-based approach by prioritizing high-risk areas – such as remote work environments and cloud service access that fall outside the traditional cybersecurity perimeter – as the initial targets for implementing the Zero Trust Architecture. This initiative aims to guide the financial sector in progressively implementing Zero Trust principles and strengthening cybersecurity defenses. Going forward, the FSC will collaborate with industry associations and relevant institutions to jointly assess actual cybersecurity protection needs and implementation feasibility. Appropriate measures will be incorporated into regulatory requirements in a timely manner to raise the overall level of cybersecurity resilience across the financial industry.

Taking measures to help stabilize the real estate market

To support individuals without self-occupied residences in obtaining home loans, the FSC has continued to collaborate with relevant ministries to promote real estate stabilization policies. It also supervises banks to implement relevant measures, including: (1) requiring banks to

[65] Zero Trust Architecture is based on the principle of "never trust, always verify." It enhances the security of access control to systems or data through continuous and diverse authentication mechanisms.

prioritize both new and recycled loan quotas for loans to first-time homebuyers, loans for self-occupied residences, and previously committed loans. In addition, banks are required to establish mechanisms to manage the allocation of residential mortgage loans so as to prevent excessive credit concentration in large-amount loans and construction-related loans; and (2) overseeing the Bankers Association in establishing a dedicated information disclosure section for residential mortgage loans, allowing the public to access information on the available loan quota and contact details for each bank.

4.2 Government measures in response to US tariff policies

In view of the potential impact of the US reciprocal tariff policy on Taiwan's trade and financial markets, the Executive Yuan announced the *Support Program for Strengthening Taiwan's Export Supply Chain in Response to US Tariffs* (hereinafter the *Support Program*) on April 4, 2025. This program includes a planned investment of NT$88 billion with 20 support measures aimed at assisting domestic industries. Subsequently, on April 24, 2025, the Executive Yuan further approved a draft of the *Special Act for Strengthening Economic, Social, and Homeland Security Resilience in Response to Global Challenges* (hereinafter the *Special Act*), with a projected budget of NT$410 billion. The *Special Act* outlines four key objectives, namely supporting industries, stabilizing employment, safeguarding livelihoods, and strengthening resilience, along with ten specific measures.[66] The *Special Act* aims to comprehensively address the impacts of US tariff policies on Taiwan's industries and workforce. Notably, the budget for the *Support Program* was increased by NT$5 billion, bringing the total to NT$93 billion, to further assist enterprises with industrial upgrading, transformation, and equipment renewal.

Additionally, the FSC has implemented several measures to stabilize capital markets and provided financial support to industries, while other ministries have actively launched their own response measures. The Bank will continue to closely monitor developments in inflation, the financing conditions of domestic enterprises, and the FX market, and take appropriate actions in a timely manner to safeguard financial stability.

4.2.1 Financial stability measures

Measures implemented by the Bank

The Bank closely monitors changes in the balance of payments (BOP) and the FX market, and has implemented four mechanisms to stabilize the exchange rate by dynamically responding to fluctuations in the FX market: (1) establishing both on-site and off-site supervisory mechanisms, utilizing the real-time reporting system for large-amount FX settlements to capture the actual situation of capital inflows and outflows; (2) undertaking appropriate market operations when necessary to maintain the dynamic stability of the exchange rate in the event

[66] Ten specific measures include: (1) providing financial support for enterprises; (2) enhancing industrial competitiveness; (3) assisting enterprises with market diversification; (4) supporting stable employment for workers; (5) strengthening agricultural financial support, improving industrial competitiveness, and aiding market diversification; (6) enhancing talent cultivation at the higher education level; (7) injecting funds into the Taiwan Power Company (Taipower), the National Health Insurance Fund, and the Labor Insurance Fund; (8) improving social care programs and services for disadvantaged groups; (9) strengthening homeland defense capabilities; and (10) improving the operational environment and infrastructure for information and communications. Among these, measures (1) through (5) fall within the scope of the *Support Program of Strengthening Taiwan's Export Supply Chain in Response to US Tariffs*.

of an imbalance in market supply and demand that causes excessive fluctuations in the NT dollar exchange rate; (3) staying well-prepared with ample foreign currency liquidity; and (4) providing foreign currency liquidity to domestic financial markets.[67]

Furthermore, the Bank has established a comprehensive liquidity provision mechanism that can be accessed through monetary policy tools, including the discount window, open market operations, and re-deposits from financial institutions. This mechanism is designed to fully meet the funding needs of the banking system and financial markets, with the aim of maintaining ample liquidity within the overall financial system (Chart 4.1).

Chart 4.1 The Bank's monetary policy tools

The Bank injects funds via monetary policy tools to maintain ample liquidity in the banking system

Discount window	**Open market operations**	**Re-deposits from financial institutions**
1. Discount: with a maximum term of 180 days 2. Refinancing of secured loans: with a maximum term of 360 days 3. Short-term accommodations: with a maximum of 10 days	1. Reduce the issuance of NCDs 2. Conduct repo operations with a maximum term of 30 days 3. Conduct expanded repo operations with a maximum term of 180 days	Reduce the acceptance of re-deposits from financial institutions

Source: CBC.

Taiwan's banking system currently maintains ample liquidity, with banks holding over NT$7 trillion in NCDs issued by the Bank. In response to the potential impact of US tariff policies on market liquidity, the Bank stands ready to reduce the issuance of NCDs to inject funds into the market in the event of liquidity needs of the banking sector, thereby enabling a swift response to evolving market conditions.

Measures implemented by the FSC

To preserve stability in the domestic stock market and protect investor interests, while preventing individual stock prices from falling excessively due to short-selling, the FSC

[67] The Bank provides foreign currency liquidity to the financial system through foreign currency call-loan operations and currency exchange transactions. To promote liquidity in the Taipei foreign currency call-loan market, the Bank has appropriated foreign currency seed funds totaling USD 20 billion, EUR 1 billion, and JPY 80 billion.

implemented temporary measures starting from April 7, 2025. These included: (1) allowing investors to use other forms of collateral that meet specified conditions such as adequate market liquidity to make up the margin shortfall for margin transactions or short sales; (2) reducing the maximum quantity of intraday sell orders for borrowed securities from 30% to 3% of the average daily trading volume of such securities over the preceding 30 business days; and (3) raising the minimum margin ratio for the short sales of TWSE- and OTC-listed securities from 90% to 130%. Subsequently, in light of the gradual stabilization of domestic and international stock markets, the FSC announced that starting from May 26, 2025, the measures under items (2) and (3) would cease to apply and resume prior restrictions, while item (1) would remain in effect.

In addition, in response to potential short-term liquidity pressures faced by import/export enterprises, the financial support measures proposed by the Bankers Association were filed with the FSC for recordation on April 18, 2025. These measures included: (1) allowing enterprises that demonstrate a willingness to continue operation, maintain regular interest repayments, and possess a sound debt and credit record to apply for a six-month extension on principal repayments due before December 31, 2025, with continued coverage by the Credit Guarantee Fund; (2) streamlining procedures and expediting the review process for government project loans that meet specific criteria; (3) requiring each bank to set up a dedicated contact window and publish consolidated loan-related information on the Bankers Association website for public access; and (4) encouraging banks to provide policy-oriented lending, with a growth target of NT$460 billion for the "Tranche 20 of SME Loan Program" for domestic banks, and continuing with the loan program that supports the six core strategic industries with a new annual lending target of NT$380 billion.

4.2.2 Support measures implemented by relevant ministries

To help mitigate the impact of US tariffs on enterprises and individuals, the Ministry of Finance, Ministry of Economic Affairs, Ministry of Agriculture, and Ministry of Labor have each introduced a series of support measures, as outlined in Table 4.2.

Table 4.2 Support measures by relevant ministries in response to US tariff policies

Relevant Ministries	Support Measures
Ministry of Finance	1. Offer reduced interest rates on trade financing and premium discounts on export insurance to support exporters; lower administrative costs by exempting packing lists for customs clearance in bonded areas and increasing the implementation of remote customs inspections 2. Implement a range of tax incentives to support industrial upgrading and

Relevant Ministries	Support Measures
	technological innovation
Ministry of Economic Affairs	1. Offer additional preferential guarantees for export loans to alleviate the financial burden on enterprises in procuring raw materials, sustaining production, and maintaining export-related working capital 2. Provide interest subsidies and export credit guarantees, along with increased loan support for micro, small and medium-sized enterprises 3. Subsidize R&D and transformation initiatives to encourage technological upgrading among enterprises 4. Provide financial assistance for the establishment of new facilities such as showrooms and distribution warehouses to support enterprises in expanding into international markets
Ministry of Agriculture	1. Offer additional interest rate subsidies under various special-purpose agricultural loan programs to enterprises affected by the tariffs 2. Strengthen the cold chain logistics for exports, accelerate value-added industrial transformation and incentivize the acquisition of domestic and international certifications or accreditations to enhance the global competitiveness of Taiwan's agriculture and fisheries sectors
Ministry of Labor	1. Proactively visit enterprise unions to assess the impact on workers 2. Provide support to affected enterprises, individuals, or groups through wage subsidies, vocational training, start-up loan interest subsidies, or the granting of employment incentives

Sources: Websites of the Executive Yuan, Ministry of Finance, Ministry of Economic Affairs, Ministry of Agriculture and Ministry of Labor; special reports to the Finance Committee of the Legislative Yuan.

4.3 The Bank will adopt measures in a timely manner to promote financial stability

In 2024, Taiwan's economy demonstrated steady growth, while inflation gradually eased. Against this backdrop, Taiwan's financial markets continued to develop in a sound manner, financial institutions maintained robust operations, and the financial infrastructure functioned smoothly. Overall, Taiwan's financial system remained broadly stable. The Bank continued to adopt appropriate monetary, credit and FX policies in response to changes in global and domestic economic and financial conditions, with the aim of promoting financial stability. Meanwhile, the FSC revised relevant financial regulations and enhanced financial supervisory measures to facilitate sound operations of financial institutions and safeguard financial stability.

However, since early 2025, the spillover effects from the US tariff policies have not only undermined global financial market stability and clouded the global growth outlook, but also fueled inflationary pressures in many countries. These developments may further cause negative impacts to spill over from the real economy to the financial system, thereby posing potential risks to Taiwan's financial stability, which would warrant a careful response. In addition, the ongoing economic slowdown in China, geopolitical conflicts, climate change, and supply chain shifts are all factors which may adversely affect global economic development and financial stability.

In light of such a myriad of downside risks to the economic outlook, the Bank will continue to pay close attention to subsequent developments and their potential effects on domestic economic and financial conditions. It will also take appropriate response measures in a timely manner to promote financial stability.

Appendix: Financial soundness indicators[68]

Table 1: Domestic Banks

Unit: %

Items / Year (end of year)	2019	2020	2021	2022	2023	2024
Asset size						
Assets to GDP	r 274.37	r 281.69	r 276.61	r 282.15	r 288.32	285.37
Earnings and profitability						
Return on assets (ROA)	0.70	0.58	0.58	0.62	0.70	0.73
Return on equity (ROE) (Pretax)	9.49	7.84	8.14	9.33	10.33	10.45
Return on equity (ROE) (After tax)	8.11	6.82	7.11	7.92	8.59	8.70
Net interest income to gross income	56.59	59.95	62.11	66.08	55.92	52.79
Non-interest expenses to gross income	51.30	53.93	53.88	51.89	49.75	48.75
Gains and losses on financial instruments to gross income	18.78	17.06	12.93	1.29	24.62	28.41
Employee benefits expenses to non-interest expenses	56.76	57.05	58.36	56.01	54.85	54.43
Spread between lending and deposit rates (basis points)	1.32	1.22	1.24	1.36	1.39	1.36
Spread between the highest and the lowest interest rates of interbank O/N lending	0.11	0.12	0.22	0.14	0.32	0.04
Asset quality						
Non-performing loans to total loans	0.22	0.22	0.17	0.15	0.14	0.15
Provision coverage ratio	650.30	623.74	781.47	916.53	960.96	919.15
Capital adequacy						
Regulatory capital to risk-weighted assets	14.07	14.84	14.80	14.68	15.33	15.03
Tier 1 capital to risk-weighted assets	12.08	12.79	12.97	12.46	13.22	12.98
Common equity Tier 1 capital to risk-weighted assets	11.32	11.84	11.96	11.13	11.93	11.81
Non-performing loans net of provisions to equity	-1.78	r -0.91	r -0.31	r -0.45	-0.39	-0.27
Leverage ratio	6.71	r 6.64	6.46	6.28	6.63	6.59

[68] In line with the IMF's *2019 Financial Soundness Indicators Compilation Guide (FSI Guide)*, two new categories – life insurance companies and bills finance companies – have been added to the financial soundness indicators since 2020, while the market liquidity category has been removed. Consequently, the number of indicators increased from 42 to 58. The time series data for the removed and pre-adjusted indicators are available on the CBC's website (https://www.cbc.gov.tw/en/cp-486-862-AE8D1-2.html). For more details about explanatory notes for the compilation of financial soundness indicators, please refer to CBC (2021), *Financial Stability Report*, May (https://www.cbc.gov.tw/en/cp-970-140474-7ae08-2.html).

Table 1: Domestic Banks (cont.) Unit: %

Items \ Year (end of year)	2019	2020	2021	2022	2023	2024
Liquidity						
Customer deposits to total loans	137.27	142.04	144.30	141.14	141.46	138.65
Liquid assets to total assets	9.05	9.44	9.74	8.89	8.68	8.36
Liquid assets to short-term liabilities	12.53	13.19	13.37	12.20	11.86	11.56
Liquidity coverage ratio	134.82	141.60	136.60	134.13	132.60	125.38
Net stable funding ratio	132.71	136.51	138.56	138.41	137.71	134.28
Credit risk concentration						
Loan concentration by economic activity	71.43	71.95	72.04	70.90	70.52	70.38
Large exposures to tier 1 capital*	-	8.60	8.06	5.88	4.25	3.76
Gross asset positions in financial derivatives to regulatory capital	6.53	8.75	4.32	11.00	8.69	11.20
Gross liability positions in financial derivatives to regulatory capital	7.66	9.36	4.51	10.06	9.86	9.27
Geographical distribution of claims to total claims						
Domestic economy	79.49	80.96	81.23	79.64	79.21	78.90
Advanced economies	14.01	12.66	12.45	14.32	15.08	15.45
Emerging economies						
Emerging Asia	5.42	5.31	5.30	5.05	4.77	4.73
Emerging Europe	0.04	0.02	0.02	0.01	0.01	0.01
Latin America and the Caribbean	0.40	0.37	0.31	0.31	0.26	0.24
Middle East and Central Asia	0.35	0.42	0.47	0.46	0.46	0.54
Sub-Saharan Africa	0.29	0.26	0.22	0.21	0.21	0.13
Credit of private sector to GDP	r 154.60	r 158.36	r 159.06	r 159.73	r 165.74	167.39

Table 1: Domestic Banks (cont.)

Unit: %

Items / Year (end of year)	2019	2020	2021	2022	2023	2024
Sensitivity to market risk						
Net open position in foreign exchange to capital	3.20	3.45	3.58	2.47	1.80	2.48
Foreign-currency-denominated loans to total loans	20.67	18.80	18.06	18.48	17.84	16.52
Net open position in equities to capital	24.56	26.93	31.71	28.37	29.11	28.81
Foreign-currency-denominated liabilities to total liabilities	26.57	26.53	25.80	29.90	28.78	31.69

Notes:1. Items marked with"*"denote new indicators introduced for dissemination starting in 2020.

2. Figures for "Spread between lending and deposit rates" exclude the data of preferred deposits rates of retired government empolyees and central government lending rates.
3. Non-performing loans net of provisions to equity:
   (1) For data prior to 2019, specific provisions for credit losses refer to minimum provisions that banks are required to allocate for classified loans and liabilities on guarantees in accordance with *Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans*.
   (2) Starting from 2020, specific provisions for credit losses, in accordance with the IFRSs 9, represent provisions for the expected credit losses of financial assets identified as credit-impaired.
4. Credit risk concentration:
   (1) For data prior to 2019, large exposures refer to the total credit exposures of domestic banks to the top 20 private enterprises, based on integrated reporting standards.
   (2) Starting from 2020, large exposures have been redefined as the total credit exposures of domestic banks to a single enterprise that exceed 10% of the bank's Tier 1 capital, following integration.
5. Figures marked with "r" indicate revised data, based on updated GDP statistics released by DGBAS and revisions to financial institution data.

Table 2: Life Insurance Companies

Unit: %

Items / Year (end of year)	2019	2020	2021	2022	2023	2024
Assets to GDP	r 154.91	r 158.59	r 153.13	r 147.34	r 147.92	144.18
Return on assets (ROA)	0.55	0.67	1.19	0.51	0.24	0.88
Return on equity (ROE) (pretax)	10.24	9.27	14.83	7.97	4.20	13.06
Return on equity (ROE) (after tax)	9.65	9.38	13.78	6.77	4.60	12.38
Risk based capital (RBC) ratio	292.54	299.13	335.17	297.82	298.09	331.95
Equity to investment assets	7.29	8.80	9.10	5.34	7.27	8.00

Notes: 1. Investment assets include financial assets such as cash, bank deposits, loans, securities, derivatives, and non-financial assets for investment.

2.Figures marked with "r" indicate revised data, based on updated GDP statistics released by DGBAS.

Table 3: Bills Finance Companies

Unit: %

Items \ Year (end of year)	2019	2020	2021	2022	2023	2024
Assets to GDP	r 5.29	r 5.52	r 4.84	r 4.56	r 4.75	4.90
Return on assets (ROA)	0.99	1.18	1.27	0.89	0.71	0.70
Return on equity (ROE) (pretax)	8.05	9.33	9.78	7.28	5.93	6.16
Return on equity (ROE) (after tax)	6.67	7.56	8.01	5.92	4.90	4.97
Capital adequacy ratio	13.37	13.38	13.27	13.48	13.91	13.26
0-30 day maturity gap to assets (NTD)	-21.39	-18.01	-16.80	-13.76	-17.43	-15.88

Note: Figures marked with “r” indicate revised data, based on updated GDP statistics released by DGBAS.

Table 4: Non-financial Corporate Sector

Units: %, times

Items \ Year (end of year)	2019	2020	2021	2022	2023	2024
Total liabilities to equity						
TWSE-listed companies	104.61	107.85	106.85	r 103.62	98.44	98.88
TPEx-listed companies	88.55	89.88	98.81	r 96.44	r 90.89	86.78
Return on equity (ROE)						
TWSE-listed companies	12.62	14.60	23.01	r 21.46	14.57	17.74
TPEx-listed companies	12.23	13.95	17.78	r 17.60	r 12.91	13.76
Net income before interest and tax / interest expenses (times)						
TWSE-listed companies	9.35	15.70	34.58	r 22.87	10.83	14.98
TPEx-listed companies	15.99	21.99	30.23	r 23.79	r 13.18	13.35
Foreign-currency-denominated liabilities to equity*						
TWSE-listed companies	-	32.48	r 32.85	r 28.12	23.45	24.87
TPEx-listed companies	-	20.11	r 21.07	r 20.01	16.36	15.07

Notes: 1. Data of TWSE-listed and TPEx-listed companies are from TEJ.
2. Item with “*” is a new indicator to be disseminated from 2020 onward.
3. Figures marked with “r”indicate revised data, based on updated non-financial corporate sector statistics provided by TEJ.

Table 5: Household Sector

Units: %, times

Items \ Year (end of year)	2019	2020	2021	2022	2023	2024
Household debt to GDP	r 86.40	r 88.04	r 87.43	r 87.55	r 90.07	92.62
Debt service and principal payments to total disposable income	r 46.26	r 46.63	r 48.47	r 47.43	r 47.33	48.32
Household debt to total disposable income (times)	1.39	1.46	r 1.52	r 1.47	r 1.51	1.52

Notes: 1. Figures for “total disposable income” are the sum of household disposable income, rent expense and interest expense.
2. Figure for “total disposable income” for 2024 is a CBC estimate.
3. Figures marked with “r”indicate revised data, based on updated GDP and disposable income statistics released by DGBAS.

Table 6: Real Estate Market

Units: index, %

Items \ Year (end of year)	2019	2020	2021	2022	2023	2024
National housing price index	104.14	108.17	117.50	127.51	136.20	150.98
Residential real estate loans to total loans	r 31.33	32.04	32.52	31.79	r 33.54	34.16
Commercial real estate loans to total loans	r 18.87	19.37	19.69	19.54	r 19.77	19.78

Note: Figures marked with “r” indicate revised data, based on revisions to financial institution data.

Abbreviations

ABS	Australian Bureau of Statistics
ACH	Automated clearing house
AI	Artificial intelligence
ALM	Asset-liability management
AML	Anti-money laundering
APRA	Australian Prudential Regulation Authority
ATM	Automated teller machine
BICRA	Banking Industry Country Risk Assessment
BIS	Bank for International Settlements
BoE	Bank of England
BoJ	Bank of Japan
BoK	Bank of Korea
BOP	Balance of payments
BSI	Banking system indicator
CBC	Central Bank of the Republic of China (Taiwan)
CET1	Common Equity Tier 1
CFT	Countering the financing of terrorism
CIFS	CBC Interbank Funds Transfer System
COVID-19	Coronavirus disease 2019
CP	Commercial paper
CP2	Non-guaranteed CP
CPI	Consumer price index
CRE	Commercial real estate
CVA	Counterparty credit valuation adjustment
DBU	Domestic banking unit
DGBAS	Directorate General of Budget, Accounting and Statistics of the Executive Yuan
D-SIB	Domestic systemically important bank

ECB	European Central Bank
EPU	Economic policy uncertainty
ETF	Exchange Traded Fund
EU	European Union
EUR	Euro
FC	Foreign currency
Fed	Federal Reserve System
FISC	Financial Information Service Co., Ltd.
FSA	Financial Services Agency
FSC	Financial Supervisory Commission
FSI	Financial soundness indicators
FSOC	Financial Stability Oversight Council
FX	Foreign exchange
GDP	Gross domestic product
HKMA	Hong Kong Monetary Authority
IAIS	International Association of Insurance Supervisors
ICS	Insurance capital standard
IFIS	Interbank Financial Information System
IFRS	International Financial Reporting Standard
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IRB	Internal Ratings-Based
JCIC	Joint Credit Information Center
JPY	Japanese yen
KRW	Korean won
LCR	Liquidity coverage ratio
LTV	Loan-to-value
MOF	Ministry of Finance
MOI	Ministry of the Interior
MPI	Macro-Prudential Indicator
MYR	Malaysian ringgit
NCD	Negotiable certificates of deposit
NDSR	Non-default spread risk

NEER	Nominal effective exchange rate
NGFS	Network for Greening the Financial System
NPL	Non-performing loan
NSFR	Net stable funding ratio
NTD	New Taiwan dollar
OBU	Offshore banking unit
OSFI	Office of the Superintendent of Financial Institutions
OTC	Over-the-counter
P/E ratio	Price-to-earnings ratio
PPI	Producer price index
PPS	Percentage points
QR	Quick Response
RBC	Risk-based Capital
R&D	Research and Development
REER	Real effective exchange rate
REITs	Real Estate Investment Trusts
RMB	Renminbi
ROA	Return on assets
ROE	Return on equity
RWA	Risk-Weighted Assets
SGD	Singapore dollar
SITCA	Securities Investment Trust and Consulting Association
SITEs	Securities investment trust enterprises
SME	Small and medium-sized enterprise
SMEG	Small and Medium Enterprise Credit Guarantee Fund
T1L	Tier 1 Limited
T2	Tier 2
TAIEX	Taiwan Stock Exchange Weighted Index
Taipower	Taiwan Power Company
TCH	Taiwan Clearing House
TCFD	Task Force on Climate-related Financial Disclosures
TEJ	Taiwan Economic Journal Co., Ltd.
TIGF	Taiwan Insurance Guaranty Fund

TISA	Taiwan Individual Saving Account
TPEx	Taipei Exchange
TPEX	Taipei Exchange Capitalization Weighted Stock Index
TPU	Trade policy uncertainty
TWQR	common QR code payment standard
TWSE	Taiwan Stock Exchange
USD	US dollar
VaR	Value at risk
VASPs	Virtual Asset Service Providers
WUI	World uncertainty index

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