

III. Financial sector assessment

3.1 Financial markets

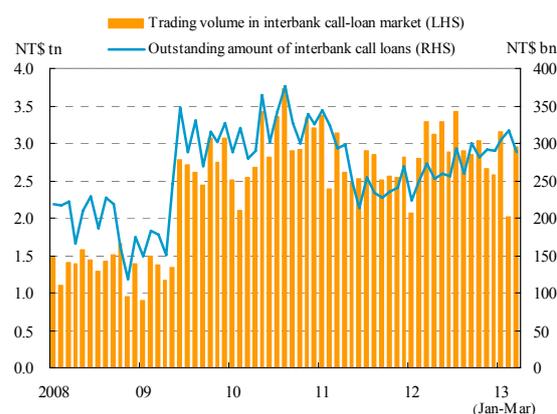
In 2012, the trading volume in interbank call loans expanded, the outstanding amount of bills and bond issuance in the primary markets significantly rose, while the trading volume in the secondary markets remained contracted. The yield spread between long-term and short-term rates still remained at a low level. As for the domestic stock markets, stock indices trended up, while volatility gained stability after trending down, and the annual turnover ratio hit a 10-year low. In the foreign exchange market, the NT dollar exchange rate against the US dollar reversed from appreciation to depreciation but remained relatively stable compared to the exchange rates of other major currencies; moreover, trading volume decreased slightly.

3.1.1 Money and bond markets

Trading volume of interbank call loans slightly expanded

In 2012, the average daily outstanding amount of interbank call loans and the average monthly trading volume increased by 1.62% and 6.68% year on year, respectively. The rise in the average monthly trading volume was larger than that in the average daily outstanding amount, primarily because financial institutions relied more on interbank overnight call loans to reduce their funding costs and roll over loans more frequently. In 2013 Q1, the trading volume of interbank call loans remained at a high level, although it descended markedly in February owing to the Chinese Lunar New Year holidays (Chart 3.1).

Chart 3.1 Interbank call-loan market



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

Bills issuance in the primary market significantly rose, but trading volume in the secondary market remained contracted

In 2012, the outstanding amount of bills issuance significantly expanded in the primary bills market. At the end of 2012, the outstanding amount of bills issuance rose by 21.92% year on year, with commercial paper posting the highest increase of NT\$288.4 billion or 39.23%. The main reason behind this was that interest rates of commercial paper issuance remained at low levels as large private enterprises and state-owned enterprises raised funds through commercial paper issuance.

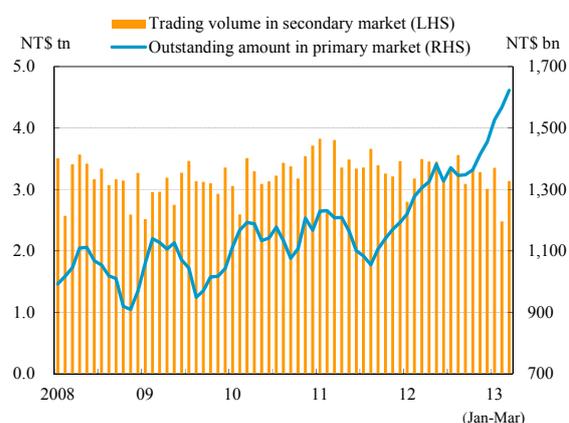
Although bills issuance in the primary market rose, trading volume in the secondary market contracted by 4.02% year on year in 2012 (Chart 3.2). The reason was primarily because banks actively employed a buy and hold strategy toward investing in commercial paper, along with a reduction of the rollover frequency of commercial papers issued by state-owned enterprises as they extended the maturity of commercial paper issued.

In 2013 Q1, the outstanding amount of bills issuance trended up in the primary market, while the trading volume of bills in the secondary market descended markedly in February owing to the Chinese Lunar New Year holidays, before it soared in March.

Bond issuance in the primary market significantly rose, but the turnover of outright transactions in the secondary market further decreased

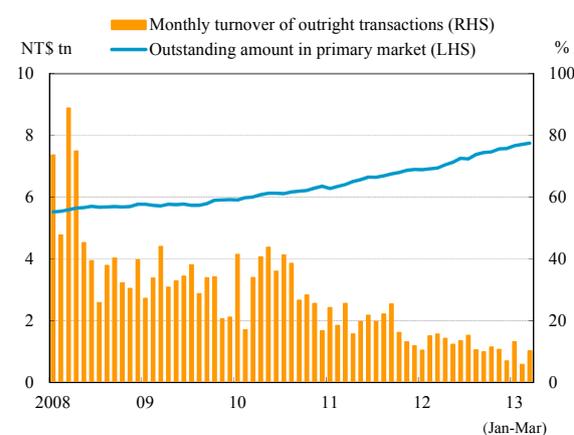
At the end of 2012, the outstanding amount of bond issuance ascended by 9.87% year on year (Chart 3.3), with corporate bonds and financial debentures posting the highest growth of 17.33%. The main reason behind

Chart 3.2 Primary and secondary bills markets



Sources: CBC and FSC.

Chart 3.3 Primary and secondary bond market



Note: Monthly turnover = trading value in the month / average bonds issued outstanding.

Sources: CBC and FSC.

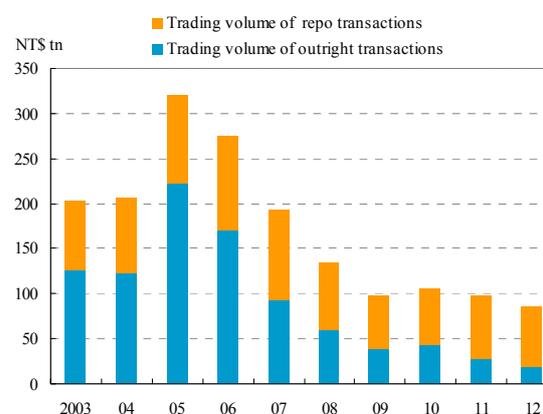
this was the cost of bond issuance remained at a low level, the government relaxed regulatory restrictions on the terms of corporate bond issuance for state-owned enterprises, and domestic banks issued debentures in an effort to promote their capital adequacy ratios. In addition, government bonds registered a year-on-year increase of 6.25% in 2012, affected by treasury funds management and regular and moderate issuance of government bonds.

In 2012, the bond market was still sluggish, and trading volume declined by 11.51% year on year. Of the components, outright transactions dropped significantly by 31.36%, while repo transactions slightly decreased by 4.00% (Chart 3.4). Outright transactions were sluggish owing to ample liquidity and less bonds being traded in the market, primarily because banks actively employed a buy and hold strategy toward investing in government bonds.⁴⁵ Meanwhile, inactive corporate bonds and financial debentures issuance constituted a major portion of the growth in the outstanding amount of bond issuance,⁴⁶ leading to the average monthly bond turnover ratio in 2012 being significantly lower than the previous year's level. Moreover, because of bond traders' lack of willingness to trade by the end of the year, outright transactions dropped significantly and the monthly turnover ratio fell to a trough of 6.86% in December 2012. In 2013 Q1, the outstanding amount of bonds that have been issued trended up in the primary bond market. Nevertheless, the outright turnover ratio descended to a ten-year low of 5.7% in February owing to the Chinese Lunar New Year holidays, but reversed to increase slightly in March (Chart 3.3).

Yield spread remained at a low level

At the beginning of April 2012, the Ministry of Economic Affairs announced a policy to scrap restrictions on fuel and electricity price increases. In response, the CBC strengthened its open market operations to absorb market liquidity in an attempt to prevent fuel and electricity price rises from pushing inflation expectations upwards, leading to a significant rise in the

Chart 3.4 Outright and repo transactions in the bond market



Source: CBC.

⁴⁵ Based on CBC data, the average share of central government bonds held by banks accounted for 45.60% in 2012, increasing by 2.23 percentage points over the previous year.

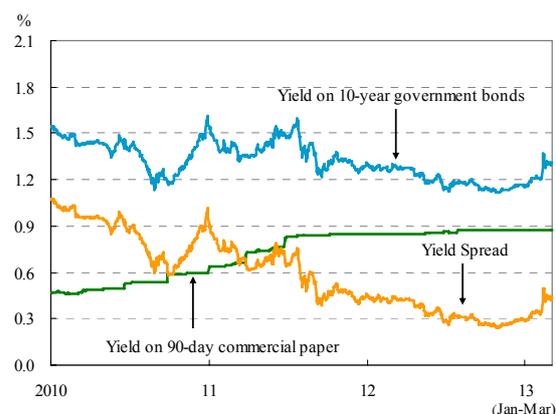
⁴⁶ Based on FSC data, the outstanding market share of corporate bonds and debentures issued, excluding international bonds, registered 33.56% at the end of 2012, but the market share of outright transactions of corporate bonds and debentures merely reached 14.17%.

overnight interbank call-loan rate. In the second half of 2012, affected by continued slowdown in the domestic economy, and low private funding demand, the overnight interbank call-loan rate regained stability from August onwards after trending down. However, due to ample market liquidity, the yield on 90-day commercial paper in the secondary market was affected less by the CBC's open market operations and remained relatively stable.

Long-term market rates were affected mainly

by international financial conditions and domestic stock market performance. In the first half of 2012, the expansion of the European sovereign debt crisis, slowdown in Mainland China's economic growth and faltering US economic recovery weakened domestic economy. As a result, trading value in the stock market significantly contracted and capital flowed into the bond markets, leading to a downward trend in the yield on 10-year government bonds. From the second half of the year, the yield on 10-year government bonds reversed to trend upward in response to rises in US government bond yields and domestic stock prices. However, it declined from September onwards following a drop in the stock market and dipped to an annual low of 1.1153% in November, with the yield spread between short-term and long-term rates moving down to 25 basis points. Afterwards, the yield on 10-year government bonds reversed to trend up, affected by the rebound of the stock market. In 2013 Q1, the yield on 10-year government bonds kept rising, and the yield spread expanded to 44 basis points (Chart 3.5).

Chart 3.5 Yield spread



Note: Yield spread refers to yield on 10-year government bonds minus yield on 90-day commercial paper.

Source: Bloomberg.

3.1.2 Equity markets

Stock indices trended up, while volatility stabilized after trending down

Spurred by the robust performance of global stock markets and massive net buying by foreign investors, the TAIEX of the TWSE market hit an annual high of 8,144 on 2 March after beginning the year at 6,952. However, dampened by lower-than-expected economic performance in Europe and the US, the reintroduction of a stock trading income tax, and rising oil and electricity prices, the TAIEX dipped to an annual low of 6,895 on 4 June. In 2012 Q3, due to the strengthening of global stock markets, the TAIEX climbed and reached a new high of 7,782 on 19

September. Afterwards, owing to a case of fraud regarding the commissioned management of government pension funds and additional dividends charged for the Supplementary Insurance Premium of National Health Insurance, the TAIEX dropped but subsequently rebounded to 7,699 at the end of December, increasing by 8.87% year on year. During 2013 Q1, the TAIEX continued on its upward path, and reached 7,919, an increase of 2.85% from the end of 2012 (Chart 3.6).

Taiwan's GreTai Securities Market (GTSM) Index of the OTC market closely tracked the movements of the TAIEX, sliding down after hitting an annual high of 120 in March, but regained its upward tendency in late November and reached 103 at year-end 2012, with an annual rise of 10.01%. Similarly, the figure climbed to 114 at the end of March 2013, an increase of 10.65% from the end of 2012 (Chart 3.6).

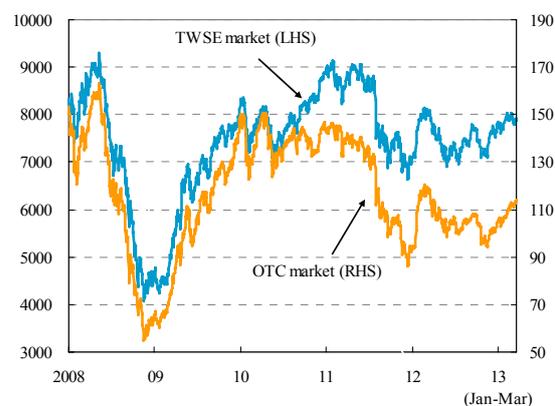
All major stock markets showed positive performances in 2012, though the Thai Index outperformed others with a rise of 35.76%.

Compared to major stock markets around the world, the TAIEX climbed by a solid 8.87%, approximately equal to that of South Korea (Chart 3.7).

Broken down by sector, most sector indices in the TWSE market entered bullish territory in 2012, except the Plastics, Oil, Gas and Electricity, Communications and Internet, and Electronic Products Distribution Industry indices, which were all negative performers. The indices for Automobiles and Building Materials and Construction performed the best, increasing by 32.39% and 24.42%, respectively.

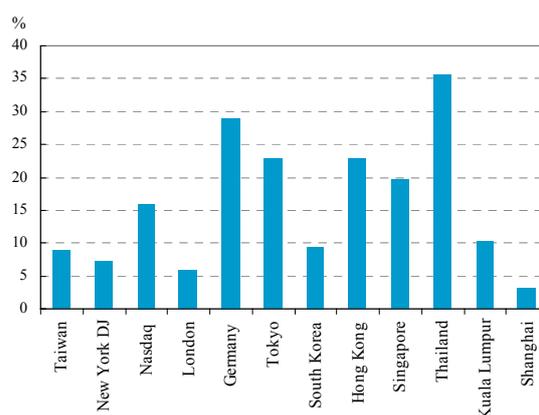
In 2012, the volatility in the TWSE and OTC markets stabilized after trending down, standing at 13.21% and 15.98%, respectively, at the end of December. At the beginning of 2013, the volatility in the TWSE and OTC markets kept trending downward as the local stock indices

Chart 3.6 Taiwan stock market indices



Sources: TWSE and GTSM.

Chart 3.7 Comparison of major stock market performances



Notes: 1. Figures are for 2012.

2. Taiwan's data is for the TWSE market.

Source: TWSE.

continued to gain stability, standing at 10.18% and 10.78%, respectively, at the end of March (Chart 3.8).

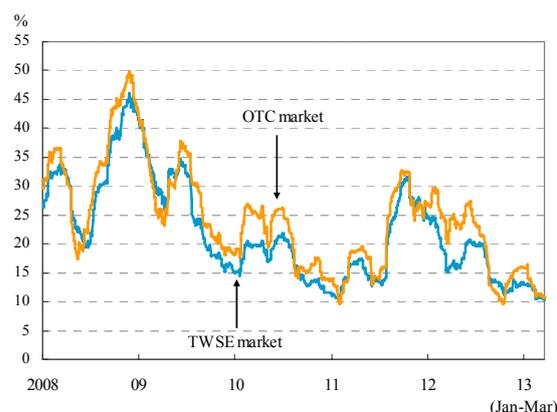
Annual turnover ratio hit a new low

The TWSE and OTC markets both experienced sluggish conditions in 2012, with the average monthly trading value on the TWSE market registering NT\$1.69 trillion, a dramatic contraction of 22.75% year on year, while its turnover ratio in terms of trading value in the same year declined to 97.33%, touching a 10-year low. The transaction volume in the OTC market performed even more lethargically. The average monthly trading value was only NT\$246 billion in 2012, a decrease of 26.07% year on year. Reflecting this, the annual turnover ratio of the OTC market fell to 174.80% from 223.36% a year earlier, registering a 10-year record low (Chart 3.9). In February 2013, affected by the Chinese Lunar New Year holidays, the turnover ratios and monthly

trading values in the TWSE and OTC markets continued their downward direction.

Compared to major stock markets around the world, the annual turnover ratio in the TWSE market in 2012 was approximately equal to the stock markets in New York, Germany and Tokyo, but higher than those in London, Hong Kong, Singapore and Kuala Lumpur (Chart 3.10).

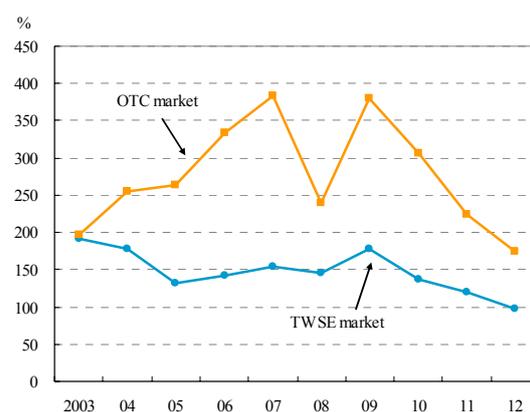
Chart 3.8 Stock price volatility



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

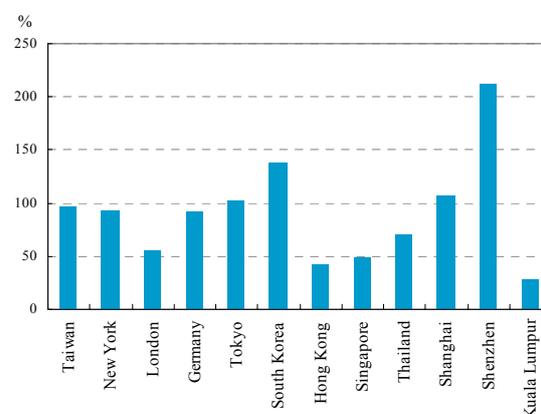
Sources: TWSE, GTSM, and CBC.

Chart 3.9 Annual turnover ratios in Taiwan's stock markets



Sources: TWSE and GTSM.

Chart 3.10 Comparison of turnover ratios in major stock markets



Notes: 1. Figures refer to accumulated turnover ratios in 2012.
2. Taiwan's data is for the TWSE market.

Source: TWSE.

3.1.3 Foreign exchange market

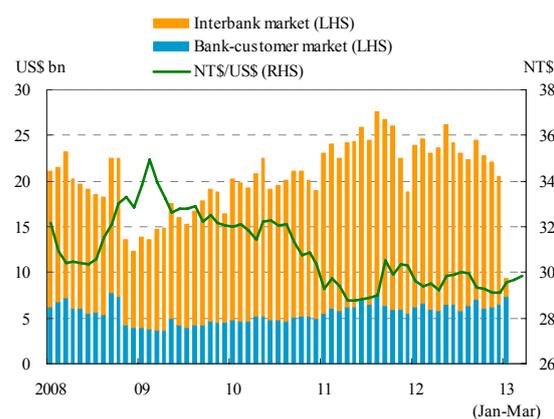
The NT dollar exchange rate reversed from appreciation to depreciation and the trading volume decreased slightly

In 2012 Q1, the NT dollar exchange rate kept appreciating, reaching 29.232 against the US dollar on 30 April. Afterwards, it turned to a period of depreciation and fell to 30.206 against the US dollar in late July, mainly owing to global political and economic turmoil and foreign capital outflows. However, the NT dollar exchange rate reversed to appreciate and reached an annual high of 29.090 in early November in virtue of foreign capital inflows to Asian emerging markets arising from a third round of quantitative easing in the US in September 2012, but then turned to depreciation and stood at 29.136 against the US dollar at the end of December, increasing by 3.96% year on year (Chart 3.11).

In early 2013, the NT dollar exchange rate fluctuated within a narrow range. However, due to the quantitative monetary easing introduced by the BOJ in late January, the value of the yen went down significantly, which caused the Korean won, the Singapore dollar and other currencies in Asia to depreciate against the US dollar. Furthermore, as a result of purchases of US dollars by firms and increasing capital outflows by foreign investors, the NT dollar exchange rate turned to a period of depreciation, reaching 29.875⁴⁷ against the US dollar at the end of March.

Compared to other major currencies in Asia, the appreciation of the NT dollar against the US dollar was 3.96%, lower than the Korean won's 7.58% and the Singapore dollar's 6.17%, but slightly higher than the Malaysian ringgit's 3.72% in 2012, while the only currency to depreciate was the Japanese yen, sliding by 10.14%. In 2013 Q1, the Japanese yen continued to depreciate, falling by 8.23%. Moreover, the NT dollar depreciated by 2.47%, lower than the drop of 3.65% in the Korean won (Chart 3.12).

Chart 3.11 NTD/USD exchange rate and foreign exchange market trading volume



Notes: 1. Trading volume is the monthly average of daily data, while exchange rate is end-of-period data.
2. Latest data for trading volume is as of January 2013.
Source: CBC.

⁴⁷ In early April 2013, owing to the quantitative and qualitative monetary easing introduced by the BOJ and greater concerns over tension on the Korean Peninsula, the NTD/USD exchange rate kept depreciating, reaching 30.060 on 8 April. As a result of the large depreciation and the ensuing sales of US dollars by firms, the NT dollar exchange rate turned to appreciate, reaching 29.616 against the US dollar on 30 April.

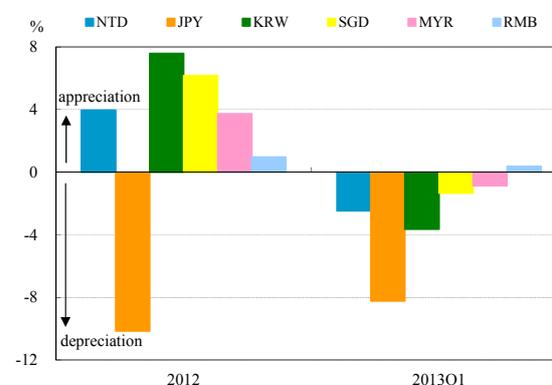
As for the NT dollar against other key international currencies, as a result of the significant depreciation of the yen, the NT dollar appreciated against the yen by 15.69% in 2012; in addition, it appreciated by 1.53% against the euro. Conversely, the NT dollar depreciated by 0.48% and 3.37% against the British pound and the Korean won, respectively, over the same period (Chart 3.13).

Owing to relatively large domestic and international capital movements, the average daily trading volume of the foreign exchange market reached US\$23.4 billion in 2012. Nevertheless, this represented a slight decrease of 3.15% compared to US\$24.2 billion a year earlier, primarily because of a decline in the trading volume of the interbank market (Chart 3.11). A breakdown by counterparty shows that the average daily trading volume in the interbank market accounted for 73.11% of the total in 2012, while the retail bank-customer market made up a 26.89% share. As for types of transactions, foreign exchange swaps accounted for 43.41% of the total, followed by spot trading with 38.17%.

NT dollar exchange rate volatility remained relatively stable

The volatility in the NT dollar exchange rate against the US dollar fluctuated between 1% and 5% in 2012, and registered an annual average of 2.57%. In early 2013, with the quantitative monetary easing introduced by the BOJ, the volatility in the NT dollar exchange rate against the US dollar trended upwards, but fell below 3% from the middle of March. The NT dollar exchange rate was relatively stable compared to the volatility in the exchange rates of major currencies such as the Japanese yen, euro, Korean won and Singapore dollar against the US

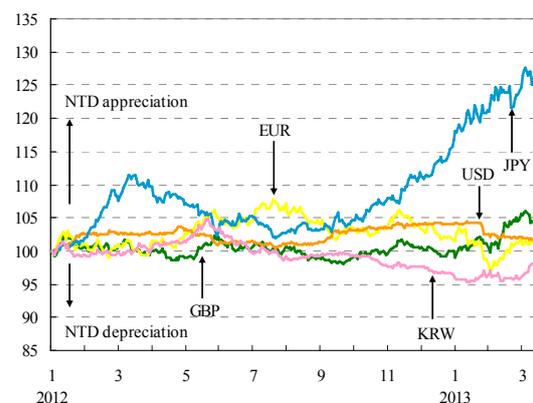
Chart 3.12 Appreciation and depreciation percentages of major Asian currencies against the US dollar



Note: Positive figures refer to exchange rate appreciation, and negatives to depreciation.

Source: CBC.

Chart 3.13 Movements of NT dollar exchange rate against key international currencies



Note: 2 January 2012 = 100.

Source: CBC.

dollar (Chart 3.14).

3.2 Financial institutions

3.2.1 Domestic banks

In 2012, the total assets of domestic banks accumulated at a slower pace due to the moderate growth rate in loans. Asset quality remained satisfactory and the credit concentration of corporate loans declined continuously; nevertheless, credit exposure in the real estate loans remained high. The estimated VaR for market risk exposures of domestic banks had limited influence on their capital adequacy. Moreover, liquidity risk was moderate as the banking system benefited from ample liquidity. The profitability of domestic banks reached a record high in 2012 with a sustained improvement in capital adequacy, strengthening the capability of domestic banks to bear risks.

Total assets increased continually, while growth slowed

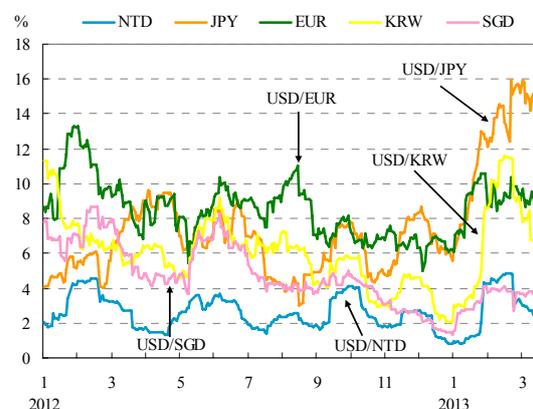
The total assets of domestic banks kept growing and reached NT\$37.03 trillion at the end of 2012, equivalent to 263.69% of annual GDP (Chart 3.15). However, the annual growth rate of total assets decreased to 4.91% from 5.53% a year earlier, due to a slowing trend in loan growth.

Credit risk

Customer loan growth slowed

Customer loans were the major source of credit risk for domestic banks. Outstanding loans of

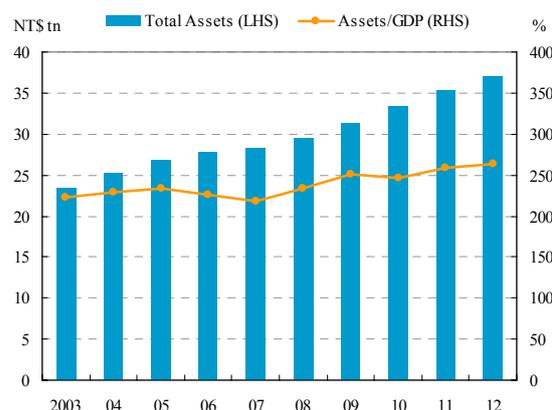
Chart 3.14 Exchange rate volatility of various currencies against the US dollar



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

Source: CBC.

Chart 3.15 Total assets of domestic banks



Note: Total assets are end-of-period figures.

Sources: DGBAS and CBC.