

IV. Financial sectors

4.1 Financial markets

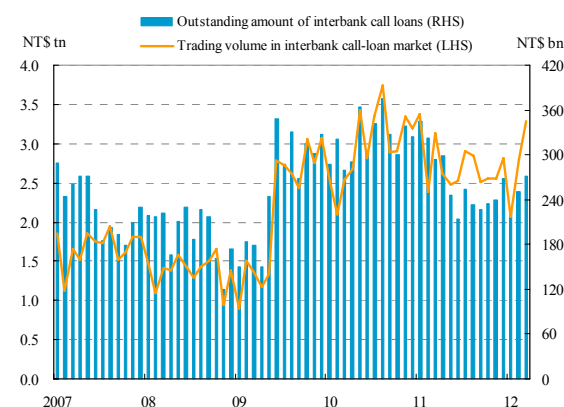
In 2011, trading volume contracted in both the interbank call-loan and bond markets, while trading volume trended upwards in the bills market. The yield spread between long-term and short-term rates still remained at a low level. As for the domestic stock markets, stock indices trended downward after reaching record highs in the first half of 2011, and volatility sharply increased before falling back. 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 increased gradually.

4.1.1 Money and bond markets

Trading volume contracted in interbank call loans

In 2011, the average monthly trading volume of interbank call loans declined by 7.85% year on year, and the average daily outstanding amount also declined by 17.55% over the previous year. The reason was primarily because the CBC significantly raised the reserve requirement ratio for the NT dollar demand deposits of foreign investors,⁵² leading to a significant decline in the trading volume of interbank call loans provided by foreign banks which serve as custodian banks for foreign portfolio investors. In 2012 Q1, the trading volume of

Chart 4.1 Interbank call-loan market



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

⁵² The Special Reserve Requirement for New Taiwan Dollar Demand Deposits as amended on 30 December 2010 requires that financial institutions shall set aside reserves for the NTD demand deposits of overseas Chinese and foreign nationals, foreign institutional investors and Mainland Chinese investors effective from 1 January 2011. The reserve requirement ratio shall be 90 percent for the portion of the aforementioned demand deposits balance exceeding the outstanding balance of 30 December 2010, and 25 percent for the portion not exceeding the 30 December 2010 level. Both are higher than the general demand deposits reserve ratio of 9.775%.

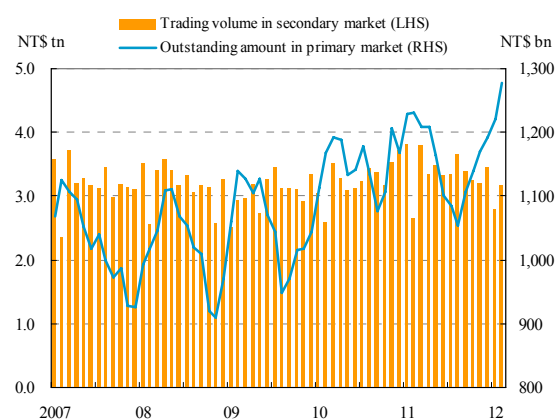
interbank call loans descended markedly in January owing to the Chinese Lunar New Year holidays, and then rebounded from February onwards (Chart 4.1).

Trading volume in the primary and secondary bills markets rebounded

In the first three quarters of 2011, the outstanding amount of bills issuance saw a declining trend in the primary bills market, though it reversed to a rising trend from September onwards. The reason was primarily because the buildup of economic downside risks in the second half of 2011 caused the CBC to stop raising policy rates in the third quarter of the year. As a result, bond traders adjusted to adopt an active strategy based on the expectation of dropping market rates, leading to an apparent upsurge in the underwriting of commercial paper and extension of bills positions. Therefore, the outstanding amount of bills issuance at the end of 2011 rose by 2.16% year on year. Broken down by instruments, the outstanding issuance amount of certificates of deposit at the end of 2011 increased by 15.45% and commercial paper rose by 7.60%, while that of treasury bills declined by 24.9%. Moreover, in the first two months of 2012, the outstanding amount of bills issuance remained high, reflecting a rebound in the primary bills market.

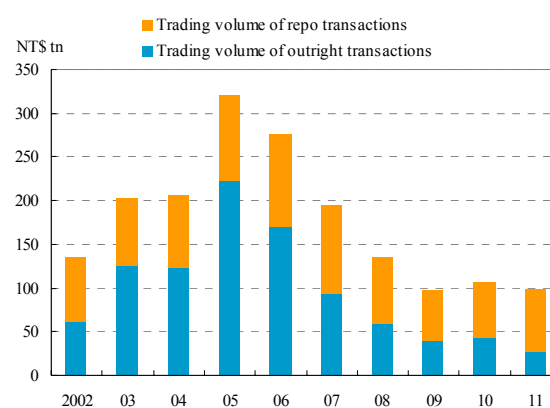
As for the secondary bills market, its trading volume,⁵³ affected by an increase in the issuance of commercial paper and certificates of deposit, rose by 4.25% year on year in 2011 (Chart 4.2). After a remarkable decline in January 2012 affected by the Chinese Lunar New Year holidays, the trading volume soared from February onwards.

Chart 4.2 Primary and secondary bills markets



Sources: CBC and FSC.

Chart 4.3 Outright and repo transactions in the bond market



Source: CBC.

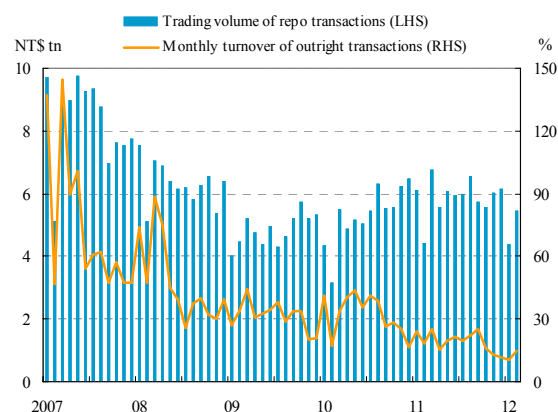
⁵³ Source: FSC.

Trading volume in the bond market continued to decline, while yield spread ranged at a low level

In 2011, the bond market was still sluggish, and trading volume declined by 8.00% year on year. Of the components, outright transactions dropped significantly by 37.03%, while repo transactions increased by 11.44% (Chart 4.3). Outright transactions were sluggish owing to ample liquidity and less bonds being traded in the market. From October onwards, affected by the looming prospect of future interest rate cuts and bond traders' lack of willingness to trade by the end of the year, outright transactions dropped significantly and their monthly turnover ratio fell to a trough of 11.75% in December 2011, a ten-year low. In early 2012, the outright turnover ratio descended to a remarkable low of 10.30% in January owing to the Chinese Lunar New Year holidays, but reversed to increase in February (Chart 4.4). It is expected that the trading volume of outright transactions will remain at a low level in 2012.

In the first half of 2011, following the CBC's two policy rate rises, short-term market rates and government bond yields both climbed. However, from August onwards, capital inflows into the bond market in the wake of the European sovereign debt crisis led to financial market turmoil as government bond yields declined to annual lows. This resulted in a shrinkage in yield spread between short-term and long-term rates down to 42 basis points in late September, though yield spread widened afterwards for a short time. In March 2012, the same yield spread remained at a low level of only 46 basis points (Chart 4.5).

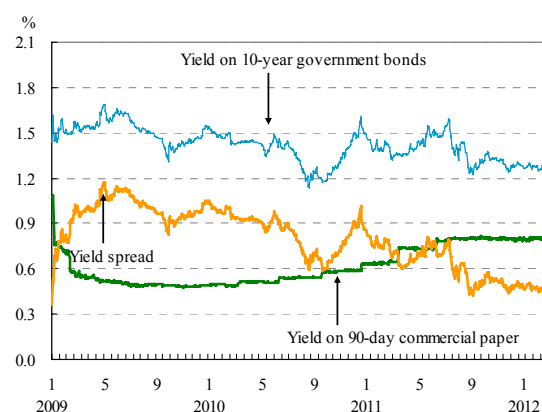
Chart 4.4 Bond transactions and turnover



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

Sources: CBC and FSC.

Chart 4.5 Yield spread



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

Source: Bloomberg.

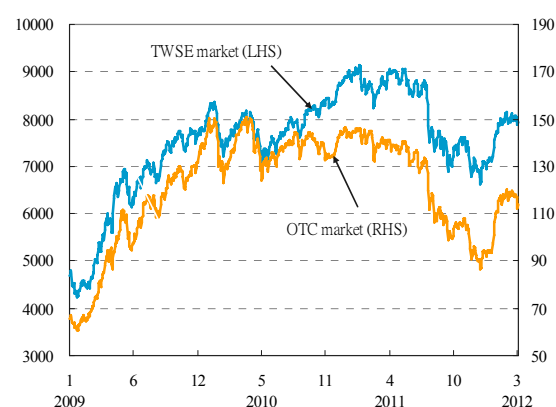
4.1.2 Equity markets

Stock indices trended down after hitting new highs, while volatility dropped after sharp increases

The Taiwan Stock Exchange Weighted Index (TAIEX) of the Taiwan Stock Exchange (TWSE) market hit a new high of 9,145 in late January 2011, spurred by the robust performance of the US stock market and massive net buying by foreign investors. However, the TAIEX dropped to a first-quarter low of 8,235 on 15 March, owing to the repatriation of foreign capital arising from political and economic turmoil in several countries and the earthquake in Japan. Afterwards, it fluctuated within a narrow range. From August onwards, driven by the spillover effects of the European sovereign debt crisis, a revision of America's long-term credit rating from stable to negative and the slower-than-expected global economic recovery, coupled with the net stock selling by foreign investors,⁵⁴ the TAIEX resumed its downward trend and dipped to an annual low of 6,633 on 19 December. It rebounded to 7,072 at the end of December, decreasing by 21.18% year on year. In the beginning of 2012, the brighter outlook for European and US recoveries caused major stock markets around the world to soar. Furthermore, investor confidence was restored and foreign investors resumed net buying positions as uncertainties receded with the end of the presidential election in Taiwan. This propelled the TAIEX to soar up to 7,933 at the end of March 2012, an increase of 12.17% from the end of December 2011. Meanwhile, Taiwan's GreTai Securities Market (GTSM) Index of the over-the-counter (OTC) market closely tracked the movements of the TAIEX, hitting a high of 146 in January before skidding to 94 at year-end 2011. This represented an annual decrease of 34.78%. Similarly, the figure climbed to 114 at the end of March 2012, an increase of 20.98% from the end of 2011⁵⁵ (Chart 4.6).

Compared to major stock markets around the world, most markets showed negative performance in 2011 except for New York's Dow Jones and Kuala Lumpur's Composite Index. The fall of the TAIEX approximately

Chart 4.6 Taiwan stock market indices



Sources: TWSE and GTSM.

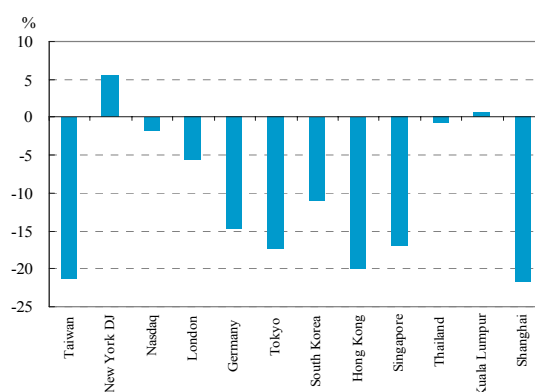
⁵⁴ In August 2011, foreign investors (foreign institutional investors, overseas Chinese, and foreign individual investors) were net sellers of NT\$190.3 billion worth of securities in Taiwan, with the net selling amount reaching a new high for a single month since May 2010.

⁵⁵ In April 2012, the TAIEX reversed its upward trend and closed at 7,502 by the end of the month, owing to the reintroduction of a stock trading income tax and greater concerns over the European sovereign debt crisis. The index's increase narrowed to 6.08% over the previous year-end. Correspondingly, the GTSM index fell to 106 in April 2012, a rise of only 12.78% compared to the end of 2011.

equaled those of the stock indices of Hong Kong and Shanghai (Chart 4.7).

Broken down by sectors, most sector indices in the TWSE market tumbled in 2011, except the Cement, Food, Rubber and Automobile Industry indices which maintained positive performances. Among these indices, the Rubber Index performed the best and increased by 10.16% due to a rise in aggregate demand from Mainland China and the magnification of overall manufacturing capacity. By contrast, the Optoelectrical Industry Index performed the poorest, with a drop of 50.56% throughout the year. This reflected notable losses in the TFT-LCD and the light-emitting diode (LED) industries. In 2012 Q1, most indices, excluding the Oil, Gas and Electricity Industry Index, entered bullish territory following the upward trend of the TAIEX. The Automobile Index outperformed others, with a rise of 34.63%. Additionally, the Optoelectrical Industry Index reversed its downward trend and surged by 20.26%, thanks to the brightening industry outlook.

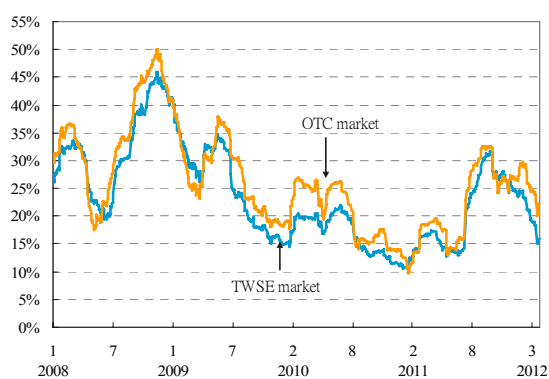
Chart 4.7 Comparison of major stock market performances



Notes: 1. Figures are for 2011.
2. Taiwan's index is for the TWSE market.

Source: TWSE.

Chart 4.8 Stock price volatility



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

Sources: TWSE, GTSM and CBC.

Equity market volatility settled at a low level in the first half of 2011. From the second half of the year, in response to sharp falls in the TWSE and OTC indices, volatility in the markets became amplified and reached annual highs in October, but then declined slightly to 24.95% and 27.03%, respectively, at the end of December. In 2012 Q1, the volatility in the TWSE and OTC markets trended downward as the local stock market gained stability, standing at 15.86% and 22.24%, respectively, at the end of March (Chart 4.8).

Annual turnover ratio hit a new low

The TWSE and OTC markets were both sluggish in 2011. The average monthly trading value in the TWSE market was NT\$2.18 trillion, a decrease of 7.16% year on year, while its annual

turnover ratio in terms of trading value in the same year declined to 119.87%, touching a 10-year low. The transaction volume in the OTC market performed even more lethargically. The average monthly trading value was only NT\$332.8 billion in 2011, a decrease of 29.12% year on year. Reflecting this, the annual turnover ratio of the OTC market significantly fell to 223.36%, registering a record low since 2004 (Chart 4.9). In January 2012, affected by the Chinese Lunar New Year holidays, the annual turnover ratios and monthly trading values in the TWSE and OTC markets followed a downward direction. However, the numbers witnessed a rebound in February as the local stock markets staged revivals.

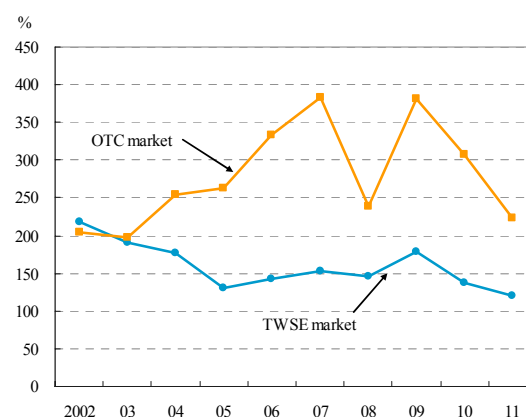
Compared to major stock markets around the world, the annual turnover ratio in the TWSE market in 2011 was lower than the stock markets in New York, South Korea, Shanghai and Shenzhen, while approximately equal to that in Germany, but higher than those in London, Tokyo, Hong Kong, Singapore, Thailand and Kuala Lumpur (Chart 4.10).

4.1.3 Foreign exchange market

NT dollar exchange rate reversed from appreciation to depreciation and foreign exchange trading volume increased gradually

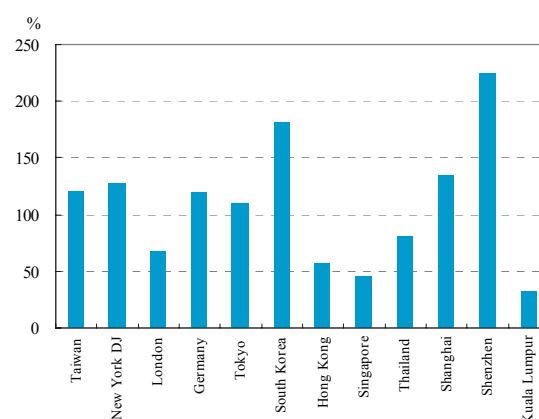
Due to quantitative easing in the US and foreign capital inflows, the NT dollar exchange rate kept appreciating in early 2011, reaching 29.1 against the US dollar on 9 February. Afterwards, it turned to a period of depreciation mainly owing to the increasing hedging needs for US dollars arising from global political and economic turmoil and the withdrawal of foreign capital from emerging markets. However, the NT dollar exchange rate reversed

Chart 4.9 Annual turnover ratios in Taiwan's stock markets



Sources: TWSE and GTSM.

Chart 4.10 Comparison of turnover ratios in major stock markets



Notes: 1. Figures refer to accumulated turnover ratios in 2011.
2. Taiwan's figure is for the TWSE market.

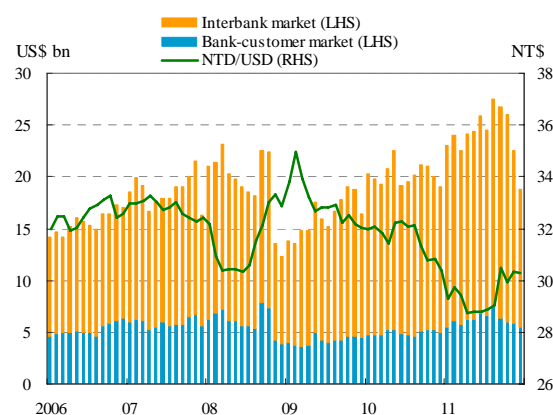
Source: TWSE.

from depreciation to appreciation and reached an annual high of 28.632 in early May in virtue of a weak US dollar caused by the Standard and Poor's (S&P) revision of the long-term US credit rating outlook from stable to negative in April.

In the second half of 2011, with the massive repatriation of foreign capital alongside the hedging needs for US dollars caused by the worsening European sovereign debt crisis, the NT dollar exchange rate entered into a period of depreciation again and fell to a yearly low of 30.680 in early October, but then turned to appreciation and stood at 30.290 against the US dollar at the end of December (Chart 4.11). From early 2012, due to the weakening US dollar stemming from the European Union reaching a consensus on the Greek bailout, together with continued capital inflows by foreign investors and increasing sales of the US dollar by firms, the NT dollar exchange rate continued appreciating, reaching 29.530 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 merely 0.26%, lower than the Japanese yen's 4.83% and the renminbi's 4.70%. Meanwhile, the Korean won, Singapore dollar and Malaysian ringgit depreciated by 1.48%, 1.22% and 2.94%, respectively (Chart 4.12).

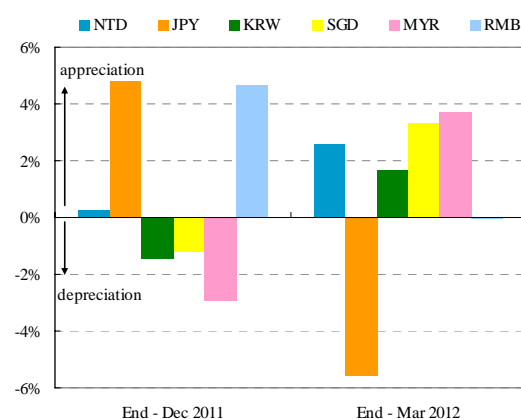
As for the NT dollar against other key international currencies, the value of the yen went up significantly as a result of the increasing hedging needs for international funds, and even though the Japanese government stepped in to intervene in the market, the effect was limited. As a result, the NT dollar depreciated against the yen by 4.37% year on year at the end of 2011. Conversely, the NT dollar appreciated by 0.73% and 3.54% against the British pound

Chart 4.11 NTD/USD exchange rate and foreign exchange market trading volume



Note: Trading volume is the monthly average of daily data, while exchange rate is end-of-period data.
Source: CBC.

Chart 4.12 Appreciation and depreciation percentages of major Asian currencies against the US dollar



Note: Figures refer to exchange rates as of the end of 2011 and end-March 2012 compared to those as of the end of 2010 and 2011, respectively.
Source: CBC.

and the euro, respectively, over the same period; in addition, it appreciated by 1.76% against the Korean won (Chart 4.13).

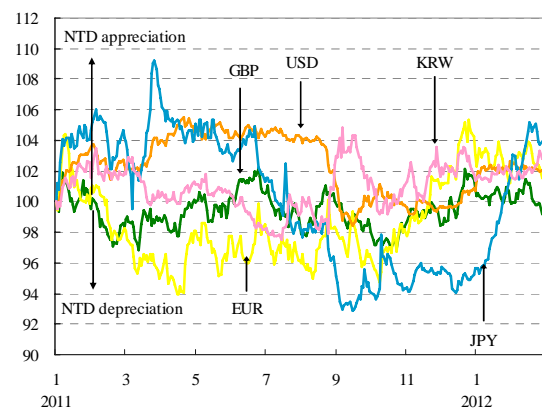
Owing to continued export growth and relatively large international capital movements, the foreign exchange market became more active in 2011 as the average daily trading volume registered US\$24.2 billion, increasing by 19.46% year on year (Chart 4.11). A breakdown by counterparties shows that the average daily trading volume in the interbank market accounted for 74.27% of the total in 2011, while the retail bank-customer market made up a 25.73% share. As for types of transactions, spot trading accounted for 42.80% of the total, followed by foreign exchange swaps with 40.82%.

NT dollar exchange rate volatility leveled off after an upward trend and remained relatively stable compared to other currencies

The volatility in the NT dollar exchange rate against the US dollar fluctuated between 3% and 5% in the first half of 2011, and then intensified from September and peaked at 7.47% in the middle of October. However, the volatility moderated at the end of the year and registered an annual average of 4.25%. In early 2012, the volatility in the NT dollar exchange rate against the US dollar continued its downward trend and fell below 2% during the first quarter of the year, thus pushing the quarterly average volatility over the same period down to a much milder figure of 3.14% (Chart 4.14).

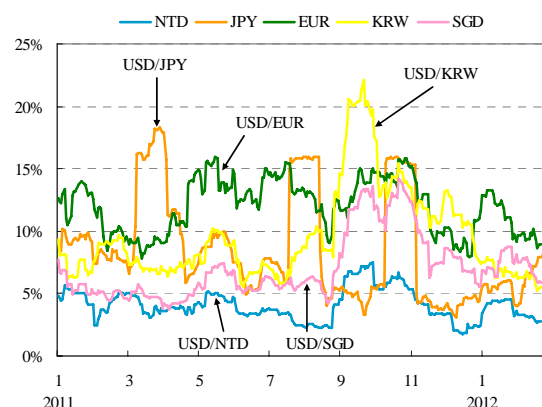
The CBC adopts a managed floating exchange rate regime, where in principle the exchange rate is determined by supply and demand in the foreign exchange market. If the market is

Chart 4.13 Movements of NT dollar exchange rate against key international currencies



Note: 3 January 2011 = 100.
Source: CBC.

Chart 4.14 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.

disrupted by seasonal or irregular factors (e.g. large inflows or outflows of short-term capital), causing the exchange rate to become excessively volatile, the CBC may step in to maintain an orderly foreign exchange market. Though the volatility in the NT dollar exchange rate against the US dollar temporarily increased in 2011, 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 dollar (Chart 4.14).

4.2 Financial institutions

4.2.1 Domestic banks

In 2011, the total assets of domestic banks continually accumulated; however, the annual loan growth rate moderated. Asset quality remained satisfactory and credit risk concentration declined slightly; nevertheless, credit exposure concentrated in the real estate market remains high. The estimated VaR for market risk exposures of domestic banks had limited influence on their capital adequacy. Meanwhile, liquidity risk was moderate as the banking system benefited from ample liquidity. The profitability of domestic banks amplified sharply with a sustained improvement in capital adequacy in 2011, strengthening the capability of domestic banks to bear risks.

Total assets continually accumulated

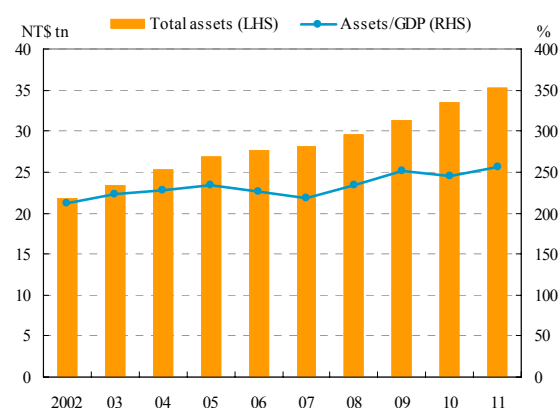
The total assets of domestic banks kept growing and reached NT\$35.3 trillion at the end of 2011, equivalent to 256.79% of annual GDP (Chart 4.15), while the annual growth rate of total assets decreased to 5.53% from 6.73% a year earlier. The main reason behind this was a decline in the outstanding amount of due from banks and interbank borrowings.

Credit risk

Customer loan growth slowed

Customer loans were the major source of credit risks for domestic banks. Outstanding loans of the local business units of domestic

Chart 4.15 Total assets of domestic banks



Note: Total assets are end-of-period figures.
Source: DGBAS and CBC.

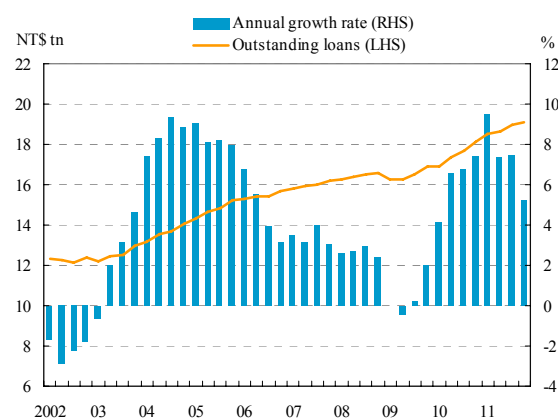
banks⁵⁶ at the end of 2011 stood at NT\$19.10 trillion and accounted for 54.11% of total assets.

In 2011 Q1, due to a notable rise in loans to government agencies and a lower base compared to a year earlier, the annual loan growth rate increased significantly and reached a 10-year high of 9.47% in March. However, the annual growth rate moderated from the second quarter of the year onwards due to spillovers from the European sovereign debt crisis that shocked the global economy, as well as the implementation of the Specifically Selected Goods and Services Tax, which resulted in a reduction in the funding demands for corporate loans and individual mortgage loans. As a result, the annual loan growth rate declined to 5.21% in December (Chart 4.16). By category of the borrowers, the annual growth rate of individual loans decreased to 3.84% in December from 8.02% a year earlier, and the annual growth rate of corporate loans reached 8.23%, approximately equal to the figure at the end of 2010.

The concentration of credit exposure in real estate-related loans improved but remains high

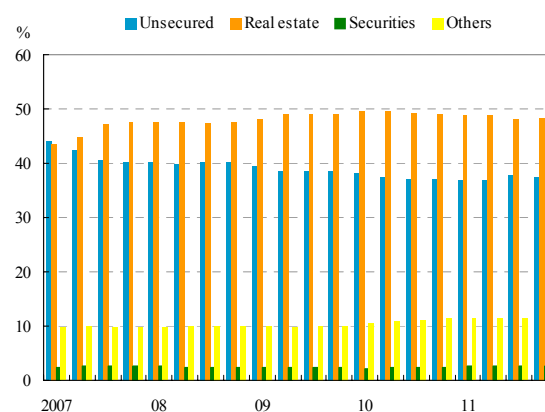
Outstanding real estate-related loans⁵⁷ granted by the local business units of domestic banks moderated throughout the year but sustained a high level of NT\$8.46 trillion, accounting for 44.30% of total loans as of the end of 2011. Meanwhile, real estate-secured credit granted by domestic banks amounted to NT\$11.0 trillion, or 48.32% of total credit,⁵⁸ over the same period. The ratio declined gradually on a quarterly basis, but remains high (Chart 4.17).

Chart 4.16 Outstanding loans and annual loan growth rate in domestic banks



Note: Outstanding loans are end-of-period figures.
Source: CBC.

Chart 4.17 Credit by type of collateral in domestic banks



Note: End-of-period figures.
Source: CBC.

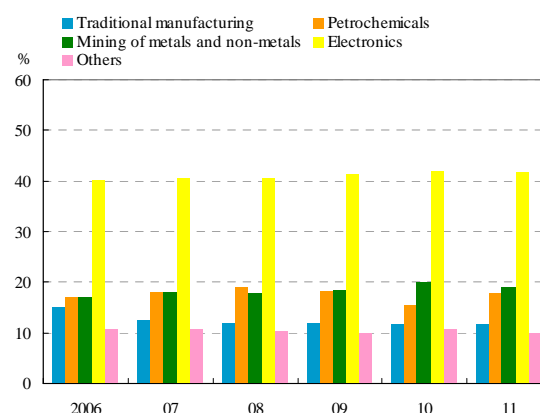
⁵⁶ The term “local business units of domestic banks” excludes Offshore Banking Units and overseas branches. The term “customer loans” herein refers to discounts, overdrafts, other loans and import bills purchased. It excludes export bills purchased, non-accrual loans and interbank loans.

⁵⁷ The term “real estate-related loans” herein refers to lending by local business units of domestic banks to corporations and individuals for purchasing real estate.

⁵⁸ The term “credit” herein includes loans, guarantee payments receivable and acceptances receivable.

Among individual banks, ten had ratios of real estate-secured credit to total credit of over 60%. The number shrank from thirteen a year earlier, reflecting an improvement in the concentration of credit exposure in real estate-related loans. Recently, however, real estate market conditions in some areas with ample housing supply sharply cooled down, placing a buildup of downward adjustment pressure on house prices. Therefore, it would be advisable for banks with credit exposure highly concentrated in real estate-related loans in these areas to review their credit exposure and management to cope with potentially higher credit risks.

Chart 4.18 Weight of loans to the manufacturing sector by domestic banks



Notes: 1. End-of-period figures.
 2. Weight of each sector = loans to each sector / loans to the whole manufacturing sector.
 3. See note 59 for the definition of manufacturing sector.
 Source: CBC.

Industrial credit concentration of corporate loans gradually declined

Outstanding corporate loans of the local business units of domestic banks stood at NT\$8.58 trillion at the end of 2011, while loans to the manufacturing sector registered NT\$3.93 trillion and accounted for the largest share of 45.82% of the total.

Within the manufacturing category,⁵⁹ the largest proportion of loans was for the electronics industry, which stood at NT\$1.63 trillion and accounted for 41.59% of the total loans to the whole manufacturing sector (Chart 4.18). The ratio slightly decreased from 42.03% one year earlier, reflecting a descending industrial credit concentration. A few TFT-LCD and DRAM manufacturers suffered great losses, revealing that the electronics industry is exposed to substantial business cycle fluctuations and a rapid transformation of products. Domestic banks should pay close attention to changes in the business cycle and the financial conditions of borrowers to contain credit risks.

The supply of credit to small and medium enterprises (SMEs) continued to grow, albeit at a slower pace in the second half of 2011 due to a funding demand decline resulting from a weakening global recovery. Consequently, outstanding corporate loans to SMEs by domestic

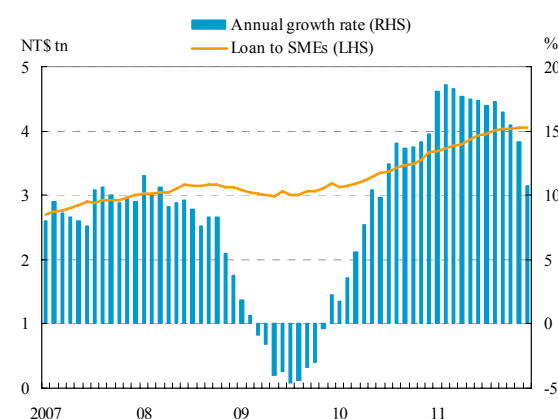
⁵⁹ Loans to the manufacturing sector are divided into four categories by industry, including (1) electronics industries, (2) mining of metals and non-metals industries, (3) petrochemicals industries and (4) traditional manufacturing industries. The remainder are classified as "others."

banks registered NT\$4.05 trillion⁶⁰ at the end of 2011, representing an annual growth rate of 10.71% (Chart 4.19). Furthermore, in line with the government's Economic Vitalization Package and measures to promote employment, the Small and Medium Enterprise Credit Guarantee Fund of Taiwan (SMEG) also implemented several projects to encourage financial institutions to lend to SMEs. As a result, the outstanding amount of loan guarantees applied for by SMEs through the SMEG rose to NT\$679.3 billion at the end of 2011, with an annual growth rate of 13.73%, and accounted for 16.76% of total SME loans. The guarantee coverage percentage also increased to 78.96% from 78.09% a year earlier. These statistics point to the favorable conditions for SMEs to acquire necessary funds, reflecting an ample supply of credit to SMEs.

Credit to customers in Mainland China accounted for a small share of total credit

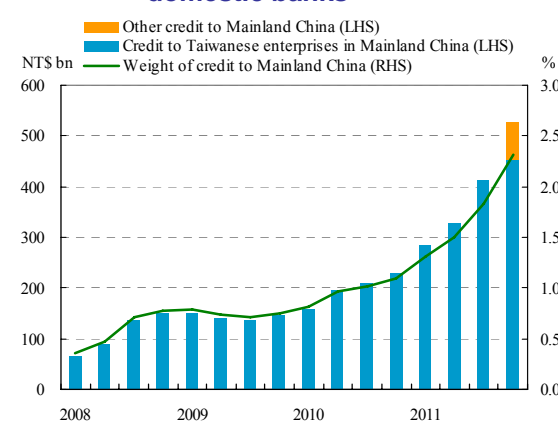
Benefiting from the marked loosening of Regulations Governing the Banking Activity and the Establishment and the Investment by Financial Institution Between the Taiwan Area and the Mainland Area,⁶¹ as well as the substantial development of domestic banks in Mainland China's market, the outstanding credit to Taiwanese enterprises in Mainland China⁶² by domestic banks at the end of 2011 registered NT\$452.1 billion, a visible year-on-year increase of 96.96%. With the addition of other credit to Mainland China,⁶³ the

Chart 4.19 Loans to SMEs by domestic banks



Source: FSC.

Chart 4.20 Credit to Mainland China by domestic banks



Note: Figure for "Other credit to Mainland China" started from December 2011.

Source: FSC.

⁶⁰ Outstanding corporate loans to SMEs of domestic banks are FSC data.

⁶¹ According to the regulations amended by the FSC on 7 September 2011, loan borrowers in Mainland China not only includes Taiwan's enterprises operating in Mainland China, but also extends to any individuals, legal persons, organizations, other institutions in the Mainland Area or their branches in any country or area outside the Mainland Area.

⁶² The term "Outstanding credit to Taiwanese enterprises in Mainland China" herein includes: (1) direct credit to Taiwanese enterprises in Mainland China; (2) credit to legal persons in any country and area outside Mainland China in which the credit line or funds are transferred for use by any Taiwanese enterprises in Mainland China.

⁶³ The term "other credit to Mainland China" herein refers to the credit to legal persons in any country and/or area outside Mainland China in which the credit line or funds are transferred for use by any Taiwanese enterprises in Mainland China.

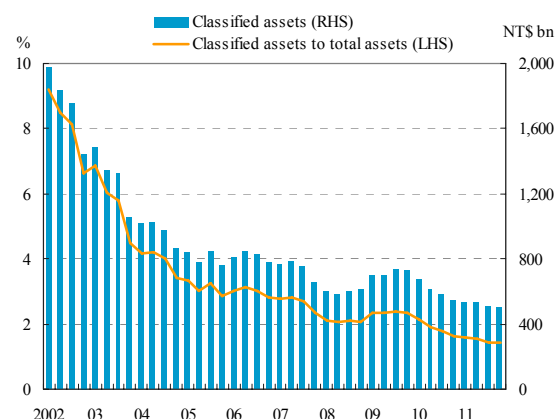
total outstanding credit to Mainland China stood at NT\$525.9 billion, accounting for only a small share of 2.31% of total loans (Chart 4.20).

The non-performing credit ratio to Mainland China reached a mere 0.03% at the end of 2011, reflecting satisfactory loan quality. Nevertheless, on the back of the “Twelfth Five-Year Plan,” wages and environmental protection costs in Mainland China are expected to grow further. This, coupled with the continued appreciation of the renminbi against the US dollar and slower global economic growth, which are both unfavorable to the competitiveness of exporting industries, points to heightened operational risks for corporations in Mainland China. Accordingly, domestic banks ought to carry out loan reviews and strengthen risk controls to reduce looming credit risks.

Asset quality remained satisfactory

Outstanding classified assets⁶⁴ and the average classified asset ratio of domestic banks stood at NT\$503.1 billion and 1.43% at the end of 2011, dropping by 8.28% and 0.21 percentage points, respectively, over the previous year (Chart 4.21). Both registered ten-year record lows, reflecting that asset quality remained satisfactory. The expected losses of classified assets stood at NT\$81.7 billion at the end of 2011, increasing by NT\$17.3 billion or 26.81% year on year. This was mainly attributed to a notable rise in category five assets that had a higher loss rate. However, the ratio of expected losses to loan loss provisions stood at 28.23%, indicating sufficient provisions held by domestic banks to cover expected losses.

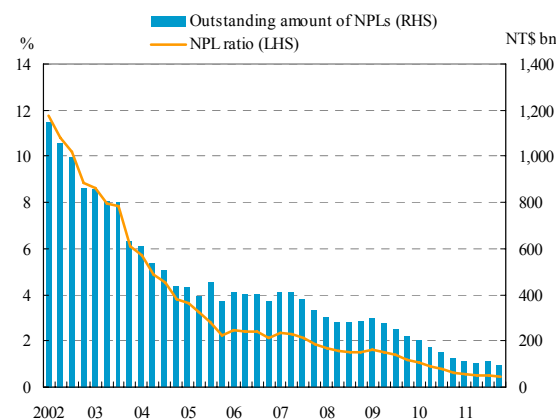
Chart 4.21 Classified assets of domestic banks



Notes: Excludes interbank loans.

Source: CBC.

Chart 4.22 NPL ratio of domestic banks



Note: Excludes interbank loans.

Source: CBC.

⁶⁴ The Regulations Governing the Procedures for Banking Institutions to Evaluate Assets and Deal with Non-performing/Non-accrual Loans break down all assets into five different categories, including: category one – normal credit assets; category two – credit assets requiring special mention; category three – substandard credit assets; category four – doubtful credit assets; and category five – loss assets. The term “classified assets” herein includes all assets classified as categories two to five.

The outstanding NPLs of domestic banks stood at NT\$94.1 billion at the end of 2011, contracting dramatically by 23.48%. Meanwhile, the average NPL ratio fell to a record low of 0.43%⁶⁵ (Chart 4.22). Among 38 domestic banks, all but three had NPL ratios less than 1%. Compared to the US and neighboring Asian countries, the average NPL ratio of domestic banks in Taiwan was similar to that of Hong Kong, but much lower than those of other countries (Chart 4.23).

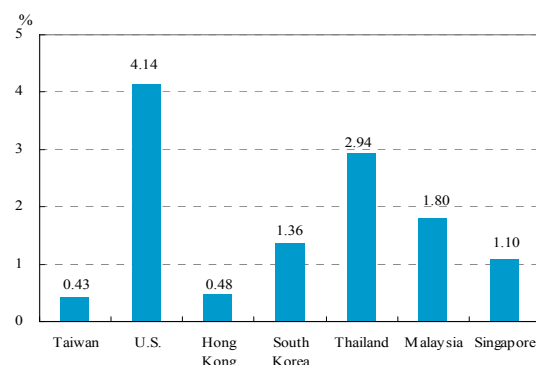
With a substantial decrease in NPLs, the NPL coverage ratio at the end of 2011 rose dramatically to 250.08%. The loan loss reserve ratio increased to 1.09% from 0.96% a year earlier as the FSC encouraged banks to increase loan loss provisions (Chart 4.24). This reflects that the capability of domestic banks to withstand potential future losses by means of loan loss provisions has been strengthening.

Market risk

Estimated Value-at-Risk for market risk exposures remained unchanged

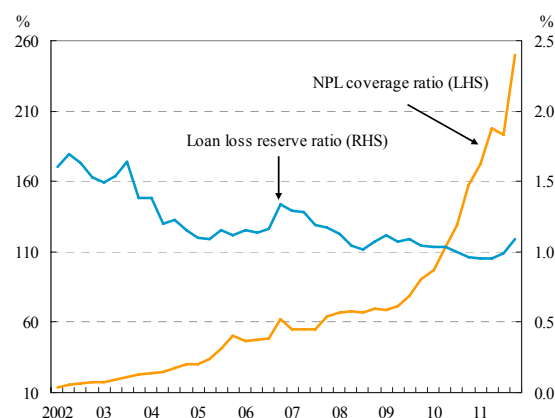
The net position of debt securities accounted for the largest share of total market risk exposures of domestic banks, followed by the net position of equity securities and foreign exchange net position at the end of 2011. Using market data as of the end of March 2012, the estimated total VaR⁶⁶ for foreign exchange, interest rate and equity exposures of domestic banks at the end of 2011 stood at NT\$128.7 billion, almost the same as that of a year earlier.

Chart 4.23 NPL ratios of banks in selected countries



Note: Figures are end-December 2011 data.
Sources: CBC, FDIC, HKMA, FSS, BOT, BNM, and MAS.

Chart 4.24 NPL coverage ratio and loan loss reserve ratio of domestic banks



Notes: 1. NPL coverage ratio = loan loss provisions / non-performing loans. Loan loss reserve ratio = loan loss provisions / total loans.
2. Excludes interbank loans.

Source: CBC.

⁶⁵ When the total exposure of domestic banks to ProMOS Technologies Inc. (which entered into delinquency in April 2012) is accounted for, the NPL ratio increased to 0.63% at the end of April.

⁶⁶ The market risk model describes dependencies among foreign exchange, interest rate and equity positions' returns series, and provides a correlation structure between returns series. By means of a semi-parametric method, the new model constructs the sample distribution function of each asset's returns series using a Gaussian Kernel estimate for the interior and a generalized Pareto distribution (GPD) estimate for the upper and lower tails. The confidence level of the model is 99%, a holding period of ten trading days is used and exposure positions are assumed unchanged. The models are estimated using 1,000 foreign exchange rate, interest rate, and equity price samples.

Among market risks, equity VaR showed a significant rise of 92.96%, affected by the intensifying European sovereign debt crisis. Interest rate VaR fell moderately as a result of stable interest rates, while foreign exchange VaR diminished substantially due to steady movement of NT dollar exchange rates (Table 4.1).

Table 4.1 Market risks in domestic banks

Unit: NT\$ bn

Types of risk	Items	End-Dec. 2010	End-Dec. 2011	Changes	
				Amount	%
Foreign exchange	Net position	57.4	60.3	2.9	5.05
	VaR	2.2	1.5	-0.7	-31.82
	VaR / net position (%)	3.83	2.49		-1.34
Interest rate	Net position	5,649.4	5,848.5	199.1	3.52
	VaR	115.8	111.5	-4.3	-3.71
	VaR / net position (%)	2.05	1.91		-0.14
Equities	Net position	516.8	536.6	19.8	3.83
	VaR	34.1	65.8	31.7	92.96
	VaR / net position (%)	6.6	12.26		5.66
Total VaR		128.4	128.7	0.3	0.23

Note: The total VaR is not equal to the sum of the VaRs of the three types of risks since it has taken the correlation among the three risk categories into consideration.

Source: CBC.

The effects of market risk on capital adequacy ratios were limited

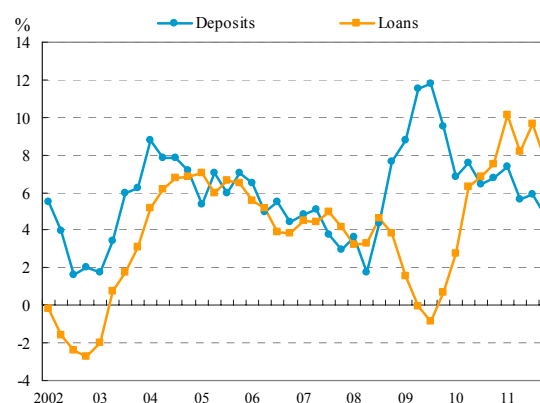
According to the estimated results mentioned above, the total VaR would cause a decrease of 0.61 percentage points in the average capital adequacy ratio of domestic banks and induce the current ratio of 12.06% to fall to 11.45%. It shows that the effects of market risk may be considered as limited.

Liquidity risk

Liquidity in the banking system remained ample

Deposits and loans in domestic banks continued to increase in 2011, but at a slower pace, as the annual growth rate of loans and deposits fell to

Chart 4.25 Annual growth rate of deposits and loans of domestic banks



Source: CBC.

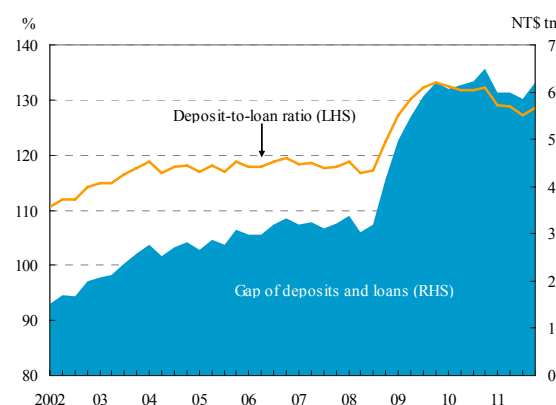
7.73% and 4.79%, respectively (Chart 4.25). Given that the increase in loans exceeded that in deposits, the average deposit-to-loan ratio of domestic banks decreased to 128.66% at the end of 2011. The funding surplus (i.e. deposits exceeding loans) also contracted to NT\$6.21 trillion; however, the overall liquidity in domestic banks remained abundant (Chart 4.26).

As for the sources of funds, relatively stable customer deposits accounted for the largest share of 77.11% of the total, slightly lower than a year before, followed by interbank deposits and borrowings at 8.49%, while debt securities issues contributed a mere 3.33% at the end of 2011. Regarding the uses of funds, customer loans accounted for the biggest share of 60.71% with a year-on-year rise of 1 percentage point, and cash and due from banks increased to 9.83%, while securities investments slightly fell to 19.19% of the total at the end of 2011 (Chart 4.27).

Overall liquidity risk was moderate

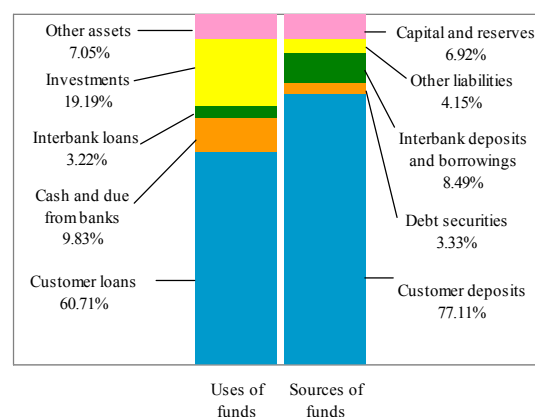
The average NT dollar liquid reserve ratio of domestic banks was 27.96% in December 2011. Although exhibiting a decrease compared to the figure a year earlier, the liquid ratio was still well above the statutory minimum of 10%⁶⁷ (Chart 4.28), and the ratio of each domestic bank was higher than 15%. In the same period, Tier 1 liquid reserves, mainly consisting of certificates of deposit issued by the CBC, accounted for 95.34% of total liquid reserves,⁶⁸ while Tier 2 and Tier 3 reserves accounted for 4.53% and 0.13%, respectively. This revealed

Chart 4.26 Deposit-to-loan ratio in domestic banks



Notes: Deposit-to-loan ratio = total deposits / total loans.
Source: CBC.

Chart 4.27 Sources and uses of funds in domestic banks



Notes: 1. Figures are as of end-December 2011.
2. Interbank deposits include deposits with the CBC.
Source: CBC.

⁶⁷ On 19 July 2011, the CBC raised the minimum liquidity reserve ratio from 7% to 10%, which was effective from October 2011. The relevant liquid reserve should be put up on a daily basis. Financial institutions unable to meet the requirements need to report to the CBC immediately.

⁶⁸ Tier 1 liquid reserves include excess reserves, net due from banks in the call-loan market, re-deposits at designated banks with terms to maturity of no more than one year, certificates of deposit issued by the CBC, government bonds and treasury bills. Tier 2 liquid reserves include NT dollar-denominated bonds issued in Taiwan by international financial organizations, negotiable certificates of deposit, bank debentures, banker's acceptances, trade acceptances, commercial paper and corporate bonds. Tier 3 liquid reserves include beneficial securities issued in accordance with the asset securitization plan and other liquid assets as approved by the CBC.

that the quality of liquid assets held by domestic banks remained satisfactory and overall liquidity risk was moderate.

Profitability

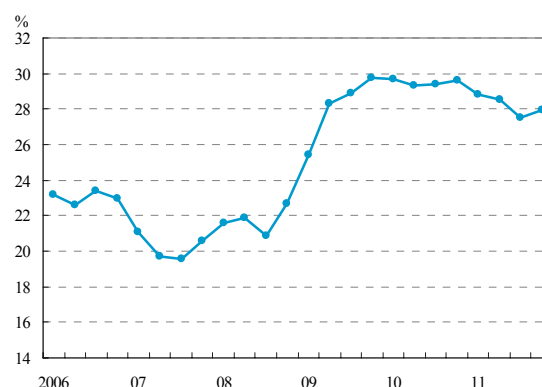
The highest profitability ever recorded

Owing to a rise in net interest income spurred by the expansion of interest rate spreads between deposits and loans, the aggregate net income before tax of domestic banks reached a historical high of NT\$200.8 billion in 2011, with a dramatic increase of NT\$16 billion, or 8.66%, year on year (Chart 4.29). The average ROE and return on assets (ROA), respectively, rose to 9.27% and 0.58%, slightly higher than the 9.08% and 0.57% posted the year before (Chart 4.30). However, compared to selected Asia-Pacific neighboring countries, the profitability of domestic banks was relatively low (Chart 4.31).

Among the total 38 domestic banks, only three reported losses due to increases of provisions for loan losses and amortization of deferred losses on the sale of classified assets, while the others all posted profits. Sixteen banks achieved profitable ROEs of 10% or more, increasing from eleven in 2010 (Chart 4.32). The ROEs of 21 banks increased compared to those in 2010, indicating improvement in their profitability.

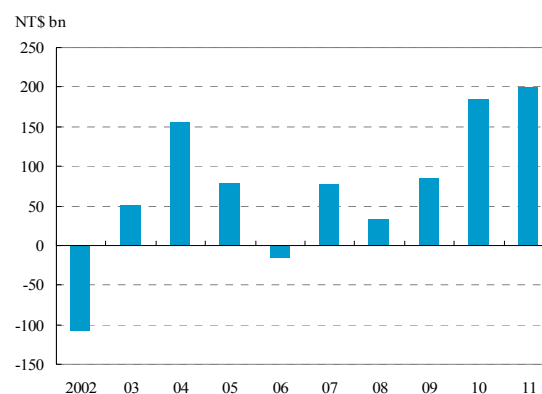
As for operating revenues and costs, total net revenues of domestic banks stood at NT\$564.2 billion in 2011, rising by NT\$34.7

Chart 4.28 Liquid reserve ratio of domestic banks



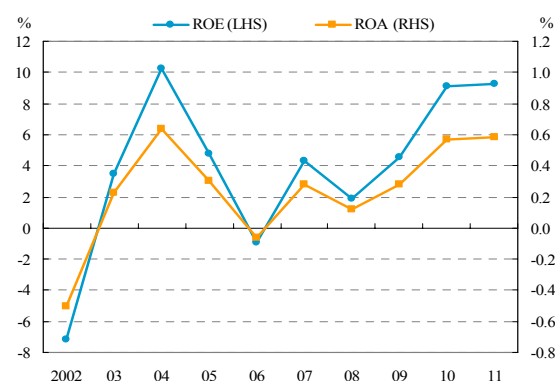
Note: Figures are the average daily data in the last month of a quarter.
Source: CBC.

Chart 4.29 Net income before tax of domestic banks



Source: CBC.

Chart 4.30 ROE & ROA of domestic banks



Notes: 1. ROE (return on equity) = net income before tax / average equity.
2. ROA (return on assets) = net income before tax / average total assets.

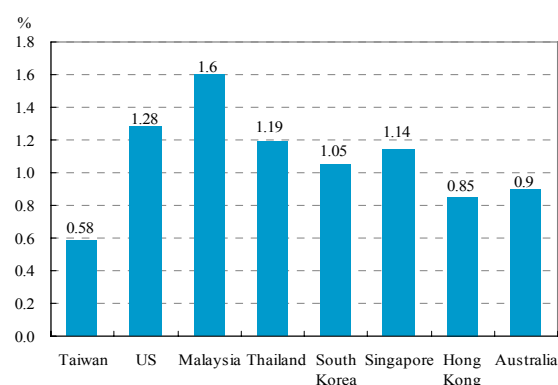
Source: CBC.

billion or 6.55% year on year. Of which, net interest income, accounting for 62.61% of the total revenues, increased by NT\$38.1 billion compared to the previous year and reached NT\$353.3 billion, resuming its level before the financial crisis as a result of the growth of loans and the increase of interest rate spreads between deposits and loans. Due to the setback of the asset management business caused by global financial turmoil in the second half of 2011, net fee and commission income fell to NT\$119.9 billion, decreasing by NT\$4.8 billion and accounting for 21.26% of total revenues. Because valuation of profits and gains on financial assets at fair value dramatically declined, net gains on financial instruments contracted by NT\$13.6 billion and registered NT\$39 billion, only accounting for 6.92% of total revenues.

On the cost side, expenses other than interest⁶⁹ stood at NT\$312.8 billion, rising by NT\$16.3 billion compared to the previous year, and accounted for 86.07% of the total due to the growth of personnel costs. Provisions increased to NT\$50.6 billion, rising by NT\$2.1 billion and accounting for 13.93% of the total as a result of domestic banks being required to set aside additional provisions for category one credit assets (i.e. normal credit assets) at a rate of 0.5% of the outstanding and lift the loan coverage ratio to above 1% (Chart 4.33).

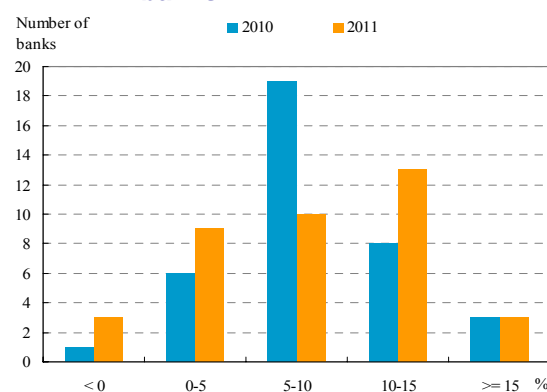
⁶⁹ Expenses other than interest include personnel costs and other operating and management expenses.

Chart 4.31 Comparison of ROA of banks in selected countries



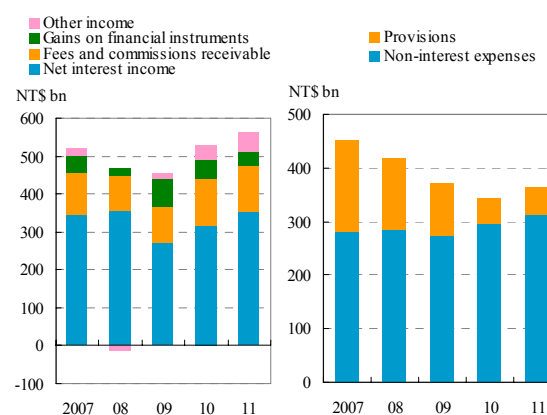
Note: Data are for 2011.
Sources: CBC, FDIC, BNM, BOT, FSS, MAS, HKMA and APRA.

Chart 4.32 Distribution of ROE of domestic banks



Source: CBC.

Chart 4.33 Composition of incomes and costs of domestic banks



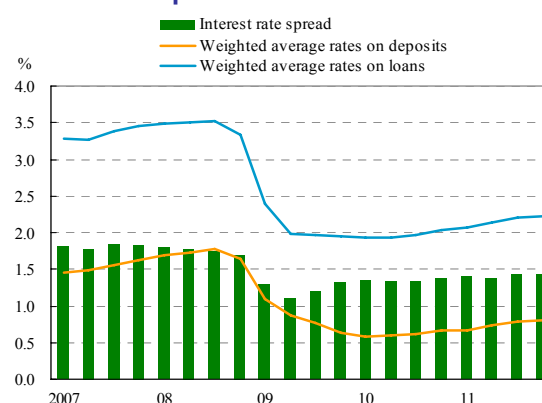
Source: CBC.

Factors that might affect future profitability

After the CBC raised policy rates five times from June 2010 and took a series of measures to urge banks to implement risk-based pricing on loans and adjust deposit structures, the interest rate spread between deposits and loans gradually expanded to 1.43 percentage points in 2011 Q4 (Chart 4.34). The gradual rebound of the interest rate spread was helpful in boosting domestic banks' profitability. Nevertheless, in an environment of low interest rates worldwide, banks are advised to enhance their innovative capabilities so as to provide differentiated financial services and lift their profits from niche business areas, while in the meantime strengthening their risk management in order to control costs and improve future profitability.

In addition to the above commentary, domestic banks continue to face numerous challenges. First of all, influenced by the recession in the TFT-LCD and DRAM industries, a few large domestic corporations in these industries sank into financial difficulties and applied for loan renegotiations with creditor banks. This might increase pressure for those banks to set aside more provisions for loan losses and undermine their future profits.⁷⁰ Secondly, global financial market vulnerability persists since the European sovereign debt crisis remains unresolved. Any contingency may simply lead to further market downturns and could undermine future investment profits of banks. An unfolding of such a scenario needs to be monitored closely.

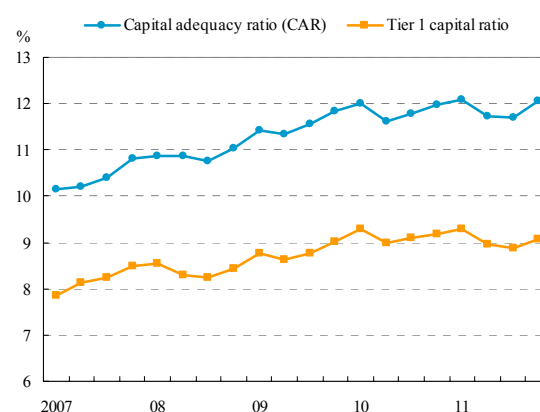
Chart 4.34 Interest rate spread between deposits and loans



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 preferred deposits of retired government employees and central government loans.

Source: CBC.

Chart 4.35 Capital adequacy ratio of domestic banks



Notes: 1. End-of-period figures.
2. Capital adequacy ratio = eligible capital / risk-weighted assets.
3. Tier 1 capital ratio = tier 1 capital / risk-weighted assets.

Source: CBC.

⁷⁰ Since domestic banks had set aside about 80% provisions on their loans to ProMOS Technologies, a big DRAM company, further loan losses on it should be limited.

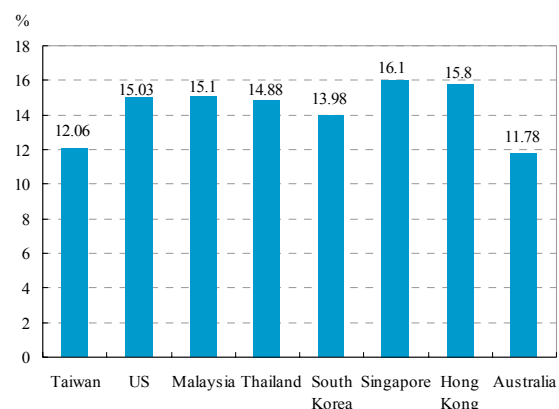
Capital adequacy

Capital adequacy ratios ascended slightly⁷¹

Affected by cash dividend payouts and an increase in risk-weighted assets, the average capital adequacy ratio and Tier 1 capital ratio of domestic banks in 2011 Q2 and Q3 displayed downward trends. Starting from Q4, however, benefiting from the increase in the issuance of long-term subordinated debentures and accumulated earnings, the average capital adequacy ratio rose to 12.06% at the end of 2011, higher than the ratio of 11.96% a year earlier. The Tier 1 capital ratio also rebounded to 9.08%, which was just slightly lower than 9.18% a year earlier (Chart 4.35). Compared to the US and some Asia-Pacific neighboring countries, the average capital adequacy ratio of domestic banks was marginally higher than that of Australia, but lower than those of the US and other Asian countries (Chart 4.36).

Further breaking down the components of regulatory capital, Tier 1 capital, which features the best risk-bearing capacity, accounted for 75.28% of eligible capital, while Tier 2 capital registered 24.72%, and Tier 3 capital was zero at the end of 2011. Compared to the end of the previous year, the Tier 1 capital ratio declined by 1.45 percentage points, while the Tier 2 capital ratio saw a rise owing to a higher increase in the outstanding balance of long-term subordinated debentures (Chart 4.37).

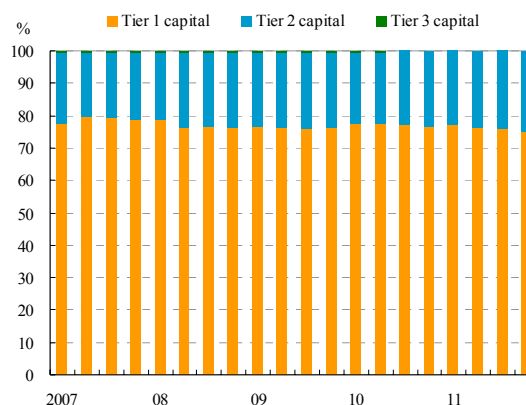
Chart 4.36 Comparison of capital adequacy ratios in selected countries



Note: Figures are as of the end of 2011.

Sources: CBC, FDIC, BNM, BOT, FSS, MAS, HKMA and APRA.

Chart 4.37 Components of eligible capital of domestic banks



Note: Tier 3 capital figure for the end of 2011 is 0%, and for the other periods figures are from 0% to 0.34%.

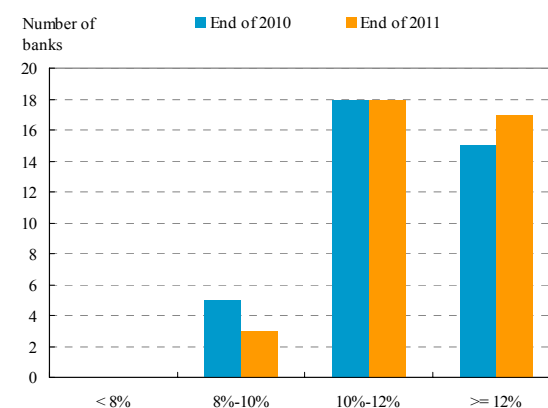
Source: CBC.

⁷¹ In this section, the capital adequacy related ratios of domestic banks at the end of 2011 were audited and certified by certified public accountants.

All domestic banks held sufficient capital, but faced pressure to raise their capital levels

The capital adequacy ratios of all 38 domestic banks remained above the statutory minimum requirement of 8% at the end of 2011. There were seventeen banks with ratios above 12% (Chart 4.38), while 21 banks' ratios showed year-on-year increases. Even though domestic banks' capital adequacy ratios have been gradually increasing and all banks meet current minimum standards, the twofold impact stemming from the introduction of the Basel III and the amendment of national capital-related regulations will put elevated pressure on domestic banks to raise capital.

Chart 4.38 Number of domestic banks classified by capital adequacy ratios



Source: CBC.

First, regarding Basel III, the BCBS introduced capital reforms in December 2010 that required banks to raise the quality and levels of capital. Given that the formulation of Taiwan's banking regulations tends to adhere to international requirements, the FSC has declared to phase in Basel III from 2013. For a start, the FSC amended capital regulations on 3 October 2011, which took effect from January 2012, to raise capital charges for securitization transactions and market risks after consulting the BCBS guidance of July 2009.⁷² As regards the other capital reforms of Basel III, the FSC has been working on revamping related regulations. An amendment to the "Regulation Governing the Capital Adequacy and Capital Category of Banks" is expected to be completed in 2012 alongside the phased implementation from 2013.

Second, with regard to the amendment of national regulations on the calculation of capital adequacy ratios, the FSC issued a capital directive in the hope of controlling banks' real estate lending risks. From 21 April 2011, new mortgages which fail to conform with the definition of owner-occupied residence loans are required to make a sharp rise in their risk weight to 100%.⁷³ This will lead domestic banks which grant such mortgages to charge more

⁷² The Basel Committee on Banking Supervision issued three publications of related capital accords in July 2009, including "Enhancements to the Basel II framework," "Revisions to the Basel II market risk framework," and "Guidelines for computing capital for incremental risk in the trading book."

⁷³ Conforming with the definition of owner-occupied residence loans (excluding NPLs), it allows the use of either one of the following two methods:

- 1). Based on the LTV ratio, a loan is divided into two parts. For the part that the LTV ratio is less than or equal to 75%, the risk weight is applied to 35%. For the part of the LTV ratio that is greater than 75%, the risk weight is applied to 75%.
- 2). All loans are applied to a risk weight of 45%.

capital and put upward pressure on increasing their capital.

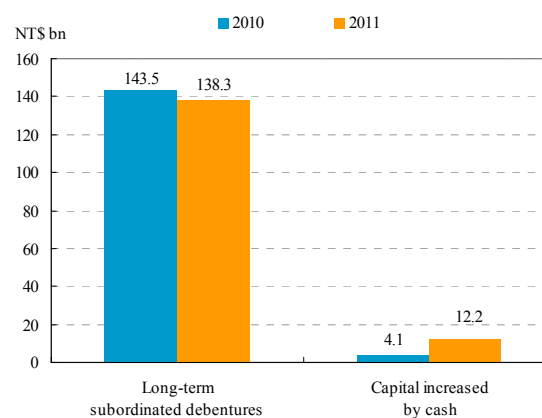
In response to the above-mentioned international trends in capital reforms and the amendment of national regulations, domestic banks have actively engaged in capital raising since 2010. During 2011, the aggregated capital raised by issuing long-term subordinated debentures and cash injections amounted to NT\$150.5 billion, above the previous year's amount of NT\$147.6 billion (Chart 4.39). However, most of the increased capital was classified as Tier 2 capital, rather than the common equity or Tier 1 capital that Basel III requires to be strengthened. Therefore, domestic banks are advised to review the capital gaps between Basel III requirements and their current capital conditions as soon as possible, and prudentially work out long-term capital plans and dividend payout policies so as to gradually reinforce the quality and levels of capital in line with national and international capital standards.

Credit ratings

Average credit rating level improved due to new rating criteria

According to the rating results⁷⁴ released by credit rating agencies, the credit rating index⁷⁵ of Taiwan's domestic banks improved remarkably in 2011 (Chart 4.40). The main reason was

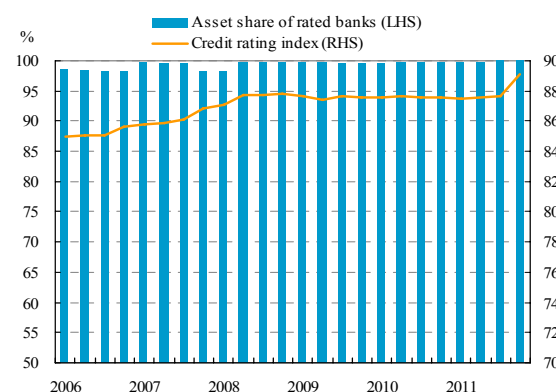
Chart 4.39 Funds raised by domestic banks in the past two years



Notes: 1. Period for capital increased by cash is based on the FSC's approved date.
2. The data exclude parent financial holding companies' increased investment for subsidiary banks.

Source: CBC.

Chart 4.40 Credit rating index of rated domestic banks



Note: End-of-period figures.

Source: CBC.

⁷⁴ As of the end of 2011, the majority of Taiwan's domestic banks received long-term issuer ratings from Taiwan Ratings Corporation, followed by those with national long-term ratings from Fitch Ratings. Therefore, this section is based primarily on the Taiwan Ratings Corporation ratings (tw~), and secondarily on Fitch ratings (~(tw)).

⁷⁵ 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 Corporation or national long-term ratings from Fitch Ratings. The higher the index, the better the bank's overall solvency.

that Taiwan Ratings Corporation started to apply new rating criteria⁷⁶ recently revised by Standard & Poor's, and this resulted in eight banks being upgraded and two banks being downgraded.⁷⁷ Moreover, the Export-Import Bank of the Republic of China was rated for the first time and received the highest rating of AAA(twn), which also helped to improve the overall credit rating level.

As for the rating results of Taiwan's banking system released by credit rating agencies, Standard & Poor's "Banking Industry Country Risk Assessment (BICRA)," which was newly revised in November 2011,⁷⁸ maintained Taiwan's BICRA unchanged at Group 4. Compared to other Asian economies, the risks of Taiwan's banking industry were higher than those of Hong Kong, Singapore, Japan and South Korea, about the same as that of Malaysia, but much lower than those of Thailand, Mainland China, Indonesia and the Philippines. The rating results of Taiwan's banking system evaluated by Fitch Ratings' "Banking System Indicator / Macro-Prudential Indicator (BSI/MPI)"⁷⁹ remained unchanged at level C/1; however, the MPIs of Hong Kong, Singapore, Mainland China and Indonesia were downgraded from level 1 to level 2 or level 3, reflecting that their macrofinancial environments became more fragile (Table 4.2).

Table 4.2 Systemic risk indicators for the banking system

Banking System	Standard and Poor's		Fitch	
	BICRA		BSI/MPI	
	2011/2	2012/2	2011/2	2012/2
Hong Kong	2	2	B/1	B/3
Singapore	2	2	B/1	B/2
Japan	2	2	C/1	C/1
South Korea	4	3	C/3	C/1
Taiwan	4	4	C/1	C/1
Malaysia	4	4	C/1	C/1
Thailand	6	5	C/1	C/1
Mainland China	6	5	D/1	D/3
Indonesia	8	7	D/1	D/3
Philippines	8	7	D/1	D/1

Sources: Standard and Poor's and Fitch Ratings.

⁷⁶ On 9 November 2011, Standard & Poor's (S&P) announced that it would be revisiting the ratings of all rated banks globally following its new rating criteria. The new criteria set the Banking Industry Country Risk Assessment as the anchor in rating a bank. The anchor is then adjusted for bank-specific factors including business position, capital and earnings, risk position, funding and liquidity, and government and group support, to determine the issuer credit rating for a bank.

⁷⁷ Taiwan Ratings Corporation upgraded eight Taiwanese banks due to strong capital and high government support, while it downgraded two banks due to higher exposure to investment banking activities.

⁷⁸ On 9 November 2011, Standard & Poor's revised its Banking Industry Country Risk Assessment (BICRA) methodology. The new methodology has two main analytical components: economic risk and industry risk. The economic risk of a banking sector is determined by factors including economic resilience, economic imbalances, and credit risk in the economy, while industry risk is determined by institutional framework, competitive dynamics and system-wide funding. The overall assessments of those factors will lead to the classification of a country's banking system into BICRA groups, ranging from group 1 (lowest risk) to group 10 (highest risk), in order to indicate the relative country risk and banking sector credit quality.

⁷⁹ Fitch Ratings has devised two complementary measures, the Banking System Indicator (BSI) and Macro-Prudential Indicator (MPI), to assess banking system vulnerability. The two indicators are brought together in a Systemic Risk Matrix that emphasizes the complementary nature of both indicators. The BSI, based on the synthetic assessment results composed of individual ratings and systematic risks in the banking system, measures intrinsic banking system quality or strength on a scale from A (very high quality) to E (very low quality). On the other hand, the MPI indicates the vulnerability to stress on above-trend levels of private sector credit, a bubble in real asset prices, and/or major currency appreciation, measuring the vulnerability of the macro environment on a scale from 1 (low) to 3 (high) in terms of banking system vulnerability.

Credit ratings of domestic banks are expected to be stable in the near future

All domestic banks were rated by credit rating companies, and most of them maintained credit ratings of twAA/twA (Taiwan Ratings) or AA(twn)/A(twn) (Fitch Ratings) at the end of 2011; none had credit ratings lower than twBBB/BBB(twn) (Chart 4.41). The results were similar to those received the previous year. In addition, all banks received stable or positive rating outlooks or CreditWatch at the end of 2011, showing that credit ratings are expected to be stable in the near future.

4.2.2 Life insurance companies

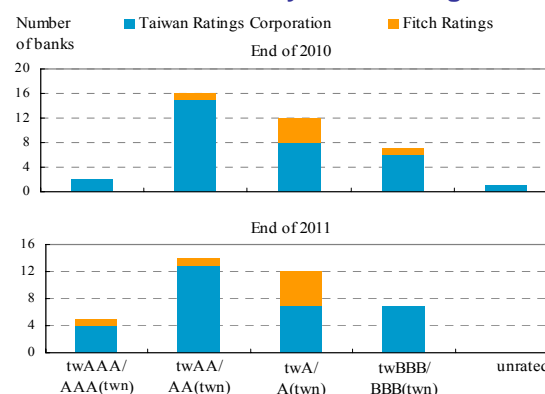
The total assets of life insurance companies continued to grow in 2011, although at a slower pace. The profitability of life insurance companies needs to be improved as overall the industry reported an operating loss. The RBC ratio at the end of 2011 was lower than a year earlier, while some companies fell below the statutory minimum of 200% over the same period. Generally, the credit ratings of the nine rated life insurance companies in 2011 remained stable.

Asset growth slowed down

The total assets of life insurance companies continually grew and reached NT\$13.06 trillion at the end of 2011, equivalent to 95.03% of annual GDP (Chart 4.42). However, the annual growth rate of total assets grew at an apparently slower pace of 7.96%, declining from its peak of 18.03% at the end of 2009.

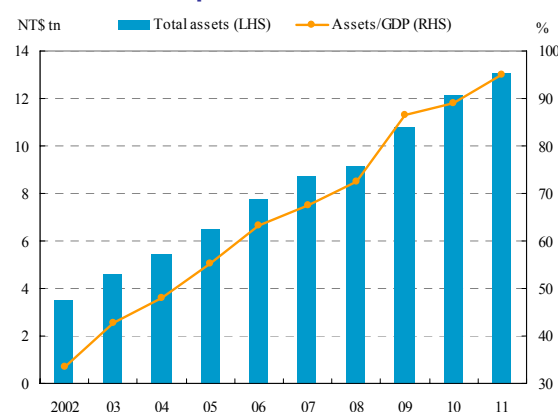
The asset and liability structure of the life insurance industry changed slightly during 2011.

Chart 4.41 Number of domestic banks classified by credit ratings



Sources: Taiwan Ratings Corporation and Fitch Ratings.

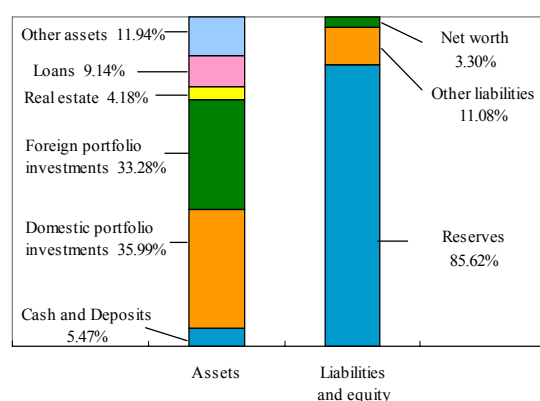
Chart 4.42 Total assets of life insurance companies



Sources: FSC and DGBAS.

Twenty-four domestic life insurance companies⁸⁰ held a 98.53% market share by assets at the end of 2011, with only 1.47% for six foreign life insurance companies. The top three companies in terms of assets held a combined market share of 53.27%, with an increase of 0.55 percentage points compared to the end of the previous year. In terms of premium income, the combined market share of the top three companies was 50.81%, declining by 4.45 percentage points year on year.

Chart 4.43 Asset/liability structure of life insurance companies



Note: Figures are end-December 2011 data.
Source: FSC.

Foreign investments and real estate investments had higher growth

The funds of life insurance companies at the end of 2011 were chiefly invested in domestic and foreign securities, accounting for 35.99% and 33.28%, respectively, while 9.14% was in loans, 5.47% in cash and deposits and 4.18% in real estate. As for the sources of funds, various policy reserves constituted 85.62%, while net worth, influenced by the significant shrinking of unrealized net gains of financial products, dropped from 3.95% at the end of 2010 to 3.30% (Chart 4.43). This showed that the financial leverage of life insurance companies elevated in 2011.

The usable funds of life insurance companies continued growing in 2011, although at a more subdued pace. Of them, foreign investments, benefiting from the relaxation of related regulations, grew substantially by 19.86%. Real estate investments increased by 13.27% due to insufficient supply of other long term investment instruments, although stricter regulations imposed limitations on the usage and yield of funds invested in real estate properties and required additional capital charges when such investments did not conform to the specified regulations. Domestic portfolio investments only increased slightly by 5.38%, owing to concerns over the more volatile stock market, while the assets of insurance products held in segregated custody accounts declined by 3.15%.

⁸⁰ Including foreign affiliates.

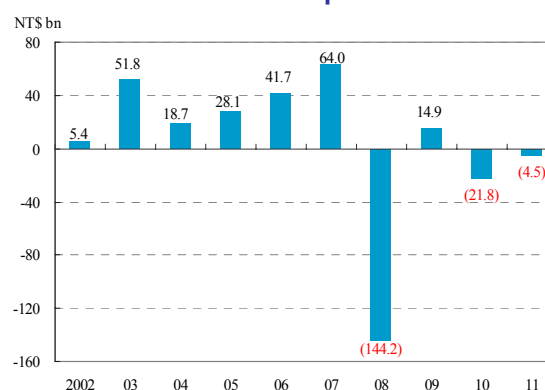
Losses were reported in 2011

The substantial shrinkage of premium income owing to the implementation of Taiwan's SFAS 40, which were put into practice in January 2011,⁸¹ resulted from a huge contraction of gains from securities investments and even losses on foreign securities investments, leading to a net loss before tax of NT\$4.5 billion for life insurance companies in 2011. Therefore, the profitability of the life insurance industry needs to be improved (Chart 4.44).

During the same period, average ROE and ROA were -0.99% and -0.04%, respectively (Chart 4.45). If Kuo Hua Life Insurance Company⁸² is excluded, life insurance companies as a whole turned to report a net profit before tax of NT\$1.7 billion, though with average ROE and ROA remaining at low levels of 0.32% and 0.01%, respectively. In addition, the average return on investments in 2011 was only 3.52%, revealing that the potential losses driven by negative interest rate spreads still needed to be alleviated. This, together with the fact that investment performance could be undermined by more volatile global financial markets resulting from the European sovereign debt crisis, may possibly have an adverse impact on the future profitability of life insurance companies.

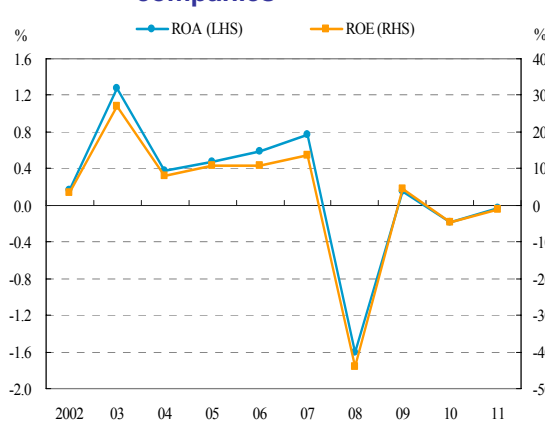
In recent years, the profitability of life insurance companies has been considerably susceptible to the short term volatility of the NT dollar foreign exchange rate. With the intention of alleviating the above-mentioned impact and stabilizing related profits and losses, the FSC amended the "Regulations Governing the Setting Aside of Various Reserves by

Chart 4.44 Net income before tax of life insurance companies



Source: FSC.

Chart 4.45 ROE & ROA of life insurance companies



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

Source: FSC.

⁸¹ After Taiwan's SFAS 40 was put into practice on 1 January 2011, the premiums of insurance contracts without manifest insurance risk were booked as liabilities instead of premium income, which resulted in a decline in premium income.

⁸² Kuo Hua Life Insurance Company was taken into receivership by the Insurance Stabilization Fund on 4 August 2009 and registered a net loss before tax of NT\$6.2 billion in 2011.

Insurance Enterprises” in February 2012, allowing life insurance companies to set aside foreign exchange volatility reserves on the liability side of their balance sheets from 1 March of the same year to cover potential foreign exchange losses when they may occur. This new reserve mechanism also helps life insurance companies to manage foreign exchange risks more flexibly and reduce related hedging costs.

Average RBC ratio declined

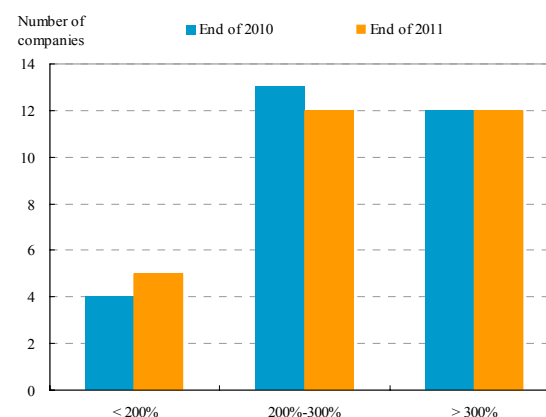
Although some life insurance companies raised more capital during 2011 and the FSC promulgated the tentative measures⁸³ of risk-based capital requirements, the average RBC ratio⁸⁴ of life insurance companies, excluding Kuo Hua Life Insurance Company, declined from 273.84% at the end of 2010 to 238.38% at the end of 2011, but still remained above the statutory minimum of 200%. The decline was mainly driven by the decrease of regulatory capital caused by operating losses and the increase of risk-based capital resulting from the swelling of domestic and foreign securities investments.

By individual companies, there were twelve companies with ratios over 300%, the same as at the end of 2010. However, five companies had ratios below 200% (Chart 4.46), whose combined assets accounted for 4.5% of the total. The financial structure of those companies needs to be improved as soon as possible.

Overall credit ratings stable

None of the nine life insurance companies rated by Taiwan Ratings Corp. received credit rating adjustments in 2011, although one company was downgraded by Moody’s owing to weak profitability and capital status. Moreover, all companies received stable or positive rating outlooks or CreditWatch, showing that the credit ratings of rated companies were expected to be stable in the near future. Of the top three companies,⁸⁵ two were rated above twA+,

Chart 4.46 Number of life insurance companies classified by RBC ratios



Note: Kuo Hua Life Insurance Company, which was taken into receivership by the Insurance Stabilization Fund on 4 August 2009, is excluded.

Source: FSC.

⁸³ The FSC promulgated the tentative measures of risk-based capital requirements on 15 December 2011, which allowed insurance companies to calculate unrealized losses on stock-related investments using an arithmetic average of the closing price of each day during the half year preceding the evaluation day, instead of year-end closing prices, but to recognize unrealized gains upon the basis of prices as of the year-end valuation date. This tentative measure only applied to RBC ratio calculation in 2011.

⁸⁴ Risk-based capital ratio = regulatory capital / risk-based capital. According to Article 143-4 of the Insurance Act, the risk-based capital ratio of the insurance industry can not be below 200%.

⁸⁵ Nan Shan life insurance Company, one of the top three companies, does not request credit ratings agencies to provide a rating service.

signifying their strong ability to fulfill all financial commitments.

4.2.3 Bills finance companies

The total assets of bills finance companies kept tracking an upward growth path in 2011, while earnings increased slightly, owing to additional non-operating incomes. Although the average capital adequacy ratio continued to decline somewhat, the quality of credit assets remained sound. The problem of maturity mismatch between assets and liabilities in bills finance companies still existed, showing that liquidity risk remained rather high; however, the major liability to equity ratio still conformed to the statutory ceiling. The outstanding balance of the commercial paper guarantee business undertaken by bills finance companies gradually rebounded, and was also below the statutory ceiling.

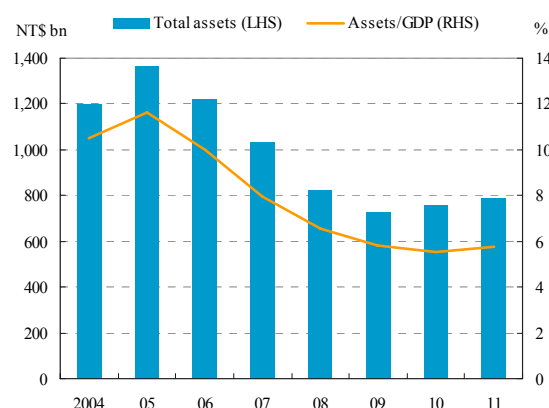
Total assets kept on a growth path

As a result of rising bonds and bills investment positions, the total assets of bills finance companies stood at NT\$791 billion at the end of 2011, equivalent to 5.75% of annual GDP and increasing by 4.85% year on year (Chart 4.47). Of the eight bills finance companies,⁸⁶ the top three companies held a combined market share of 74.58% by assets, while each of the other firms had a market share below 7%.

Profitability increased slightly due to additional non-operating income

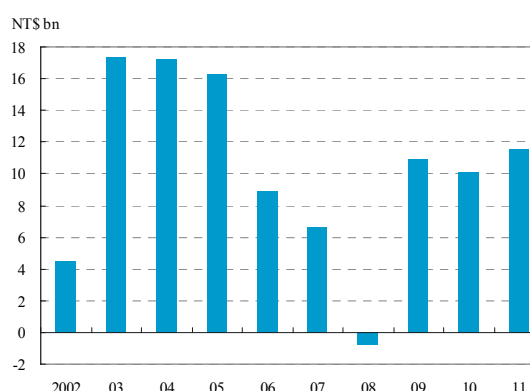
Bills finance companies posted a net income before tax of NT\$11.5 billion in 2011, a year-on-year increase of 13.74% over NT\$10.1 billion registered in 2010 (Chart 4.48). The increase in profitability was mainly driven by capital gains of NT\$4.7 billion from the

Chart 4.47 Total assets of bills finance companies



Note: Total assets are end-of-period figures.
Sources: CBC and DGBAS.

Chart 4.48 Net income before tax of bills finance companies



Source: CBC.

⁸⁶ The number of bills finance companies decreased from nine in 2010 to eight in 2011 due to a merger.

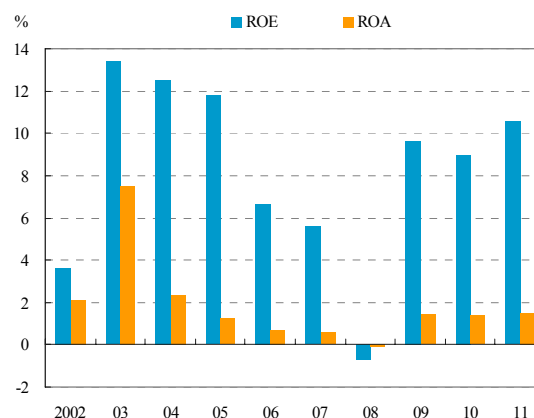
property transactions of two companies, which was recorded as non-operating income. At the same time, average ROE and ROA rose to 10.56% and 1.49%, respectively, higher than 8.95% and 1.37% in 2010 (Chart 4.49). If the above-mentioned capital gains from property transactions were excluded, however, the net income before tax of bills finance companies would have contracted by 32.87% year on year in 2011 due to the sharp shrinkage of net interest revenues resulting from ascending short term interest rates compressing the interest rate spread.

As the CBC has kept policy rates unchanged since the third quarter of 2011, the pressures of rising funding costs and bond investment evaluation losses caused by the five previous rate rises were anticipated to alleviate temporarily. Moreover, increasing bills issuance, induced by additional short term funding needs during the recent economic rebound, and a stably growing commercial paper guarantees business could be conducive to the future profitability of bills finance companies.

Asset quality remained sound

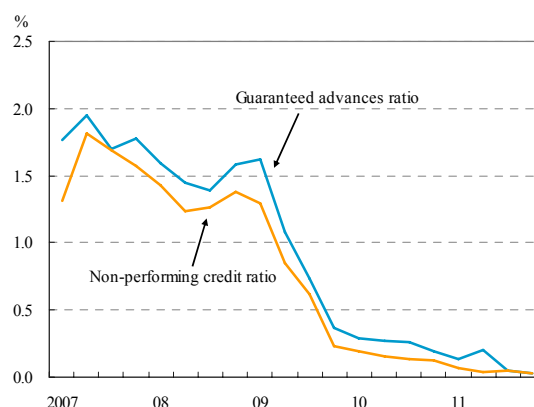
The average guaranteed advances ratio and the non-performing credit ratio both declined simultaneously to historical lows of 0.02% each at the end of 2011, indicating the credit quality of bills finance companies remained sound (Chart 4.50). At the same time, the ratios of the aggregate amount of credit loss and guarantee reserves to non-performing credit as well as to guaranteed advances, respectively, stood at the same value of 8,593.33%. It showed that the reserves set aside remained sufficient to cover potential credit losses.

Chart 4.49 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 4.50 Guaranteed advances ratio of bills finance companies



Notes: 1. Guaranteed advances ratio = overdue guarantee advances / (overdue guarantee advances + guarantees).
 2. Non-performing credit ratio = non-performing credit / (overdue guarantee advances + guarantees).
 Source: CBC.

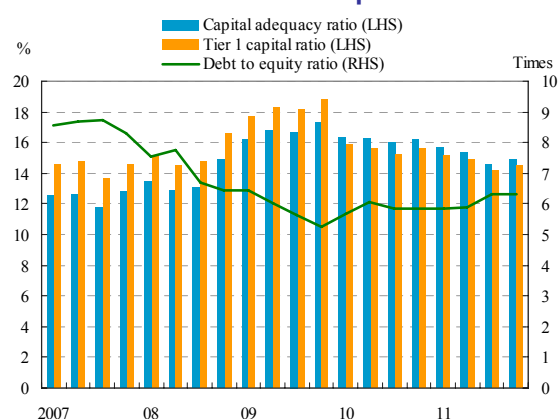
Average capital adequacy ratio decreased, yet remained above 13% for each firm

After the FSC amended the Regulations Governing the Capital Adequacy Ratio of Bills Finance Companies and required companies to hold additional capital for operational risk at the end of 2009, the capital adequacy level of bills finance companies trended down, and the average capital adequacy ratio registered 14.90% at the end of 2011, decreasing by 1.30 percentage points year on year. Furthermore, the Tier 1 capital ratio declined from 15.60% a year before to 14.48%. However, the capital adequacy ratio for each firm still remained above 13%, well above the statutory minimum of 8%. The average ratio of debt to equity of bills finance companies went up slightly to 6.31 at the end of 2011, higher than 5.84 at the end of 2010 (Chart 4.51), reflecting a small elevation in financial leverage.

Liquidity risk remained high as the maturity mismatch between assets and liabilities persisted

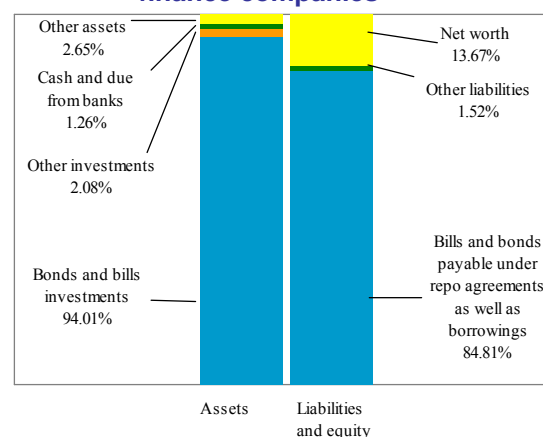
Looking at the structure of assets and liabilities of bills finance companies at the end of 2011, bonds and bills investments constituted 94.01% of total assets, in which long-term bonds investments accounted for 44.44%. The sources of funds were mainly made up of short-term repo transactions and borrowings, accounting for 84.81% of total assets, while net worth was only 13.67% of total assets (Chart 4.52). The significant maturity mismatch between assets and liabilities showed that bills finance companies still faced high liquidity risk, which needs to be closely monitored.

Chart 4.51 Capital adequacy and leverage of bills finance companies



Source: CBC.

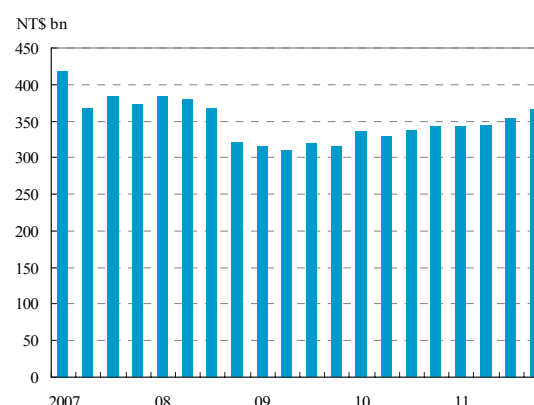
Chart 4.52 Asset/liability structure of bills finance companies



Note: Figures are end-December 2011 data.
Sources: CBC and FSC.

In order to reduce the business risk and liquidity risk in bills finance companies, the FSC amended the regulations in April 2010, restricting the ceilings of major liabilities⁸⁷ of bills finance companies according to their capital scale. At the end of 2011, the average ratio of major liabilities to net worth registered 7.15, higher than 6.35 at the end of 2010. However, none of the bills finance companies exceeded the regulatory ceilings of ten or twelve times.

Chart 4.53 Outstanding commercial paper guarantees



Note: End-of-period figures.
Source: CBC.

Outstanding balance of guarantees rebounded gradually

Following the increase of commercial paper issuance, the outstanding guarantees business undertaken by bills finance companies rebounded gradually, registering NT\$366.3 billion at the end of 2011, an increase of NT\$24.5 billion or 7.16% year on year (Chart 4.53). In February 2010, the FSC began to set the required ratio of guarantees and endorsements business to net worth undertaken by bills finance companies according to their different capital adequacy ratio levels.⁸⁸ At the end of 2011, the average ratio registered 3.90, higher than 3.45 a year before. Although the ratio of each bills finance company rose slightly in 2011, it still conformed to the regulatory ceiling of five times.

⁸⁷ According to the amended Directions for Ceilings on the Total Amounts of the Major Liabilities and Reverse Repo Transactions Conducted by Bills Houses by the FSC on 9 April 2010, the major liabilities of a bills finance company could not exceed six times, eight times or ten times its net worth depending on the level of its capital adequacy ratio of below 10%, above 10% but below 12%, or above 12%. If a bills finance company is a subsidiary of a financial holding company or its bank shareholder meets safe and sound criteria, the ceiling will be raised by an additional two times its net worth. As of the end of December 2011, the capital adequacy ratio of each bills finance company was above 12%, so the ceilings were ten times or twelve times for each bills finance company.

⁸⁸ According to the amended "Directions for Outstanding Amount of Guarantees and Endorsements of Short-term Bills by Bills Houses" by the FSC on 24 February 2010, the ceiling of the ratio of outstanding commercial paper guaranteed to net worth for a bills finance companies could not exceed one, three, four and five times, respectively, depending on the level of its capital adequacy ratios of below 10%, above 10% but below 11%, above 11% but below 12%, or above 12%. As of the end of December 2011, the capital adequacy ratio of each bills finance company was above 12%, so the ceiling of five times was set for each one.

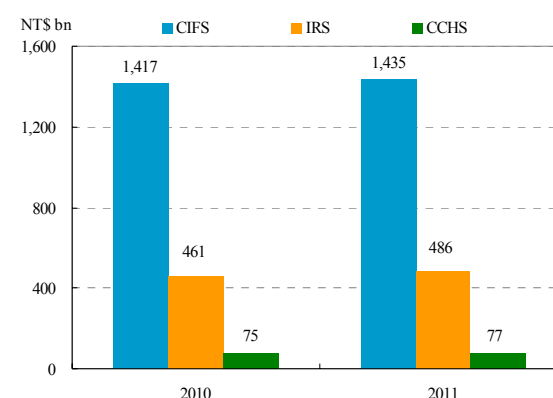
4.3 Financial infrastructure

4.3.1 Payment and settlement systems

Overview of systemically important payment systems

In 2011, the average daily transaction value of the three systemically important payment systems (SIPSs)⁸⁹ processing domestic interbank payments increased moderately compared to the previous year. Among them, the CBC Interbank Funds-Transfer System (CIFS), which handles large payments and the final settlement of interbank fund transfers, continued to be the most important one in 2011. Its average daily transaction value reached NT\$1.43 trillion and accounted for 72% of the total (Chart 4.54).

Chart 4.54 Average daily transaction value of the three SIPSs



Source: CBC.

Reinforcing risk management of the transit of checks

The Check Clearing House System (CCHS) is a crucial part of the payment systems. In the past, the Taiwan Clearing House (TCH) and some financial institutions transited checks for clearing by express delivery service providers. However, if checks were lost or damaged during the process, it would harm the rights of check holders and adversely impact the smooth operation of the financial system. To reinforce risk management of check transitions, under the CBC's requirement, the TCH stipulated regulations and related standard procedures for dealing with checks being reported lost or damaged when delivered by express delivery service providers. All banks processing the operation of check clearing and settlement and all branches of clearinghouses were informed to comply with the regulations and standards.

New redemption mechanism through CIFS for NCDs issued by banks

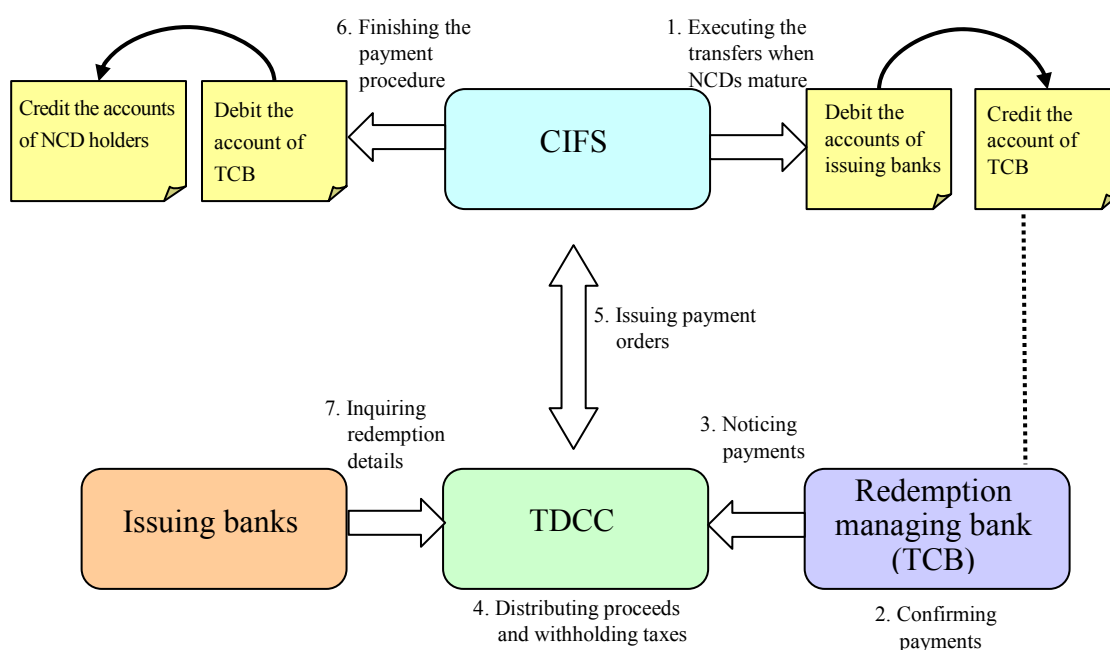
Commencing on 3 January 2011, NCDs newly issued by banks and initially purchased by dealers would be dematerialized and registered and entrusted to the Taiwan Depository &

⁸⁹ The three SIPSs include the CBC Interbank Funds-Transfer System (CIFS), the Interbank Remittance System (IRS) and the Check Clearing House System (CCHS).

Clearing Corporation (TDCC) for central custody. When NCDs were due, issuing banks would remit repayment amounts through interbank remittance systems to a special account of the TDCC, managed by the redemption managing bank (the Taiwan Cooperative Bank, TCB), for NCD redemption.

To simplify the redemption procedures of NCDs issued by banks, the TDCC got the approval from the CBC to complete the redemption of NCDs through the CIFS. Namely, issuing banks could notify the CBC before the second business day of NCD issuance and repay them on their due days through the CIFS. The new operating procedure of NCD redemption is shown in Chart 4.55.

Chart 4.55 New redemption procedures of NCDs issued by banks



Sources: CBC and TDCC.

The new procedure started on 7 May 2012 and the total estimated redemption value of NCDs through it is expected to reach NT\$193 billion annually. Related benefits are as follows:

- Diminishing credit risks and liquidity risks of cash settlement assets and fulfilling the Recommendations for Securities Settlement Systems jointly issued by the CPSS and the Technical Committee of the IOSCO, which suggests using central bank money to settle ultimate settlement obligations.
- Reducing the operating costs and enhancing the efficiency of clearing and settlement operations by providing automated redemption services.

4.3.2 New Era for the Protection of Financial Consumers in Taiwan

Investment controversies caused by the recent global financial crisis fully demonstrated the lack of laws that existed to protect the rights of consumers of financial products. In order to protect the rights of these relatively disadvantaged financial consumers, the Financial Consumer Protection Act was enacted and promulgated by the President on 29 June 2011, and was implemented from 30 December of the same year. This, coupled with the Financial Ombudsman Institution, which was set up according to the Act and commenced work from 2 January 2012, has opened up a new era for the protection of financial consumers in Taiwan.

After the enactment of the Financial Consumer Protection Act, the protection mechanisms for financial consumers have become more extensive and wide-ranging. Apart from putting more emphasis on financial education, it also places responsibility on the due care of good administration of those parties in the financial industry, including, but not limited to, ascertaining the suitability of products or services offered to financial consumers, clear explanation of the contents of contracts, and full disclosure of any risks that are involved. In addition, to deal with disputes related to the consumption of financial services, the law also provides another mechanism outside of legal courts that is financially proficient and deals with these contentions fairly, quickly and efficiently. This is designed to improve the confidence and trust between consumers and financial institutions, and to decrease financial disputes. For further information about the Financial Consumer Protection Act, please refer to Box 3.

In addition, the government has also taken steps to enforce other mechanisms to protect financial consumers in the recent year. For example:

- The amendment of Article 12-1 and 12-2 of the Banking Act states that when granting mortgages for personal residences and consumer loans, banks cannot require their debtors the provision of joint and several guarantor(s) for whatsoever reasons. In addition, when an applicant provides sufficient collateral to cover the entire amount of the mortgage, banks may not require the borrower to provide general guarantor(s). When banks require the borrower to provide general guarantor(s), they should be subject to certain restrictions.
- Institutions engaging in credit card business must provide cardholders who make long-term use of revolving credit and keep up to date on payments with an option of either paying off the balance in installments or taking out a consumer loan to pay it off.

4.3.3 Gradual lifting of restrictions on cross-strait financial activities

Since the signing of the Cross-Straits Economic Cooperation Framework Agreement (ECFA) and the amendment of the Regulations Governing the Banking Activity and the Establishment and the Investment by Financial Institution between the Taiwan Area and the Mainland Area in 2010, Taiwan's financial institutions have been actively setting up branches, taking equity stakes and expanding business in Mainland China, and Mainland China's financial institutions also have started to establish representative offices in Taiwan. Cross-strait financial interaction has become more frequent and common. In order to gradually open up cross-strait financial activities, improve the competitiveness of Taiwan's banking industry and strengthen relative risk management, the regulatory authorities in Taiwan, in the recent year, actively reviewed and revised regulations related to cross-strait financial activities and relaxed investment restrictions step by step. The FSC and Mainland China's banking regulatory agency also twice held meetings of the Cross-Strait Banking Supervisory Cooperation Platform with a view to reinforcing supervisory collaboration.

Mainland China has already become the target market of Taiwan's banks. As the opening is in the early stage, domestic banks' risk exposures to Mainland China are still limited. However, as financial business expansion in Mainland China speeds up, related exposure will magnify rapidly. Financial institutions should thus strengthen their relative risk control regarding their exposure to Mainland China in order to ensure Taiwan's financial stability. Regulatory authorities should also improve prudential supervision on monitoring and supervising this exposure and the concentration of the domestic financial system to Mainland China so as to adopt adequate responsive measures.

Relaxation of regulatory restrictions on investments and business activities of banks in Mainland China

In response to the needs of Taiwan's banking industry, the FSC once again amended the Regulations Governing the Banking Activity and the Establishment and the Investment by Financial Institution between the Taiwan Area and the Mainland Area on 7 September 2011 with a view to relaxing regulatory restrictions on financial investments and business activities between the two sides of the Strait and requiring domestic financial institutions to enhance related risk control. Primary revisions are summarized in Table 4.3.

Table 4.3 Major amendments of the Regulations Governing the Banking Activity and the Establishment and the Investment by Financial Institution between the Taiwan Area and the Mainland Area

Key Points	Major amendments
1. Adjust the types of entity and forms of operation of Taiwan's banks when entering into the Mainland market	1. Lift the "choose one of two" restriction on the investing entity: Banks in the Taiwan area and/or their subsidiary banks in a third area can at the same time apply to establish branches, set up subsidiary banks, and/or make equity investments in the Mainland Area. 2. Lift the "choose two of three" restriction on the form of investment: Banks in the Taiwan area and/or their subsidiary banks in a third area can freely choose to set up branches, establish subsidiary banks, and/or make equity investments when entering the Mainland China market. 3. Remove the provision that Taiwan's financial institutions can only make an equity investment in a single financial institution in Mainland China.
2. Broaden the scope of cross-strait financial business	1. Broaden the scope of cross-strait financial business: Expanding the scope of financial business conducted by overseas branches, offshore banking units (OBUs), and/or domestic banking units (DBUs) of Taiwan's banks with individuals and/or juridical persons in Mainland China, except for those activities prohibited by the supervisory authorities. 2. Lift the restrictions of loan applicants: Overseas branches and OBUs of Taiwan's banks permitted to undertake loans to individuals and/or juridical persons in the Mainland area and not limited to Taiwanese and/or foreign invested enterprises.
3. Reinforce risk management mechanisms	1. Revise the calculation of investment limits in the Mainland area to be on a bank-wide (group-wide) basis: The total of cumulative allocated operating capital and investments in the Mainland by Taiwan's banks and their subsidiaries may not exceed 15% of an individual bank's net worth, and the total amount of equity investment in the Mainland by Taiwan's financial holding companies and their subsidiaries may not exceed 10% of their net worth. 2. Establish a total-exposure mechanism: The total amount of credit extension, investment, and interbank loans and deposits in Mainland China may not exceed an individual bank's net worth following their final budget for the previous year. 3. Establish proper risk management mechanism: Taiwan's banks engaging in business with individuals, juridical persons, groups and other institutions in the Mainland area, and their branches in countries and/or areas other than Mainland China shall establish risk management mechanisms and adequately evaluate the risks of relevant transactions to ensure the safety of their assets.

Source: FSC.

Moreover, Paragraph 3 in Chapter 4 of the regulation mentioned above that sets out eligibility requirements and regulatory provisions governing equity investments by Mainland banks or Mainland-funded banks in Taiwan's financial institutions has already entered into force on 2 January 2012. Mainland banks wishing to invest in Taiwan's financial institutions will be able to apply for approval in accordance with Article 73 of the same regulation. It also stipulates that (1) the investments in Taiwan's financial institutions are limited to banks and financial

holding companies, (2) Mainland banks can only individually acquire up to 5% of a Taiwanese bank or financial holding company, and (3) the combined equity stakes of all Mainland investors in any one bank or financial holding company must not exceed 10% of the investees paid-in capital.

Opening up the renminbi business and investment in securities issued in Mainland China

In order to respond to the trend of internationalization of the renminbi, to help Taiwan's banks to develop renminbi business, and to provide stable financing channels for Taiwanese enterprises operating in Mainland China, the FSC and the CBC officially promulgated a piece of regulations in July 2011 allowing the OBUs and overseas branches of Taiwanese banks to apply to conduct renminbi business.

Moreover, the FSC announced that guarantees extended by a financial institution in the Mainland area can be considered as qualified collateral prescribed in Article 12 of the Banking Act as long as those financial institutions meet certain requirements.⁹⁰ In November 2011, the FSC also allowed OBUs and overseas branches of Taiwan's banks to invest in securities issued by government authorities or companies in Mainland China. With more and more cross-strait financial interactions, the linkages between Taiwan's and Mainland China's financial systems will become more important in the future.

Establishment of the Cross-Strait Banking Supervisory Cooperation Platform

In order to implement supervisory cooperation in accordance with the agreements signed in the Cross-Strait Financial Cooperation Agreement and the Memorandum of Understanding on Banking Supervision, and to build up a mechanism for periodic meetings between both sides of the Strait for discussing financial issues such as financial market access, business operations and banking supervision, the FSC and Mainland China's banking regulatory agency jointly held two meetings of the Cross-Strait Banking Supervisory Cooperation Platform in April and November 2011 and reached several concrete conclusions (Table 4.4). The consensus agreed upon in the meetings can help Taiwan's regulatory authorities to better know the operation and exposure of Taiwan's financial institutions in Mainland China so as to fulfill their responsibility of consolidated supervision.

⁹⁰ The requirements are: (1) they have branches in Taiwan; or (2) for those without branches in Taiwan, their total assets or capital in the most recent year should rank among the top 1,000 banks worldwide.

Table 4.4 Conclusions reached in meetings of the Cross-Strait Banking Supervisory Cooperation Platform in 2011.

Supervisory cooperation items	Concrete Conclusions
Supervisory Communication and Cooperation	<ol style="list-style-type: none"> 1. Strengthen regular communication: Increase liaison windows and confirm eleven mutual contact items and communication methods. 2. Establish a periodic meeting mechanism: <ol style="list-style-type: none"> (i) Participants, who are the heads of the relevant authorities or appointed by the heads, either from Taiwan or Mainland China, should hold positions on an equal basis; (ii) In the early stage, meetings will be held twice a year, and then adjust to once a year depending upon circumstances; (iii) The two sides will take turns to host meetings.
Financial Inspection	<ol style="list-style-type: none"> 1. Inspection plans should be passed to the other side through the liaison window. 2. The receiving side should reply to inspection plans as soon as possible. 3. After the inspections are completed, both sides should exchange opinions.
Strengthen Supervisory Technical Cooperation	<ol style="list-style-type: none"> 1. Enhance banking supervision technical cooperation between both sides. 2. Jointly hold a seminar on the Basel III.
Expedite the Review of Applications	<ol style="list-style-type: none"> 1. Expedite the review of applications for the establishment of commercial representations on either side. 2. Mainland authorities will seek to complete as quickly as possible their review of applications by six Taiwanese banks for their Mainland branches to conduct renminbi business.
Others	Confirm the scope of “green corridors” in the Midwestern and Northeastern regions of Mainland China, which was committed to in the early harvest provisions of the ECFA.

Source: FSC.

4.3.4 Taiwan will implement Basel III progressively

The recent global financial crisis highlighted problems of excessive leverage, inadequate and deteriorated capital bases and insufficient liquidity buffers in the banking sector. In response to these issues, the BCBS has introduced several capital and liquidity reforms (Basel III) since 2009 and finalized them in December 2010. The key points of Basel III are summarized in Table 4.5.⁹¹

⁹¹ For details, please see Box 2 in Financial Stability Report No. 5 issued by the CBC in May 2011.

Table 4.5 Basel III: capital and liquidity reforms

Dimension	Key points
Microprudential supervision	<ol style="list-style-type: none"> 1. Raise capital quality by employing common equity as the predominant form of capital. 2. Increase capital ratios progressively. 3. Enhance risk coverage, especially in strengthening capital charges for securitization transactions, market risk in the trading book and counterparty risk. 4. Introduce a non-risk based leverage ratio. 5. Propose international liquidity standards, including the Liquidity Coverage Ratio and the Net Stable Funding Ratio.
Macroprudential supervision	<ol style="list-style-type: none"> 1. Propose capital conservation buffers and countercyclical capital buffers to reduce procyclicality. 2. Require global systemically important financial institutions (G-SIFIs) to hold an additional systemic capital surcharge of 1-2.5%.

Source: BCBS.

Although Basel III targeted issues arising in the European and US banking systems, Taiwan always endeavors to meet international standards for financial supervision. In order to follow international reform trends and enhance bank soundness, the FSC, with due consideration on the characteristics and business climate of the financial industry in Taiwan, has declared to phase in Basel III from 2013.⁹² It will raise bank capital adequacy standards progressively and ask banks to raise capital quality, as well as to adopt long-term capital planning. The FSC is working on amendments to Basel III-related regulations and, by the end of 2011, had completed two amendments referring to the BCBS guidance of July 2009⁹³ as follows:

- Revising the requirements for the public disclosure of information on capital adequacy of banks in March 2011. Banks have been obliged to establish a “capital adequacy and risk management section” on their websites for disclosing more qualitative and quantitative information since 30 June 2011.
- Amending capital charge requirements for securitization transactions and market risk in October 2011, such as introducing capital requirements for resecuritizations, increasing credit conversion factors for eligible liquidity facilities, raising capital charges for specific risk for equities in banks’ trading books and requiring banks that use internal models for market risk to set aside an incremental risk capital charge and to calculate stressed value-at-risk weekly. The amendment became effective in January 2012.

The aforementioned amendments focused on the capital charge requirements of securitization

⁹² The FSC, press release of amendments for “Regulations Governing the Capital Adequacy Ratio and Capital Category of Banks,” 23 April 2012.

⁹³ See Note 72.

and trading book transactions. While the size of securitization transactions that domestic banks are involved in is still small, and thus far no bank in Taiwan has been approved to use internal models for market risk, the impact of such amendments is expected to be limited. However, the subsequent amendments—including: revising the definition of eligible capital, raising regulatory capital levels, and introducing capital conservation buffers, countercyclical capital buffers, a leverage ratio and liquidity measures—are expected to have significant impacts on domestic banks in regard to long-term capital plans, risk management (especially liquidity risk management) and business strategies. Therefore, banks are advised to make assessments of the potential impacts and take countermeasures as soon as possible.

Box 3

Implementation of the Financial Consumer Protection Act in Taiwan

The Financial Consumer Protection Act was put into action on 30 December 2011. The Financial Ombudsmen Institution that was set up in accordance with the law was also put into effect on 2 January 2012. This symbolizes a huge step forward in the protection of financial consumers in Taiwan.

1. Main content of the Financial Consumer Protection Act

The Financial Consumer Protection Act has four chapters and thirty-three articles in all. It is applicable to banks, securities firms, futures firms, insurance companies, electronic stored value card enterprises, and enterprises in other financial services. It is mainly concerned with mechanisms for financial consumer protection and also sets up an institution that deals with disputes in financial consumerism. The highlights are below:

1.1 Target of this law

The target group for the Financial Consumer Protection Act is financial consumers who are at a disadvantage, whether it is from a financial, information or professional standpoint. Therefore, the legal definition for financial consumers is those who accept services or products from financial institutions, but excludes qualified institutional investors and natural or legal persons with a prescribed level of financial capacity or professional expertise¹ in order to more effectively utilize the resources needed to settle financial disputes.

1.2 Key protection measures

- When a financial services enterprise enters into a contract with a financial consumer for the provision of financial products or services, the enterprise shall act in conformity with the principles of fairness, reasonableness, equality, reciprocity, and good faith. Contractual provisions entered into by a financial services enterprise and a financial consumer that are clearly unfair shall be invalid. If there is a disagreement over the meaning of any contractual provision, the provision shall be interpreted in favor of the financial consumer.
- A financial services enterprise, in publishing or broadcasting advertisements or carrying out solicitation or promotional activities, shall not engage in falsehood, deception, concealment, or other conduct sufficient to mislead another party, and shall verify truthfulness of the content of its advertisements. The obligation it bears to

financial consumers shall not be less than that indicated in the content of the aforementioned advertisements or in materials or explanations provided to financial consumers in the aforementioned solicitation or promotional activities.

- Before a financial services enterprise enters into a contract with a financial consumer for the provision of financial products or services, the enterprise shall fully understand the information pertaining to the financial consumer in order to ascertain the suitability of those products or services to the financial consumer.
- Before a financial services enterprise enters into a contract with a financial consumer for the provision of financial products or services, the enterprise shall fully explain important aspects of the financial products or services, and of the contract, to the financial consumer, and shall also fully disclose the associated risks.
- A financial services enterprise violating the rules of the suitability and the obligation of disclosure with fault or not has to compensate the consumers for any injury or loss arising therefrom. And the burden of proof is on the side of the enterprise.

1.3 Mechanism to deal with disputes concerning financial consumers

1.3.1 The Financial Ombudsmen Institution

The Financial Ombudsmen Institution is an organization that specializes in dealing with financial disputes. It is made up of an arbitration committee that hires around 9 to 25 arbitration members. The members are mainly comprised of scholars, professionals or unbiased persons who specialize or have experience in related fields, and are responsible for dealing with ombudsman cases. In addition, the institution has an “arbitration office” which helps the arbitration members to deal with cases that come before them. There is also an education and promotional planning division that informs and educates financial consumers about financial knowledge, assists financial services enterprises in dealing with disputes and complaints, and provides advice for financial consumers.

1.3.2 Financial consumers must make a complaint with financial institutions first before applying to the ombudsman body

Financial consumers shall deal with a financial consumer dispute by first filing a complaint with the relevant financial services enterprise. The financial services enterprise shall appropriately handle the matter within 30 days from the day the complaint is received. If the financial consumer does not accept the disposition or the financial services enterprise fails to handle the matter before the aforementioned time limit, the

financial consumer may, within 60 days from either the day they receive notification of the disposition or the day the time limit expires, apply to the ombudsman body to institute an ombudsman case. After the ombudsman body entertains an application to institute an ombudsman case, it may seek to institute mediation proceedings.

1.3.3 Arbitration decisions made for an amount of money under a certain threshold are binding for financial institutions

If financial service providers have already agreed to abide by the rulings of the law to settle disputes on paper, then they should agree to the decisions made by the arbitration committee for amounts that are less than NT\$1 million (for investment products or services) or less than NT\$100 thousand (for non-investment products). However, a decision of the arbitration committee is non-binding for related consumers of financial products, and if they do not agree with the ultimate decision, they can continue with legal proceedings.

1.3.4 An arbitration decision has the same effect as a ruling on civil cases in a court

Financial consumers can, within 90 days after the decision by the arbitration committee, apply for approval from the court. After approval, the arbitration decision will have the same legal power as any rulings on civil cases, and the parties involved may not pursue any more legal actions or ask for arbitration according to this law.

1.3.5 Consumers who apply for the process of arbitration do not need to pay

Consumers who apply for arbitration do not need to pay any fees. However, the institution shall ask for annual fees and service fees from financial services enterprises. The annual payment is calculated as 0.008% of the entire financial industry's income as of the previous year, and then under preset rules the fees that each individual financial product or service provider has to pay are calculated. The service fee depends on the amount that a financial institution has to pay, which is decided by the arbitration members, with a ceiling of NT\$10 thousand.

2. Current operation

According to the information provided by the Financial Ombudsmen Institution, from 1 January to 13 March 2012, financial dispute cases totaled 1,251. Of these cases, insurance industry related cases were the most at 1,050 (or 83.93%), with the banking industry's 186 cases (or 14.87%) coming in second and the securities and the futures

market's 15 cases (or 1.20%) coming in third.

A deeper analysis shows that, concerning different types of disputes, the banking industry's disputes mostly center around banks' methods of enticing customers, whilst the insurance industry's disputes mainly lie with the sum of compensation, the ways that they entice customers and the services which are not provided according to relative regulations.

3. Expected effect

The government hopes that the Financial Ombudsmen Institution can improve the quality of provision of financial products and services, and also effectively protect consumers of financial products. It also hopes to achieve the following goals:

- To integrate the laws that are separate under the status quo into a single mechanism for consumers of financial products and services to apply for arbitration in order to lessen the resources spent.
- To use the mechanism for dealing with financial disputes such that it will lessen the burden of civil courts.
- To use the arbitration provided in order to get greater insight into the problems concerning financial disputes so as to get a greater grasp on the goals and targets of financial supervisory policies.

Note: As the regulation of the Order No. 10000707320 promulgated by the Financial Supervisory Commission on 12 December 2011.