I. Overview

Macro environmental factors potentially affecting financial sector

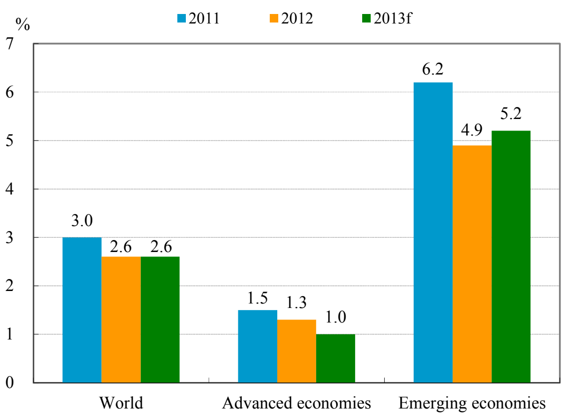
Global economy set to rebound, while financial prospects showed signs of improvement

Global recovery proceeded at a mild pace, and inflationary pressures receded

The global economy remained sluggish in the first three quarters of 2012 constrained by the ongoing European sovereign debt crisis, along with the faltering recovery in the US labor market and the fiscal cliff controversy, hitting market confidence. Afterward, there were signs of a turnaround in the global economy, driven by: (1) the Board of Governors of the Federal Reserve System (FED) launching the third run of expanding asset purchases; (2) the European Central Bank (ECB) adopting Outright Monetary Transactions (OMT) to restore market confidence; and (3) Japanese Prime Minister Abe deploying a more aggressive economic renaissance plan.

In 2013, with concerns over US fiscal retrenchment dampening its economic growth, together with doubts about the downturn in the euro area still lingering, the global recovery moved to a moderate expansion path. Global Insight predicted world real gross domestic product (GDP) growth to reach 2.6% in 2013, approximating that registered in the 2012.[1] Real GDP in advanced economies was forecast to drop to 1.0% throughout the year, lower than the 1.3% recorded in 2012. Output in emerging economies is expected to nudge to

Chart 1.1 Global economic growth rates



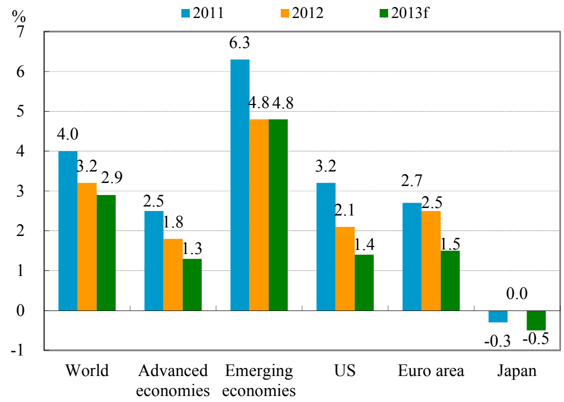
Note: Figures for 2013 are Global Insight estimates.
Source: Global Insight (2013/4/15).

[1] Global Insight Estimate in 15 April 2013.

5.2% over the same period from 4.9% in 2012 (Chart 1.1).

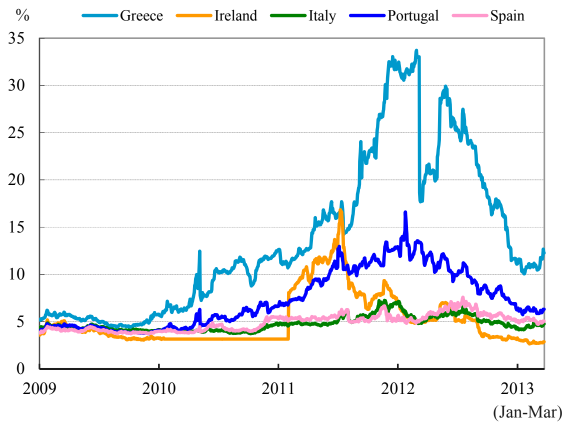
Global prices of food and crude oil at one stage dramatically surged in the wake of climate and geopolitical uncertainty in 2012 Q3. Subsequently, commodity prices regained stability with improvements in the climate in cereal producing regions and a still-subdued global economy. In 2012, global inflation showed a more moderate reading than a year earlier, registering a consumer price index (CPI) inflation rate of 3.2%, down from 4% in 2011. The CPI inflation rates for advanced and emerging economies both declined through 2012 compared to the previous year (Chart 1.2).

Chart 1.2 Global headline inflation indices



Note: Figures for 2013 are Global Insight estimates.
Sources: Official websites of the selected economies and Global Insight (2013/4/15).

Chart 1.3 Government bond yields in euro area GIIPS



Note: All figures are based on 10-year government bond yields except for Ireland's data which are on a 5-years basis.
Source: Bloomberg.

International financial markets have improved

In 2012, the European sovereign debt crisis continued to flare up on occasion affecting global financial markets. In response, the ECB launched the second phase of its three-year Longer-Term Refinancing Operation (LTRO), which provided the banking system with a total amount of one trillion euros or so in low rate loans, and cut the policy rate to a record low of 0.75%.[2] Thereafter, the OMT program, announced by the ECB in September that pledged unlimited and fully sterilized purchases of government-issued bonds in the secondary market, coupled with the introduction of the European Stability Mechanism (ESM) in October, contributed to a plunge in government bond yields for the distressed GIIPS[3] and, in turn, helped international markets gradually resume stability (Chart 1.3).

[2] The ECB further reduced the policy rate by 25 basis points to 0.5% in an attempt to promote economic growth in the euro area.
[3] The GIIPS refers to the euro area periphery economies of Greece, Ireland, Italy, Portugal, and Spain.

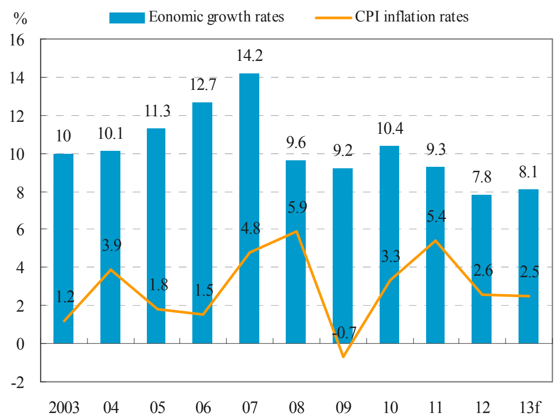
International financial conditions improved notably in 2013 Q1, buttressed by the responsive measures and the quantitative easing monetary policies aggressively carried out by the major European economies, the US and Japan. Nevertheless, the banking industry in the euro area periphery economies still faced challenges emanating from elevated funding costs, worsening asset quality and meager profits. Furthermore, monetary easing policies leading to protracted low rates over a long period of time will increase financial sectors' vulnerability and sensitivity to unexpected rises in interest rates. In addition, the spillover of the monetary easing policies taken by advanced economies spurred a rise in the volatility risk of asset prices in emerging economies. Consequently, the World Bank suggested that the central banks in East Asia should put capital controls in place to curtail excessive inflows in the short term.[4]

Mainland China's economy saw a mild rebound alongside a build-up in credit expansion

In 2012 Q4, Mainland China's economic growth rebounded following consecutive declines in the first three quarters and registered a thirteen-year low of 7.8% for the whole year, though still above its 7.5% official growth target. Global Insight projected Mainland China's economic growth in 2013 to rebound to 8.1%; however, uncertainties over recovery prospects still lingered according to economic statistics in the first quarter of the year. With regard to consumer prices, food prices resumed their downtrend and through 2012 CPI inflation posted a fall of 2.6%, reflecting alleviating inflationary pressures (Chart 1.4).

In the face of economic slowdown and eased inflationary pressure, the People's Bank of China (PBC) twice lowered required reserve ratios and the benchmark deposit and lending rates of financial institutions. Meanwhile, the PBC increased the money supply by means of reverse repo operations. Accordingly, movements of the M2 annual growth rate and new renminbi loans remained stable. However, the PBC's monetary policy stance turned more cautious in January 2013 due to a build-up in credit expansion.

Chart 1.4 Economic growth rates and CPI inflation rates of Mainland China



Note: Figures for 2013 are Global Insight projections.
Sources: National Bureau of Statistics of China and Global Insight (2013/4/15).

[4] World Bank (2012), *East Asia and Pacific Economic Update*, Volume 2.

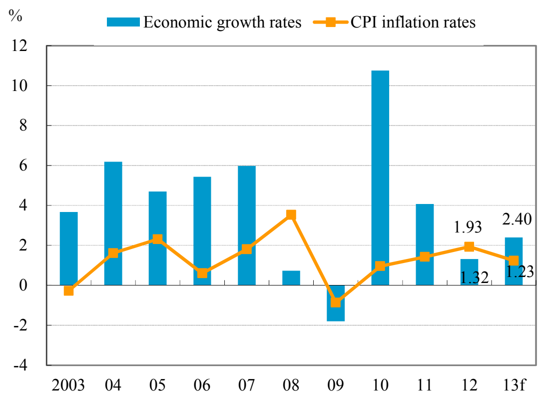
Moreover, in response to the booming housing market, Mainland China announced a new series of measures to curb housing price rises in January 2013, but their short-term effect will likely be limited. In addition, an increased expansion of the shadow banking system accompanied with high leverage and a less comprehensive supervisory mechanism may have a dramatic impact on the financial system with the unfolding of economic fluctuations.

Domestic economy grew at a decelerating pace, while consumer prices rose mildly

In the first half of 2012, Taiwan's economic growth momentum trended up moderately on account of the flagging global economy but resumed a stable level in the second half of the year. The annual economic growth rate dropped to 1.32% in 2012, exhibiting a significant fall from 4.07% a year earlier. Consumer prices at one time trended upwards owing to foreign and domestic factors, but subsequently turned to decline steadily. The average CPI inflation rate of 2012 was 1.93%,[5] still at a mild level. Looking ahead, in view of the lackluster global economy as well as the lower-than-expected growth in exports and private consumption, the Directorate-General of Budget, Accounting and Statistics (DGBAS) revised down its forecast for Taiwan's economic growth rate to 2.40% throughout 2013, while the annual CPI inflation rate was estimated to drop back to 1.23% over the same period[6] (Chart 1.5).

The scale of external debt revealed a moderate level at the end of 2012, while foreign exchange reserves continued accumulating over the same period due to persistent current account surpluses and climbed to US$405.1 billion at the end of April 2013. This implies that Taiwan's foreign exchange reserves have a robust capacity to service external debt. Regarding the government's fiscal position, fiscal deficits markedly contracted after hitting a peak in 2009 and accounted for 2.32% of annual GDP in 2012, below internationally recognized warning levels.[7] Outstanding public debt at all levels of government stood at NT$5.75 trillion at the end of 2012, higher

Chart 1.5 Economic growth rates and CPI inflation rates of Taiwan



Note: Figure for 2013 is forecast by DGBAS.
Source: DGBAS.

[5] The figures are based on a DGBAS press release on 6 May 2013.
[6] The figures are based on a DGBAS press release on 24 May 2013.
[7] As for the ratio of fiscal deficits to GDP for the states of the European Union, the cutoff point for risk is 3% according to the Maastricht Treaty and the subsequent Stability and Growth Pact.

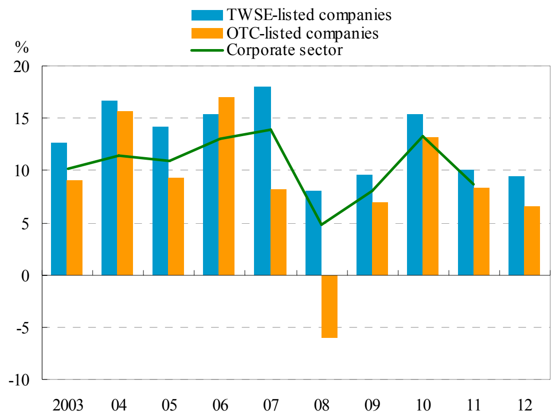
than the figure posted a year earlier. In response, Taiwan's government imposed several measures aimed at effectively controlling outstanding government debt.

Non-financial sectors

Corporate sector

In 2012, driven by the drag from waning global and domestic economic growth, the profitability of Taiwan Stock Exchange (TWSE) listed and over-the-counter (OTC) listed companies both decreased, especially in the plastics and steel industries which both recorded dramatic drops (Chart 1.6). The leverage ratio for TWSE-listed and OTC-listed companies both elevated slightly. Short-term debt servicing capacity of listed companies was lower than the previous year as a result of shrinking profitability but still remained at an acceptable level.

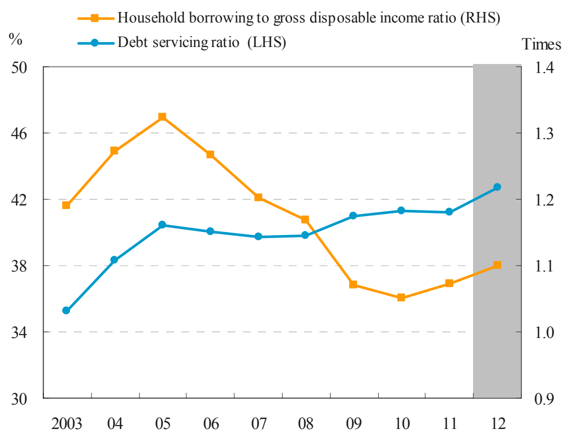
Chart 1.6 Return on equity in corporate sector



Notes: 1. Return on equity = net income before interest and tax / average equity.
2. Latest data for the corporate sector is as of 2011, while those for TWSE-listed and OTC-listed companies are as of 2012.
Sources: JCIC and TEJ.

The credit quality of corporate loans stayed satisfactory as the non-performing loan (NPL) ratio was still at a low level. Operating performances for certain TFT-LCD Panel and DRAM companies improved in 2012, but their weak debt servicing capacity stemming from considerable earlier losses has sparked concerns about the future credit quality of some financial institutions.

Chart 1.7 Household debt servicing ratio



Note: Gross disposable income in shadow area is CBC estimate.
Sources: CBC, JCIC and DGBAS.

Household sector

Household borrowing kept following an uptrend in 2012, and reached NT$11.76 trillion, or 83.77% of GDP, at the end of the year. Despite rising gross disposable household income over the same period, the ratio of household borrowing to gross disposable income went up to 1.22 times as the increase in household borrowing surpassed gross disposable income. As a result, the household debt burden mounted slightly. Meanwhile, the debt servicing ratio also ascended to 37.98% in 2012, indicating that short-term household debt servicing pressure increased somewhat (Chart 1.7).

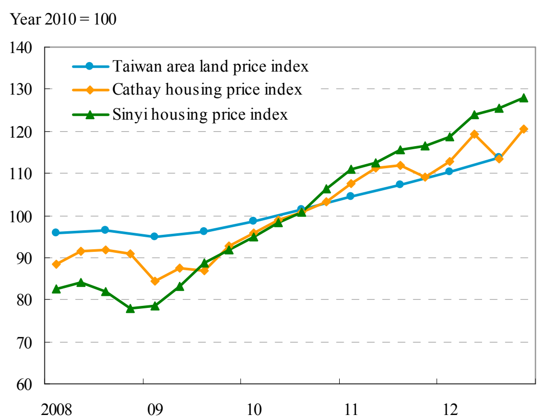
In 2012, the credit quality of household borrowings from banks remained sound, backstopped by a record-low NPL ratio. This, coupled with sliding domestic unemployment rates and increasing regular earnings, will be favorable to strengthen household debt-servicing capacity.

Real estate market

During the first three quarters of 2012, the trading volume in the housing market steadily contracted owing to the imposition of the Specifically Selected Goods and Services Tax, ongoing domestic economic slowdown, and the introduction of the Property Transaction Price Registration System in August. Afterward, the trading volume regained its upward momentum in Q4, fueled by the expansion of quantitative easing measures taken by Japan and the US that boosted positive market expectations. Nevertheless, the number of building ownership transfers for transaction for the whole year still dipped to a ten-year low of 330 thousand units, with an annual growth rate of -8.84%.

The Sinyi housing price index (for existing buildings) carried on hiking upwards throughout 2012, while the Cathay housing price index (for new constructions) rebounded in Q4 after a slowdown in the previous quarter (Chart 1.8). Among the major metropolitan areas, there was a sharp increase in house prices for Taoyuan County, Taichung City and Kaohsiung City, whereas house prices in Taipei City and New Taipei City reported slower growth rates but remained at high levels. With soaring housing prices, the average house price to income ratio and the average mortgage burden ratio for the six metropolitan areas registered 8.3 and 32.0%, respectively, in 2012 Q4. Taipei City stood out among the others and saw the heaviest mortgage burden as its house price to income ratio and the mortgage burden ratio reached

Chart 1.8 Land and house price indices



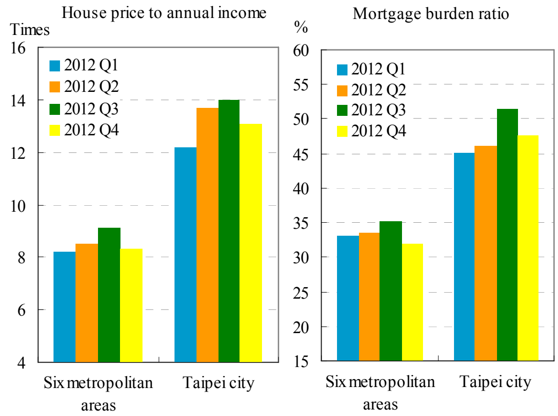
Notes: 1. Taiwan area land price index is released semiannually (i.e. in March and September).
2. The sample and compilation methods employed to generate the Cathay housing price index were changed in 2012 Q4 and applied retroactively to historical data.
3. For comparison purposes, all three indices used the same base year of 2010.

Sources: MOI, Cathay Real Estate and Sinyi Real Estate Inc.

13.1 and 47.6%, respectively (Chart 1.9).

The real estate-related loans of banks grew at a slower pace through 2012, while mortgage interest rates gradually increased. In addition, downward adjustment pressure on house prices in some areas with ample housing supply lingered amid the fact that massive new projects have been successively completed in recent years.

Chart 1.9 House price to income ratios and mortgage burden ratios



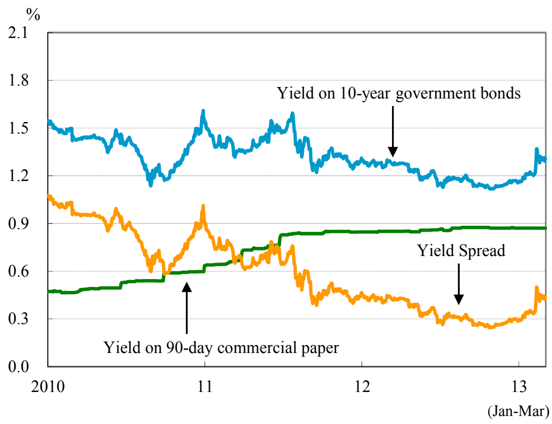
Notes: 1. Mortgage burden ratio = monthly mortgage expenditure / household monthly income.
2. Six metropolitan areas refer to Taipei City, New Taipei City, Taoyuan and Hsinchu City and County, Taichung City, Tainan City, and Kaohsiung City.
Source: "Taiwan Housing Demand Survey Report," MOI.

Assessment of the financial sector

Financial markets

Trading volume slightly rebounded in the primary bond and bills markets, while the secondary markets remained tepid

Chart 1.10 Yield spread

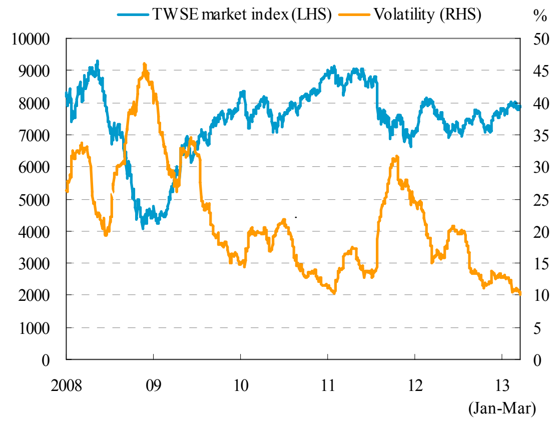


Note: Yield spread refers to yield on 10-year government bonds minus yield on 90-day commercial paper.
Source: Bloomberg.

In 2012, the outstanding amount of bills issuance saw a notable increase in the primary bills market, but trading volumes in the secondary market contracted slightly as massive amounts of commercial paper was bought by banks and then held to maturity. Similarly, the outstanding amount of bond issuance upsurged in the primary bond market spurred by higher willingness for bond issuance by enterprises and financial institutions, while trading volumes in the secondary market shrank due to fewer bonds being traded. In the beginning of 2013, the secondary bills and bond markets remained lackluster. Trading volumes saw a remarkable decline in February, owing to seasonal factors such as the Chinese Lunar New Year holidays, and then rebounded from March onwards.

With regard to market rates, 90-day commercial paper rates showed a stable trend in the secondary market in 2012, bolstered by ample liquidity in the domestic market. However, 10-year government bond yields trended downwards as stock market transactions contracted and capital flowed into the bond market. This resulted in a shrinkage in the yield spread between short-term and long-term rates, which hit an annual low of 25 basis points in November before steadily upswinging. At the end of March 2013, the yield spread amplified somewhat to 44 basis points, but still remained at a relatively low level (Chart 1.10).

Chart 1.11 TWSE market index and volatility



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

Stock indices kept tracking on an upward path together with dramatic fluctuations, while volatility resumed a downward trend

The Taiwan Stock Exchange Weighted Index (TAIEX) hit an annual high point of 8,144 in 2012 Q1. Subsequently, led by lower-than-expected economic performance in Europe and the US, together with the reintroduction of a stock trading income tax, the index reversed from ascending to descending. From Q3 onwards, with a rebound in global stock markets, the index resumed its upward trend together with dramatic fluctuations, registering 7,699 at the end of the year, for a rise of 8.87% year on year. In the beginning of 2013, the TAIEX continued on its upward path and subsequently recorded an increase of 2.85% in March compared to that at the end of 2012 (Chart 1.11).

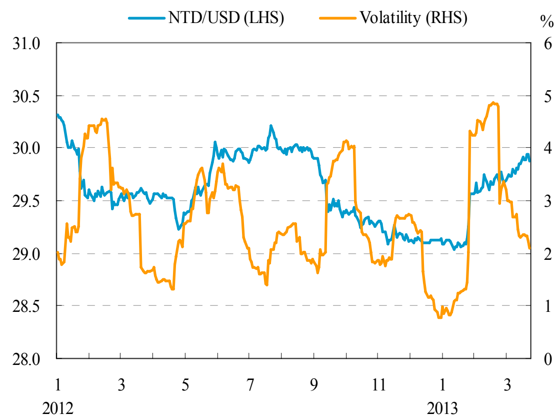
The volatility in the TAIEX stabilized after trending down in 2012, settling at 13.21% at the end of December. In early 2013, the volatility continued sliding as the local stock markets resumed stability and then reached 10.18% at the end of March (Chart 1.11).

The NT dollar exchange rate reversed from appreciation to depreciation but remained relatively stable compared to other currencies

In the first half of 2012, the NT dollar exchange rate against the US dollar continued its appreciating trend from the previous year. In the second half of the year, the NT dollar exchange rate resumed its appreciation and reached an annual high of 29.090 in early November in virtue of foreign capital inflows to Asian emerging markets arising from the third round of quantitative easing taken by the US. In turn, the NT dollar fluctuated mildly and registered 29.136 against the US dollar at the end of December, increasing by 3.96% year on year. In early 2013, yen depreciation provoked Asian currencies to depreciate against the US dollar. This, coupled with advance purchases of US dollars by firms and increasing capital outflows by foreign investors, fueled the NT dollar exchange rate to turn to a period of depreciation, reaching 29.875 against the US dollar at the end of March (Chart 1.12).

The volatility in the NT dollar exchange rate against the US dollar fluctuated between 1% and 5% in 2012, revealing a much milder annual average of 2.57%. In early 2013, the average volatility trended upwards, led by yen depreciation, but regained its downward trend to post a value below 3% from the middle of March onwards (Chart 1.12). Still, the NT dollar exchange rate was relatively stable compared to the volatility in the exchange rates of other major currencies (such as the Japanese yen) against the US dollar.

Chart 1.12 Movements of NT dollar exchange rate against US dollar



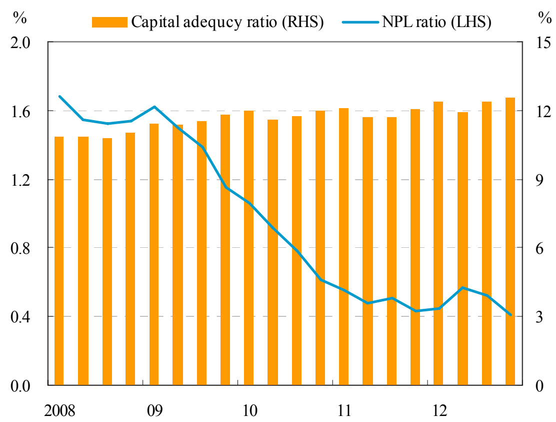
Note: Volatility refers to the annualized standard deviation of 20-day daily returns.
Source: CBC.

Financial institutions

Domestic banks

In 2012, the growth in loans granted by domestic banks increased moderately, arising from state-owned enterprises turning to the bond market to raise funds and a contraction in loans to government agencies. The NPL ratio kept touching new lows, implying satisfactory asset quality (Chart 1.13), along with ample loan loss reserves. The concentration of credit exposure in real estate-related loans gradually improved. Furthermore, the outstanding credit to customers in Mainland China consecutively mounted but merely accounted for a small share of total credit. The estimated Value at

Chart 1.13 NPL and capital adequacy ratios of domestic banks



Source: CBC.

Risk (VaR)[8] for market risk exposures of domestic banks had limited influence on capital adequacy. Liquidity risk was moderate on the back of ample funds.

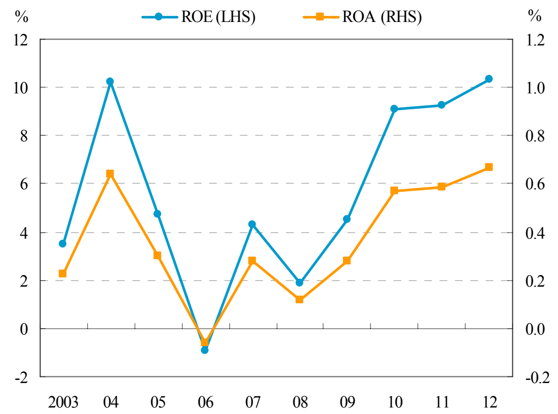
The combined net income before tax for domestic banks reached a historical high of NT$240.7 billion in 2012, in which offshore banking units and overseas branches acounted for about one-third. The average return on equity (ROE) and return on assets (ROA) rose to 10.33% and 0.67%, respectively, over the same period, hitting ten-year record highs (Chart 1.14). The average capital adequacy ratio rebounded to 12.54% (Chart 1.13), indicating an improvement in banks' risk bearing capabilities.

Life insurance companies

Life insurance companies as a whole reported a net profit before tax of NT$38 billion, the highest level during the recent five years (Chart 1.15). This was mainly contributed to by the fact that the expectation of rising premiums, induced by the twice reduction in the interest rate of the reserve requirement for new policies, fueled a sharp increase in premium income. Moreover, this elevated level of profit also benefited from the buoyant domestic stock market as well as the increasing revenues from cash dividends.

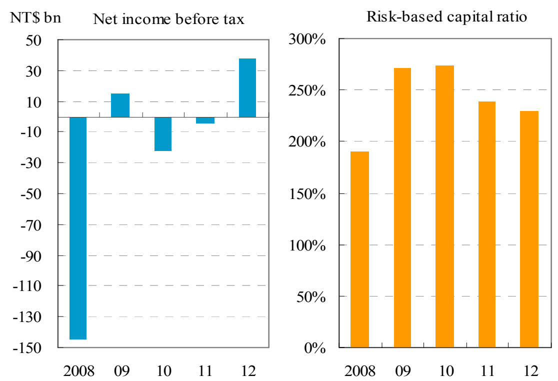
The average risk-based capital (RBC) ratio of life insurance companies, excluding Kuo Hua Life Insurance Company,[9] which was taken into receivership by the Financial Supervisory Commission (FSC), declined to 229.32% at the end of 2012 from 238.38% a year earlier (Chart 1.15), yet was still higher than the statutory minimum of 200%. This decline was predominantly caused by the fact that the expansion in domestic and overseas securities

Chart 1.14 ROE & ROA of domestic banks



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

Chart 1.15 Net income before tax and risk-based capital ratio of life insurance companies

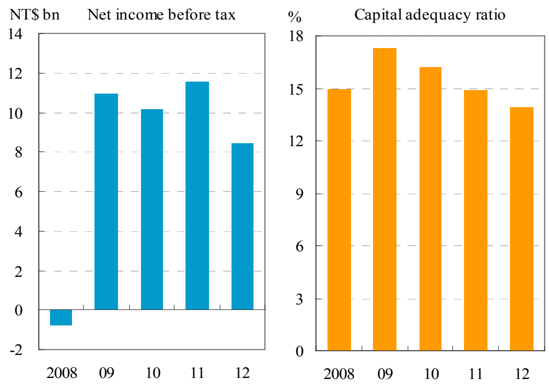


Note: Kuo Hua Life Insurance Company, which was taken into receivership by the Insurance Stabilization Fund on 4 August 2009, is excluded.
Source: FSC.

8 See Note 55 for the calculation of the estimated VaR for market risk.
9 Kuo Hua Life Insurance was taken into receivership by the Insurance Stabilization Fund on 4 August 2009 and then sold by tender to TransGlobe Life Insurance Company on 27 November 2012. The settlement of this purchase contract was completed on 30 March 2013.

investments positions, together with the FSC's imposition of a stricter capital requirement for real estate investments by life insurance companies, spurred a rise in total risk capital. The financial health of the few companies with RBC ratios that are still below 200% warrants improving.

Chart 1.16 Net income before tax and capital adequacy ratios of bills finance companies



Source: CBC.

Bills finance companies

In 2012, the total assets of bills finance companies declined slowly. The outstanding balance of the commercial paper guarantees business gradually rebounded with increasing commercial paper issuance, while credit quality remained satisfactory. The liquidity risk of bills finance companies remained high as a maturity mismatch between assets and liabilities still persisted. Nonetheless, overall major liabilities contracted somewhat compared to the previous year, while the average ratio of major liabilities to net worth also descended over the same period. Meanwhile, each firm kept their ratio below the statutory ceiling.

While the operating profits of bills finance companies leveled off in 2012, overall profitability saw a sharp cutback as a result of shrinking non-operating incomes. Despite average capital adequacy ratios continuously descending, each firm kept its ratio above 12% (Chart 1.16).

Financial infrastructure

Payment systems operated in an orderly fashion and the foreign-exchange settlement platform was put in place

In 2012, all three systemically important payment systems[10] in Taiwan operated in an orderly fashion. In addition, the CBC planned out the foreign-exchange settlement platform which was established by the Financial Information Service Co., Ltd. and inaugurated it on 1 March 2013, aiming at reinforcing domestic financial infrastructure and meeting the requirement for cross-strait renminbi settlement. In the initial stage, only the US dollar remittance service was

[10] The three major payment systems include the CBC Interbank Funds-Transfer System (CIFS), the Interbank Remittance System (IRS) operated by the Financial Information Service Co., Ltd., and the Check Clearing House System (CCHS).

commenced in the platform, but subsequently the payment for renminbi and other currency transactions will be incorporated in a step-by-step manner. This is conducive to facilitating the development of the domestic financial services industry.

Deregulation of financial services

In order to promote cross-strait commercial activity and financial cooperation, on 31 August 2012, the CBC and the PBC jointly signed the Memorandum on Cross-Strait Currency Clearing Cooperation, setting up the Cross-Strait Currency Clearing Mechanism, and successfully paved the way to allow domestic banking units (DBUs) to conduct RMB business.

Furthermore, in order to advocate the establishment of the Money Management Platform for Taiwanese Citizens, the CBC and the FSC jointly drew up a draft for amending the Offshore Banking Act, authorizing securities firms to set up Offshore Securities Units (OSUs) within the territory of Taiwan to commence international securities business. Meanwhile, the amended Act will grant tax preference to the OSUs, with reference to the taxation of Offshore Banking Units (OBUs).

Taiwan’s financial system remained stable

In 2012, the domestic economy grew at a moderate pace and profitability in the corporate sector turned to contract amid the global economic downturn. However, domestic financial markets operated smoothly over the same period in spite of the unfavorable macroeconomic circumstances. Moreover, financial institutions saw a marked rise in profits, while asset quality stayed sound. Most domestic financial institutions, except for a few life insurance companies, registered adequate capital ratios. The three major payment systems operated on an orderly trajectory. By and large, the financial system in Taiwan remained stable.

The upcoming events emanating from the evolution of domestic and international economic and financial conditions that may have impacts on Taiwan’s real economy and financial system necessitates increased vigilance. Above all, the subsequent development of the European sovereign debt crisis, the US fiscal cliff controversy, as well as the recent expansion of monetary easing by the Japanese government and the movement of the depreciating yen deserve special attention. In response, the CBC will pay close attention and take adequate monetary, credit and foreign exchange policies to mitigate the impacts. Meanwhile, the FSC will persist in revamping financial regulations and enhancing financial supervisory measures in the hope of facilitating the soundness of financial institutions and promoting financial stability.