## I. Overview

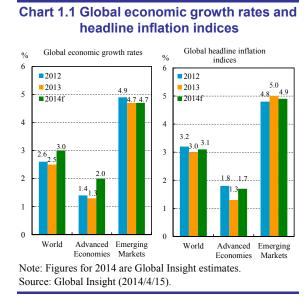
# Macro environmental factors potentially affecting financial sector

# Global economy saw subdued growth, while financial markets showed signs of improvement

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

In 2013, the global economic recovery proceeded at a cautious pace. In the US, despite a warming housing market and an improving labor market, economic growth momentum waned as a result of fiscal retrenchment. The downturn in the euro area mitigated with the subsiding of the sovereign debt crisis and accelerating export growth. Meanwhile, Japan saw an economic growth impetus, underpinned by the stimulus package of the Abenomics program. However, due to concerns over the possible exit of the quantitative easing monetary policy (QE) in the US and the impact of weakening demand in major international commodities markets, economic growth in emerging economies declined.

From 2014 onwards. US domestic consumption momentum picked up. benefiting from continued robust labor market conditions. This, together with the euro area resuming growth, presaged that advanced economies would be major contributors to a sustainable pace of global economic recovery. Global Insight predicts world real gross domestic product (GDP) growth to reach 3.0% in 2014, higher than the 2.5% recorded a year earlier. Real GDP in advanced economies is predicted to nudge up to 2.0%, while output in emerging economies is



forecast to grow moderately and reach 4.7% in 2014<sup>1</sup> (Chart 1.1).

Regarding consumer prices, thanks to a continued fall in the international prices of cereals, global inflation moderated in 2013 compared to the previous year, with the consumer price index (CPI) inflation rate registering 3.0%, down from 3.2% in 2012. CPI inflation rates in advanced economies declined, while those in the emerging economies increased marginally. From the beginning of 2014, international cereal prices



moved up. Global Insight predicts the global CPI inflation rate to slightly rise to 3.1% in 2014 (Chart 1.1).

### International financial markets improved but global financial risk elevated

In the first half of 2013, global financial risks alleviated, underpinned by appropriate monetary policy stances and precautionary measures implemented by numerous countries. From the second half of 2013 onwards, concerted monetary easing by the major economies and improvement in fiscal conditions in the euro area contributed to allaying tensions in financial markets. However, the spillovers emanating from transitions to less accommodative monetary policy expansions in advanced economies led to the build-up of global financial risks.

In 2013, the US stock indices trended up noticeably as the Board of Governors of the Federal Reserve System (Fed) decided to maintain an accommodative policy. In Japan, the announcement of the Quantitative and Qualitative Monetary Easing (QQE) by the Bank of Japan (BOJ) successfully led to yen depreciation and propelled its stock market to rally (Chart 1.2). However, while banks in the euro area periphery economies still faced the challenges of elevated funding costs and deteriorating asset quality, emerging markets were affected by weakening fundamentals and the substantial impacts of monetary policy transitions in advanced economies.

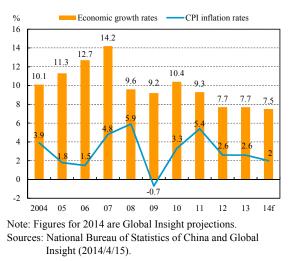
<sup>&</sup>lt;sup>1</sup> Global Insight Estimate on 15 April 2014.

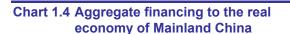
## Mainland China's economic growth momentum waned, but off-balance sheet credits soared

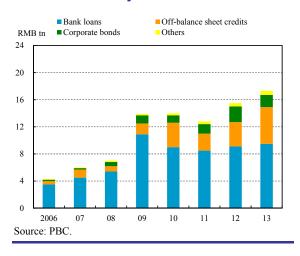
In the first half of 2013, Mainland China's economic growth slowed down due to decreases in both infrastructure investments and excess capacity in some industries.<sup>2</sup> In Q3, thanks to a series of measures to maintain steady growth taken by the State Council in late July, economic growth rebounded and registered an annual growth of 7.7% for the whole year, the same level as in 2012. Considering that economic transition may dampen economic growth, Global Insight projects Mainland China's economic growth in 2014 to moderate to 7.5% (Chart 1.3).

Consumer prices in Mainland China remained stable with the CPI inflation rate registering 2.6% in 2013 (Chart 1.3), lower than the official goal of 3.5%. The growth of building sales prices in 70 medium-large cities began to decline after the government took a series of measures to curb housing price rises. Meanwhile, aggregate financing to the real economy<sup>3</sup> hit a new high as off-balance sheet









credits, representing a proportion of the shadow banking system,<sup>4</sup> increased rapidly (Chart 1.4). Although Mainland China has strengthened supervision on shadow banking, close monitoring of subsequent developments is still needed.

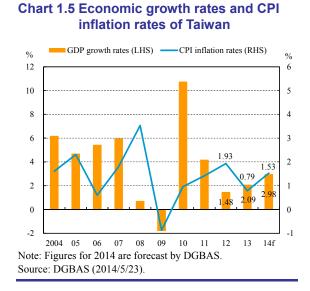
<sup>&</sup>lt;sup>2</sup> Industries with excess capacity include solar energy, iron and steel, cement and aluminum, etc.

<sup>&</sup>lt;sup>3</sup> Aggregate financing to the real economy refers to the total funding of credits provided by the financial system to the real economy over a period of time. Therefore, it is an incremental amount.

<sup>&</sup>lt;sup>4</sup> According to Document No. 107 issued by the State Council of Mainland China in 2013, shadow banks fall into three categories: (1) unlicensed and unregulated credit intermediaries, including online finance companies and third-party wealth management institutions, etc.; (2) unlicensed and lightly regulated credit intermediaries, including credit guarantee companies and micro-finance companies, etc.; and (3) services provided by licensed institutions that lack sufficient regulation or avoid regulation, including money market funds, asset-backed securitization and certain wealth management services, etc.

## Domestic economy expanded slightly, while consumer prices rose mildly

Backstopped by growing exports and better performance of investment and private consumption in Q2 and Q4, the annual economic growth rate reached 2.09% in 2013, higher than the 1.48% registered in the previous year. Consumer prices rose mildly. Due to a higher base of 2012 resulting from electricity and gasoline price hikes, the CPI inflation rate for 2013 dipped to 0.79%, lower than the 1.93% of the previous year (Chart 1.5).



Looking ahead, on account of anticipated growth in exports, private consumption and investment, the Directorate-General of Budget, Accounting and Statistics (DGBAS) forecasts Taiwan's economic growth rate to improve to 2.98%<sup>5</sup> in 2014. As for domestic prices, considering that the rising prices of materials exerted upward pressure on food prices, the DGBAS predicts the CPI inflation rate to rise to 1.53%, higher than the level in the previous year (Chart 1.5).

At the end of 2013, the scale of external debt revealed a moderate level while foreign exchange reserves remained at a sufficient level of US\$ 416.8 billion, implying that Taiwan's foreign exchange reserves have a robust capacity to service external debt. Regarding the government's fiscal position, fiscal deficits accounted for 1.95% of annual GDP in 2013, lower than that in the previous year. Outstanding public debt at all levels of government expanded steadily to NT\$6.05 trillion at the end of 2013, well above the figure posted a year earlier. In response, the Ministry of Finance proposed the "Fiscal Health Plan" that seeks to urge related government agencies to improve their fiscal situations in the hope of enhancing a sound fiscal system.

The figures are based on a DGBAS press release on 23 May 2014.

### Non-financial sectors

### **Corporate sector**

Benefiting from the global recovery and stable economic growth in Mainland China, the profitability of Taiwan Stock Exchange (TWSE) listed and over-the-counter (OTC) listed companies broadly improved in 2013 compared to that of the previous year, especially in

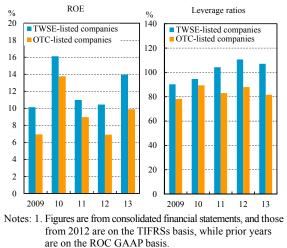
the semiconductor and the trading and consumer goods industries which both recorded a marked rise in profits. The leverage ratio for **TWSE-listed** and **OTC-listed** companies both declined somewhat due to a substantial increase in equity (Chart 1.6), while short-term debt servicing capacity strengthened as a result of improving profitability.

The credit quality of corporate loans stayed satisfactory as the non-performing loan (NPL) ratio was maintained at a low level of 0.63%. However, global economic recovery is still clouded by uncertainties and the normalization of US accommodative monetary policy may drive interest rates up and increase the debt-servicing burdens of firms. Moreover, the relationship between Taiwan's and Mainland China's TFT-LCD panel and petrochemical industries has shifted from cooperation to competition. These, coupled with Mainland China's economic transition, might affect future profitability of the corporate sector.

#### Household sector

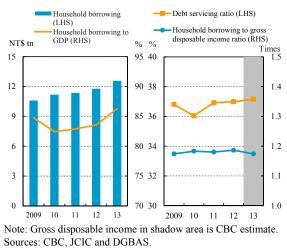
Total household borrowing saw a continued expansion in 2013 and reached NT\$12.56





- Return on equity = net income before interest and tax / average equity.
- 3. Leverage ratio = total liabilities / total equity.
- Sources: JCIC and TEJ.





trillion at the end of the year, equivalent to 86.26% of annual GDP. As total household borrowing grew at a slower pace than disposable income in 2013, the ratio of household borrowing to gross disposable income shrank to 1.17 at the end of the year, reflecting that the household debt burden lessened. However, due to the increase in short- and medium-term loans, the debt servicing ratio rose to 37.15% in 2013, slightly higher than the 36.98% recorded in 2012 (Chart 1.7), indicating that short-term household debt servicing pressure increased somewhat.

In 2013, the credit quality of household borrowings from banks remained sound, as the NPL ratio continuously dropped to a fifteen-year low of 0.31% at year-end. This, coupled with a sliding domestic unemployment rate and increasing regular earnings, will be favorable to strengthen household debt-servicing capacity.

#### Real estate market

In the first half of 2013, trading volume in the real estate market increased in Q2 boosted by issues regarding the Taoyuan Aerotropolis, the upgrading of cities and counties to special municipalities as well as pan-Taipei metropolitan area MRT construction. In the

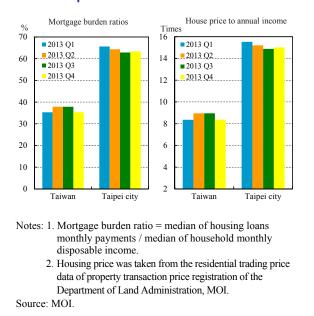
Thousands Year 2010 = 100 of units 160 140 Units of transfer registrations (RHS) Taiwan area land price index (LHS) Cathay housing price index (LHS) 120 140 Sinyi housing price index (LHS) 120 100 100 80 80 60 40 60 2009 10 11 12 13 14 Notes: 1. Taiwan area land price index is released semiannually. 2. The sample and compilation methods employed to generate the Sinvi housing price index were changed in 2012 Q4 and applied retroactively to historical data. 3. For comparison purposes, all three indices use the same base year of 2010.

Chart 1.8 Building ownership registrations

and land and house price indices

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

## Chart 1.9 Mortgage burden ratios and house price to income ratios



second half of the year, housing market sentiment turned conservative and the trading volume declined slightly owing to concerns over an early exit of US quantitative easing (QE) in addition to the proposed amendment of the *Specifically Selected Goods and Services Tax Act* by the Ministry of Finance.

The average growth rates of the Cathay housing price index (for new constructions) and Sinyi housing price index (for existing buildings) for 2013 were 9.61% and 14.43%, respectively, both higher than those in 2012. Meanwhile, the land price index also trended up due to an active market (Chart 1.8).

With rising housing prices, the mortgage burden ratio for Taiwan stayed high in 2013 and registered 35.4% in Q4. The house price to income ratio during the same period was 8.4 (Chart 1.9), demonstrating that the mortgage burden was heavy.

## Assessment of the financial sector

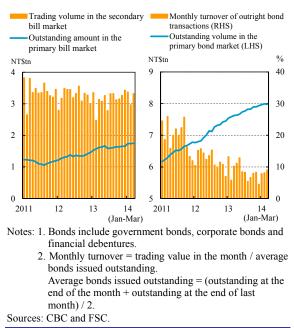
## Financial markets

## The primary bill and bond markets gained momentum, while the secondary markets remained sluggish

In 2013, the outstanding amount of bills issuance saw a notable increase in the primary bill market, but trading volumes in the secondary market contracted slightly as massive amounts of commercial paper were bought by banks and then held to maturity. A matching trend can also be found in the bond markets (Chart 1.10). In the beginning of 2014, the secondary bill and bond markets remained sluggish.

With regard to short-term market rates, in 2013, 90-day commercial paper rates remained broadly stable in the first three began to trend slightly quarters but downwards from October. As for long-term market rates, from the middle of May onwards, 10-year government bond yields trended upwards amid concerns over the tapering of the Fed's asset purchases, pushing the yield spread to a relative high of 85 basis points at the end of 2013. At the end of March 2014, the yield spread had shrunk somewhat to 77 basis points.

## Chart 1.10 Primary and secondary bill and bond markets



### Stock indices trended up, while volatility initially amplified then dampened

In early 2013, due to the robust performance of global stock markets, the Taiwan Stock Exchange Weighted Index (TAIEX) of the TWSE market kept trending upwards and hit a new high of 8,399 on 22 May. Subsequently, subdued by market concerns over the tapering of the Fed's asset purchases, the index reversed from ascending to descending. From September onwards, while the Financial Supervisory Commission (FSC) announced several stock market support measures and the Fed decided to maintain the pace of its monthly bond purchases, the TAIEX resumed its upward trend and registered 8,612 at year-end, for a rise of 11.86% year on year. In the beginning of 2014, the TAIEX continued on its upward path and

reached 8,849 at the end of March, increasing

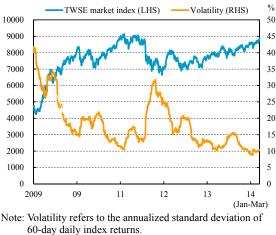
by 2.76% from the end of 2013 (Chart 1.11).

In 2013, the volatility in the TAIEX declined after trending up, settling at 9.45% at the end of December. In early 2014, the volatility increased gradually as the TAIEX rebounded and ascended to 10.38% at the end of March (Chart 1.11).

## The NT dollar exchange rate continued its depreciating trend but remained relatively stable compared to other currencies

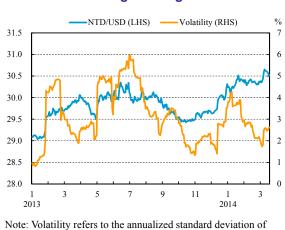
In the first half of 2013, the NT dollar exchange rate against the US dollar depreciated, with concerns over the BOJ deploying additional quantitative monetary easing and the possibility that the Fed may taper its stimulus package. It reached a yearly low of 30.350 on 24 June and then fluctuated within a narrow range. After the Fed announced in September to maintain the pace of its bond-buying program, the NT dollar rebounded. In December, the NT dollar weakened again as markets expected capital

Chart 1.11 TWSE market index and volatility

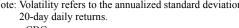


Sources: TWSE and CBC.

Chart 1.12 Movements of NT dollar



exchange rate against US dollar



Source:CBC

outflows to the US in response to the Fed's decision to scale back its monthly bond-buying program from January 2014 (Chart 1.12).

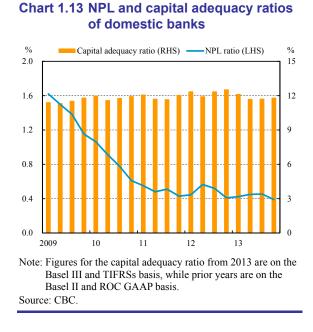
The volatility in the NTD/USD exchange rate fluctuated between 0.8% and 6% in 2013, and registered a milder annual average of 3.18%. In early 2014, with the effect of international capital outflows from emerging markets caused by tapering bond purchases by the Fed, the volatility in the NTD/USD exchange rate trended upwards, but fell below 3% from the middle of February (Chart 1.12). Still, the NTD/USD exchange rate was relatively stable compared to the volatility in the exchange rates of major currencies (such as the Japanese yen) against the US dollar.

### **Financial institutions**

### Domestic banks

In 2013, the growth in loans granted by domestic banks increased moderately, arising from a contraction in loans to government agencies.

The NPL ratio kept touching new lows, implying satisfactory asset quality, along with ample loan loss reserves. The concentration of credit exposure in real estate loans gradually improved. Furthermore, outstanding credit to customers in Mainland China mounted rapidly but merely accounted for a small share of total credit. The average capital adequacy ratio at the end of 2013 was lower than the figure posted a year earlier due to the first adoption of IFRSs and Basel III (Chart 1.13). The estimated Value at Risk (VaR)<sup>6</sup> for market risk exposures of domestic banks rose, but had limited influence on capital adequacy.



<sup>&</sup>lt;sup>6</sup> See Note 54 for the calculation of the estimated VaR for market risk.

The combined net income before tax for domestic banks reached a historical high of NT\$258.2 billion in 2013. However, due to a substantial increase in equity, the average return on equity (ROE) decreased slightly to 10.24% from 10.44% a year earlier, while the average return on assets (ROA) remained at 0.67% (Chart 1.14).

### Life insurance companies

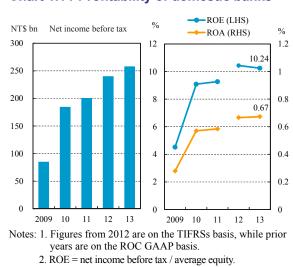
Life insurance companies reported a six-year high net income before tax of NT\$64 billion in 2013, significantly increasing by 91.02% over the previous year (Chart 1.15). This was mainly fueled by huge profits on foreign exchange derived from investment portfolios, as well as an interest income increase and a recovery of special reserves on unrealized property gains.

The average risk-based capital (RBC) ratio rose to 246.22% at year-end 2013 (Chart 1.15) from 228.95% a year earlier (excluding Kuo Hua Life Insurance Company), above the statutory minimum of 200%. However, the financial health of the few companies with RBC ratios below 200% warrants improving.

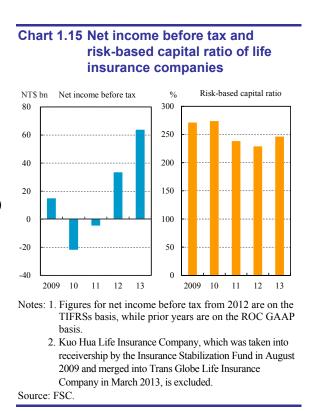
### Bills finance companies

In 2013, the total assets of bills finance

companies increased slightly. The outstanding of the commercial paper guarantees business gradually rebounded with increasing commercial paper issuance by private corporations for short-term funding, while credit quality remained satisfactory. The liquidity risk of bills finance companies remained high as a maturity mismatch between assets and liabilities still persisted.



3. ROA = net income before tax / average total assets. Source: CBC.





Nonetheless, the overall net income before tax of bills finance companies in 2013 maintained at a similar level to the previous year. The average capital adequacy ratio at year-end held steady at 13.95% (Chart 1.16), while each firm kept its ratio above 13%.

### Financial infrastructure

## Payment systems operated smoothly and credit card settlement was incorporated into the CBC's Interbank Funds-Transfer System (CIFS)

In 2013, all three systemically important payment systems<sup>7</sup> in Taiwan operated in an

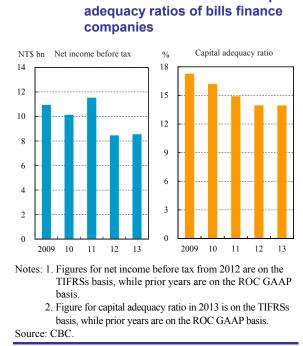


Chart 1.16 Net income before tax and capital

orderly fashion. Moreover, to enhance the safety and efficiency of credit card settlements, the National Credit Card Center (NCCC) opened a clearing account in the CIFS to facilitate central settlements of payments between credit card acquirers and issuers from November 2013 onwards.

In addition, to further strengthen the financial infrastructure and to support the operation of the cross-strait renminbi clearing mechanism, the CBC mapped out the foreign currency clearing platform. The platform, established by the Financial Information Service Co., Ltd. (FISC), was inaugurated on 1 March 2013, providing the services of domestic and cross-strait US dollar and renminbi remittances, as well as a payment-verses-payment (PVP) mechanism for NTD/USD transactions, where payments of cross currency transactions were settled simultaneously.

### Other reforms for financial supervisory regulations

To strengthen financial institutions' liquidity risk management, Taiwan has drafted local requirements on liquidity risk, based on the Liquidity Coverage Ratio (LCR) standards issued by the Basel Committee on Banking Supervision (BCBS), and is scheduled to follow the

<sup>&</sup>lt;sup>7</sup> 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) operated by the Taiwan Clearing House.

recommended time frame of implementation set by the BCBS.

Moreover, in order to enhance the quality and transparency of financial reports and facilitate cross-country comparisons of financial statements, Taiwan will switch to the 2013 Traditional Chinese version of the International Financial Reporting Standards edition endorsed by the FSC (TIFRSs) in 2015. The 2013 TIFRSs is significantly different from the 2010 TIFRSs adopted in 2013. Its impacts will not only be on accounting, but also on entities' information systems, funding management and investor relationships.

## Taiwan's financial system remained stable

In 2013, the domestic economy expanded slightly and profitability in the corporate sector was strengthened amid subdued global economic growth. Against this backdrop, domestic financial markets operated smoothly and financial institutions saw a marked rise in profits with sound asset quality. Most domestic financial institutions, except for a few life insurance companies, registered adequate capital ratios. The three major payment systems functioned along 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 necessitate increased vigilance. Above all, the spillovers from the gradual normalization of monetary policy in the US, waning economic growth and escalating risks of shadow banking in Mainland China, as well as the potential impacts of house price adjustments on the credit quality of domestic financial institutions' real estate loans deserve special attention. In response, the CBC will pay close attention and formulate 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.