I. Overview

Global downside risks elevated, and the global financial system remained fragile

Global growth decelerated alongside escalating downside risks, but inflationary pressures subdued

The global economy grew at a tepid pace in the first half of 2011. From the second half of the year onwards, growth further weakened and downside risks increased due to intensifying strains in Europe relating to the sovereign debt crisis and fears over economic fragilities elsewhere. The International Monetary Fund (IMF) estimated that the global economic growth rate substantially dropped to 3.9% through 2011 from 5.3% a year earlier. This number is expected to further decrease to 3.5% in 2012 but rebound to 4.1% in 2013¹ on account of improving financial conditions and less fiscal tightening (Chart 1.1). Advanced economics saw a considerable slowdown in economic growth, while the euro area economy is even predicted to go into a mild recession. Economic growth in emerging and developing economies experienced a greater-than-expected slowdown in 2011.

Consumer prices trended up across the world in the first half of 2011, especially in emerging and developing economies. In the second half of 2011, however, with softening global demand, consumer price growth either moderated or fell as international raw materials prices gradually stabilized. Reflecting this, inflationary pressures abated. The IMF estimated that the global headline inflation rate (consumer price index, CPI) settled at 4.84% in 2011, above the 3.68% recorded a year earlier. In 2012, global oil



Source: IMF (2012), World Economic Outlook, April.

¹ IMF (2012), World Economic Outlook, April.

prices are projected to remain elevated due to geopolitical tensions, but non-oil commodity prices could fall below the levels registered one year earlier. Against this backdrop, global headline inflation is expected to fall back to $4.04\%^2$ (Chart 1.2).

According to analyses from the IMF and other international institutions,³ several risks continued to cloud the global growth outlook, including: (1) more massive and persistent bank deleveraging and credit tightening in the euro area; (2) still-fragile financial systems and slack macro demand; (3) the absence of progress in medium-term fiscal adjustment plans by

the US and Japan; (4) the spillovers of downside risks from advanced economies to emerging and developing economies; (5) soaring risks in oil supply; (6) a rise in funding costs due to global risk aversion; and (7) asset price bubbles, currency appreciation and mounting inflation facing some emerging and developing economies as a result of easy monetary policies pursued in advanced economies.

Mainland China's output growth moderated and credit expansion slowed

In 2011, affected by moderating growth in its trade surplus, decreasing momentum in fixed capital formation and a slight drop in real consumption, Mainland China's economic growth rate declined quarter by quarter and registered 9.2% for the whole of the year, down from 10.4% in 2010. In 2012, Mainland China's export performance would continue to be clouded by the shadows of weak economic conditions in Europe and the US, and its growth policy transformation is expected to suppress investment growth.







² See Note 1.

⁴ IMF (2012), World Economic Outlook, April; OECD (2011), Economic Outlook, No. 90, November; OECD (2012), What is the economic outlook for OECD countries? An interim assessment, March; UNCTAD (2012), World Economic Situation and Prospects 2012, January; Global Insight (2012), Global Executive Summary, January.

Reflecting this, Global Insight projects Mainland China's economic growth rate through 2012 to steadily decrease to 8.1%⁴ (Chart 1.3).

In the first three quarters of 2011, the People's Bank of China (PBC) continuously tightened the money supply, but subsequently cut the reserve requirement ratio (RRR) for depository financial institutions three times following the adoption of an easier monetary stance from the fourth quarter of the year onwards. This change in stance was largely



Chart 1.4 Credit supply and housing market

because masses of small and medium enterprises facing funding cuts went bankrupt as market liquidity tightened up, and inflationary pressures receded as domestic and international prices eased. In 2011, on the back of a decelerating credit expansion and cooling housing market (Chart 1.4), the adverse impacts of the rapid correction in house prices on real estate-related industries and banks' asset quality needed to be watched vigilantly. Furthermore, against a background of moderating economic growth and cooling down of the property market, the credit risk of a booming shadow banking system⁵ in Mainland China could keep rising. This may negatively affect the asset quality of banks through contagion effects and thus its potential impacts warrant close monitoring.

The global financial system remained fragile

With aggravating European sovereign debt strains in the second half of 2011, the sovereign funding stress spilled over from the periphery of the euro area into the core, resulting in an acute increase in sovereign credit default swap (CDS) spreads for many euro area member states (Chart 1.5). The European sovereign debt crisis further spread from sovereigns to the banking sector, igniting an adverse feedback loop between the financial sector and the real economy. Consequently, the global financial system was swamped in a danger zone of instability. International organizations and the euro area economies sequentially launched a series of policy steps with a view to dampening the deterioration in the sovereign debt crisis and banking sector. These measures, to some extent, have borne fruit for restoring confidence

⁴ Global Insight Estimate in May 2012.

⁵ Shadow banking in Mainland China includes: (1) non-bank institutions, such as pawnshops, credit guarantee companies and micro-finance companies; (2) private equity funds; (3) wealth management products, such as entrusted loans and trust loans; (4) financial innovation products, such as asset securitization and derivatives. This definition refers to IMF (2011), "*People's Republic of China: Financial System Stability Assessment*," Country Report No. 11/321, November and relevant papers.

in financial markets. However, upward pressures on sovereign financing in periphery countries could keep threatening global financial stability.⁶

International financial reforms continued to progress

There was some progress made on recent international financial reforms. Firstly, individual countries speeded up revamping their domestic regulations related to capital adequacy in response to the implementation of Basel III starting in 2013. Thus far, only a few countries have completed the final rules.



Most countries have either been drafting the regulations or releasing the drafts for comments. Secondly, the Financial Stability Board (FSB) provided a policy framework for global systemically important financial institutions (G-SIFIs). Meanwhile, stress tests, which are used to assess the resilience of individual firms or the whole financial system to withstand adverse impacts, have drawn increasing attention from European and US supervisors in recent years. The above-mentioned points are the focus of recent international financial reforms.

Trend growth rate of the domestic economy moderated alongside mounting inflationary pressures, but external debt servicing ability remained robust

The domestic economy maintained steady growth in the first half of 2011 but then moderated in the second half of the year owing to drag from the intensifying European sovereign debt crisis and slowing growth momentum in the global economy. Based on Directorate-General of Budget, Accounting and Statistics (DGBAS) figures, the annual economic growth rate stood at 4.03% in 2011, exhibiting a dramatic drop from 10.72% a year earlier. It is expected to continue declining to 3.03% in 2012^7 (Chart 1.6).

⁶ In response to mounting risks to stability, the IMF suggested that stepping up coordination among cross-border governments and taking necessary policy responses to entrench financial stability are warranted.

⁷ The figures are based on a DGBAS press release on 25 May 2012.

With elevated international raw material prices, the wholesale price index (WPI) inflation rate visibly rose in the first half of 2011 but tracked downward notably at the end of December. The annual average WPI inflation rate dropped to 4.32% for the year as a whole compared to 5.46% in 2010. Similarly, the annual headline inflation rate also saw an upward trend in the first half of 2011 but moved at a moderate pace in the second half of the year due to easing international raw material prices. The CPI and core inflation rates in 2011 were 1.42% and



1.33%, respectively, higher than those of 0.96% and 0.44% a year earlier but still at a mild level. In the beginning of 2012, an upsurge in international oil prices fueled soaring inflationary pressures on energy-related product prices. Besides this, the introduction of the Gasoline and Electricity Price Rationalization Policy by the government in April 2012, combined with a three-stage adjustment of electricity fares starting from June, might increase fluctuations in the consumer price level. On the other hand, declining global demand has lowered the prices of agricultural and industrial raw materials. Meanwhile, an Executive Yuan panel in charge of monitoring and stabilizing retail prices required relevant government agencies to launch a policy package to facilitate a stable retail price level. Reflecting these varied influences, the DGBAS projects the annual CPI and WPI inflation rates for 2012 to register 1.84% and 1.49%,⁸ respectively (Chart 1.6).

In the second half of 2011, increasing uncertainties in global economic and financial conditions were widely expected to affect domestic economic growth, and domestic prices rose steadily. Against this backdrop, the CBC Board kept policy rates unchanged three times from the third quarter of the year onwards with the aim of entrenching price and financial stability, and further sustaining sound economic growth. In this context, the CBC will continuously pay close attention to the evolution of domestic prices and adopt appropriate monetary policy setting in a timely manner, so as to maintain domestic price stability.

The current account surplus persisted in 2011, while foreign exchange reserves accumulated over the same period and climbed to US\$395.1 billion at the end of April 2012. This implies that Taiwan's foreign exchange reserves have a robust capacity to meet payment obligations

⁸ See Note 7.

for imports and to service short-term external debt. Moreover, outstanding external debt relative to annual gross domestic product (GDP) and annual exports registered 26.27% and 39.75% at the end of 2011, respectively, indicating that there were no signs of servicing pressure on external debt. Fiscal deficits turned narrower throughout the year, while outstanding government debt kept accumulating.

Non-financial sectors

Corporate sector

In 2011, the profitability of Taiwan Stock Exchange (TWSE) listed and over-the-counter (OTC) listed companies both declined amid the European sovereign debt crisis and the drag from slowing global economic growth in the second half of the year (Chart 1.7). The leverage ratio rose slightly for TWSE-listed companies as some large companies issued bonds to raise long-term funds, while it fell for OTC-listed companies due to decreasing liabilities. Short-term debt servicing capacity weakened as a result of shrinking profitability, but it still remained at an acceptable level.

The credit quality of corporate loans stayed satisfactory, underpinned by a descending non-performing loan (NPL) ratio. Nevertheless, operating performances for certain industries deteriorated due to flagging market demand and global competition, leading to a rise in credit risks. Moreover, rising international oil prices, decelerating global economic growth and

Mainland China's lowered GDP target may affect future performance of the corporate sector and, therefore, warrant close attention.

Household sector

Household borrowing saw a moderate growth in 2011, and reached NT\$11.36 trillion, or 82.65% of GDP, at the end of the year. Bolstered by a notable rise in gross disposable income, the ratio of household borrowing to gross disposable income over the same period was brought back to 1.16 times, representing a slightly alleviated household debt burden. However, driven by a rise in short-term



working capital loans, the debt servicing ratio ascended to 36.40% in 2011, indicating that short-term household debt servicing pressure increased somewhat (Chart 1.8).

In 2011, the credit quality of the household borrowings from banks remained sound, backstopped by a descending NPL ratio. Looking ahead, an improving domestic unemployment rate, along with increasing regular earnings, will be favorable to strengthen household debt servicing capacity.

Real estate market

During the first half of 2011, real estate prices continuously climbed and indices repeatedly struck new highs. However, house price growth turned to moderate from June onwards, placing a buildup of downward adjustment pressure on house prices in some areas with ample housing supply. This was mainly the imposition motivated by of the Specifically Selected Goods and Services Tax, weakening domestic economic activity and the slump in stock markets. In the beginning of 2012, house prices of new construction projects saw a rebound, but the bargaining



Sources: CBC, JCIC and DGBAS.



power of buyers increased (Chart 1.9). From the second quarter of 2011 onwards, transaction volume significantly contracted and the number of vacant residential properties stayed high. In addition, several new projects have been successively completed in more recent years, which may further push the supply of new houses up.

As a consequence of climbing housing prices, the mortgage burden for homebuyers became heavier. Both the average house price to income ratio and the average mortgage burden ratio in six metropolitan areas ascended. Among the metropolitan areas, Taipei City saw the heaviest mortgage burden as its house price to income ratio and mortgage burden ratio reached 15.3% and 47.8%, respectively (Chart 1.10). In addition, real estate-related loans grew at a slower pace in 2011, curbed by the effect of CBC and Financial Supervisory Commission (FSC) measures to strengthen risk management on the real estate-related loans of banks. Meanwhile, mortgage interest rates rose steadily in the wake of the CBC's rate rises in the first half of the year.

Financial sectors

Financial market

Trading volume slightly rebounded in the bills markets, while the bond market remained sluggish

In 2011, the outstanding amount of bills issuance saw an increase in the primary bills market as a result of an extension in the issuance of commercial paper and certificates of deposit. This also led to a rise in trading volumes in the secondary bills markets. Meanwhile, the bond market remained lackluster as outright transactions were still



Chart 1.10 House price to income ratio and

Notes: 1. Mortgage burden ratio = monthly mortgage expenditure / household monthly income.

 Top 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.





inactive owing to ample liquidity and less bonds being traded in the market. Transactions in the bond market are expected to remain at a low level in 2012.

With regard to market rates, short-term market rates trended upward alongside soaring government bond yields amid the CBC's two policy rate rises in the first half of 2011. However, capital flowed into the bond market as investors sought a flight to safety amid the intensifying European sovereign debt crisis from August onwards. Accordingly, government bond yields declined to annual lows. This resulted in a shrinkage in yield spread between short-term and long-term rates. At the end of March 2012, the yield spread was only 46 basis

points, and still remains at a relatively low level (Chart 1.11).

Stock indices trended down after hitting new highs, while volatility sharply increased before dropping

The Taiwan Stock Exchange Weighted Index (TAIEX) of the TWSE market hit a new high point of 9,145 at the end of January 2011. Subsequently, led by the confluence of international political turmoil and the earthquake in Japan, the index declined and fluctuated within a narrow range. From August onwards, driven by the spillover effects of the European sovereign debt crisis and the sharp increase in net stock selling by foreign investors,⁹ the TAIEX trended down again 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% through 2011. 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 move up to 7,933 at the end of March 2012, an increase of 12.17% from the end of December 2011¹⁰ (Chart 1.12).

Equity market volatility settled at a low level in the first half of 2011. In 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 before gradually falling. In 2012 Q1, the volatility in the TWSE and OTC markets trended downward as the local stock markets resumed stability (Chart 1.12).



⁹ 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.

¹⁰ 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.

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

The NT dollar exchange rate against the US dollar showed an appreciating trend in the first half of 2011. However, in the second half of the year, the spillover effects of the European sovereign debt crisis provoked a plunge in global stock markets and further resulted in a massive repatriation of foreign capital. This, coupled with a strong US dollar due to increasing hedging demand, fueled the



NT dollar exchange rate to enter into a period of depreciation. It stood at 30.290 against the US dollar at the end of December, appreciating merely by 0.26% for the year as a whole. In early 2012, the NT dollar exchange rate continued appreciating, reaching 29.530 against the US dollar at the end of March (Chart 1.13).

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%. The average volatility during the first quarter of 2012 posted a much milder figure of 3.14% (Chart 1.13). 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.

Financial institutions

Domestic banks

In 2011, the growth in loans increased moderately, arising from weakening demand for corporate loans and personal mortgage loans due to slowing global economic growth and imposition of the Specifically Selected Goods and Services Tax. The NPL ratio kept touching new lows, implying sustained improvement in asset quality (Chart 1.14). Nevertheless, some large borrowers applied for debt negotiations that warrant increased vigilance as they may

exert potential negative impacts on the asset quality and profitability of domestic banks.¹¹ The concentration of credit exposure in real estate-related loans was still at a high level, albeit somewhat improved. Furthermore, credit to customers in Mainland China merely accounted for a small share of total credit. The estimated Value at Risk (VaR) for market risk exposures of domestic banks had limited influence on capital adequacy. Liquidity risk was moderate on the back of ample funds.

Owing to the rise of net interest income led by the increase of interest rate spreads between deposits and loans, the combined net income before tax for domestic banks reached a historical high of NT\$200.8 billion in 2011. The average return on equity (ROE) and return on assets (ROA) rose to 9.27% and 0.58%, respectively, over the same period, close to the high levels recorded in 2004 (Chart 1.15). The average capital adequacy ratio rebounded to 12.06% (Chart 1.14), indicating an improvement in banks' risk bearing capabilities. Nevertheless, with the international tendency of capital reform and







the amendment of domestic capital regulations, banks could face more pressures to raise capital in the future.

Life insurance companies

Life insurance companies saw continued losses as a consequence of the reduction in premium income driven by the implementation of Taiwan's Statements of Financial Accounting Standards (SFAS) 40 as well as shrinking profits, or even losses, of overseas investment positions. Reinforcement of their profitability is needed (Chart 1.16). The average return on

¹¹ When the total exposures of banks to ProMOS Technologies Inc. were classified as non-performing in April 2012, the NPL ratio of domestic banks increased to 0.63% at the end of April. Domestic banks had set aside 80% provisions on their loans to ProMOS Technologies. Hence, a potential default by ProMOS would have a limited impact on domestic banks in the future.

usable funds over the same period merely registered 3.52%, revealing that the potential losses attributing to negative interest rate spreads have not yet been alleviated. Meanwhile, global financial market turmoil resulting from the European sovereign debt crisis has cast a shadow over the future performance of their domestic and overseas investments.

The average risk-based capital (RBC) ratio of life insurance companies, excluding Kuo Hua Life Insurance Company, which was taken into receivership by the FSC,¹² declined to 238.38% at the end of 2011 from 273.84% in 2010, yet was still higher than the statutory minimum of 200%. This was predominantly caused by the fact that continual losses undermined the accumulation of regulatory capital, and the expansion in domestic and

overseas securities investments positions induced a rise in total risk capital. With a view to lessening the impact of short-term volatility upon profits and losses, the FSC allowed life insurance companies to set their foreign exchange volatility reserves under the liabilities item, which took effect from 1 March 2012. This could contribute to stabilizing the foreign exchange profits and losses in life insurance companies, and allow them to manage their foreign exchange risks in a more flexible manner and to mitigate their hedging costs.

Bills finance companies

In 2011, the overall profitability of bills finance companies saw growth by virtue of a rise in non-operating incomes, though their operating profits contracted steadily. Credit quality remained satisfactory, while the average capital adequacy ratio descended continuously (Chart 1.17). However, each firm kept the ratio above 13%, still higher than the statutory minimum of 8%.



Chart 1.17 Net income before tax and capital adequacy ratios of bills finance companies



¹² Kuo Hua Life Insurance Company was taken into receivership by the Insurance Stabilization Fund on 4 August 2009.

The liquidity risk of bills finance companies remained elevated as a maturity mismatch between assets and liabilities still persisted. The ratio of major liabilities to net worth averaged 7.15, still below the statutory ceiling of ten or twelve times. While the outstanding balance of the commercial paper guarantees business rebounded gradually through 2011, the ratio of guarantees and endorsements to net worth averaged 3.9 at the end of the year, conforming to the statutory ceiling of five times.

Financial infrastructure

Payment systems operated in an orderly fashion and efficiency improved

In 2011, all three systemically important payment systems in Taiwan operated in an orderly fashion. To lessen the check transit risks in the system of check clearing and settlement, the CBC urged the Taiwan Clearing House to stipulate applicable regulations, and required relevant banks and clearing houses to comply with those criteria. The CBC authorized the Taiwan Depository & Clearing Corporation (TDCC) to undertake negotiable certificate of deposit (NCD) redemptions through the services of the CBC Interbank Funds-Transfer System (CIFS). It not only facilitates settlement efficiency, but helps to diminish the credit and liquidity risks of settling assets. Meanwhile, this step also abides by the Recommendations for Securities Settlement Systems jointly issued by the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO).

Ongoing important reforms for financial supervisory regulations

There were several ongoing breakthroughs regarding financial regulations or supervisory measures during the year 2011 which were conducive to the soundness of the financial system and the development of financial institutions in Taiwan. These reforms mainly included: (1) the Financial Consumer Protection Act that came into force on 30 December 2011. Moreover, the Financial Ombudsman Institution, which was set up according to the Act, commenced operation on 2 January 2012. It has opened up a new era of financial consumerism in Taiwan; and (2) the FSC amended the Regulations Governing the Banking Activity and the Establishment and the Investment by Financial Institution between the Taiwan Area and the Mainland Area in September 2011. The amendment eases the regulatory restrictions for domestic banks investing in Mainland China and conducting banking business with enterprises over there. Furthermore, it also allows Offshore Banking Units (OBU) and overseas affiliates of domestic banks to engage in renminbi business and to invest in

securities in Mainland China.

In order to follow international reform trends and enhance banks' soundness, the FSC declared to phase in Basel III from 2013 in line with the international time frame. The amendment of applicable regulations is already under way. It is expected that the new capital regulations, marked revisions from existing ones, may have significant impacts on domestic banks with regard to their long-term capital plans, risk management and business operations. In this context, banks are advised to promptly assess the impact of the new capital regulations and take preemptive measures.

Taiwan's financial system remained stable

Summarizing the aforementioned analysis, the financial system in Taiwan resumed stability at the end of 2011, following dramatic fluctuations in the aftermath of the European sovereign debt crisis during the second half of the year. Financial institutions saw a notable rebound in profits, while asset quality stayed sound. Most domestic financial institutions, except for a few life insurance companies, registered adequate capital ratios. Payment and settlement systems operated smoothly. By and large, the financial system in Taiwan remained stable. Nevertheless, the lingering impact of slowing world economic growth and the still-fragile global financial system on Taiwan's real economy and financial system warrants increased vigilance. Furthermore, the reduction in profitability of the domestic corporate sector and declining prices and shrinking transaction volume in the real estate market could potentially expose the credit quality of financial institutions to vulnerabilities. In response, precautionary measures and close attention are warranted for Taiwan's financial institutions.