I. Overview

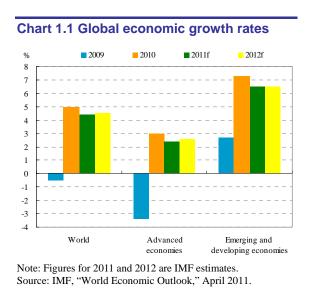
Taiwan's financial system remained stable

In 2010, the financial system in Taiwan remained stable. Financial markets continued to function normally. Most domestic financial institutions, except for a few life insurance companies, registered healthy profits and maintained sound asset quality alongside adequate capital levels. Payment and settlement systems operated smoothly, and potential computer system problems related to the "centenary bug" in financial information systems were well addressed. The recovery of both global and domestic economies proceeded steadily but the global financial system remained fragile. This, coupled with continued international capital flows into emerging economies, warrants increased vigilance as they could potentially expose domestic financial system to vulnerabilities. At the same time, with the government implementing measures to stabilize the real estate market and to moderate banks' credit risk relating to housing loans, investment sentiment in the real estate market shifted towards a more conservative stance, while buyer bargaining power saw an increase in specific areas where construction projects have risen most notably. In this context, precautionary measures and the enhancement of risk management are advised for financial institutions with high concentrations on real estate-related loans.

Sustained global economic recovery was underway but fragilities remained in the financial system

Global recovery proceeded at a solid pace, but speeds varied across regions, while inflationary pressures built up in some areas

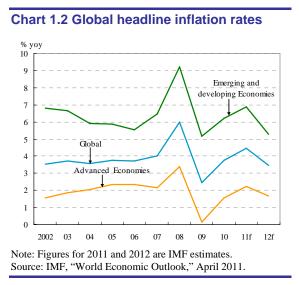
The global economy saw a strong upturn in the first half of 2010 but moved to a moderate rate of growth in the second half of 2010 driven by waning inventory rebuilding, along



with the buildup of downside risks in advanced economies due to setbacks in resolving ongoing sovereign debt turmoil in Europe. According to International Monetary Fund (IMF) statistics, the growth rate of the world economy rebounded substantially to 5.0% through 2010 from -0.5% a year earlier, and global output was forecast to experience an ongoing growth rate of 4.4% and 4.5% in 2011 and 2012, respectively.¹ However, the recovery remained unbalanced across regions. Affected by fiscal imbalances, mounting unemployment rates, and lingering fragilities in the financial system, the recovery progressed moderately in advanced economies. In contrast, thanks to continued increases in domestic demand and strong world trade transactions, emerging and developing economies grew at a robust pace, particularly in emerging Asia, which continued to outpace other regions (Chart 1.1).

Fueled by surging prices for both oil and raw materials, inflationary pressures increased in 2010 and are expected to continue an upward trend in 2011 before becoming more subdued in 2012. In some emerging and developing economies, overheating pressures are building alongside soaring food prices. The IMF estimated the headline inflation rate (consumer price index, CPI) in emerging and developing economies increased to 6.2% in 2010 from 5.2% one year earlier and predicted it will continue elevating to 6.9% in 2011. This reflects that inflationary pressures have been mounting. In advanced economies, inflationary pressures were broadly contained as economic growth moderated and inflation expectations were well anchored. Headline inflation is estimated to rise to 1.6% in 2010 and projected to remain positive at 2.2 % in 2011 (Chart 1.2).²

The IMF and some other international organizations indicated that uncertainty continues to cloud the global growth outlook. These uncertainties mainly include: (1) the extension of the sovereign debt crisis; (2) the absence of progress in formulating medium-term fiscal consolidation plans in some advanced economies; (3) soaring raw materials prices; (4)concerns about overheating economies in emerging economies; rising and (5)trade protectionism.



¹ IMF (2011), "World Economic Outlook," April.

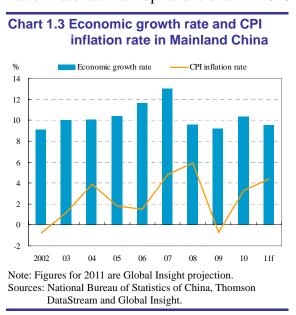
² See Note 1.

Mainland China's output growth accelerated alongside the buildup of inflationary pressure

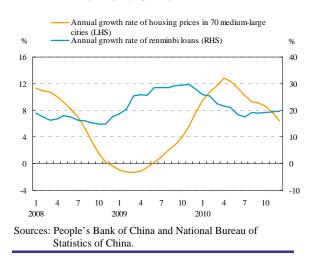
Mainland China's economic growth kept accelerating in 2010 Q1 but turned to become more temperate in the following quarter as the official authorities adjusted macro-control measures and the People's Bank of China (PBC) tightened monetary policy. Nevertheless, the economic growth rate for the whole year of 2010 still registered a high of 10.3%. Global Insight predicts that Mainland China's output growth through 2011 may slightly drop to 9.3%.³ Regarding consumer prices, the CPI inflation rate saw an upward trend in 2010

spurred by stronger consumption demand and rising food prices. Against this backdrop, the government successively took measures to stabilize commodity prices twice and carried out strict investigations to restrain hoarding activities which and speculative took advantage of bank credit to bid up the prices of agricultural products. The CPI inflation rate through 2010 still stood at 3.3% despite these efforts. Global Insight projects Mainland China's inflation rate to further increase to 4.5%⁴ in 2011, indicating continued upward inflationary pressure (Chart 1.3).

The implementation of easy monetary policy in Mainland China contributed to excessive credit expansion and overheating in the property market during 2009. To prevent a property bubble and contain inflationary pressure, the PBC substantially contracted market liquidity in 2010 through tightening policy actions, including: (1) increasing the reserve requirement ratio for depository financial institutions six times by a total of three percentage points; (2) raising deposit and loan rates of financial institutions two







³ Global Insight Estimate in April 2011.

⁴ See Note 3.

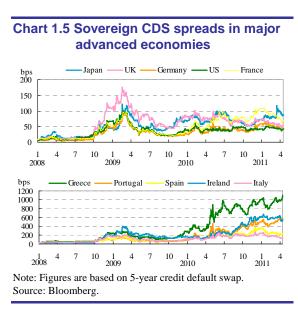
times; and (3) conducting open market operations several times. This, coupled with measures implemented by other official institutions (for example, the China State Council) to tame rising property prices, resulted in the growth of bank credit and housing prices turning to become more moderate (Chart1.4). From the beginning of 2011 onwards, the PBC continually adopted tightening monetary policies and the General Office of the China State Council also took further measures to impede overheating in the property market. As a result, the annual growth rates of renminbi loans and M2 fell, and cities with inflated building prices also experienced gradual price falls. Nevertheless, this situation is still worthy of continued vigilance with regard to the impact of the building price adjustment on the real estate industry and the loan quality of banks, as well as the debt servicing capability of local government financing platforms.

The global financial system has improved but fragilities remain

Underpinned by the improving economic climate, ample liquidity and expanding risk appetite, global financial market performance turned favorable in 2010. At the same time, global equity prices rose broadly, while the capital structures of banks improved. Reflecting this, the IMF revised downward its forecast for global asset writedowns and loan provisions to US\$2.2 trillion.⁵

Nevertheless, the global financial system remained fragile. The two-track global recovery continued to pose considerable challenges to policy making.⁶ In advanced economies, the

slowdown in economic growth alongside their fiscal imbalances represented lingering concerns about sovereign debt sustainability. The credit default swap (CDS) spreads for sovereign bonds elevated markedly in euro area peripheral economies (Chart 1.5). This, coupled with the intensified interaction between sovereign and banking sector risks, led to renewed pressures in funding markets in the euro area. In contrast, massive capital inflows, spurred by stronger economic growth in emerging economies and easy monetary policies in advanced economies,



⁵ IMF (2010), "Global Financial Stability Report," October.

⁶ Advanced economies grew slowly, while emerging economies grew rapidly.

have raised concerns about asset price bubbles in the former. Moreover, potential vulnerabilities to sudden reversals of capital inflows would pose policy challenges for emerging economies.

In response to those problems facing financial systems across regions, the IMF suggests⁷ that advanced economies should launch structural reforms, including: (1) advanced economies with higher foreign debts should further combine credible medium-term fiscal consolidation plans with better public debt management; and (2) an ongoing financial supervisory reform agenda to overhaul financial systems is required. Meanwhile, emerging economies also need to rely on macroprudential polices (such as more stringent loan-to-value ratios and limits on the combination of funding sources) to reduce overheating and financial imbalance risks, in addition to the implementation of prudent macroeconomic policies. Capital flow management measures could be resorted to when the above-mentioned approaches fail to effectively mitigate risks.

International financial regulatory reforms have made great progress

International financial regulatory reforms have recently made striking progress. In December 2010, the Basel Committee on Banking Supervision (BCBS) announced a comprehensive framework presenting the details of global regulatory standards on bank capital adequacy and liquidity (also known as Basel III). The framework set up standards covering both microprudential and macroprudential elements. The microprudential regulations, aimed at enhancing the resilience of individual banks, include: (1) better capital quality and higher capital levels; (2) the introduction of a leverage ratio; and (3) the formulation of two global minimum liquidity standards. The macroprudential policies, aimed at ensuring the soundness of the financial system as a whole, could entail: (1) creating capital buffers; and (2) imposing a capital surcharge or establishing stricter limits on large exposures to systemic risks. Basel III, which will adopt the transitional arrangements for implementing standards from 1 January 2013, poses significant challenges for financial regulators and the banking industry.

In addition, some initiatives are still under deliberation or discussion. These include: (1) guidance for identifying systemically important financial institutions and measuring their systemic risk contributions; (2) macroprudential policies to mitigate systemic risks; and (3) establishment of an effective cross-border bank resolution mechanism. Nevertheless, the European economies and the US have successively set up an independent body responsible for the oversight of systemic risks in hope of better monitoring these risks. The foregoing

⁷ IMF (2011), "Global Financial Stability Report," April.

trend of international financial regulatory reforms warrants close attention.

Domestic economy expanded at an accelerated pace alongside stable prices, and external debt servicing ability remained robust

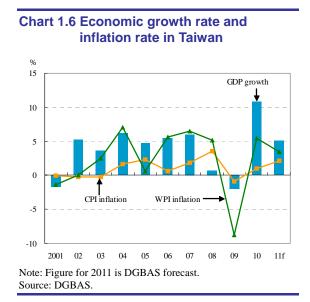
The domestic economy grew at an accelerated pace in the first half of 2010, and then expanded moderately in the second half of 2010 owing to the drag from slowing global growth momentum and a higher base compared to a year earlier. Based on the Directorate-General of Budget, Accounting and Statistics of the Executive Yuan (DGBAS) statistics, annual economic growth sustained a high level of 10.88% in 2010, the peak annual rate recorded since 1987. Looking ahead, exports are expected to expand steadily alongside a strong private consumption in 2011. However, affected by the influence of a much higher base, the DGBAS forecasts that the output growth rate may decline to 5.06% for the year as a whole⁸ (Chart 1.6).

The wholesale price index (WPI) inflation rate visibly rose in the first half of 2010 as a result of rising international prices for agricultural and industrial raw materials as well as a lower base compared with the previous year. The WPI inflation rate tracked downward from June onwards and registered an annual average rate of 5.46% for the year as a whole. In parallel, the CPI inflation rate moved within a range of 0.2% to 2.4%, driven by an upsurge in retail prices owing to increasing costs. The annual headline (CPI) and core inflation rates in 2010 were 0.96% and 0.44%, respectively, reflecting stable domestic prices. Looking forward,

fueled by still-strong global demand, supply shortages, and ample liquidity in financial markets, the prices of crude oil and agricultural and industrial raw materials are expected to keep surging. This will further push domestic wholesale and retail prices up. The DGBAS projects the annual WPI and CPI inflation rates in 2011 to register 3.42% and 2.10%,⁹ respectively (Chart 1.6).

The current account surplus persisted in 2010, while foreign exchange reserves accumulated at record rates over the same period and

 $^{^{\}rm 8}$ The figures are based on a DGBAS press release on 19 May 2011. $^{\rm 9}$ See Note 8.



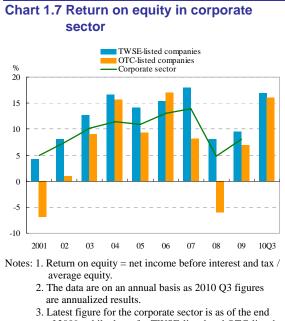
further climbed to US\$399.5 billion at the end of April 2011. This implies that Taiwan's foreign exchange reserves have a robust capacity to meet payment obligations for imports and to service short-term external debt. Moreover, outstanding external debt relative to annual GDP and annual exports registered 23.43% and 36.70% at the end of 2010, respectively, indicating that there were no signs of servicing pressure on external debt. Fiscal deficits turned to contract throughout the year, while outstanding government debt stayed elevated.

Non-financial sectors

Corporate sector

In the first three quarters of 2010, the profitability for Taiwan Stock Exchange (TWSE) listed and over-the-counter (OTC) listed companies rebounded (Chart 1.7), thanks to the sustained recovery in the global economy. The leverage ratio increased somewhat due to rising liabilities caused by an expansion in production capacity, while the current ratio showed a decline. Nevertheless, interest servicing capacity enhanced as a result of improving profitability, while credit quality remained sound, underpinned by the falling NPL ratio for corporate loans.

Taiwan's government adopted several special financing measures, expiring at the end of 2010, in support of corporations during the global financial crisis. However, the exit of the aforementioned measures, together with upward market interest rates, may once more financing and interest repayment pose pressures on those weaker or less competitive corporations. Meanwhile, the recent price hikes on imported raw materials, together with the impact of the Japan's earthquake and the ensued nuclear plant crisis in March 2011 on Taiwan's electronics and automobile industry supply chains, warrant close attention and timely responses.



of 2009, while those for TWSE-listed and OTC-listed companies are as of the end of 2010 Q3. Sources: JCIC and TEJ.

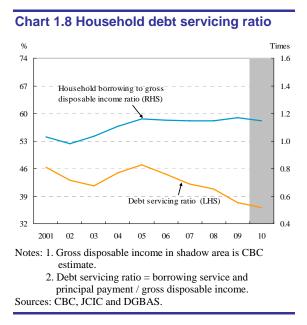
Household sector

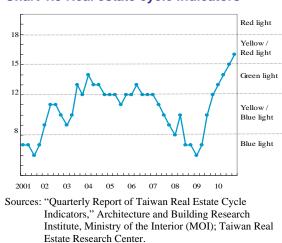
Household borrowing rebounded in 2010, backstopped by the bounce in the stock market and the buoyant real estate market. However, the ratio of household borrowing to GDP dropped to 82.17% at the end of the year, mainly due to a much faster pace in GDP growth. Thanks to a rise in gross disposable income, the ratio of household borrowing to gross disposable income declined to 1.15 over the same period, representing some alleviation of the household debt burden. Consequently, the ratio of household borrowing service and principal payments to gross disposal income also declined to 36.12%. Household short-term debt servicing capacity thus improved (Chart 1.8).

The NPL ratio of household borrowings from banks kept sliding and credit quality remained sound. The decreasing domestic unemployment rate, along with the fact that regular earnings turned to positive growth, helped to strengthen household debt servicing capacity. However, rising lending rates may intensify debt repayment pressures on some highly leveraged households.

Real estate market

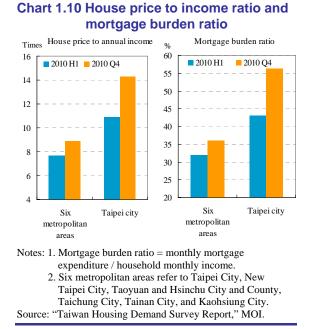
Real estate prices kept soaring alongside a buoyant property market, inspired by hot money inflows and the effects of signing the **Cross-Strait** Economic Cooperation Framework Agreement (ECFA). Taiwan's real estate cycle indicators showed a yellow/red light, symbolic of a "moderately heated" market, in 2010 Q4 (Chart 1.9). This reveals that the property market boom continued throughout the year 2010. Meanwhile, the number of vacant residential properties remained high, while the real estate industry acted more aggressively with regard to introducing new construction projects. If







those projects are successively completed, it may further push the supply of new houses up. However, from February 2011 onwards, investment sentiment in the real estate market shifted towards a more conservative stance. while buyer bargaining power saw an increase in specific areas where construction projects have risen most notably. The reasons behind this were that the CBC and the Financial Supervisory Commission (FSC) urged financial institutions to enhance their risk management associated with real estate-related credit extension and the Ministry of Finance (MOF) planned to impose the Specifically Selected Goods and Services Tax.¹⁰



As a consequence of surging housing prices, the mortgage burden for homebuyers became heavier. The average house price to income ratio and the average mortgage burden ratio in six metropolitan areas both struck new highs, registering 8.9 and 36.0%, respectively, in 2010 Q4. This was particularly apparent in Taipei City, which saw the heaviest mortgage burden and registered a ratio of housing price to income and mortgage burden of 14.3 and 56.2%, respectively (Chart 1.10). Real estate-related loans grew steadily through the whole of 2010, but the annual growth rate turned to moderate from the third quarter of the year onwards. Meanwhile, mortgage interest rates trended upward in the wake of the CBC's rate rises.

Financial sectors

Financial market

Trading volume rebounded slightly in the bills and bond markets, while yield spreads ranged between 59 and 105 basis points

Trading volumes of the bills and the bond markets in 2010 were higher than a year earlier. In the bills market, the outstanding amount of bills issuance in the primary market as well as the trading volume in secondary bills markets both rebounded. This was mainly bolstered by the

¹⁰ The Specifically Selected Goods and Services Tax Act was promulgated on 4 May 2011 and took effect on 1 June 2011.

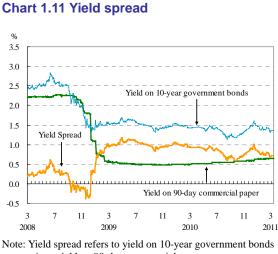
short-term funding demands of government and corporations as well as banks' financing needs. As for the bond market, the trading volume for the whole of 2010 saw an increase, while the outright transactions turned to contract from September onwards owing to the expectation of rising market rates and the lack of willingness of bond dealers to trade by the end of the year. As a result, the monthly turnover ratio hit a five-year low in December 2010 and continued to remain at a low level in 2011 Q1.

Regarding market interest rates, short-term and long-term rates stayed flat in the first half of 2010. In the second half of 2010, short-term interest rates escalated steadily following gradual rises in the CBC's policy rates. Meanwhile, government bond yields trended downward in 2010 Q3 and then rose again in November, primarily because of a dramatic rise

in yields on US government bonds and the introduction of the FSC's measures to tighten restrictions on foreign investment in government bonds. Reflecting this, yield spreads fluctuated between 59 and 105 basis points throughout the year as a whole. In 2011 Q1, yield spreads contracted steadily, even recording a low of 67 basis points, as a result of increasing short-term rates and declining government bond yields (Chart 1.11).

Stock indices fell somewhat after recording new highs, while volatility and turnover ratios declined

Underpinned by the confluence of the continued buoyancy in major global stock markets and the emerging effects of signing the ECFA, the Taiwan Stock Exchange Weighted Index (TAIEX) kept climbing in 2010. However, it experienced a temperate drop in the second quarter of the year due to spillovers from the European sovereign debt crisis and the massive repatriation of foreign capital. The TAIEX climbed to its highest



minus yield on 90-day commercial paper. Source: Bloomberg.

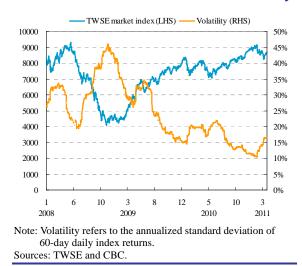


Chart 1.12 TWSE market index and volatility

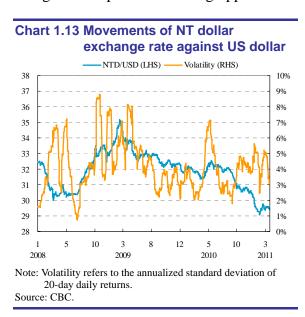
point of 8,973 at the end of December, an increase of 27% compared to the low of June. In 2011 Q1, the TAIEX reached its highest point of 9,145 before the Chinese Lunar New Year holidays, and then dropped to 8,683 at the end of March owing to global political turmoil and rising oil prices. Volatility in the TWSE market was remarkable in the first half of 2010 but generally subdued in the following months of the year. However, market volatility resurged in 2011 Q1 amid a decline in the local stock market. Nevertheless, the risks involved in stock investments were relatively low compared to those during the global financial crisis of 2008 and 2009 (Chart 1.12).

The average monthly trading value on the TWSE market contracted slightly in 2010, but activity in the stock market remained buoyant. Moreover, its turnover ratio in terms of trading value shifted downward and hit a 5-year low due to a sharp increase in total market value. Afterward, affected by the local stock market slump and the Chinese Lunar New Year holidays, the monthly trading value and turnover ratio in the TWSE market continued their downward direction in January and February 2011, while the numbers reflected a rebound in March.

The NT dollar exchange rate appreciated notably but remained relatively stable compared to other currencies

Except for depreciating in mid-2010, on the back of increasing hedging needs for US dollars caused by the European sovereign debt crisis and the military confrontations on the Korean peninsula, the NT dollar exchange rate against the US dollar showed an appreciating trend for the year as a whole. Above all, the NT dollar exchange rate experienced strong appreciation

in the second half of 2010, arising from the continued capital inflows, and stood at 30.368 against the US dollar at the end of December 2010, appreciating by 5.47% compared to the end of 2009. The NT dollar exchange rate kept appreciating in January 2011 but began to depreciate in February. This was mainly driven by lingering concerns about the political turmoil in the Middle East and North Africa, and the repatriation of foreign capital from emerging economies due to heightened consideration of the likelihood of economic downturn following tighter



monetary policies in those economies. However, international capital flowed back to emerging economies in the aftermath of Japan's earthquake. As a result, the NT dollar exchange rate appreciated in March, reaching 29.418 against the US dollar at the end of that month (Chart 1.13).

The fluctuation of the NT dollar exchange rate increased slightly in May 2010 but followed a more moderate path in the second half of the year. The annual average volatility stood at 3.74% for the year as a whole. In 2011 Q1, the average volatility in the NT dollar exchange rate against the US dollar increased further to 4.42%, though the volatility was relatively stable (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.

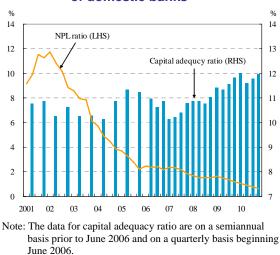
Financial institutions

Domestic banks

In 2010, the growth in loans increased notably, and asset quality remained satisfactory (Chart 1.14). However, the concentration of credit exposure to real estate loans continued elevating, while the proportion of corporate loans extended by domestic banks for electronics, and electric machinery also trended machinery-related industries upward. The estimated Value at Risk (VaR) for market risk exposures of domestic banks had limited influence on their capital adequacy. Liquidity risk was moderate on the back of ample funds.

The profitability of domestic banks rose substantially in 2010, bolstered by the rebound of net interest income and the dramatic reduction in bad debt expenses. The average return on equity (ROE) and return on assets (ROA) elevated to 9.08% and 0.57%,

Chart 1.14 NPL and Capital adequacy ratios of domestic banks



Source: CBC

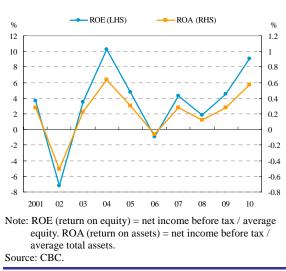
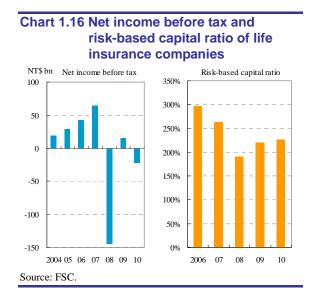


Chart 1.15 ROE & ROA of domestic banks

respectively (Chart 1.15). This, coupled with a persistent rise in average capital adequacy ratios 1.14), strengthened (Chart the capability of domestic banks to bear risks. Nevertheless, there are several uncertainties that could possibly undermine their future profitability, such as: (1) the amendment of the regulations related to setting aside additional provisions for normal credit assets; and (2) the third revision of Taiwan's Statements of Financial Accounting Standards No.34 "Financial Instruments: (SFAS) Recognition and Measurement."



Life insurance companies

The accumulated net loss before tax of life insurance companies stood at NT\$ 21.8 billion in 2010, revealing a deterioration in operating performance. Nevertheless, thanks to the amendment of capital adequacy regulations, the average risk-based capital (RBC) ratio ascended to finish the year higher than the statutory minimum of 200% (Chart 1.16).

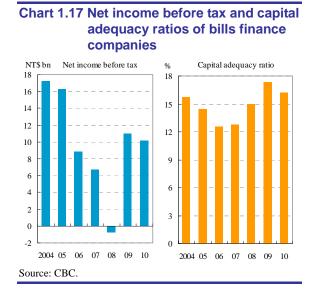
Benefiting from a rebound in domestic and overseas financial markets, the average return on investment of life insurance companies rose to 4.44% in 2010. The CBC continually raised policy rates from June 2010 onwards, contributing to alleviating the potential losses driven by negative interest rate spreads. However, the operating performance of life insurance companies still faced hardship as rapid movements of international hot money between global financial markets raised the volatility of global stock markets and foreign exchange markets. Furthermore, the FSC allowed insurance companies to: (1) invest in specific securities issued by the Mainland China's government and corporations as well as real estate in Mainland China; and (2) to raise their overseas investment positions under certain conditions. Against this backdrop, life insurance companies were required to enhance their risk control mechanisms thoroughly to mitigate investment risks.

Bills finance companies

In 2010, the total assets of bills finance companies resumed positive growth by virtue of the rebound of bonds and bills investment positions. Profitability contracted somewhat because

of the reduction of interest revenues on their holdings of bonds and bills. Credit quality remained satisfactory, while the average capital adequacy ratio descended notably due to the amendment of relevant regulations but remained above 12% for each firm (Chart 1.17). The ratio of major liabilities to net worth also went up slightly.

The liquidity risk of bills finance companies remained high as a maturity mismatch between assets and liabilities still persisted. The outstanding balance of guarantees also



rose manifestly, upheld by increasing finance demand for corporate funds. In order to reduce the liquidity risk of bills finance companies as well as prevent them from taking excessive credit risks, the FSC successively amended related regulations aimed at reducing both the ceiling on the ratio of main liabilities to net worth and the ratio of outstanding guarantees and endorsements to net worth. In this context, all the bills finance companies met the required caps in terms of the FSC's criteria.

Financial infrastructure

The information systems in financial institutions and the payment systems in Taiwan faced potential computer system problems related to the country's "centenary bug" at the end of 2010. Fortunately, such problems were well addressed and the aforementioned systems continued to function normally, thanks to the strengthened supervision and appropriate responses from financial institutions. Moreover, a new domestic US dollar bills market was launched on 6 December 2010, which allowed domestic companies with US dollar demands for trade-related purposes to issue US dollar bills for funding. One major domestic bank, Mega Bank, coincided with the new scheme and activated its US dollar settlement system at the same time, which also provided US dollar interbank remittance services. It not only shortened the US dollar payment process, allowing for real-time interbank US dollar remittances with zero time lags, but also removed the additional fees charged by foreign correspondent banks during the remittance process.

There were several breakthroughs regarding financial regulations or supervisory measures during the year 2010, including: (1) the interim blanket guarantee for deposits was phased out

at the end of 2010 before resuming the limited deposit insurance coverage scheme on 1 January 2011; and (2) the financial services industry early harvest provisions of the ECFA were decided upon and became effective on 1 January 2011, following the signing of the ECFA in June 2010. These developments have important implications for improving the soundness of the financial system and promoting the development of the financial industry in the long run. Furthermore, the first-phase draft of the International Financial Reporting Standards (IFRS) 9 "Financial Instruments," which is expected to have a visible impact on local banks, will become effective in 2013, while its second-phase draft is expected to be finalized in 2011 Q3. In response, early planning, assessment of the potential impacts and precautionary measures are warranted for Taiwan's financial institutions.