

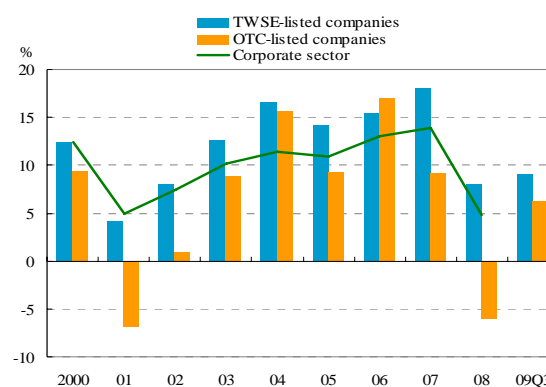
III. Non-financial sectors

The corporate sector, household sector, and real estate market constitute the main sources of risk for credit exposure of Taiwan's financial institutions. The degree of indebtedness and solvency in the corporate sector and household sector as well as the real estate cycle, have far-reaching impacts upon the asset quality and profitability of financial institutions.

3.1 Corporate sector

From 2008 Q4 onwards, the profitability of the corporate sector²⁸ declined dramatically and its financial structure and indebtedness weakened, impacted by both domestic and international economic recessions. Nevertheless, as a result of the fiscal and monetary policies adopted by various countries aimed at boosting their economies, the global economy began to recover in the middle of 2009. The profitability of TWSE-listed and over-the-counter (OTC) listed companies²⁹ increased and their financial structures and short-term debt servicing capacity strengthened for the first three quarters of 2009, while non-performing loan (NPL) ratios of corporate loans declined slightly. In view of the closer trade and investment relations with China, Taiwan's corporations warrant giving more attention to business risks that may emerge as a result of tight monetary policy in China, increasing pressure on RMB appreciation as well as structural economic adjustments and serious labor shortage in China.

Chart 3.1 Return on equity in corporate sector



Notes: 1. Return on equity = net income before interest and tax / average equity.
 2. The data are on an annual basis as 2009 Q3 figures are annualized results.
 3. Latest data for the corporate sector is as of the end of 2008, while that for TWSE-listed and OTC-listed companies are as of the end of 2009 Q3.

Sources: JCIC and TEJ.

²⁸ The corporate sector data including TWSE-listed and OTC-listed companies are from the corporate financial report database operated by the Joint Credit Information Center (JCIC), excluding that for financial and insurance companies, public administration and defense, and compulsory social security.

²⁹ The data for TWSE-listed and OTC-listed companies are from the Taiwan Economic Journal Co., Ltd (TEJ), excluding that for financial and insurance companies and emerging stock-listed companies.

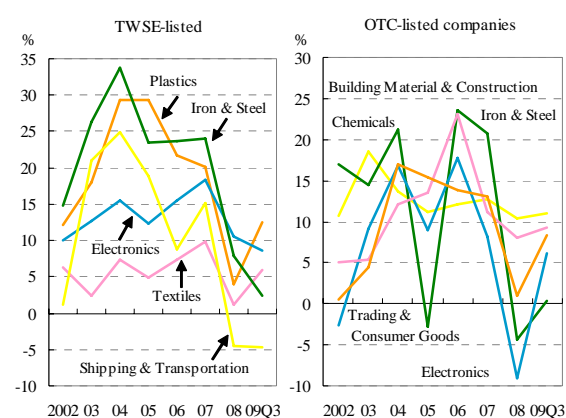
Profitability increased gradually in 2009

The profitability of the corporate sector declined dramatically in 2008, inflicted by the global recession in the second half of 2008, which resulted in a slump in exports and more cautious private consumption. The return on equity (ROE) for the corporate sector declined dramatically to 4.76% in 2008 as the Taiwan Stock Exchange (TWSE) listed and OTC-listed companies' ROEs dropped to 8.07% and -5.97%, respectively. From 2009, the easy monetary policies and economic stimulus packages employed by various countries provided a positive upshot that contributed to the global economic recovery. The rates of decline of Taiwan's exports and imports decelerated, private consumption confidence rose; thus, the profitability of the corporate sector improved gradually. The annual ROEs for TWSE-listed and OTC-listed companies rose to 8.99% and 6.37%, respectively, for the first three quarters of 2009, much higher than that reported in 2008 (Chart 3.1).

To break this down by sector, for TWSE-listed companies, the annual ROEs for plastics industry and textile industry rose moderately for the first three quarters of 2009. The ratios for the electronics industry and the iron and steel industry remained lower than that of 2008, but with a diminished rate of decline. However, the shipping and transportation industry's ROE remained negative. For OTC-listed companies, the ROE for the electronics industry, which accounted for more than 70% of the total revenue of OTC-listed companies, rose tremendously, while most of the other industries also saw better performance than 2008 (Chart 3.2).

Owing to the downturn in global demand, Taiwan's annual growth rates for export

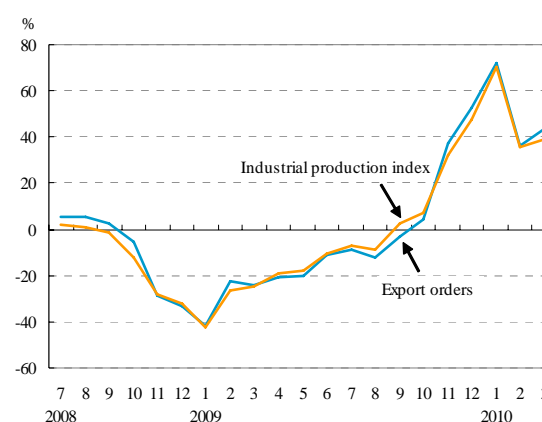
Chart 3.2 Return on equity of TWSE-listed and OTC-listed companies by major industries



Notes: 1. Return on equity = net income before interest and tax / average equity.
2. The data are on an annual basis as 2009 Q3 figures are annualized results.

Source: TEJ.

Chart 3.3 Annual growth rates of export orders and industrial production index



Note: Industrial production index in 2006 was 100.
Source: MOEA.

orders and the industrial production index were constrained dramatically from 2008 Q3 and reached historical lows of -41.67% and -42.64%, respectively, in January 2009. Then, the situation improved and both reported positive growth rates from October 2009. In 2010 Q1, due to the global expansion in demand and lower base year effect, the growth rates of export orders and the industrial production index increased prominently (Chart 3.3). Taiwan, an export-driven country,³⁰ benefited as export orders, industrial production and private consumption improvements enhanced the profitability of the corporate sector following the global economic recovery.

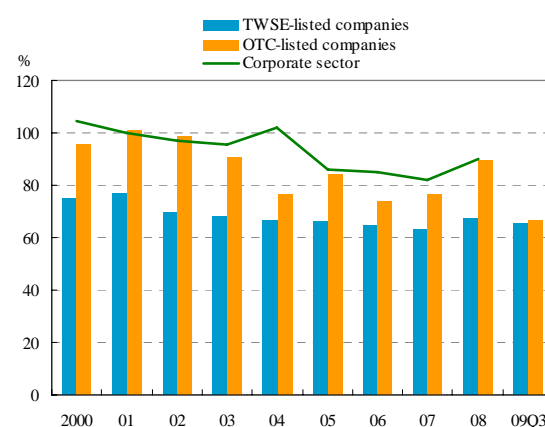
Financial structure enhanced

For the corporate sector as a whole, the financial structure deteriorated and the average leverage ratio rose to 90.02% at the end of 2008 due to the dramatic decrease in its profitability in the same year. In 2009, domestic corporations experienced contracted investments in the face of the economic downturn, which, in turn, led to a reduction in their liabilities. As a result, the average leverage ratio for TWSE-listed companies reported 65.26% at the end of September 2009, slightly down from 67.59% at the end of 2008. The financial structure for OTC-listed companies saw better improvement as the average leverage ratio dropped to a ten year low of 66.29%, supported by a great decrease in their liabilities (Chart 3.4).

Short-term debt servicing capacity remained acceptable

In 2008, short-term debt servicing capacity of

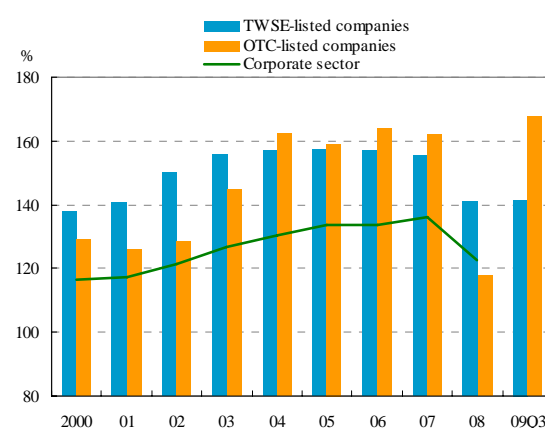
Chart 3.4 Leverage ratio in corporate sector



Notes: 1. Leverage ratio = total liabilities / equity.
2. End-of-period figures.
3. Latest data for the corporate sector is as of the end of 2008, while that for TWSE-listed and OTC-listed companies are as of the end of 2009 Q3.

Sources: JCIC and TEJ.

Chart 3.5 Current ratio in corporate sector



Notes: 1. Current ratio = current assets / current liabilities.
2. End-of-period figures.
3. Latest data for the corporate sector is as of the end of 2008, while that for TWSE-listed and OTC-listed companies are as of the end of 2009 Q3.

Sources: JCIC and TEJ.

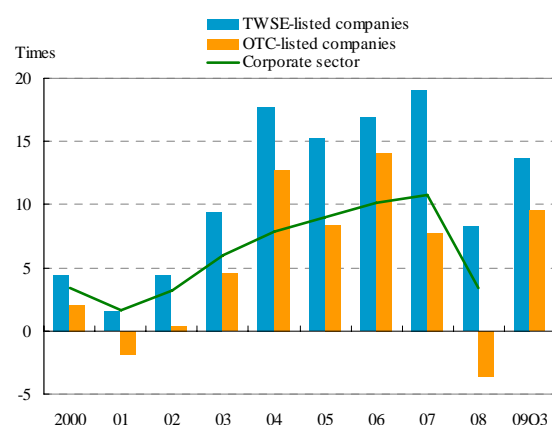
³⁰ The export to GDP ratio climbed annually from 46.58% in 2000 to reach 63.49% in 2008 before dropping to 53.68% in 2009.

the corporate sector as a whole eroded when both the current ratio and the interest coverage ratio declined moderately. The short-term debt servicing capacity remained acceptable for TWSE-listed companies for the first three quarters of 2009 as the current ratio stopped declining and remained over 140% with steady cash flows and higher cash positions. The current ratio for OTC-listed companies also surged to over 160% (Chart 3.5) as short-term liabilities contracted dramatically. Moreover, interest expenses for TWSE-listed and OTC-listed companies decreased prominently for the first three quarters of 2009 compared to the same period of the previous year due to diminished liabilities and lower interest rates. As a result, the interest coverage ratio for TWSE-listed companies rose to 13.70, while the ratio for OTC-listed companies surged to 9.53, representing improved interest servicing capacity (Chart 3.6).

NPL ratio of corporate loans remained low

The NPL ratio of corporate loans continued to decline throughout 2009 and reached 1.62% at the end of December (Chart 3.7). This is partially a result of the Debt Renegotiation Relief Program launched by the Bankers Association of the Republic of China, an effort aimed at assisting Taiwan's corporations to overcome financial difficulties, whereby some restructured loans were exempted from being counted as non-performing loans.³¹ The likelihood of a surge in the NPL ratio for corporate loans remains low in the short run under the following considerations: (1) the Debt Renegotiation Relief Program was extended

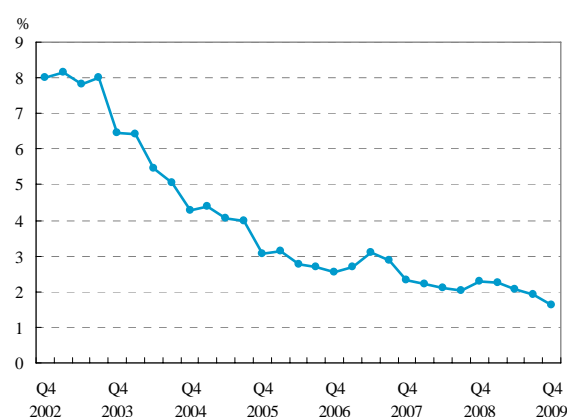
Chart 3.6 Interest coverage ratio in corporate sector



Notes: 1. Interest coverage ratio = income before interest and tax / interest expenses.
2. Figures are on an annual basis as 2009 Q3 referred to the accumulation from January to September 2009.
3. Latest data for the corporate sector is as of the end of 2008, while that for TWSE-listed and OTC-listed companies are as of the end of 2009 Q3.

Sources: JCIC and TEJ.

Chart 3.7 NPL ratio of corporate loans



Note: End-of-period figures.

Source: JCIC.

³¹ According to the news release of the Bankers Association of the Republic of China on 26 November 2009, debt renegotiations submitted to and approved by financial institutions amounted to 2,766 cases, or NT\$ 83.2 billion; applications made via the Ministry of Economic Affairs amounted to 135 cases, or NT\$ 166.5 billion.

to the end of 2010; (2) the SMEs Guarantee Fund offered more guarantee facilities to SMEs that faced difficulties in obtaining finance from financial institutions; and (3) the improved performance of the corporate sector resulting from the global economic recovery.

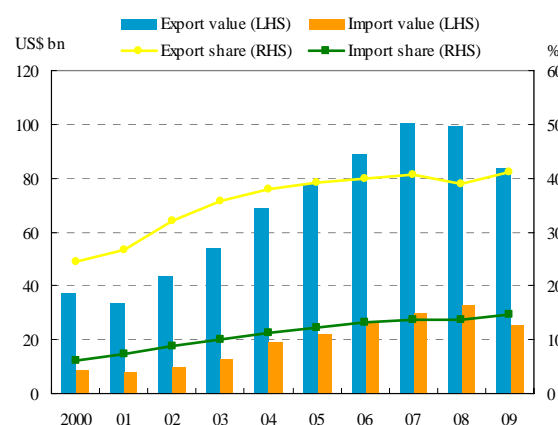
Evolving China's economic and financial environment has a greater influence on Taiwan's corporations

China has become Taiwan's largest export market and the second largest origin of imports next to Japan. The export ratio to China and Hong Kong reached 41.09% in 2009, up from 24.44% in 2000, while the import ratio reported 14.65% in 2009 from 6.11% in 2000 (Chart 3.8), representing Taiwanese corporations' closer trade relations with China. Therefore, the evolution of China's economy and financial markets will impact Taiwanese corporations to an increasing extent. Consequently, this warrants closer attention with respect to business risks that may arise in China resulting from a combination of the following: tight monetary policy; increasing pressure for RMB appreciation; structural economic adjustments; and serious labor shortages.

3.2 Household sector

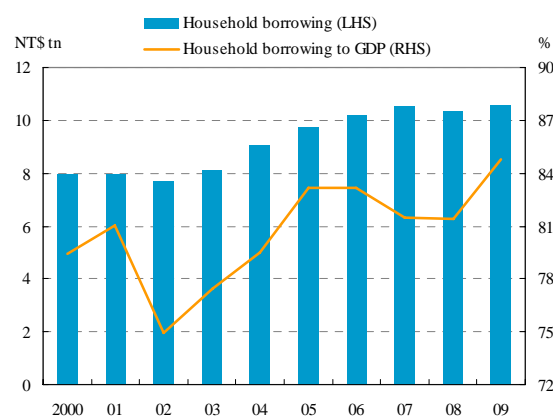
As interest rates declined, short-term household debt servicing capacity strengthened even as borrowing increased and debt burdens became heavier. Furthermore, overall credit quality remained satisfactory. Household debt servicing capacity should strengthen as the domestic economy recovered gradually and regular earnings resumed positive growth from November 2009. Nevertheless, the potential impacts caused by the high unemployment rate and possible reversal of interest rates warrant closer attention.

Chart 3.8 Exports to and imports from China and Hong Kong



Source: Directorate General of Customs, MOF.

Chart 3.9 Household borrowing to GDP



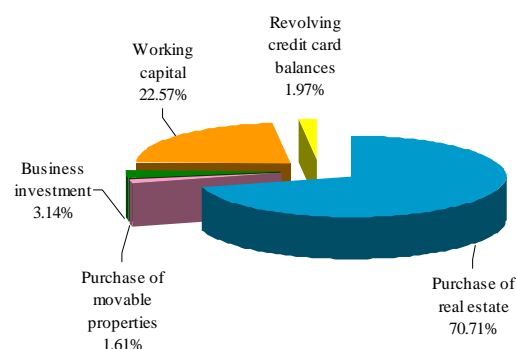
Note: Household borrowing data are end-of-period figures.
Sources: CBC, JCIC and DGBAS.

Household borrowing increased

Following sluggish local stock and real estate markets, the growth rate of household borrowing³² turned negative from the second half of 2008. From the beginning of 2009, triggered by local stock and real estate market rebounds, accompanied by the government offering of NT\$400 billion in preferential mortgages for homebuyers, household borrowing rose to NT\$10.58 trillion as of the end of December, increasing by 2.35% year on year (Chart 3.9). The main reason behind this was that real estate purchase loans increased by 2.53%. Meanwhile, the outstanding borrowing for margin purchase and short sale of securities increased dramatically by 76.77%. The single largest share of household borrowing at the end of 2009 went for the purchase of real estate (70.71%), followed by working capital loans³³ (22.57%), whereas revolving credit card balances accounted for only 1.97% (Chart 3.10).

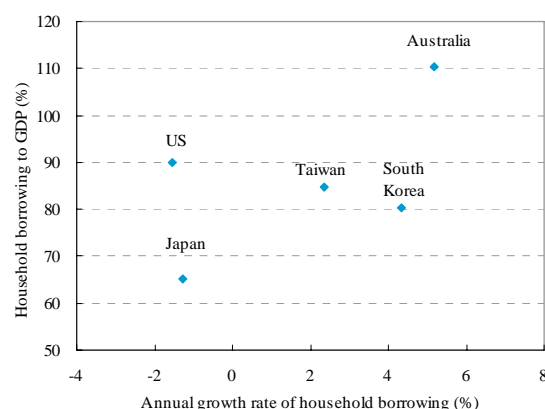
The ratio of household borrowing to GDP rose to 84.76% at the end of 2009 (Chart 3.9), higher than that in South Korea and Japan but lower than that in the United States and Australia. The growth rates of household borrowing in 2009 in Taiwan, South Korea and Australia were positive while those in the United States and Japan were in negative territory (Chart 3.11).

Chart 3.10 Household borrowing by purpose



Note: Figures are as of the end of 2009.
Sources: CBC and JCIC.

Chart 3.11 Household indebtedness in selected countries



Note: Figures for Taiwan are as of the end of 2009. The others are as of the end-September 2009.
Sources: Fed, BOJ, BOK, ABS, IMF, DGBAS, CBC and JCIC.

³² The term “household borrowing” as used in this section refers to outstanding loans and revolving credit card balances taken out by households from the following financial institutions:

- (1) Depository institutions: Domestic banks (including medium business banks), local branches of foreign banks, credit cooperatives, credit departments of farmers’ associations, credit departments of fishermen’s associations, and the Remittances & Savings Department of Chunghwa Post Co.
- (2) Other financial institutions: trust and investment companies, life insurance companies, securities finance companies, and securities firms.

³³ The term “working capital loans” includes outstanding cash card loans.

Household debt burden became heavier, but short-term debt servicing capacity improved gradually as interest rates declined

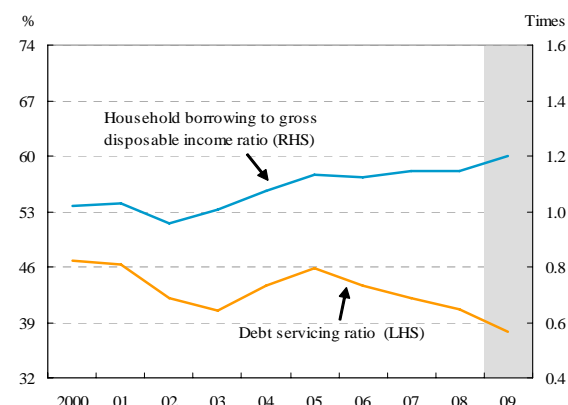
The ratio of household borrowing to gross disposable income³⁴ stood at 1.20 as of the end of 2009, up from 1.15 in 2008, representing a heavier household debt burden. Nevertheless, as interest rates declined, the debt servicing ratio decreased and registered 37.88% as of the end of 2009, showing enhanced short-term debt servicing capacity (Chart 3.12).

NPL ratio of household borrowings declined

The NPL ratio of household borrowings from banks kept falling to 1.41% as of the end of 2009, lower than 2.04% a year earlier (Chart 3.13). The main reason behind this was that NPLs for real estate purchases, the largest share of household borrowing, contracted due to the real estate market rebound in 2009. Household debt servicing capacity might improve because the domestic economy recovered in the second half of 2009, along with positive regular earnings growth from November 2009. Nevertheless, the potential impacts on household debt servicing capacity caused by the high unemployment rate and the possible reversal of interest rates warrant closer attention (chart 3.14).

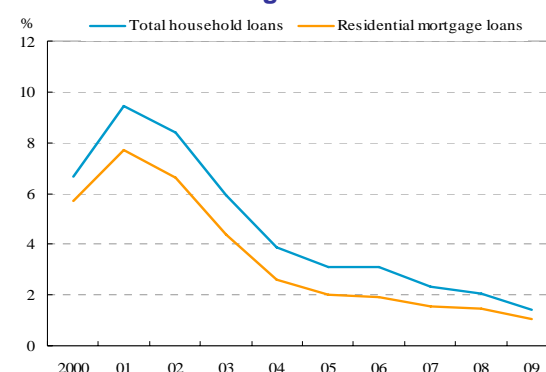
³⁴ Gross disposable income = disposable income + rental expenses + interest expenses.

Chart 3.12 Household debt servicing ratio



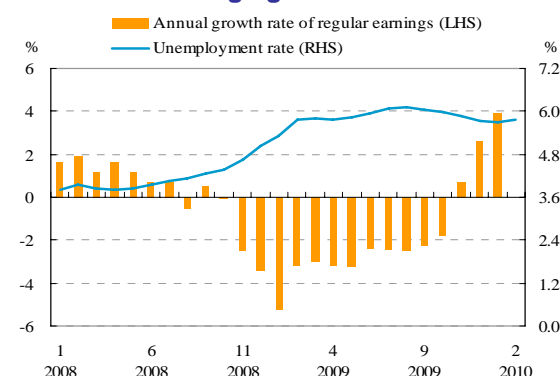
Notes: 1. Gross disposable income in shadow area is CBC estimate.
 2. Debt servicing ratio = borrowing service and principal payment / gross disposable income.
 Sources: CBC, JCIC and DGBAS.

Chart 3.13 NPL ratio of household borrowings



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

Chart 3.14 Unemployment rate and regular earnings growth rate



Source: DGBAS.

3.3 Real estate market

Real estate transaction volume expanded from 2009 Q2 and was concentrated in Taipei City and Taipei County. The price for existing housing reached a new high, and the price for newly constructed housing almost reached a historical high. The debt burden for property purchasers became heavier even though vacancy rates still remained high.

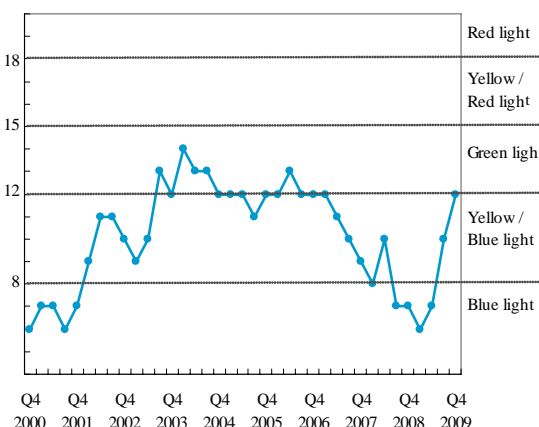
Real estate market rebounded

Taiwan’s real estate cycle indicators³⁵ remained under a blue light, reflecting sluggish market, in the first half of 2009. However, the real estate market rebounded gradually, and appeared under a green light, reflecting stable market, in 2009 Q4 (Chart 3.15). The composite indexes of leading indicators³⁶ and coincident indicators³⁷ also displayed upward trends and increased by 0.6% and 4.42%, respectively, year on year in 2009 Q4, adding further evidence that the real estate market rebound was strengthening.

House prices rose as transaction volume expanded

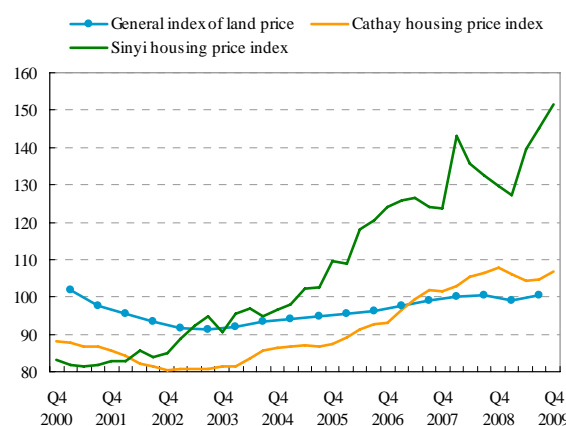
In general, land prices remained stable in metropolitan areas as the general index of land prices stood at 100.38 in September 2009, a slight year-on-year decline of 0.13%. Housing prices for existing buildings increased dramatically from 2009 Q2 as the Sinyi housing price index (for existing

Chart 3.15 Real estate cycle indicators



Source: “Quarterly Report of Taiwan Real Estate Cycle Indicators,” Architecture and Building Research Institute, Ministry of the Interior (MOI).

Chart 3.16 Land and house price indices



Note: General index of land price is released semiannually (i.e. in March and September).
Sources: MOI, Cathay Real Estate, and Sinyi Real Estate Inc.

³⁵ The real estate cycle indicators show five types of market outlooks with different colored lights. A red light indicates a “heated market,” a yellow/red light indicates a “moderately heated market,” a green light indicates a “stable market,” a yellow/blue light indicates a “moderately declining market,” and a blue light indicates a “sluggish market.”

³⁶ The composite index of leading indicators is made up of the following five components: GDP, monetary aggregate M2, construction sector stock price index, volatility in outstanding construction loans, and consumer price index.

³⁷ The composite index of coincident indicators is made up of the following six components: undeveloped land transaction index, base lending rate, construction permit floor space, standard unit price for new construction projects, new loans for property purchases, and housing occupancy rate.

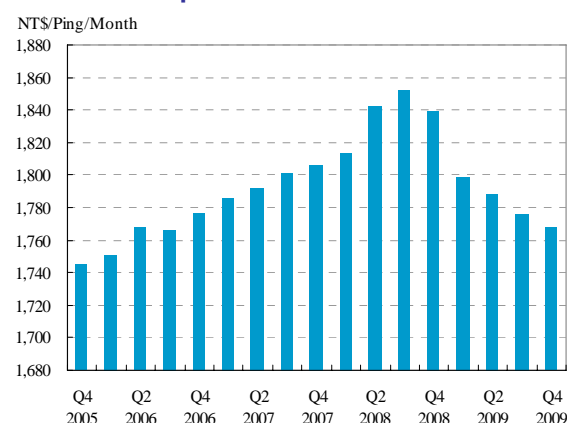
building sales) registered 151.7 in Q4, increasing by 16.81% year on year. Housing prices in Taipei City, Taipei County, and Taichung City increased significantly, with each increasing more than 20%. The Cathay housing price index (for new housing construction) declined for the first two quarters of 2009, then increased in Q3, and reached a near-historical high of 106.92 in Q4. However, the index slightly decreased by 0.78% year on year (Chart 3.16). For metropolitan areas, prices for newly constructed housing in Taipei City rebounded moderately, while prices in Taichung, Tainan and Kaohsiung fell in Q4. The average office rental rate in Taipei City, impacted by the economic slowdown, declined in the first half of 2009, and continued to decline in the second half of the year even as the economy recovered. The average office rental rate dropped to NT\$1,768 per ping (approximately 3.3 square meters) per month in Q4, a year-on-year decline of 3.86% (Chart 3.17).

As for transactions in the real estate market, transaction volume expanded moderately from 2009 Q2 as the number of building ownership transfers registered 388 thousand units for the whole year of 2009, a year-on-year increase of 2.38%, showing that transactions in the real estate market had warmed up (Chart 3.18). Nevertheless, the real estate market cooled down slightly during the first two months of 2010. The reasons underlying this were that housing prices remained high and the government adopted some targeted prudential measures aimed at cooling down the real estate market.

The supply of new property shrank but residential property vacancies remained high

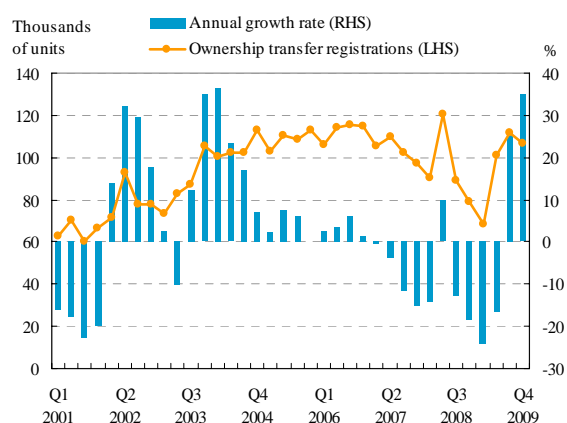
In 2009, the total floor space of construction license permits steadily shrank in the first half of the year. Despite an increase in Q3, there was a substantial decline in new construction for the year as a whole, with the total floor space of construction decreasing by 23.87% year on year. As a result of the shrinkage of

Chart 3.17 Average office rental rate in Taipei



Source: Colliers International "Taipei Office Market Overview."

Chart 3.18 Building ownership registrations



Source: Monthly Bulletin of Interior Statistics, MOI.

new construction, the supply of new property contracted dramatically in 2009. Total floor space of usage permits decreased by 18.88% year on year (Chart 3.19), with the largest decline of 26.56% for residential property. Total supply of new residential property in 2009 registered 76 thousand units, representing a year-on-year contraction of 31.76%.

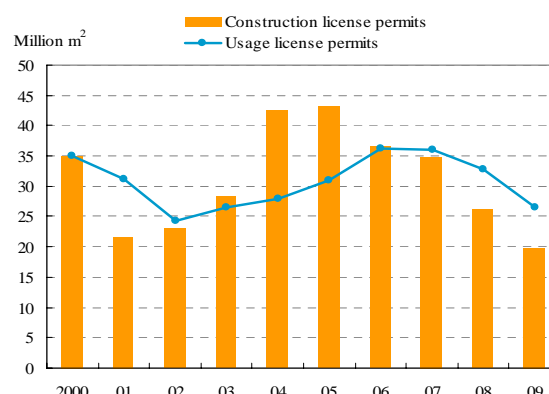
In addition, the average number of vacant residential properties was about 1,458 thousand units in 2009, increasing by 26 thousand units, or 1.79%, compared to the previous year. For the first two months of 2010, the average number of vacant residential properties climbed to 1,530 thousand units, a slight year-on-year increase of 1.38% (Chart 3.20).

Mortgage burden became heavier, especially in Taipei City

As a consequence of climbing housing prices and limited real income growth, the average house price to income ratio for the five metropolitan areas³⁸ reached 7.09 in the second half of 2009 as the average mortgage burden ratio registered 28.23%, both higher than those in the first half of the year. Among the metropolitan areas, the mortgage burden was heaviest in Taipei City as the housing price to income ratio and the mortgage burden ratio reached 9.06 and 36.12%, respectively (Chart 3.21).

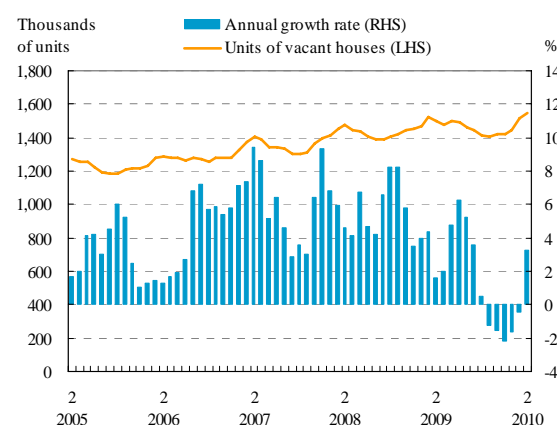
³⁸ Five metropolitan areas refers to Taipei City, Taipei County, Taoyuan and Hsinchu City and County, Taichung City and County and Kaohsiung City and County.

Chart 3.19 Floor space of construction license permits and usage license permits



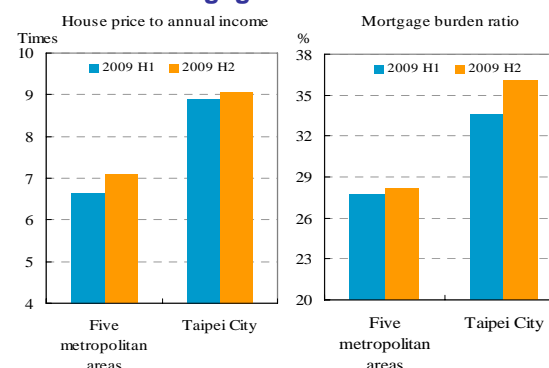
Source: Monthly Bulletin of Interior Statistics, MOI.

Chart 3.20 Estimated units of vacant houses



Source: Taiwan Power Company.

Chart 3.21 House price to income ratio and mortgage burden ratio



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

Source: "Taiwan Housing Demand Survey Report," MOI.

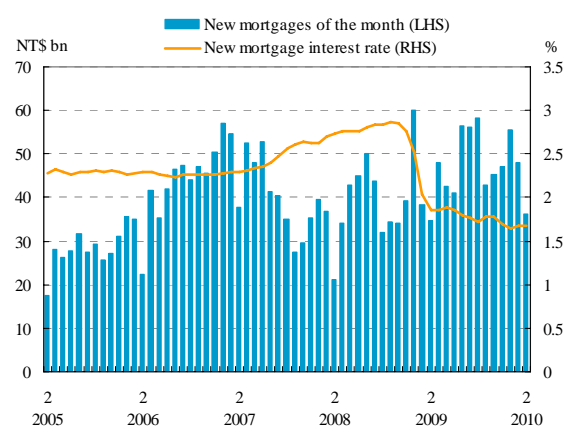
Real estate-related loans turned to grow, while mortgage interest rates rebounded slightly after a continued decline

New loans for house purchases granted by the five largest banks expanded to NT\$55.5 billion in December 2009, but contracted in January and February 2010 (Chart 3.22) before recovering to NT\$51.7 billion in March. The interest rate for new mortgages gradually declined and registered 1.64% in December 2009, slightly increased to 1.67% in February 2010 (Chart 3.22) and dropped back to 1.64% in March.

Outstanding loans for house purchases and house refurbishments granted by banks³⁹ continued to expand to NT\$5.71 trillion at the end of 2009, and further increased by 0.13% for the first two months of 2010 with an annual growth rate of 4.35%. Construction loans kept shrinking for the first three quarters of 2009 but climbed to NT\$1.03 trillion as of the end of December, and further increased by 0.91% for the first two months of 2010 with a negative annual growth of -2.55% (Chart 3.23).

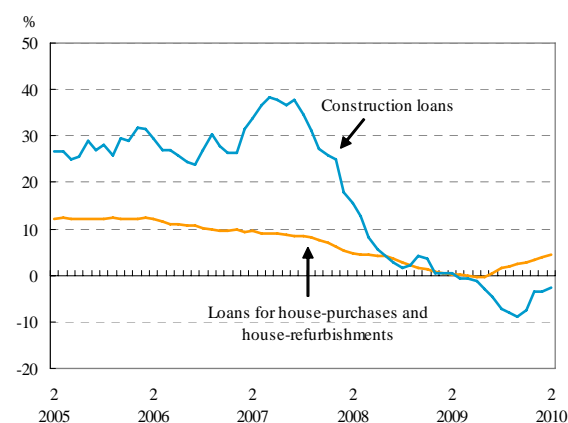
In view of high housing prices in certain areas and excessive concentration in real estate-related loans, the CBC has adopted a series of targeted prudential measures since October 2009 to further enhance financial stability, including: requiring banks to enhance their risk management of real estate-related loans; signaling that the CBC will take asset prices into account in its monetary policy; requesting the Bankers Association of the Republic of China to remind borrowers regarding the risk of repayment and that effective interest rates will increase as soon as grace periods expire; as well as urging banks to strengthen risk management on loans to real estate investors

Chart 3.22 New mortgages – amount and interest rate



Source: CBC.

Chart 3.23 Annual growth rate of real estate-related loans



Source: CBC.

³⁹ Refers to domestic banks and the local branches of foreign banks.

in certain areas. The policies have delivered positive effects with the cooperation of banks through adjusting their mortgage policies regarding loan to value ratios, interest rates and grace periods.

In addition to the above measures, the Council for Economic Planning and Development, Executive Yuan, invited participants from industries, academia and relevant government agencies to issue the Real Estate Market Enhancement Program (Box 1) to enhance the fundamentals of the real estate market and the stability of society and the economy, and to meet the basic housing needs for low- and middle-income families as well as salary earners. The Program was approved by the Executive Yuan on 22 April 2010. Relevant government agencies were urged to implement related measures under the Program in an aggressive and effective manner.

Box 1**The Real Estate Market Enhancement Program**

The Real Estate Market Enhancement Program proposed by the Council for Economic Planning and Development, Executive Yuan, in April 2010, was aimed at stabilizing public confidence and the property market, taking care of the lower socioeconomic class, and meeting the basic housing needs of low- and middle-income groups as well as salary earners. The measures implemented under the Program were based on the following six principles:

1. Tailor measures to the needs of localities and populations;
2. Be moderate and effective;
3. Be sound and stable;
4. Pursue social fairness;
5. Be transparent; and
6. Include relevant supplementary measures.

With these prerequisites, 21 principles and 44 measures were adopted for the Program, where they were grouped into six categories, including:

1. Balancing the supply of and demand for residential property in Taipei metropolitan areas;
2. Assisting low- and middle-income families as well as salary earners in increasing their ability to purchase or rent residential properties;
3. Providing residential property information;
4. Strengthening risk management of real estate-related loans;
5. Pursuing social fairness; and
6. Including relevant supplementary policy measures.

In what follows, categories 3 and 4 related to real estate information disclosure and finance and part of category 5 related to house and land taxation are listed in Table B1.1.

Table B1.1 Measures relating to real estate information, finance and taxation

Issues	Principles	Measures
I. Providing residential property information	1. Consolidating and periodically disclosing residential property information.	Enhancing the consolidation of the following sources of information: 1. E-house servicing internet system, MOI; 2. Housing Statistics, MOI; 3. Residential property internet system, MOI; 4. Real estate prices internet system, MOI; and 5. Real estate foreclosure information.

	2. Disclosing housing prices by the Joint Credit Information Center (JCIC).	Assisting the JCIC in setting up a real estate information platform to provide the acquired information to the MOI for further integration and announcement.
	3. Urging real estate brokers to disclose real estate transaction information.	1. Accomplishing the revision of the Real Estate Broking Management Act; 2. Implementing real estate brokers' trading price reporting systems; and 3. Regulating real estate brokers' qualifications, and their rights and obligations.
	4. Setting up an agency for disclosing residential property information on a regular basis.	Evaluating the costs and benefits of setting up a real estate agency for disclosing relevant information on a regular basis.
	5. Establishing safe and protection mechanisms for real estate transactions.	1. Announcing standard contracts for real estate transactions; 2. Announcing revised Standard Contract for Presale House to improve the transparency of presale house transactions; 3. Establishing a presale house buyers' protection mechanism; and 4. Promoting standard contracts for house leasing available at convenience stores.
II. Strengthening risk management of real estate-related loans	1. Enhancing financial supervision on real estate-related loans.	1. Enhancing on-site examination of real estate-related loans; 2. Enhancing supervisory review of capital adequacy; 3. Promoting real estate supervisory policies; 4. Improving the transparency of real estate valuation; and 5. Requiring that mortgage contracts should disclose relevant risks.
	2. Urging banks to strengthen their risk management of loans for specific mortgage borrowers.	Urging banks to take differential credit terms such as loan to value ratios, interest rates and grace periods on mortgages for investments purposes.
III. Pursuing social fairness	1. Reviewing the current house tax system.	1. Inviting representatives from city and county governments to review the current house tax system. 2. Authorizing city and county governments to review and appropriately adjust government announced house values for those areas exhibiting abnormal property price fluctuations in short periods of time.
	2. Reviewing the current land tax system.	1. Inviting representatives from city and county governments to review the current land tax system. 2. Authorizing city and county governments to review and appropriately adjust government announced land values for those areas exhibiting abnormal property price fluctuations in short periods of time.

Source: The Real Estate Enhancement Program, issued by the Council for Economic Planning and Development in April 2010.