

IV. Non-financial sectors

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

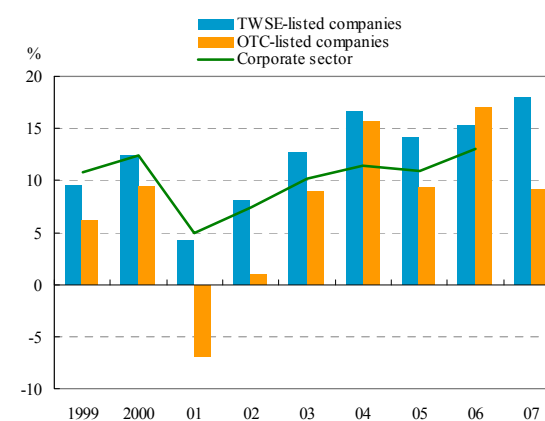
6. Corporate sector

Corporate sector profitability has strengthened, and its financial structure and solvency have improved markedly. The quality of corporate lending also has remained satisfactory. However, the impact of slowing global economic growth, skyrocketing international commodity prices, and appreciation of the NT dollar could undermine operating revenues and financial health of the corporate sector, and thus bear close watching. In addition, enterprises with investments in China could face increased risk due to the adverse effects arising from the implementation of the Employment Contract Law and the adoption of tax reforms in China.

Profitability improved notably

Profitability in the corporate sector⁵⁹ troughed in 2001 and has been gradually climbing since then. In 2006, thanks to moderate global economic expansion, stable production growth and booming international trade, average return on equity (ROE) hit 13.04%. ROE for

Chart 6.1 Return on equity in corporate sector



Note: Return on equity = net income before interest and tax / average equity.

Sources: JCIC and TEJ.

⁵⁹ Corporate sector data are from the corporate financial report database operated by the Joint Credit Information Center. The database includes the data of the all CPA audited financial reports of non-financial corporate sector. In selecting sample data, the enterprises meeting any of the following criteria are excluded: (1) shareholder equity is zero or negative; (2) operating revenues are less than NT\$10 million; (3) a CPA issued an audit report containing an adverse opinion or disclaimer of opinion; (4) was established for less than one year; (5) is a financial or insurance enterprise (Industrial classification K); or (6) is a public administration, defense or compulsory social security enterprise (Industrial classification O). The number of samples taken in individual years are as follows:

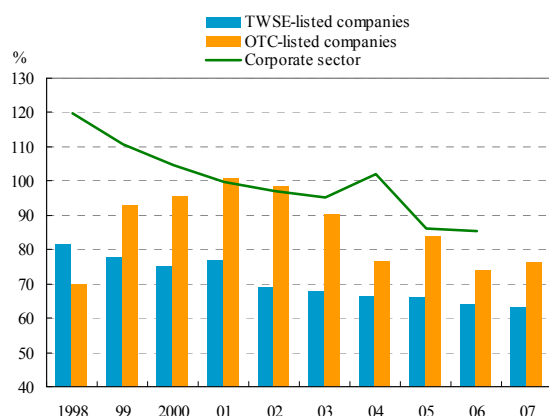
	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total samples	22,998	23,372	23,918	24,973	25,957	27,474	28,162	25,480	29,772
Valid samples	16,821	17,287	17,859	18,667	19,584	20,960	21,417	19,459	22,660

most TWSE-listed companies⁶⁰ has trended upward, except for 2005, reaching an average of 18.03% in 2007, the highest level since 2001. Average ROE among OTC-listed companies⁶¹ was more volatile, sliding steeply from 2006 to a figure of 9.21% for 2007, mainly because of lower gross profit margins in the electronics sector (Chart 6.1).

Financial structure improved

Average leverage ratios in the corporate sector have been on a long-term downward trend, standing at 85.21% at the end of 2006, the lowest level in ten years, reflecting a pronounced improvement in overall financial structure. The average leverage ratio of TWSE-listed companies has also been going down, and has been lower than the average ratio for the corporate sector as a whole, dropping to 63.20% at the end of 2007. OTC-listed companies have also been performing better than the corporate sector as a whole in this regard, but their average leverage ratio has actually deteriorated of late, going up to 76.45% at the end of 2007 from 74.10% in the previous year (Chart 6.2), mainly due to an increase in long-term liabilities. The average leverage ratio at Taiwan's listed companies was lower than those in South Korea and the United States, but was higher than in Australia and Malaysia⁶² (Chart 6.3).

Chart 6.2 Leverage ratios in corporate sector

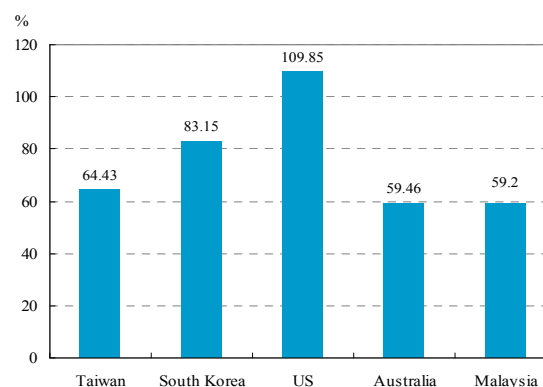


Notes: 1. End of period figures.

2. Leverage ratio = total liabilities / equity.

Sources: JCIC and TEJ.

Chart 6.3 Corporate sector leverage ratios in selected countries



Note: Figures for Taiwan, US and Malaysia are at the end of December 2007, while for South Korea and Australia are at the end of June 2007.

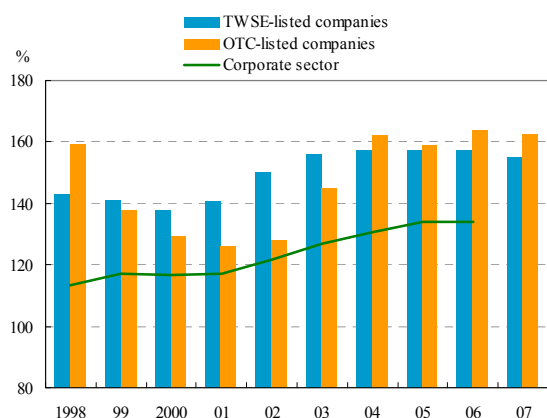
Sources: TEJ, BOK, Fed, ABS and BNM.

⁶⁰ TWSE-listed companies are listed on Taiwan Stock Exchange Corporation (TWSEC). With the exception of financial and insurance companies, data for TWSE-listed companies are from the Taiwan Economic Journal Co., Ltd.

⁶¹ OTC-listed companies are listed on the GreTai Securities Market. With the exception of financial and insurance companies and emerging stock board companies, data for OTC-listed companies are from the Taiwan Economic Journal Co., Ltd.

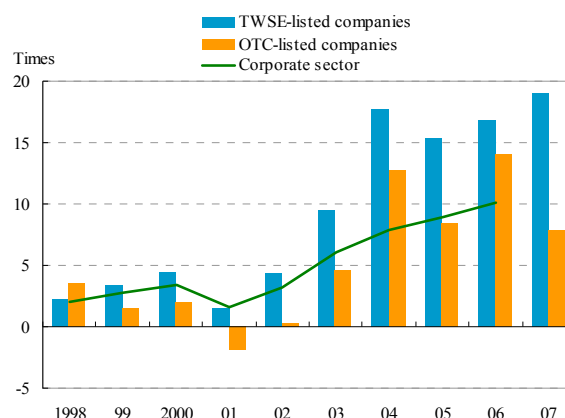
⁶² The figures herein are non-financial listed companies for Taiwan, large non-financial listed businesses for South Korea, non-farm and non-financial corporate businesses for US, non-financial corporations for Australia, and 100 listed corporations for Malaysia.

Chart 6.4 Current ratios in corporate sector



Notes: 1. End of period figures.
 2. Current ratio = current assets / current liabilities.
 Sources: JCIC and TEJ.

Chart 6.5 Interest coverage ratios in corporate sector



Note: Interest coverage ratio = income before interest and tax / interest expenses.
 Sources: JCIC and TEJ.

Debt servicing capacity improved

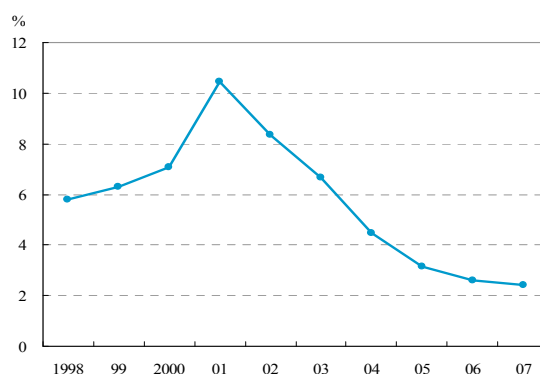
Debt servicing capacity for the corporate sector as a whole began improving in 2002. The average current ratio registered a significant increase of 133.84% at the end of 2006 from 121.58% as of 31 December 2002, indicating that overall liquidity was sufficient to cover short-term debt servicing requirements. The average current ratios for both TWSE-listed and OTC-listed companies were well above that for the corporate sector as a whole, and stood over 155% despite a decline in both ratios at the end of 2007 (Chart 6.4).

Supported by annually rising earnings, the average interest coverage ratio for the corporate sector soared from 1.59 times in 2002 to 10.10 times in 2006, showing that annual profits were quite sufficient to cover interest servicing requirements. The average interest coverage ratio continued to ascend to 19.08 times in 2007 among TWSE-listed companies, while that for OTC-listed companies fell to 7.90 times due to a contraction in profitability (Chart 6.5).

Non-performing ratio of loans to the corporate sector declined

As profitability and solvency improved steadily, the non-performing (delinquency)

Chart 6.6 Non-performing ratios of loans to corporate sector



Note: End of period figures.
 Source: JCIC.

ratios of loans to the corporate sector began falling in 2001 and reached 2.40% as of 31 December 2007, the lowest level in ten years (Chart 6.6). During the reporting period, the credit quality of loans to the corporate sector remained satisfactory, but the slowing global economic growth, skyrocketing international commodity prices and appreciation of the NT dollar may bring about adverse impacts on the future profitability of the corporate sector. In addition, for many Taiwanese enterprises that have made investments in China, the implementation of the Employment Contract Law and the adoption of tax reforms in China could adversely affect their operations and profitability.

7. Household sector

For the household sector, borrowing growth has moderated and debt servicing capacity has strengthened, but debt burdens are still heavy. The credit quality of loans to households remains satisfactory. But the real income and debt repayment capacity of households may be undermined in the future as inflationary pressures increase and monthly payments on high loan-to-value mortgages spike upward with the expiration of interest-only periods.

Growth in household borrowing decelerated

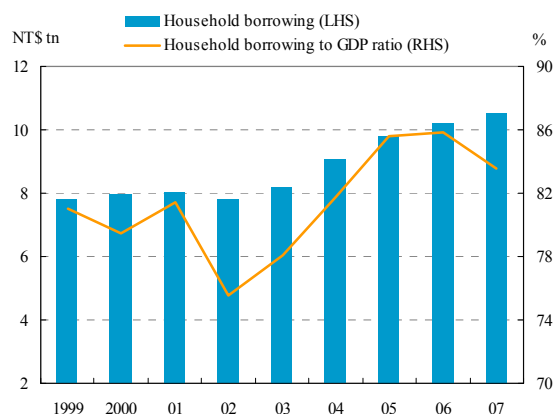
Total household borrowing⁶³ began a steady rise in 2003, due to falling interest rates, continuation of the government's preferential mortgage programs, and active expansion by banks of consumer finance activities. This growth momentum softened, however, after the credit and cash card debt crisis erupted in 2005. By the end of 2007, total household borrowing reached NT\$10.52 trillion (Chart 7.1) on year-on-year growth of 3.09%, down from a peak of 10.58% posted in 2004. The single biggest share of household borrowing at the end of 2007 went for the purchase of real estate (67.23%), followed by working capital loans⁶⁴ (24.13%) and revolving balances on credit cards (2.71%) (Chart 7.2). Loans for the purchase of real estate grew 6.95% year-on-year in 2007, while revolving balances on credit cards plummeted by 18.76%.

⁶³ 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.

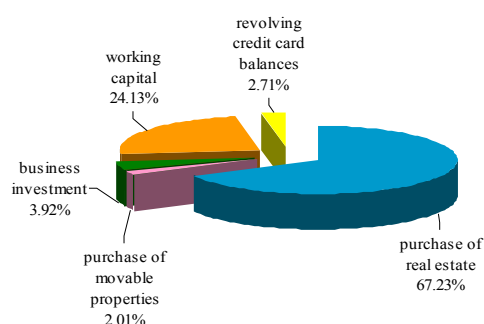
⁶⁴ The term "working capital loans" includes outstanding cash card loans.

Chart 7.1 Household borrowing to GDP



Note: Household borrowings are end of period figures.
Sources: CBC, JCIC and DGBAS.

Chart 7.2 Purposes of household borrowing



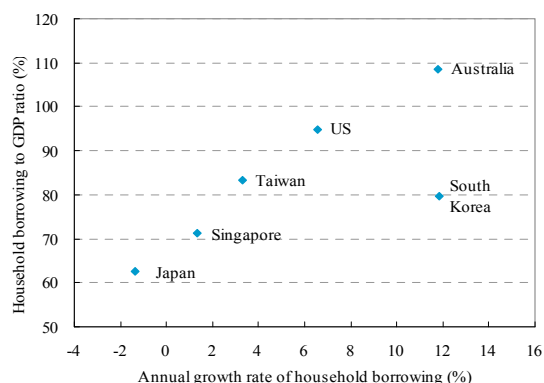
Note: Data are as of the end of 2007.
Sources: CBC and JCIC.

The ratio of household borrowing to GDP began climbing in 2003, topping out at 85.85% at the end of 2006, and then dropped to 83.60% in 2007 on the back of slowing growth in household borrowing and rising GDP growth (Chart 7.1). Total household borrowing in Taiwan grew at a faster annual rate than in Japan and Singapore but much slower than in the US, Australia, and South Korea. As a percentage of GDP, household borrowing in Taiwan was lower than in the US and Australia, but higher than in South Korea, Singapore, and Japan (Chart 7.3).

Household debt burden remained heavy

Steady economic growth, declining unemployment, and stable growth in regular earnings have fueled moderate growth in household gross disposable income⁶⁵ over the past six years; however, total household borrowing has increased steadily over the same period. As household borrowing has expanded faster since 2003 than disposable income, the ratio of household borrowing to gross disposable income and the household debt servicing ratio both have risen slowly,

Chart 7.3 Household indebtedness in selected countries

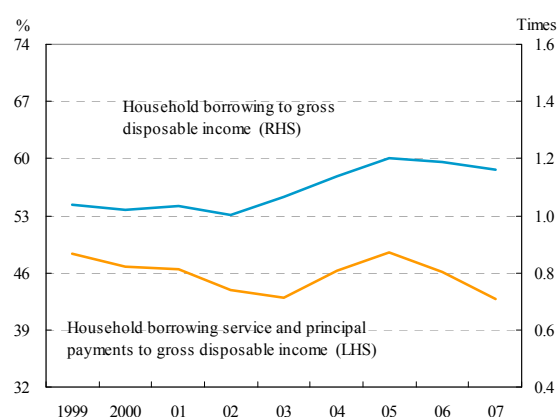


Note: Figures for Singapore and South Korea are as of June-end 2007 and September-end 2007, respectively. The remainders are based on the figures of the end of 2007.
Sources: Fed, BEA, BOJ, Cabinet Office of Japan, BOK, ABS, DGBAS, CBC and JCIC.

⁶⁵ Gross disposable income = disposable income + rental expenses + interest expenses. Gross household disposable income in 2007 was estimated by using parameters based on DGBAS data for household disposable income and national disposable income and carrying out “linear interpolation” that yielded better results through “trend detection” (e.g. performance under various interpolations, such as nearest, linear, spline, pchip, and cubic interpolation).

reflecting that the debt servicing capacity of households has deteriorated. Then the credit and cash card debt crisis erupted in the latter half of 2005, prompting banks to tighten consumer credit. This resulted in a softening, and even a contraction, of growth in short-term lending to the household sector, slightly alleviating the pressures stemming from principal and interest payments. The ratio of household borrowing to gross disposable income was 1.16 times as of the end of 2007, slightly down from the 1.19 times for the previous year, but still high, indicating that the household debt burden remained heavy. Meanwhile, the ratio of household borrowing service and principal payments to gross disposable income dropped back down to 42.67%, the same level as in 2003, implying that household debt servicing capacity has gradually improved (Chart 7.4).

Chart 7.4 Household debt servicing ratios

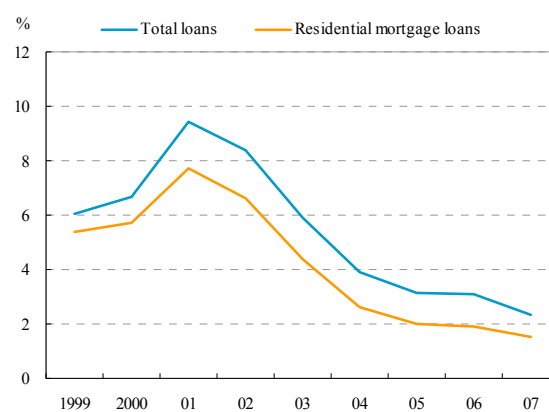


Note: Figure for gross disposable income of 2007 is CBC estimate.

Sources: JCIC and DGBAS.

The household NPL ratio⁶⁶ peaked at 9.45% at the end of 2001 before trending downward, increased temporarily in 2006 after the outbreak of the credit and cash card debt crisis, but resumed its decline to 2.33% at the end of 2007, the lowest level in nine years (Chart 7.5). This came about primarily because the non-performing ratio for residential mortgage loans, which accounts for the largest share of loans to households, remained at a low level due to continued appreciation of real estate. The credit quality of loans to households thus remains satisfactory, but increasing inflationary pressures and gradual expiration of interest-only periods on high loan-to-value mortgage loans may undermine the real income and debt repayment capacity of households.

Chart 7.5 NPL ratios of household loans



Source: JCIC.

⁶⁶ Data relating to the Remittances & Savings Department of Chunghwa Post Co. and securities firms are excluded from the figure for household NPL ratio.

8. Real estate market

Rising prices but falling transaction volumes in the real estate market, coupled with a climbing vacancy rate and generally tighter lending standards on the part of banks, are exerting increased downward pressure on the market. These movements in the fundamentals, however, are not at all in line with optimistic expectations for the market after the national election of 2008. Future developments bear close watching.

Real estate market cooled off

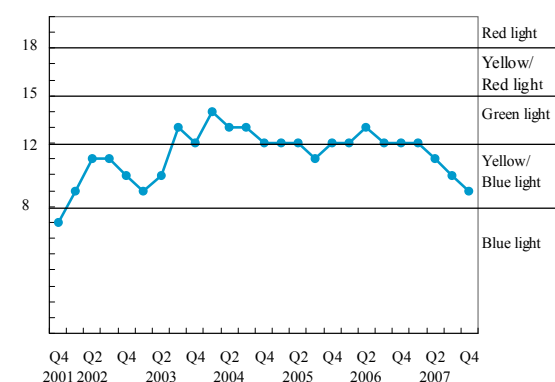
According to the fourth quarter 2007 edition of the “Quarterly Report of Taiwan Real Estate Cycle Indicators,” Taiwan’s real estate cycle indicators⁶⁷ were “yellow/blue” for three consecutive quarters beginning in 2007 Q2 (Chart 8.1). Among the real estate cycle composite indicators, moreover, the composite index of leading indicators⁶⁸ was down 3.68% from the previous quarter, and the composite index of coincident indicators⁶⁹ fell slightly by 0.98%. This reflects a slowdown in real estate market growth.

However, many real estate-related firms were expecting a big upswing after the 2008 presidential election, an indication that the market expectations were disconnected from movements in the fundamentals. There is still a need to cautiously monitor the future direction of the market.

Real estate prices continued rising even as transaction volume fell

Real estate prices continued to climb in 2007. The Taiwan Area Land Price Index hit 107.85 in September 2007, the highest level since 2001, rising by 2.63% year on year, with the fastest growth in Taipei City and Taichung City. In addition, the Sinyi housing price index

Chart 8.1 Real estate cycle indicators



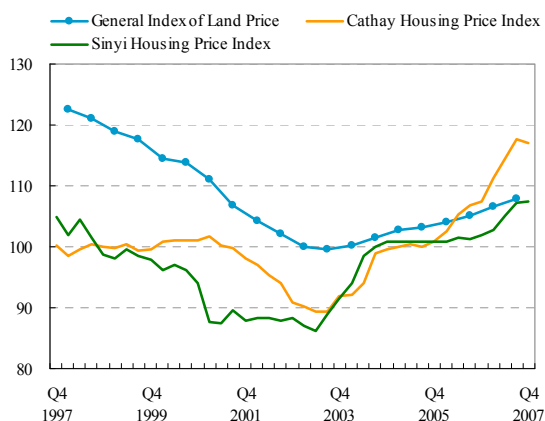
Source: “Quarterly Report of Taiwan Real Estate Cycle Indicators,” Architecture and Building Research Institute, MOI.

⁶⁷ The real estate cycle indicators show five different outlooks. A red light indicates a “very 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 “sharply declining market.”

⁶⁸ The composite index of leading indicators is made up of the following five components: GDP, money supply, construction sector stock price index, volatility in outstanding construction loans, and consumer price index.

⁶⁹ 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.

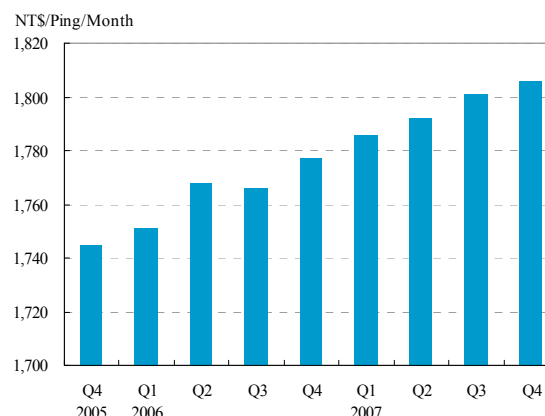
Chart 8.2 Land and housing price indices



Note: Land price index is released each half year (i.e. March and September).

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

Chart 8.3 Average office rental rates in Taipei



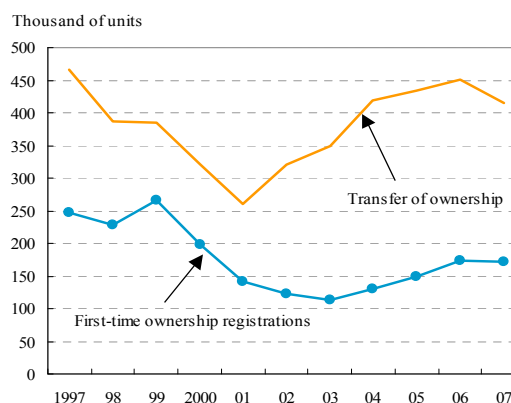
Source: Colliers International "Taipei Office Market Overview."

(for existing buildings) was at 107.4 as of the end of 2007, up 5.45% year on year, with the sharpest increase coming in the greater Taichung metropolitan area, while the Cathay housing price index (for new construction) stood at 117.09, up 8.87% year on year (Chart 8.2), with Taipei City showing a marked 20% increase. In 2007 Q4, however, the prices of new and existing buildings rose at a slower pace, and it turned toward a buyer's market as sellers become more flexible about price concessions.

Rental rates have also been going up steadily in step with appreciating real estate prices. Analyzed by the rental movements, a component of the consumer price index, the average rental price rose by 0.2% year on year in 2007. Office building rentals in Taipei City have also continued to climb, reaching an average of NT\$1,806 per ping (3.3 square meters) per month in 2007 Q4, up 1.6% year on year (Chart 8.3).

With regard to transactions, transfers of ownership were registered on 415,000 units in 2007, dropping by 7.90% year on year and marking the first decline in property transactions since 2002. The drop was due mainly to continuing housing price appreciation, tighter real estate lending policies at banks, and the decision of many potential buyers to wait on the sidelines until after the elections of 2008. In addition, there were 172,000 first-time

Chart 8.4 Building ownership registrations



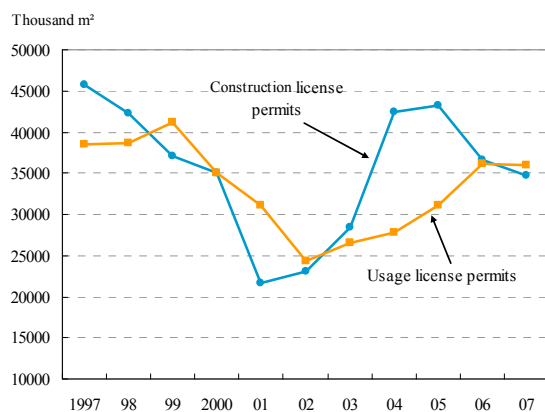
Source: Monthly Bulletin of Interior Statistics, MOI.

ownership registrations in 2007, down 0.67% from the year before (Chart 8.4), showing that market activity has cooled off.

New residential property supply expanded, and vacancy rate climbed

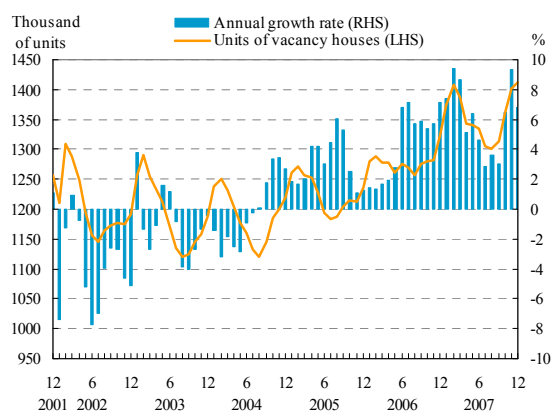
Total floor area represented by construction license permits posted negative growth in 2006, and then fell another 5.40% in 2007, with declines coming in both residential and commercial real estate, showing that builders grew cautious about investing in new constructions. Total floor area represented by usage license permits for newly completed buildings increased annually from 2003 before dipping 0.41% in 2007 (Chart 8.5). The decline was mainly accounted for by a 9.9% drop in commercial real estate in spite of a 3.46% growth in housing. The aggregate supply of newly completed housing in 2007 was 130,000 units, the highest figure since 1997, reflecting a rising supply of newly completed housing. In addition, the average number of vacant residential properties in 2007, estimated by the number of units consuming less power than the minimum service charge from the Taiwan Power Company, was 1.357 million units, up 6.2% from the previous year (Chart 8.6), and the average number for the first quarter of 2008 further expanded to 1.458 million units, showing that housing vacancy rates continue to rise.

Chart 8.5 Floor space of construction permits and use permits



Source: Monthly Bulletin of Interior Statistics, MOI.

Chart 8.6 Estimated units of vacant houses



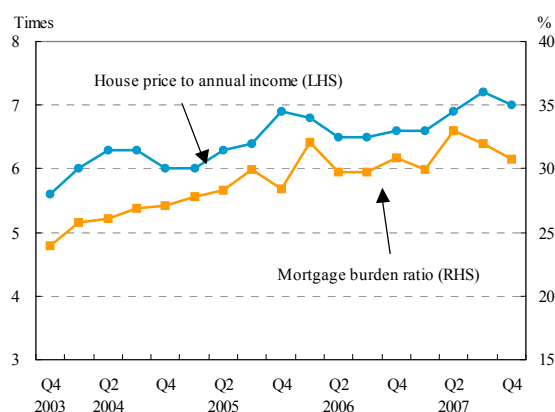
Source: Taiwan Power Company.

House price to income ratio rose, cost burden for home buyers grew

Rising housing prices in 2007 brought a heavier cost burden for home buyers. The average mortgage burden ratio and price to income ratio hit all-time highs of 33% and 7.2 times in Q2 and Q3, then fell back slightly to 30.8% and 7.0 times in Q4 (Chart 8.7) due to a rising

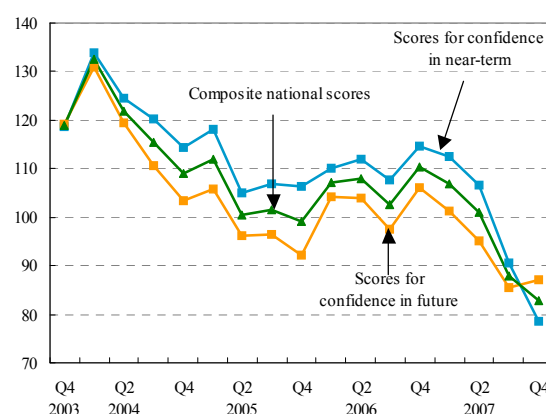
number of lower priced homes purchased by the interviewees. These figures were still quite high, however. The cost burden was heaviest in Taipei City, where the mortgage burden ratio and price to income ratio stood at 36.5% and 8.6 times, respectively. In the meantime, the “Taiwan Housing Demand Survey” issued by the Council for Economic Planning and Development showed that the composite national score for housing price confidence declined throughout 2007, dropping below 100 points in Q3 and continuing down to 82.8 points in Q4. Scores for confidence in near-term and future housing prices were also below 100 points⁷⁰ (Chart 8.8), indicating that market confidence in future housing prices is declining.

Chart 8.7 House price to income ratio & mortgage burden ratio



Note: Mortgage burden ratio = monthly mortgage expenditure / household monthly income.
Source: “Taiwan Housing Demand Survey Report,” Council for Economic Planning and Development.

Chart 8.8 Scores for housing price confidence



Source: “Taiwan Housing Demand Survey Report,” Council for Economic Planning and Development.

Growth in real estate lending declined gradually, while mortgage interest rates rose slowly

The outstanding balance of real estate-related loans granted by banks⁷¹ continued to grow in 2007, though at a slower pace. Year-on-year growth in loans for house purchases and house-refurbishments declined to a mere 6.17% in December 2007, and year-on-year growth in construction loans began decelerating in August, reaching 20.30% by December (Chart 8.9). The total amount of new housing lending by Taiwan’s top five banks⁷² peaked at NT\$57.0 billion in December 2006 before declining to just NT\$39.4 billion in December 2007 (Chart 8.10) and NT\$34.2 billion in March 2008, mainly due to stricter standards in real

⁷⁰ Scores for housing price confidence range from 0 to 200, with a score of 100 indicating that the number of people expecting prices to rise is equal to the number of those expecting the opposite. A score above 100 indicates that more people expect prices to rise, and vice-versa. Scores for confidence in near-term and future prices refer to expectations for prices three months and one year in the future, respectively.

⁷¹ The term “bank” in this section includes domestic banks (including medium business banks) and the local branches of foreign banks.

⁷² The “top five” banks refer to the Bank of Taiwan, Taiwan Cooperative Bank, First Commercial Bank of Taiwan, Hua Nan Commercial Bank, and Chang Hwa Commercial Bank.

