notional amount<sup>25</sup>. There were only 50 new issuances, or NT\$37.9 billion of convertible bonds issued in 2008, much less than the 113 new issuances, or NT\$101.5 billion reported in 2007, representing the difficulties that many corporations faced in raising funds from the capital market. Moreover, credit spreads<sup>26</sup> expanded significantly over the second half of 2008 when the market became more sensitive to risk. Notably, the average credit spread between twBBB corporate bonds and government bonds expanded dramatically to 158 basis points in late January 2009 and remained at around 150 basis points in April (Chart 4.9), reflecting the rising funding costs of new corporate bond issuances as investors required higher risk premiums.

## 4.2 Household sector

The debt burden of the household sector remained heavy even as household borrowing contracted. Households' short-term debt servicing capacity strengthened and the credit quality of household borrowing remained satisfactory. Nevertheless, in the future, the debt servicing capacity of the household sector may be undermined by the sluggish

## Chart 4.8 Amount of corporate bonds due by the end of 2009





domestic economy, declining real incomes and a rising unemployment rate. The credit risk of household borrowing may thus increase.

<sup>&</sup>lt;sup>25</sup> According to the FSC, the number of securities issuances domestically and overseas by publicly-traded companies registered 211 or NT\$470.6 billion in 2008, declining by 42.82% in the number of issuances but increasing by 12.02% in the notional amount year on year. While data for financial and insurance companies and Taiwan Power Company are excluded, the number and notional amount in 2008 significantly dropped by 68.17% and 17.63% year on year, respectively.

<sup>&</sup>lt;sup>26</sup> Yield spreads between 5-year corporate and government bonds.

#### Household borrowing dropped

In the second half of 2008, impacted by the domestic economic downturn, household borrowing <sup>27</sup> began declining as banks became more conservative in their credit policies and individual borrowers were more cautious in borrowing. As of the end of 2008, total household borrowing stood at NT\$10.34 trillion, a contraction of 1.73% year on year (Chart 4.10). The single largest share of household borrowing went for the purchase of real estate (70.59%), followed by working capital loans<sup>28</sup> (23.32%), whereas revolving credit card balances accounted for only 2.45% (Chart 4.11). Only the loans for purchasing real estate kept rising, while the loans for other purposes all posted negative annual growth rates in 2008.

#### Chart 4.10 Household borrowing to GDP



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





Note: Figures are as of the end of 2008. Sources: CBC and JCIC.

<sup>&</sup>lt;sup>27</sup> 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:

<sup>(1)</sup> 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.

<sup>(2)</sup> Other financial institutions: trust and investment companies, life insurance companies, securities finance companies, and securities firms.

<sup>&</sup>lt;sup>28</sup> The term "working capital loans" includes outstanding cash card loans.

The ratio of household borrowing to GDP increased slightly to 83.60% as of the end of 2008, mainly due to higher GDP contraction (Chart 4.10). Examining total household borrowing across countries, it fell in Taiwan and Japan, maintained moderate growth in the US, and continued to grow at a faster rate in Australia and South Korea. As a percentage of GDP, household borrowing in Taiwan was lower than that in the US and Australia, approximate to that in South Korea, but higher than that in Japan (Chart 4.12).

## Household debt burden remained heavy but short-term debt servicing capacity improved gradually

As of the end of 2008, the ratio of household borrowing to gross disposable income<sup>29</sup> stood at 1.18, the same as at the end of 2007 due to identical decreases of both household borrowing and disposable income. This reveals that the household debt burden remained heavy. However, a continuous decline in short-term borrowing contributed to the debt servicing ratio declining over the past three years to 41.82% in 2008. This showed that the pressures from principal and





Note: Figures for Taiwan are as of the end of 2008. The others are as of end-September 2008.Sources: Fed, BOJ, BOK, ABS, IMF, DGBAS, CBC, and JCIC.



Chart 4.13 Household debt servicing ratio

interest payments on the household sector alleviated and short-term debt servicing capacity improved gradually (Chart 4.13).

The household NPL ratio registered 2.04% as of the end of 2008, down from 2.18% as of the end of June 2008, primarily because of the decline in the NPL ratio for residential mortgage loans which accounted for the largest share of household borrowing. By the end of March 2009, the credit quality of household borrowing remained satisfactory, although both NPL

<sup>&</sup>lt;sup>29</sup> Gross disposable income = disposable income + rental expenses + interest expenses.

ratios for total household borrowing and for residential mortgage loans increased slightly (Chart 4.14). Nevertheless, the sluggish domestic economy, declining real incomes and an increasing unemployment rate may have adverse impacts on household debt servicing capacity and thus increase the credit risk faced by banks.

## 4.3 Real estate market

The real estate market cooled off as transaction volumes plunged dramatically. Amid signs that prices would decline, housing prices remained resilient due to historically low interest rates and a series of stimulus measures adopted bv the government to underpin the real estate market. These stimulus measures included extending the expiration of construction license permits, offering additional preferential mortgage loans for homebuyers as well as opening the local real estate market to investors from China. Nevertheless, under the consideration of the rising unemployment rate and shrinking household wealth caused by the economic slump, together with expanding



Chart 4.15 Real estate cycle indicators



supply in the housing market, downward pressure still existed. Banks should pay attention to the credit risk of real estate-related loans.

# Real estate market cooled off as downward pressure on housing prices remained

Taiwan's real estate cycle indicators<sup>30</sup> remained under a blue light in 2008 Q4, the same as

<sup>&</sup>lt;sup>30</sup> The real estate cycle indicators show five 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."