

## IV. 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.

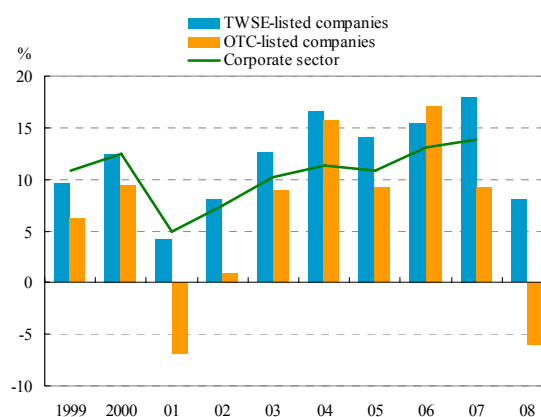
### 4.1 Corporate sector

After the burst of the IT bubble in 2001, the corporate sector's<sup>23</sup> profitability strengthened while its financial structure and debt servicing capacity continued to improve. However, inflicted by the sharp slowdown in the global economy, the profitability of both TWSE-listed and OTC-listed companies<sup>24</sup> declined dramatically in 2008, and their financial structures and short-term solvency also deteriorated. In addition, the default risk in the corporate sector rose as it faced moderately increasing non-performing loan ratios and greater difficulties in refinancing due to a contraction in the credit market.

#### **Profitability decreased dramatically in 2008**

The corporate sector's profitability was enhanced by steady economic growth after 2001. In 2008, however, the return on equity (ROE) for TWSE-listed and OTC-listed companies declined to 8.08% and -5.97%, respectively, much lower than the 18.03% and 9.20% reported in 2007 (Chart 4.1). The reasons behind this were skyrocketing international commodity prices, increasing

**Chart 4.1 Return on equity in corporate sector**



Notes: 1. Return on equity = net income before interest and tax / average equity.

2. Latest data for corporate sector were as of the end of 2007, while that for TWSE-listed and OTC-listed companies were as of the end of 2008.

Sources: JCIC and TEJ.

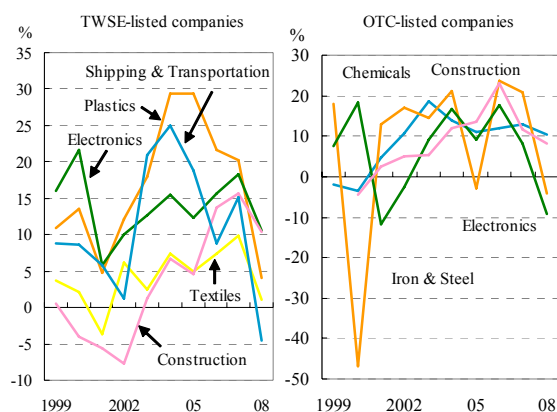
<sup>23</sup> Data for the corporate sector are from the corporate financial report database operated by the Joint Credit Information Center, excluding that for financial and insurance companies, public administration and defense, and compulsory social security companies.

<sup>24</sup> The data for TWSE-listed and OTC-listed companies are from the Taiwan Economic Journal Co., excluding that for financial and insurance companies and emerging stock-listed companies. The data in 2008 and 2009 Q1 are preliminary.

operational costs in China and sluggish consumer demand brought about by inflation in the first half of 2008, followed by declines in exports, private consumption and investment in the second half of 2008 triggered by the sharp global economic slowdown. To break this down by sector, for TWSE-listed companies, ROE for the shipping and transportation industry declined most and became negative, followed by the plastics industry in which ROE remained positive. For OTC-listed companies, the iron and steel industry's ROE was impacted most, followed by the electronics industry. Notably, the electronics industry, which accounted for three quarters of the total assets of OTC-listed companies, saw a drop in ROE to -9.08% in 2008, down from 8.25% in 2007 (Chart 4.2). In 2009 Q1, profitability for both TWSE-listed and OTC-listed companies continued to fall significantly, compared to the same period of 2008, but with a slower pace of contraction compared to the previous quarter.

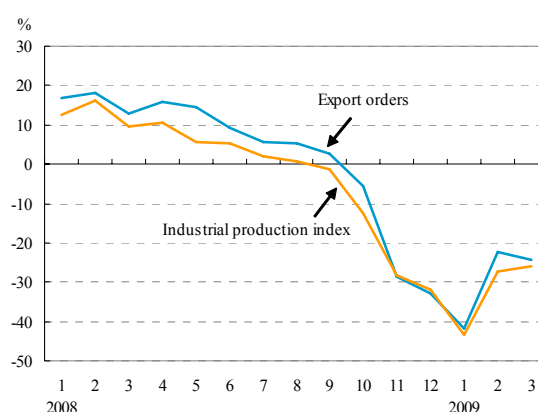
Taiwan's export industry was impacted seriously owing to a dramatic shrinkage in external demand inflicted by the global economic downturn. The industrial production index and export orders recorded negative growth from September and October of 2008, respectively, and further decreased by 43.31% and 41.70% year on year in January 2009. Nevertheless, after hitting bottom in January, the situation improved due to a sudden massive increase in export orders and inventory restocking (Chart 4.3). In view of continued weakness in export orders and industrial production, and few signs of a robust recovery in the global economy, profitability for the corporate sector is likely to remain weak.

**Chart 4.2 Return on equity of TWSE-listed and OTC-listed companies by major industries**



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

**Chart 4.3 Annual growth rate of export orders and industrial production index**



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

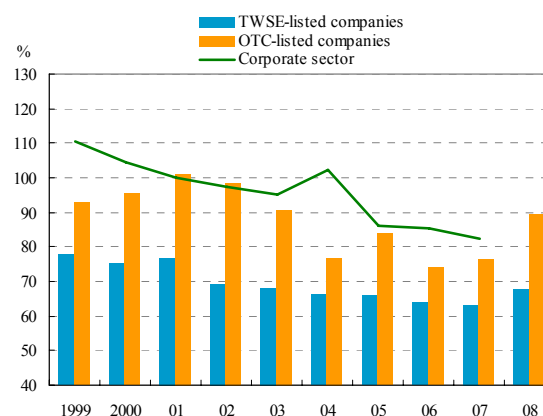
### Financial structure worsened in 2008 before improving in 2009 Q1

After several years of improvement in the financial structure of the corporate sector, the average leverage ratio declined to 82.20% as of the end of 2007. However, financial structures for TWSE-listed and OTC-listed companies worsened in 2008, with average leverage ratios climbing to 67.59% and 89.44%, respectively, at the end of the year (Chart 4.4). In 2009 Q1, as a consequence of a contraction in liabilities, the average leverage ratios of TWSE-listed and OTC-listed companies improved and returned to levels similar to those reported at the end of 2007.

### Short-term debt servicing capacity eroded

Short-term debt servicing capacity for the corporate sector as a whole has improved since 2001 as the current ratio and interest coverage ratio, supported by enhanced financial structures as well as profitability, have increased steadily. However, short-term debt servicing capacity for TWSE-listed and OTC-listed companies weakened in 2008 due to declines in both profitability and current assets. As of the end of 2008, the current ratios for TWSE-listed and OTC-listed companies dropped to 141.02% and 117.90%, respectively. This was accompanied by a significant drop in the interest coverage ratio to 8.26 for TWSE-listed companies, and an inability by OTC-listed companies to support their debt servicing capacity due to annual losses (Chart 4.5, 4.6). Underpinned by declining short-term debt levels, current ratios for TWSE-listed and OTC-listed companies rose slightly in 2009 Q1. Nevertheless, the interest coverage ratio for TWSE-listed companies kept declining to 1.02 owing to contracted profitability in Q1, while OTC-listed companies remained unable to service their debt repayments because of losses.

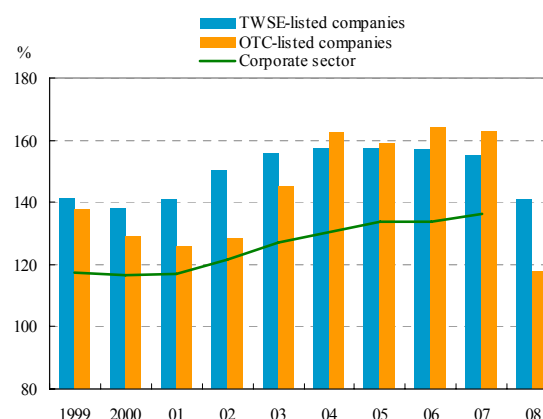
Chart 4.4 Leverage ratio in corporate sector



Note: Leverage ratio = total liabilities / equity.

Sources: JCIC and TEJ.

Chart 4.5 Current ratio in corporate sector



Note: Current ratio = current assets / current liabilities.

Sources: JCIC and TEJ.

### NPL ratio of corporate loans climbed slightly

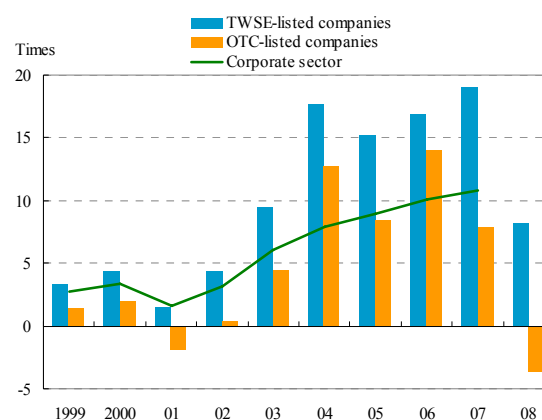
The NPL ratio for corporate loans rose to 2.28% as of the end of 2008, 0.17 percentage points higher than that of the end of June 2008, and remained at the same level as of the end of March 2009 (Chart 4.7). However, it could possibly trend upward in the future as increasing numbers of companies have sought debt renegotiations recently. Additionally, the profitability and debt servicing capacity in the corporate sector may continue to be undermined by the severe global economic downturn.

### Financing and funding pressures intensified

The credit market seemed to tighten slightly as financial institutions tightened their loan underwriting standards under the consideration of rising default risks in the corporate sector resulting from the domestic economic downturn. Corporations, especially small and medium enterprises (SMEs), faced more difficulties in obtaining finance from financial institutions. Moreover, by the end of 2009, a large amount of corporate bonds will fall due and convertible bonds will be redeemed early because of a higher conversion price than market price (Chart 4.8). Accompanied by falling operating revenues, some listed companies thus face increasing refinancing pressure.

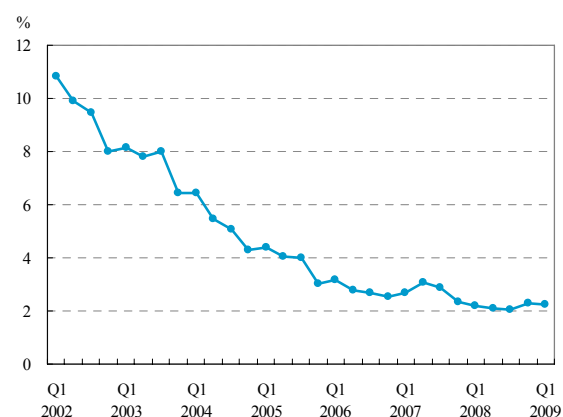
Besides, caused by a sluggish domestic stock market and ascending credit risk for corporations, domestic and overseas securities issuances initiated by public-issuing companies in 2008 contracted dramatically in terms of the number of issuances and the

Chart 4.6 Interest coverage ratio in corporate sector



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

Chart 4.7 NPL ratio of corporate loans



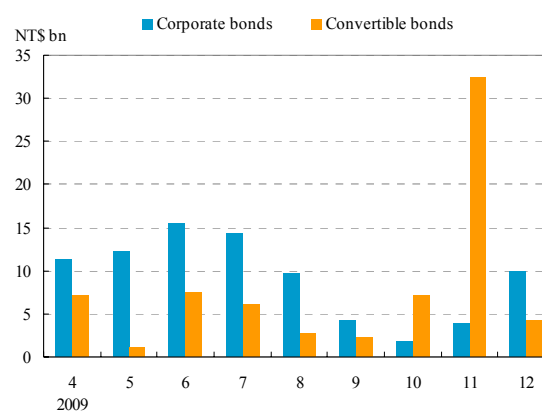
Note: End-of-period figures.  
Source: JCIC.

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

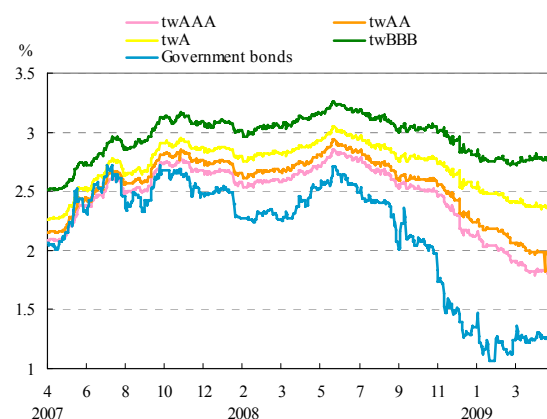
The debt burden of the household sector remained heavy even as household borrowing contracted. Households' short-term debt servicing capacity strengthened and the credit quality of household borrowing remained satisfactory. Nevertheless, in the future, the debt servicing capacity of the household sector may be undermined by the sluggish domestic economy, declining real incomes and a rising unemployment rate. The credit risk of household borrowing may thus increase.

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



Notes: 1. Data are as of end-February 2009.  
2. Excludes corporate bonds issued by finance and insurance companies.  
Sources: GTSM and Market Observation Post System.

**Chart 4.9 Yields on corporate and government bonds**



Note: Figures refer to yields on 5-year corporate and government bonds.  
Source: Bloomberg.

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