"The Profitability of Japanese Industries: Non-financial Sectors, Banks and Life-Insurance Companies" Japan Center for Economic Research

# **Corporate Profits and Stock Prices**

# 1. Introduction

The recurring profits of corporations (not including financial institutions) according to their financial statements of the fiscal year ending March 31, 2003 showed a dramatic improvement over the previous year, growing by 70%. The Nikkei Average, which had fallen to the lowest point of this year on April 28<sup>th</sup> – 7,603 yen – has recovered quite a bit. The gloomy view of the economy that had been dominant in the marketplace is now making way for notions that the Japanese economy has finally bottomed out thanks to the recovery in corporate profits. However, at the same time, many structural issues remain, and the medium-term deflationary trend has not been effectively halted either. As a result, there are differing views as to how "real" the current recoveries in corporate profits and stock prices are, and whether these are actually sustainable.

In this chapter, with this as the background, we examine the true strength of Japanese corporate profitability. First, we analyze the movements in corporate profits and stock prices, taking into consideration the changes in the stock market since the burst of the economic bubble around 1989 or 90. Then, using the "Financial Statements Statistics of Corporations by Industry" of the Ministry of Finance, we analyze the income statements and the balance sheets of these non-financial institution corporations, and examine their profit conditions and their investment situation up to fiscal 2002 (ending March 31, 2003).

In Section 2, we analyze the movements in the stock market after 1990. We compare the stock price levels at the end of 1989 and the end of fiscal 2002 by industry. Then, we look at the level of the stock market by the share of the market value of the stock market to nominal GDP. After this, we examine the current level of the Japanese stock prices by their PBRs (Price Book Value Ratios) and finally, we look into the change in the ROE (Return on Equity) and stock prices and reveal the factors behind the decline in the ROE.

In Section 3, we analyze the data from the "Financial Statements Statistics of Corporations by Industry". First, we give an overview of the profit picture up to fiscal 2002. Next, we examine what kind of effects on corporate profits the changes in the Accounting standards (the move to tax effect accounting and the change in the categorization of Enterprise Taxes) implemented from fiscal 1998 have had from their financial statements. Then, we estimate how the deflationary environment of the past few years has raised the real value of the debts held by the corporations, and how much more of a burden these debts have become. Finally, we estimate the real profit levels of the corporations corrected for the changes in the accounting standards, and the effects of deflation on the real debt burden.

In Section 4 we again use the data in the "Financial Statements Statistics of Corporations by Industry" to examine the changes in and the current state of the corporate balance sheets, and the saving-investment situation. Then, as in the earlier section, we examine these figures in the absence of the changes in the accounting standards. In this analysis, we can find when the balance sheets of corporations began to shrink, and what kind of relationship this has with investment behavior. We then take a look at extraordinary losses, and the investment overseas mainly by large manufacturers, and consider the factors behind corporations curbing their investment activity.

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#### 2. The Stock Market since 1990

# 2.1 Transition of the Stock Market since 1990

At the end of December 1989, the Nikkei Average (Nikkei 225) marked a record high of 39,815 yen. However the market has been on a downward trend in the ten years immediately following this high; and at this writing, the Nikkei Average is fluctuating around the 10,000 yen mark. In this section, we provide an overview of the stock market since 1990.

# 2.1.1 Stock Price Index since the Burst of the Bubble.

In Figure 1, we compare the stock prices as at the end of 1989, and at March 31, 2003 (Indexed so that end of 1989 = 100). For market watchers there are two main price indicators for the Tokyo Stock Exchange: the Nikkei Average and TOPIX (Tokyo Stock Price Index). In Figure 1, we see that both of these Indices have fallen dramatically from the high of 100 at the end of 1989 to 30. In this time, the market value of TOPIX was 591 trillion yen, but this has shrunk to 228 trillion yen, a drop of more than 60%. This massive decline in market value has drastically weakened financial institutions such as life insurers and banks. Also, this has greatly affected some corporate pension being terminated, and some going broke<sup>1</sup>.

Next, when we look at the stock prices by industry<sup>2</sup>, we observe that the movements in stock prices are dramatically different depending on the industry. The pharmaceutical industry has had the smallest decline in price and is now at the 84 point level. The precision instrument and transportation equipment industries have also marked very small declines compared to some other industries and they are at 74 and 66 points respectively. Banks, on the other hand have dropped to an extreme 9 points. This kind of polarization of stock prices is characteristic of the post-bubble stock market. Many of the industries that have marked relatively small declines compared to the declines in the Nikkei Average or the TOPIX index have companies that continue to have strong international competitiveness. These companies are earning steady profits not only domestically, but also from overseas, and have profit structures that are not dependent only on domestic economic conditions.

<sup>1)</sup> The two main corporate pension systems in Japan are the approved Retirement Annuity System and the Employees' Pension Fund System.

<sup>2 )</sup> The indices by industry are for the 33 industries published by the Tokyo Stock Exchange.

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# Figure 1. Post-bubble Stock Prices (comparison of December 31, 1989 and March 31, 2003)

December 31, 1989=100

Note) Indices where December 31, 1989 = 100. Indices exclude dividends. Source: "Monthly Statistics Report", Tokyo Stock Exchange

# 2.1.2 Market Value of Stock Market as Share of GDP

In the 1990s, Japan's economy entered a phase of low growth and maturity. Figure 2. shows the market value of the post-bubble stock market (market value of TOPIX) as a share of nominal GDP. From this, we observe that in 1989, the total market value of the stock market was 140% of the nominal GDP of Japan. We can see how at that time the market value of the stock market was inflated by excessive expectations of the future.

In 1999, however, the total market value of the stocks was about 90% of nominal GDP and the only year that it rose above the average level of the post-bubble period. In this year the IT (information technology) related sector contributed greatly to raising the market value of the stocks, to the extent that it was called the IT bubble. Although not as extreme as in 1989, expectations for the future economy were excessive.



Figure 2. Total Market Value of TOPIX as share of GDP

Source: "Monthly Statistics Report", Tokyo Stock Exchange Annual Report on National Accounts, Cabinet Office

# 2.1.3 International Comparison of Japanese Stock Prices

Figure 3. shows the Price Book Value Ratios (PBR) in Japan, the US, UK, Germany and France. In the late 1980s, we see that Japan had a very high PBR of over 5 times. However, we also see that the US and other major countries outside of Japan had stock prices (by PBR) in the late 1990s to 2000, as high as in Japan in the 1980s. PBRs in the US, UK, Germany, and France were 5.6, 4.1, 4.5 and 4.6 times respectively. So we see the PBR in the US was particularly high at the time.

Japan's PBR at the end of March, 2003 was 1.2 times. In the US at the same time, it was 2.65, 1.7 times in the UK, 1 time in Germany and 1.7 times in France. In other words, at the end of March, 2003, Japan's PBR was slightly higher than Germany's, but low compared to that of the US, UK and France.

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Figure 3. Price Book-Value Ratios (Monthly figures)

Source) MSCI (Morgan Stanley Capital International)

# 2.1.4 ROE and Stock Prices

Figure 4. shows the Returns on Equity (ROE) for Japanese companies in the post-bubble period. The ROE is an indicator for shareholders to know if the funds they have invested in the company have been efficiently utilized and how much profit has been earned from them. To the management of the company, this is an indicator of how well they have utilized these funds. The ROE on an all-industry basis according to the "Financial Statements Statistics of Corporations by Industry, Quarterly" was about 8% in fiscal 1989. However, it has been on a declining trend since then and by fiscal 2002, it had fallen to 2%. The movement in the ROE is similar to that of the declining stock market as a whole. However, in fiscal 2002 the ROE improved marginally by 0.1% over fiscal 2001; and as the stock market has fallen over fiscal 2001, these indicators are moving in the opposite direction.

By industry, the ROE of the manufacturing industry had been higher than that of non-manufacturing industries in the five years from fiscal 1994 to 1998. The average net income to sales ratio was 1.05% in the manufacturing industry whereas it was 0.14% for non-manufacturing sector. We can safely say that the difference in the net income to sales ratio was a major factor in explaining the different ROE levels. However, after fiscal 1999, the manufacturing industry is no longer as far ahead. In the four years from fiscal 1999, the average net income to sales ratios were 0.66% for manufacturers and 0.15% for non-manufacturers. This is due in part to the falling net income to sales ratios of the manufacturing industry.

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Note: ROE = After Tax Net Income/Shareholder's Equity (Average of beginning and end of period)

Source: "Financial Statements Statistics of Corporations by Industry, Quarterly" Ministry of Finance

# 3. Examination of Corporate Profits

#### 3.1 Effects of Changing Accounting Standards on Corporate Profits

In this section we examine how the changes in the account standards – the move to tax effect accounting and the change in categorization of Enterprise Taxes – implemented from fiscal 1998 have affected corporate profits.

# 3.1.1 Tax Effect Accounting

Table 1.shows the effects that the move to tax effect accounting in fiscal 1998 has had.

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	1997	1998	1999	2000	2001	2002
Total Deferred Tax Assets	0.1	1.7	14.2	19.4	28.2	31.1
Deferred Tax Assets (Current)	0.1	0.6	4.4	6.7	7.8	8.5
Deferred Tax Assets (Non-current)	0.1	1.1	9.8	12.7	20.4	22.6
Total Deferred Tax Liabilities	0.0	0.2	1.2	3.9	6.0	4.2
Deferred Tax Liabilities (Current)	0.0	0.0	0.1	0.2	1.0	0.3
Deferred Tax Liabilities (Non-current)	0.0	0.2	1.1	3.7	5.0	3.9
- Net Deferred Tax Assets	0.1	1.5	13.0	15.5	22.2	26.8
Change in Net Deferred Tax Assets from Previous Year	0.0	1.4	11.5	2.5	6.7	4.6
Deferred Income Taxes	0.0	0.0	2.6	2.8	3.9	0.6

Table 1. Deferred Tax Assets and Liabilities

Note) For fiscal 2001 and later, figures are estimates using data from NEEDS-Financial QUEST, as the "Financial Statements Statistics of Corporations by Industry" no longer provide these figures.

Source: Financial Statements Statistics of Corporations by Industry Ministry of Finance, NEEDS-Financial QUEST

In fiscal 1999, there was a change in net deferred tax assets of over 11 trillion yen over the previous year, but this blip is likely due to the fact that many companies adopted tax effect accounting in fiscal 1999. We believe there are large tax effect adjustments from the previous year showing in the

difference in net deferred tax assets in fiscal 1999 over the year before because this is the first year that this standard was implemented.

In fiscal 2001, deferred tax assets increased by 8.8 trillion yen over the previous year. However, we believe this to be the result of changing accounting standards such as mark-to-market accounting of financial assets and accounting for retirement benefits.

# 3.1.2 Change in the Categorization of Enterprise Taxes

From fiscal 1998, "enterprise taxes" that were until then part of "Selling, general and administrative expenses", were grouped together with "Income and Residential Taxes". Then, these "Income, Residential and Enterprise Taxes" were deducted from Net Income Before Taxes. As a result, although this did not have any effect on after-tax net income figures, Operating Income, Recurring Income and Net Income Before Taxes were all inflated by the amount of the Enterprise Tax compared with before fiscal 1998.

Table 2. Enterprise Taxes (All-Industries)

				tril	lions yen
	1998	1999	2000	2001	2002
Operating Profit	23.8	26.9	33.5	25.2	29.3
Enterprise Tax	1.5	2.3	4.2	4.3	2.8
- Adjusted Operating Income	22.3	24.6	29.3	20.9	26.5

Sources: Up to Fiscal 2000, Financial Statements Statistics of Corporations by Industry, Ministry of Finance

Fiscal 2001, *Annual Statistical Report on Local Government Finance* Ministry of Public Management, Home Affairs, Posts and Telecommunications

In Fiscal 2002 Income, Residential and Enterprise Taxes were allocated by effective tax rates. Effective tax rates from *Collection of Fiscal Data*, Research Department of Committee on Budget, House of Councilors, National Diet of Japan

# **3.2** Effects of Price Changes on Value of Debts

In the "Financial Statements Statistics of Corporations by Industry", sales in fiscal 2002 of all industries fell to their lowest levels of the past ten years. One reason for this is believed to be the continuing deflation. Deflation not only lowers sales, but from the sequence described below, it also has other negative effects on corporate profits. Here, we examine the relative increase in monetary value that occurs from deflation, and the effects on corporate profits.

In order to estimate the changes in real value of debts for corporations, we conduct the following calculations. First, we define the concept of "net debts": Net debts = Financial Liabilities<sup>3)</sup> – Financial Assets<sup>4)</sup>

<sup>3)</sup> Financial Liabilities = Short-term borrowings + Long-term debt + Bonds payable + Notes payable + Accounts Payable Trade + Other current liabilities + Other non-current liabilities + Allowance for current liabilities + Allowance for non-current liabilities

<sup>4)</sup> Financial Assets = Cash and Deposits + Marketable Securities + Investment Securities + Notes Receivable + Accounts Receivable + Other Current Assets + Other Non-current Assets.

Then, we calculate the following:

Variation in net debt = Change in amount due to price changes + change in amount due to

increased borrowings.

Change in amount due to price changes = - real value of net debt at beginning of period × rate of price increase during period

Change in amount due to increased borrowings = (Net financial liabilities at end of period – Net financial liabilities at beginning of period) / (GDP deflator/100)

Here we find the real value of net debt at the beginning of the period by dividing the net debt by the GDP deflator. When we calculate the real value of net debt at the beginning of the period or the rate of price increase during the period, we use the GDP deflator without the effects of consumption taxes.

							tril	lions yen
	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002
Net debts	392.4	374.2	387.1	401.1	342.6	277.1	283.6	246.7
GDP deflator	98.5	97.8	97.4	96.8	95.1	93.3	92.1	90.0
Rate of change of GDP deflator (%)	-0.54	-0.76	-0.41	-0.62	-1.73	-1.90	-1.26	-2.33
Amount of increase of the debt by deflation	2.1	3.0	1.6	2.5	7.2	6.8	3.8	7.2

Table 3. Effects of price changes on value of debts (All-Industries)

Note :Net debts =Financial Liabilities-Financial Assets

= - (previous year of / (previous year of / 100)) × this year of

Source: Financial Statements Statistics of Corporations by Industry, Ministry of Finance,

Annual Report on National Accounts, Cabinet Office

The changes over time in net liabilities that were found by subtracting financial assets from financial liabilities can be divided between changes resulting from changes in price and changes resulting from an increase in borrowings. The amount of change in net debt due to changes in prices, is a burden on the company that does not appear in the financial statements. We can then find a "real" recurring profit by including this "cost" as an extraordinary expense and subtracting it from operating income.

# 3.3 Estimating Profits Adjusted for Changes in Accounting Standards and Changes in Values of Liabilities Occurring from Price Changes

In this section, we calculate corporate profits that have been corrected for changing accounting standards as found in 3.1, and for changes in net liabilities that have varied due to price changes as estimated in 3.2.

These figures will be complete, adjusted figures for all industries found by adjusting for changing tax standards as estimated in 3.1, and for the effects of price changes on net debts found in 3.2. From this exercise we find that from fiscal 1998 onwards, net income has been negative for these five years consecutively. In particular, the change in the value of net debts due to deflation have seriously affected profitability. In fiscal 2002, the effects of the reevaluation amounted to 7.2 trillion yen, and greater than the unadjusted net income of 6.2 trillion yen. As for tax effect accounting, the effects of the change had been increasing until fiscal 2001, but this fell in fiscal 2002. However, deferred tax

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assets have been growing consistently.

# Table 4. Adjusted net income

All Industry

	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002
Net Income	7.7	8.9	8.3	-0.5	2.2	8.4	-0.5	6.2
Adjusted Net Income	5.6	5.8	6.7	-3.0	-7.6	-1.2	-8.2	-1.5
Deferred Income Taxes	-	-	-	0.0	2.6	2.8	3.9	0.6
Amount of increase of the debt by deflation	2.1	3.0	1.6	2.5	7.2	6.8	3.8	7.2

Manufacturers

	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002
Net Income	5.4	6.0	5.6	1.2	1.7	5.1	0.4	3.3
Adjusted Net Income	5.1	5.7	5.5	0.9	-0.3	3.0	-2.2	2.9
Deferred Income Taxes	-	-	-	0.0	1.6	1.6	2.4	0.1
Amount of increase of the debt by deflation	0.2	0.3	0.1	0.2	0.4	0.4	0.1	0.3

Non-Manufacturers

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un	110115	yen

	FY1995	FY1996	FY1997	FY1998	FY1999	FY2000	FY2001	FY2002
Net Income	2.3	2.8	2.7	-1.7	0.4	3.3	-0.8	2.9
Adjusted Net Income	0.5	0.1	1.2	-3.9	-7.3	-4.2	-6.0	-4.4
Deferred Income Taxes	-	-	-	0.0	1.0	1.1	1.5	0.4
Amount of increase of the debt by deflation	1.9	2.7	1.4	2.2	6.7	6.4	3.6	6.8

Note: adjusted net income = net income – (+)

Source: Financial Statements Statistics of Corporations by Industry, Ministry of Finance,

NEEDS-Financial QUEST

We then compare the raw data for ordinary income to sales with the adjusted ratio of ordinary income to sales. First, we observe that for large manufacturers, the net debt ratio is low and so the raw figure and the corrected figure are moving along the same path. However, for large non-manufacturers and small and medium-sized manufacturers, the net debt ratio is high, and so their ratios are greatly affected by the changes in prices. The effects on net debts of price changes show that during times of price increases from the latter half of the 1980s to the first half of the 1990s, the corrected figures were a boost to recurring profits. However, as deflation began to progress from fiscal 1995, the real value of net debts began to lower the corrected figures for recurring profit. The unadjusted recurring profit figures show only a moderate recovery. For small and medium-sized non-manufacturers the unadjusted figures recovered slightly in fiscal 2002, but they are deteriorating when the numbers are adjusted for deflation.

#### 4. Adjustment of Corporate Balance Sheets and Capital Investment

From the 1980s, company behavior towards savings and investment, their funding, and their utilization of financial assets have changed greatly. With the liberalization of the financial markets, mainly large corporations have begun to raise funds directly from capital markets. In the latter half of the 1980s as the stock market was rising, mainly large manufacturers engaged in equity finance (raising funds through issuance of new stocks) such as convertible bonds. As demand for funding from

trillions yen

trillions yen

the banks declined from the large manufacturers, banks began to look to small and medium-sized enterprises as borrowers. However, after entering the 1990s and the economic slowdown that resulted, the costs of funding that companies entered into during the bubble period began to be a great burden to some. Thus, they began to shrink their balance sheets by unloading the excess capacity (that resulted from the excess investment from the bubble period) as well as to reduce their liabilities.



Figure 5. Trends in Savings and Investment (All industries, adjusted for changes in accounting standards)

Notes:

Capital Investment = Change in Tangible fixed assets (excluding land) + Depreciation Costs
Investment in Land = Change in Investment in Land

Inventory Investment = Change in Inventory

Investment = Capital Investment + Investment in Land + Inventory Investment

Changes in Retained Earnings = Change in Earned Reserve + Changes in Other Surpluses + Changes in Reserves

Savings = Depreciation Costs + Changes in Retained Earnings

- 2) All "changes" in figures are "changes over the previous fiscal year".
- By "adjusted for changes in accounting standards" we mean that effects of changes in accounting standards as described in the previous section have been removed.

Source: "Financial Statements Statistics of Corporations by Industry", Ministry of Finance

By the time the late 1990s came along, the lending environment from banks deteriorated even further as anxiety towards the financial system intensified, and companies fearing financing problems began to keep their assets in more liquid form. As a result of this, companies are becoming more cautious year after year about investing in capital equipment, and they are reducing their capital

investment to the extent that some years their investment spending is lower than their depreciation  $5^{\circ}$ on an all-industry basis.

The following four reasons are thought to be the major reasons behind companies holding back on their investment activities.

### (1) Reducing interest bearing liabilities given precedence over capital investment

With deflationary pressure increasing the debt burden, companies are opting to pay back their interest bearing liabilities rather than making capital investments. For example the share of interest-bearing debt was reduced for large-scale manufacturers from 30.9% in fiscal 1985 to 25.8% in fiscal 1990; and in 2002, it was reduced to 23.0%. The same can be said for large non-manufacturers and small and medium-sized enterprises, and the accumulated retained earnings are being used to reduce their interest-bearing debt rather than being used for capital investment.



89 87 93 85



Notes:

- 1) Ratio of interest bearing debts = (Short-term borrowings + Long Term Debts + Bonds Payable) / Total Assets \* 100
- 2) Ratios of interest bearing debts are after adjustments for accounting
- Source: "Financial Statements Statistics of Corporations by Industry" Ministry of Finance

Notes:

- 1)Large companies: Those with 1,000 or more full-time employees
- 2) Small and Medium-Sized Enterprises: Those will the following number of full time employees: Manufacturers: 50-299, Wholesale Trade 20-99, Retail Trade, Services, Leasing: 20-49, Other Industries 50-299.
- Source: "Short-term Economic Survey of Enterprises in Japan", Bank of Japan

Small and medium-sized enterprises were gravely affected by the "credit crunch" of the financial institutions that are under great pressure to collect on their loans. Small and

<sup>5)</sup> How to interpret Figure 1-5. This is the equivalent of the non-financial transactions of the Capital Finance Accounts of the SNA (System of National Accounts). As "Savings" here denotes Total Savings (Total capital finance) the difference between the bold line (savings) and the regular line (internal reserves) is the depreciation costs. The bar graph shows the breakdown of total investment (total accumulation). If the total (dotted line) which is total investment is higher that the bolder line (savings), then there is excess investment; if it is lower, then there is excess savings.

medium-sized manufacturers and non-manufacturers alike were reducing their ratios of interest-bearing debts from about fiscal 1996 and before banks began failing. For example, from the BOJ's Short-term Economic Survey of Enterprises in Japan, the Diffusion Index (DI) for Lending Attitudes shows that small and medium-sized enterprises felt their lending environment was very severe compared to large companies. For large companies the DI in 1997 was negative, but this turned positive after 1999. This severe financial environment for small and medium-sized enterprises has greatly affected capital investment.

#### (2) Large extraordinary losses

These past few years, due to deteriorating business performance, companies have been restructuring by reducing expenses such as operating expenses and human resource costs, reducing assets due to falling land prices, and recording large extraordinary losses almost the size of their recurring profits. This increase in extraordinary losses has mainly been a reflection of recent declines in land prices and a deteriorating stock investment environment. In particular, in fiscal 2001 when the deteriorations of performance and the stock market were especially harsh, net extraordinary losses (extraordinary losses less extraordinary income) were a very high amount. Due to these large net extraordinary losses, retained earnings are on a declining trend. Moreover, in fiscal 2002, extraordinary losses shrank, but this is viewed to be a result of the shrinking effects of the changing accounting standards in 1997, and the restructuring efforts on losses.





Source: "Financial Statements Statistics of Corporations by Industry", Ministry of Finance

# (3) Shift to Overseas Production

Large manufacturers have lately been aggressively shifting their operations overseas and making large direct investments abroad, thus lessening the need for domestic investment.

In Figure 8, we show the ratios of overseas production, and of overseas capital investment. First, from the Survey on Overseas Business Activities of Japanese Companies conducted by the Ministry of Economy Trade and Industry (METI), the overseas production ratio for manufacturers was 6.2% in fiscal 1992; but for estimates for fiscal 2002, this ratio had dramatically increased to 18.2%. This ratio has been increasing at a particularly rapid rate since fiscal 2000. Also, from the Overseas Investment question in the Short-term Economic Survey of Enterprises in Japan of the Bank of Japan, we observe

that the overseas investment ratio of large manufacturers was 25.5% in fiscal 1998, but this had grown to 34.1% in fiscal 2002. Large manufacturing companies have limited their domestic capital investment while they have increased their investment overseas. Thus we can say for the manufacturing industry that the rising share of overseas investment and overseas production is one factor capping domestic investment.





Notes:

- Overseas Capital Investment Ratio on the basis of "Survey on Overseas Business Activities of Japanese Companies" Ministry of Economy Trade and Industry Overseas Capital Investment Ratio = Capital Investment Amount of Overseas Affiliates (Manufacturing Industry) / Capital Investment Amount of Domestic Firms (Manufacturing Industry) \* 100
- 2) Overseas Production Ratio on the basis of "Survey on Overseas Business Activities of Japanese Companies" Ministry of Economy Trade and Industry Overseas Production Ratio = overseas affiliates (Manufacturing Industry) sales / Sales of total domestic firms (Manufacturing Industry) \* 100
- 3) Percentage share of overseas investment of manufacturing industry, and percentage share of overseas investment of large enterprises are based on Bank of Japan's Short-term Economic Survey of Enterprises in Japan. Percentages share of overseas investment = Value of overseas investment/ (Value of domestic investment + Value of overseas investment) \* 100
- 4) All Japanese firms (excluding financials, insurance and real estate businesses) that have affiliates abroad are the subjects of the Ministry of Economy Trade and Industry's "Survey on Overseas Business Activities of Japanese Companies"

Sources:

"Short-term Economic Survey of Enterprises in Japan", Bank of Japan "Survey on Overseas Business Activities of Japanese Companies", METI

#### 5. Conclusions

The main results shown in this paper are summarized as follows:

1) In the stock market in the post-bubble period, we see that depending on the industry, the stock price movement varies dramatically. We also find that in 1999, the market value of the stock market as a

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share of GDP, rose. The PBR as on March 31, 2003, was slightly higher than that for Germany, but was lower than those of the US, England and France. Also, the main reason that the ROE fell, was the decline in the Net Income to Sales.

2) We can quantify the changes in the accounting standards, and the changes in the net debt due to deflation and consider these as costs. Then, we adjust the profit figures for these changes and we see that for large manufacturers, since their net debt ratios are low, they can still be profitable as they are hardly affected by deflation. On the other hand, for large non-manufacturers and small and medium-sized manufacturers and non-manufacturers alike, as their net debt ratios are high, the increase in the real values of their debts have put significant downward pressure on their profit levels. From the results of our estimations, in fiscal 2002 on an all-industry basis, the increase in their net debts has cost them about 7 trillion yen in their recurring profits, and this has resulted in an after tax net loss from fiscal 1998. Furthermore, the deferred tax assets of both manufacturers and non-manufacturers have increased. Deferred tax assets decrease future income tax payments by reducing future taxable income. For companies that will make profits in the future, they pose no problem; but for companies who are continuing to mark losses, it becomes an issue whether these deferred tax "assets" are indeed "assets".

3) As for saving-investment trends, from fiscal 1999, companies have an excess of savings, and are withholding from making new investments. The following four major reasons underlie this trend : (1) Companies are choosing to pay down their interest-bearing debts before they make new investments due to deflation and the resulting increase in their real debt burdens. (2) Companies have been forced to record large extraordinary losses due to not only the unrealized losses in real estate and the stock market thanks to the new accounting standards implemented from fiscal 1997, but also to larger-than-normal severance packages as they restructure by reducing their workforce. (3) Large manufacturers have aggressively begun shifting to overseas production and are making direct investments abroad. As a result, there is relatively less of a need to invest domestically. (4) Small and medium-sized manufacturers and non-manufacturers alike are reducing their debt over and beyond the large companies. From the Diffusion Index of Lending Attitude of Financial Institutions from the Short-term Economic Survey of Enterprises in Japan (Tankan) of the Bank of Japan, small and medium-sized enterprises continue to feel the borrowing environment is severe, and this may be a factor curbing their investment.