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***Behavioural Biases of Japanese Institutional
Investors; Fund management and Corporate
Governance***

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Behavioural Biases of Japanese Institutional Investors; Fund management and Corporate Governance

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Abstract:

This study examines the behavioural biases of Japanese institutional investors and discusses implications for their role in corporate governance, based on the findings of a questionnaire survey of fund managers carried out in 2003. Statistical analysis of the survey results reveals a short-term bias in fund managers' investment time horizons, herding, and self-marketing to improve the appearance of portfolio performance under the pressure either of customers or of institutional restraints. We conclude that institutional investors' behaviour contradicts their role as shareholders.

Keywords:

Institutional investors, fund management, investment time horizon, herding, self-marketing, corporate governance

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1 Introduction

The institutionalisation of shareholding has been a worldwide phenomenon since the 1970s. Rapid demographic ageing, one of the main reasons for this institutionalisation, is a problem faced by many advanced economies. But in Japan there was another, peculiar factor behind institutionalisation before the 1990s, namely cross-shareholding between financial institutions and their corporate customers. After the Bubble Economy burst in the 1990s cross-shareholdings were gradually reduced, as the prolonged economic depression caused continuous decreases in share prices and damaged institutional asset values.

Against these backdrops, institutional investors have become steadily more active as shareholders. The inability of banking institutions to monitor their corporate borrowers since the late 1980s has raised expectations that institutional investors will play a key role in corporate governance. Since the end of the 1990s, Japanese pension funds and trustee bodies in particular have indeed begun to voice their concerns about the companies in which they are long-term investors. On the other hand, institutional investors generally have been under greater pressure from their clients to improving investment performance.

Pressure from customers to adopt short investment horizons, institutional restraints on risk-taking with managed funds, self-marketing and window-dressing to add shine to performance, portfolio pumping, portfolio churning, coordinating behaviour between asset managers: all these distort the behaviour of portfolio managers. Such biases not only decrease shareholders' benefits in the long term but also hinder the ability of capital markets to evaluate corporations.

The purpose of this study is to examine the behaviour and biases of fund managers working for Japanese institutional investors in these difficult circumstances, and to consider the implications for their corporate governance activities. The contribution of this study is as follows. Firstly, it throws a spotlight on the relations between decision-making biases in fund management and the corporate governance activities of institutional investors. Secondly, it examines hypotheses about behavioural biases of fund managers based on a questionnaire survey on fund management by Japanese institutional investors. This survey, which was carried out between October and December 2003, is the first such survey to adopt a behavioural finance approach.

This paper is organized into five sections. Section 2 defines the institutional investors and describes heterogeneity in the fund management of institutions with different objectives and under different institutional restraints. Section 3 develops six

hypotheses on the behavioural biases of fund managers in terms of short-sightedness, herding, and self-marketing. Section 4 explains the data and examines differences in fund management between different types of institutions and different types of managed funds. Section 5 summarizes the conclusions and discusses implications for corporate governance by institutional investors in Japan.

2 Heterogeneity of fund management and behavioural biases

2-1 Heterogeneity of Japanese institutional investors

Definitions of institutional investors are not uniform because objectives of and institutional constraints on fund management are different from country to country. (Davis and Steil, 2001, pp.52-63) These objectives and constraints vary according to the country's legal, historical, and institutional contexts. In this study, institutional investors are defined as asset management companies or institutions that work for their customers as agents. Therefore, banking institutions are excluded. Even under this definition, however, behaviour of institutional investors might be heterogeneous due to differences in distance to the client and relations between investee companies and their sponsors.

Since the early 1980s, the share of managed funds in Japanese households' assets has increased, albeit discontinuously. As of March 2003 it accounts for about one third of total financial assets. Institutional investors were diversified in the late 1990s in the process of financial liberalization known as the Japanese Financial Big Bang, but can still be classified into four major types: trust banks, life insurance companies, investment advisory companies, and investment trust companies. These different types of institutional investors operate under different laws and regulations.

In the Japanese corporate pension funds scheme, corporate pension funds entrust their fund management to trustee bodies, which legally can be trust banks, life insurance companies and investment advisory companies. Trust banks especially play an important role in the management of pension funds as legal shareholders of the companies that their customers actually invest in. With life insurance companies, pension funds hold insurance contracts so that the legal shareholders of the investee companies are naturally insurance companies. Only in the case of in-house fund management can the pension funds legally be shareholders, but in fact in-house fund management is still very limited. In pension fund management, investment advisory companies give instructions to trust banks on behalf of pension funds, including instructions on how to exercise shareholders' rights. (Suto, 2002, pp.264-265)

During the period of high and steady economic growth the pension funds and

their trustee bodies were silent shareholders or partners of their investees. At that time they had neither the means nor motivation to monitor their investee companies actively. However, the situation changed dramatically during the prolonged economic depression of the 1990s. Corporate pension funds and their trustee bodies began to recognize that they should play a major role in corporate governance in order to balance the retreat of the banking institutions. (Omura, Suto and Masuko, 2001)

Meanwhile, life insurance companies ran into management crises as a result of the stagnant stock market. Their problems were exacerbated in the late 1990s by the Bank of Japan's prolonged excess low interest policy. Eight out of fourteen life insurance companies went bankrupt between 1997 and 2002, while others suffered from continuous cancellations of insurance contracts. Their problems were rooted in the nature of their life insurance accounts, which were divided into general accounts and special accounts. A general account is for policy contracts that provide a promised fixed return to the policy-holder and a special account is for funds managed at the customer's own risk. As the investment climate worsened general accounts soon produced huge losses, because life insurance companies had to pay promised fixed returns to their policy-holders even though their returns from fund management were greatly reduced. Even with special accounts, fund managers have come under increasing pressure from their customers to improve the portfolio performance.

Investment trust companies supply investment trust funds with collective investment schemes, which are designed to invest pooled funds from a large number of investors into various securities and other financial assets and to pass risks on to their customers. They are expected to pass on the benefits of portfolio investment to small investors who are not able to manage portfolios by themselves. The typical Japanese investment trust fund scheme is an open-ended type of fund management which is tradable in the secondary market.¹ Investment trust funds have boomed twice in postwar Japan, once in the early 1960s and again in the late 1980s. However, they failed to gain the trust of the general public and remain very minor financial products for Japanese households. In 2002, they accounted for only 2.1% of the total financial assets of the personal sector.

Churning by investment trust funds as well as opaqueness of fund management strategies have frequently been criticized as contrary to the interests of customers. Their close relations with securities companies have encouraged a bias to the selling-side in portfolio management and thereby damaged portfolio performance.(Suto,

¹ The Japanese investment trust funds are similar to the U.S. mutual funds but not company-funds but contract funds.

1999) In the late 1990s, investment trust funds reforms were implemented several times in order to increase the transparency of fund management, to reduce costs and fees, to lift the ban on banking institutions selling investment trust funds over the counter, and to widen the variety of available products.² Nevertheless, it is true that many if not most investment trust fund managers still maintain high portfolio turnover and are not fully committed to increasing the long-term benefits to their customers.

2-2 Behavioural biases in fund managers

In terms of purpose of portfolio management, pension funds, trust banks, insurance companies are typically categorized as long-term investors, while investment trusts are categorized as short-term investors. Previous research in the U.S. has shown differences in behaviour between mutual fund managers and pension fund managers. Mutual fund managers have a higher stock ownership turnover rate than pension fund managers. (Sherman, Beldona and Joshi, 1998) Banks and insurance companies, which both have business relations with investee companies, are pressure sensitive and less able to influence the corporate management of investee companies. (Kochar and David, 1996) These findings are consistent with the findings of corporate governance researchers that mutual funds, banks, and insurance companies are less active in corporate governance than pension funds.

In Japan, not only insurance companies but also corporate pension funds were silent shareholders enmeshed in long-term relationships with their business partners. However, the prolonged economic depression of the 1990s forced them to balance these corporate relationships with their fiduciary responsibilities in an ageing society. Moreover, in 2001, sponsor companies themselves were forced to disclose pension fund debts. This new accounting rule has further depressed corporate profits that were already suffering in the economic depression. Thus, in the defined benefit schemes, the pension funds have been under pressure from their sponsors as well as customers to adopt shorter investment horizons. A defined contribution plan was introduced in October 2002, but its complexity means that to date only a small number of large

² As the result, new styles of investment trust funds, Exchange Trading Fund (ETF) and Real Estates Investment Funds (Funds), were introduced in 2003 and they extended the market for individual investors.

companies have adopted it.

Defined contribution programs have been said to greatly reduce the pressure on pension managers to achieve short-term results for their investments. (Sherman, Beldona and Joshi, 1998) In Japan, however, the pressure towards short-termism is felt not only by pension managers but also by insurance companies, which have suffered from back spread between payment of return and investment return due to a decline in the value of assets the 1990s. They have been in an even more severe situation than the pension funds.

To sum up, in the late 1990s, even long-term institutional investors had stronger incentives to shorten their investment time horizons. They were also more likely to adopt self-marketing tactics such as portfolio pumping, portfolio churning and so on in response to increased pressure from customers or sponsors. At the same time, it is likely that they have been inclined to engage in herding or to use the same types of information so as to mitigate demands from their customers and to avoid reputation risk. Confronted with myopic pressure to secure short-term gains, institutional investors have incentives to choose positive feedback-trading strategies, which might also cause herding. Scharfsten and Stein (1990) imply that institutional investors will herd because they are concerned with their reputations.

Self-marketing behaviour on the part of fund managers distorts corporate values and weakens the corporate governance functions of shareholders. Herding and myopic behaviour by institutional investors also could amplify the volatility of stock prices, increase market fragility, and destabilise corporate valuation. (Sias, 2004) In the U.S. in the 1980s, there was a view that myopic transactions by institutional investors hindered the growth of long-term investment of firms and damaged technological innovation in the economy. (Hansen and Hill, 1991) Iihara, Kato and Tokunaga (2001) suggest that Japanese institutional investors follow positive feedback trading strategies and that investors' trading destabilised stock prices during the period of 1975-1996. On the other hand, some studies note that evidence of institutional herding does not necessarily imply destabilisation or irrationality because institutional investors are better informed than individuals. (Lakonishok, Shelifer, and Vishny, 1992; Nofsinger and Sias, 1999) So the empirical results of the consequences of institutional herding are mixed.

We can say that pension funds and insurance companies might be more susceptible to pressure or intervention by both sponsors and customers in times of economic depression than during periods of economic growth. This susceptibility would render them more passive regarding corporate evaluation and shareholders activism.

Their behaviour may thus become incompatible with their responsibilities for corporate governance as investors or shareholders.

3 Hypotheses

In light of the above discussion, we now propose the following hypotheses to examine features of and differences in the fund management behaviour of Japanese institutional investors. We focus on forecasting time horizon of investment, information processing and herding, and self-marketing. We target four types of institutional investors: trust banks, life insurance companies, financial advisory companies, and investment trust companies.

(1) Investment time horizon

H 1: The forecasting time horizon of institutional investors differs depending on the legal and institutional restraints on their fund management.

H2: The forecasting time horizon of fund managers of pension assets is longer than those of investment trust funds.

(2) Information processing and herding

H3: Institutional investors in general follow the trend therefore they behave homogeneously, i.e. herd.

H4: Institutional investors are influenced by public information therefore they behave homogeneously i.e. herd.

(3) Self-marketing and Pressure Sensitiveness

H5: Institutional investors are so sensitive to pressure from customers that they trade too much in order to meet customers' demands for short-term performance.

H6: Institutional investors are less active and more risk averse in fund management than they could be in order to mitigate demand from customers or to avoid reputation risk.

4 Methodology

4-1 Data and Sample

To examine the hypotheses, we use the latest data of a questionnaire survey

conducted between October and December 2003.³ The questionnaire survey was organised in order to research the behaviour of fund managers of Japanese institutional investors in terms of incentives and information processing in portfolio management. Major questions in the questionnaire are classified into four parts; personal profile of fund managers; performance incentives; their opinions on the behaviour of asset managers in general; and their personal investment behaviour and information processing.

The questionnaire was sent to 78 fund management companies. The return rate was 61.5% (48 companies); including 8 trust banks, 5 insurance companies, 29 investment advisory companies and 6 investment trust companies.⁴ The total number of fund managers who returned the answers was 488 and average number of respondents per company was 10.2. 116 respondents were from trust banks, 24 from life insurance companies, 299 from investment advisor companies and 49 from investment trust companies. Among the 488 respondents, 96.7% were male, and all held bachelor or postgraduate degrees. They listed their current positions as follows: fund manager (59.5%); senior fund manager (17.9%); chief fund manager (17.5%); CIO, CEO and others (5.2%). 80.3% of them had been working in asset management for more than 7 years.

The major types of portfolio they manage are investment funds (35.8%) and pension funds (60.5%). Fund managers of trust banks and life insurance companies concentrate on pension funds (88.6% and 62.5%), while those of investment trust companies concentrate on investment trust funds (90.4 %). Investment advisor companies are in between. (Table 1, 2)

---Table 1---

---Table 2---

4-2 Statistical Analyses

First, we sort the responses to the questions relevant to the six hypotheses developed above in order to extract a descriptive overview of behavioural features. Next, we examine differences in behaviour among the four types of institutional investors and between the two types of managed funds. We use a simple statistical method of t-value

³Major results of the questionnaire are summarized in Suto and Toshino (2004).

⁴ We sent questionnaire to the special accounts section of life insurance companies because in the section the fund managers manage assets of customers.

test on differences between means of two groups.

(1) Investment time horizon

In the questionnaire survey, we asked about the respondent's personal forecasting horizon when making an investment decision on a scale of 1 to 6 (Days, weeks, 2-6 months, 6-12 months, years). Table 3 summarizes the responses by institutions and by funds. 49.2% of fund managers chose 2-6 months. So we see that the average investment horizon is short. Further, contrary to our expectation, trust banks and life insurance companies, which are categorized as long-term investors, have on average shorter horizons than investment trust companies. It is notable that 41.7% of the fund managers of insurance companies have a forecasting horizon of weeks or less. They are speculating rather than investing.

To confirm this descriptive analysis with statistical tests, we use a simple method of t-test of difference between means of two groups. Means of forecasting horizon of different types of institutions and managed funds and t-values of the difference in means between different groups are calculated. The figures in the first column in table 4 are differences of mean of trust banks minus the means of others, those in the second column are difference of the mean of life insurance companies minus the means of others and so on. The results of these t-tests suggest that life insurance companies have a shorter time horizon from other institutions with a high statistical significance. But we can find no statistically significant differences between means of two types of funds; investment trust funds and pension assets funds. Thus, hypothesis 1 is not rejected but hypothesis 2 is rejected.

This suggests that the objectives of portfolio management do not in practice influence the perspective of fund managers; however, differences in institutional constraints on investors might be relevant to the decision-making of fund managers in Japan.

---Table 3 ---

---Table 4 ---

(2) Information Processing and Herding

The questionnaire asked the fund managers about their opinion on institutional herding in general. About 80% of respondents agree that herding does happen. On the other hand, about 74% of them responded negatively to the general question of whether "following the herd benefits the asset managers' career". (Suto and Toshino, 2004) Thus, fund managers recognize that institutional herding is a general phenomenon in

the Japanese market but they do not see any connection between this and their own career concerns.

To investigate this issue further, let us examine the independence of fund managers' personal decision-making by focusing on information processing. We asked two questions related to independence of decision-making; "I generally follow the trend" and "most of the published political and economic news does not surprise me at all". The respondents are requested to choose an answer from complete agreement (1) to complete disagreement (6). Table 5 summarizes the structure of responses to the first question and Table 6 shows the results of t-tests among institutions and between funds. Table 7 and Table 8 are on the second question.

61.5% of fund managers agreed (1 to 3) that they generally follow the trend in decision-making. This suggests that they are inclined to follow the trend as a whole. According to the t-tests on differences between group means, investment trust companies follow the trend more strongly than other institutions. However, there is no evidence regarding the difference in portfolio objectives, so this must be due to institutional factors. Regarding use of published business news in decision-making, 61.3% of fund managers are influenced by the information, although we found no statistical differences between institutions and between the types of managed funds.

Hypotheses 3 and 4 cannot be rejected. So we can say that the decision-making of fund managers is not independent from that of other fund managers, therefore they herd.⁵

---Table 5---

---Table 6---

---Table 7---

---Table 8---

(3) Self-marketing and pressure-sensitiveness

Next, we examine the hypotheses regarding self-marketing behaviour by fund managers in order to attract customers or to consider their sponsors' financial situation in decision-making. The questionnaire asked fund managers how strongly they agree or disagree with the statement "I often trade too much, as my clients demand short-term performance." Table 9 summarizes the responses, on a scale of 1 (complete agreement) to 6 (complete disagreement). The table shows that 68.1% of them give negative responses. It also tells us that there is no statistical evidence of differences in

⁵ Toshino and Suto (2004) analyze herding focusing on forecasting share prices and foreign exchange rates.

the attitudes of fund managers due to type of institution.

Nevertheless, it is notable that there is a statistical difference between pension asset funds and investment trust funds. Pension fund managers are more sensitive to the demands of customers than investment trust fund managers. This is because pension fund managers have to face their customers directly whereas investment fund managers do not. Therefore, pension asset management tends to be more warped toward frequent trading than investment fund management, even if this goes against the fund manager's better personal judgement. Thus, hypothesis 5 is rejected in general but there is evidence that distance from customers could affect the behaviour of fund managers.

---Table 9---

---Table 10---

Lastly, we investigate the influence of pressure on the risk attitude of fund managers in portfolio management. The questionnaire asks two questions about risk management; "How actively can you manage your portfolio at most?" and "How actively do you manage your portfolio?" The respondents are requested to choose an answer from very active (high tracking error) 1 to very positive 6 (indexing). (Table 11) Average actual activeness is 3.03 and average of possible activeness is 2.33. Therefore, on the average, the fund managers seem more risk averse in fact than they are required to be. According to the results of the t-tests, insurance companies are more active in actual investment than trust banks but we do not find any other differences between groups. (Table 12)

We calculated the discrepancies between actual and possible activeness in order to estimate managers' perception of institutional restraints or pressure to exercise less active investment. Table 13 summarizes the results of the t-test. We have evidence that the mean discrepancy of trust banks is larger than the others, though the actual risk attitude of institutional investors has a high similarity. This suggests that the fund managers of trust banks themselves recognize more strongly than others the gap between their potential ability to undertake active investment and their actual fund management. We can infer that they feel stronger risk-averse pressure than other institutions, as most of their clients are pension funds, who demand that their portfolios be managed passively in defined benefit schemes.

Where activeness in actual investment decision-making is concerned, the behaviour of the insurance companies is very peculiar. The discrepancy between actual and possible risk attitudes of life insurance companies is as small as with

investment trust companies. Additionally, the former are more active than the latter in reality. The fund managers of life insurance companies manage funds as aggressively as they can. This might be due to the severe situation they face, as referred to above in the case of investment time horizon. Once again, their behaviour contradicts their mission as long-term investors.

---Table 11---

---Table 12---

---Table 13---

5. Discussion and conclusions.

Let us summarize the conclusions from our empirical analysis of Japanese institutional investors. Firstly, there is a general short-term bias in the investment forecasting of Japanese institutional investors. Secondly, institutional investors herd and evaluate their performance relative to each other, because they follow the trend and use the same published information. Thirdly, pension fund managers are more sensitive to pressure from their customers than investment trust fund managers, because the former have to face their customers directly whereas the latter do not. Fourthly, institutional investors in general and trust banks in particular have a risk-aversion bias. Since the introduction of disclosure for pension funds' liabilities in 2001, pension fund management has become increasingly risk averse and more myopic under the influence of sponsors' corporate management and financial distress. Fifthly, the short-term bias and excess activeness are most conspicuous in life insurance companies. This suggests that insurance companies are forced to achieve short-term returns in order to alleviate financial distress as the economy continues to stagnate. This behaviour contradicts their role as long-term investors.

Pension funds and their trustee bodies have recognized they are expected to play a major role as shareholders and investors to monitor the companies they invest in. (Omura, Suto, and Masuko, 2001) Nevertheless, this study finds evidence of some behavioural biases on the part of fund managers, including short-term investment, herding, self-marketing, and excessive risk-aversion. Institutional investors generally seem to be underperforming in corporate governance, distorting corporate evaluation and neglecting their long-term fiduciary responsibilities. While Japanese institutional investors have become much more conscious of their corporate governance responsibilities, there is still a large gap between awareness and action.

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Table 1 Structure of Respondents

Types of Institutions	Number of Institutions to be sent	Number of Institutions Responded	(%)	Number of Respondents
Trust Banks	9	8	88.9	116
Life Insurance Co.	10	5	50.0	24
Investment Advisory Co.	46	29	63.0	299
Investment Trust Co.	13	6	46.2	49
Total	78	48	61.5	488

Table 2 Types of Managed Funds

Types of Institutions	Types of Managed Funds (%)					Number of Responses
	Investment Trusts	Pension Assets	Both	Others	Total	
Trust Banks	0.0	82.8	6.0	11.2	100	116
Life Insurance Co.	0.0	50.0	0.0	50.0	100	24
Investment Advisory Co.	17.4	43.8	33.4	5.4	100	299
Investment Trust Co.	83.7	2.0	6.1	8.2	100	49
Total	19.1	49.2	22.5	9.2	100	488

Table 3 Personal Forecasting Time Horizon

Types of Institutions	(%)						Number of Responses
	Days	Weeks	2-6 Months	6-12 Months	Years	Total	
Trust Banks	4.5	17.9	57.1	16.1	4.5	100	112
Life Insurance Co.	16.7	41.7	33.3	8.3	0	100	24
Investment Advisory Co.	6.3	14.4	47.5	21.5	10.2	100	284
Investment Trust Co.	8.9	15.6	48.9	17.8	8.9	100	45
Total	6.7	16.8	49.2	19.1	8.2	100	465
Investment Trust Funds.	7.1	14.7	48.7	18.8	10.7	100	85
Pension Assets	5.7	16.1	51.7	18.7	7.8	100	236
Total	6.2	15.6	50.6	18.7	8.8	100	321

Table 4 Difference in Forecasting Time Horizon (t- test)

Institutions	Trust B.	Life I.	Investment A.	Means	S.D.	Reponses
Trust B.				2.98	0.84	112
Life I.	0.649 *** 3.413			2.33	0.87	24
Investment A.	-0.166 -1.551	-0.875 *** -3.867		3.15	1.00	284
Investment T.	-0.040 -0.253	-0.689 *** -2.735	0.126 0.780	3.02	1.03	45
Funds Managed	Investment T.F.					
Investment T.F.				3.14	1.07	85
Pension Assets	0.078 0.629			3.06	0.94	236

Notes: 1 1 days, 2 weeks, 3 2-6 months, 4 6-12months, 5 years.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.

Table 5 Following the Trend

Types of Institutions	Complete approval					Complete contradiction			Number of Responses
	1	2	3	4	5	6	Total	(%)	
Trust Banks	0.9	23.3	41.4	16.4	12.1	6.0	100.0	116	
Life Insurance Co.	0.0	25.0	33.3	20.8	16.7	4.2	100.0	24	
Investment Advisory Co.	1.7	27.7	31.4	16.9	16.9	5.4	100.0	296	
Investment Trust Co.	10.2	34.7	20.4	20.4	12.2	2.0	100.0	49	
Total	2.3	27.2	32.8	17.3	15.3	5.2	100.0	485	
Investment Trust Funds.	5.4	27.2	28.3	20.7	15.2	3.3	100.0	92	
Pension Assets	1.2	24.5	36.9	13.7	16.2	7.5	100.0	241	
Total	2.4	25.2	34.5	15.6	15.9	6.3	100.0	333	

Table 6 Difference in Following the Trend (t-test)

Institutions	Trust B.	Life I.	Investment A.	Means	S.D.	Reponses
Trust B.				3.34	1.16	116
Life I.	-0.080			3.42	1.18	24
Investment A.	-0.308	0.059		3.36	1.25	296
Investment T.	-0.022	0.225		2.96	1.29	49
	0.377 *	0.457	0.399			
	1.844 *	1.463	2.057 **			
Funds Managed	Investment T.F.					
Investment T.F.				3.23	1.25	92
Pension Assets	-0.187			3.41	1.26	241
	-1.212					

Notes: 1 1 complete approval. 6 complete contradiction.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.

Table 7 Published Business News does not Surprise me

Types of Institutions	Complete approval						Complete contradiction		Number of Responses
	1	2	3	4	5	6	Total		
Trust Banks	4.3	9.5	20.7	20.7	27.6	17.2	100	116	
Life Insurance Co.	0.0	8.3	16.7	29.2	25.0	20.8	100.0	24	
Investment Advisory Co.	5.1	10.5	22.6	24.0	21.3	16.6	100.0	296	
Investment Trust Co.	8.2	10.2	22.4	14.3	26.5	18.4	100.0	49	
Total	4.9	10.1	21.9	22.5	23.5	17.1	100.0	485	
Investment Trust Funds.	5.4	10.9	23.9	13.0	27.2	19.6	100.0	92	
Pension Assets	4.6	11.6	18.3	23.7	24.9	17.0	100.0	241	
Total	4.8	11.4	19.8	20.7	25.5	17.7	100.0	333	

Table 8 Difference in Surprise by Publish Business News (t-test)

Institutions	Trust B.	Life I.	Investment A.	Means	S.D.	Reponses
Trust B.				3.34	1.16	116
Life I.	-0.239			3.42	1.18	24
	-0.774					
Investment A.	0.139	0.377		3.36	1.25	296
	0.371	1.269				
Investment T.	0.136	0.374	-0.003	2.96	1.29	49
	0.551	1.031	-0.014			
Funds Managed	Investment T.F.					
Investment T.F.				3.23	1.25	92
Pension Assets	0.006			3.41	1.26	241
	0.035					

Notes: 1 1 complete approval. 6 complete contradiction.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.

Table 9 Trading Too much for Clients Demand

Types of Institutions	(%)								Number of Responses
	Complete approval					Complete contradiction		Total	
	1	2	3	4	5	6			
Trust Banks	1.7	14.7	18.1	19.8	20.7	25.0	100.0	116	
Life Insurance Co.	8.7	8.7	4.3	8.7	26.1	43.5	100.0	23	
Investment Advisory Co.	2.0	11.4	18.9	12.5	27.3	27.9	100.0	297	
Investment Trust Co.	2.1	6.3	18.8	8.3	29.2	35.4	100.0	48	
Total	2.3	11.6	18.0	13.6	25.8	28.7	100.0	484	
Investment Trust Funds.	1.1	7.6	10.9	14.1	27.2	39.1	100.0	92	
Pension Assets	3.3	13.8	20.0	15.8	21.7	25.4	100.0	240	
Total	2.7	12.0	17.5	15.4	23.2	29.2	100.0	332	

Table 10 Difference in Too Much Trading for Demand of Clients

Institutions	Trust B.	Life I.	Investment A.	Means	S.D.	Reponses
Trust B.				4.18	1.45	116
Life I.	-0.471			4.65	1.70	23
Investment A.	-1.371					
	-0.173	0.299		4.35	1.45	297
	-1.084	0.936				
Investment T.	-0.444	0.027	-0.271	4.63	1.41	48
	-1.787	0.070	-1.205			
Funds Managed	Investment T.F.					
Investment T.F.						
Pension Assets	0.611 ***			4.76	1.34	92
	2.862			4.15	1.51	240

Notes: 1 1 complete approval. 6 complete contradiction.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.

Table 11 Attitude and strategies for active investment

Types of Institutions	(%)							Number of Responses
	Very active					Very positive		
	1	2	3	4	5	6	Total	
Possibility								
Trust Banks	24.1	38.8	26.7	8.6	0.0	1.7	100.0	116
Life Insurance Co.	21.7	39.1	26.1	8.7	4.3	0.0	100.0	23
Investment Advisory Co.	25.5	41.0	21.4	6.9	3.1	2.1	100.0	290
Investment Trust Co.	21.3	27.7	23.4	10.6	6.4	10.6	100.0	47
Total	24.6	39.1	23.1	7.8	2.7	2.7	100.0	476
In fact								
Trust Banks	5.3	21.9	39.5	23.7	6.1	3.5	100.0	114
Life Insurance Co.	17.4	30.4	26.1	17.4	8.7	0.0	100.0	23
Investment Advisory Co.	6.6	21.4	47.9	16.2	6.6	1.4	100.0	290
Investment Trust Co.	2.1	31.9	38.3	12.8	4.3	10.6	100.0	47
Total	6.3	23.0	43.9	17.7	6.3	2.7	100.0	474

Table 12 Difference in Actual Activeness of Fund Management–test)

Institutions	Trust B.	Life I.	Investment A.	Means	S.D.	Reponses
Trust B.				3.14	0.91	114
Life I.	0.445 *			2.70	1.38	23
	1.942					
Investment A.	0.151	-0.294		2.99	1.11	290
	1.289	-1.200				
Investment T.	-0.030	-0.475	-0.181	3.17	1.57	47
	-0.151	-1.234	-0.970			
Funds Managed	Investment T.F.					
Investment T.F.				2.54	1.47	89
Pension Assets	0.151			2.39	1.05	237
	1.031					

Notes: 1 1 complete approval. 6 complete contradictions.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.

Table 13 Differences in the Gaps between Actual and Possible Activeness (t-test)

Institutions	Trust B.	Life I..	Investment A.	Means	S.D.	Reponses
Trust B.				0.88	1.01	114
Life I.	0.529 *** 2.402			0.35	0.71	23
Investment A.	0.159 1.466	-0.370 * -1.819		0.72	0.95	287
Investment T.	0.558 *** 3.238	0.029 0.144	0.399 *** 2.709	0.32	0.81	47
Funds Managed	Investment T.F.					
Investment T.F.				0.57	0.85	89
Pension Assets	-0.192 -1.656			0.76	0.96	234

Notes: 1 1 complete approval. 6 complete contradiction.

2 Upper figures are differences in means, Lower figures are t values.

Level of significance, ***1% **5% *10%.