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THE CASE OF JAPAN

Robert J. Shiller
Fumiko Konya
Yoshiro Tsutsui

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ABSTRACT

In a questionnaire survey we asked Japanese institutional investors to recall what they thought and did during the worldwide stock market crash in October, 1987. The results confirm that the drop in U. S. stock prices was the primary factor on their minds, and other news stories in the United States dominated Japanese news stories. A comparison with an earlier survey of U. S. institutional investors at the time of the crash (Shiller [1987]) shows a remarkable similarity between Japanese and U. S. institutional investors in a number of attitudinal and behavioral dimensions. The results suggest that events in the United States were the proximate cause of the crash in Japan, but that the transmission mechanism of the crash was very similar in both countries.

Robert J. Shiller
Cowles Foundation
Yale University
Box 2125 Yale Station
New Haven, CT 06520-2125

Fumiko Konya
Japan Securities
Research Institute
1-5-8, Nihonbashi,
Kayabacho
Chuo-ku, Tokyo, 103
JAPAN

Yoshiro Tsutusi
Department of Economics
Nagoya City University
Mizuho-cho, Mizuho-ku
Nagoya, 467
JAPAN

The main shortcomings of the present survey are that it was undertaken four months after the crash and that the sample size is only 52. We think, however, that in an event so dramatic as the biggest stock market crash in history, memories will still be sufficiently fresh that the responses will be useful. Moreover, a sample size of 52 is large enough to produce reasonably small standard errors on estimated proportions - generally in the 4 percentage point to 7 percentage point range; small enough to permit us to make some broad conclusions.

Timing of Events

The Tokyo Stock Exchange (Tokyo SE) closes each day before the New York Stock Exchange (NYSE) opens. Thus, the Japanese market could not react to the U. S. crash on Monday October 19 until Tuesday October 20. For this reason, October 20 was substituted in Japan for October 19 on questions asked of U. S. investors in Shiller [1987].

To get a rough idea of the relative stock movements of the NYSE and Tokyo SE around the crash, we plot the Dow Jones Industrial Average and the Nikkei Average Tuesday September 1 through Wednesday December 23 in Figure 1.³ We can see from the figure that while the decline of stock prices on the NYSE began Monday October 5, the Tokyo SE did not show any drop until Monday October 19, and then only a relatively small one. The New York Stock Exchange experienced a 10.8% drop between Monday October 5 and Thursday October 15, but the Tokyo SE did not respond to it. Thus, the market decline in Japan essentially began on Tuesday October 20, the date we singled out in the survey questions.

³The Nikkei average is based on an arithmetic average of prices of 225 stocks. The Nikkei average is commonly called the "Nikkei Dow Jones."

News Stories

In order to find what news the Japanese investors reacted to, we selected a list of news stories and asked respondents to rate their importance, as they remember judging it on October 20, 1987, on a one to seven scale (one completely unimportant, seven very important). The respondents were told "Please tell how important you then thought these were, and not how others thought about them."

The news items are shown in Table 2. They may be classified into four categories: 1) news about the Japanese stock price movement, 2) news about the U. S. stock price movement, 3) other news of Japan, and 4) other news of the U. S..

What the Japanese investors thought most important was the news of the crash of New York Stock Exchange on October 19. Fully 87% of the respondents rated this "very important"; the average of the answers is 6.727. The drop in the morning October 20 in Tokyo SE comes next. 65% of the respondents answered that this was "very important" (the average of the answers is 6.266).

The other items were rated lower. Japanese investors thought that the price drops of the preceding week in the NYSE were more important than the slight drop in Tokyo Stock Exchange on October 19. The averages of the answers to the news of "Drop in the New York and other Stock Prices that preceded October 19" is 5.257, while the news of Drop in the Tokyo SE on October 19" is 4.608. On the contrary, (or similarly?) the U.S. investors rated the drops of their own market more important than that of the foreign

market (5.235 vs. 4.776). This is reasonable since the Tokyo SE did not show any decline in the preceding week except the 2.3% drop on October 19.

Comparing the news of the U.S. and Japan, Japanese investors rated the former higher than the latter. For example, "The news that Takesita was nominated as the new president of Liberal Democratic Party on October 20" was rated lower than the news of "U.S. attack on Iranian oil station October 19" (2.434 vs. 3.317).

Interestingly, the news on the U. S. economy were rated higher by the Japanese investors than by the U. S. investors. For example, the news of the U.S. trade deficits, the rise of prime rate and U.S. treasury bill yields, and Treasury Secretary Baker's suggestion on the exchange rate were rated more than five on average by Japanese investors, while U.S. investors rated most of them around four. Moreover many of the U.S. economic news stories were rated higher than the news of the stock prices of the preceding week by the Japanese investors.

We asked a question that "Did you think the crash would influence the Japanese market?"⁴ Of our respondents, 98.2% answered that they thought then that Japanese stock prices would go down. Only 1.8% (one person) thought that the drop of Tokyo Stock Exchange would be larger than that of NYSE. This also seems to support the notion that the Japanese stock market crash was caused by the United States crash.

Two interpretations are possible to these results. One is to regard them as general features of the Japanese investors and to suppose that the Tokyo

⁴This question immediately followed a question asking the date and time when respondents first heard of the crash on the NYSE. All but two of the respondents had heard by 8:00 a. m. JST. Thus, in context, this question may be interpreted as asking for the opinion the respondent held before the crash in the Tokyo market.

SE is dependent on the NYSE. Considering that Tokyo SE by some measures is now about as large as NYSE, however, the unidirectional causation is hard to believe.

The other interpretation is to regard the dependency of Tokyo SE on the NYSE as specific to the current crash. A stock market crash is apparently a unique event in investors minds, not just a bigger version of smaller price movements. The reasons the event occurred in the U.S. in the United States are not clear, though the conclusion in Shiller [1987] was that a self-amplifying sequence of reactions to price declines played a role; the reaction each day to price declines of the previous day, starting the previous week. The crash in the Tokyo SE seemed to have no apparent roots in their own economy, and there were no significant price declines in Japan the preceding week. This may explain why the Japanese investors rated the news in the U.S. very high in the survey. However, the latter interpretation does not require that this is always true. If a crash happens autonomously in Japan and spreads to the NYSE, the U.S. investors would rate the news in Japan very high.

Attitude and Behavior Comparisons - U. S. and Japan

In the previous survey of U. S. institutional investors (Shiller [1987]) it was concluded that important factors in the crash were investors' impressions of the psychology of other investors. The theory most common among investors was that investors had caused the market to be overpriced and vulnerable to a panic, much like the one that occurred in the United States in October 1929.

Respondents were asked "Which of the following better describes your

theory about the decline: a theory about investor psychology, [or] a theory about fundamentals such as profits or interest rates?" (See Table 3 for questions discussed in this section.) Of Japanese investors, 72.7% chose investor psychology. This is even higher than the percent answering yes among U. S. institutional investors (64.0%).

Of the Japanese respondents, 83.6% answered that they thought just before the crash that the market was overpriced relative to fundamental values. This is very close to the result with the U.S. institutional investor, where 84.3% said they thought the market overpriced. Apparently the average institutional investor in both Japan and the United States thought that other investors were too optimistic about share values. This is consistent with the result that only 29.1% of the Japanese respondents and 22.2% of the U. S. respondents thought that they were bullish and optimistic relative to the other investors.

Japanese investors were remarkably similar in their willingness to admit that they had experienced "contagion of fear" on the day of the crash. Of Japanese investors, 41.8% said yes, of U. S. investors, 41.3% said yes. The question "Roughly how many people did you talk to about the stock market on [the day of the crash]?" also yielded similar numbers in the both countries (Japan 15.4 vs. U.S. 19.7). Thus, the interpersonal communication that is necessary for contagion of fear was present in roughly equal amounts in both countries. Interestingly about 70% of the respondents in Japan said they thought or talked about the events of 1929 (which are most likely to be U. S. and not Japanese events) in the few days before the crash; the number is even higher than that of the U.S. institutional investors, which is 53.2%.

We asked investors directly about anxiety levels as expressed by explicit

symptoms. Anxiety levels in Japan were comparatively low the week before the crash and over the weekend before the crash, as one might expect given the absence of major stock price movements in Japan then. On October 20 anxiety levels in Japan were fully comparable to those described by U. S. investors. Japanese investors were somewhat less confident of their ability to predict when a rebound would occur than were U. S. investors.

Only around 11% of the Japanese investors had a policy of limiting losses at the point of October 20. This number is quite similar to that in the U.S.. While portfolio insurance appears to be very important in the United States, the overall impact of all loss-limiting policies appears to be roughly equally important in the two countries.

Respondents were also asked whether they had abandoned a policy of investing for the long term just before the crash: 10.9% of the Japanese investors answered yes. The number is not significantly different from that of the U.S. institutional investors (6.6%).

Interpretation and Conjectures

What is most striking in the survey data of the Japanese institutional investors is that the answers are very similar to those of the U.S. institutional investors.⁵ The comparisons of the U. S. and Japan at the time of the market crash show that there are today not only world markets: there is also a world market culture: patterns of behavior, outlook and communications, that transcends national boundaries.

We think that it is a strong suggestion of these results that the

⁵In fact, according to the surveys, we can say that the U.S. institutional investors are closer in behavior to the Japanese institutional investors than they are to the U.S. individual investors.

proximate cause of the crash came from the United States. A scenario of the Tokyo SE on October 20 may be as follows: Investors anticipated that a sharp drop would occur in Tokyo SE on October 20 when they got up and heard the news of the crash of NYSE, and focused on the movement of the stock price in the morning. The big question on their minds that morning was about Japanese investor psychology: how investors in the Japanese market would react to the U. S. stock market crash. Considerable anxious interpersonal communications on this issue took place among Japanese institutional investors that day.

What is interesting is that the Tokyo market did not respond to the decline of NYSE in the preceding weeks, although the decline was not small compared with the declines in previous history (394 points for two weeks). Perhaps the channel of the contagion across national boundaries of a market decline is in operation only when it becomes of considerable size.⁶

In Tsutsui [1988] it was found that Granger causality tests with nine lags between the NYSE (Dow Jones Industrial Average) and the Tokyo SE (Nikkei Average) in nominal terms showed strong evidence of bidirectional causality with daily data April 1, 1985 to October 13, 1987. The evidence for causality was stronger from the NYSE to the Tokyo SE than in the reverse direction. When the sample was shortened to April 1 1985 to October 13, 1987 (excluding the crash) there is still evidence of bidirectional causality, though now causality from the Tokyo SE to the NYSE was only just significant at the 5% level.

⁶Institutional investor behavior on ordinary days may show less active communications and less concern with market psychology; see Pound and Shiller [1987].

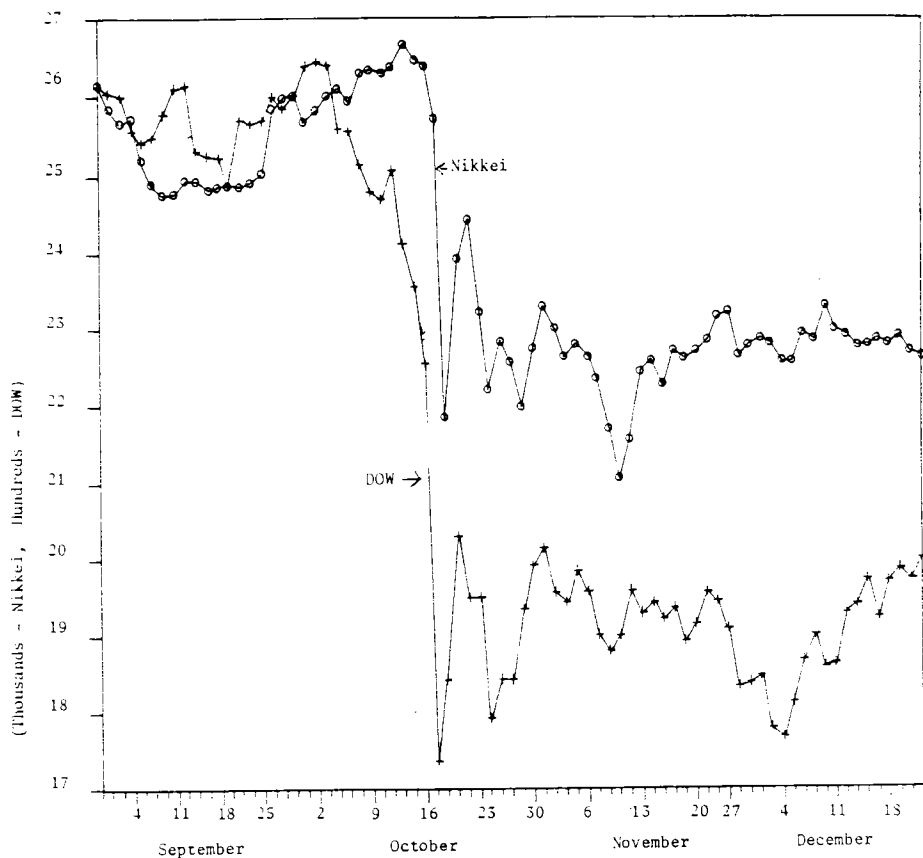


Figure 1. U. S. and Japan Stock Prices, September 1 - December 23, 1987.
 Note: the averages shown are the Dow Jones Industrial Average and the Nikkei Average. Plotted are closing prices for those days in which both the Tokyo SE and the NYSE were open. The longer tick marks correspond to Fridays.
 Note that the number of data points in each week varies from three to five, depending on holidays in the two countries.

Table 1 Sample Composition

	# sent	# returned
Big banks (city and long-term credit banks)	12	3
Intermediate size and smaller banks (regional banks, mutual banks, credit associations and others)	52	20
Life insurance companies	11	7
Consultant companies and credit banks	11	5
Enterprise corporations	27	10
Others *	1	0
Unknown *	-	7
Total	114	52

*The unknown category consists of those who did not answer the question about their affiliation.

Table 2 Importance of News Items

"Please tell us how important each of the following news item was to you personally on October 20 in your evaluation of stock market prospects. Please rate them on a one to seven scale, 1 indicating that the item was completely unimportant, 4 indicating that it was of moderate importance, 7 indicating that it was very important. Please tell how important you then felt these were, and not how others thought about them."

a.	Drop in Japanese Stock Prices on October 19	<u>4.61</u>	(0.22)
b.	Drop in the New York and other Stock Prices that preceded October 19	<u>5.27</u>	(0.22)
c.	Crash of the London and New York markets October 19.	<u>6.73</u>	(0.11)
d.	The drop in the Japanese Stock prices the morning of October 20.	<u>6.23</u>	(0.20)
e.	The news that Takesita was nominated as the new president of Liberal Democratic Party on October 20.	<u>2.43</u>	(0.20)
f.	The news that Yen was appreciated to \$ 1.00=140.40 yen.	<u>4.72</u>	(0.25)
g.	The news of the decrease of the price of land in October.	<u>3.67</u>	(0.19)
h.	U. S. Trade deficit figures announced Wednesday October 14, 1987.	<u>5.74</u>	(0.18)
		[U. S.: 4.21	(0.09)]
i.	U. S. Producer Price Index figures announced Friday October 16, 1987.	<u>4.48</u>	(0.20)
		[U. S.: 3.17	(0.08)]
j.	The rise of US prime rate on October 15.	<u>5.47</u>	(0.17)
		[U. S.: 3.95	(0.10)]
k.	US treasury bond yields reached 10.5%.	<u>5.85</u>	(0.14)
		[U. S.: 5.57	(0.08)]
l.	Baker suggested that the dollar should slip further.	<u>5.64</u>	(0.19)
		[U. S.: 4.84	(0.10)]
m.	U.S. attack on Iranian oil station.	<u>4.33</u>	(0.18)
		[U. S.: 3.32	(0.10)]

Note: figures in parentheses are standard errors.

Table 3 Investor Attitudes and Behavior

1. Which of the following better describes your theory of the decline?
A theory about investor psychology. 72.7% (7.0%) [U. S. 64.0% (2.7%)]
A theory about fundamentals, 27.3% (7.0%) [U. S. 36.0% (2.7%)]
such as profits or interest rates.
2. Did you have the sense, just before the crash, that the market was overpriced relative to fundamental value? (Try hard to remember what you thought then.) 83.6% yes (5.0%)
[U. S.: 84.3% yes (2.2%)]
3. Do you think you were bullish and optimistic, relative to other investors, before the crash? 29.1% yes (6.1%)
[U. S.: 22.2% yes (2.5%)]
4. Do you think you may have personally experienced contagion of fear from other people shortly before or on October 20? 41.8% yes (6.9%)
[U. S. [October 14-19] 41.3% yes (3.0%)]
5. Roughly how many people did you talk to about the stock market on October 20? 15.4 (2.2)
[U. S. [October 19] 19.7 (1.0)]
6. Do you remember thinking or talking about Great Depression of 1929 on the few days before October 20? 69.1% yes (6.3%)
[U.S. [events of 1929; October 19] 53.3% yes (3.0%)]
7. On which of the following dates did you experience any unusual symptoms of anxiety (difficulty concentrating, tightness in chest, irritability, or rapid pulse) regarding the stock market?
- | | | |
|---------------|--------------|----------------------|
| October 14-16 | 3.6% (2.5%) | [U. S. 13.1% (2.0%)] |
| 17-18 | 1.8% (1.8%) | [U. S. 15.0% (2.2%)] |
| 19 | 10.9% (4.2%) | [U. S. 43.1% (3.0%)] |
| 20 | 41.8% (6.7%) | [U. S. 30.3% (2.8%)] |
| 21-23 | 30.9% (6.2%) | [U. S. 29.2% (2.7%)] |
8. Did you think at any point of time on October 20 that you had a pretty good idea when a rebound was to occur? 11.3% yes (4.3%)
[U. S. [October 19]: 28.0% yes (2.7%)]
9. Did you have, as of October 20, a policy of holding losses to a certain amount? (For example, did you decide the timing of sell by some portfolio insurance measure such as stop loss orders?) 11.9% yes (4.4%)
[U. S.: 10.2% yes (1.8%)]
10. Did you abandon a policy of investing for the long term (for example, a policy based on fundamentals) shortly before October 20? 10.9% yes (4.2%)
[U. S. [October 19]: 6.5% yes (1.5%)]

APPENDIX

QUESTIONNAIRE WITH TABULATED RESULTS SURVEY CONCERNING THE STOCK MARKET DROP

(% of the item ; the number of the answers)
[weighted average of items, the total # of the answers]
(Comparable U. S. results shown with letters US)

Instructions

This questionnaire should take no more than ten minutes of your time if you skip the optional essay questions. We would appreciate it if you answer the optional questions too. We will send a report on this survey to those who participate.

The purpose of this questionnaire:

October 19, 1987, on the "black Monday," the New York Stock Exchange fell more than ever before in history. The New York Dow Jones fell 508 points in one day. The crash occurring in the NYSE spread to other foreign exchanges all over the world. The Nikkei Average fell 14.9% on October 20, which is unprecedented in history.

The purpose of this questionnaire is to know how investors looked at the situation and what they thought and how they behaved. Please try to remember your personal experience then. Please give answers by circling numbers. There are also some essay questions.

The survey is anonymous. The results are used only for academic research and not for any commercial purposes. Individual answers will not be announced. Please finish what you can of this survey and return it, even if you cannot answer all questions.

0 Are you a fund manager?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{94.5%; 52, 5.5%; 3} [1.055,55]

[If no, please pass this questionnaire to a fund manager]

1 Have you been aware of the stock market drops noted above?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{98.2%;54, 0%;0, ?= 1.8%;1}

[1.00,54] US: individual [1.011,596]

2 When did you hear that there were above-average stock market drops on October 20 in the Japanese market?

Date [20.00,54] Time [9:08,53]

2-1 When did you first hear the crash in New York stock exchange market on October 19?

Day:

Approximate time:

{October 19= 4; 7.3%, October 20=51; 92.7%}

{ October 19, 21:00, 23:00, night, 6:00}

{October 20, 6:00=21, 6:00-7:00=9, 7:00=14, 8:00=1, 10:00=1, 11:00=1, morning=3, 0:00=1}

Date [19.927,55] US [19.00,280]

Time [6:11(Oct.20)JST = 16:11(Oct.19)EDT,49]

US [10.533 EDT,179]

2-2 Did you think that the crash would influence to the Japanese market?

1 Stock price in Japan would go down. {96.4 %;53}

2 Stock price in Japan would go down more than in the US. {1.8 %;1}

3 No influence. {1.8 %;1}

4 Stock price will go up. {0 %;0}

[1.055, 55]

3 Roughly how many people did you talk to about the stock market on October 20?

Number of people
[15.434, 53] US [19.681, 274]

4 How many times did you check stock prices on October 20?

Number of times
[12.57, 37] US [34.965, 204]

other answers:

(many=5, always=6, a couple of times=1 infinity=1, all day long =1, etc)

5 Did you buy or sell either stocks or stock futures on October 20?

[CIRCLE ONE NUMBER]

1 I bought (mostly) 2 I sold (mostly) 3 I did not sell or buy
(10.9%;6, 10.9%;6, 78.2%;43)
[2.673, 55] US [2.512, 277]

6 Did you have, as of October 20, a policy of holding losses to a certain amount? (For example, did you decide the timing of sell by some portfolio insurance measure such as stop loss orders?)

[CIRCLE ONE NUMBER]

1 YES 2 NO
(10.9%;6, 89.1%;49)
[1.891, 55] US [1.898, 275]

7 If yes, had you adopted this policy shortly before or on October 20?

[CIRCLE ONE NUMBER]

1 YES 2 NO
(66.7%; 4, 16.7%; 1, ?= 16.7%; 1)
[1.200, 5] US(October 19) [1.720, 50]

8 If yes to the question 6, could you give the time you adopted the policy and the reason?

days before
(0 days=1 person, 2=1, 4=1, 6=1, 20=1, 90=1)
[20.333, 6] US [185.0, 12]
the reason (optional)

9 Did you abandon a policy of investing for the long term (for example a policy based on the fundamentals) shortly before or on October 20?

[CIRCLE ONE NUMBER]

1 YES 2 NO
(10.9%;6, 85.5%;47, ?= 3.6%;2)
[1.887, 53] US [1.935, 275]

10 If yes, could you describe the date you made the change in policy and the reason for the change?

days before
(7 days=1 person, 15=1, 20=1, 30=1, 50=1, 60=1),
[30.333, 6] US [29.2, 21]
the reason (optional)

11 Please tell us how important each of the following news item was to you personally on October 20 in your evaluation of the stock market prospects. Please rate them on a one to seven scale, 1 indicating that the item was completely unimportant, 4 indicating that it was of moderate importance, 7 indicating that it was very important. Please tell how important you then felt these were, and not how others thought about them.

- | | completely
important | | | Moderately
important | | very
important | |
|--|-------------------------|---|---|-------------------------|---|-------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
- a Drop in Japanese Stock Prices on October 19 [4.608,51]
 ? 1 2 3 4 5 6 7
 { 7.3%;4, 1.8%;1, 5.5%;3, 10.9%;6, 38.2%;21, 9.1%;5, 7.3%;4, 20.0%;11}
 (Drop in U.S. Stock Prices on October 14-16 US [5.235,277])
- b Drop in the New York and other Stock Prices that preceded October 19
 ? 1 2 3 4 5 6 7
 { 7.3%;4, 0.0%;0, 3.6%;2, 9.1%;5, 25.5%;14, 5.5%;3, 18.2%;10, 30.9%;17}
 [5.257,51]
 (Drop in Japanese or London Stock Prices that preceded October 19, 1987
 US [4.776,277])
- b-1 Crash of the London and New York markets on October 19 [6.727,55]
 ? 1 2 3 4 5 6 7
 { 0.0%;0, 0.0%;0, 0.0%;0, 0.0%;0, 5.5%;3, 3.6%;2, 3.6%;2, 87.3%;48}
- c The drop in the Japanese Stock prices the morning of October 20
 ? 1 2 3 4 5 6 7
 { 3.6%;2, 1.8%;1, 1.8%;1, 3.6%;2, 5.5%;3, 5.5%;3, 12.7%;7, 65.5%;36}
 [6.266,53]
 (The 200 point drop in the Dow the morning of Monday, October 19
 US [5.927,277]
- c-1 The news that Takesita was nominated as the new president of Liberal
 Democratic Party on October 20 [2.434; 53]
 ? 1 2 3 4 5 6 7
 { 3.6%;2, 30.9%;17, 27.3%;15, 16.4%;9, 16.4%;9, 1.8%;1, 0.0%;0, 3.6%;2}
- c-2 The news that Yen was appreciated to \$ 1.00=140.40 yen
 [4.717,53]
 ? 1 2 3 4 5 6 7
 { 3.6%;2, 7.3%;4, 5.5%;3, 5.5%;3, 29.1%;16, 10.9%;6, 18.2%;10, 20.0%;11}
- c-3 The news of the decrease of the price of land in October [3.667,54]
 ? 1 2 3 4 5 6 7
 { 1.8%;1, 10.9%;6, 10.9%;6, 10.9%;6, 40.0%;22, 18.2%;10, 7.3%;4, 0.0%;0}

- d Trade deficit figures announced Wednesday October 14, 1987
- | | | | | | | | | |
|---|-------|----------|----------|----------|-----------|-----------|-----------|---------------------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 3.6%; | 2, 0.0%; | 0, 1.8%; | 1, 1.8%; | 1, 20.0%; | 11, 5.5%; | 3, 34.5%; | 19, 32.7%; |
| | | | | | | | | 18} |
| | | | | | | | | [5.736,53] US [4.211,279] |
- e Producer Price Index figures announced Friday October 16, 1987
- | | | | | | | | | |
|---|-------|----------|-----------|----------|-----------|------------|------------|---------------------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 5.5%; | 3, 0.0%; | 0, 10.9%; | 6, 7.3%; | 4, 34.5%; | 19, 18.2%; | 10, 14.5%; | 8, 9.1%; |
| | | | | | | | | 5} |
| | | | | | | | | [4.481,52] US [3.170,276] |
- f The news of the US credit balance on October 14
- | | | | | | | | | |
|---|-------|----------|-----------|-----------|-----------|------------|----------|------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 5.5%; | 3, 0.0%; | 0, 12.7%; | 7, 10.9%; | 6, 47.3%; | 26, 12.7%; | 7, 7.3%; | 4, 3.6%; |
| | | | | | | | | 2} |
| | | | | | | | | [4.019,52] |
- g The news of the rise of US prime rate on October 15
- | | | | | | | | | |
|---|-------|----------|----------|----------|-----------|------------|------------|------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 3.6%; | 2, 0.0%; | 0, 1.8%; | 1, 1.8%; | 1, 20.0%; | 11, 20.0%; | 11, 30.9%; | 17, 21.8%; |
| | | | | | | | | 12} |
| | | | | | | | | [5.472,53] |
- (Chemical Bank raising prime rate Thursday October 15, US [3.949,277])
- h US treasury bond yields went up to 10.5%
- | | | | | | | | | |
|---|-------|----------|----------|----------|-----------|-----------|-----------|------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 1.8%; | 1, 0.0%; | 0, 0.0%; | 0, 0.0%; | 0, 16.4%; | 9, 12.7%; | 7, 38.2%; | 21, 30.9%; |
| | | | | | | | | 17} |
| | | | | | | | | [5.852,54] |
- (Treasury bond yields hit 10.5% US [5.571,278])
- i Baker suggested that the dollar should slip further
- | | | | | | | | | |
|---|-------|----------|----------|----------|-----------|------------|-----------|---------------------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 3.6%; | 2, 1.8%; | 1, 0.0%; | 0, 3.6%; | 2, 18.2%; | 10, 14.5%; | 8, 21.8%; | 12, 36.4%; |
| | | | | | | | | 20} |
| | | | | | | | | [5.642,53] US [4.835,280] |
- j U.S. attack on Iranian oil station
- | | | | | | | | | |
|---|-------|----------|----------|----------|-----------|------------|------------|---------------------------|
| | ? | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| { | 1.8%; | 1, 1.8%; | 1, 7.3%; | 4, 9.1%; | 5, 41.8%; | 23, 20.0%; | 11, 12.7%; | 7, 5.5%; |
| | | | | | | | | 3} |
| | | | | | | | | [4.333,54] US [3.317,278] |
- k others
- 12 Suppose that as of October 20, 1987 the same news had occurred except for the news of price drops. Would your evaluation of the market or decisions to buy or sell have been substantially different?
- [CIRCLE ONE NUMBER]
- | | | | |
|---|-----|---|----|
| 1 | YES | 2 | NO |
|---|-----|---|----|
- { 78.2%; 43, 20.0%; 11, ?=1.8%;1}
- [1.204,54] US(October 19) [1.661,274]

13 Would your reaction have been less intense if the crash on October 20 had occurred six months ago. Of course, the situation other than the crash was different from that on October 20.

[CIRCLE ONE NUMBER]

1 YES 2 NO

{ 38.2%; 21, 54.5%; 30, ?=7.3%;4}

[1.588,51] US [1.777,274])

14 If yes, please try to describe how and why your reaction would have been different. (optional)

15 Was your thinking on October 20 influenced by the long-term trend of the stock prices?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{ 74.5%; 41, 23.6%; 13, ?=1.8%; 1}

[1.241,54]

(Was your tinkling on October 19 influenced by the stock market dropping through a 200-day moving average or similar long-term trend line?

US [1.668,274])

16 Were you forced to sell on margin call on October 20?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{ 0%; 0, 98.2%; 54, ?=1.8%; 1}

[2.000,54] US(October 19) [1.989,278]

17 Do you think you may have personally experienced contagion of fear from other people shortly before or on October 20?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{41.8%;23, 50.9%;28, ?= 7.3%; 4}

[1.549,51] US (October 14-19) [1.597,271]

18 Do you remember thinking or talking about Great Depression of 1929 on the few days before October 20?

[CIRCLE ONE NUMBER]

1 YES 2 NO

{69.1%;38, 27.3%;15, ?= 3.6%; 2}

[1.283,53] US (events of 1929; October 19) [1.467,280]

19 Can you remember any specific theory you had about the causes for the price decline October 20?

(optional)

20 Which of the following better describes your theory about the declines:

[CIRCLE ONE NUMBER]

1 A theory about investor psychology

2 A theory about fundamentals such as profits or interest rates.

{1= 72.7% 40, 2= 25.5%;14, 1&2 =1.8%; 1}

[1.259,54] US [1.360,267]

21 Did you think at any point of time on October 20 that you had a pretty good idea when a rebound was to occur?

[CIRCLE ONE NUMBER]

1 YES 2 NO
(10.9%; 6, 85.5%; 47, ?= 3.6% 2)
[1.887,53] US(October 19) [1.720,279]

22 If yes, what made you think that you knew when a rebound would occur?
(optional)

23 On which of the following dates did you experience any unusual symptoms of anxiety (difficulty concentrating, tightness in chest, irritability, or rapid pulse) regarding the stock market?

[CIRCLE ONE NUMBER]

1 October 14-16 (0.036; 2,55) US [0.131,274]
2 17-18 (0.018; 1,55) US [0.150,274]
3 19 (0.109; 6,55) US [0.431,274]
4 20 (0.418;23,55) US [0.303,274]
5 21-23 (0.309;17,55) US [0.292,274]

24 What is your age?

AGE [42.7,53] US [individual - 55.03,570]

Sex?

sex [male-100%,53] US [individual - male -91.6% ,570]

Experience as a fund manager ?

[4.53 years, 53]

25 What is the total amount of your investment?

[51.5 billion Yen - 400 Million \$, 28]

26 What was the change in your holdings in 1987 of stocks (in terms of number of shares or contracts not values) between each of the following dates(at close of market)

[CIRCLE ONE NUMBER]

Holdings Increased	No Change	Holdings Decreased
1	2	3

a between September 12 and October 12 [1.981,53] US (indiv) [1.916,383]

1 2 3
(27.3%; 15, 43.6%;24, 25.5%14, ?=3.6%;2)

b between October 12 and October 19 [2.075,53] US (indiv) [2.054,383]

1 2 3
(12.7%; 7, 63.6%; 35, 20.0%; 11, ?=3.6%;2)

c between October 19 and October 20 [2.222,45] US (indiv) [2.046,383]

1 2 3
(0.0%; 0, 63.6%; 35, 18.2%; 10, ?=18.2%;10)

d October 20-21 [2.064, 47]

1 2 3
(5.5%; 3, 69.1%; 38, 10.9%; 6, ?=14.5%; 8)

e October 22 and later in week [2.041,49]
1 2 3
(9.1%; 5, 61.8%; 34, 16.4%; 9, ?=12.7%; 7)
cf. Between October 20 and later in week US (indiv)[1.924,383]

27 How much is your amount of purchase and selling in a year compared with your total fund (Turnover rate)?

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[2.91 times, 40]
(How many times a year do you normally trade?
Number
US [283.8,155] )

```

28 Do you think you were bullish and optimistic, relative to other investors, before the crash?

[CIRCLE ONE NUMBER]
1 YES 2 NO
{29.1%; 16, 69.1%; 38, ?- 1.8%; 1}
[1.704,54] US [1.778,266]

29 Did you have the sense just before the crash that the market was overpriced relative to fundamental value? (Try hard to remember what you thought then.)

1 YES 2 NO
{83.6%; 46, 14.5%; 8, ?= 1.8%; 1}
[1.148,54] US [1.157,267]

30 Do you think that the market is at a moderate level relative to fundamentals after the crash?

1 high 2 moderate 3 low 4 hard to evaluate
(9.1%;5, 12.7%;7, 25.5%;14, 50.9%;28)
[2.346,26]

31 What do you predict of the stock prices from now on? # of answers=55

3-months later	{80.0%;44, 3.6%;2,	9.1%;5,	3.6%; 2,	?=3.6%;2}
6	{50.9%;28, 12.7%;7,	18.2%;10,	12.7%; 7,	?=5.5%;3}
1-year later	{40.0%;22, 5.5%;3,	25.5%;14,	27.3%;15,	?=1.8%;1}

32 Do you think that there is some possibility of the crash again in 3 months?

1	surely happen	{ 1.8%; 1}	# of answers=55
2	highly probable	{ 1.8%; 1}	
3	possible with low probability	{56.4%;31}	
4	will not happen	{29.1%;16}	
5	hard to predict	{10.9%; 6}	

3 possible with low probability (56.4%;31)

5 hard to predict (10.9%; 6)

33 Do you think that the crash will happen again after 3 months later but still in the near future? # of answers=54

[CIRCLE ONE NUMBER]

- | | | |
|---|-------------------------------|-------------|
| 1 | surely happen | (5.5%; 3) |
| 2 | highly probable | (23.6%; 13) |
| 3 | possible with low probability | (43.6%; 24) |
| 4 | will not happen | (14.5%; 8) |
| 5 | hard to predict | (10.9%; 6) |

If you answered 1-3, when?

In years

(1 year = 20, 2 years = 11, 3 years = 2, 1-3 years = 1)

34 What will you do if the crash happens again?

[CIRCLE ONE NUMBER]

- | | | | |
|---|---------|---------------|-----------------|
| 1 | buy | (20.37%; 11) | # of answers=54 |
| 2 | sell | (3.70%; 2) | |
| 3 | no idea | (75.93%; 41) | |

Comments:

Thank you very much

Please fill out the following if you don't mind. This enables us to send you a report of this survey.

Institution

Your position

Your name

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