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The corporate perception of the Heisei bubble and its consequences. Themes and interpretations

Irina Grigorovici †

Purpose

The current paper aims to analyze 13 accounts of the Heisei bubble and the subsequent period (1985-1995), in order to better understand the dynamic of those years from the perspective of those exposed to it. By doing so, the objective becomes that of capturing possible hidden angles about the corporate behavior presented in the analyzed period, which may expand the understanding of some of the decision-making patterns of those times.

The focus of the survey centers on the decision-making of the companies accounted for, their consequences, as well as the overall perception of the bubble and the crisis that followed, in the attempt to acquire a rounder view of the factors that influenced the corporate behavior at that time. The analysis relies on an open-ended survey of 13 respondents, carried out in 2019. The responses are looked into via the thematic analysis.

The structure of the paper consists of three sections. The first section offers a general background that points to the relevance of the current research and showcases brief parallels with another work that focused on the corporate sector of the Heisei bubble and the following crisis. The second section of the paper briefly looks at Japan's economic situation at the time of the Heisei bubble, the main focus of the survey. The third section presents the results of the thematic analysis, alongside the possible corresponding interpretations and insights associated with it.

General background

Few are those who are complete strangers to the frenzy associated with economic bubbles. After all, the name itself is self-explanatory. Prices rise up to the point where they well exceed their corresponding value. Inflation bubbles up, and before long, encouraged by the exuberance of those tempted to ride the wave of higher-priced assets, the economy finds itself stretched to uncomfortable lengths, in danger of bursting at any time. Japan's Heisei bubble was no exception. The country's stock and real estate stole the limelight. By the end of 1989, the Nikkei 225 stock index spiked to

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39,000 from 13,000 mid-decade, (Ito, 2004, p. 17) while the listed companies represented "more than 40 percent of the total value of the entire world's stock markets." (Gordon, 2013, p. 307) The land prices tripled in the second half of the 1980s until 1990, (Ito, 2002) after doubling in the early 1980s. (Gordon, 2013, p. 37)

Lack of moderation seemed to be the norm, weather it was one businessman buying paintings worth USD 160 million, (Gordon, 2013, p. 307) or 160 new golf courses materializing between 1989 and 1991, while other 1200 ones were underway or approved, (Wood, 2005, p. 60) as part of a lucrative construction industry of fast-developing construction projects. (Ohno, 2018, p. 165)

Acquisitions abroad were also the order of the day. In 1989, Mitsubishi was becoming the majority owner of Rockefeller Group, Sony Corporation was buying Colombia Pictures (the New York Times archive, 1989), and in the second half of 1990 the famous Pebble Beach Resort was being acquired (Wood, 2005, 61). By 1990, non-financial companies registered a record gap of ￥61 trillion, or 14% of the GNP, between their cash flow and the amount of money they spent. The gap only decreased to ￥47 trillion after subtracting the inflated land acquisitions. (Wood, 2005, p. 185) Financial companies also got caught up in the investment wave. One such example is Fuji Bank that bought Heller, a U.S. subsidiary providing financial services. (Wood, 2005, p. 35)

The economic context of that period certainly provided numerous reasons (e. g. the bank deregulation at the beginning of the 1980s, the Plaza and Louvre Accords, the timing of the measures taken by the representative authorities, the international context of both the bubble and the post-bubble years etc.) that facilitated, be it directly or indirectly, the expansion of the Heisei bubble. However, in light of the difficulty it faced to recover, that lasted decades, Japan remains an out-of-the-ordinary case. This in itself makes it important to try to go back to the human actors who witnessed the dynamic of that period and try to understand, with their wisdom of hindsight, too, how the economic bubble was perceived and acted on. By doing so, the possibility of finding new angles for the same context materializes, which in turn opens the possibility of finding new approaches by which to prevent future repetitions of what otherwise may be considered non-optimal but inevitable.

The attempt itself, while perhaps novel in the context of its ultimate purpose and qualitative analysis, is not without precedence. Ishikawa (2011, pp. 1, 2) reviewed Volume 3 of a three history-related series — part of the bigger project "Japan's Bubble, Deflation, and Long-term Stagnation," that includes a total of 11 volumes —. The project was initiated by the Cabinet's Office's Economic and Social Research Institute (ESRI), and was published by Saiki Printing Co. Ltd. in the fiscal year of 2010. Together with the three history volumes, the same publishing house also released a final volume of round-table discussions, which oversaw the project in its entirety. The other seven volumes of the project included research papers on given selected topics, and were published by Keio University Press in the fiscal year of 2009. (Ishikawa, 2011, pp. 1, 2)

Ishikawa's (2011) article was short, and on point. The gist of what several successful corporate executives said came last, and was succinct. Ishikawa (2011, p. 12) highlighted the common thread connecting four of the six total accounts[1], which was, in his words, the managers' "view that the reason their firms survived was that they didn't try to make money through investment in real estate or other areas outside their principal business during the bubble period."

Then, the author dived into the principles that the business managers accounted for as their companies' steady ground during the euphoria waves of the Heisei bubble. Standing by those principles was considered to be the reason why the companies involved were not majorly affected by the bubble's collapse, and what allowed them to solely focus on long-term growth.

The honorary chairman of retailer Aeon, Takuya Okada, stood by the credo that "what goes up will go down." The company preferred to focus on the consumers' needs at that time. (Ishikawa, 2011, p. 12)

The president of Daiso Industries, Hirotake Yano, similarly centered on the consumers. The company's unusual principle of targeting non-bankruptcy was followed through, as the aim was to only compete with oneself and overlook previous successes or tendencies in favor of new decisions. (Ishikawa, 2011, p. 12)

Chairman and chief executive officer of Seven & i Holdings Co., Ltd Toshifumi Suzuki explained the company's well-being after the collapse of the bubble via its policy to target profit and growth through the main business. He also credited their mindset, according to which profiting from land transactions was considered "poor form." (Ishikawa, 2011, p. 12)

As for the president and chief executive officer of Suzuyo & Co., Ltd Yohei Suzuki, he explained that, despite the instinct to expand he attributed to any manager, the company chose to maintain its scale, considered "appropriate" for its provincial location in Shizuoka Prefecture. (Ishikawa, T., 2011, p. 12)

Aside from their shared ability to weather the collapse of the bubble — a by-product of their decision-making and corresponding behavior —, the succinct review of the managers' interview highlighted the importance of distancing oneself from the immediate reality. Each company's leader followed a certain set of principles that provided distance from the overwhelming reality. Whether reputation-related (profiting from land transaction is "poor form"), physics-inspired ("whatever goes up will come down"), self-development-inclined (competing against oneself, and leaving previous trends and fulfillments in the past), or steered by realistic practicality (maintaining operations at a scale appropriate for the company's location), the principles pointed to virtually the same destination: looking after the company's future sustainability on the long term. However different the coordinates were, they encouraged a complementary mindset, and served as reminder of where

1) The interviews also include those of former managing director of Fujita Corporation Keiji Kawamata, and of former president and CEO of Mori Building Co., Ltd. late Minoru Mori.

decisions should converge.

By virtue of their shared trajectory, there was one more similarity that surfaced out: these companies' decision-making was consistently different from the decisions that got other firms in trouble during the post-bubble period.

The present paper may perhaps also be thought of as a reinforcement of the intuitive conclusion one may generally draw over the importance of creating and following a set of objectives on the long term, as the miscalculations and difficulties faced by the survey respondents after the burst of the bubble reflect unwanted consequences corresponding to less optimal decisions. The interview's accounts reviewed by Ishikawa can perhaps be considered to a large extent the ideal that was hoped for in hindsight by most corporate actors at that time, including many of the respondents of the survey, although not without exceptions. Thus, in many ways the two, though significantly different in size, capture opposite angles of the same period, as one showcases optimal decision-making, and the other one less optimal decisions. However, one may argue that learning from mistakes is perhaps the quickest way to achieve long-term sustainable change, which makes the survey accounts an important reference, and the themes behind them important potential doors for exploring new angles of the Heisei bubble that can serve the future.

The Heisei bubble: a brief overview

The 1980s were the years when Japan went through a significant process of financial deregulation. This saw an overall lower level of bank loans from firms, and a larger amount of funding based on free interest rate instruments. (Itoh, M. et al., 2015, p. 5) Consequently, if in 1980 all the manufacturing firms listed on the Tokyo Stock Exchange had close to 90% of their debt represented by bank loans, by the year 1991 the ratio declined to less than 50%. (Aoki, M. and Dore, R., 1994, p. 299) In this context, the decade marked a rapid increase in Japan's capital outflow, (Ito, T., 1996, p. 4) and banks were left with smaller and riskier companies as borrowers. At the same time, the commercial banks had as shareholders mutual-life-insurance that had no incentive in pressuring the banks to operate efficiently. This gradually led to the accumulation of non-performing loans.

One stepping-stone in Japan's deregulation process was the new Foreign Exchange Control Law, which came into effect in December 1980. The Law almost entirely deregulated the Japanese portfolio investment and direct investments and enabled the outflow of capital. (Hamada, 1996, p. 91) By 1985, Japan became the largest creditor in the world, with net foreign assets of USD 129.8 billion (Noguchi, 1996, p. 57). As it entered the second half of the 1980s, the country witnessed a growing asset bubble. This culminated in 1989 when the Nikkei average reached JPY 38,915, after stock prices registered a four-fold increase since 1983. (Noguchi, 1996, p. 56)

By late 1980s, Japan's macroeconomy was relying on a loose monetary policy and a tight budget, which fueled the asset bubble (Noguchi, 1996, p. 52). Specifically, if the discount rate in 1981 reached a level of 5.5%, by the end of the decade it went down to registering 2.5% (until May 1989, when it was raised). This encouraged loans and investments, and fueled an increase of asset prices.

On the other hand, the multiple discount rate reductions in the second half of the 1980s have not been organic. Instead, these measures materialized after the Plaza Accord, an international agreement meant to depreciate the U.S. dollar in order to reduce the current account deficit of the United States and make its exports more competitive. After the intervention in the currency market took place, Japan dealt with a strongly appreciated yen, which set the path to loose monetary measures. The Louvre Accord in 1986 — following which Japan agreed to cut interest rates in the internationally-supported attempt to appreciate a weakened dollar —, followed by the "Black Monday" stock market crash in the U.S. in 1987, further delayed a monetary restraint.

At the same time, towards the end of the 1980s, Japan became concerned with its budget deficit, which led to implementing measures to reducing it. This translated into a constant incremental decrease of public expenditures between 1982 and 1988, with expenditures related to public works annually registering a level below the one reached the previous year. Thus, if public-work-related expenditures made up a 15.5% share of the general account in 1980, by 1991 they accounted for a 9.4% share. (Noguchi, 1994, p. 298)

According to Yukio Noguchi, one of the reasons behind Japan's excessive loose monetary policy and tight fiscal policy was the bias across the Japanese economy by which producers' interests were prioritized against consumers'. Therefore, although productivity improvement that created a stronger yen should have been reflected in people's ability to buy cheaper imports, the benefits didn't get to the consumers. Instead, they only reached the producers and distributors, who directed the funds into zai-techs investments. Bigger corporate profits rose the stock prices, "making it easier for companies to raise funds cheaply by issuing equity or equity-linked bonds," subsequently "channeled into land speculation." (1996, p. 52)

In the meantime, as the years of the 1980s unfolded, the partnership with the U.S. followed the pattern of the 1970s, by which it grew stronger and increasingly more affected by trade friction. By 1987, already 30% of the U.S. debt was financed by Japan, (Nathan, 2006, p. 25) a reflection of both their strong economic relation and the concerns raised by the United States. Ohno drew attention on the fact that Japan's trade surplus and the United States's deficit were comparable. In this context, he argued that what financed the excessive spending in the U.S. were the Japanese savings, which "became the largest financial flow in the world economy." (Ohno, 2018, p. 156)

The analysis: dataset and results

The data for the present paper, while spanning across the years of 1985-1995, mainly focuses on the Heisei bubble. Specifically, it looks at how the corporate sector perceived the dynamic of those years through the lens of the decisions made by the company they were part of. The perspective alternates from the time of the bubble, to the period after the bubble burst.

The data was collected via an online open-ended survey. The survey included 15 questions, out of which eight (see Table 1 for an outline) were analyzed more closely. The targeted respondents were those active in Japan's corporate sector during the Heisei bubble period and/or the subsequent period that saw the development of the economic crisis. This allowed more flexibility in terms of the age brackets sought.

In specific terms, the respondents' age can be divided into three main age categories: 48-57 (four respondents), 63-64 (four respondents), and 70-76 (five respondents). Under these circumstances, one may conclude that there is a balance in terms of their presence in the two halves of the analyzed period. With one exception, all positions occupied by the respondents within the companies they represented were management ones by the end of the analyzed period.

The companies that respondents accounted for belonged to four industries: the manufacturing one (six), the finance and insurance one (four), information and communication (one), and construction and architecture (two). The manufacturing industry included specializations in cement, oil, cosmetics, chain production, and electronics (with one respondent representing two). The finance and insurance category included financial institutions, as well as an insurance company and a trading one. The

Table 1. The outline of the survey questions (those mainly analyzed in bold)

No.	Outline
1	Name
2	Contact info
3	Age
4	Company name, workplace location, size and industry
5	Last position occupied (1985-1995)
6	**Important factors for achieving profitability (multiple options)**
7	**Policy influence over companies ('80s and '90s)**
8	**Business sector influence over society**
9	**Society euphoria/depression influence over companies**
10	**Objectives and strategies during the bubble**
11	**Predictions that proved non-optimal and their consequences**
12	**Miscalculated forecasts that could have been avoided**
13	**The way the bubble was felt/experienced**
14	Comments
15	Inquiry about possible future contact

information and communication category included a company with the same specialization as the name of the category, while construction and architecture also reflected the specializations of the companies included. Locations varied across Japan, with several being located in Tokyo, and two with locations abroad as well.

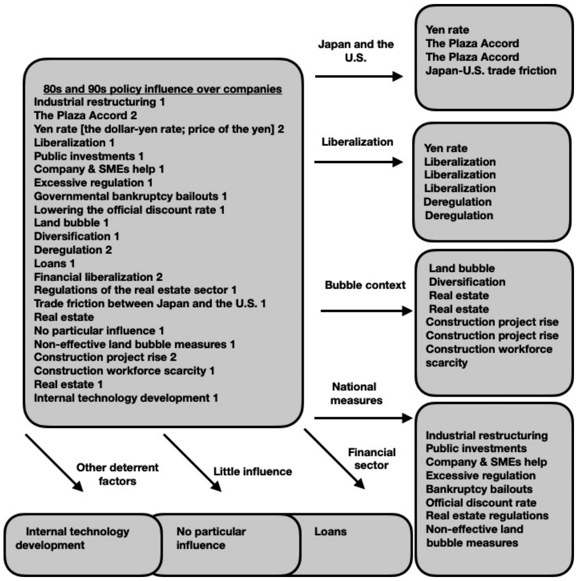
As part of understanding the priorities of the companies represented in the survey, the sixth question inquired about the degree of importance of ten preset options. The respondents could choose from "very important," "important," "moderately important," and "not important." As shown in the Annex (Figures A1, A2, and A3), the category that was marked as very important was "national market competition,"(five answers) followed by "national measures," (three) and "economic forecasts" (two). In the same order for the category "important," "national supply chain changes" (three), "economic forecasts," (three) and "international environment (other than the U.S.) (two) occupy the ranking. As for what was moderately important for the profitability of the company, "awareness of society and social behavior" ranked first (four answers), followed by "Japan-U.S. relations" (three), and three categories represented by "banks," "national measures," and "international environment (other than the U.S. one) (two, respectively)."

Overall, the rankings indicate what can be considered the natural corporate tendency of first focusing on the national environment, be that related to competition or supply chain, national measures, or economic forecasts. Only two companies opted for the international environment outside the U.S. as relevant (corresponding to "important" and "moderately important," respectively), which comes in the context of which two of the represented companies also have international locations. What perhaps becomes interesting is the fact that in the category of "moderately important," society and social behavior awareness ranks first with four answers, thus the equivalent of almost a third of those surveyed. This is relevant in the context of the bubble economy, which many described as a general euphoric period, as it may point to factors influencing decision-making. Furthermore, Japan-U.S. relations follow up with three answers as the next moderately important fact that is considered for the profitability of the represented company, which is a reflection of the close relation that Japan fostered with the U.S. at that time.

If one were to cumulate the three categories to uncover the factors with the highest shares among the options considered important for profitability, (see Figure A4 in the Annex) "national measures" and "economic forecasts" rank first with six answers each, which while to be expected in the case of national measures, underlines the importance of maintaining neutral and objective economic forecasts, given their equal importance. Likewise, it is important to acknowledge that the next position is occupied not only by "national market competition" — which one may consider natural —, but also by "awareness of society and social behavior," which this time speaks to the attested importance of the surrounding environment.

Next, the content corresponding to questions 7-13 is analyzed via the qualitative thematic analysis,

Figure 1. Question 7: themes



which is well known for its flexibility both in terms of fields it is used for and the methods of data collection, as it can be used in a number of scenarios, varying from interviews, to open-ended surveys. The flexibility of the thematic qualitative analysis across a variety of fields of study (Kiger & Varpio, 2020, pp. 1, 3), the small sample size at which saturation can be achieved, but most importantly the fact that it is a tool mainly used "to understand a set of experiences, thoughts, or behaviors across a data set" (Kiger & Varpio, 2020, pp. 1, 3; Braun & Clarke, 2012, p. 2) and "make sense of collective or shared meanings and experiences" (Braun & Clarke, 2012, p. 2) separates the thematic qualitative analysis from the other existing qualitative analyses as the most appropriate one for the current purpose.

The recommended number of samples is different from one author to another, just as it is from one type of qualitative analysis to another. According to some opinions, the thematic qualitative analysis can reach saturation from six to eight interviews in the case of a homogeneous sample. (Kuzel, 1992, p. 41, cited in Guest et. al., 2006, pp. 59, 79) Recent guidelines point to a number of two to four interviews in the case of focus groups, six to ten subjects for interviews, "10-50 for participant-generated text and 10-100 for secondary sources." Although the reasoning behind such numbers is scarce, it appears that a main criterium is to have "enough data to demonstrate patterns while ensuring there is not too much data to manage." (Fugard & Potts, 2015, pp. 670-671) Given the clear repetitive ideas that come out of the survey accounts, and the homogeneity of the survey sample, a thematic qualitative analysis becomes possible.

The thematic qualitative analysis involves six steps, starting from becoming familiarized with the available data, to creating codes, and finding themes, the latter of which are then reviewed, defined, and named, before a report is made. (Braun, V. & Clarke, V. 2006, pp. 16-23)

Codes are "the most basic segment, or element, of the raw data or information that can be assessed in a meaningful way regarding the phenomenon." (Boyatzis, 1998, p. 63) Themes, on the other hand, are the common thread that connects the code dots. They may shelter each one of the codes, or leave some out. They may also overlap, or fail to hold codes coherently in the phase of reviewing themes, in which case the phase of theme redefinition comes in handy in terms of preserving the overall meaning and fluency. Once that is achieved, the story of the analysis is highlighted within the final stage of materializing the report (Braun, V. & Clarke, V. 2006, pp. 16-23)

Depending on what the process of choosing codes and themes is, the two can either be classified as "semantic," or "latent." As the name indicates, the "semantic" level mainly reflects the meaning of what has been expressed, whether explicitly or in a representative manner. On the other hand, the "latent" version requires an interpretation of what is conveyed, encasing "implicit ideas or concepts that underpin" what the data reveals in explicit terms. (Braun, V., Clarke, V. & Weate, 2016, pp. 3, 4) Both types of codes were used.

As part of the analysis, the answers were first filtered through for recurring keywords, before they were classified into themes, further on reviewed and named after revisions. Finally, the identified themes were shaped out into broad conclusions, as part of the narrative frame behind the survey. The results separated by industry are shown in Table A1, in the Annex, alongside occasional excerpt extractions that account to either one separate unique code or one account of a code shared with the equivalent number of other excerpts analyzed.

The themes were grouped by topic of the question. Figure 1 represents the final grouping into themes, corresponding to the topic centered on the influence of the '80s and '90s policies over companies (the seventh question). The topic themes mainly distinguish between the impact of the liberalization, that of the Japan-U.S. relations, the governmental influence and the bubble atmosphere (the right side). It is, in fact, a reflection of what is mainly considered to have led to the Heisei bubble, and partly reflects the overall importance of all factors considered for profitability in the case of the previous question (national measures, economic forecasts, national market competition and awareness of society and social behavior), on top of which the friction with the U.S. is also accounted for.

The storyline behind is faithful to what the reality of the 1980s looked like: the beginning of deregulation opened the access to the international market for lager companies, which oriented banks towards companies that relied more on the shaky grounds of real estate as collateral. In the background, the appreciation of the yen, particularly after the Plaza Accord, further pressured certain companies to come up with solutions, which was in turn met with suboptimal choices, as the focus went into the most salient options available at that present time, which promised profit and faster solutions (e.g. diversification, as reported by one case) despite the dangers that came with them at a closer look. Eventually, this backfired, as it translated into large losses.

While the bubble environment, which brimmed with triggers and a "festival" atmosphere (as described by one of the respondents within a different topic/question), mainly came through via the "bubble context" theme, which particularly focused on the real estate bubble at that time, it is relevant to point out that for this topic, by the nature of what was inquired, the weight visibly fell onto the national measures implemented then, particularly when united with the "Japan and the U.S.," and the "liberalization" themes that also come down to the decisions taken nationally. Thus, this comes as natural within the borders of the current topic. However, it equally becomes relevant to understand

Figure 2. Question 8: themes

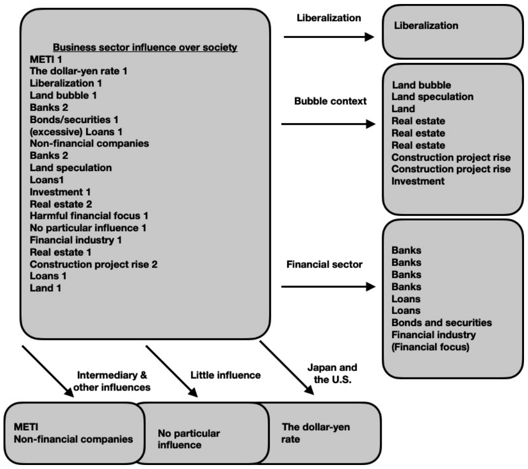
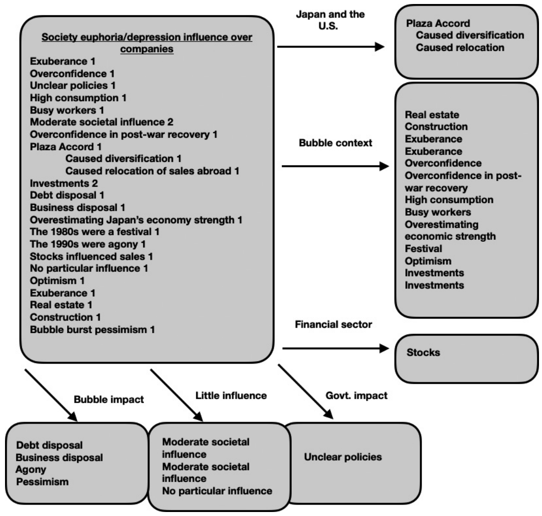


Figure 3. Question 9: themes



that while a majority of what makes the theme related to “national measures” points to detrimental aspects, not everything was considered so, as for instance some accounts showed appreciation for the industrial restructuring initiated at that time, as well as the help offered to companies (other than bailouts).

Next, came the topic corresponding to the eighth question, focused on the influence the business sector was perceived to have had on the overall society, in light of its importance in the context of the economic bubble and the consequences attached to such a dynamic. Here, there are two main themes that came out: the “bubble context,” and the “financial sector.” In other words, the indirect narrative line uniting them in the context of the present topic seems to be that the most salient aspects considered to have influenced the society are mainly real estate and constructions, alongside the financial sector. An account of “investment” also becomes part of the bubble depiction in the context of influencing factors, which marks the gradual introduction of its relevance within the analyzed period.

Overall, while the salience of these two main themes finds itself confirmed by the evolution of the bubble, which eventually saw the price of land/real estate rise to unusually high peaks, it is also relevant to understand that the two themes mainly come forward in the context of which involvement of the analyzed companies with these industries led to significant losses in the subsequent crisis period, as was reported as part of the following topics inquired about.

The ninth question of the survey corresponded to the other side of the coin of influence between society and the business sector, as, this time, the focus changed to the societal impact over companies. Here, although several other connected theme streams accompanied the main one — which saw returns to the negative bubble impact over companies, or the Plaza Accord —, and some accounts

Figure 4. Question 10: themes

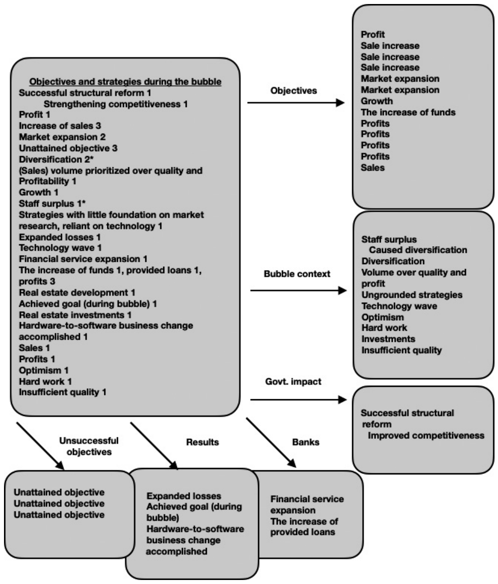
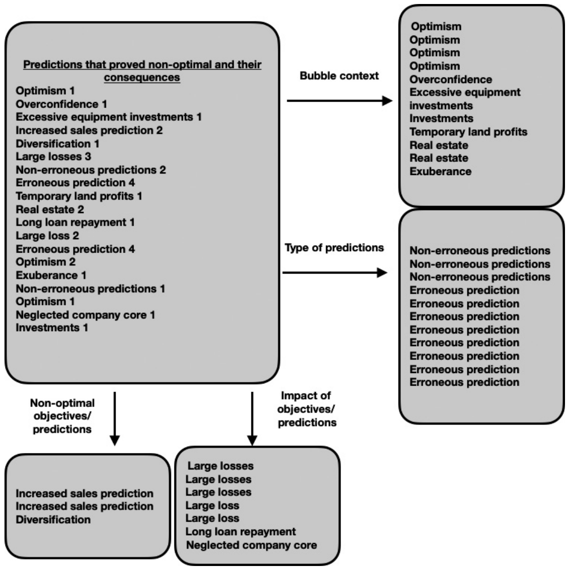


Figure 5. Question 11: themes



reported no particular societal influence, the focus largely channeled onto one single main theme, that of the bubble environment and its characteristics. As acknowledged by certain accounts, too, (with the bubble being considered a "corporate bubble") but also backed to a certain extent by the developments of the analyzed period which saw consumers have a comparatively lower influence on the bubble outcomes, the corporate sector had arguably most influence on the overall environment of the period analyzed. This would lead one to believe that perhaps the codes corresponding to this theme have been to a certain extent associated with the respondents' most immediate perceived societal influence, which is that of the business sector.

As opposed to the previous composition of the "bubble context" theme, the codes that build it in the given context refer to the overall euphoric atmosphere that dominated those years. Thus, with the exception of singular codes reminding of real estate and construction, respectively, the focus falls on the euphoria dominating the environment of the bubble. This finds itself translated into codes like "overconfidence," "exuberance," "investments," as well as overall excesses whether in terms of forecasts, consumption, or work.

Overall, while this may appear natural in the analyzed period, and perhaps unavoidable, in the context of which much of what makes up the current theme can be translated into cognitive biases or as triggers leading to cognitive biases via the vast range of stimuli to which decision-makers were exposed to, this may reveal an angle of the economic bubble that has not yet been much explored until now in connection to the Heisei bubble. Furthermore, not only does this uncover a new potential angle from which to understand such dynamics, but in the context of which cognitive biases are human aspects that can be changed via simple measures, this may also uncover a novel approach to preventing similar developments in the future.

The next topic, established by the tenth question, focuses on corporate objectives and strategies during the economic bubble. While smaller-sized themes include the types of results that companies had in light of their corporate aims — with a bigger overall share of registered losses —, alongside some of the details that were considered relevant by the survey corporate representatives connected to either governmental initiatives or the expanded financial services provided at that time, the two main themes that come forward are the actual variety of corporate objectives, as well as what makes up the bubble context in this particular framework.

Although not surprising to find sales and profit within the theme of corporate objectives, what comes across as peculiar, and also specific to perhaps most economic bubbles, is the expansion tendency, marked by words like "increase" and "expansion." The "bubble context" theme for this topic appears to complete the overall picture of goal extension beyond steady thresholds, by also pointing to the downsides that seemed to accompany such attempts. Specifically, via its composition, the theme points to insufficiency within certain areas (e.g. quality at the expense of volume), as much as overextension in other ones ("hard work," staff surplus). Under these circumstances, it becomes apparent that the objectives undertaken were not optimal, which points again to the potential one may find in aiming to first improve given human tendencies under the influence of triggers and how that and the corresponding decision-making may be addressed if cognitive biases serve as a starting point.

The eleventh question assigns the following topic, that of predictions that were eventually found to be non-optimal and the consequences that came along with them. Here, in light of the answers given to this specific inquiry, one may first consider the "type of predictions" theme in light of the number of code reinforcement it relies on, which points to the shares of erroneous versus non-erroneous predictions — with the former weighing significantly heavier, almost three times the amount of those qualified as non-erroneous —. Based on the same code composition criterion, the "bubble context" may come up as the next theme choice to consider. However, the other two smaller-sized themes, that look into the details of the content inquired about, may be considered of more consequence, as they offer more substance than the overall sketch that assigns shares in the case of "type of predictions," or the overall context, which though very important, doesn't immediately respond to the core of the topic. The two themes inform about some of the non-optimal objectives that were targeted (with two examples associated with "increased sales prediction," and one corresponding to "diversification"). While this additionally underscores the optimism and over-expansion tendencies that the bubble increasingly encouraged, it is important to take into account that, when considering the entire content of the survey, investments in bubble assets also came up as a general reality of the analyzed corporate accounts. The other smaller-sized theme focused on the type of impact that

Figure 6. Question 12: themes

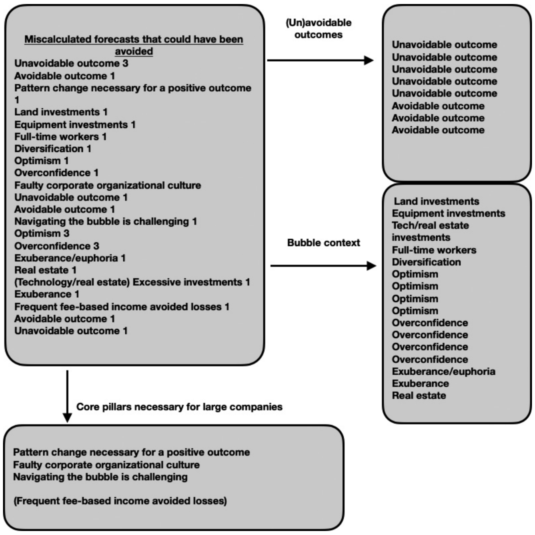
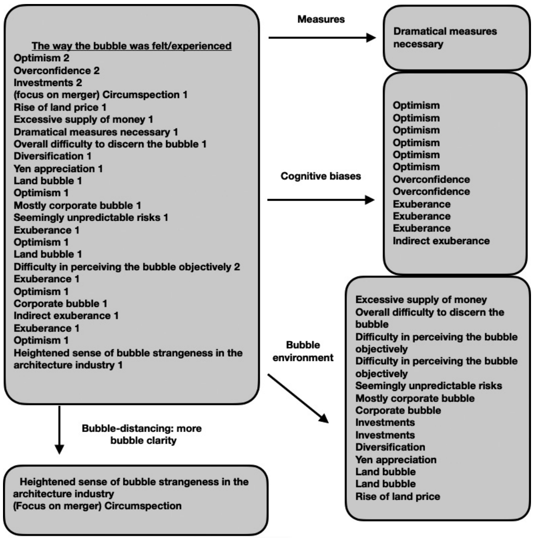


Figure 7. Question 13: themes



corporate objectives had on the longer term may come as an indirect confirmation of this investment tendency either beyond the main business core or beyond the necessary threshold. This theme points to the large corporate losses reported by respondents, with two specific causes found in "long loan repayment," and "neglected company core."

As for the composition of the "bubble context" within the frames of this topic, it points again to the tendency towards excess, whether translated into the code "optimism" reinforced four times, "investments," or "exuberance" and "overconfidence." The real estate sector also reclaims its place as what one may consider an important trigger.

The twelfth inquiry brings forward the topic of the degree to which certain miscalculated forecasts were thought to be avoidable. In this case, the "(un)avoidable outcomes" theme is further rounded by that of "core pillars necessary for large companies," as the former points to the more dominant sense of unavoidability of outcome (five against three), while the latter brings forward suggestions in hindsight of what might have been necessary for a change of course to occur during the bubble years. Specifically, the changes underlined, whether directly or indirectly, propose a change of pattern, measures across the internal corporate culture, or perhaps more cautiousness in light of the challenges posed by "navigating the bubble."

Those challenges seem to be further summed up in the "bubble context" theme of this section, in the case of which "optimism" and "overconfidence" codes dominate (four cases each), alongside the recurring, semantic or latent, mentions of exuberance, investments and bubble assets.

Finally, the last main question thematically analyzed directly inquires about how the bubble period was perceived. Here, in light of the accumulation of codes that pointed to the human side of the bubble euphoria, what otherwise may have previously been found in the "bubble context" together with other aspects specific to it, has been set aside to make up the "cognitive biases" theme, consisting of reinforced codes like those of "optimism" or "exuberance." Nonetheless, the "bubble environment" theme, which this time reunites a mix of codes pointing to bubble assets, the financial sector, investments, as well as a strong sense of difficulty associated with objectively discerning the pitfalls of the bubble may be considered an extension of the same idea that goes back to the human side of decision-making and the potential that may be found in exploring this angle more for future improvements. The "bubble environment" also includes two codes accounting for the importance of the corporate sector in the context of the Heisei bubble ("corporate bubble").

The small-sized "measures" theme further points to the sense of difficulty to be objective at such time, as "dramatical measures" are thought to be necessary, a confirmation of the strong sense of difficulty to objectively discern the characteristics of the bubble. This, again, points to the important potential of approaching the root human side of decision-making first. Furthermore, the "bubble-distancing: more bubble clarity" theme directly points to what may be considered a main broad direction towards the measures that can prevent the possible highs of a bubble based on the approach that stems from the human side of decision-making. As its name suggests, this relates to the goal of creating a sense of distancing from the bubble. Two specific examples arise in this sense. One is represented by a company focused on an ongoing merger — which distanced it from the waves of the bubble; consequently the bubble exercised little influence on its decision-making, just as in the case of the pillars followed by the managers in the set of interviews reviewed by Ishikawa (2011) —. Another example is represented by a company that distanced itself from the bubble euphoria via the nature of the field of work, which didn't involve direct exposure, but also via the goal behind the company which was mainly personal, which further contributed to the same outcome. Such examples are perhaps the first visible steps that encourage one to explore the solutions associated with what appears to come out as a recurring and thus important theme across the analyzed content: the root human side of decision-making, reflected in the analysis by tendencies like optimism, overconfidence, propensity towards more risk (e.g. diversification), and a general sense of exuberance. In other words, the paper points to the importance of understanding what caused the decision-making attributed to the negative corporate and therefore national economic impact that followed after the burst of the bubble via exploring the human tendencies, or cognitive biases, behind them which may be associated to skewed decisions in the context of exposure to strong triggers, as those associated with the bubble are.

References:

Aoki, M. and Dore, R. (1994). *The Japanese firm. The sources of competitive strength.* New York: Oxford University Press.

Boyatzis, R. E. (1998). *Transforming qualitative information: Thematic analysis and code development.* Sage Publications, Inc.

Braun, V. & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3(2).

Braun, V. & Clarke, V. (2012) Thematic analysis, in H. Cooper, P. M. Camic, D. L. Long, A. T. Panter, D. Rindskopf, & K. J. Sher (eds.), *APA handbook of research methods in psychology, Vol. 2: Research designs: Quantitative, qualitative, neuropsychological, and biological* (pp. 57-71). Washington, DC: American Psychological Association, Available at https://www.researchgate.net/publication/269930410_Thematic_analysis (Accessed September 4, 2022).

Braun, V., Clarke, V. & Weate, P. (2016). "Using thematic analysis in sport and exercise research," in B. Smith & A. C. Sparkes (eds.), *Routledge Handbook of Qualitative Research in Sport and Exercise* (pp. 191-205). London: Routledge.

Fugard, A. J. B. & Potts, H. W. W. (2015). Supporting thinking on sample sizes for thematic analyses: a quantitative took. *International Journal of Social Research Methodology,* Vol. 18, Issue 6.

Gordon, A. (2013). *A modern history of Japan. 3rd international edition.* New York: Oxford University Press.

Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough?: An experiment with data saturation and variability. *Field Methods.*

Hamada, K. (1996). Capital movements between the U.S. and Japan. In: Noguchi, Y. and Yamamura K. eds. *U.S.-Japan Macroeconomic Relations. Interactions and Interdependence in the 1980s.* 1st ed. Seattle and London: University of Washington Press.

Ishikawa, T. (2011). Japan's Bubble, deflation, and long-term stagnation. Review of an oral history study. *ESRI Research Note,* No. 19.

Ito, T. (1996). *The Japanese economy.* 6th ed. Cambridge and London: The MIT Press.

Ito, T. (2004). "Retrospective on the bubble period and its relationship to developments in the 1990s," in Saxonhouse, G., R. & Stern, R., M. (eds.) *Japan's lost decade. Origins, consequences and prospects for recovery.* Masaachusetts, Oxford, and Victoria: Blackwell Publishing.

Itoh, M., Koike, R. and Shizume, M. (2015). Bank of Japan's monetary policy in the 1980s: a view perceived from archived and other materials. *IMES Discussion Paper Series,* 2015-E-12.

Kiger, M., E. & Varpio, L. (2020). Thematic analysis of qualitative data: AMEE Guide No. 131. *Medical Teacher.*

Kuzel, A. J. (1992) Sampling in qualitative inquiry, in B.F. Crabtree W.L. Miller (eds): *Doing qualitative research. Research Methods for Primary Care,* Vol. 3. London: Sage Newbury Park.

Nathan, J. (2006). *Japonia descătuşată: Drumul unei naţiuni către redescoperirea respectului de sine şi a idealurilor sale.* Bucharest: BIC ALL. (translated by Vlad, M. A.)

Noguchi, Y. (1994). The "Bubble" and Economic Policies in the 1980s. *The Journal of Japanese Studies, Summer,* vol 20, No. 2.

Noguchi, Y. (1996). Macroeconomic policies and asset price inflation. In: Noguchi, Y. and Yamamura K., eds., *U.S.-Japan Macroeconomic Relations. Interactions and Interdependence in the 1980s.* 1st ed. Seattle and London: University of Washington Press.

Ohno, K. (2018). *The history of economic development.* London and New York: Routledge Taylor & Francis Group.

Ohno, K. (2018). *The history of Japanese Economic development.* London and New York: Routledge.

The New York Times Archives (1989) *Japan buys the center of New York.* Available at https://www.nytimes.com/1989/11/03/opinion/japan-buys-the-center-of-new-york.html (Accessed September 2, 2022).

Wood, C. (2005) *The bubble economy.* 1st edition. Jakarta: Solstice Publishing.

Annexes:

Figure A1. Factors considered very important for profitability

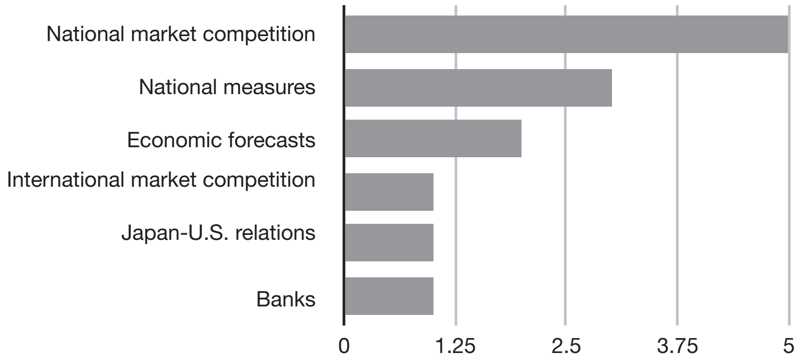


Figure A2. Factors considered important for profitability

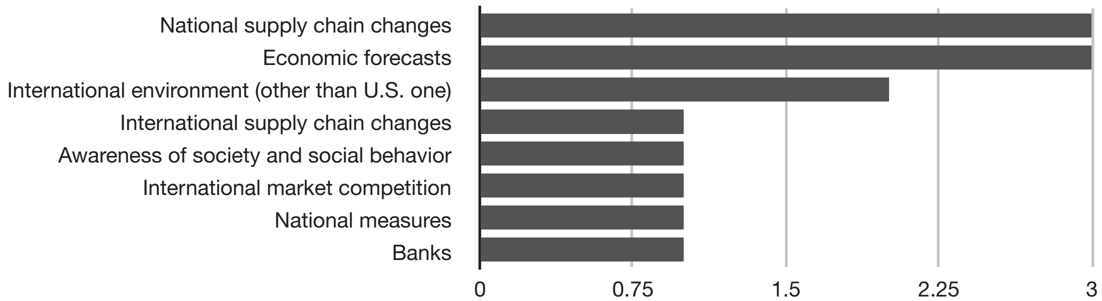


Figure A3. Factors considered moderately important for profitability

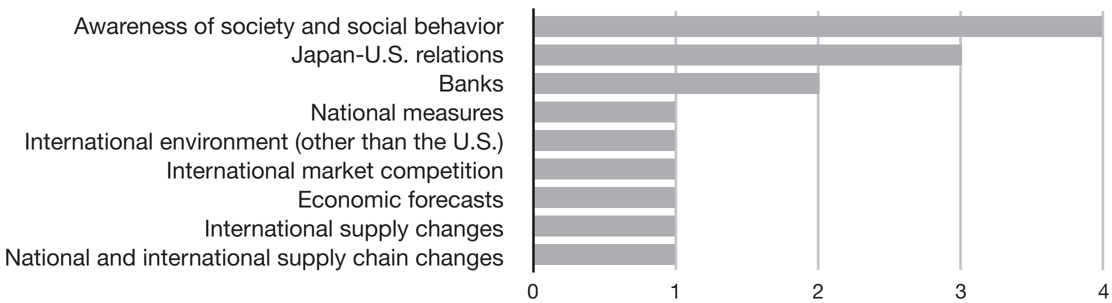
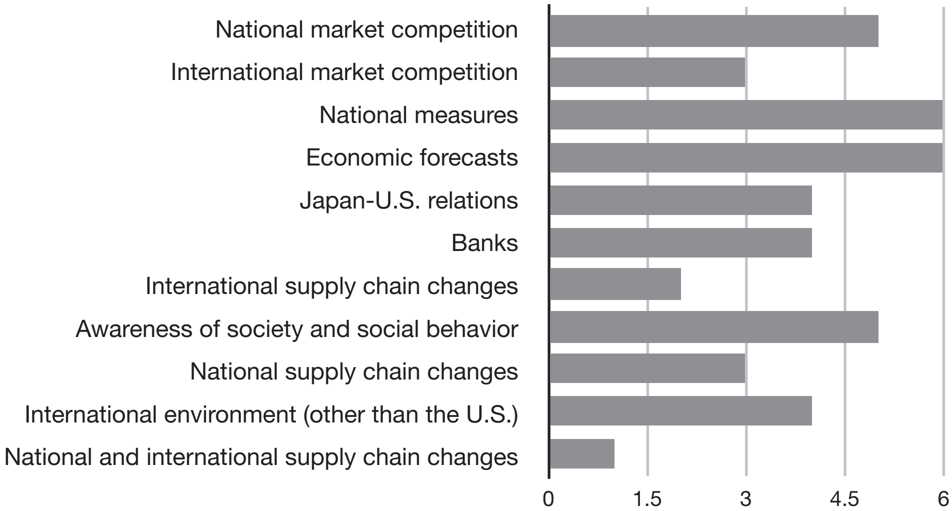


Figure A4. All factors considered important for profitability



The corporate perception of the Heisei bubble and its consequences.

Table A1. Codes by question

Industry	Number of companies	('80s and '90s) Policy influence over companies	Business sector influence over society	Society euphoria/ depression influence over companies	Objectives and strategies during the bubble	Predictions that proved non-optimal and their consequences	Miscalculated forecasts that could have been avoided	The way the bubble was felt/experienced	Sidenotes
Manufacturing	6	**Industrial restructuring 1** **The Plaza Accord 2** [the dollar-yen rate; price of the yen] **Yen price 2** **Liberalization 1** **Public investments 1** (SMEs included) **Company help 1** **Excessive regulation 1** [help from the government funds that was extended even to bankrupted companies] **Governmental bankruptcy bailouts 1** **Lowering the official discount rate 1** **land bubble 1** **diversification 1**	**METI 1** **The dollar-yen rate 1** **Liberalization** 1 ["sudden rise of land"; "the excessive supply of bank money"] **Land bubble 1** **Banks 2** **Bonds/securities 1** ["excessive lending of financial instruments"] **(excessive) Loans 1**	["spending money mostly on entertainment"] **Exuberance 1** **Overconfidence 1** **Unclear policies 1** **High consumption 1** **Busy workers 1** **Moderate societal influence 2** **Overconfidence in post-war recovery 1** **Plaza Accord 1*** **Caused diversification 1*** **Caused relocation of sales abroad 1***	**Successful structural reform 1*** **Strengthening competitiveness 1*** **Profit 1** **Increase of sales 3** **Market expansion** **Unattained objective 3** **Market expansion 1** **Diversification 2*** **(Sales) volume prioritized over quality and profitability 1** **Growth 1** ["serving as measure for the surplus of employees"] **Staff surplus 1*** **Strategies with little foundation on market research, reliant on technology 1** **Expanded losses 1** **Technology wave 1**	["increased sales were predicted"] ["excessive (…) investments"] **Optimism 1** **Overconfidence 1** **Excessive equipment investments 1** (Proved wrong) **Increased sales prediction 2** **Diversification 1** **Large losses 3** **Non-erroneous predictions 2** (non-optimal relocation timing & Insufficiently powerful (internationally targeted) internal corporate reforms + 2 x increased sales) **Erroneous prediction 4** **Temporary land profits 1**	**Unpredictable/unavoidable outcome 3** **Avoidable outcome 1** **Pattern change necessary for a positive outcome 1** **Land investments 1** **Equipment investments 1** **Full-time workers 1** ["diversified businesses with little foundation"] **Diversification 1** **Optimism 1** **Overconfidence 1** (Large companies) **Faulty corporate organizational culture**	["nothing other than the enthusiastic investments caused a serious impact"] ["can't think *of* (…) any leader (…) that predicted the collapse"] **Optimism 2** **Overconfidence 2** ["enthusiastic investments"] [the bubble was an economic catastrophe "around the finance, infrastructure, housing or investment] **Investments 2** [wait-and-see attitude towards out-of-ordinary situations] (Focus on merger) **Circumspection 1** **Rise of land price 1** **Excessive supply of money 1** **Dramatical measures necessary 1** **Overall difficulty to discern the bubble 1** **Diversification 1** **Yen appreciation 1** **Land bubble 1**	**Business-core focus prevented large bubble influence 1**
Finance and Insurance	4	**Deregulation 2** **Loans 1** **Financial liberalization 2** **Regulations of the real estate sector 1** **Trade friction between Japan and the U.S. 1** **Real estate**	["non-bank companies"] **Non-financial companies** ["the excessive credits that are offered"] **Banks 2** **Land speculation** ["making loans directed at investing"] **Loans1** **Investment 1** ["the companies that focused on the financial and real estate"] **Real estate 2** **Harmful financial focus 1**	(ignored analysis of investments) **Investments 2** **Debt disposal 1** **Business disposal 1** **Overestimating Japan's economy strength 1** **The 1980s were a festival 1** **The 1990s were agony 1** **Stocks influenced sales 1**	**Financial service expansion 1** **The increase of funds 1, provided loans 1, profits 3** **Real estate development 1** **Achieved goal (during bubble) 1** ["develop several fields of business (…) emphasis on real estate"] **Real estate investments 1**	**Real estate 2** **Long loan repayment 1** (big miscalculation, "heavy losses") **Large loss 2** (Unexpected sharp rise of real estate; small and large depending on the financial company size; more focus on real estate than necessary; the impact of the bubble was underestimated though to a certain extent predicted) **Erroneous prediction 4** ["was expected to go down, but not to the extent it did"]; ["its (/the bubble) impact was underestimated"] **Optimism 2** ["more focus on real estate than it was necessary"] **Exuberance 1**	**Unavoidable outcome 1** **Avoidable outcome 1** **Navigating the bubble is challenging 1** ["attitude towards customers could have been more cautious"] ["in search for profitability, those limits were ignored"] ["during the bubble, (…) it's hard to respond only to results. There is a limit to forecasts during an euphoria"] **Optimism 3** **Overconfidence 3** **Exuberance/euphoria 1** [the industries developing golf fields and apartments (…) plunged forward] **Real estate 1**	["It was thought that the recession (…) and the small-scale real estate price fall would recover in a short period (…) even the bubble was thought to correct itself within a short time"] **Optimism 1** ["The corporate world felt most of the bubble. The defenses were weak (…) can't be helped but to think that the risks couldn't have been predicted"] **Mostly corporate bubble 1** **Seemingly unpredictable risks 1** ["There was no moderation across the entire Japan, so we entered a land bubble (…)" There were maybe people who thought it was strange, but the flow swallowed everyone"] **Exuberance 1** **Optimism 1** **Land bubble 1** **Difficulty in perceiving the bubble objectively 2** ["The people who rode the bubble wave were content. The problem was that everyone thought it would last forever. Companies were the ones that decided the fate of when the bubble would end, I think."] **Exuberance 1** **Optimism 1** **Corporate bubble 1**	**Large company regulation obscured their impact on the bubble 1**
Information and communication	1	**No particular influence 1**	**No particular influence 1**	**No particular influence 1**	**Hardware to software business change accomplished 1**	**Non-erroneous predictions 1**	-	**Indirect exuberance 1**	
Construction and architecture	2	**Non-effective land bubble measures 1** Outside the main topic: ["development of golf fields, national and international resorts etc."] ["rise of construction costs and the insufficient manpower"] **Construction project rise 2** **Construction workforce scarcity 1** **Real estate 1** **Internal technology development 1**	(Influence) **Financial industry 1** **Real estate 1** ["even think-tank planning companies began large-sized projects"] **Construction project rise 2** (projects founded on) **Loans 1** ["land equaled having money"] **Land 1**	["groundless optimism"; "don't think there was a sense of logic as to where the companies will be in the future"; "money to waste"; "the end of the 1990s didn't bring the economic growth that was hoped for"] **Optimism 1** **Exuberance 1** **Real estate 1** **Construction 1** **Bubble burst pessimism 1**	(trillions-worth sales) **Sales 1** **Profits 1** **Optimism 1** **Hard work 1** ["It was rather that time was running out, and that it was hard to raise the quality of each and every architectural project"; (for luxurious design)"the architectural design quality wasn't high"] **Insufficient quality 1**	["the company floated on positive economic forecasts"] **Optimism 1** **Neglected company core 1** ["because it wasn't like we have particularly invested much, we didn't register substantial losses"] **Investments 1**	["excessive investments" "If wasteful investments had been avoided and the company's strength would have been preserved, further investments for the purpose of growth could have been made"] (Technology/real estate) **Excessive investments 1** **Exuberance 1** **Frequent fee-based income avoided losses 1** **Avoidable outcome 1** **Unavoidable outcome 1**	["get caught up"] **Exuberance 1** ["exceeded one's expectations/imagination"] **Optimism 1** **Heightened sense of bubble strangeness in the architecture industry 1**	**Failure of governmental countermeasures 1** **Symptom focus of measures 1** **Short-sighted government 1** **Recovery held down by traditional views 1** **Looking up to the U.S. 1**