

Impact of the financial crisis on household perception : The case of Japan and the United States

浦川, 邦夫
九州大学大学院経済学研究院

木成, 勇介
九州大学大学院経済学研究院

<https://hdl.handle.net/2324/20070>

出版情報 : 経済学研究院ディスカッション・ペーパー, 2011-10. Faculty of Economics, Kyushu University
バージョン :
権利関係 :

Impact of the financial crisis on household perception

– The case of Japan and the United States –^a

Kunio Urakawa (Kyushu University)

Yusuke Kinari (Kyushu University)

–Abstract–

In this study, we attempted to examine how the financial crisis in the latter half of the 2000s affected household perceptions such as the sense of a change in inequality. Using microdata collected from a nationwide internet survey in Japan and US conducted in 2011, we investigated what kind of people feel that the level of disparities in income and assets increased because of the financial crisis. Results showed that the influence of the respondents' social status on perception of inequality differs between residents of the two countries. Japanese respondents are more likely to perceive a sense of increased disparity than those of the US.

1. Introduction

During the 1990s and 2000s, an increase in income disparity and poverty was shown by various indicators in Japan. According to recent data in *Report on Social Welfare Administration and Services* published by the Ministry of Health, Labor, and Welfare (MHLW), 2,022,333 people in Japan received welfare benefits in March 2011, exceeding two million for the first time in 59 years.¹ The *Survey of Household Finances (2009)* of the Statistics Bureau of the Ministry of Internal Affairs and Communications (MIC) reports that the percentage of households having no savings at all reached approximately 20%. OECD International Statistics indicate that Japan's Gini coefficient during the 2000s remained slightly higher than the OECD average (Fig. 1).

Numerous studies, including those of Tachibanaki (2005), Ohtake (2005), Shirahase (2006), Tachibanaki and Urakawa (2006), and Oshio and Urakawa (2008), have reported the causes and characteristics of income disparity and poverty.

Ohtake (2005) pointed out changes in household composition such as an increase in the elderly and one-person households as a cause of the growing income disparity during the 1900s. Abe (2006) and Oshio and Urakawa (2008) state that the redistribution effects of the current tax

^a This paper is financially supported by the Kyushu University Interdisciplinary Programs in Education and Projects in Research Development.

¹ *Report on Social Welfare Administration and Services* published by the Ministry of Health, Labour, and Welfare (approximate figures from March 2011 issue)

<http://www.mhlw.go.jp/toukei/saikin/hw/gyousei/fukushi/m11/03.html>

system and social security system are not fully functioning for the working generation.

In addition to the increasing amount of analysis undertaken to explain the reality of income disparity and particularly addressing the effect of redistribution policy, such analyses of people's attitudes toward income disparity describing how they perceive it have been drawing attention in recent years.

Kelley et al. (2004), for instance, used International Social Science Survey Australia (ISSA-Pool) to investigate popular attitudes about income disparity. The analysis reveals that no significant changes occurred in Australian people's perceptions of income disparity even though the country's Gini coefficient rose substantially from the 1980s to the mid-2000s.

In Japan, Ohtake and Takenaka (2007) used panel research results obtained by the Osaka University 21st Century COE Program (2004–2006) to compare attitudes about income disparity between the US and Japan and to examine the relation between the actual changes in income disparity and people's perceptions. The results suggest that, despite a statistically greater increase in income disparity in the US than in Japan, a larger percentage of Japanese respondents predicted or recognized the increase than their US counterparts did. The analysis also revealed a tendency of respondents with higher educational background or higher income in both surveys in the US and Japan to be more sensitive about the increase in disparity than others.

The inconsistency between the actual disparity measured based on objective indicators and people's attitudes toward disparity implies that people's subjective assessment of disparity must be considered in addition to objective indicators such as the Gini coefficient when examining the effect of income disparity on people's economic behavior. Recent studies have revealed a close connection between an increase in the sense of inequality and people's health. Siahpush et al. (2010), for instance, identified a significantly higher percentage of smokers among respondents who strongly sensed the inequality.²

Formation of the sense of inequality is expected to affect the government's collective decision-making in such matters as redistribution policy, and research to explain the mechanism is an important analytical issue together with the causes of the actual income disparity. In Japan, however, reports of studies assessing attitudes related to disparity remain scarce in the literature. The previously described analysis of Ohtake and Takenaka (2007) was performed before the financial crisis occurred in the latter half of the 2000s, which constituted a major

² Various analyses and arguments have been made in relation to the actual effect of income disparities on residents' health. Shibuya, Hashimoto and Yano (2002) reported a lack of a significant relation between the Gini coefficient and subjective level of health. Oshio and Kobayashi (2010) used JGSS and *the Comprehensive Survey of the Living Conditions, Health and Welfare of the People* to demonstrate that greater income inequality in a community is associated with a lower subjective level of health reported by its residents.

macroeconomic shock.

On September 29, 2008, the Dow-Jones industrial average on the New York Stock Exchange recorded its greatest single-day decline in history, 777 dollars, which was followed by a global decline in stock prices. Such a series of phenomena has been cast as a global financial crisis, which continues to have a considerable impact on global economic trends. Attitudes about income disparity might have changed in various ways in both the US and Japan since the financial crisis.

Accordingly, this study specifically examines the financial crisis that began in the US in the latter half of the 2000s as a case study to examine the macroeconomic impact of the financial crisis and its relation with attitudes toward disparities in income and assets based on data from questionnaires. As described later, the effects of the financial crises on employment and distribution of income and assets differ between the US and Japan, which can present different characteristics of the formation of a sense of inequality between the two, as discussed in the study.

This report is structured as follows: Section 2 briefly describes the data used for the analyses.

Section 3 presents an investigation of the differences between the US and Japan in the changes in financial assets during the financial crisis. We also examine how the respondents to questionnaires in the US and Japan perceive changes in the value of financial assets.

Section 4 presents two hypotheses—one for the effect of the primary (direct) damage and the other for the effect of the secondary (indirect) damage—related to the formation of a sense of inequality caused by the financial crisis, along with an econometric analysis based on ordered probit. Subsequently, we present a comparison between the US and Japan of characteristics of perception of income and asset disparities before and after the financial crisis.

Section 5 describes the results of the estimation and states some issues to be addressed in future studies.

2. Dataset

Our research draws its dataset from the “Survey on Financial Behavior of Households” (Japanese and United States editions) conducted from March 24 to 31, 2011, by the internet research company “goo research” and funded by Kyushu University. The target group consisted of individuals ranging in age from their thirties to sixties.

The Japanese edition of the survey was distributed to 3,691 persons, of whom 823 responded, with a response rate of 22.3%. The US edition was distributed to 1,226 persons, of whom 800 responded, with a response rate of 65.3%. This research excludes respondents who did not answer questions specific to this analysis, such as income and/or assets. Therefore, the sample size was 558 Japanese respondents and 640 US respondents.

Contents of questionnaires for both countries were identical. Accordingly, we can examine the change in households' financial wealth and the impact of the financial crisis on life satisfaction along with attitudes regarding disparity in income or assets and approaches to investment management.

Table 1 shows sample statistics for the main variables in Japan and the US by gender. Sample statistics are shown for "age group," "with or without spouse," "regional area," "labor status," "academic background," "income," "wealth," "change in household income over the past five years around the time of financial crisis," "change in household assets over the past five years around the time of financial crisis," "levels of proprietary assets," "level of asset portfolio," "consciousness about the problem of disparity," "sense of enlarged income inequality," and "sense of enlarged asset inequality."

"Change in household income over the past five years" is a dummy variable that takes 1 for respondents whose income decreased by more than 20% from 2005 (before becoming aware of the financial crisis) to 2010 (after the financial crisis), and 0 otherwise.

"Change in household assets over the past five years" is the same dummy variable as above.

The variable "levels of proprietary assets" consists of four types of dummy variables categorized by two standards: (1) whether household assets at this point are above (below) the average and (2) whether household assets decreased (increased) during the five years covered in this study. Group 1 shows responses among those for whom "wealth exceeds the average and increased or remained unchanged during the five past years." Group 2 shows responses among those for whom "wealth exceeds the average and decreased during the past five years." Group 3 shows responses among those for whom "wealth is below the average and increased or remained unchanged during the past five years." Group 4 shows responses among those for whom "wealth is below the average and decreased during the five past years."

In addition, "level of portfolio assets" is a dummy variable that shows how respondents diversify their financial assets. Respondents who diversify their household wealth among more than three types of financial assets other than deposit and savings accounts are accorded a 1, and a 0 otherwise.

Furthermore, this study compares the two countries' attitudes toward disparities in income and wealth; sample statistics for variables constructed from the questionnaire are shown in Table 1. The variable "awareness of the problem of income equality" is a dummy variable derived from the survey question "Do you think it will be a problem if the income gap in the US (or Japan) expands? Please select the answer that applies from the following." Dummy variables for respondents answering "Will be a big problem" or "Will be somewhat of a problem" were valued at 1, and 0 otherwise.

As Table 1 shows, the percentage of US respondents conscious of disparities in income and

assets is larger than that of Japanese respondents. This trend can be explained by several factors—e.g., unemployment ratio, Gini coefficient, and relative poverty ratios are higher in the US than in Japan, and awareness of increased financial disparity and poverty is growing in the US. In any case, the percentage of respondents regarding increased inequality as a problem exceeded 70% in both countries.

“Perception of income inequality” is a dummy variable derived from the question “In the five years covered in this study, how do you think the following gaps have changed? [Earnings and income inequality]” Respondents answering “Increased” or “Somewhat increased” are applied to 1, and otherwise 0.

In the case of Japan in Table 1, the percentage of respondents answering that income disparity increased (or somewhat increased) surpassed 70% and is higher than that in the case of US. Namely, as Ohtake and Takenaka (2007) showed, income disparity is statistically greater in the US than in Japan, but the sense of increased inequality during the five years covered in this study in Japan is somewhat greater than in the US. This trend is the same for respondents’ perceptions of asset inequality.

We compare the two countries (Japan and US) regarding the formation of a sense of inequality by using the above variables. When we estimate, we focus on the bias of some variables and use econometric methods similar to those used by Ohtake and Takenaka (2007).

3. Changes in the value of financial assets before and after the financial crisis

To examine the effect of the financial crisis on the formation of the sense of inequality, the following first describes the macroeconomic effect of the financial crisis on employment and the value of households’ financial assets.

First in the US, from whence the global financial crisis originated, the Dow-Jones industrial average on the New York Stock Exchange rose to about 13,600 dollars through May 2007. It plunged 777 dollars on September 29, 2008, marking the largest fall in history, as a result of the bankruptcy of Lehman Brothers Holdings, a large securities company. By February 2009, the price further declined to approximately 7,000 dollars, which caused a substantial decline in the financial asset balance of individuals: from 49.0 trillion dollars in the first quarter of 2008 to 39.6 trillion dollars in the first quarter of 2009.

In April 2011, the Dow-Jones industrial average recovered again to 12,810 dollars. Employment, however, remains in an extremely difficult situation, with the unemployment rate in the US of 9.64% in 2010.³

As an effect of the financial crisis in the US on Japan, the Nikkei average tumbled from 18,000 yen in June 2007 to 7,500 yen in February 2009. During the so-called Black Week

³ IMF *World Economic Outlook* (April 2011 issue)

(October 6–10, 2008), when the effect of the financial crisis spread throughout the world, the Nikkei average slipped below 10,000 yen.

The balance of household financial assets decreased approximately 40 trillion yen from 1,493 trillion yen in the first quarter of 2008 to 1,451 trillion yen in the first quarter of 2009. In the first quarter of 2010, the balance recovered to 1,481 trillion yen, which, however, has not returned to the pre-crisis level.⁴

The major reduction in financial assets not only strongly affected institutional and individual investors investing in stocks and bonds. It had a negative impact on the economy and employment through reduced household consumption caused by a reverse wealth effect and decreased investment by companies. Teikoku Databank's data related to nationwide bankruptcy cases show that 12,681 companies went bankrupt in 2008, an increase of 16% from the prior year (2007). The unemployment rate, which was 4.0% in 2008, rose to 5.1% in 2009. The number of the unemployed workers peaked above 3.5 million. Factory closures and associated dismissal of workers, particularly the termination of the contracts for non-regular workers, became severe social problems.

Such rapid changes in economic conditions are likely to have affected the psychological state of households. Table 2 presents how the people of the US and Japan perceived changes in financial assets during the five years between 2005 and 2010 and how the value of financial assets changed based on results of the Survey on Financial Behavior of Households. According to Table 2, to Q3-5 of the questionnaire, "how much did household financial assets change in five years?," which asked about the respondents' impression of changes in financial assets, more respondents selected any of "slightly decreased," "decreased," and "substantially decreased" than "increased (any one of "slightly increased," "increased," and "substantially increased")" in both the US and Japan. A major difference, however, is that, in Japan, approximately 40% of the respondents selected "rarely changed", whereas in the US, more than half selected "decreased" (any one of "decreased," "slightly decreased," and "substantially decreased").

The same tendency was evident for answers to Q3-6-2 of the questionnaire, "how did the assessed value of the financial assets held in December 2005 change at the current point in time?," which asked respondents to assess the actual changes in the value of financial assets. Approximately 40% of the respondents in the US, had experienced "a decline of more than 20% in the assessed value of financial assets," suggesting a severe impact of the financial crisis involving the subprime loan issue on numerous US households. In contrast, approximately 40% of Japanese respondents selected "barely changed." Yet in Japan, too, approximately 10% of all respondents had experienced "a decline of more than 50%," and more than 30% of the

⁴ Bank of Japan *Flow-of-funds Statistics* <http://www.boj.or.jp/statistics/sj/index.htm/>

respondents had experienced “a decline of more than 20%.”

These results reveal the presence of households that had experienced significant changes in their income and financial assets at the time of the financial crisis. The next section presents examination of the effect of the financial crisis on attitudes about income disparity through econometric analysis after presenting multiple hypotheses.

4. Econometric Analysis

4.1 Setting for the hypothesis: impact of the financial crisis on the perception of inequality

When considering the impact of the financial crisis on the sense of inequality, we set the two following hypotheses and examine whether they are valid using econometric methods.

Hypothesis 1

The high-asset group whose financial assets declined in value during the period surrounding the financial crisis feels that asset disparity decreased during the five years covered in this study. The low-asset group whose financial assets declined in value around the time of the financial crisis feel that asset disparity increased during the five years covered in this study.

Hypothesis 1 focuses on the decreased asset value as the effect of primary (direct) damage. As described in the preceding section, the value of household financial assets decreased considerably. Although asset values have increased, they have not recovered to levels before the Lehman Shock. As Table 2 shows, an increased number of respondents experienced a decrease in asset values.

The low-asset group whose asset values decreased as a result of the financial crisis may feel increased asset inequality than others. On the other hand, the high-asset group may judge that asset inequality decreased as a whole because the value of their own assets decreased. Whether this hypothesis is correct would depend on what group respondents compare their assets with. If the high-asset group whose asset values decreased forms its sense of disparity by comparing itself with households whose asset values decreased or remained unchanged, they may judge that asset disparity increased during the period surrounding the financial crisis even if they are wealthy. It is possible that fluctuations in asset values differed in the US and Japan and thus we should examine the nature of such differences.

Hypothesis 2

The tenuously employed such as non-regular employees and unemployed persons are more likely to be damaged by employment adjustments resulting from the financial crisis. In addition,

they see increasing disparities in income and assets as an important problem and have a greater sense of increased income disparity.

The second hypothesis focuses on worsening economic conditions and the destabilization of employment, showing secondary (indirect) damage from declines in value of financial assets because of the financial crisis. It can be said that the effect decreasing employment is greater on non-regular workers such as dispatched workers, contracted workers, and day workers. Therefore, they are more aware of increased disparity than regular employees and tend to perceive increased income disparity.

As described in the preceding section, US unemployment remains high and the trend toward irregular employment is rising, as in Japan. As for Hypothesis 2, we investigate the difference between the two countries, as in Hypothesis 1.

4.2 Econometric model

In investigating these two hypotheses, we employ various dummy variables as independent variables. They include an age group dummy, a with-spouse dummy, a labor status dummy, a dummy for collegiate education, a dummy for change in income during the five years covered in this study, a dummy for levels of proprietary assets, a dummy for variety of financial assets, a dummy for equivalent household income, and a dummy for equivalent household wealth.

Three dummy variables are used as dependent variables: “Consciousness of the problem of inequality (PCI),” “sense of increased income inequality (SII),” and “sense of increased asset inequality (SAI).”

On the basis of the two hypotheses set forth in the preceding section, we define the econometric model as Eq. (1):

$$W_i = \alpha + \sum_k \gamma_k z_{k,i} + \sum_l \delta_l x_{l,i} + u_i \quad (1)$$

We primarily use ordered probit estimation. The dependent variable W_i shows the attitude toward disparity of respondent i . Three variables are used as each dependent variable: “Consciousness of the problem of inequality (PCI),” “sense of inequality (SII),” and “sense of asset inequality (SAI).”

In the survey, the question concerning “consciousness of the problem of inequality (PCI)” is as follows: “Do you think it will be a problem if the income gap in the US (or Japan) expands? Please select the answer that applies from the following.”

We transposed the five ordered items identified as 1 (will be a big problem) to 5 (will not be a problem at all) with rankings of 1 (will not be a problem at all) to 5 (will be a big problem) in order to ease the implication estimated results.

Regarding the questionnaire of “Sense of income inequality (SII)” “In the five years covered in this study, how do you think the following gaps have changed? [Earnings and income inequality],” we use the replaced ordered variable. Namely, we apply 5 to respondents answering “increased” and 1 to those answering “decreased.” We treat the dummy variable concerning formation of a sense of asset inequality as we do to the variable above. In addition, $x_{l,i}$ of Eq. (1) shows labor status, income, and changes in income and assets during the period surrounding the financial crisis of respondents themselves. We investigate how these variables affect the three dependent variables.

$z_{k,i}$ are control variables such as age group, with or without spouse, and academic background.

Summary statistics of variables used for the estimation are shown in Table 1 in Section 2. In addition, u_i is normal disturbance and $u_i \sim Normal(0,1)$ is assumed.

4.3 Estimated results

(I) Consciousness about the problem of inequality

First, Table 3 presents estimated results of the ordered probit estimation for the ordered variable of “consciousness about the problem of inequality (PCI).”

As explanatory variables, Model 1 employs age, age-squared, with or without spouse, academic background, labor status (five dummy variables), level of variety of financial assets, equivalent household income (derived by dividing household income by the square root of household size). Model 2 is nearly identical to Model 1, but instead of equivalent household income, we use a dummy variable for whether income decreased by more than 20% during the five years covered in this study. This variable, described in Section 2, takes the value of 1 for respondents whose income decreased by more than 20% from 2005 to 2010. In Model 3, three dummy variables for “levels of proprietary assets” are used instead of equivalent income. Definition of these variables appears in Section 2.

According to estimation results for Japan in Table 3, among all models, the spouse dummy is positive with statistical significance and the non-regular employment dummy is positive with statistical significance. In Model 2 and Model 3, the manager dummy is negative with statistical significance and the unemployment dummy is positive with statistical significance. In summary, groups whose labor statuses are insecure are concerned with increased disparities in income and assets.

Based on the negative statistical significance of the variable for equivalent household income, low-income respondents are more inclined to regard increased disparity as a problem than high-income respondents.

Furthermore, the dummy for respondents whose income declined by more than 20% is positive with 1% statistical significance. People who experienced a large decrease in income are

more inclined to regard increased income disparity as a problem than those whose income did not decrease. However, in examining the effect of the type of wealth class, it is not obvious that declining wealth affects attitudes toward disparity. Nevertheless, when comparing within the group whose wealth decreased substantially, the low-asset group is more aware of the disparity than the high-asset group. However, this effect is not large and not statistically significant even at 10% significance.

In examining estimation results for the US, we see that all dummy variables for spouse are negative and statistically significant in all models. The conclusion is that single households see increased disparity as a problem. This result is the opposite of the results for Japan.

In addition, the dummy for non-regular employment is not statistically significant. However, the variable for equivalent household income is negative and statistically significant, as for Japan (Model 1). The dummy for respondents whose income fell by more than 20% is positive and statistically significant among Japanese and US respondents. In Model 3, respondents whose financial assets increased or remained unchanged during the period surrounding the financial crisis tend not to see disparities in income and assets as a problem. This finding stands in contrast to respondents in Group 4, whose assets are below the average and decreased during the five years covered in this study.

(II) Sense of income inequality

Table 4 shows the estimated results for the case in which “sense of income inequality” is a dependent variable.

Among results for Japanese respondents, the dummies for spouse and collegiate attainment are statistically significant in all models. Those who perceive increased inequality during the five years surrounding the financial crisis have higher-level academic backgrounds and spouses. In Model 1, equivalent household income is not significant, so any difference in sense of disparity among income classes can be not clarified.

The similar trend is observable for the case in which “consciousness of the problem of inequality” is a dependent variable (Table 3). The variable representing respondents whose income fell by more than 20% is positive and statistically significant in Model 2. Respondents who suffered large declines in income have a higher sense of increased inequality than other respondents.

Concerning variables representing wealth class in Model 3—as Hypothesis 1 in the preceding section suggests—respondents in Group 3 (below average wealth/income increased or unchanged during the five years) have a lesser sense of increased inequality than respondents in Group 4 (below average wealth/income fell during the five years covered in this study.)

Estimation results for the US differ in several ways from Japanese results, except that the

dummy for collegiate attainment is positive and statistically significant in both countries. In Model 1, equivalent household income is positive with statistical significance. Therefore, it can be concluded that the high-income group has a greater perception of increased inequality than the low-income group. In addition, the dummy for non-regular employment is negative with statistical significance, so we can see that regular workers have a sense of increased inequality. These findings can be accounted for by the fact that disparities in labor conditions and compensation were greater, even among regular employees, during the period surrounding the financial crisis. The unemployment ratio remains high in the US, so this result may reflect that regular US employees perceive higher risk of unemployment because of the high opportunity cost. According to the estimated results, in Model 2, the dummy for the group whose income decreased by more than 20% is negative with statistical significance. In Model 3 for Group 1 and Group 2, it is positive with statistical significance. The high-asset group perceives a greater sense of increased inequality than the low-asset group, as was the case with income. We predict from the result that the high-income group and the high-asset group perceive a greater sense of increased inequality because their income and assets exceed those of other groups. However, as confirmed (Table 3) by the case featuring “consciousness of the problem of inequality” as a parameter, those who perceive increased inequality as a problem mainly belong to low-income groups and groups whose income declined during the period surrounding the financial crisis.

(III) Sense of asset inequality (SAI)

Table 5 presents the estimated results from the US and Japan for the case in which the ordered variable “sense of increased asset inequality (SAI)” is applied to a dependent variable.

According to Table 5, estimation results in the US and Japan are almost the same as the case in which “sense of income inequality (SII)” is a dependent variable (Table 4).

Namely, in Japan and the US, those with higher collegiate attainment perceive asset inequality to have increased during the five years covered in this study. This result coincides with that of Ohtake and Takenaka (2007).

In addition, the findings present a greater distinction between the two countries. Those who experienced a greater decline in wealth feel a sense of increased inequality compared to others in Japan, whereas those who did not experience a decline in their wealth also perceive a sense of increased inequality. This is not the case in the US.

The dummy variable for “variety of financial assets” is negative with statistical significance in Japan, but it is not statistically significant in the US. In the case of Japan, those who converted to constant-dollar financial assets such as bank deposits, perceive greater asset inequality than others.

In summarizing these estimated results for Japan and the US, we point out the following. First,

in Japan for the case in which “sense of increased asset inequality (SAI)” is a dependent variable, those who experienced a large decrease in asset values during the period surrounding the financial crisis feel a sense of increased disparity. This result supports Hypothesis 1: the low-asset group who experienced a decrease in assets perceives a sense of increased inequality.

When “consciousness of the problem of inequality” is a dependent variable, the dummy for non-regular employment is statistically significant. This result supports Hypothesis 2: the tenuously employed are more likely to see increased inequality as a problem.

In the US, when “sense of increased asset inequality (SAI)” is a dependent variable (Table 5), those whose assets increased or remained unchanged more highly perceive a sense of increased asset inequality. Accordingly, Hypothesis 1 is supported.

However, when “consciousness of the problem of inequality (PCI)” is a dependent variable, the low-asset group whose assets decreased sees greater inequality as a problem. Therefore, Hypothesis 1 is partially supported. Furthermore, in Model 1, equivalent household income is negative with statistical significance, whereas in Model 2 and Model 3, it is not statistically significant. Thus, Hypothesis 2 is not robustly supported.

As the above estimated results describe, a specific distinction appears regarding the formation of a sense of inequality in the two countries.

Furthermore, according to the estimated results pooled from the Japanese and US samples, the Japanese dummy is positive with 1% statistical significance when “sense of increased inequality” and “sense of increased asset inequality” are dependent variables in all models. Even after controlling the effects of individual attributes such as age, labor status, academic background, and income, Japan’s respondents felt a greater sense of increased income and asset inequality during the period 2005–2010. The impact of the financial crisis on economic trends seemed larger in the US than in Japan, but the perception of inequality is higher in Japan than in the US.

5. Conclusion

This study examined the macroeconomic impact of the financial crisis in the latter half the 2000s on attitudes toward disparities in income and assets by using questionnaire data.

In Japan, an increased sense of asset inequality was felt by those who experienced heavy losses during the financial crisis. An increase in inequality was more strongly felt by temporary workers than by established workers. It is likely that this finding can be attributed to the feeling of employment instability caused by the financial crisis.

However, estimation results present a US pattern opposite to that of Japan. Data show that those whose assets did not decline in value sense a greater disparity between themselves and the

less wealthy.

In addition, established workers feel a sense of greater disparity than non-regular workers in the US. US respondents tend to acknowledge a sense of increased disparity by accepting that their income and/or assets surpass those of others. Many distinctions regarding the formation of a sense of disparity are observable between the two countries. However, in both countries, the low-income group and those who experienced a large decrease in income during the period surrounding the financial crisis see increased disparity as a problem.

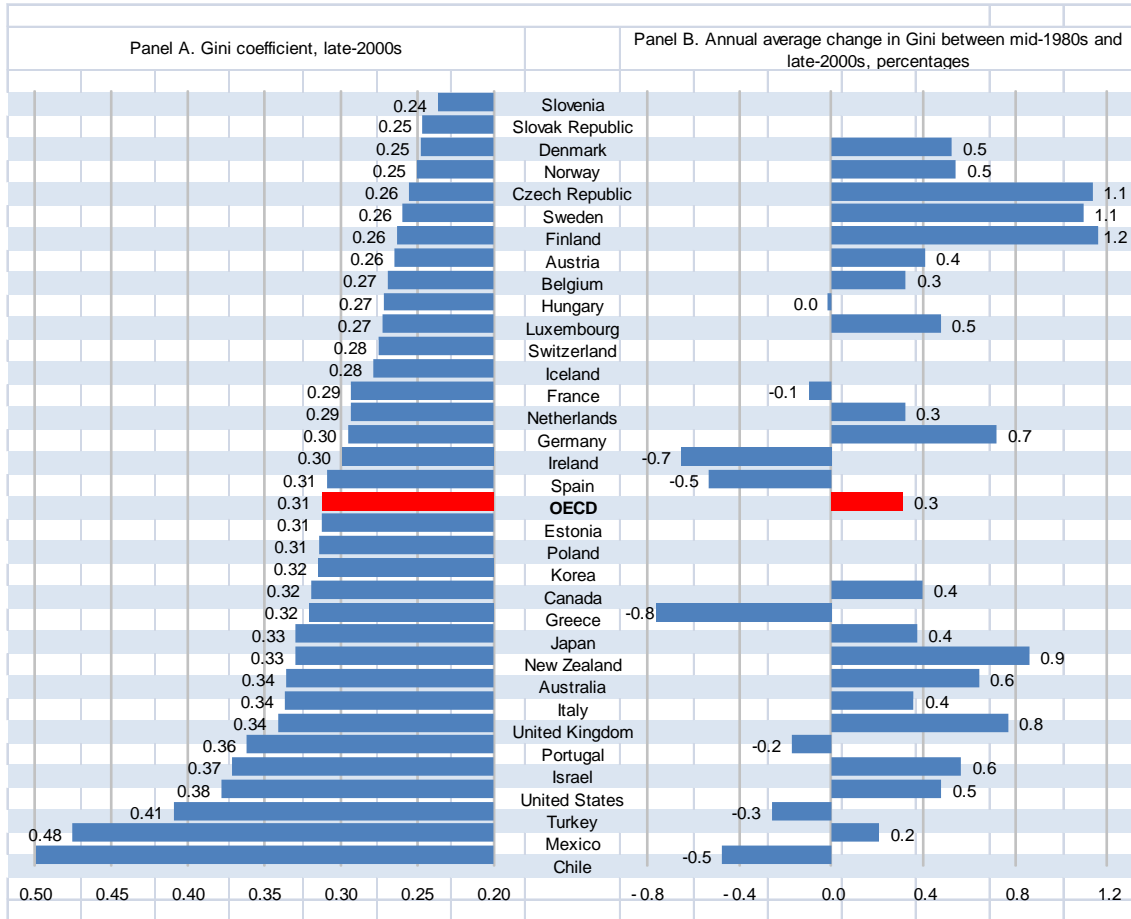
As a future task, we must investigate factors in both countries that influence differences in the sense of inequality.

Based on the estimated results of this study, more Japanese than US respondents acknowledge that income and asset disparity increased during 2005–2010, even after controlling the effects of respondents' ages, income, academic attainment, and labor status. An increased awareness of inequality may correlate highly with subjective wellbeing. We need further investigation into factors that contribute to Japanese respondents' heightened awareness of inequality.

References

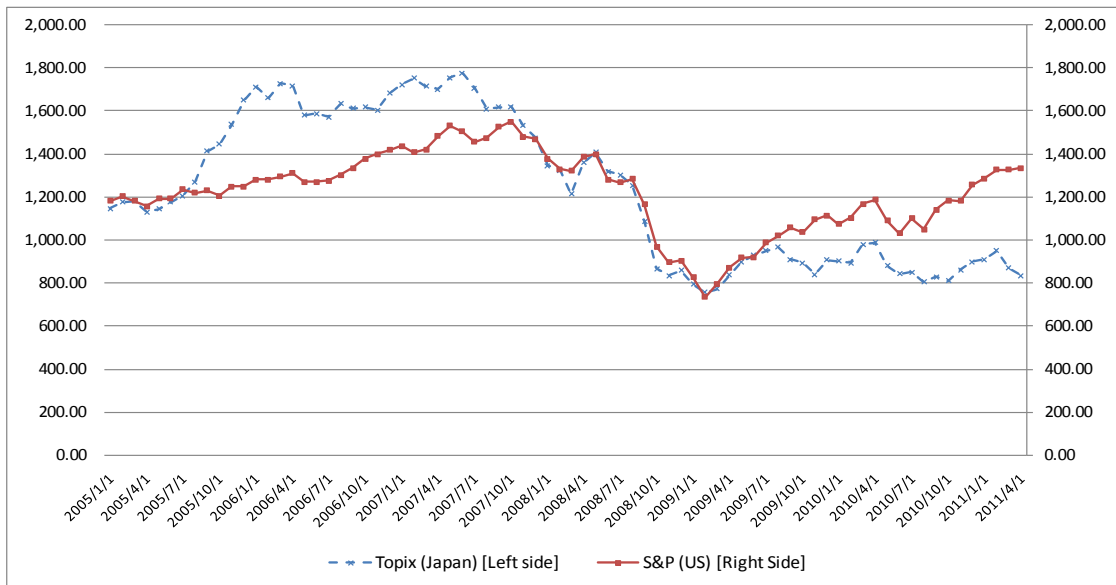
- Abe, A. (2006), "Current status of poverty and its factor," Oshio, T., Tajika, E. and Fukawa, T. eds. *Income distribution in Japan*, 111-137, University of Tokyo Press (in Japanese).
- Ohtake, F. (2005), *Inequality in Japan*, Nihon Keizai Shinbunsha (in Japanese).
- Ohtake, F. and S. Takenaka. (2007), "Attitudes toward income disparity: comparing Japan and the US," *Trend of modern Economics 2007*, Toyo Keizai (in Japanese).
- Oshio, T. and K. Urakawa. (2008), "Trend of poverty and redistribution policy in the first half of 2000s," *Quarterly of Social Security Research*, 44(3), 278-290 (in Japanese).
- Shirahase, S. (2006), *Inequality in changing society-disparity hidden in falling birthrate and aging population*, University of Tokyo Press (in Japanese).
- Tachibanaki, T. and K. Urakawa. (2006), *A Study on Poverty*, University of Tokyo Press (in Japanese).
- Oshio, T. and M. Kobayashi. (2010), "Income inequality, perceived happiness, and self-rated health: Evidence from nationwide surveys in Japan," *Social Science and Medicine*, 70, 1358-1366.
- Siahpush, M., Borland, R., Taylor, J., Singh, G. K., Ansari, Z. and Serraglio, A. (2006), "The association of smoking with perception of Income inequality, relative material well-being, and social capital," *Social Science & Medicine*, 63, 2801-2812.
- Shibuya, K., H. Hashimoto, and E. Yano. (2002), "Individual income, income distribution, and self rated health in Japan: Cross sectional analysis of nationally representative sample," *British Medical Journal*, 324(16), 1-5.
- Tachibanaki, T. (2005), *Confronting Income Inequality in Japan: A Comparative Analysis of Causes, Consequences, and Reform*, Cambridge: MIT Press.

Fig. 1 Income Inequality (OECD 35 countries)



Source) OECD (2011) *Society at a Glance 2011*

Fig. 2 TOPIX (Japan) and S&P (US) [2005–2011]



Source) Yahoo! FINANCE (<http://finance.yahoo.com/>)

| Table 1 Sample statistics | | | | | | | | |
|---|--------------|----------|------|-------|----------------|----------|------|--------|
| Japan | Male (n=311) | | | | Female (n=247) | | | |
| | Average | SD | Mini | Max | Average | SD | Mini | Max |
| 30s | 0.244 | 0.430 | 0 | 1 | 0.251 | 0.434 | 0 | 1 |
| 40s | 0.241 | 0.428 | 0 | 1 | 0.255 | 0.437 | 0 | 1 |
| 50s | 0.244 | 0.430 | 0 | 1 | 0.231 | 0.422 | 0 | 1 |
| 60s | 0.270 | 0.445 | 0 | 1 | 0.263 | 0.441 | 0 | 1 |
| spouse | 0.672 | 0.470 | 0 | 1 | 0.741 | 0.439 | 0 | 1 |
| large city | 0.428 | 0.496 | 0 | 1 | 0.401 | 0.491 | 0 | 1 |
| manager | 0.039 | 0.193 | 0 | 1 | 0.012 | 0.110 | 0 | 1 |
| regular employee | 0.550 | 0.498 | 0 | 1 | 0.142 | 0.349 | 0 | 1 |
| non-regular employee | 0.119 | 0.324 | 0 | 1 | 0.231 | 0.422 | 0 | 1 |
| self-employed | 0.109 | 0.313 | 0 | 1 | 0.032 | 0.177 | 0 | 1 |
| homemakers/retired people | 0.141 | 0.349 | 0 | 1 | 0.445 | 0.498 | 0 | 1 |
| unemployed (job search) | 0.016 | 0.126 | 0 | 1 | 0.126 | 0.332 | 0 | 1 |
| upper College graduate | 0.653 | 0.477 | 0 | 1 | 0.336 | 0.473 | 0 | 1 |
| equivalent household income | 374.430 | 242.646 | 0 | 1500 | 390.249 | 279.149 | 0 | 2121.3 |
| financial asset | 1442.322 | 2180.805 | 0.5 | 10000 | 1566.138 | 2192.736 | 0.5 | 10000 |
| income fallen by 20% or more | 0.293 | 0.456 | 0 | 1 | 0.239 | 0.427 | 0 | 1 |
| assets fallen by 20% or more | 0.277 | 0.448 | 0 | 1 | 0.300 | 0.459 | 0 | 1 |
| group 1 (high asset/ increased or unchanged) | 0.125 | 0.332 | 0 | 1 | 0.121 | 0.327 | 0 | 1 |
| group 2 (high asset/ decreased) | 0.138 | 0.346 | 0 | 1 | 0.194 | 0.396 | 0 | 1 |
| group 3 (low asset/ increased or unchanged) | 0.408 | 0.492 | 0 | 1 | 0.401 | 0.491 | 0 | 1 |
| group 4 (low asset/ decreased) | 0.328 | 0.470 | 0 | 1 | 0.283 | 0.452 | 0 | 1 |
| possession of risk asset (3types or more) | 0.180 | 0.385 | 0 | 1 | 0.202 | 0.403 | 0 | 1 |
| Problem consciousness about income inequality | 0.662 | 0.474 | 0 | 1 | 0.781 | 0.414 | 0 | 1 |
| Perception of income inequality | 0.759 | 0.428 | 0 | 1 | 0.741 | 0.439 | 0 | 1 |
| Perception of asset inequality | 0.723 | 0.448 | 0 | 1 | 0.664 | 0.473 | 0 | 1 |

| US | Male (n=336) | | | | Female (n=304) | | | |
|---|--------------|----------|------|---------|----------------|----------|------|-------|
| | Average | SD | Mini | Max | Average | SD | Mini | Max |
| 30s | 0.262 | 0.440 | 0 | 1 | 0.247 | 0.432 | 0 | 1 |
| 40s | 0.226 | 0.419 | 0 | 1 | 0.257 | 0.437 | 0 | 1 |
| 50s | 0.247 | 0.432 | 0 | 1 | 0.260 | 0.439 | 0 | 1 |
| 60s | 0.265 | 0.442 | 0 | 1 | 0.237 | 0.426 | 0 | 1 |
| spouse | 0.497 | 0.501 | 0 | 1 | 0.546 | 0.499 | 0 | 1 |
| large city | 0.131 | 0.338 | 0 | 1 | 0.086 | 0.280 | 0 | 1 |
| manager | 0.030 | 0.170 | 0 | 1 | 0.026 | 0.160 | 0 | 1 |
| regular employee | 0.339 | 0.474 | 0 | 1 | 0.257 | 0.437 | 0 | 1 |
| non-regular employee | 0.086 | 0.281 | 0 | 1 | 0.135 | 0.342 | 0 | 1 |
| self-employed | 0.089 | 0.286 | 0 | 1 | 0.066 | 0.248 | 0 | 1 |
| homemakers/retired people | 0.265 | 0.442 | 0 | 1 | 0.309 | 0.463 | 0 | 1 |
| unemployed (job search) | 0.125 | 0.331 | 0 | 1 | 0.184 | 0.388 | 0 | 1 |
| upper College graduate | 0.399 | 0.490 | 0 | 1 | 0.280 | 0.450 | 0 | 1 |
| equivalent household income | 439.980 | 326.432 | 0 | 2121.32 | 459.926 | 377.525 | 0 | 2121 |
| financial asset | 1277.368 | 2267.187 | 0.5 | 10000 | 724.765 | 1522.667 | 0.5 | 10000 |
| income fallen by 20% or more | 0.342 | 0.475 | 0 | 1 | 0.382 | 0.487 | 0 | 1 |
| assets fallen by 20% or more | 0.360 | 0.481 | 0 | 1 | 0.447 | 0.498 | 0 | 1 |
| group 1 (high asset/ increased or unchanged) | 0.167 | 0.373 | 0 | 1 | 0.155 | 0.362 | 0 | 1 |
| group 2 (high asset/ decreased) | 0.125 | 0.331 | 0 | 1 | 0.059 | 0.236 | 0 | 1 |
| group 3 (low asset/ increased or unchanged) | 0.327 | 0.470 | 0 | 1 | 0.398 | 0.490 | 0 | 1 |
| group 4 (low asset/ decreased) | 0.381 | 0.486 | 0 | 1 | 0.388 | 0.488 | 0 | 1 |
| possession of risk asset (3types or more) | 0.122 | 0.328 | 0 | 1 | 0.063 | 0.242 | 0 | 1 |
| Problem consciousness about income inequality | 0.711 | 0.454 | 0 | 1 | 0.747 | 0.436 | 0 | 1 |
| Perception of income inequality | 0.479 | 0.500 | 0 | 1 | 0.382 | 0.487 | 0 | 1 |
| Perception of asset inequality | 0.313 | 0.464 | 0 | 1 | 0.270 | 0.445 | 0 | 1 |

Source) “Survey on Financial Behavior of Households” (Japanese and United States editions)

| Table.2 Sense of change in financial assets and real change (2005-2010) | | | | |
|---|-------|------|-----|------|
| SA)Q3-5. How do you feel the total financial assets of all your family members have changed compared with five years ago (before the subprime loan problem surfaced)? | | | | |
| | Japan | | US | |
| | n | % | n | % |
| Greatly increased | 8 | 1.4 | 23 | 3.6 |
| Increased | 23 | 4.1 | 41 | 6.4 |
| Somewhat increased | 70 | 12.5 | 96 | 15.0 |
| Almost unchanged | 219 | 39.3 | 150 | 23.4 |
| Somewhat decreased | 85 | 15.2 | 110 | 17.2 |
| Decreased | 91 | 16.3 | 99 | 15.5 |
| Greatly decreased | 62 | 11.1 | 121 | 18.9 |
| Total | 558 | 100 | 640 | 100 |
| SA)Q3-6-2. How have the financial assets that you have held since December 2005 changed in value now? | | | | |
| | Japan | | US | |
| | n | % | n | % |
| Fallen by 40% or more | 71 | 12.7 | 159 | 24.8 |
| Fallen by 20% to 39% | 89 | 16.0 | 98 | 15.3 |
| Fallen by 5% to 19% | 103 | 18.5 | 77 | 12.0 |
| Almost the same | 212 | 38.0 | 169 | 26.4 |
| Increased by 5% to 19% | 48 | 8.6 | 77 | 12.0 |
| Increased by 20% to 39% | 19 | 3.4 | 39 | 6.1 |
| Increased by 40% or more | 16 | 2.9 | 21 | 3.3 |
| Total | 558 | 100 | 640 | 100 |

Source) “Survey on Financial Behavior of Households” (Japanese and United States editions)

Table.3

| [Dep.Variable: Problem Consciousness about Inequality] | Japan | | | | | | | | | | | |
|--|------------|-----------|----------------|---------|-----------|-----------|----------------|---------|-----------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | -0.016 | 0.043 | -0.37 | 0.72 | -0.024 | 0.043 | -0.56 | 0.58 | -0.029 | 0.043 | -0.68 | 0.50 |
| age^2 | 0.000 | 0.000 | 0.44 | 0.66 | 0.000 | 0.000 | 0.61 | 0.54 | 0.000 | 0.000 | 0.78 | 0.44 |
| spouse | 0.329 *** | 0.106 | 3.12 | 0.00 | 0.293 *** | 0.104 | 2.82 | 0.01 | 0.306 *** | 0.104 | 2.93 | 0.00 |
| upper college graduate | -0.088 | 0.099 | -0.89 | 0.37 | -0.132 | 0.097 | -1.35 | 0.18 | -0.115 | 0.099 | -1.16 | 0.25 |
| manager | -0.452 | 0.292 | -1.55 | 0.12 | -0.566 ** | 0.288 | -1.96 | 0.05 | -0.543 * | 0.292 | -1.86 | 0.06 |
| non regular worker | 0.346 ** | 0.142 | 2.44 | 0.02 | 0.330 ** | 0.143 | 2.31 | 0.02 | 0.362 ** | 0.141 | 2.56 | 0.01 |
| self employed | -0.003 | 0.184 | -0.02 | 0.99 | -0.040 | 0.186 | -0.21 | 0.83 | 0.019 | 0.184 | 0.10 | 0.92 |
| homemakers/retired people | 0.051 | 0.125 | 0.40 | 0.69 | 0.058 | 0.125 | 0.46 | 0.64 | 0.077 | 0.126 | 0.61 | 0.54 |
| unemployed (job search) | 0.511 | 0.371 | 1.38 | 0.17 | 0.549 | 0.370 | 1.49 | 0.14 | 0.637 * | 0.369 | 1.73 | 0.08 |
| possession of risk asset (3types or more) | -0.253 | 0.215 | -1.18 | 0.24 | -0.317 | 0.212 | -1.49 | 0.14 | -0.261 | 0.219 | -1.19 | 0.23 |
| equi_houhold icome | -3.6E-04 * | 0.000 | -1.86 | 0.06 | | | | | | | | |
| income fallen by 20% or more | | | | | 0.236 ** | 0.109 | 2.17 | 0.03 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | -0.062 | 0.160 | -0.39 | 0.70 |
| group 2 (high asset/ decreased) | | | | | | | | | -0.245 | 0.151 | -1.62 | 0.11 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | -0.157 | 0.112 | -1.40 | 0.16 |
| /cut1 | -2.344 | 1.036 | | | -2.417 | 1.035 | | | -2.634 | 1.044 | | |
| /cut2 | -1.585 | 1.033 | | | -1.660 | 1.032 | | | -1.878 | 1.041 | | |
| /cut3 | -0.762 | 1.032 | | | -0.838 | 1.031 | | | -1.056 | 1.040 | | |
| /cut4 | 0.406 | 1.031 | | | 0.332 | 1.030 | | | 0.113 | 1.038 | | |
| | | n= 558 | Pr>Chi2= 0.000 | | | n= 558 | Pr>Chi2= 0.000 | | | n= 558 | Pr>Chi2= 0.001 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)

Table.3 (cont.)

| [Dep.Variable: Problem Consciousness about Inequality] | US | | | | | | | | | | | |
|--|------------|-----------|----------------|---------|------------|-----------|----------------|---------|------------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | 0.063 * | 0.036 | 1.74 | 0.08 | 0.064 * | 0.036 | 1.77 | 0.08 | 0.056 | 0.036 | 1.56 | 0.12 |
| age^2 | -0.001 | 0.000 | -1.54 | 0.12 | -0.001 | 0.000 | -1.62 | 0.11 | -0.001 | 0.000 | -1.43 | 0.15 |
| spouse | -0.222 ** | 0.101 | -2.20 | 0.03 | -0.299 *** | 0.091 | -3.29 | 0.00 | -0.285 *** | 0.091 | -3.12 | 0.00 |
| upper college graduate | 0.165 * | 0.099 | 1.67 | 0.10 | 0.109 | 0.094 | 1.16 | 0.25 | 0.094 | 0.097 | 0.97 | 0.33 |
| manager | 0.084 | 0.276 | 0.31 | 0.76 | 0.059 | 0.276 | 0.21 | 0.83 | 0.008 | 0.277 | 0.03 | 0.98 |
| non regular worker | 0.056 | 0.152 | 0.37 | 0.71 | -0.020 | 0.154 | -0.13 | 0.90 | 0.053 | 0.152 | 0.35 | 0.73 |
| self employed | 0.110 | 0.173 | 0.64 | 0.52 | 0.053 | 0.174 | 0.30 | 0.76 | 0.088 | 0.174 | 0.50 | 0.61 |
| homemakers/retired people | 0.128 | 0.117 | 1.10 | 0.27 | 0.094 | 0.117 | 0.80 | 0.42 | 0.133 | 0.117 | 1.14 | 0.25 |
| unemployed (job search) | 0.160 | 0.159 | 1.01 | 0.32 | 0.014 | 0.163 | 0.09 | 0.93 | 0.133 | 0.160 | 0.83 | 0.41 |
| posession of risk asset (3types or more) | 0.638 | 0.457 | 1.39 | 0.16 | 0.625 | 0.463 | 1.35 | 0.18 | 0.564 | 0.461 | 1.22 | 0.22 |
| equi_houhold icome | -2.6E-04 * | 0.000 | -1.74 | 0.08 | | | | | | | | |
| income fallen by 20% or more | | | | | 0.429 *** | 0.097 | 4.43 | 0.00 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | -0.252 * | 0.139 | -1.81 | 0.07 |
| group 2 (high asset/ decreased) | | | | | | | | | 0.018 | 0.151 | 0.12 | 0.90 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | -0.310 *** | 0.105 | -2.96 | 0.00 |
| /cut1 | -0.757 | 0.854 | | | -0.633 | 0.855 | | | -1.079 | 0.865 | | |
| /cut2 | -0.178 | 0.849 | | | -0.059 | 0.850 | | | -0.499 | 0.859 | | |
| /cut3 | 0.918 | 0.849 | | | 1.056 | 0.850 | | | 0.606 | 0.859 | | |
| /cut4 | 1.793 | 0.850 | | | 1.948 | 0.851 | | | 1.488 | 0.860 | | |
| | | n= 640 | Pr>Chi2= 0.004 | | | n= 640 | Pr>Chi2= 0.000 | | | n= 640 | Pr>Chi2= 0.001 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)

Table.4

| [Dep.Variable: Sense of Income Inequality] | Japan | | | | | | | | | | | |
|--|-----------|-----------|----------------|---------|----------|-----------|----------------|---------|-----------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | 0.060 | 0.044 | 1.38 | 0.17 | 0.055 | 0.043 | 1.26 | 0.21 | 0.052 | 0.043 | 1.19 | 0.23 |
| age^2 | -0.001 | 0.000 | -1.48 | 0.14 | -0.001 | 0.000 | -1.39 | 0.17 | -0.001 | 0.000 | -1.36 | 0.17 |
| spouse | 0.288 *** | 0.106 | 2.72 | 0.01 | 0.264 ** | 0.104 | 2.53 | 0.01 | 0.266 ** | 0.105 | 2.54 | 0.01 |
| upper college graduate | 0.234 ** | 0.100 | 2.34 | 0.02 | 0.204 ** | 0.098 | 2.09 | 0.04 | 0.192 * | 0.100 | 1.92 | 0.06 |
| manager | 0.081 | 0.299 | 0.27 | 0.79 | -0.001 | 0.295 | 0.00 | 1.00 | 0.013 | 0.299 | 0.04 | 0.97 |
| non regular worker | 0.097 | 0.141 | 0.69 | 0.49 | 0.077 | 0.142 | 0.54 | 0.59 | 0.125 | 0.140 | 0.89 | 0.38 |
| self employed | 0.084 | 0.188 | 0.45 | 0.65 | 0.052 | 0.190 | 0.27 | 0.79 | 0.084 | 0.188 | 0.45 | 0.65 |
| homemakers/retired people | 0.129 | 0.127 | 1.02 | 0.31 | 0.132 | 0.126 | 1.05 | 0.30 | 0.100 | 0.128 | 0.79 | 0.43 |
| unemployed (job search) | -0.020 | 0.359 | -0.06 | 0.96 | -0.011 | 0.356 | -0.03 | 0.98 | 0.021 | 0.357 | 0.06 | 0.95 |
| posession of risk asset (3types or more) | -0.355 * | 0.214 | -1.66 | 0.10 | -0.398 * | 0.212 | -1.88 | 0.06 | -0.457 ** | 0.219 | -2.09 | 0.04 |
| equi_houhold icome | -2.4E-04 | 0.000 | -1.21 | 0.23 | | | | | | | | |
| income fallen by 20% or more | | | | | 0.193 * | 0.109 | 1.77 | 0.08 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | -0.168 | 0.161 | -1.04 | 0.30 |
| group 2 (high asset/ decreased) | | | | | | | | | 0.083 | 0.154 | 0.54 | 0.59 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | -0.234 ** | 0.113 | -2.08 | 0.04 |
| /cut1 | -0.937 | 1.044 | | | -0.988 | 1.043 | | | -1.262 | 1.052 | | |
| /cut2 | -0.066 | 1.039 | | | -0.120 | 1.038 | | | -0.399 | 1.047 | | |
| /cut3 | 0.884 | 1.039 | | | 0.832 | 1.038 | | | 0.556 | 1.047 | | |
| /cut4 | 2.076 | 1.040 | | | 2.027 | 1.039 | | | 1.757 | 1.047 | | |
| | | n= 558 | Pr>Chi2= 0.083 | | | n= 558 | Pr>Chi2= 0.051 | | | n= 558 | Pr>Chi2= 0.040 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)

Table.4 (cont.)

| [Dep.Variable: Sense of Income Inequality] | US | | | | | | | | | | | |
|--|------------|-----------|----------------|---------|------------|-----------|----------------|---------|-----------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | -0.005 | 0.035 | -0.14 | 0.89 | -0.006 | 0.035 | -0.17 | 0.86 | 0.001 | 0.035 | 0.03 | 0.98 |
| age^2 | 0.000 | 0.000 | 0.03 | 0.98 | 0.000 | 0.000 | 0.10 | 0.92 | 0.000 | 0.000 | -0.13 | 0.90 |
| spouse | -0.105 | 0.096 | -1.09 | 0.28 | -0.002 | 0.086 | -0.02 | 0.99 | -0.036 | 0.087 | -0.41 | 0.68 |
| upper college graduate | 0.345 *** | 0.095 | 3.61 | 0.00 | 0.422 *** | 0.091 | 4.64 | 0.00 | 0.375 *** | 0.093 | 4.03 | 0.00 |
| manager | 0.175 | 0.268 | 0.65 | 0.51 | 0.213 | 0.267 | 0.80 | 0.43 | 0.206 | 0.268 | 0.77 | 0.44 |
| non regular worker | -0.292 ** | 0.145 | -2.01 | 0.05 | -0.253 * | 0.147 | -1.73 | 0.08 | -0.312 ** | 0.146 | -2.14 | 0.03 |
| self employed | 0.003 | 0.166 | 0.02 | 0.98 | 0.039 | 0.167 | 0.23 | 0.82 | -0.027 | 0.167 | -0.16 | 0.87 |
| homemakers/retired people | -0.035 | 0.112 | -0.31 | 0.76 | -0.022 | 0.112 | -0.20 | 0.84 | -0.053 | 0.112 | -0.47 | 0.64 |
| unemployed (job search) | -0.160 | 0.151 | -1.06 | 0.29 | -0.096 | 0.154 | -0.62 | 0.53 | -0.154 | 0.151 | -1.02 | 0.31 |
| possession of risk asset (3types or more) | 0.345 | 0.431 | 0.80 | 0.42 | 0.395 | 0.430 | 0.92 | 0.36 | 0.340 | 0.436 | 0.78 | 0.44 |
| equi_houhold icome | 3.5E-04 ** | 0.000 | 2.44 | 0.02 | | | | | | | | |
| income fallen by 20% or more | | | | | -0.263 *** | 0.092 | -2.88 | 0.00 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | 0.406 *** | 0.135 | 3.00 | 0.00 |
| group 2 (high asset/ decreased) | | | | | | | | | 0.303 ** | 0.143 | 2.11 | 0.04 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | 0.193 * | 0.100 | 1.93 | 0.05 |
| /cut1 | -1.410 | 0.819 | | | -1.551 | 0.818 | | | -1.233 | 0.829 | | |
| /cut2 | -0.739 | 0.818 | | | -0.871 | 0.816 | | | -0.554 | 0.827 | | |
| /cut3 | 0.122 | 0.817 | | | -0.009 | 0.815 | | | 0.312 | 0.827 | | |
| /cut4 | 0.839 | 0.818 | | | 0.704 | 0.816 | | | 1.027 | 0.828 | | |
| | | n= 640 | Pr>Chi2= 0.000 | | | n= 640 | Pr>Chi2= 0.000 | | | n= 640 | Pr>Chi2= 0.000 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)

Table.5

| [Dep.Variable: Sense of Asset Inequality] | Japan | | | | | | | | | | | |
|--|-----------|-----------|----------------|---------|-----------|-----------|----------------|---------|-----------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | 0.075 * | 0.043 | 1.73 | 0.08 | 0.074 * | 0.043 | 1.71 | 0.09 | 0.072 * | 0.043 | 1.67 | 0.10 |
| age^2 | -0.001 * | 0.000 | -1.83 | 0.07 | -0.001 * | 0.000 | -1.84 | 0.07 | -0.001 * | 0.000 | -1.84 | 0.07 |
| spouse | 0.140 | 0.104 | 1.34 | 0.18 | 0.164 | 0.105 | 1.57 | 0.12 | 0.140 | 0.104 | 1.35 | 0.18 |
| upper college graduate | 0.277 *** | 0.100 | 2.77 | 0.01 | 0.292 *** | 0.098 | 2.98 | 0.00 | 0.261 *** | 0.100 | 2.61 | 0.01 |
| manager | 0.408 | 0.309 | 1.32 | 0.19 | 0.443 | 0.305 | 1.45 | 0.15 | 0.406 | 0.309 | 1.31 | 0.19 |
| non regular worker | 0.131 | 0.140 | 0.93 | 0.35 | 0.122 | 0.140 | 0.87 | 0.38 | 0.137 | 0.140 | 0.98 | 0.33 |
| self employed | -0.021 | 0.186 | -0.11 | 0.91 | -0.015 | 0.186 | -0.08 | 0.94 | -0.044 | 0.186 | -0.24 | 0.81 |
| homemakers/retired people | 0.108 | 0.126 | 0.86 | 0.39 | 0.087 | 0.126 | 0.69 | 0.49 | 0.069 | 0.127 | 0.55 | 0.59 |
| unemployed (job search) | -0.056 | 0.358 | -0.16 | 0.88 | -0.043 | 0.356 | -0.12 | 0.90 | -0.064 | 0.358 | -0.18 | 0.86 |
| possession of risk asset (3types or more) | -0.449 ** | 0.220 | -2.04 | 0.04 | -0.458 ** | 0.212 | -2.16 | 0.03 | -0.509 ** | 0.218 | -2.33 | 0.02 |
| equi_houhold icome | 9.9E-06 | 0.000 | 0.41 | 0.68 | | | | | | | | |
| asset fallen by 20% or more | | | | | 0.254 ** | 0.105 | 2.42 | 0.02 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | -0.128 | 0.160 | -0.80 | 0.43 |
| group 2 (high asset/ decreased) | | | | | | | | | 0.085 | 0.153 | 0.56 | 0.58 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | -0.279 ** | 0.112 | -2.48 | 0.01 |
| /cut1 | -0.372 | 1.035 | | | -0.327 | 1.036 | | | -0.672 | 1.045 | | |
| /cut2 | 0.254 | 1.034 | | | 0.283 | 1.034 | | | -0.056 | 1.044 | | |
| /cut3 | 1.411 | 1.033 | | | 1.439 | 1.034 | | | 1.105 | 1.043 | | |
| /cut4 | 2.466 | 1.035 | | | 2.504 | 1.035 | | | 2.173 | 1.045 | | |
| | | n= 558 | Pr>Chi2= 0.065 | | | n= 558 | Pr>Chi2= 0.011 | | | n= 558 | Pr>Chi2= 0.011 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)

Table.5 (cont.)

| [Dep. Variable: Sense of Asset Inequality] | US | | | | | | | | | | | |
|--|------------|-----------|----------------|---------|------------|-----------|----------------|---------|-----------|-----------|----------------|---------|
| | (1) | | | | (2) | | | | (3) | | | |
| | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value | Coef. | Std. Err. | t-value | P-value |
| age | -0.044 | 0.035 | -1.26 | 0.21 | -0.041 | 0.035 | -1.19 | 0.24 | -0.037 | 0.035 | -1.07 | 0.29 |
| age^2 | 0.000 | 0.000 | 1.03 | 0.30 | 0.000 | 0.000 | 1.10 | 0.27 | 0.000 | 0.000 | 0.92 | 0.36 |
| spouse | -0.075 | 0.087 | -0.86 | 0.39 | -0.057 | 0.086 | -0.66 | 0.51 | -0.090 | 0.087 | -1.03 | 0.30 |
| upper college graduate | 0.176 * | 0.093 | 1.90 | 0.06 | 0.213 ** | 0.090 | 2.36 | 0.02 | 0.194 ** | 0.093 | 2.09 | 0.04 |
| manager | 0.483 * | 0.261 | 1.85 | 0.06 | 0.506 * | 0.261 | 1.94 | 0.05 | 0.540 ** | 0.262 | 2.06 | 0.04 |
| non regular worker | -0.172 | 0.145 | -1.18 | 0.24 | -0.148 | 0.145 | -1.02 | 0.31 | -0.145 | 0.146 | -1.00 | 0.32 |
| self employed | 0.179 | 0.167 | 1.07 | 0.28 | 0.195 | 0.167 | 1.17 | 0.24 | 0.204 | 0.168 | 1.21 | 0.23 |
| homemakers/retired people | -0.060 | 0.112 | -0.54 | 0.59 | -0.073 | 0.112 | -0.65 | 0.51 | -0.052 | 0.112 | -0.46 | 0.65 |
| unemployed (job search) | -0.036 | 0.150 | -0.24 | 0.81 | 0.059 | 0.152 | 0.39 | 0.70 | 0.046 | 0.151 | 0.31 | 0.76 |
| posession of risk asset (3types or more) | -0.088 | 0.421 | -0.21 | 0.83 | 0.135 | 0.417 | 0.32 | 0.75 | 0.012 | 0.421 | 0.03 | 0.98 |
| equi_houhold icome | 5.9E-05 ** | 0.000 | 2.55 | 0.01 | | | | | | | | |
| asset fallen by 20% or more | | | | | -0.402 *** | 0.089 | -4.50 | 0.00 | | | | |
| group 1 (high asset/ increased or unchanged) | | | | | | | | | 0.606 *** | 0.136 | 4.47 | 0.00 |
| group 2 (high asset/ decreased) | | | | | | | | | 0.287 ** | 0.142 | 2.02 | 0.04 |
| group 3 (low asset/ increased or unchanged) | | | | | | | | | 0.358 *** | 0.101 | 3.55 | 0.00 |
| /cut1 | -2.406 | 0.819 | | | -2.428 | 0.820 | | | -2.015 | 0.830 | | |
| /cut2 | -1.676 | 0.817 | | | -1.679 | 0.817 | | | -1.267 | 0.828 | | |
| /cut3 | -0.579 | 0.816 | | | -0.569 | 0.816 | | | -0.151 | 0.828 | | |
| /cut4 | 0.056 | 0.817 | | | 0.064 | 0.817 | | | 0.487 | 0.828 | | |
| | | n= 640 | Pr>Chi2= 0.002 | | | n= 640 | Pr>Chi2= 0.000 | | | n= 640 | Pr>Chi2= 0.000 | |

Source) "Survey on Financial Behavior of Households" (Japanese and United States editions)