Mizuho Economic Outlook & Analysis

July 21, 2020

Whose income is slashed due to the COVID-19 crisis?

About one-third of households expect to see their income fall even after receiving the special cash payments

< Summary >

◆ About half of the total households in Japan anticipate their income falling due to the COVID-19 crisis. By comparing the expected amount of income decline and the received special cash payments, this report found that about 20% of households will be sufficiently covered, while the remaining 30% will experience an income reduction even after receiving the payments.

◆ The probability of income falling is higher for households with a relatively low income, suggesting the potential risk of widening income inequality. The probability is also high for specific groups, including self-employed, part-time workers, the unemployed, and workers employed in accommodation, food, and entertainment services.

◆ The greater the degree of households' anticipation in income drop, the more they will reduce their consumption and cut down their savings. While the special cash payments effect may be more significant for these households, about one-third of households will see their income below the pre-pandemic level, implying the sluggish consumption recovery pace.

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1. Introduction

Amid the acute slowdown of economic activities following the COVID-19 pandemic, the labor market environment is worsening. According to the Labour Force Survey compiled by the Ministry of Internal Affairs and Communications, the number of employed persons fell to 66.29 million in May from 67.40 million in January. The decline of 1.11 million is almost equivalent to the fall registered after the Lehman Brothers collapse (a decrease of 1.16 million from August 2008 to July 2009). Following a drop in working hours, a declining trend has also been seen in wages, and the Monthly Labour Survey released by the Ministry of Health, Labour and Welfare indicated that total cash earnings in May declined by 3.2% year-on-year, showing that the degree of decline has expanded compared with the figure recorded in January (-0.1%).[1]

If the employee compensation in FY2020 is assumed to fall by the same rate seen during the financial crisis (FY2009: -4.4% year on year), the difference in employee compensation from FY2019 is calculated -12.75 trillion yen. Meanwhile, the Japanese government has provided the “special cash payments” (hereafter “cash payments”) of 100,000 yen per person, for a total budget of 12.73 trillion yen, to mitigate the impact of the COVID-19 crisis on income. If the decline rate of employee compensation in FY2020 is around the same level as in FY2009, disposable income at a macro perspective is calculated to stay mostly unchanged.

However, the influence of the current crisis varies from household to household. For example, **Chart 1** depicts the year-on-year change in employees' wage income (number of employees × total cash earnings)[2] by industry during March-May 2020. From this chart, we can see that the year-on-year rate greatly varies (heterogeneity) among industries compared with the -1.8% change registered for the total. It shows that the decline rate is notably greater for "accommodations, eating and drinking services" and "living-related and personal services and amusement services." The declines for the “manufacturing” and “wholesale and retail trade” sectors are also large relative to that for the total.

The above simple comparison of employees' wage income by industry reveals that the pandemic's impact is uneven across industries. Thus, it is crucial to consider households' heterogeneity when analyzing how the crisis has affected household income. Since heterogeneity analysis has limits if adopting only a macro statistics approach, utilizing

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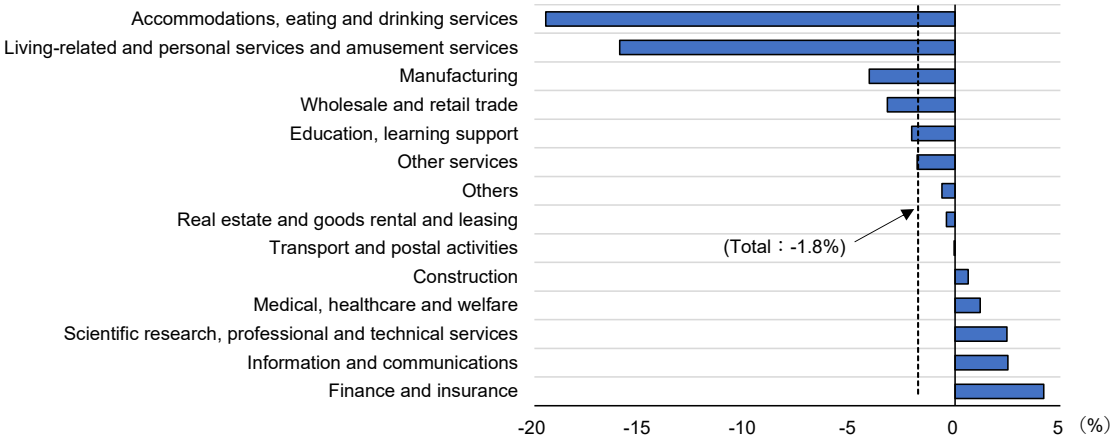
[1] The figures are calculated by comparing year-on-year total cash earnings at the same offices.

[2] Given that during the period from April to May, the number of persons on administrative leave increased substantially, the figures are calculated using the formula of “wage income of employees = employees at work × total cash earnings + employees not at work × total cash earnings × 0.6.” Besides, the figures for the total cash earnings are adjusted by industry to reflect the impact of sample replacement in the same manner as the total wage income of employees compiled by the Cabinet Office. It should be noted that “Others” in **Chart 1** is the sum of “agriculture, forestry, and fisheries,” “mining, etc.,” “electricity, gas, etc.,” “government services,” and “industries unable to classify.” This paper used the cash earnings value of “mining, etc.” for “agriculture, forestry and fisheries,” and that of “total industries” for “government services” and “industries unable to classify.”

micro (individual) data is essential. If we only look at disposable income at a macro level, it is almost impossible to spot households hurt by the sharp fall in income and specify their characteristics, making it harder to correctly grasp the coronavirus crisis's impacts. Besides, should the impact of income decline vary depending on the household, the cash payments' effect would also be thought to vary depending on the household.

Chart 1: Wage Income of employees, year-on-year change (March–May 2020)



Note: The calculation takes into account the impact of employees not at work. Refer to footnote 2 for details.
Source: Made by MHRI based upon the Ministry of Internal Affairs and Communications, *Labour Force Survey* and the Ministry of Health, Labour and Welfare, *Monthly Labour Survey*.

Based on the above considerations, this paper employed individual data to answer the following three questions:

(1) What is the ratio of households that expect their income will fall even after receiving the cash payments?
(2) What are the characteristics of households that expect their income to fall?
(3) What are the implications for consumption, based on responses to the previous two questions?

As related studies to this report, Furceri et al. (2020) examined the impact of infectious disease on income distribution in various areas over the past 20 years. They found that households with a relatively lower income and education were hit more severely than other households, and as a result, the Gini coefficient, an indicator of income inequality, rose. Cortes and Forsythe (2020), who analyzed the impact of COVID-19 on employment using US data collected after the outbreak of the coronavirus pandemic, pointed out that the impact on employment was higher for lower-paying occupations and industries, Hispanics, younger workers, people with less education, and female workers. In Japan, Kikuchi et al. (2020) have indicated that workers who have more social and face-to-face activities and less flexible working styles are most affected by this crisis, and their wages are relatively lower than other workers, which suggests the possibility of widening income inequality.

While Kikuchi et al. (2020) employed data before the outbreak of the COVID-19 crisis to examine the impact on employment, this study used post-COVID-19 individual data to deepen the analysis of its impact on income.

This paper is structured as follows: Section 2 discusses the data applied in this study; section 3 presents results concerning the three questions stated earlier, along with insights; and section 4 provides a summary of the discussion.

2. Data

This report employs the data of Belot et al. (2020). As part of their study, an online survey was conducted in six countries, including China, South Korea, Japan, Italy, the UK, and the US, from 15 to 23 April, and the results (raw data) were disclosed to the public.[3] The sample size is about 1,000 for each country, and the samples are nationally representative along the three lines of age, gender, and household income level. For the income question, the respondents choose one of five income brackets obtained by calculating the quintiles of the annual gross household income distribution, and in the case of Japan, the first quintile (the lowest) is 1,900,000 yen or less, and the fifth quintile (the highest) is 7,320,001 yen or more.[4]

The analyses here employ only Japan's data. Further, in light of the objective of studying the pandemic's impact on employment and income, this paper constructed weights that correct for differences in age, gender, and employment status between the survey and the general population. The data used for the population structure is the Labour Force Survey compiled by the Ministry of Internal Affairs and Communications for April 2020.[5] All analyses conducted in this report use these weights.

The data of Belot et al. (2020) includes organized around the respondents' demographic profile, health-related variables, behavioral responses to the epidemic, and policy evaluation, but the main focus here is on questions of the economic impact of COVID-19. In particular, this paper concentrates on two questions: "how much did your gross household income fall in the first trimester of 2020?" (hereafter "income fall") and "how much do you expect your gross household income to fall in the next six months (April to September period in 2020)?" (hereafter "expected income fall"). By comparing

[3] The data used in this report are downloaded from the OSF website (https://osf.io/aubkc/) on 25 June 2020. The dataset for the US covers only four major states.

[4] Belot et al. (2020) calculated the income quantile based on the latest available data from LIS (Cross National Data Center in Luxembourg) for each country. The latest Japanese data at LIS is the "Japan Household Panel Survey" (Keio University) in 2014.

[5] To construct weights, this paper uses two categories for sex (i) (male and female), seven categories for age (j) (-25, 26-35, 36-45, 46-55, 56-65, 66-75, 76-), two categories for employment status (k) (employed and not employed).The weights ($\bar{w}_{ijk}$) are calculated as the following formula:

$$\bar{w}_{ijk} = \frac{W_{ijk} * N_T}{N_{ijk}}$$

where W_{ijk} is the ratio of the population in the category of ijk, N_{ijk} is the number of respondents at the survey in the category of ijk, and N_T is the number of total observations in Japan. The weights are constructed after the outlier removal.

"income fall" or "income fall + expected income fall" with cash payments received (= number of household members × 100,000 yen), we can estimate whether the household income would fall (is expected to fall) after receiving the cash payments for each household. Nonetheless, since the survey did not ask about the number of household members, the number is estimated by combining some questions.[6] In addition, the extremely high and low values in income fall and expected income fall are removed.[7]

3. Analysis results

(1) The ratio of households expecting their income to drop

Let us start by checking the results to clarify households' ratio expecting their income to fall after receiving the cash payments. **Chart 2 (1)** shows the estimate on the distribution (probability density function) of "actual value (= cash payments received – income fall)" and "actual/expected value (= cash payments received – income fall – expected income fall)." For the actual value, the median value is +200,000 yen and the average value approximately +150,000 yen, while for the actual/expected value, the median value is +100,000 yen and the average value about -100,000 yen. Since there is a vast gap between the median value and the average value for the actual/expected value, there seem to be significant differences in income losses among households, and that some respondents expect a substantial fall in income. Based on the positive median value for both actual and actual/expected values, and considering the shape of the distribution curve, more than half of households appear to anticipate their disposable income to increase thanks to the cash payments.

Chart 2 (2) depicts the cumulation of the distribution shown in **Chart 2 (1)** in ascending order and is called the cumulative density function.[8] This function represents households' ratio for which change in household income on the horizontal axis is lower than a certain value. The vertical axis figure, when the value of the horizontal axis is 0 yen, indicates the ratio of households whose income would fall even after receiving the cash payments. This figure is about 12% for the actual value and around 33% for the actual/expected values, suggesting that roughly one-third of households believe the cash payments will not fully cover their income losses due to the COVID-19 crisis. It should be

[6] The number of household members is estimated using questions about the current living situation and the number of people who share the kitchen or other facilities. First, a sample is regarded as one-person households if the respondents' answer is either "live alone in my home," "live in a facility," or "temporarily staying with a relative or friend." For others, the number of household members is set to equal to the number of people sharing a kitchen or other facility plus one person (the respondent itself).

[7] Samples are deleted if the respondents' answer to "income fall" (or "expected income fall") is zero, even though he or she said they experienced (or expect) an income fall. Besides, samples are also removed if their answers for "income fall" (or "expected income fall") are either higher than the 95th percentile or lower than 1,000 yen.

[8] For the Kernel-smoothed cumulative distribution function, Van Kerm (2012) program is used.

noted that the ratio of households that do not anticipate any income losses due to the pandemic is approximately 70% for the actual value and 50% for the actual/expected value, and the ratio of households that expect their income to fall but be sufficiently covered by the cash payments is around 20% for both actual and actual/expected values.

Chart 2 (1): Probability density function of income increase/decrease

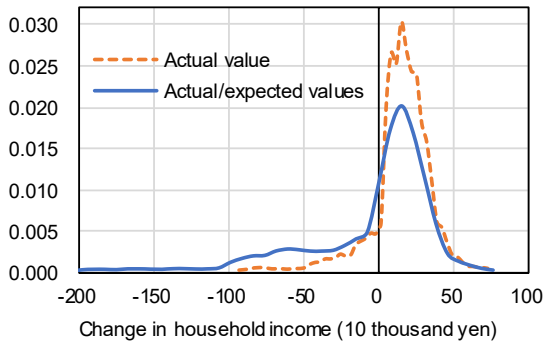
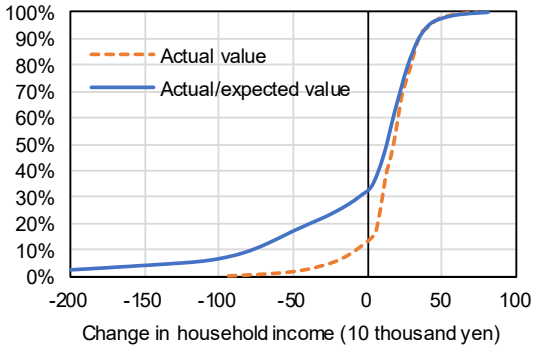


Chart 2 (2): Cumulative density function of income increase/decrease



Note: Both charts (1) and (2) employ the Kernel density estimation.
Source: Made by MHRI based upon the data of Belot et al. (2020).

Nevertheless, the estimation result that about one-third of households foresee their income dropping may be excessive compared with the actual situation, and careful considerations are necessary. The reason could be that when people become pessimistic about their future, they may be biased toward answering higher loss values. To capture the sense of relative size, let us examine the employment fractions of four industries that include "accommodations, eating and drinking services," "living-related and personal services and amusement services," "manufacturing," and "wholesale and retail trade," where the rate of decline of employees' wage income is larger relative to the total value in **Chart 1**. The proportion of households where the household head is engaged in either of these four sectors relative to total households (including where the household head is non-employed) is 3% for “accommodations, eating and drinking services,” 2% for “living-related and personal services,” 11% for “manufacturing,” and 9% for “wholesale and retail trade” (total: 25%). It should be added that these rates remain mostly unchanged even if using the number of employed persons instead of household heads.[9] Given that households substantially hurt by the crisis could also exist in other sectors and some households may be slightly affected even if they work for these four industries, the above employment ratios are only for reference. However, this paper's estimation of about one-

[9] Of the population aged 15 and above (including non-employed persons), workers employed in the four industries are accommodations, eating and drinking services: 3%; living-related and personal services and amusement services: 2%; manufacturing: 9%; and wholesale and retail trade: 9% (total 24%). The ratios in household heads and population are taken from the Labour Force Survey compiled by the Ministry of Internal Affairs and Communications as of April 2020.

third of households may be somewhat excessive. Meanwhile, in a survey conducted in early June covering 500 households aged between the 20s and 60s, 31.2% of the respondents answered the cash payments is "insufficient" to cover their living expenses, which is a similar result to this paper's estimation.[10] Their survey, however, was also not necessarily free from the above mentioned emotional bias. Hence, it may be more appropriate to regard that the households' ratio unable to compensate for their income losses with the cash payments is around one-third at the maximum.

(2) Characteristics of households that anticipate a fall in income

This section analyzes the characteristics of households whose income tends to decline. Since a decrease in income mainly occurs through a fall in labor income, the regression analyses use only employed samples. Another reason for limiting the coverage to employed persons is the availability of data, as basic characteristics such as occupation, industry, and employment form are available only when respondents are employed. Note that the ratio of households that cannot cover their income losses with the cash payments for the employed is 16% at the actual value and 39% at actual/expected values, while that for non-employed is 6% at the actual value and 23% at the actual/expected values. These figures indicate that households with employed persons expect their income to fall to a greater extent than non-employed households.

The analysis in this section tests whether the proportion of households expecting their income to decline is significantly different between the income level, employment status, and industry, even after controlling for individual profiles. To be more specific, the following three groups are set as explained variables depending on the degree of household income fall: (1) households that do not expect their income to fall (hereafter "stable household"), (2) households that expect their income to fall but the cash payments can cover the loss ("compensated household"), and (3) households who expect their income to decrease even after receiving the cash payments ("declining household"). The explanatory variables include income level, employment status, and industries as well as control variables such as gender, age, and occupation. The regression analysis is conducted by using ordinal logistics regression.[11]

Chart 3 depicts the households' probability of income falling for different characteristics based on the estimation results. The "base (average)" shows the probability when all characteristics such as gender, age, and occupation are set at average values. The

[10] GV Co., Ltd. "[Household economy] Households with a deficit increased by 6.2% - Impact of the new coronavirus on the household economy," 16 June 2020.

[11] The regression is conducted with three models replacing the three concerned variables (income level, employment status, and industry). This is because the sample size here is rather limited, and the statistical significance might be harder to capture if the correlations between these three variables are high.

graph plots along the horizontal axis the simulation results on how changes in household characteristics affect the probability of households becoming stable, compensated, or declining. Refer to the appendix for the statistical table.

Chart 3 (1): Probability of household income declining by characteristics (actual value basis)

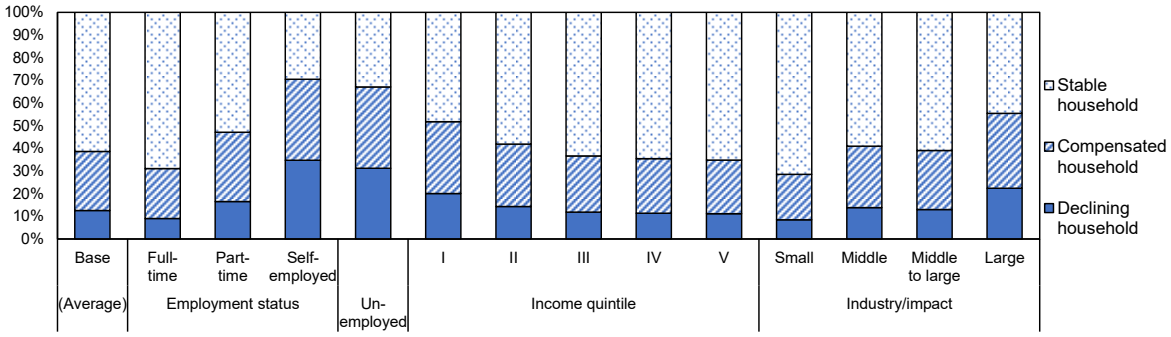
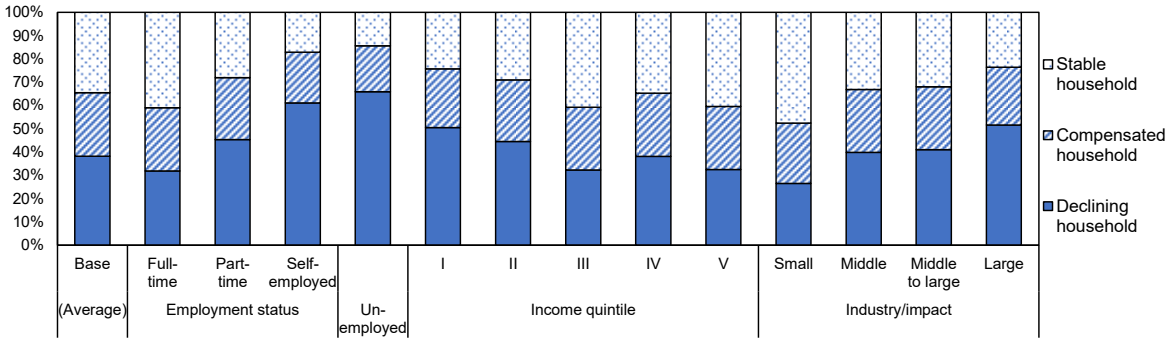


Chart 3 (2) Probability of household income declining by characteristics (actual/expected values basis)



Note: The base (average) was calculated as follows: While three different formulas are estimated for the actual value and actual/expected, the probability of the case where all explanatory variables are average values in each of the formulas is computed. Then, "base (average)" is a simple average of these computed three values.
The probability of the unemployment case is calculated using the estimation formula with employment status as the explanatory variable.
Source: Made by MHRI based upon data of Belot et al. (2020)

The employment status results show that the probability of becoming a declining household is exceptionally high for self-employed workers, followed by part-time workers. If we compare the probability of becoming a declining household with the base (average), the value for full-time workers is 0.7 times on the actual value and 0.8 times on the actual/expected value; for self-employed persons is 2.7 times on the actual value and 1.6 times on the actual/expected value; and for part-time workers is 1.3 times on the actual value and 1.2 times on the actual/expected value. While the self-employed persons' income has a high probability of falling, full-time workers' employment and wages seem to be relatively protected. Understandably, the probability of income falling is also high when

people lose their jobs due to the pandemic crisis.

Secondly, let us focus on the probability with different quintiles of the annual gross household income. Although we could not confirm any statistical significance between the first and second quintiles for both actual and actual/expected values, significant differences are observed between the first and third to fifth quintiles. The probability of the first quintile, compared with the fifth quintile, of becoming a declining household is 1.8 times higher for the actual value and 1.6 times higher for the actual/expected values, but the probability of becoming a stable household is 0.7 times lower for the actual value and 0.6 times lower for the actual/expected values. Since we could not find large differences in probability between the third to fifth quintiles, the current crisis appears to hit the first and second quintiles (relatively lower income level) household more seriously than other income quintiles.

Thirdly, the results by industry are explored. Here, this paper classified the industries into four groups depending on the degree of impact of the COVID-19 pandemic based on the ILO (2020) classification. The industry with a "large" impact includes such industries as "accommodation and food services" and "arts, entertainment, and recreation"; a "middle to large" impact includes "manufacturing" and "wholesale and retail trade"; a "middle" impact contains "finance and insurance" and "construction"; and a "small" impact has "health services" and "government."[12]

The study results indicate that people engaged in industries subject to a "large" impact carry a high probability of becoming a declining household for both actual and actual/expected values, which aligns with the expectation. The probability of becoming a declining household for industries with a "large" impact is 2.6 times greater for the actual value and 1.9 times higher for the actual/expected values compared with industries with a "small" impact. While one could not find a large gap between industries with "middle" and "middle to large" impacts, the regression result proves there is a significant gap between both of these industries and industries with a "small" impact.

In sum, the analysis reveals that the characteristics of households with a high probability of income falling due to the crisis are self-employed, part-time workers, unemployed, low-income earners (belonging to the first or second quantiles), and workers employed in industries such as accommodation, food, and entertainment services. This

[12] The classification is made based on table 1 of ILO(2020) and chart 1 of this paper. The survey's classification of industries is based on the North American Industry Classification System (NAICS) even for Japanese data. The full list of classification is as follows. (1) large: "accommodation and food services," "arts, entertainment, and recreation," and "administrative and support services." (2) middle to large: "manufacturing," "wholesale and retail trade," "real estate and rental and leasing," "information," and "transportation and warehousing." (3) middle: "finance and insurance," "construction," "agriculture, forestry, fishing and hunt," "mining, quarrying, and oil and gas extraction," and "other services." (4) small: "health care and social assistance," "utilities," "government," "professional, scientific, and technical services," and "management of companies and enterprises."

paper conducted regressions of both actual and actual/expected values for the robustness but obtained similar results for statistical significance and trends by characteristics.

These results imply some required policy responses. The finding that the crisis has had a significant impact on relatively low-income households suggests the crisis will most likely widen the income inequality, and hence the government needs to implement policy measures targeted at low-income earners. Besides, the government should continue its existing efforts to support self-employed and freelance workers actively. For unemployed persons, unemployment insurance will compensate for some of their income losses, but it may be becoming more difficult for them to find jobs due to the on-going economic slowdown. Since this could increase the long-term unemployment risk, the government should offer more active labor policies such as vocational training. The government has launched the "Go to Travel Campaign" from 22 July to support the travel and accommodation industries that were seriously affected, but the travel campaign itself carries the risk of spreading the infection. The campaign should be carefully and flexibly designed, such as encouraging nearby tourist locations or travel during weekdays, and depending on the circumstances of the COVID-19, the government should prepare to expand its financial support to business operators.

(3) Implications for household consumption

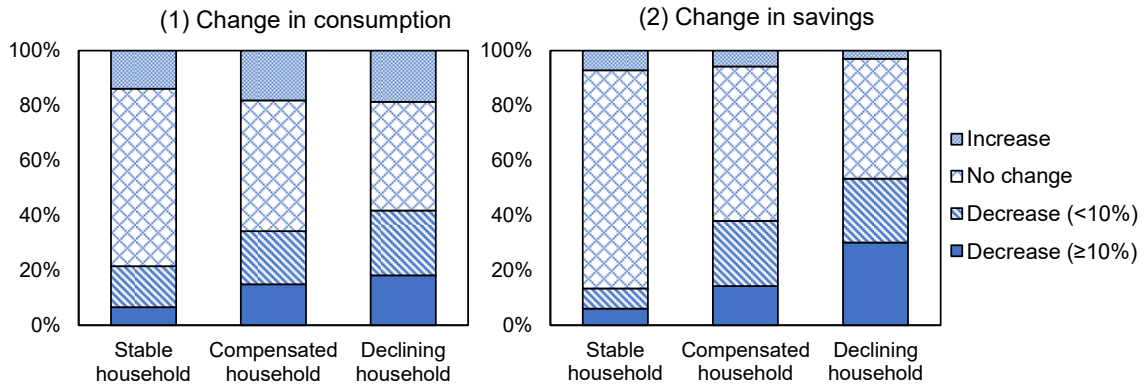
Lastly, let us consider the implications of the analysis toward consumption. **Chart 4** compiles the percentage change of household consumption and savings from January by dividing the households into stable, compensated, and declining using actual/expected value. For household consumption, while 22% of stable households responded that their consumption decreased, the ratio rose to 34% for compensated households and 42% for declining households. This trend is even more pronounced for savings, with households' ratio responding that their savings decreased being 13% for stable households, 38% for compensated households, and 53% for declining households. In particular, if we compare the ratio of declining and stable households that decrease more than 10%, the gap is about three times higher for consumption and five times higher for savings. These numbers suggest that households anticipating a decline in income face a tough situation as they withdraw their savings while cutting back on consumption. On the other hand, households that do not expect any income losses are experiencing no change in consumption and savings in most cases.

Baker et al. (2020) analyzed the impact of cash payments on consumption in the United States using transaction data. Their analysis concluded that while the consumption of households with lower liquidity was remarkably responded, that of households with high levels of liquidity was not. Likewise, in Japan, with service consumption subdued to a

certain extent to prevent the spread of infection, it is highly likely that consumption among stable households will not be buoyed even after distributing the cash payments due to the low marginal propensity to consume. On the other hand, declining households whose liquidity diminishes as their savings fall are predicted to increase their spending after receiving the cash payments (as their marginal propensity to consume is high).

The previous section estimated that stable households account for around 50%, compensated households about 20%, and declining households roughly 30%. It is expected that the cash payments' impact on lifting consumption to be small for stable households, which accounts for around half of total households, but the effect should be relatively high for the remaining half comprised of compensated and declining households. Nonetheless, for about one-third of households for which the cash payments will not fully compensate for the loss of income, their consumption levels are projected to fall below the pre-crisis level. These factors will serve to slow down the pace of recovery in consumption from a macro perspective. If the government decides to provide another cash payments policy, it is imperative that the payment should be addressed mainly to declining households to enhance its stimulus effect.[13]

Chart 4: Change in consumption/savings (from January)



Note: The graphs summarize the percentage change of household consumption and savings from January to the investigation time.
Source: Made by MHRI based upon the data of Belot et al. (2020).

4. Conclusion

This report studied the impact of the COVID-19 crisis on income losses by considering the household's heterogeneity. From January to September 2020, about 50% of households anticipated a fall in income, about 20% of households expected the government's cash

[13] The multiplier effect of changing the cash payments target is analyzed by Bayer et al. (2020). According to their simulation using the HANK (Heterogeneous Agent New Keynesian) model, the multiplier effect was 0.25 when the cash payments were paid to all adults in the US (excluding the top 10% households in terms of income level) and 1.5 when paid to unemployed persons only.

payments to exceed their income decline, and the remaining 30% believed their income would drop despite the cash payments received.

The analysis reveals that the households' characteristics with a substantial probability of a decline in income include self-employed, part-time workers, unemployed due to the crisis, relatively low-income earners, and workers employed in such industries as accommodations, food, and entertainment services. The result that low-income earning households face a high probability of losing income suggests that the current crisis will most likely widen the income inequality, and therefore the government should respond promptly with appropriate policy measures.

For households anticipating an income drop, the higher the degree of anticipation, the more they will cut down their savings and reduce spending, which will increase the effect of the cash payments on these households. However, since about half of households will not see their income decline, the cash payments' economic impact may be limited, and one-third of households expect their income to fall even after receiving the cash payments. These factors suggest that consumption will grow at a sluggish pace for the time being.

I acknowledge that various problems, such as the number of samples and the survey's timing, are present in this report, and it requires a more detailed analysis for the future study. However, to conduct an analysis considering heterogeneity, the use of individual data is indispensable. Amid high restrictions on the use of individual data of official statistics, the Japanese government should conduct a swift analysis using individual data or broaden the availability of individual data for private institutions in order for timely research to be conducted in response to current critical situations.

[Reference]

Baker, S., Farrokhnia, R. A., Meyer, S., Pagel, M., and Yannelis, C. (2020) "Income, liquidity, and the consumption response to the 2020 economic stimulus payments", *NBER Working Paper*, No. 27097

Bayer, C., Born, B., Luetticke, R., and Müller, G. J. (2020) "The Coronavirus stimulus package: How large is the transfer multiplier?", *CEPR Discussion paper* 14600.

Belot, M., Choi, S., Jamison, J. C., Papageorge, N. W., Tripodi, E., and van den Broek-Altenburg, E. (2020) "Six-Country Survey on COVID-19", *IZA Discussion Paper*, 13230

Cortes, G. M., and Forsythe, E. (2020) "The Heterogeneous Labor Market Impacts of the Covid-19 Pandemic", *Upjohn Institute working paper*, 20-327.

Furceri, D., Loungani, P., Ostry, J. D., and Pizzuto, P. (2020) "Will Covid-19 affect inequality? Evidence from past pandemics", *Covid Economics* 12: 138-57

International Labour Organization (2020) "ILO Monitor: COVID-19 and the world of work. Fourth edition", 27 May 2020

Kikuchi, S., Kitao, S., and Mikoshiba, M. (2020) "Heterogeneous Vulnerability to the COVID-19 Crisis and Implications for Inequality in Japan", *RIETI Discussion Paper Series,* 20-E-039

Van Kerm, P. (2012) "Kernel-smoothed cumulative distribution function estimation with akdensity", *The Stata Journal*, 12(3), 543-548.

[Appendix] Estimation Results of Ordered Logistic Regression

		Explained variable: 0=Stable household 1=Compensated household 2=Declining household					
		Actual value			Actual/expected value		
		(1)	(2)	(3)	(4)	(5)	(6)
Male dummy		0.0879	0.0200	-0.0656	0.314*	0.298*	0.165
		(0.183)	(0.181)	(0.183)	(0.179)	(0.176)	(0.177)
Unemployment dummy		1.415***	1.567***	1.552***	1.400***	1.553***	1.557***
		(0.221)	(0.212)	(0.211)	(0.245)	(0.247)	(0.242)
No change in job situation (dummy)		-0.514***	-0.417**	-0.391**	-0.582***	-0.540***	-0.486***
		(0.193)	(0.193)	(0.188)	(0.184)	(0.192)	(0.185)
Form of employment	Part-time	0.679***			0.575***		
		(0.204)			(0.200)		
	Self-employed	1.662***			1.209***		
		(0.394)			(0.347)		
Income quantile	Second quantile		-0.402			-0.240	
			(0.300)			(0.285)	
	Third quantile		-0.618**			-0.762***	
			(0.293)			(0.288)	
	Fourth quantile		-0.671**			-0.506*	
			(0.307)			(0.307)	
	Fifth quantile		-0.698**			-0.751**	
			(0.328)			(0.319)	
Industry/impact	Middle			0.552*			0.608**
				(0.291)			(0.305)
	Middle to large			0.476*			0.657**
				(0.260)			(0.287)
	Large			1.135***			1.083***
				(0.377)			(0.403)
Age dummy		Yes	Yes	Yes	Yes	Yes	Yes
Occupation dummy		Yes	Yes	Yes	Yes	Yes	Yes
Intercept cut 1		0.629	-0.002	0.873	-0.147	-0.781	0.160
Intercept cut 2		2.132	1.452	2.331	0.979	0.335	1.275
Sample size		643	643	643	595	595	595

Notes:
1. The samples of this analysis are employed only.
2. The figures in the parentheses show robust standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively
3. The unemployment dummy includes temporary unemployment.
4. The job situation is a dummy where the respondents who answered that their job situation has not changed after the pandemic are labeled one.
5. Variables for employment status, income quantile, and industry/impact are all dummies, and the base for employment status is full-time worker, the base for income quantile is the first quantile, and the base for industry/impact is “small.”
6. The age dummy comprises the five classifications: 35 years old and below, 36-45 years old, 46-55 years old, 56-65 years old, and 66 years old and above.
7. The occupation dummy was created using the major groups of the occupational classification. The occupational classification is based on O*NET in the United States. As the sample size for some major groups is under 20, these groups are summed as "other occupations."

Source: Made by MHRI based upon the data of Belot et al. (2020)