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Turning Vietnam's COVID-19 Success into Economic Recovery: A Job-Focused Analysis of Individual Assessments on Their Finance and the Economy

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ABSTRACT

Turning Vietnam's COVID-19 Success into Economic Recovery: A Job-Focused Analysis of Individual Assessments on Their Finance and the Economy*

The COVID-19 pandemic has resulted in income and employment loss in many countries around the world. Yet, hardly any formal study exists on household finance and future economic expectations in poorer countries. To fill in this gap, we implemented and analyzed a web-based rapid assessment survey immediately after the removal of lockdown measures in Vietnam, a lower-middle-income country that has received widespread recognition for its successful fight against the pandemic. We find that having a job is strongly and positively associated with better finance and more income and savings, as well as more optimism about the resilience of the economy. Further disaggregating employment into different types of jobs such as self-employment and jobs with permanent and short-term contracts, we find those with permanent job contracts to be more strongly associated with better assessments and fewer job worries. Individuals with good health and higher educational levels also have more positive evaluations for their current and future finance. These findings are relevant for post-outbreak economic policies, especially regarding the labor market in a developing country context.

JEL Classification: I1, I3, J01, J08, O1

Keywords: COVID-19, recession, labor market, wage work, household finance, Vietnam

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I. Introduction

The COVID-19 outbreak has resulted in income and employment loss in many countries around the world. For instance, as much as 18 percent and 15 percent of the respondents in a recent survey reported losing their job in the preceding four weeks in the US and the UK respectively (Belot *et al.*, 2020). A considerable proportion of the population in richer countries are facing unprecedented problems with meeting their daily expenses; a recent study indicates that this number is 46 percent in the US, 38 percent in the UK, and 32 percent in Germany (Adams-Prassl *et al.*, 2020).

However, while there are increasingly more studies on impacts of the outbreak in richer countries, a severe lack of empirical evidence exists in a lower-income country context.¹ In particular, to our knowledge, there is currently no formal study on household finance and economic expectations for the future in poorer countries. The effects of the outbreak can vary significantly between the former and the latter countries because of their systematic differences in labor market institutions.

We aim to fill in this gap by studying the impacts of COVID-19 on household financial situations and expectations for the future in Vietnam, a lower-middle-income country. We investigate the following key policy questions: What are the profiles of individuals who are affected by the COVID-19 outbreak, in terms of general finance as well as income and savings? What are the expectations for their finance after the outbreak is over? Do those with job security worry less about their financial situation in the future? What are their expectation for the general economy? Would those with job security have higher expectations? Are they also more

¹ See, for example, studies on the impacts of the COVID-19 pandemic on stock returns, concerns about the economy, and household spending (Alfaro *et al.*, 2020; Baker *et al.*, 2020; Fetzer *et al.*, 2020). We return to more discussion on these studies when discussing our estimation results in later sections. Some limited survey evidence for poorer countries have emerged, but mostly from NGOs (e.g., BRAC (2020)) or private consulting firms such as McKinsey & Company (Ho *et al.*, 2020).

optimistic about the economy's ability to recover? These questions have much relevance for post-outbreak economic policies, especially regarding the labor market.

Vietnam offers a remarkable case study that has successfully fought against COVID-19. As yet, despite a population of about 96 million people and its shared border with China—the epicenter of the pandemic—Vietnam has recorded fewer than 350 infected cases and 0 death. The country's successful measures, such as prompt responses and aggressive testing and quarantining, have been widely discussed both in the academic literature (Huynh, 2020; La *et al.*, 2020) and the media including the *Financial Times* (Reed and Chung, 2020), the *Wall Street Journal* (Mandhana and Le, 2020), and the *Project Syndicate* (Nguyen, 2020). Yet, like most countries around the world, Vietnam also suffers from lockdown measures that negatively impact most sectors in its economy (NEU, 2020). One key challenge for the country is to build on this success to help the economy recover and continue its pre-outbreak economic growth.

Analyzing data from a web-based rapid assessment survey that we implemented immediately after the removal of lockdown measures in Vietnam, we find that having a job is positively and statistically significantly associated with better finance and more income and savings. Having a job is, unsurprisingly, negatively associated with worries about job loss in the future and positively associated with more optimism about the resilience of the economy. Further disaggregating employment into different types of jobs such as self-employment and working for wages (i.e., having a permanent job contract vs. having a short-term job contract), we find these job types to exhibit differential and interesting relationships with the financial outcomes. In particular, being self-employed is less strongly associated with reduced job worries than working for wages. Individuals that have a permanent job contract have more positive assessments for their current and future finance and fewer job worries, as do individuals with good health and higher educational levels.

This paper consists of four sections. We discuss the analytical framework and data in the next section before offering the estimation results on the profiles of individuals and factors that are associated with their current and expected finance situations in Section III. We offer further discussion of our results and finally conclude in Section IV.

II. Analytical Framework and Data

II.1. Analytical Framework

We estimate the following equation

$$y_i = \alpha + \beta' job_i + \gamma' x_i + \varepsilon_i, \quad (1)$$

where y_i include three sets of outcome variables for individual i , for $i= 1, \dots, N$. The first set of outcome variables consists of self-reported financial situation and changes to one's income and saving due to COVID-19. The (self-reported) financial situation variable has five values ranging from 1 to 5, which respectively correspond to “*very bad*”, “*bad*”, “*average*”, “*good*”, and “*very good*”. The variables for the changes to one's income and saving have three values ranging from 1 to 3, indicating whether these changes result in situations that are “*worse*”, “*the same*”, or “*better*”.

The second set includes expectations about one's financial situation in the next 3 months and worries about one's job. The variable expectations about one's financial situation in the next 3 months also has five values, which correspond to “*much worse*”, “*worse*”, “*no change*”, “*better*”, and “*much better*”. The variable worries about one's job has three values: “*no worries*”, “*somewhat*”, and “*a lot*”.

The third set includes expectations about the economy's resilience after the COVID-19 outbreak, expectations about changes to the economy in the next 3 months, and the expected duration of impacts for COVID-19. Both the two variables on the expectations about the economy's resilience and its expected changes in the next 3 months have three values, which

correspond respectively to “*pessimistic*”, “*average*”, and “*optimistic*” for the first variable and “*worse*”, “*no change*”, and “*better*” for the second variable. The variable on the expected duration of impacts consists of the following five values: “*under 3 months*”, “*3 to less than 6 months*”, “*6 months to less than 1 year*”, “*1 to less than 2 years*” and “*2 years or more*”. For all these outcome variables except for worries about one’s job and the expected duration of impacts, a higher value indicate a better financial status or a higher level of expectation.

The vector job_i indicates whether an individual has a job, or whether this individual is self-employed, has a permanent contract or a short-term contract. The key parameters of interest are β , which capture the relationship of these employment variables with the individual’s financial welfare and expectations about the economy. The ability to find (and hold) a job may be correlated with individual unobserved characteristics such as innate ability or interpersonal skills, which can also correlate with the outcome variables. Consequently, we interpret β as representing an associational rather than a causal relationship. The vector of control variables (x_i) include age, gender, education level, ethnicity, health status, marital status, religion, and urban/ rural residence. We offer heteroskedasticity-robust variance estimates of the error term ε_i .

For easier interpretation of estimation results, we estimate Equation (1) with OLS method. But we also offer an alternative modelling option such as the ordered probit model that can better address discrete variables for robustness check purposes.²

II.2. Data

² The ordered probit model is defined as follows $y_i^* = \delta'job_i + \theta'x_i + \tau_{it}$, where $y_i = j$ if $\mu_{j-1} < y_i^* < \mu_j$, for $j = 0, 1, \dots, J$ and $\mu_{h,h<0} = -\infty$, $\mu_0 = 0$, and $\mu_J = +\infty$. In this model, each value of j represents a discrete value of the outcome variable. For example, the three values of the variable worries about one’s job “*a lot*”, “*somewhat*”, and “*no worries*” respectively correspond to $j = 0$, $j = 1$, and $j = 2$. The probability of falling into category j is then $P(y_i = j | job_i, x_i) = \Phi(\mu_j - \delta'job_i - \theta'x_i) - \Phi(\mu_{j-1} - \delta'job_i - \theta'x_i)$, where $\Phi(\cdot)$ is the cdf of the normal distribution. See also Greene (2019) for a textbook treatment of discrete choice models.

In collaboration with a research team at the Institute of Social and Medical Studies (ISMS) in Hanoi, Vietnam, we conducted a web-based survey immediately after Vietnam relaxed its lockdown measure during the two weeks of April 26- May 9, 2020.³ The survey consists of 4 sections with 46 questions, which collect data on individual characteristics (such as age, sex, job, education, and health status), their household financial situation, their expectations and concerns about work, household finance, and the national economy, and their evaluations about the effectiveness of the government's policies against COVID-19. We focus in this paper on the data related to jobs and economic outcomes, and we provide in Appendix A the English translation of the part of the survey questionnaire that we analyze.

We employed the snowball sampling method and invited individuals in our network to participate in the survey. We contacted these individuals through institutional and personal emails and through popular social media platforms in Vietnam such as Facebook and Zalo. We received 677 respondents to our survey in total. After checking the data, however, we removed 24 respondents due to their incomplete answers to the survey questionnaire. Consequently, the final sample for analysis includes 653 respondents. We acknowledge that, given the nature of a rapid assessment survey and our limited network contact, this survey does not fully cover rural residents and workers in the informal sector. As such, our sample is not nationally representative but is biased toward women, urban residents, those with higher education levels, and those working in the formal sector.

Table 1 provides the descriptive statistics of all the variables. The age of the individuals in our sample averages 39 and ranges from 18 to 68. The majority of them are female (71 percent), married (80 percent), live in urban areas (90 percent), and follow no religion (78 percent). In

³ We obtained approval to implement the survey from the Institutional Review Board (IRB) at ISMS, which is registered with the Office for Human Research Protections of the U.S. Department of Health (IRB No.IORG0006663; FWA 00016762). On the first page of the online questionnaire, we provided a consent form for the respondents. This form explicitly indicates that the respondent responds to the questions with willingness and they could stop or exit the survey any time.

terms of education achievement, 34 percent of individuals have a college degree while 62 percent have a graduate degree (i.e., master degree or higher levels). Around two-thirds (64 percent) of all individuals have a permanent job contract, and 14 percent have a short-term job contract (i.e., one that is less than 3 years). Only 8 percent of the survey respondents are self-employed.

Worries about job loss after the COVID-19 pandemic are prominent in our sample, with an average score of 1.99 out of the maximal value of 3. Only less than one-fourth (22 percent) of survey individuals report not worrying about their jobs; out of those (78 percent) that are worried about their jobs, 21 percent are very worried (calculations not shown). These figures are consistent with the finding in a recent study that economic anxiety rises up globally after the arrival of the COVID-19 outbreak (Fetzer *et al.*, 2020). Eighty-six percent of the survey respondents have a job at the interview time, and almost all (91 percent) of those who work are wage earners (calculations not shown).

Regarding changes in current household finance, roughly two-thirds of survey respondents report either less income (64 percent) or less savings (60 percent) because of the impacts of COVID-19. These are represented by the dark blue sections in the two bars in Figure 1. Less than one percent of surveyed individuals could report an increase in income, while around 10 percent report more savings, perhaps in preparation for negative effects of the pandemic in the future.⁴ These changes are represented by the light green sections in the bars (Figure 1).

Survey respondents, however, are more optimistic about the future. Approximately 33 percent expect their financial situation to improve in the next 3 months, while 25 percent expect the opposite, and the remaining respondents expect no change (Figure 2).

III. Estimation Results

⁴ Using transaction-level household financial data in the US, Baker *et al.* (2020) also document that household spending sharply declined after some initial increase as the outbreak was spreading.

III.1. Profiling of Survey Respondents and Their Current Finance

We provide the estimation results using Equation (1) for the first set of the outcome variables in Table 2.⁵ Having a job is positively associated with better finance and more income and savings, and this relationship is strongly statistically significant (the reference group is having no job). An individual with a job scores 0.4 points higher on their finance evaluation (on a 1-to-5 scale) and 0.2 points higher on their income or savings evaluations (on a 1-to-3 scale) (Table 2, Models 1 to 3). Since most of the respondents are urban residents and wage earners (who usually had social insurance), these results further highlight the importance of employment in improving living standards.

To gain further insights into the relationship between different types of job and one's current finance, we subsequently disaggregate employment into self-employment, having a permanent job contract, and have no job contract. All these three types of job are positively and strongly statistically significantly associated with one's financial situation and income changes. The estimated coefficient for being self-employed is somewhat stronger than those for the other two types of jobs, but the former is not statistically significantly different from the latter two (Table 2, Models 4 and 5). But more interestingly, working for wages—regardless of having a contract or not—has a statistically significantly and positive relationship with more savings, while this relationship is not statistically significant for self-employment (Table 2, Model 6).

Turning to the other independent variables, those with good health or higher educational levels have positive self-assessments on all the three outcome variables. An individual having good health or having a college degree would score 0.3 points higher when evaluating their current finance, which is roughly the same magnitude shown by an individual who has a job

⁵ For robustness check, we provide in Table B.3 the estimates for Equation (1) using the ordered probit model. Estimation results are qualitatively similar to those shown in Table 2. Estimates using the ordered probit model for Tables 3 and 4 are also qualitatively similar (not shown).

(Table 2, Model 1). Having a graduate degree shows a slightly stronger estimated coefficient at 0.5 points higher than other groups. Married respondents show lower levels of income and saving, which can perhaps be caused by a strong need for a higher living standard. Ethnicity, religion, and urban/rural residence do not have a statistically significantly relationship with one's current finance or changes to income and savings.

III.2. Expectations for the Future

Table 3 provides estimates for the respondents' expectations about their own financial situations and job prospects in the next 3 months. We only show job-related variables in this table for a more focused discussion; the full regression results are provided in Appendix B, Table B.1. While individuals with a job do not have higher expectations for their future finance, they have fewer worries about their job (Table 3, Models 1 and 2). The latter result holds regardless of the type of work contract (Table 3, Model 4). Understandably, those with a permanent job contract are far less worried about their job prospects than those who are self-employed, with these two groups scoring 0.5 points and 0.2 points less worried respectively (on a 1-to-3 scale). Given the stable nature of their job contracts, the former group of workers are well protected under Vietnam's current labor and social insurance laws. Self-employed individuals are somewhat more optimistic about their future finance, but this is only marginally statistically significant at the 10 percent level (Table 3, Model 3).

We further examine in Table 4 individuals' expectations about the resilience of the economy, the economy prospects in the next 3 months, as well as the expected duration of the outbreak impacts. (Full regression results are shown in Appendix B, Table B.2). Having a job, particularly a permanent contract, is statistically significantly and positively correlated with better assessments for the economy resilience, but has no statistically significantly relationship

with assessments of the economy prospects in the next 3 months, or the expected duration of the outbreak impacts.⁶

IV. Further Discussion and Conclusion

We implement the first web-based rapid assessment survey in Vietnam to collect data on individuals' assessments of their current and future financial situations and the general economy immediately after the country relaxed its lockdown policy near the end of April 2020. We find that having a job is strongly and positively associated with better finance and more income and savings, and more optimism about the resilience of the economy. Further disaggregating employment into different types of jobs such as self-employment and jobs with permanent and short-term contracts, we find those with permanent job contracts to be more strongly associated with better assessments on their finance and fewer job worries. Individuals with good health and higher educational levels also have more positive evaluations for their current and future finance.

Our results highlight the importance of jobs, and job security, in improving individuals' current finance and evaluations of their future finance and the economy. This is consistent with recent evidence that creating formal and decent jobs is a first-best employment policy (World Bank, 2019; International Labor Organization, 2020). Furthermore, since consumer confidence can boost consumption spending and help build a stronger economy (Caroll, Fuhrer, and Wilcox, 1994; Roth and Wohlfart, 2019), our findings suggest that policies to create good jobs can have multiple layers of positive effects for the post-outbreak period. For those that are self-

⁶ Table B.1 shows that older individuals and women have better assessments for their financial situation in the next 3 months, while married individuals expect to have a worse financial situation. Table B.1 also indicates that individuals with a graduate degree worry less about their jobs. These results are broadly consistent with those in Table 2. Table B.2 suggests that older and more educated individuals are less confident about the economy resilience and expect the COVID-19 pandemic impacts to last longer.

employed, it appears that policies that can provide access to business opportunities (which can help reduce their work worries) may be more important.

Our finding that those with higher education achievements have more positive assessments of their finance and fewer job worries also concurs with recent evidence for the US and the UK (Adams-Prassl *et al.*, 2020; Beland, Brodeur, and Wright, 2020). As such, besides job policies, education policies can also take an important role in shielding individuals against the harmful effects of COVID-19.

We acknowledge that our survey sample is biased toward those with higher education levels and more job security and those live in urban areas in Vietnam. These are the individuals that are expected to have fewer concerns about their jobs or financial situations. Yet, our results point to strong statistical differences among the survey respondents according to their working status, job security, and educational levels.

This could imply that those who are more vulnerable (such as people with lower educational levels or without a labor contract) might be even more affected by the COVID-19 pandemic. In particular, workers in the informal sector, including migrant workers, usually have no labor contract and have unstable jobs without social protection benefits. Under the COVID-19 lockdown, these individuals were likely to have suffered more income loss given the nature of their work.

A promising direction for future research is thus to collect data on these informal workers, which can provide useful inputs into social protection policies. Other fruitful directions are to collect more disaggregate data on different occupation sectors and geographical regions that can help us better disentangle potential heterogeneous effects across these categories.

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Table 1: Descriptive Statistics

| | No. of observations | Mean | Standard deviations | Min | Max |
|--|---------------------|-------|---------------------|-----|-----|
| <i>Self-assessment on COVID-19 impact</i> | | | | | |
| Current financial situation | 653 | 3.08 | 0.79 | 1 | 5 |
| Income change | 653 | 1.37 | 0.50 | 1 | 3 |
| Saving change | 653 | 1.51 | 0.69 | 1 | 3 |
| Expected financial situation during next 3 months | 653 | 3.07 | 0.86 | 1 | 5 |
| Worry about own job | 653 | 1.99 | 0.66 | 1 | 3 |
| Expected resilience of the economy after the current COVID-19 outbreak | 653 | 2.16 | 0.70 | 1 | 3 |
| Expected changes to the economy during next 3 months | 653 | 2.39 | 0.79 | 1 | 3 |
| Expected duration of impacts for the current COVID-19 outbreak | 653 | 0.08 | 0.26 | 0 | 1 |
| <i>Individual characteristics</i> | | | | | |
| Have a job | 653 | 0.86 | 0.35 | 0 | 1 |
| Self-employed | 653 | 0.08 | 0.26 | 0 | 1 |
| Have a permanent job contract | 653 | 0.64 | 0.48 | 0 | 1 |
| Have a short-term job contract | 653 | 0.14 | 0.35 | 0 | 1 |
| Good health | 653 | 0.68 | 0.47 | 0 | 1 |
| Age | 653 | 38.56 | 8.46 | 18 | 68 |
| Female | 653 | 0.71 | 0.45 | 0 | 1 |
| Kinh | 653 | 0.98 | 0.13 | 0 | 1 |
| Have a college education | 653 | 0.34 | 0.47 | 0 | 1 |
| Have a graduate education | 653 | 0.62 | 0.49 | 0 | 1 |
| Married | 653 | 0.80 | 0.40 | 0 | 1 |
| Follow no religion | 653 | 0.78 | 0.41 | 0 | 1 |
| Urban | 653 | 0.90 | 0.30 | 0 | 1 |

Note: A higher value for one's finance or the economy indicate a better situation.

Source: Own calculations from the survey data.

Table 2: Characteristics of Individuals that Were Impacted by COVID-19, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|----------------------------|----------------------------|--------------------------|--------------------------|----------------------------|--------------------------|--------------------------|
| | Current finance | Income change | Saving change | Current finance | Income change | Saving change |
| Have a job | 0.351*** (0.098) | 0.233*** (0.051) | 0.222*** (0.070) | | | |
| Self-employed | | | | 0.445** (0.175) | 0.246*** (0.090) | 0.149 (0.111) |
| Have a permanent contract | | | | 0.358*** (0.101) | 0.245*** (0.053) | 0.180** (0.074) |
| Have a short-term contract | | | | 0.290*** (0.111) | 0.196*** (0.070) | 0.368*** (0.101) |
| Good health | 0.327*** (0.061) | 0.028 (0.042) | 0.163*** (0.056) | 0.330*** (0.061) | 0.028 (0.042) | 0.161*** (0.056) |
| Age | 0.011*** (0.004) | -0.004 (0.003) | -0.001 (0.004) | 0.011*** (0.004) | -0.004* (0.003) | 0.000 (0.004) |
| Female | -0.061 (0.072) | -0.004 (0.045) | 0.054 (0.057) | -0.054 (0.072) | -0.003 (0.044) | 0.047 (0.057) |
| Kinh | -0.044 (0.373) | -0.181 (0.176) | -0.121 (0.236) | -0.036 (0.373) | -0.178 (0.175) | -0.134 (0.241) |
| Have a college education | 0.326** (0.152) | 0.022 (0.085) | 0.070 (0.120) | 0.341** (0.154) | 0.024 (0.084) | 0.059 (0.124) |
| Have a graduate education | 0.513*** (0.155) | 0.152* (0.089) | 0.146 (0.126) | 0.529*** (0.158) | 0.152* (0.088) | 0.143 (0.130) |
| Married | -0.077 (0.079) | -0.120** (0.055) | -0.212*** (0.075) | -0.083 (0.081) | -0.126** (0.055) | -0.188** (0.077) |
| Follow no religion | -0.026 (0.072) | -0.024 (0.046) | -0.032 (0.065) | -0.019 (0.072) | -0.021 (0.046) | -0.044 (0.064) |
| Urban | -0.071 (0.102) | -0.056 (0.072) | 0.131 (0.090) | -0.076 (0.103) | -0.059 (0.072) | 0.143 (0.092) |
| Constant | 1.932*** (0.446) | 1.550*** (0.234) | 1.290*** (0.242) | 1.931*** (0.439) | 1.557*** (0.232) | 1.267*** (0.251) |
| σ | 0.737 | 0.491 | 0.675 | 0.737 | 0.492 | 0.673 |
| Adjusted R2 | 0.125 | 0.041 | 0.040 | 0.124 | 0.039 | 0.045 |
| N | 653 | 653 | 653 | 653 | 653 | 653 |

Note: *p<0 .1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses.
Source: Own calculations from the survey data.

Table 3: Expectations about Own Financial Situation for Next 3 Months, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 |
|----------------------------|-----------------------------|----------------------|-----------------------------|----------------------|
| | Expected finance | Job worry | Expected finance | Job worry |
| Have a job | -0.035 (0.116) | -0.428*** (0.080) | | |
| Self-employed | | | 0.326* (0.179) | -0.240** (0.120) |
| Have a permanent contract | | | -0.053 (0.118) | -0.483*** (0.083) |
| Have a short-term contract | | | -0.158 (0.139) | -0.372*** (0.097) |
| σ | 0.850 | 0.615 | 0.844 | 0.612 |
| Adjusted R2 | 0.023 | 0.132 | 0.036 | 0.140 |
| N | 653 | 653 | 653 | 653 |

Note: *p<0 .1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses. Other control variables are not shown to save space. The full regression results are provided in Appendix B, Table B.1.

Source: Own calculations from the survey data.

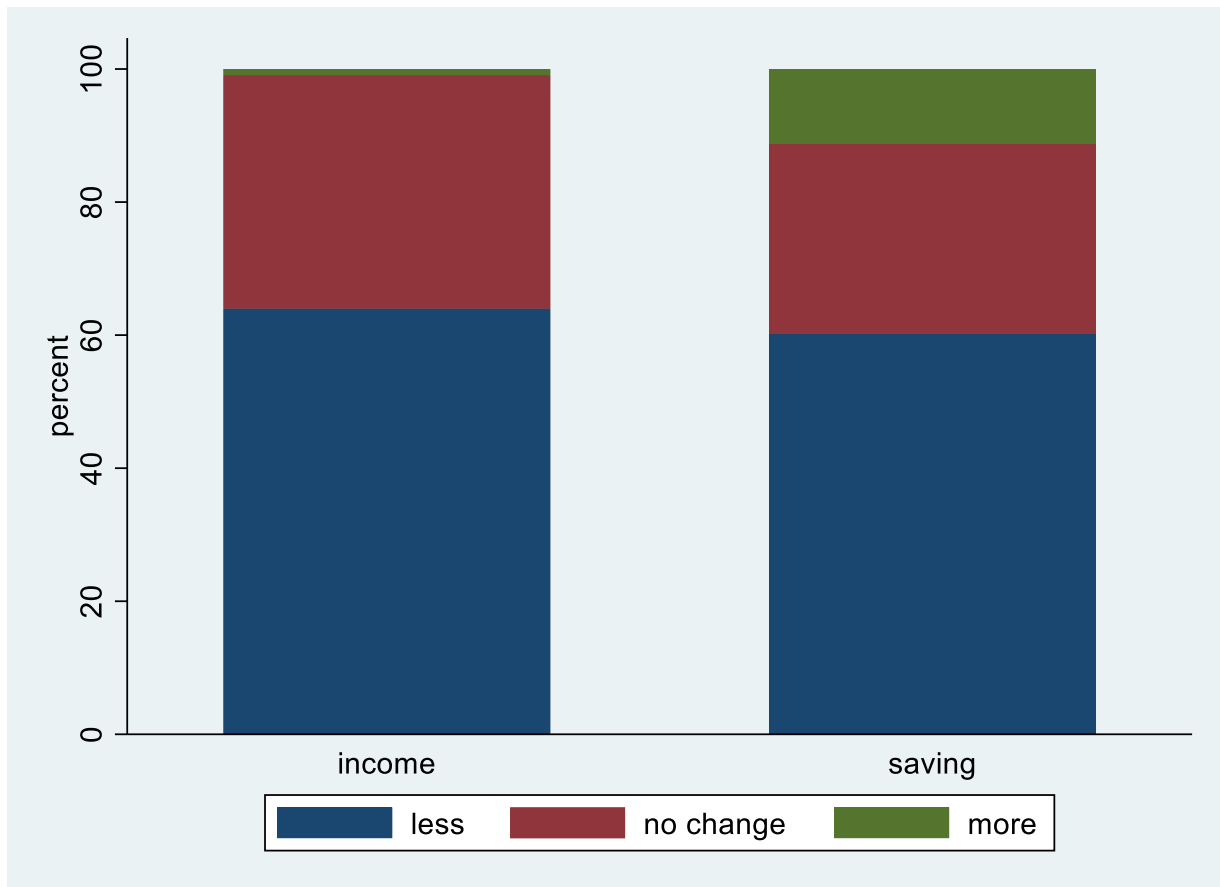
Table 4: Expectations about the Economy, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|-------------------------------|-------------------------------|---|---|-------------------------------|---|---|
| | Economy resilience | Economy during next 3 months | Expected duration of impacts | Economy resilience | Economy during next 3 months | Expected duration of impacts |
| Have a job | 0.313*** (0.083) | 0.054 (0.091) | 0.168 (0.126) | | | |
| Self-employed | | | | 0.211* (0.128) | -0.192 (0.155) | 0.262 (0.187) |
| Have a permanent contract | | | | 0.373*** (0.086) | 0.127 (0.096) | 0.215 (0.131) |
| Have a short-term contract | | | | 0.203* (0.109) | -0.024 (0.111) | -0.004 (0.151) |
| σ | 0.688 | 0.788 | 0.972 | 0.686 | 0.784 | 0.971 |
| Adjusted R2 | 0.029 | 0.005 | 0.049 | 0.034 | 0.015 | 0.052 |
| N | 653 | 653 | 653 | 653 | 653 | 653 |

Note: *p<0 .1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses. Other control variables are not shown to save space. The full regression results are provided in Appendix B, Table B.2.

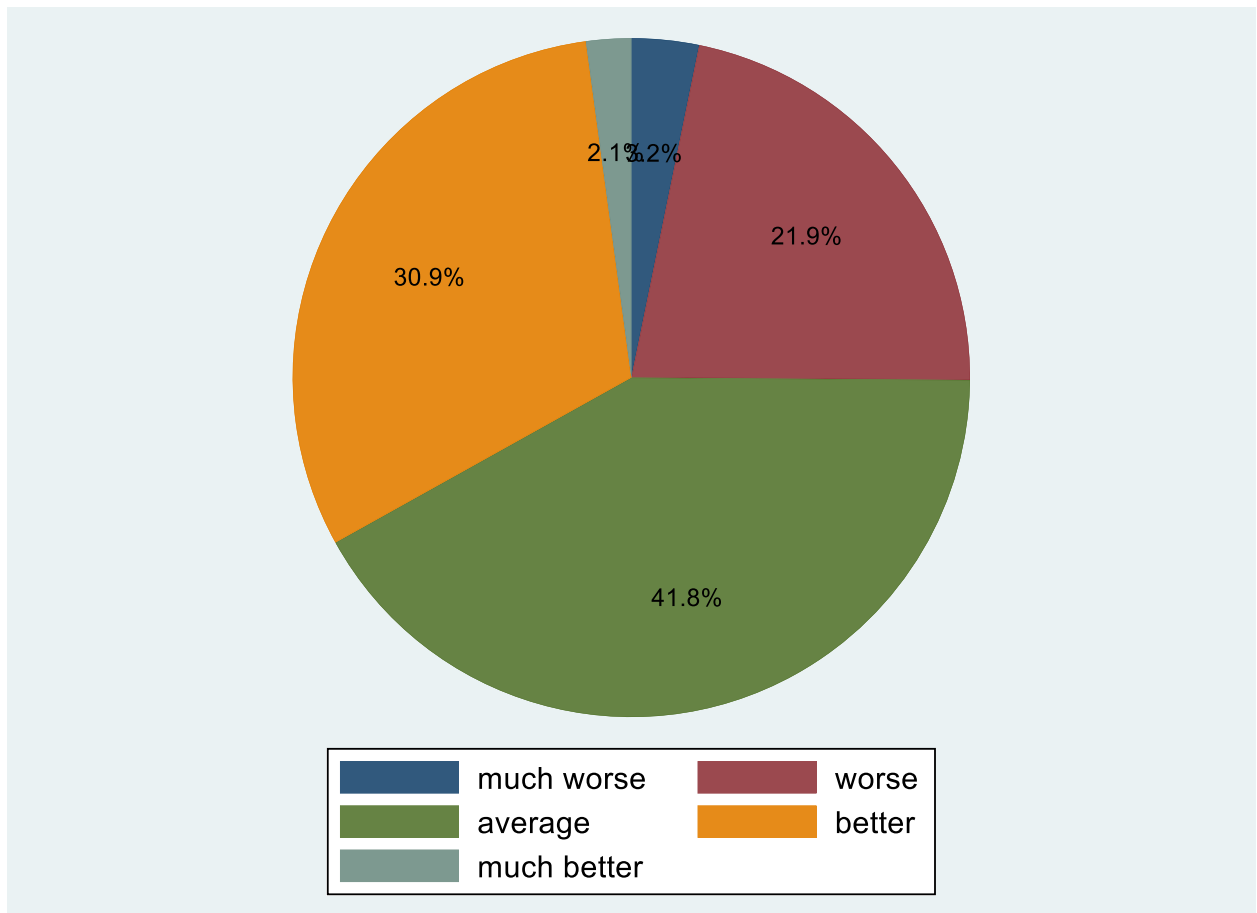
Source: Own calculations from the survey data.

Figure 1: Changes in Households' Income and Savings Due to COVID-19, Vietnam 2020



Source: Own calculations from the survey data.

Figure 2: Households' Expected Financial Situation for Next 3 Months, Vietnam 2020



Source: Own calculations from the survey data.

Appendix A: Part of the Web-based Rapid Assessment Survey Questionnaire Related to Jobs, Finance, and Expectations

| | | | |
|-------------------------------|---|---------------------------------|----------------|
| A PERSONAL INFORMATION | | | |
| 1 | Year of birth | | |
| 2 | Sex | Male | 1 |
| | | Female | 2 |
| 3 | Ethnicity | Kinh | 1 |
| | | Other (detail)_____ | 99 |
| 4 | Permanent living place (for more than 6 months in the past 12 months) | Urban | 1 |
| | | Rural | 2 |
| 5 | Highest educational level | Never go to school | 1 |
| | | Incomplete primary school | 2 |
| | | Complete primary school | 3 |
| | | Complete secondary school | 4 |
| | | Complete upper-secondary school | 5 |
| | | College / University | 6 |
| | | Postgraduate (Master, PhD) | 7 |
| | | Other (detail)_____ | 99 |
| 6 | Marital status | Currently married | 1 |
| | | Never married | 2 |
| | | Separated | 3 |
| | | Divorced | 4 |
| | | Widow | 5 |
| 7 | Are you the household head? | Yes | 1 |
| | | No | 2 |
| 8 | Religion | No religion | 0 |
| | | Buddhism | 1 |
| | | Christian | 2 |
| | | Protestant | 3 |
| | | Hoa Hao | 4 |
| | | Cao Dai | 5 |
| | | Islamic | 6 |
| | | Other (detail)_____ | 99 |
| 9 | Did you work during the past 14 days? | Yes | 1 |
| | | No | 2 |
| | | | Skipped to A12 |
| 10 | If yes, your work position was... | Business owner | 1 |
| | | Self-employed | 2 |
| | | Family business worker | 3 |
| | | | Skipped to A13 |

| | | |
|----|--|----|
| | Cooperative's member | 4 |
| | Wage worker | 5 |
| 11 | What is the type of your work contract? | |
| | Labor contract of 3 months or less | 1 |
| | Labor contract of 3 months to less than 12 months | 2 |
| | Labor contract of 1 year to 3 years | 3 |
| | Permanent labor contract | 4 |
| | Project-based labor contract | 5 |
| | By verbal agreement | 6 |
| | No labor contract | 7 |
| 12 | What are the reasons that you do not have work now? | |
| | Have not found a job yet | 1 |
| | Waiting for a new job | 2 |
| | Due to business closures under COVID-19 | 3 |
| | Due to recent health problems | 4 |
| | Due to personal / family matter | 5 |
| | Other (detail)_____ | 99 |
| 13 | What is your household's poverty status? | |
| | Non-poor | 1 |
| | Poor or near-poor | 2 |
| 14 | Do you currently participate in a social insurance scheme? | |
| | Yes, mandatory | 1 |
| | Yes, voluntary | 2 |
| | No | 3 |
| 19 | In the past 14 days, how did you feel about your health? | |
| | Good | 1 |
| | Normal | 2 |
| | Not good | 3 |

B SELF-ASSESSMENT OF COVID-19'S IMPACTS ON SOCIO-ECONOMIC LIFE

| | | |
|---|--|---|
| 1 | What do you think about our economy's resilience after COVID-19? | |
| | Optimistic | 1 |
| | Normal | 2 |
| | Pessimistic | 3 |
| 2 | What do you think about the current status of the economy? | |
| | Good | 1 |
| | Normal | 2 |
| | Bad | 3 |
| 3 | What do you expect the economy to be in the next 3 month? | |
| | Better than now | 1 |
| | Unchanged, compared to now | 2 |
| | Worse than now | 3 |
| 4 | In your opinion, how long will the COVID-19's impacts on the economy last? | |
| | Less than 3 months | 1 |
| | 3 months to less than 6 months | 2 |
| | 6 months to less than 12 months | 3 |

| | | |
|----|---|---|
| | 1 year to less than 2 years | 4 |
| | 2 years or more | 5 |
| 5 | What is your assessment of your household's current financial situation? | |
| | Good | 1 |
| | Fairly good | 2 |
| | Normal | 3 |
| | Fairly bad | 4 |
| | Bad | 5 |
| 6 | How would you expect your household's financial situation to change in the next 3 months? | |
| | Much better | 1 |
| | A little better | 2 |
| | Unchanged | 3 |
| | A little worse | 4 |
| | Much worse | 5 |
| 7 | How did your household's income change due to COVID-19? | |
| | Increased | 1 |
| | Unchanged | 2 |
| | Decreased | 3 |
| 8 | How did your household's expenditure change due to COVID-19? | |
| | Increased | 1 |
| | Unchanged | 2 |
| | Decreased | 3 |
| 9 | How did your household's savings change due to COVID-19? | |
| | Increased | 1 |
| | Unchanged | 2 |
| | Decreased | 3 |
| 10 | How do you worry about your job because of COVID-19? | |
| | Very worried | 1 |
| | A little worried | 2 |
| | No worried | 3 |

Appendix B: Additional Tables

Table B.1: Expectations about Own Financial Situation for Next 3 Months, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 |
|-------------------------------|-----------------------------|----------------------|-----------------------------|----------------------|
| | Expected finance | Job worry | Expected finance | Job worry |
| Have a job | -0.035 (0.116) | -0.428*** (0.080) | | |
| Self-employed | | | 0.326* (0.179) | -0.240** (0.120) |
| Have a permanent contract | | | -0.053 (0.118) | -0.483*** (0.083) |
| Have a short-term contract | | | -0.158 (0.139) | -0.372*** (0.097) |
| Good health | 0.008 (0.071) | -0.078 (0.054) | 0.020 (0.071) | -0.071 (0.054) |
| Age | -0.016*** (0.004) | -0.001 (0.004) | -0.018*** (0.004) | -0.002 (0.004) |
| Female | -0.161** (0.078) | -0.080 (0.055) | -0.138* (0.078) | -0.071 (0.054) |
| Kinh | -0.285 (0.184) | -0.145 (0.228) | -0.260 (0.173) | -0.139 (0.230) |
| Have a college education | -0.056 (0.190) | -0.115 (0.138) | -0.000 (0.188) | -0.086 (0.138) |
| Have a graduate education | -0.068 (0.195) | -0.357** (0.146) | 0.001 (0.196) | -0.310** (0.146) |
| Married | 0.172* (0.096) | 0.047 (0.071) | 0.173* (0.096) | 0.071 (0.072) |
| Follow no religion | -0.109 (0.081) | 0.082 (0.061) | -0.088 (0.080) | 0.086 (0.061) |
| Urban | -0.093 (0.129) | -0.129 (0.091) | -0.103 (0.126) | -0.124 (0.091) |
| Constant | 4.201*** (0.297) | 2.933*** (0.291) | 4.169*** (0.276) | 2.887*** (0.301) |
| σ | 0.850 | 0.615 | 0.844 | 0.612 |
| Adjusted R2 | 0.023 | 0.132 | 0.036 | 0.140 |
| N | 653 | 653 | 653 | 653 |

Note: *p<0.1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses.

Table B.2: Expectations about the Economy, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|-------------------------------|---------------------------------|---|---|---------------------------------|---|---|
| | Economy's resilience | Economy during next 3 months | Expected duration of impacts | Economy's resilience | Economy during next 3 months | Expected duration of impacts |
| Have a job | 0.313*** (0.083) | 0.054 (0.091) | 0.168 (0.126) | | | |
| Self-employed | | | | 0.211* (0.128) | -0.192 (0.155) | 0.262 (0.187) |
| Have a permanent contract | | | | 0.373*** (0.086) | 0.127 (0.096) | 0.215 (0.131) |
| Have a short-term contract | | | | 0.203* (0.109) | -0.024 (0.111) | -0.004 (0.151) |
| Good health | 0.105* (0.059) | 0.095 (0.068) | -0.115 (0.083) | 0.101* (0.058) | 0.086 (0.068) | -0.112 (0.082) |
| Age | -0.007* (0.004) | -0.009** (0.004) | 0.018*** (0.005) | -0.007* (0.004) | -0.008** (0.004) | 0.017*** (0.006) |
| Female | 0.104* (0.061) | 0.104 (0.072) | -0.059 (0.090) | 0.101* (0.061) | 0.093 (0.072) | -0.050 (0.090) |
| Kinh | 0.085 (0.169) | 0.071 (0.255) | -0.030 (0.340) | 0.086 (0.160) | 0.064 (0.225) | -0.015 (0.325) |
| Have a college education | -0.259* (0.137) | -0.070 (0.146) | 0.696*** (0.226) | -0.275** (0.136) | -0.107 (0.149) | 0.711*** (0.226) |
| Have a graduate education | -0.340** (0.142) | -0.128 (0.154) | 0.700*** (0.236) | -0.372*** (0.141) | -0.190 (0.157) | 0.705*** (0.236) |
| Married | 0.119* (0.071) | 0.044 (0.082) | -0.051 (0.104) | 0.091 (0.072) | 0.013 (0.083) | -0.077 (0.103) |
| Follow no religion | 0.028 (0.065) | -0.081 (0.073) | 0.088 (0.091) | 0.031 (0.066) | -0.086 (0.074) | 0.103 (0.091) |
| Urban | -0.026 (0.102) | -0.041 (0.112) | 0.067 (0.164) | -0.035 (0.101) | -0.048 (0.113) | 0.053 (0.163) |
| Constant | 2.135*** (0.215) | 2.646*** (0.322) | 1.933*** (0.457) | 2.179*** (0.210) | 2.707*** (0.295) | 1.958*** (0.438) |
| σ | 0.688 | 0.788 | 0.972 | 0.686 | 0.784 | 0.971 |
| Adjusted R2 | 0.029 | 0.005 | 0.049 | 0.034 | 0.015 | 0.052 |
| N | 653 | 653 | 653 | 653 | 653 | 653 |

Note: *p<0.1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses.

Table B.3: Characteristics of Individuals that Were Impacted by COVID-19 Using an Ordered Probit Model, Vietnam 2020

| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 |
|----------------------------|---------------------|---------------------|----------------------|---------------------|---------------------|---------------------|
| | Current finance | Income change | Saving change | Current finance | Income change | Saving change |
| Have a job | 0.559*** (0.154) | 0.729*** (0.186) | 0.459*** (0.155) | | | |
| Self-employed | | | | 0.629** (0.256) | 0.784*** (0.266) | 0.348 (0.227) |
| Have a permanent contract | | | | 0.579*** (0.159) | 0.760*** (0.190) | 0.387** (0.161) |
| Have a short-term contract | | | | 0.470*** (0.176) | 0.632*** (0.219) | 0.693*** (0.189) |
| Good health | 0.540*** (0.103) | 0.059 (0.112) | 0.293*** (0.106) | 0.543*** (0.103) | 0.061 (0.111) | 0.293*** (0.107) |
| Age | 0.018*** (0.006) | -0.012* (0.007) | -0.002 (0.007) | 0.017*** (0.006) | -0.013* (0.007) | 0.000 (0.007) |
| Female | -0.058 (0.109) | -0.019 (0.114) | 0.080 (0.103) | -0.053 (0.109) | -0.015 (0.113) | 0.070 (0.102) |
| Kinh | -0.087 (0.554) | -0.456 (0.414) | -0.209 (0.400) | -0.075 (0.551) | -0.446 (0.412) | -0.244 (0.406) |
| Have a college education | 0.527** (0.230) | 0.135 (0.268) | 0.204 (0.282) | 0.538** (0.232) | 0.146 (0.266) | 0.186 (0.289) |
| Have a graduate education | 0.851*** (0.240) | 0.481* (0.276) | 0.327 (0.289) | 0.859*** (0.242) | 0.487* (0.273) | 0.324 (0.298) |
| Married | -0.141 (0.125) | -0.318** (0.136) | -0.364*** (0.127) | -0.154 (0.127) | -0.335** (0.138) | -0.328** (0.129) |
| Follow no religion | -0.035 (0.110) | -0.057 (0.121) | -0.070 (0.117) | -0.027 (0.110) | -0.048 (0.122) | -0.089 (0.116) |
| Urban | -0.115 (0.163) | -0.162 (0.200) | 0.274 (0.193) | -0.122 (0.163) | -0.171 (0.200) | 0.294 (0.196) |
| μ_1 | -0.343 (0.661) | 0.031 (0.561) | 0.816* (0.439) | -0.348 (0.652) | 0.017 (0.557) | 0.851* (0.450) |
| μ_2 | 0.736 (0.659) | 2.115*** (0.599) | 1.817*** (0.440) | 0.729 (0.650) | 2.105*** (0.592) | 1.859*** (0.451) |
| μ_3 | 2.825*** (0.674) | | | 2.820*** (0.664) | | |
| μ_4 | 3.504*** (0.685) | | | 3.500*** (0.675) | | |
| Log likelihood | -653.72 | -434.33 | -574.64 | -653.31 | -433.94 | -572.09 |
| Chi2 | 88.876 | 37.737 | 36.693 | 89.214 | 38.658 | 40.826 |
| N | 653 | 653 | 653 | 653 | 653 | 653 |

Note: *p<0.1, **p<0.05, ***p<0.01. Robust standard errors are in parentheses. Estimates are obtained using an ordered probit model.