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Working Paper

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GLO Discussion Paper, No. 864

Provided in Cooperation with:
Global Labor Organization (GLO)

Suggested Citation: Giang, Long Thanh; Kikkawa, Aiko; Nguyen, Cuong Viet (2021) : An Ex-Ante Assessment on Poverty and Cash Transfer Benefits in Viet Nam under the Covid-19 Pandemic, GLO Discussion Paper, No. 864, Global Labor Organization (GLO), Essen

This Version is available at:
<http://hdl.handle.net/10419/235029>

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An Ex-Ante Assessment on Poverty and Cash Transfer Benefits in Viet Nam under the Covid-19 Pandemic

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Abstract

Using household data from the Vietnam Household Living Standard Survey (VHLSS) and the sector-specific growth and remittance inflow projections by Asian Development Bank (ADB), this study first estimated the COVID-19 pandemic on income and poverty status of the Vietnamese households, and then simulated the impact of cash transfer programs by the government of Vietnam on the income and poverty status of households. Our simulations suggest that COVID-19 leads to substantial reduction in household's per-capita income, and results in additional 1.7 million poor people. The cash transfers would be pro-poor and helps bring about 1.2 million people out of poverty. The transfers would be particularly pro-poor for ethnic minority and rural persons and those working in severely affected economic sectors. Based on the findings, we discussed various policies to implement appropriate measures to help households cope with adverse economic impact of COVID-19.

Keywords: COVID-19, poverty, income, microsimulation, Vietnam.

This study was completed with the technical and financial support from the Asian Development Bank (ADB). The authors would like to thank Keiju Mitsuhashi, Rana Hasan, Meredith Wyse, Ngo Quang Vinh and Maria Loreno C. Cleto for providing insightful and constructive comments on various drafts of this report. Raymond Gasper and Phan Lan Phuong are acknowledged for data work and administrative support, respectively. The views expressed in this publication are those of the authors and do not necessarily reflect the views and policies of the ADB or its Board of Governors or the governments they represent. ADB does not guarantee the accuracy of the data included in this publication and accepts no responsibility for any consequence of their use.

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I. INTRODUCTION

The COVID-19 pandemic has created a human and economic crisis like no other since the Second World War (ILO et al., 2020). To contain the COVID-19, many measures, including social distancing, lock-down and business and school closures, have been taken in most of the countries in the world. To date, many countries have been fighting to slow the spread of virus with varying rates of success, but the fact is that the world economy, including East Asia and the Pacific – ever the most dynamic and the fastest growing region in the world – has experienced an economic slowdown and contraction. Projections by the World Bank, International Monetary Fund and Asian Development Bank all predict that the region has faced the combined economic shocks from both local lockdown measures and a global economic slowdown.

The negative economic shocks due to COVID-19 have pushed several households into poverty with great losses in labor income and remittances. Sumner, Hoy & Juarez (2020) found that a decade in the world's progress in reducing poverty might be collapsed under persistent COVID-19 impact. The long-term impact of virus spreading-out may affect the implementation of the Sustainable Development Goals (SDGs) and targets, in which poverty, food security, decent work, health outcomes, and gender equality are in great concerns (ILO et al., 2020). The whole societies have been affected, but there have been pieces of evidence that some groups of people have been much more affected than others (UNICEF 2020).

To respond the COVID-19, social protection has a central role in addressing socio-economic and health dimensions for all people in general and for vulnerable and poor people in particular. According to ILO (2020), 1568 social protection measures in 209 countries in the world, in which 339 measures in 40 countries in Asia and the Pacific region, have been implemented to provide special allowance/grant, income/jobs protection, unemployment benefit, housing/basic services, healthcare support, food and nutrition, pensions, children and families, sickness, access to education, maternity/parental support, and employment injury. Moreover, given the limited coverage of the contributory social protection programs in the region, three-quarters of the measures have been under non-contributory mechanisms (such as India has directed a benefit of 500 Indian rupees for two months to 35 million beneficiaries of non-contributory schemes for older people, widows and people with disabilities; the Philippines has run the Social Amelioration Program to reach 18 million low- and middle-income households with a monthly transfer of 5,000-8,000 Philippine pesos paid for two months; and Thailand set a scheme providing 5,000 Thai baht per month for three months to informal workers) (ILO et al. 2020).

Vietnam has not been out of the above stories. Since the reveal of the first case on 23 January 2020, Vietnam has implemented various strong measures to avoid the COVID-19 spreading out to its about 97 million citizens. The same as many other countries in the Asia and the Pacific region, such measures severely influenced economic activities throughout the country, which have been presented by job losses and economic slow-down (World Bank 2020). Report by GSO (2020a) showed that the first two quarters in 2020 had much lower growth rates for the whole economy and main economic sectors than those at the same time in 2018 and 2019. Labor report by GSO (2020b) in September 2020 indicated that about 32 million people aged 15 and over have been negatively affected by COVID-19 pandemic with job loss, job rotation, reduced working hours and thus income loss or reduction. About 69% workers in services sector, 66% workers in industrial and construction sector, and 27% workers in agriculture, forestry and fishery sectors were seriously affected. Under-employment and reduced wage income were observed in all economic sectors and both informal and formal workers.

To deal with several socio-economic and health issues raising from the COVID-19 pandemic, the government of Vietnam (GOV) has introduced and implemented different social protection measures. Noticeably on 10 April 2020, which was about a week from the beginning of the first national social distancing period, the GOV issued the Resolution 42/NQ-CP (hereafter R42 in short) to approve a support measure worth VND 62 trillion (or about US\$ 2.66 billion) to support people affected by the COVID-19 pandemic for three months (from April to June), including those living in poor and near-poor households, working as self-employed workers, and those losing their jobs due to business closures. This social assistance (cash transfer) package was expected to help vulnerable people to overcome poverty due to the COVID-19.

To date, however, there have been no studies exploring the practical impacts of this Resolution on different groups of beneficiaries. As COVID-19 has expanded and Vietnam has contained the pandemic quite well, it is still expected that COVID-19's impacts on the Vietnamese economy in general and vulnerable people and their households in particular will continue. Also, to date, there have been no updated nationally representative household data mapping poverty incidence in the COVID time. As such, ex-ante assessment of the cash transfer programs under the R42 is expected to provide policy-relevant evidence on how such programs would be able to help reduce poverty, as well as which groups should be prioritized under budget constraints.

The overall objective of this research is to conduct micro-simulations to measure the potential impact of cash transfers under the R42 to different groups. In particular, the research intends to: i) quantify the potential impacts of COVID-19 pandemic on wage and remittances (both domestic and foreign) income of the Vietnamese households; ii) assess the pandemic-led income shock on

poverty incidence, iii) simulate the contribution of the R42 to reducing poverty incidence among Vietnamese households, and iv) estimate the size of required budget for covering all possible targeted beneficial groups.

This research comprised of four parts, as follows. In Part II, we provided a brief description of the data used for analyses, i.e., the Vietnam Household Living Standard Survey (VHLSS) 2018, as well as the methods for estimating the impacts of COVID-19 on jobs, domestic and international remittances, household income, and poverty. Part III presented key findings from microsimulations. The last part concluded the research with key summaries, policy discussions, along with further studies on this topic.

II. DATA AND ANALYTICAL METHODS

1. Data

In this study, we used the latest Vietnam Household Living Standard Survey (VHLSS) in 2018. The 2018 VHLSS were conducted by the General Statistics Office of Vietnam (GSO) with technical assistances from the World Bank. The 2018 VHLSS covered 45,000 households sampled from 3,131 communes. The survey was representative at the regional level. The surveys contained the detailed information on individuals, households, and communes. Individual-level data included basic demography, employment and labor force participation, education, and health. Household-level data included income, expenditure, housing, fixed assets and durable goods, and participation of households in poverty alleviation programs.

We simulated the effect of the COVID-19 pandemic on income and poverty, and subsequently investigated the potential effect of the allowance support from the government. To reflect better the situation in early 2020, we adjusted the per-capita income of households in the 2018 VHLSS to 2019 using the same growth rate for all the households at 5.99%.¹ We also adjusted the income to the price of December 2019 using the inflation rate in 2019 at 2.94%.

At the end of 2019, the national poverty rate and the near-poor rate were 3.75% and 4.45%, respectively. For simplicity, we classified poor and near-poor households in the 2018 VHLSS using income poverty lines. The income poverty line was set equal to 9,530 thousand VND/person/year to get the poverty rate at 3.75% with the 2018 VHLSS. Similarly, the near-poor line was predicted at 13,119 thousand VND/person/year to get the poverty rate at 4.45% with the

¹ According to the data from World Bank, GDP per capita of Vietnam was 36,564,628 VND in 2018, and 38,756,628 VND in 2019 at the constant price. See: <https://data.worldbank.org/indicator/NY.GDP.PCAP.KN?locations=VN>

2018 VHLSS (i.e., the proportion of households - whose per capita income was between 9,530 and 13,119 thousand VND - was 4.45%).

2. Methods

2.1. Simulating the impact of the COVID-19 on household income and poverty

The main challenge of this study is the limited information on the actual economic impact of the COVID-19 pandemic to households. There were no data on household welfare after the COVID-19 pandemic. In this study, we simulate the effect of the COVID-19 pandemic on income and poverty of households using a forecasted scenario on GDP reduction of industries in Vietnam.

ADB's Economic Research and Regional Cooperation Department has estimated the impact of COVID-19 on output growth for the economies in the region and released the result in the second half of 2020 (ADB 2020a). According to the report, the pandemic will cut GDP in Vietnam by 5.96% for 2020 if the containment takes up to the third quarter of 2020. It also estimated the pandemic-led GDP loss for a total of 35 industrial sectors. It is widely reported that COVID-19 and the containment measures have particularly large and negative impacts on specific sectors such as tourism represented by air and local transport and hotel sector while other sectors such as education and social work are expected to experience more moderate effects.²

We assumed that the COVID-19 pandemic affected income of households through the employment channel. Thus, people employed in different industrial sectors were affected at different degrees. At the time of the research, no detail information of the extent of unemployment or wage loss due to COVID-19 was available. The study relied on the estimated sector specific decline in GDP as the proxy of the sector specific economic shock. It is also assumed that the degree of shock is also translated to the proportional decline of wage of workers employed in the sector.³ This assumption is contrasted to an alternative method of simulation that assigns proportional unemployment spell to a selected group of workers in affected sectors, which results in a total loss of income of a selected group of workers. The latter approach was not adopted for this study as VHLSS does not have sufficient information on the employment of the household members such as the nature of work contracts.

2.2. Simulated effect of the COVID-19 on income and poverty

² The estimation exploits its own Multi-Region Input-Output Tables (MRIOT), containing 35 sectors. Based on the anticipated level of direct and indirect domestic demand shocks as well as the shocks that drives from change in external demand, it derives the effects on output. The model incorporates economy-level information from the initial few months of 2020 on the severity of the outbreak, movement restriction, and the nature of lockdown policies. Detail methodology is found in Abiad et al. (2020). The sector specific effect follows similar pattern in the prediction presented by ILO (2020) for Vietnam.

Our simulation method could be described in two steps. In the first step, we classified households into different groups by the main industry of employment of household heads. If the household head was not working, we could use employment of another working household member. If households had more than one working members, we selected a member who had the highest number of working hours per month. In the 2018 VHLSS, employment was classified into 2-digit level industries.

In the second step, we estimated per-capita wage income of households under the impact of the COVID-19 pandemic using the projected impacts of the COVID-19 pandemic on aggregate outputs of industries based on the forecast from ADB (2020a).

We assumed that per-capita income of all households in an industry decreased by the same reduction rate of aggregate outputs of the industry. More specifically, a household i whose employment was classified in industry j was assumed to have per-capita wage income in the presence of the COVID-19 pandemic as follows:

$$Income_{i,j,1} = Income_{i,j,0} - Income_{i,j,0} \cdot Reduction_j, \quad (1)$$

where:

- $Income_{i,j,1}$ is per-capita wage income of household i in industry j in the presence of the COVID-19 pandemic.
- $Income_{i,j,0}$ is per-capita wage income of households in the baseline, which is observed wage income in the survey (in absence of the COVID-19), and
- $Reduction_j$ is the reduction rate of aggregate output of industry j . The amount of reduced wage income is equal to $Income_{i,j,0} \cdot Reduction_j$.

In addition to the shock to wage income, it has been also clear that both domestic and international remittances were reduced significantly in various low- and middle-income countries (LMICs), including Vietnam. As for remittances inflow to Vietnam from foreign sources, a forecast from ADB (2020b) on the impact of COVID-19 on the remittance inflow to developing Asian economies is used to approximate the decline of remittance using the same logic of the equation (1). The decline in international remittances to Vietnam was estimated at 18.1% and the shock is applied to the proportionate cut in the foreign remittance income of the households. For domestic remittances which mainly originate from the wage income of the urban migrants, there is no available estimation. Since domestic migrants are highly heterogeneous group of workers employed across different sectors and occupations, it is assumed that the average wage moves along the general GDP decline, which is estimated at 5.96% in ADB (2020a).

Finally, using the predicted total household income that reflects above-mentioned wage and remittance shocks, we could estimate the poverty rate in the presence of the COVID-19. We also could compute the increase in the poverty rate as well as the number of poor increased due to the COVID-19 pandemic.

2.3. Simulated effect of cash transfers on income and poverty

Based on available data from VHLSS and along with the information on targeted groups in R42, we simulate the changes in per-capita income and poverty rate where households received the following three supports from the government:⁴

- “People with war merit, who are receiving monthly allowances, are entitled to an additional VND 500,000 / person / month. The application period is three months (April-June 2020) and is paid once.”

In the VHLSS data, we knew whether a household was the recipient of the war merit, but we could not know how many members within such a household were the war merit, we assumed that there was only one war-merit member receiving the government support for COVID-19. Thus, each household with war-merit members received 1,5000,000 VND/year.

- “Social protection beneficiaries (including older people without pensions; and those aged 80+ and 60-79 living alone) who are receiving monthly social allowances are supported with an additional VND 500,000/person/month. The application period is three months (April-June 2020) and is paid once.”

As with the VHLSS data, we knew whether a household was the recipient of social assistance benefits, but we could not know how many members within such a household were social assistance beneficiaries, we assumed that there was only one member in social assistance households receiving the government support for COVID-19. Thus, each social assistance household received 1,5000,000 VND/year.

- “Poor and near-poor households according to the national poverty line on the list until 31 December 2019 are supported with VND 250,000/person/month. The application period is three months (April-June 2020) and is paid once.”

If a person with war merit or social protection beneficiary live in a poor (or near poor) household, he or she will receive the support of VND 500,000/person/ month, while other household members receive the support for the poor (or near poor), i.e., VND 250,000/person/month.

⁴ It should be noted that our estimations considered other transfers from government, which are not COVID-specific ones (i.e., they were not a part of the R42), are as other income sources of the household.

With these, the per-capita income of household i after receiving an amount of per-capita social assistance could be calculated as follows:

$$Income_{i,j,transfer} = Income_{i,j,0} - Income_{i,j,0} \cdot Reduction_j + Allowance_{i,j}. \quad (2)$$

Using this predicted income, we could estimate the poverty rate in the presence of the social assistance support and compute the effect of the support on the poverty rate.

2.4. Simulating costs of social assistance programs

To estimate the total costs (or the required budget size) of the proposed social assistance programs without administrative costs, we applied the following equation:

$$Cost = Allowance * Beneficiaries, \quad (3)$$

where *Allowance* is the average of allowances that are provided according to R42, and *Beneficiaries* is the number of the eligible beneficiaries. We can also compute the cost as the share of nominal GDP.

3. Limitations of this Research

There are some notable limitations of this study which need to be noted in advance when considering the policy inferences and warrants further studies on this topic, as follows.

First, the model used the sector-specific ADB output projections as of June 2020 as the basis of the simulations. A total GDP decline of 5.96% in 2020 was predicted as a possible impact of the COVID-19. As of the time of the writing of this report at the end of the year 2020, the actual economic performance is showing more resilience. Some of the industrial sectors predicted to face severe negative output growth indeed recorded large output decline (such as hotels and restaurants and mining and quarrying) but other sectors outperformed the projection (such manufacturing and wholesale/retail), leading to more recent estimate suggesting marginally growth in GDP in 2020. While acknowledging the differences in the output projections and the recorded economic performance, the ex-ante exercise still provides useful policy insights by presenting the income and poverty status of the households based on the type of shocks that the pandemic is expected to trigger in general without any government macro and microeconomic intervention while factoring in the various input-output relationships of the national, regional, and global economy.

Second, the model assumed that the COVID-19 affected the wage of workers in the same industrial sector at a flat rate. Heterogenous effects due to the differences in occupations, skills level or nature of labour contracts were not considered in simulations. This approach can be contrasted to an

alternative model where unemployment status is assigned to randomly selected number of workers in line with the reduction in sectoral production.

Third, since VHLSS data did not capture informal workers or mobile population/workers who are usually concentrated in urban area, the research missed a large proportion of workers who are eligible for R24 support. As below, this would be mentioned that we could not simulate the impact of the R42 on all 7 beneficiary groups as regulated.

Fourth, because the VHLSS data could not define income at individual level, assumption of changes (i.e., reductions due to the COVID-19) using household head or (alternatively) a person with the highest number of working hours might be over or under-stated regarding income of other people who were not in consideration but had smaller/larger negative shocks in income. Also, the simulations attempted to look at the annual effect which might also include the periods that the economy recovered and partly cancelled out the negative shocks.

III. KEY FINDINGS FROM SIMULATIONS

1. Impact of COVID-19 on household income

Table 1 presents the micro-simulation results for the impact of COVID-19 on per-capita income of the Vietnamese households with various individual and household characteristics. The impact of COVID-19 on a household's per-capita income could be through job/wage loss and/or reduction in remittances (both domestic and international). Please note that all estimated results are calculated for the year 2020 as discussed above.

COVID-19 could reduce average per-capita annual income in 2020 by 10.4% compared to the non-COVID-19 scenario, of which 9.8% would be due to job/wage loss and 0.6% due to reductions in all remittances. In general, the COVID-19 could have a much stronger impact on per-capita income due to through job/wage loss than reduction in remittances reduction. This was clear since labor income usually account for most of the household income, and thus impact of COVID-19 on income due to job/wage loss would be more substantial than that due to reductions in domestic and international remittances. Loss of remittance income, however, can have ineligible impact especially among household which are poor or headed by older persons (See Appendix Table A1 for the estimates disaggregated by domestic and international remittances).

Households headed by women would be more affected by COVID-19 than those headed by men for both sources of income reduction. Households headed by a person at more advanced age would be generally more affected than those headed by a younger person – also for both sources of income. These could be elucidated by the fact that households headed by women and by younger

persons are usually attached to the economic sectors which have been heavily affected by the COVID-19 such as agriculture/forestry/fishery and services.

Ethnic minorities and the poorest households would be more affected by COVID-19 through job/wage loss than Kinh (the major ethnicity in Vietnam) and less poor households. These could be explained by the fact that the former had much lower per-capita income (due to both lower total household income and bigger household size) than did the latter, and therefore they would be more severely affected by COVID-19 through job/wage loss. Also, households located in urban areas would be more affected by COVID-19 through job/wage loss than their rural counterparts since the former had more wage jobs than did the latter. In contrast, households headed by Kinh persons and those located in rural areas would be more influenced by COVID-19 through reduction of remittances than their counterparts. This could be because these households usually have more migrants – both domestic and international – than do their counterparts.

It is noticeable that households headed by persons working as clerks or service workers would be most severely affected by COVID-19 (a 19.2-percent reduction in per-capita income due to job loss), followed by those working as leaders or managers (a 10-percent reduction) and those working in agriculture, forestry and fishery sector (9.5-percent reduction). These could be explained by the fact that economic activities, particularly in services, are expected to be hit hard by various measures to contain COVID-19 (such as social distancing and/or lockdowns) in both Vietnam and its trading partners.

[Table 1 about here]

Table 2 shows a further detail about the average annual per-capita income in the baseline scenario (i.e., without COVID-19) and those with COVID-19's impact via job/wage loss and/or reductions in all remittances. Data from the baseline scenario indicates clearly that households headed by men had lower per-capita income than did those headed by women. By age group, per-capita income of the Vietnamese households had an inverted U-shaped relation, in which households headed by the youngest group and the oldest group had lower per-capita incomes than other groups. Households headed by Kinh persons generally had per-capita income at about 2.5 times higher than those headed by ethnic minorities. Among households headed by working persons, those headed by persons working as leaders/managers or professionals/technicians had significantly higher per-capita than those headed by persons working in other jobs. There were vast differences in per-capita income between the poorest and the richest households (13,379 thousand VND vs. 103,800 thousand VND, respectively), and between rural and urban households (38,280 thousand VND vs 66,130 thousand VND, respectively).

The same as those in Table 1, the results from Table 2 indicate that the Vietnamese households – for whatever population sub-group – would experience that reduction in their per-capita income would be mostly due to job/wage loss.

[Table 2 about here]

2. Impact of the COVID-19 on poverty

Table 3 presents the simulated results for the impact of COVID-19 on poverty, which was resulted from the income loss due to job/wage loss as well as the reductions in domestic and international remittances. In general, the income poverty rate would be increased by 1.81 percentage points – from 4.36% in the baseline (without COVID-19) to 6.17% (with COVID) – equivalent to an increase of 1,741 thousand poor people.

Female-headed households had a lower non-COVID-19 poverty rate than male-headed ones, but they had a higher rate of increase in poverty (a 50-percent increase) than their counterparts (a 40-percent increase). In terms of the absolute number of person in poverty, that of male-headed households increased much higher than that of the female-headed households because the total population of the former outnumbers that of the latter (1,413 thousand vs. 319 thousand).

Although the rate of increase in poverty rate of households headed by ethnic minorities due to COVID-19 would be lower than that of households headed by the majority Kinh people (about 35% vs. 60%), the number of poor people living in the former households would be increased more significantly than that in the latter households (1,128 thousand vs. 603 thousand). This could be explained by the fact that ethnic minority poor people are predominant than Kinh poor people.

Households headed by persons working in agriculture/forestry/fishery sector would experience a large increase in the number of the poor, compared to other households. In these households, there are mostly people working in informal sector who usually do not participate in any social insurance schemes, and as such any income shock – such as the current shock under COVID-19 – will easily push them into poverty due to income losses.

Due to the COVID-19, the households in the poorest income quintile would experience a 40-percent increase in poverty rate or equivalent to an increase of 1,680 thousand poor persons. This result highlights the vulnerability of “near poor” group to economic shocks imposed by the pandemic. Similarly, households located in rural areas would have more 1,588 thousand poor people due to COVID-19, which is about 10 times of that for those located in urban areas (with an increase by 150 thousand poor people).

[Table 3 about here]

Several studies showed differences in poverty rates for those living in different ecological regions in Vietnam, in which the Northern Mountains and the Central Highlands are usually the poorest regions in Vietnam (see, for instance, World Bank & MPI 2015). **Figure 1** shows that the poverty rate for the whole Vietnamese households in all six ecological regions would be increased by 1.8 percentage points (from 4.36% in pre-COVID-19 status to 6.17% under COVID-19). Both Northern Mountains and Central Highlands would have the highest increases (respectively 5.0 and 3.1 percentage points), while Southeast and Red River Delta regions – two richest regions in Vietnam – would have the lowest increases (respectively 0.7 and 0.2 percentage point).

[Figure 1 about here]

Exploring further with increases in the poverty rates for some main ethnicities in the presence of COVID-19, **Figure 2** indicates that H'Mong people would face a severe problem with a 14.8-percentage-point increase in poverty rate (along with an increase of 298 thousand poor people), followed by Dao, Nung, and Thai. As presented above, these groups of ethnic minorities were among the poorest in the non-COVID-19 situation, and therefore the COVID-19 would push them in further poverty.

[Figure 2 about here]

3. Estimated impacts of the COVID-19-related cash transfer program

Table 4 presents estimates of the percentage of people receiving different social assistance benefits, who are eligible for R42's support. In general, 13.42% households having at least a person to receive either benefit for “people with war merit”, “social policy support” or “living in a poor or near poor household”, of which the last category was the majority. Up to 50.04% of the lowest income quantile (poorest) is eligible to the support, largely through the scheme for the poor and near poor. Households headed by the youngest or the oldest groups; headed by ethnic minorities; headed by those working in agriculture/forestry/fishery sector or those who were not working; and located in rural areas had higher rates of receiving any of three types of benefits than did other households.

[Table 4 about here]

Table 5 presents the simulated results for the impact of social assistance benefits from R42 to various groups of people. It should be well noted that, given the poverty line, the impact of transfers on poverty rates for different beneficiaries would be significantly different, depending on how they were different in the simulated per-capita income under the COVID-19. In overall, the benefits would help reduce 1.25 percentage points in poverty rate, from 6.17% (due to COVID-

19) to 4.92%. This means that the income poverty rate in Vietnam would increase from 4.36 percent (without COVID-19) to 4.92 percent (with COVID-19 and social assistance benefits). As a result of the government's support, 1,203 thousand people would be helped to escape from poverty after the impact of the COVID-19.

Households headed by younger people; by ethnic minorities; by those working in agriculture/forestry/fishery sector and those who were not working; belonged to the poorest income quintile; and located in rural areas would have higher reductions in poverty rates (in percentage points) as well as the number of poor people than people living in other households. This could be explained by the fact that these households had significantly lower COVID-19-affected per-capita income than their counterparts. This implies that the flat benefit packages provided by R42 would be significant in poverty reduction for more vulnerable groups of people under the impact of COVID-19.

[Table 5 about here]

Exploring further on poverty reduction for different groups of ethnic minority people, **Figure 3** shows that people in ethnic minority groups who would be severely affected by the COVID-19 such as H'Mong, Nung, Dao, and Thai (as presented in Figure 2), would have higher reductions in poverty rates (in percentage points) than other ethnic minority people. With the R42 support, these groups also would have higher reductions in the number of poor people than other groups. This is another significant sign of the benefit package from R42.

[Figure 3 about here]

Figure 4 and **Figure 5** summarize the impact of COVID-19 without and with cash transfers from R42 on per-capita income by the income percentile. Figure 4 presents the locally weighted regression of per-capita income across percentiles of per-capita income in the baseline (i.e., observed per-capita income without COVID-19). There are three lines corresponding to per-capita income in the baseline (no COVID-19) [black line], per-capita income in the presence of the COVID-19 pandemic but without cash transfers from R42 [red line], and per-capita income in the presence of the COVID-19 pandemic and cash transfers from R42 [blue line]. Since the support is provided for low-income households, the lines of per-capita income in the presence of the COVID-19 pandemic with and without allowance support are almost identical for most of the households. The absolute difference in per-capita income between the baseline and the COVID-19 pandemic situation is larger for the households in higher percentiles.

Figure 5 presents the locally weighted regression of the reduction rate of per-capita income due to the COVID-19 pandemic across percentiles of per-capita income in the baseline (i.e., the observed

per-capita income without COVID). There are two lines corresponding to the reduction rates of per-capita income with [black line] and without [red line] the cash transfers from R42. For households in high income percentiles, the two lines are quite close since they are less likely to receive the support. As a percent of per-capita income, the cash transfers would be larger for the poorer households. As such, the reduction rate of per-capita income in the presence of the cash transfers for the poor households would be small. For the very poor people, the amount of cash would be even larger than the income loss due to the COVID-19 pandemic, and thus they would experience an increase in per-capita income (compared with the baseline income).

[Figures 4 & 5 about here]

4. Cost simulations

In this section, we estimated the costs for providing cash transfers under R42 to different groups of beneficiaries. **Table 6** shows the results. To provide benefits to beneficiaries, it would spend 13,325 billion VND (or equivalent to 0.221 percent of GDP in 2019 since the nominal GDP in 2019 was 6,024,160 billion VND). Table 6 also shows the detailed allocation of this amount to different groups. Noticeably, due to significantly higher proportions in the total population of beneficiaries, Kinh people, those working in agriculture/forestry/fishery sector, those living in households lying in the poorest income quintile, those living in rural areas and the two poorest regions (i.e., Northern Mountains and Central Highlands) would get a significantly higher amount of cash transfers than their counterparts. For different countries in the world, Gentilini et al. (2020) shows that countries spent an average of \$US 44 per capita for social protection (including social assistance, social insurance, and labor market support). Countries spent for social protection per capita from \$US 1 in low-income countries to \$US 99 in high-income countries. The overall global social protection spending to respond to COVID-19 was about 0.6% of global GDP.

IV. DISCUSSIONS, POLICY RECOMMENDATIONS AND FURTHER STUDIES

1. Discussions and Policy Recommendations

Viet Nam experienced the first case of COVID-19 in late January 2020, but the government of Vietnam has been active in containing it. To date, the government has implemented various measures, including social distancing, school closure and travel ban in mid-April 2020 during the first wave and in July-August 2020 during the second wave. At the same time, realizing economic challenges for businesses, households and citizens, the government also issued an important social assistance measures, i.e., the Resolution 42, to mitigate the negative income shocks to various vulnerable groups of people.

Using data from VHLSS 2018 along with microsimulation methods, this study found that the predicted economic loss from COVID-19 could significantly influence a household's per-capita income reduction through reduction in employment (or job loss). More specifically, the pandemic is likely to increase poverty in Vietnam from 4.36% to 6.17%, which would result in additional 1.7 million poor people, in which more vulnerable groups would be more vulnerable to poverty, meaning that the pandemic would be deepening poverty and reversing recent impressive strides in poverty reduction for Vietnam. The R42 would be pro-poor transfers, helping to reduce poverty rate from 6.17% to 4.92%, which would help to decrease about 1.2 million poor people.

There would be remained about 0.5 million poor people (i.e., $-1.7 + 1.2 = -0.5$) after the delivery of the R42. The majority of those left in poverty after the support would be still those living in households headed by ethnic minorities, non-working persons, and in the poorest income quintile. The R42 with beneficiaries defined from VHLSS would cost 0.221% of GDP, which is about average of the world's on-going support programs.

Based on our findings and international experiences, we would like to propose the following policy recommendations.

First, the government should continue appropriate measures in containing the COVID-19 to stabilise social and economic activities within the country. Experiences from various low- and middle-income countries (LMICs) (see, for instance, Jones et al. 2020; Aljazeera 2020) showed that prolonged social distancing or lockdown periods stagnated economic activities which in turn pushed more vulnerable groups into poverty. Maintaining or alternating jobs for those working in more affected economic sectors should be prioritized.

Second, there should be also priorities to help the poorest and the most vulnerable groups (such as ethnic minorities) in maintaining their income through cash transfers along with local production support. On the one hand, cash transfer should be considered as a short-term solution to overcome income shock under the COVID-19-like epidemics. On the other hand, and more importantly, helping poor and vulnerable people to diversify their livelihoods to be adaptive with the situation. A recent research by UNDP & ISMS (2020), for instance, showed that poor and ethnic minority households must change their livelihoods due to the COVID-19 and diversifying agricultural products at their residential locations has been an effective way to maintain self-sufficiency.

Third, the COVID-19 provided a good chance for the government and its entities in social protection sector to encourage people to participate in social insurance and social health insurance schemes. An analysis by Giang and Do (2020) and Dang and Giang (2020) indicated that those working without labor contracts or with verbal agreements were abundant among those without

social insurance and they were more likely to lose jobs than those with social insurance. Comparing people with and without social insurance, Giang et al., (2020) also indicated that the former was more confident about their income security than were the latter.

As presented above and elsewhere (such as ILO & UNFPA 2014; Kidd et al. 2016), people living in households headed by those working in agriculture/forestry/fishery are mainly informal workers, who are usually called as “the missing middle” people in the social protection system. Experiences from other LMICs such as China (Fang et al. 2012; Giles et al. 2012; ILO 2017), the Philippines (ILO 2013), and Thailand (ILO 2017) showed that a number of policies should be implemented to attract informal workers to join the social insurance scheme – both voluntary and mandatory – such as adjustments of minimum contribution, contribution period, benefit formula; revision of administrative regulations on registration, contribution, and payments, and consideration of bilateral and multilateral agreements with other countries for migrant workers. To do this, these experiences suggested that universal approaches are essential to not only reach the poorest households, but also provide a much-needed cushion to vulnerable households in the missing middle (ILO et al. 2020). Social protection floors (SPF) – for whatever the mix of contributory and non-contributory schemes – are aimed to provide universal protection against life cycle risks, which is particularly important for reaching “the missing middle” people who are usually excluded from social protection systems. SPF can reduce fragmentation and promote the expansion of the formal economy while guaranteeing higher level of benefits (ILO et al. 2020).

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TABLES

Table 1. The decrease rate in per-capita income due to the COVID pandemic (%)

Population sub-groups	Per-capita income, % decline from the baseline (non-COVID) values		
	Due to reduction in employment (job/wage loss)	Due to reductions in all remittances	Due to job/wage loss and reductions in all remittances
All households	9.8	0.6	10.4
Gender of household heads			
Male	9.4	0.5	10.0
Female	10.9	0.8	11.7
Age of household heads			
30 or below	9.3	0.6	9.9
31-40	8.7	0.5	9.2
41-50	9.5	0.5	10.0
51-60	10.3	0.6	11.0
61-70	10.4	0.8	11.2
71+	10.2	1.0	11.1
Ethnic groups			
Kinh/Hoa	9.8	0.6	10.4
Ethnic minorities	10.0	0.5	10.5
Occupation of household heads			
Leaders/Managers	10.0	0.3	10.3
Professionals/Technicians	5.9	0.3	6.2
Clerks/Service Workers	19.2	0.4	19.6
Agriculture/Forestry/Fishery	9.5	0.8	10.3
Skilled Workers/Machine Operators	4.8	0.4	5.2
Unskilled Workers	8.8	0.5	9.3
Not working	9.7	1.0	10.7
Income quintile			
Poorest	10.2	0.7	10.9
Near poor	9.5	0.6	10.2
Middle	9.5	0.6	10.1
Near rich	9.8	0.5	10.3
Richest	10.0	0.7	10.6
Urban/rural areas			
Rural	9.4	0.7	10.0
Urban	10.3	0.5	10.9

Source: Own calculations, using VHLSS 2018

Table 2. Per-capita income in the baseline and the COVID-19 pandemic

Population sub-groups	Per-capita income (thousand VND)			
	The baseline (non-COVID)	Under employment reduction (job/wage loss)	Under reductions in all remittances	Under both job/wage loss & reductions in all remittances
All households	47,524	42,859	47,236	42,571
Gender of household heads				
Male	45,898	41,566	45,652	41,320
Female	52,817	47,066	52,391	46,640
Age of household heads				
30 or below	39,256	35,618	39,023	35,385
31-40	43,212	39,440	43,004	39,231
41-50	48,796	44,142	48,565	43,911
51-60	51,670	46,326	51,356	46,012
61-70	47,906	42,914	47,523	42,531
71+	42,358	38,045	41,951	37,638
Ethnic groups				
Kinh/Hoa	52,667	47,506	52,343	47,182
Ethnic minorities	21,361	19,217	21,257	19,113
Occupation of household heads				
Leaders/Managers	103,618	93,235	103,336	92,953
Professionals/Technicians	80,362	75,615	80,154	75,407
Clerks/Service Workers	62,358	50,411	62,084	50,137
Agriculture/Forestry/Fishery	32,602	29,492	32,353	29,242
Skilled Workers/Machine Operators	49,430	47,077	49,219	46,867
Unskilled Workers	43,816	39,958	43,595	39,737
Not working	51,329	46,375	50,795	45,841
Income quintile				
Poorest	13,379	12,014	13,290	11,925
Near poor	26,598	24,063	26,430	23,895
Middle	39,150	35,423	38,928	35,200
Near rich	54,708	49,356	54,446	49,094
Richest	103,800	93,450	103,102	92,752
Urban/rural areas				
Rural	38,280	34,692	38,023	34,435
Urban	66,130	59,295	65,781	58,946

Source: Own calculations, using VHLSS 2018

Table 3. Projected impact of the COVID-19 pandemic on poverty

Population sub-groups	Income poverty rate (%)			Number of poor people (thousand people)		
	The baseline (non- COVID)	Under COVID impact	Poverty increase (percentage points)	The baseline (non- COVID)	Under COVID impact	Number of poor increased
All households	4.36	6.17	1.81	4,195	5,936	1,741
Gender of household heads						
Male	4.82	6.74	1.92	3,547	4,960	1,413
Female	2.88	4.29	1.41	651	970	319
Age of household heads						
30 or below	13.65	18.69	5.04	463	634	171
31-40	6.40	8.76	2.36	1,094	1,497	403
41-50	4.24	5.66	1.42	1,151	1,536	385
51-60	2.84	4.08	1.24	723	1,039	316
61-70	2.63	4.40	1.77	385	644	259
71+	4.51	6.85	2.34	383	582	199
Ethnic groups						
Kinh/Hoa	1.24	1.99	0.75	997	1,600	603
Ethnic minorities	20.27	27.41	7.14	3,204	4,332	1,128
Occupation of household heads						
Leaders/Managers	0.14	0.23	0.09	2	4	2
Professionals/Technicians	0.17	0.17	0.00	9	9	0
Clerks/Service Workers	0.29	1.53	1.24	36	189	153
Agriculture/Forestry/Fishery	10.25	13.91	3.66	3,563	4,836	1,273
Skilled Workers/Machine Operators	0.40	0.57	0.17	75	107	32
Unskilled Workers	1.47	2.11	0.64	109	157	48
Not working	2.54	3.99	1.45	402	631	229
Income quintile						
Poorest	21.81	30.54	8.73	4,197	5,877	1,680
Near poor	0.00	0.29	0.29	0	56	56
Middle	0.00	0.00	0.00	0	0	0
Near rich	0.00	0.00	0.00	0	0	0
Richest	0.00	0.00	0.00	0	0	0
Urban/rural areas						
Rural	6.32	8.79	2.47	4,062	5,650	1,588
Urban	0.42	0.89	0.47	134	284	150

Source: Own calculations, using VHLSS 2018

Table 4. Percentage of people receiving social assistance benefits

Population sub-groups	% people receiving the following supports			
	People with war merit	Social policy beneficiaries	Poor & near poor	Any of the three types
All households	1.43	3.99	9.13	13.42
Gender of household heads				
Male	1.30	3.44	9.93	13.70
Female	1.86	5.78	6.54	12.50
Age of household heads				
30 or below	0.67	3.22	26.56	28.64
31-40	0.58	2.34	13.30	15.36
41-50	0.58	2.93	8.10	10.95
51-60	1.15	3.00	6.01	9.47
61-70	2.82	3.68	6.69	12.24
71+	4.64	14.52	10.66	25.13
Ethnic groups				
Kinh/Hoa	1.44	3.87	3.28	7.74
Ethnic minorities	1.38	4.61	38.92	42.29
Occupation of household heads				
Leaders/Managers	1.22	1.72	1.60	4.17
Professionals/Technicians	0.57	1.40	0.25	2.06
Clerks/Service Workers	0.92	2.28	0.78	3.73
Agriculture/Forestry/Fishery	1.72	4.08	20.36	24.48
Skilled Workers/Machine Operators	0.58	2.30	1.73	4.36
Unskilled Workers	0.94	3.25	4.13	7.83
Not working	2.76	8.62	5.96	14.90
Income quintile				
Poorest	1.46	7.13	45.66	50.04
Near poor	1.90	5.04	0.00	6.40
Middle	1.42	3.49	0.00	4.48
Near rich	1.33	2.47	0.00	3.49
Richest	1.04	1.83	0.00	2.67
Urban/rural areas				
Rural	1.68	4.54	13.11	17.80
Urban	0.93	2.89	1.13	4.60

Source: Own calculations, using VHLSS 2018

Table 5. Impact of social assistance benefits under the R42 on poverty

Population sub-groups	Poverty rate (%)			Number of poor people (thousand people)		
	Under COVID impact	With COVID allowances	Change (percentage points)	Under COVID impact	With COVID allowances	Change
All households	6.17	4.92	-1.25	5,936	4,733	-1,203
Gender of household heads						
Male	6.74	5.39	-1.35	4,960	3,967	-993
Female	4.29	3.37	-0.92	970	762	-208
Age of household heads						
30 or below	18.69	15.78	-2.91	634	536	-98
31-40	8.76	6.95	-1.81	1,497	1,188	-309
41-50	5.66	4.70	-0.96	1,536	1,275	-261
51-60	4.08	3.29	-0.79	1,039	838	-201
61-70	4.4	3.26	-1.14	644	477	-167
71+	6.85	4.91	-1.94	582	417	-165
Ethnic groups						
Kinh/Hoa	1.99	1.51	-0.48	1,600	1,214	-386
Ethnic minorities	27.41	22.25	-5.16	4,332	3,516	-816
Occupation of household heads						
Leaders/Managers	0.23	0.03	-0.20	4	0	-4
Professionals/Technicians	0.17	0.17	0.00	9	9	0
Clerks/Service Workers	1.53	1.46	-0.07	189	180	-9
Agriculture/Forestry/Fishery	13.91	11.19	-2.72	4,836	3,890	-946
Skilled Workers/Machine Operators	0.57	0.34	-0.23	107	64	-43
Unskilled Workers	2.11	1.65	-0.46	157	123	-34
Not working	3.99	2.94	-1.05	631	465	-166
Income quintile						
Poorest	30.54	24.31	-6.23	5,877	4,678	-1,199
Near poor	0.29	0.27	-0.02	56	52	-4
Middle	0	0.00	0.00	0	0	0
Near rich	0	0.00	0.00	0	0	0
Richest	0	0.00	0.00	0	0	0
Urban/rural areas						
Rural	8.79	7.02	-1.77	5,650	4,512	-1,138
Urban	0.89	0.68	-0.21	284	217	-67

Source: Own calculations, using VHLSS 2018

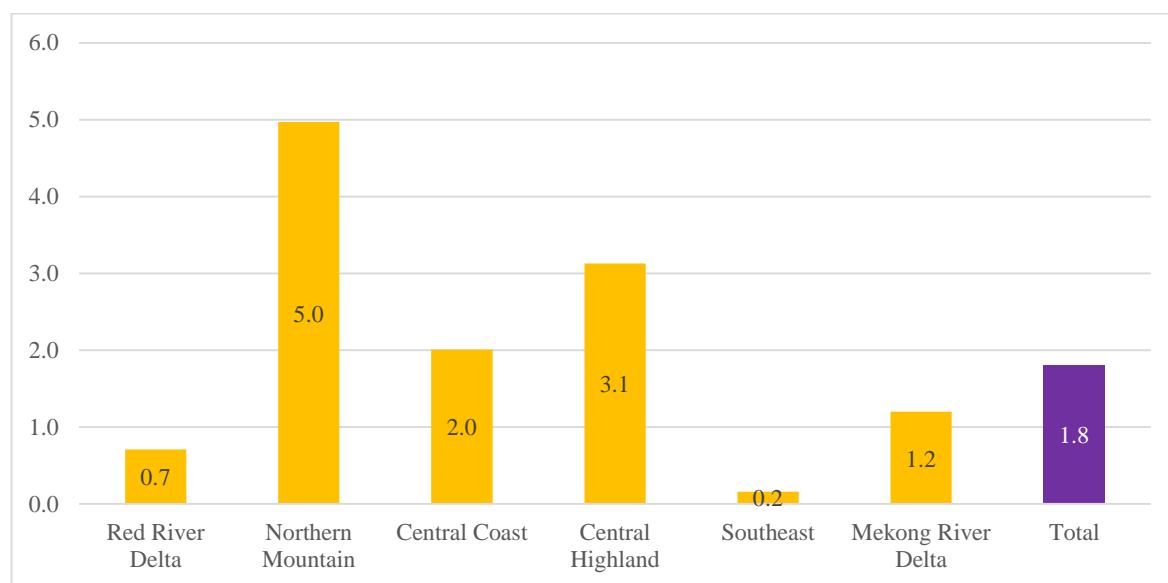
Table 6. Cost estimates for various groups of beneficiaries

Population sub-groups	Billion VND	As a share of GDP in 2019 (%)
All households	13,325	0.221
Gender of household heads		
Male	9,996	0.166
Female	3,329	0.055
Age of household heads		
30 or below	824	0.014
31-40	2,327	0.039
41-50	2,908	0.048
51-60	2,548	0.042
61-70	2,015	0.033
71+	2,703	0.045
Ethnic groups		
Kinh/Hoa	7,631	0.127
Ethnic minorities	5,694	0.095
Ethnic groups		
Kinh	7,540	0.125
Tay	441	0.007
Thai	1,055	0.018
Khmer	255	0.004
Muong	311	0.005
Nung	343	0.006
H'Mong	1,258	0.021
Dao	344	0.006
Others	1,777	0.029
Occupation of household heads		
Leaders/Managers	78	0.001
Professionals/Technicians	163	0.003
Clerks/Service Workers	624	0.010
Agriculture/Forestry/Fishery	7,805	0.130
Skilled Workers/Machine Operators	998	0.017
Unskilled Workers	659	0.011
Not working	3,000	0.050
Income quintile		
Poorest	8,407	0.140
Near poor	1,846	0.031
Middle	1,294	0.021
Near rich	1,007	0.017
Richest	770	0.013
Poverty		
Non-Poor	9,498	0.158
Poor	6,533	0.108
Urban/rural areas		
Rural	11,359	0.189
Urban	1,966	0.033
Regions		
Red River Delta	1,813	0.030
Northern Mountain	3,719	0.062
Central Coast	3,790	0.063
Central Highland	1,212	0.020
Southeast	783	0.013
Mekong River Delta	2,008	0.033

Source: Own calculations, using VHLSS 2018

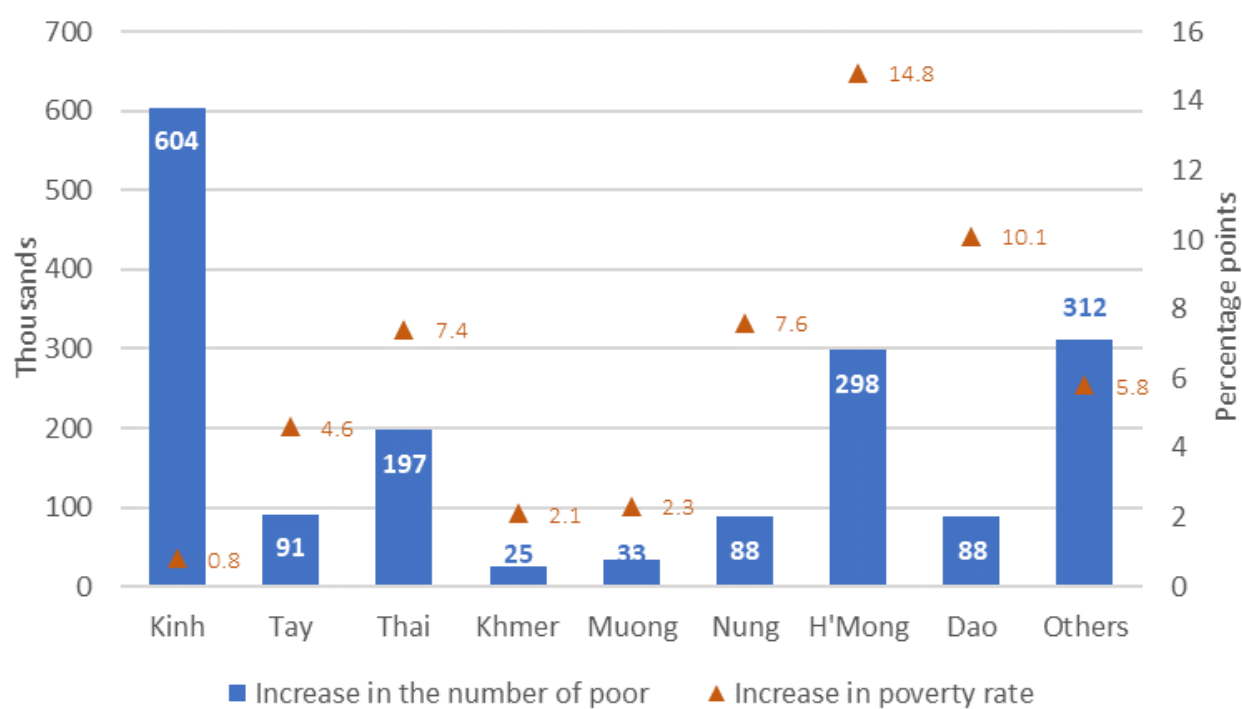
FIGURES

Figure 1. Increase in the poverty rate due to COVID-19 (percentage point)



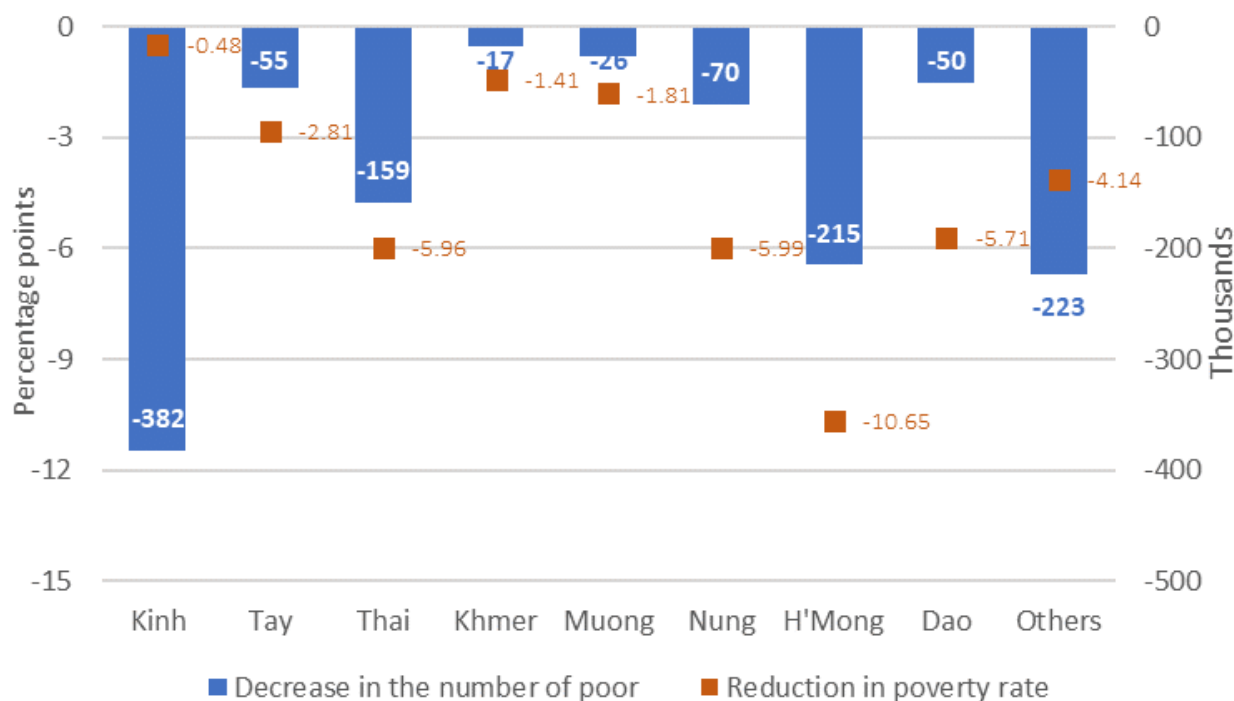
Source: Own calculations, using VHLSS 2018

Figure 2. Increase in the poverty rate and the number of poor due to COVID-19 by ethnic groups



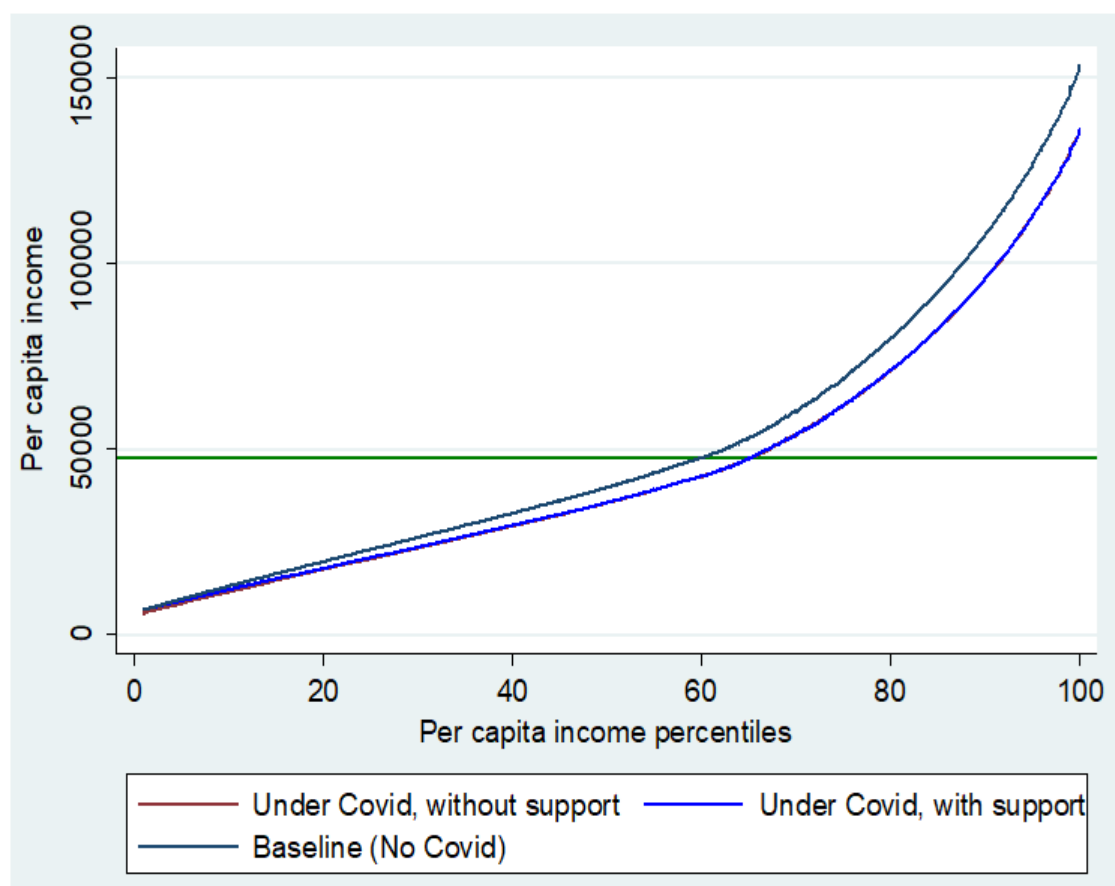
Source: Own calculations, using VHLSS 2018

Figure 3. Decrease in the poverty rate and the number of poor with cash transfers, by ethnic groups



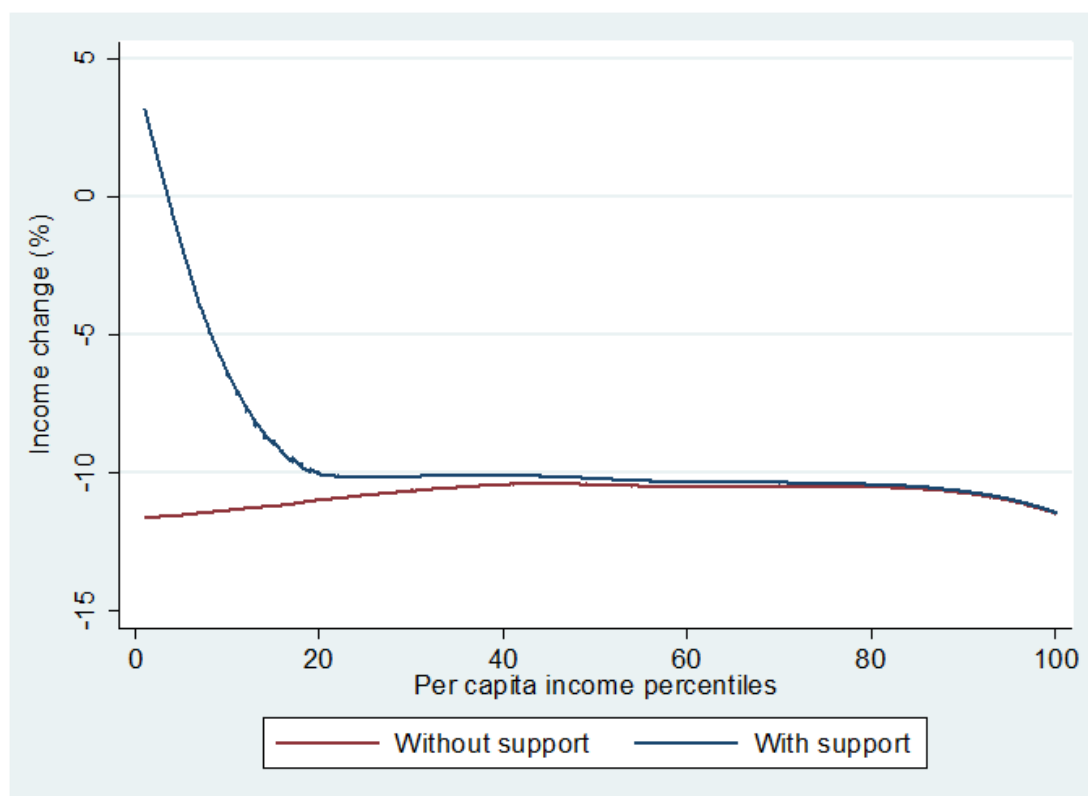
Source: Own calculations, using VHLSS 2018

Figure 4. The per capita income by the income percentile



Source: Own illustration, using VHLSS 2018

Figure 5. The reduction rate of per capita income by the income percentile



Source: Own illustration, using VHLSS 2018

APPENDIX

Table A1. The decrease rate (%) in per-capita income through domestic and remittance shocks due to the COVID pandemic

	Per capita income in the baseline (non-COVID)	Per capita foreign remittance decreased due to COVID	Per capita domestic remittance decreased due to COVID	Per capita total remittance decreased due to COVID	Per capita income in the presence of foreign remittance decrease	Per capita income in the presence of domestic remittance decrease	Per capita income in the presence of total remittance decrease	% per capita income decrease		
								Due to reduction in foreign remittances	Due to reduction in domestic remittances	Both
All households	47,524	139	149	288	47,385	47,376	47,236	0.29	0.31	0.61
Gender of household heads										
Male	45,898	119	126	245	45,779	45,771	45,652	0.26	0.28	0.53
Female	52,817	206	221	427	52,611	52,596	52,391	0.39	0.42	0.81
Age of household heads										
30 or below	39,256	115	119	233	39,141	39,138	39,023	0.29	0.30	0.59
31-40	43,212	120	89	209	43,092	43,124	43,004	0.28	0.21	0.48
41-50	48,796	126	105	231	48,670	48,691	48,565	0.26	0.22	0.47
51-60	51,670	158	156	314	51,512	51,514	51,356	0.31	0.30	0.61
61-70	47,906	172	211	383	47,734	47,695	47,523	0.36	0.44	0.80
71+	42,358	117	290	407	42,241	42,068	41,951	0.28	0.69	0.96
Ethnic groups										
Kinh	52,667	159	165	324	52,508	52,502	52,343	0.30	0.31	0.62
Ethnic minorities	21,361	38	66	104	21,323	21,295	21,257	0.18	0.31	0.49
Occupation of household heads		0	0	0						
Leaders/Managers	103,618	121	161	282	103,497	103,457	103,336	0.12	0.16	0.27
Professionals/Technicians	80,362	68	140	208	80,294	80,222	80,154	0.08	0.17	0.26
Clerks/Service Workers	62,358	130	145	275	62,229	62,214	62,084	0.21	0.23	0.44
Agriculture/Forestry/Fishery	32,602	124	125	250	32,478	32,477	32,353	0.38	0.38	0.77
Skilled Workers/Machine Operators	49,430	107	104	211	49,323	49,326	49,219	0.22	0.21	0.43
Unskilled Workers	43,816	111	110	221	43,705	43,706	43,595	0.25	0.25	0.50
Not working	51,329	258	276	534	51,071	51,053	50,795	0.50	0.54	1.04
Income quintile										
Poorest	13,379	10	80	89	13,370	13,300	13,290	0.07	0.59	0.67
Near poor	26,598	41	128	169	26,557	26,470	26,430	0.15	0.48	0.63
Middle	39,150	77	145	222	39,073	39,005	38,928	0.20	0.37	0.57

	Per capita income in the baseline (non-COVID)	Per capita foreign remittance decreased due to COVID	Per capita domestic remittance decreased due to COVID	Per capita total remittance decreased due to COVID	Per capita income in the presence of foreign remittance decrease	Per capita income in the presence of domestic remittance decrease	Per capita income in the presence of total remittance decrease	% per capita income decrease		
								Due to reduction in foreign remittances	Due to reduction in domestic remittances	Both
Near rich	54,708	105	157	262	54,604	54,551	54,446	0.19	0.29	0.48
Richest	103,800	464	233	697	103,335	103,566	103,102	0.45	0.22	0.67
Urban/rural areas										
Rural	38,280	124	133	257	38,156	38,147	38,023	0.32	0.35	0.67
Urban	66,130	169	180	349	65,961	65,950	65,781	0.26	0.27	0.53

Source: Own calculations, using VHLSS 2018