Impacts of COVID-19 Lockdown and Aid Package: Evidence from Vietnam

Cuong Viet Nguyen

Content

- Objective
- Data
- Country context
- Method
- Results
- Conclusion

Objective

- The effect of COVID-19 lockdown and aid packages on households is not simply an intriguing question for researchers but is also important for policy makers at both national and local levels.

- This study measures the effect of COVID-19 lockdowns and aid packages on a number of individual outcomes in Vietnam, including household income, employment, and people's satisfaction with government policies in response to the pandemic.

Contribution

- Although there is a relatively large literature on the effect of lockdowns, little evidence is available concerning the effect of emergency aid packages, which are designed to mitigate the economic effects of COVID-19.

- This study looks at a wide range of outcomes for households, including not only economic outcomes (income and employment) but also the assessment by these households of the government's response to the pandemic.

Data

- Since 2009, the Vietnam Governance and Public Administration Performance Index (PAPI) surveys have been conducted annually by the UNDP and the Vietnam Fatherland Front. The surveys collect information from approximately 14 thousand citizens (aged 18 and above) throughout the country on their experiences and assessment of governance and public administration.

- In 2020 and 2021, the Mekong Development Research Institute (MDRI), Vietnam, with technical support from the United Nations Development Program (UNDP), conducted surveys on citizens' experiences and assessment of the impact of the COVID-19 pandemic, using the 2019 PAPI as the sampling frame.

Data

- The 2020 and 2021 phone surveys were conducted in September-October 2020 and September-October 2021.

- The final number of observations used in this study is 4,524, consisting of 1,688 in the 2019 PAPI survey, 1,335 in the 2020 MDRI-UNDP survey and 1,501 in the 2021 MDRI-UNDP survey.

- Data collected include respondents' employment and income, their knowledge about COVID-19, their corresponding behavior and experience with the pandemic, their opinion and assessment of government responses, and the receipt of aid packages.
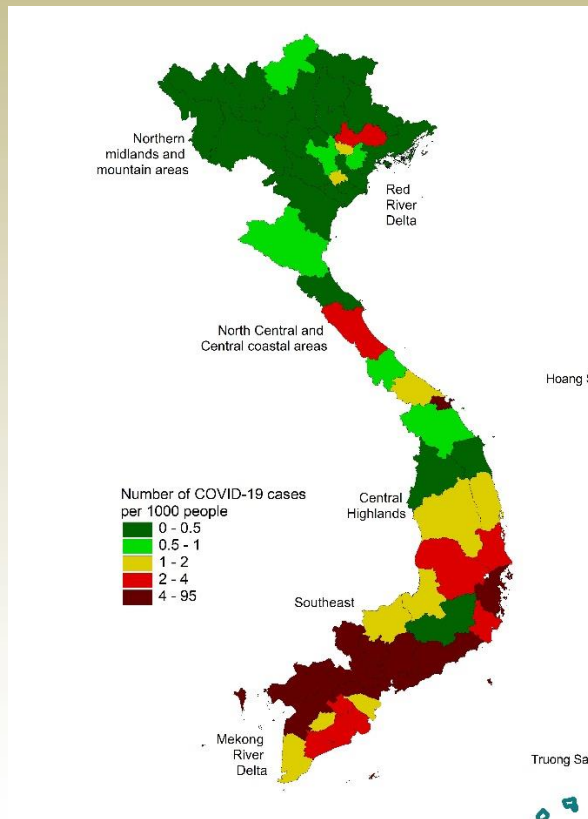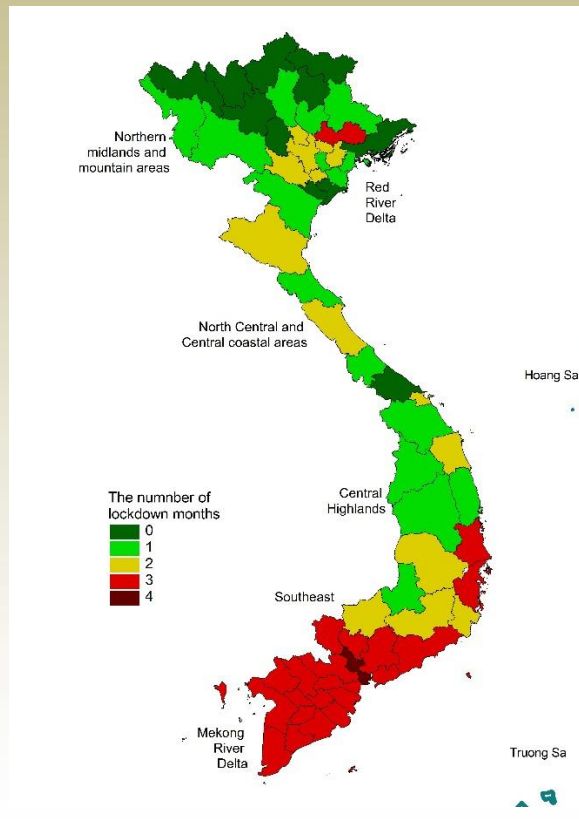
Country context

- In 2020, Vietnam was successful in containing COVID-19. There was a low mortality rate of around 100 deaths in total due to COVID-19 out of a population of nearly 100 million.

- In 2021, more than 40,000 thousand lives were lost due to COVID-19 and the labor market deteriorated seriously.

- In 2020, the government implemented one-month nationwide lockdown. In 2021, the government implemented longer lockdowns from June to October, especially in provinces and cities in the South.
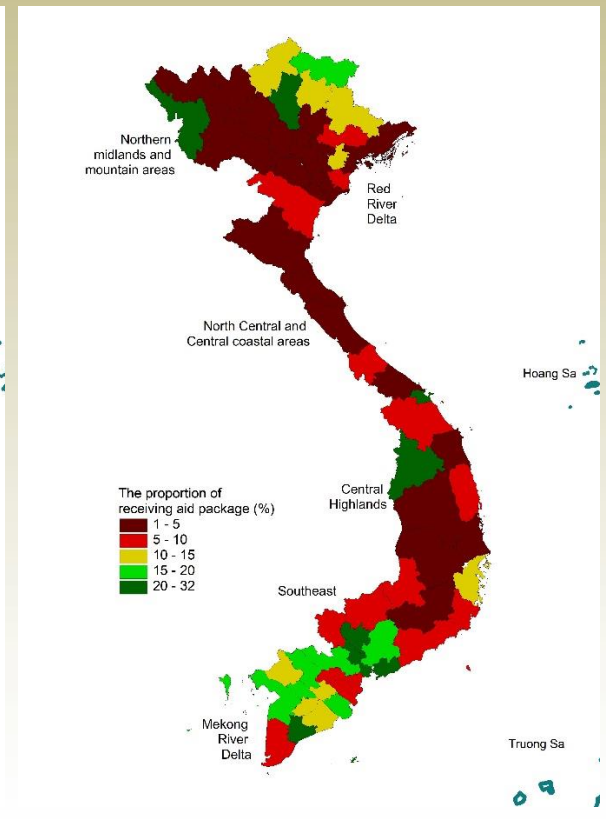
Country context

Panel A. Number of COVID-19 cases per 1,000 people

Panel B. Number of lockdown months

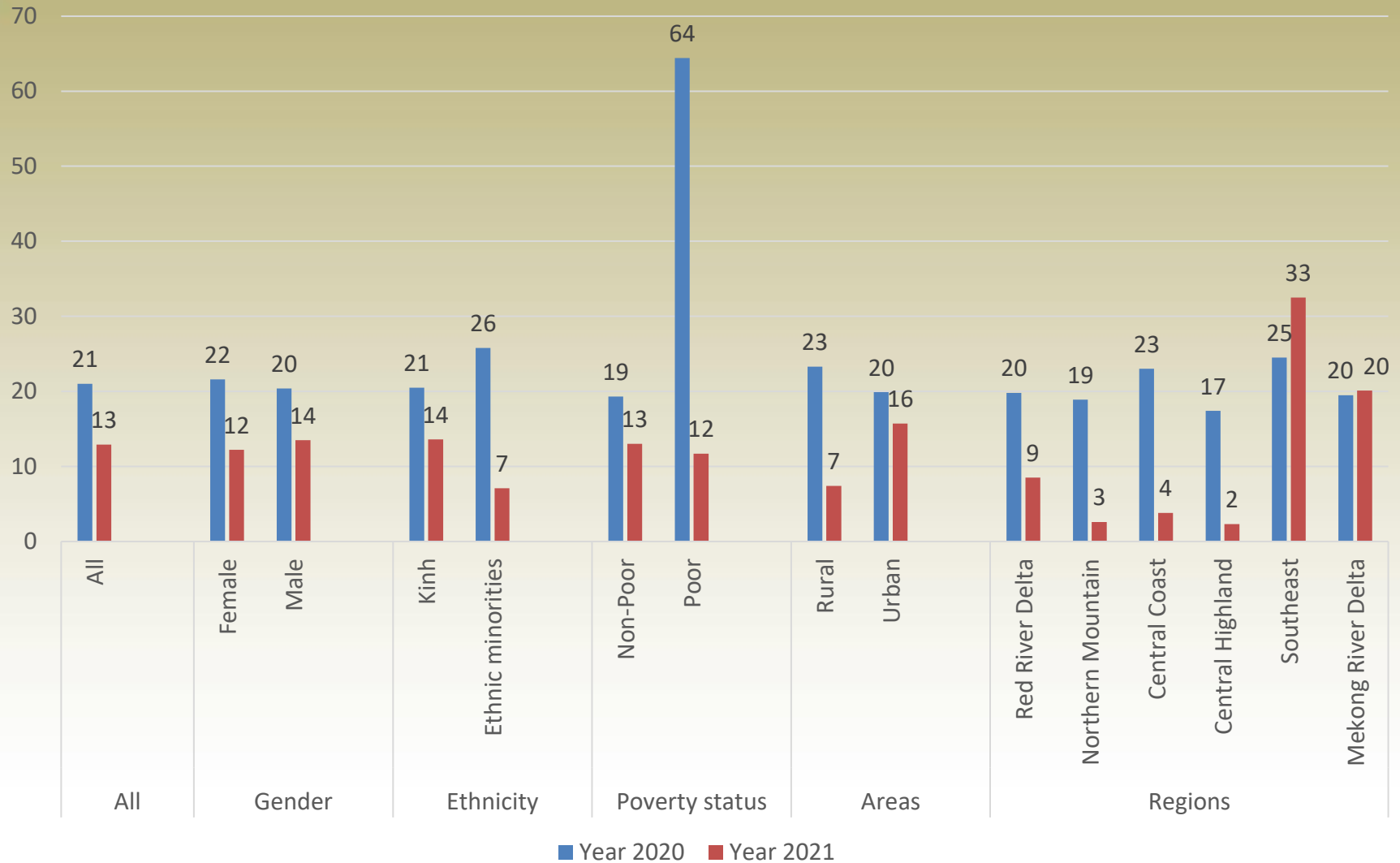**Panel C. Proportion of people receiving aid packages (%)**

The aid package

- To mitigate the negative effect of the pandemic, the government of Vietnam provided cash transfers over a period of three months in an aid package of VND 62 trillion (equivalent to USD2.67 billion) to support people affected by the COVID-19 pandemic. In 2021, a similar aid package of VND 26 trillion was provided to support those in need.

The aid package

No	Beneficiary groups	Monthly allowance	Application period
1	Employees subject to suspension of labor contract or to unpaid leave due to COVID-19	VND 1,800,000/person (around 78 USD)	Paid monthly for a maximum of three months.
2	Employees subject to termination of labor contract but not eligible for unemployment allowance	VND 1,000,000/person (around 43 USD)	Paid monthly for a maximum of three months.
3	Household business earning annual revenue of under VND 100 million/year that had to suspend business operations	VND 1,000,000/household (around 43 USD)	Paid monthly for a maximum of three months.
4	Individual with meritorious services to the revolution and receiving monthly benefits	VND 500,000/person (around 22 USD)	Paid a lump sum for three months.
5	Social insurance beneficiary receiving monthly benefits	VND 500,000/person (around 22 USD)	Paid a lump sum for three months.
6	Poor or near-poor household according to the national poverty line	VND 250,000/person (around 11 USD)	Paid a lump sum for three months.

Proportion of individuals receiving the aid package (%)

Legend: ■ Year 2020 ■ Year 2021

Estimation method

- We estimate the effect of lockdowns and aid packages:

$$y_{i,j,t} = \beta_0 + Aid_{i,j,t}\beta_1 + Lockdown_{j,t}\beta_2 + X_{i,j,t}\beta_3 +$$

$$P_{j,t}\beta_4 + T_t\beta_5 + u_{i,j} + v_{i,j,t},$$

- where $y_{i,j,t}$ is a dependent variable of respondent i in province j in year t.
- $Aid_{i,j,t}$ is a dummy indicating that the respondent lived in a household receiving the aid package.
- $Lockdown_{j,t}$ is a discrete variable measuring the number of lockdown months in province j in year t.
- $X_{i,j,t}$ and $P_{j,t}$ denote individual-level and provincial-level control variables. T_t is a vector of year dummies.
- $u_{i,j}$ are respondent fixed effects, while $v_{i,j,t}$ demotes time-variant unobserved variables.

Individual fixed-effect regression of per capita income and employment

Explanatory variables	Dependent variables				
	Log of per capita income	Not working (not working=1, working=0)	Unskilled work (yes=1, no=0)	Self-employed farm work (yes=1, no=0)	Self-employed nonfarm work (yes=1, no=0)
	(1)	(2)	(3)	(4)	(5)
Receipt of aid package (yes=1, no=0)	0.0852*	-0.0296	0.0525	0.0083	-0.0333
	(0.0487)	(0.0203)	(0.0424)	(0.0210)	(0.0387)
Lockdown months in provinces	-0.0834***	0.0030	-0.0297*	0.0002	0.0374**
	(0.0219)	(0.0106)	(0.0168)	(0.0121)	(0.0149)
Rate of COVID-19 cases in provinces	-0.0011	-0.0004	0.0011	0.0009	-0.0024***
	(0.0012)	(0.0007)	(0.0011)	(0.0007)	(0.0009)
Individual fixed effect	Yes	Yes	Yes	Yes	Yes
Year 2020 dummy	0.0163	-0.0386**	0.1302***	-0.0807***	-0.0471**
	(0.0361)	(0.0171)	(0.0268)	(0.0196)	(0.0231)
Year 2021 dummy	0.0674	-0.0548**	0.1038***	-0.1105***	0.0153
	(0.0493)	(0.0261)	(0.0368)	(0.0305)	(0.0299)
Constant	0.9010***	0.1732***	0.1708***	0.3181***	0.1328***
	(0.0151)	(0.0070)	(0.0104)	(0.0082)	(0.0090)
Observations	4,268	4,524	4,524	4,524	4,524
R-squared	0.720	0.713	0.572	0.765	0.534

Robust standard errors in parentheses. Standard errors are clustered at the individual level.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Individual fixed-effect regression of opinion of the government's response to the pandemic

Explanatory variables	Dependent variables					
	Opinion of central government (level 1-5)	Good opinion of central government (yes=1, no=0)	Opinion of provincial government (level 1-5)	Good opinion of provincial government (yes=1, no=0)	Opinion of commune authorities (level 1-5)	Good opinion of commune authorities (yes=1, no=0)
	(1)	(2)	(3)	(4)	(5)	(6)
Receipt of aid package (yes=1, no=0)	-0.0355	0.0234	-0.0843	0.0363*	0.0662	0.1027***
	(0.0849)	(0.0374)	(0.0622)	(0.0209)	(0.0747)	(0.0392)
Lockdown months in provinces	0.0518	0.0050	-0.0917***	-0.0336**	-0.0467	-0.0193
	(0.0384)	(0.0144)	(0.0346)	(0.0138)	(0.0409)	(0.0191)
Rate of COVID-19 cases in provinces	-0.0031	-0.0010	-0.0107***	-0.0021	-0.0121***	-0.0061***
	(0.0034)	(0.0014)	(0.0031)	(0.0014)	(0.0036)	(0.0017)
Individual fixed effect	Yes	Yes	Yes	Yes	Yes	Yes
Year 2021 dummy	-0.4093***	-0.1071***	0.0724*	0.0256*	0.2345***	0.1022***
	(0.0545)	(0.0191)	(0.0380)	(0.0149)	(0.0445)	(0.0224)
Constant	4.6382***	0.9504***	4.5760***	0.9561***	4.2456***	0.8395***
	(0.0471)	(0.0185)	(0.0481)	(0.0191)	(0.0542)	(0.0263)
Observations	2,274	2,274	2,276	2,276	2,278	2,278
R-squared	0.632	0.618	0.661	0.634	0.635	0.598

Robust standard errors in parentheses. Standard errors are clustered at the individual level.
*** p<0.01, ** p<0.05, * p<0.1.

Robustness check

- Our estimates are robust to different sets of control variables.

- The estimates are robust for different samples: balanced and unbalanced panel data.

- We conduct a placebo test by regressing per capita income in 2019 on variables indicating the receipt of aid package in 2020 and 2021. The receipt of aid package in 2020 as well as in 2021 is not statistically significantly correlated with per capita income in 2019, i.e., per capita income in the absence of the aid package.

Mechanisms

- Possibly explanations for the positive effect of the aid package on citizens' trust in the government:
  - <u>The effect of locality:</u> We construct a dummy variable which receives a 1 if a respondent stays in a commune with at least one household receiving the aid package, and 0 if no one in the commune received the aid package. We regress outcomes on this dummy using a sample which excludes respondents who actually received the aid package. This dummy variable is not statistically significant at conventional levels.
  - <u>Income effect:</u> We regress variables responds' opinion of the government on log of per capita income, but log of per capita income is not statistically significant.
- It suggests that receiving aid package simply increase citizens' trust in the government.

Heterogeneous effect of aid package on good opinion of the commune authorities' response

Explanatory variables	Dependent variable is 'good opinion of the commune authorities' response to the COVID-19 pandemic'				
	(1)	(2)	(3)	(4)	(5)
Receipt of aid package	0.1815***	0.0546	0.6194***	0.1557*	0.1097***
	(0.0680)	(0.0376)	(0.2094)	(0.0814)	(0.0408)
Receipt of aid package * Male	-0.1322*				
	(0.0791)				
Receipt of aid package * Urban areas		0.0741			
		(0.0661)			
Receipt of aid package * Age			-0.0101***		
			(0.0036)		
Receipt of aid package * Education level				-0.0270	
				(0.0324)	
Receipt of aid package * Ethnic minorities					-0.1276
					(0.1087)
Control variables	Yes	Yes	Yes	Yes	Yes
Constant	0.8407***	0.8398***	0.8411***	0.8379***	0.8389***
	(0.0264)	(0.0263)	(0.0258)	(0.0265)	(0.0263)
Observations	2,278	2,278	2,278	2,278	2,278
R-squared	0.600	0.598	0.603	0.598	0.598

Robust standard errors in parentheses. Standard errors are clustered at the individual level.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$.

Conclusions

- The aid package reached vulnerable groups relatively well in Vietnam. In 2020, when a lockdown was implemented nationwide, the aid package was targeted at the poor and ethnic minorities. In 2021, people living in areas with longer lockdown periods were more likely to receive an aid package.

- The lockdowns had a negative effect on per capita income, reducing the probability of working in an unskilled wage-paying job and increasing the probability of engagement in self-employed nonfarm work.

Conclusions

- Receipt of the aid package increased per capita income, cancelling the effect of the one-month lockdown. For those who experienced lockdowns for longer than one month, the aid package was not enough to offset the negative effect of the lockdowns. Thus, higher transfers should be provided for people in areas with longer periods in lockdown.

- The lockdowns reduced citizens' positive assessment of the performance of the provincial government, while the aid packages promoted a positive assessment of the performance of provincial and commune governments.

Thank you!