

## Discussion Points

# COVID-19 IMPACT ON HOUSEHOLD INCOME: EVIDENCE FROM GEORGIA AND MONGOLIA

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# Structure of the Paper

## Research objective

The paper primarily aims to empirically assess which household-level characteristics best describe those individuals who were disproportionately affected, especially in terms of income losses, during the height of the COVID-19 pandemic in Georgia and Mongolia.

## Data and Methods



Multiple Indicator Cluster Survey Plus Survey

	Georgia		Mongolia	
Survey wave	Wave 1	Wave 3	Wave 2	Wave 3
Period coverage	24 Nov – 21 Dec 2020	10-28 Jun 2021	1-14 Dec 2020	15 Feb – 1 Mar 2021
No. of respondents	1,835	1,671	1,971	1,939

### Estimation strategy: Probit regressions

Dependent variable	Independent variables
The household experienced any decline in their average monthly income (1 if Yes, 0 otherwise)	<ul style="list-style-type: none"><li>○ Household size</li><li>○ Number of children</li><li>○ Gender of household head</li><li>○ Age of household head</li><li>○ Capital city dummy</li><li>○ Residence (Urban/rural)</li><li>○ Region</li><li>○ Assets</li><li>○ Government support</li><li>○ Access to internet</li><li>○ Household member lost job</li></ul>

# Structure of the Paper

## General findings

Variables	Associated with <u>MORE</u> likelihood of experiencing income decline	Associated with <u>LESS</u> likelihood of experiencing income decline
Male headed household		
Larger family size		
Age of household head		
Larger number of children members		
More ownership of household assets		Mongolia
More ownership of digital assets to access internet	Mongolia	Georgia
With household member who lost job during the pandemic		
Living in urban areas	Mongolia	Georgia
Living in capital city		

## 1. Model specification

- Alternative measure of impact on household
- Additional outcome variables to measure impact
- Additional control variables based on data availability

## 2. Policy implications of findings

# 1. Comments on model specification

## Alternative measure of impact on household

1. Measure that captures the **scale** of income changes, particularly income losses during the pandemic.

*Use the information that asks by how much the average monthly household income changed from the reference period:*

<b>CVH34.</b> Can you please tell me, since December 2020, your household's average monthly income (declined/increased) by how much, roughly?  <i>Probe to obtain the reduction in percentages.</i>	10% OR LESS .....	01
	11-25%.....	02
	26-50%.....	03
	51-75%.....	04
	MORE THAN 75% (BUT NOT 100%).....	05
	100% (ALL) .....	06
	DK / NOT SURE .....	98

2. Measure that captures the **evolution** of such income change(s) that households experienced.

*Instead of separate regressions for the two survey waves, a new outcome variable will be created using the two survey waves, i.e.,*

*0 = income decreased in Waves 1 and 2*

*1 = income decreased in Wave 1, but increased in Wave 2*

*2 = income increased in Wave 1, but decreased in Wave 2*

*3 = income increased in both survey waves*



**In both cases, multinomial probit or logit regressions should be carried out.**

# 1. Comments on model specification

## Alternative outcome variables to measure impact on household (Georgia survey only)

Use coping measures households implemented amid income losses experienced as outcome variable.

CVH30. To cope with the reduction in your income, did you or anyone in your household	YES	NO
[A] Get a loan from financial institution?	GET A LOAN .....1	2
[B] Borrow from friends/acquaintances?	BORROW FROM FRIENDS/ ACQUAINTANCES .....1	2
[C] Have to sell household items?	SELL HOUSEHOLD ITEMS .....1	2
[D] Use any of your savings?	USE SAVINGS .....1	2
[E] Cut down on food?	CUT DOWN ON FOOD .....1	2
[F] Cut down on other household expenses?	CUT DOWN ON OTHER .....1	2
[G] Take on additional work?	TAKE ON ADDITIONAL WORK.....1	2
[X] Do anything else?	SOMETHING ELSE ( <i>specify if yes</i> ) _____1	2

## Additional control variable based on data availability

Work status of household members (Mongolia)

HOUSEHOLD MEMBER LABOUR

ML

# 1. Comments on model specification

## Other issues – please double check

On Table 6 of the paper, puzzling how the number of observations summed to 3,910 (*for the case of Mongolia*) if there were missing observations upon merging the two survey waves. Same question applies to Georgia sample.

**Table 6. Estimation Results for Probit Models on Probability of Income Reduction (Marginal Effects)**

	Total Sample			Mongolia			Georgia		
	Total	Wave 1	Wave 2	Total	Wave 1	Wave 2	Total	Wave 1	Wave 2
Age of household head	-0.005*** (0.000)	-0.0051*** (0.000631)	-0.00571*** (0.000636)	-0.00674*** (0.000651)	-0.00637*** (0.000922)	-0.00718*** (0.000915)	-0.00247*** (0.000536)	-0.00244*** (0.000721)	-0.00238*** (0.000791)
Gender of household head	0.032** (0.014)	0.0485** (0.0194)	0.0137 (0.0200)	0.0523** (0.0211)	0.0893*** (0.0296)	0.0128 (0.0298)	0.0234 (0.0156)	0.0112 (0.0209)	0.0371 (0.0232)
Household size	0.069*** (0.005)	0.0682*** (0.00686)	0.0700*** (0.00680)	0.0699*** (0.00716)	0.0728*** (0.0106)	0.0676*** (0.00965)	0.0357*** (0.00582)	0.0292*** (0.00774)	0.0432*** (0.00865)
Government support	0.043*** (0.007)	0.0472*** (0.00763)		0.0199* (0.0111)	0.0191 (0.0119)		0.0174** (0.00865)	0.0241*** (0.00876)	
Number of children	-0.047*** (0.007)	-0.0575*** (0.0105)	-0.0386*** (0.0104)	-0.0472*** (0.00982)	-0.0561*** (0.0143)	-0.0385*** (0.0134)	-0.0244** (0.0104)	-0.0316** (0.0146)	-0.0222 (0.0148)
Internet access	-0.001 (0.007)	0.00975 (0.00979)	-0.0148 (0.0104)	0.0264** (0.0126)	0.0355** (0.0179)	0.0170 (0.0177)	-0.00537 (0.00757)	0.00984 (0.00989)	-0.0261** (0.0120)
Assets	-0.002 (0.002)	-0.00320 (0.00208)	0.000901 (0.00252)	-0.00556*** (0.00207)	-0.00977*** (0.00291)	-0.00111 (0.00291)	0.000332 (0.00222)	-0.000351 (0.00242)	0.00472 (0.00485)
Area	0.022* (0.013)	0.00599 (0.0181)	0.0376** (0.0184)	0.107*** (0.0184)	0.122*** (0.0254)	0.0897*** (0.0254)	-0.0758*** (0.0155)	-0.107*** (0.0212)	-0.0478** (0.0231)
Capital city	0.178*** (0.031)	0.209*** (0.0439)	0.148*** (0.0430)	0.201*** (0.0248)	0.184*** (0.0352)	0.212*** (0.0348)	0.0822*** (0.0278)	0.0596 (0.0369)	0.109*** (0.0415)
Household member lost job							0.615*** (0.0195)	0.540*** (0.0184)	0.797*** (0.0650)
Second wave dummy (2=1)	-0.062*** (0.017)			-0.0967*** (0.0204)			-0.00381 (0.0248)		
Regional dummy	+	+	+	+	+	+	+	+	+
Country dummy	+	+	+						
Observations	7,416	3,806	3,610	3,910	1,971	1,939	3,506	1,835	1,671

Were observations for “Government support” replaced with “0s” instead of missing upon merging?

## 2. Comments on policy implications of findings

- Lack discussion on policy implications.
- Based on findings, what government measures or interventions are needed? What approach? Targeted?