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Mongolia: Building Capacity for an Effective Social Welfare System

Assessment of the social protection response to COVID-19 in Mongolia

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For the Ministry of Labor and Social Protection

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CURRENCY EQUIVALENTS

(as of 31 October 2020)

Currency Unit	–	(togrog (MNT)
MNT1.00	=	$0.00035
$1.00	=	MNT2,841.47

ABBREVIATIONS

ADB	–	Asian Development Bank
CIT	–	corporate income tax
CMP	–	child money program
COVID-19	–	coronavirus disease
FSP	–	food stamp program
GDP	–	gross domestic product
HSES	–	household socio-economic survey
IHD	–	integrated household database
MOF	–	Ministry of Finance
NSO	–	National Statistics Office of Mongolia
OPM	–	Oxford Policy Management
PIT	–	personal income tax
PMT	–	proxy means test
SSC	–	social security contributions
UNDP	–	United Nations Development Programme
UNICEF	–	United Nations Children's Fund
WB	–	World Bank

Building Capacity for an Effective Social Welfare System

ADB TA 9893-MON

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Preface

In responding to a specific request from the Ministry of Labor and Social Protection to assess the role of the increased transfers for the child money program and the food stamp program, the Asian Development Bank (ADB) and the United Nations Children's Fund (UNICEF) agreed to conduct two studies:

an indirect assessment of the theoretical impact on poverty and inequality of the social protection policies implemented by the Government of Mongolia, i.e., assuming that policies have been implemented according to design, but also generate a possible counterfactual of what could have happened in the absence of government's intervention

- a survey of beneficiaries of government support to understand how well the schemes have been implemented, what has been their use as well as the satisfaction of beneficiaries.

While the first study is conducted through the technical assistance of an ADB project (TA 9893-MON: Building Capacity for an Effective Social Welfare System), the second is conducted with UNICEF's support. The two studies have been thought as fundamentally complementary and together should provide a comprehensive insight in the effectiveness of social protection policies implemented by the Government of Mongolia.

Furthermore, it is hoped that the two studies combined should provide guidance for further adjustments to the policies in the transition from the crisis to recovery.

Executive summary

Background

This report provides the results of an indirect assessement of the coverage and adequacy of the social protection response put in place by the Government of Mongolia to mitigate the impact of the coronovairus disease (COVID-19) pandemic induced recession.

The assessment consists of micro-simulations using the latest household survey (the 2018 Household Socio-Economic Survey, HSES) that generate credible estimates of poverty and income distribution under three different scenarios: a baseline before COVID-19, under the economic effects of the pandemic, and the with the government's response. Therefore, this analysis should provide an insight on whether the policy decisions sufficiently covered the different socioeconomic groups affected by the crisis and whether they are likely to adequately protecting certain minimum living standards.

To date, the direct health impact of COVID-19 in Mongolia has been limited. However, indirect information coming from various qualitative rapid assessments tell us that the economic consequences of border closure, trade disruptions, schools and businesses closure has been substantial.

The Government of Mongolia has implemented a comprehensive set of policies by topping up the amount of various cash transfers as well as reducing personal income tax (PIT) and waiving social security contributions (SSC), providing support to herders affected by the collapse of cashmere prices, and other interventions.

Methodology

An ex-post assessment in the future will tell us what happened to living standards based on the government's responses put in place. On the other hand, this ex-ante assessment using microsimulations aims at understanding the likely impact on income distribution of different policy/response options. To do this, we create counterfactuals to inform the design of the policies. More specifically the aim is to generate and compare three different scenarios:

1. Pre-COVID or baseline scenario: the situation on poverty and inequality assuming that the shock of the pandemic did not happen;
2. The COVID-19 impact: the 'pure' effect of the crisis without government's intervention;
3. The government's response or mitigation scenario: to what extent government's policies are reaching people affected by the crisis and protect their living standards.

Key assumptions

Our analysis rests on a few key assumptions – with these in place, we assess the impact of COVID-19 on household income, poverty and inequality.

Baseline scenario

We take the information provided by the 2018 HSES as our baseline scenario and given the modest changes in real economic growth, consider this data as a reasonable representation of the situation before the shock. Data for such year would provide information not only on the level of national poverty, but also the basic poverty profile: poverty and income levels of different socioeconomic groups.

COVID-19 induced recession

The coronavirus pandemic had a significant negative effect on economic activities and trade, which reduced incomes, especially those from employment (either wages or self-employment). The expected impact is different depending on the economic sector and a review of available information can help us build different assumptions of economic losses.

The simulations try to reproduce the reduction of income at the household level, considering the different household income sources and taking into account each household member employment income sources.

We then assume that consumption expenditure decreases by the same percentage. This implies that households have very little ability to protect consumption using savings or borrowing.

Government's COVID-19 response

The Government of Mongolia initated an extensive package of fiscal and monetary measures in response to COVID-19. Not all measures were simulated for our exercise, but we focused on policies with direct impact on households' income, in particular we reproduced the following measures:

- the personal waiver of SSC and the exemption of PIT, excluding civil servants
- the increase in the child money program (CMP), food stamp program (FSP) and social welfare pensions
- the subsidy on the price of cashmere

Key findings

Based on our assumptions on economic losses resulting from COVID-19, we find that on average the pandemic would have reduced households' income by 10%. This is also the decline in gross domestic product reported by the National Statistics Office for the first and second quarter. However, the average hides some significant differences across the income distribution: with significant declines in income for some people, no changes for others and some increases as well. This is the scenario envisioned for the period between April and September in the absence of the main social protection policies. Once we consider the mitigation impact of the government's policies, we obtain that on average the negative effect is reversed and on the contrary people's incomes increased on average by 16% compared to the baseline values. Once again for some people there is still a loss, while for others the increase in income is even higher.

Our analysis indicates that both inequality and poverty would have increased significantly without government's measures, which counteract the negative effects and could reduce poverty even compared to the baseline levels if fully implemented. The table below summarises results for poverty and inequality at baseline, under the effects of the pandemic and considering the mitigation impact of the social protection policies

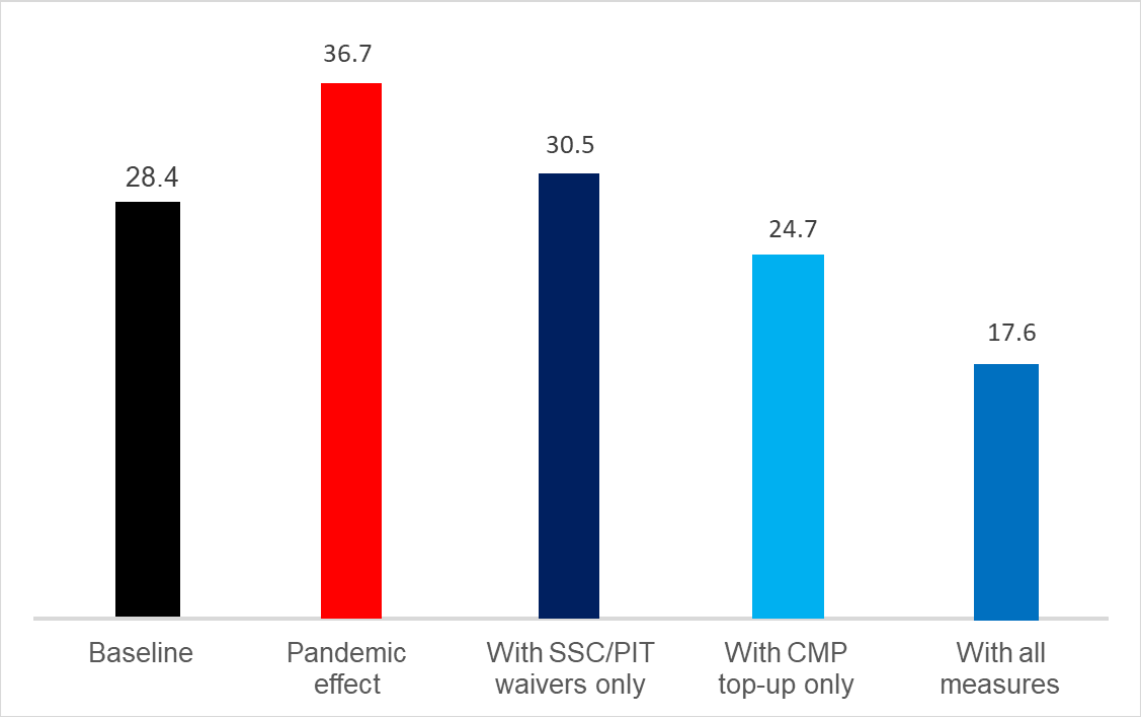
Table: Poverty and inequality measures – April–September 2020

	Inequality: Gini index	Official poverty line	Lower poverty line	Upper poverty line
Baseline	0.327	28.4	13.9	46.5
Pandemic effect	0.339	36.7	20.7	55.1
Mitigation measures	0.306	17.6	6.4	37.5

Source: Own estimates based on the 2018 HSES.

We can also compare two of the measures that have the largest and comparable budgets: the SSC/PIT waiver and the CMP top-up. If we assume that the only policy response implemented by the government were the SSC/PIT waiver, the percentage of people falling below the official poverty line would be 30.5%, i.e., lower than the percentage under the pandemic effect, but higher than the pre-covid scenario. On the contrary, if we analyse only the effect of the CMP top-up we find that the percentage of poor would fall to 24.9%. Therefore the CMP top-up alone could compensate the poverty effect of the pandemic (see Figure 3).

Figure: Percentage of poor under different scenarios – April-September 2020



We estimate the distribuional effect of the policy response by using the distribution of consumption with the pandemic effect. **This shows that the most redistributive policy is the FSP top-up, but it has a relatively small budget and small coverage.** SSC/PIT waiver provides most of the budget to the relatively better off, since 39% of the budget goes to the top 20% of population, whereas only 9% is received by the bottom 20%. On the contrary for the CMP the bottom 20% of population receives 26.4% of the budget and only 13.2% goes to the top 20% of population. Also social welfare pensions are redistributive, whereas the effect is milder for SSC waiver for the self-employed (who voluntarily pay for social insurance) and relatively neutral for the support provided to herders.

We also assess impact across different socioeconomic groups and compare the percentage of poor by household type under the three scenarios. **Our analysis shows that for all household types with children there is a significant drop in poverty, compared to baseline.** However, for couples without children, single-person households and households composed by all adult members poverty increases or remain the same as baseline even after the social protection measures are taken into account. Neverthless, the level of poverty among such households remain much lower than in households with children.

Alternative policy measures going forward

There are positive signs of economic recovery coming from monthly statistics of August and September, but at the same time showing that some sectors continue to be badly affected by the pandemic. All this should call for a more targeted strategy to support households and ensure that the government maintains public finances under control, so that a generous support now is not affected by harder times later on. In fact, there could be scope to combine

a CMP top-up at a lower amount with transfers that make use of the Integrated Household Database to reach relatively poor households. The targeting effectiveness of the database is likely to have been affected by the pandemic and changes in economic circumstances, but it remains an available instrument that can still serve to target resources to the lower part of the distribution.

Moreover, such transfers could also be combined with labor active policies that support alternative employment for people working in sectors that are and are likely to remain badly affected.

Conclusions and recommendations

The results of this exercise are heavily dependent on the assumptions made on the severity of the economic losses and the percentage of people who lost employment. Nevertheless, they show that the government's response has been robust and overall pro-poor, with CMP, but also FSP and social welfare pensions being particularly important in reducing poverty and inequality. The scaling down of the SSC waivers and re-introoduction of PIT in the last quarter of 2020 appear appropriate as well as the continuation of the CMP.

The challenge is now identifying the policy options for 2021. If the CMP top-amount is reduced this should not go below MNT40,000, which is closer to the value of the transfer in real terms when it was first introduced. Moreover, it could also be possible to identify more targeted transfers for the relatively poor using the Integrated Household Database and policies that help specific sectors still suffering from the economic conditions created by the pandemic.

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1 Background and introduction

1.1 Objectives of the assessment

1. This report provides the results of an indirect assessement of the coverage and adequacy of the social protection response put in place by the Government of Mongolia to mitigate the impact of the coronavirus disease (COVID-19) pandemic-induced recession.

2. The assessment consists of micro-simulations using the latest household survey (the 2018 Household Socio-Economic Survey, [HSES]) that generate credible estimates of poverty and income distribution in three different scenarios:

- baseline (i.e., the situation before the coronavirus pandemic),
- the effect of the pandemic induced recession, and
- the result of government's policies adopted to respond to the crisis.

3. Therefore, this analysis should provide an insight of whether the government's response sufficiently covered the different socio-economic groups affected by the crisis and whether they have been adequate in protecting certain minimum living standards.

4. Before describing the analysis and its results it is important to review what is known about the economic effect of the pandemic, the specific policy measures adopted by the government and the known studies that are taking place to understand the impact of the pandemic in Mongolia.

1.2 The economic effect of the pandemic

5. While the direct health impact of COVID-19 in Mongolia has been so far very limited, indirect information coming from various qualitative rapid assessments tell us that the economic consequences of border closure, trade disruptions, schools and businesses closure has been substantial.

6. Estimates from ADB shows that Mongolia's economic growth is expected to fall sharply in 2020. Moreover, based on data released by the National Statistics Office (NSO), in the first quarter of 2020, gross domestic product (GDP) at 2010 constant prices decreased by 10.7% compared to the first quarter of 2019, and in the second quarter dropped by 9.1%. These results were driven by significant decline in the mining sector, but also transporation, services and manufacturing. Agriculture remained the only positive contributor. On the demand side, investments and net exports were down whereas household consumption increased.

7. Such a difficult challenge comes in a situation where, based on the latest joint report by the NSO and the World Bank,[1] the national poverty rate in 2018 was 28.4% and a further 15% of the total population was clustered just above the national poverty line (within 1.25 of the poverty line), and at risk of slipping into poverty in the event of any unanticipated shocks, and the coronavirus pandemic might be just such a shock.

1.3 Current and planned studies

8. There have been already a few studies and rapid assessments on the impacts of the COVID-19 pandemic. We are aware of the following:

[1] Uochi, I. 2020. *Mongolia Poverty Update 2018 (English)*. Washington D.C.: World Bank Group. http://documents.worldbank.org/curated/en/532121589213323583/Mongolia-Poverty-Update-2018.

- **Socio-Economic Impact Assessment of COVID-19 on Vulnerable Groups in Mongolia, by the United Nations Development Programme (UNDP).** UNDP in Mongolia is conducting an assessment to gauge the socio-economic impact of COVID-19 on poor and vulnerable groups. The purpose is to generate information so that targeted measures to mitigate the effects can be put in place by the Government of Mongolia to increase community resilience and build back better. Interviews are being conducted at the household level, with herder communities, owners of small businesses, and local government leaders. The assessment will have a special focus on women and youth whose livelihoods have been most affected by the crisis. The assessment is being conducted in close collaboration with the Government of Mongolia, including the Ministry of Food, Agriculture, and Light Industry, the Ministry of Labor and Social Protection, the Ministry of Finance (MOF), NSO, the Bank of Mongolia and with UN Agencies including the United Nations Population Fund, United Nation's Children's Fund (UNICEF), Food and Agriculture Organization, International Labour Organization, and International Organization for Migration.
- **COVID-19 High Frequency Monitoring Response, by World Bank and National Statistics Office.**[2] The objective of this study is (i) to swiftly collect household-level data using rapid response phone surveys to monitor the crisis and its impact to inform and, to the extent already in place, assess mitigation measures, and (ii) to build up capacity in NSO to design and implement data collection and develop protocols for the rapid monitoring of future crises. This phone survey is a panel survey where the first round was conducted in May and June 2020 with a second round conducted starting from September.
- "**Impact of Covid-19 Prevention and Quarantine Measures on Business Activities**", by the NSO.[3] From 1 April to 20 May 2020, the National Statistics Office of Mongolia held an open or online study on COVID-19 outbreak prevention and quarantine campaign for businesses and households.

9. The above studies are the basis to develop assumptions on the effect of the crisis on household's incomes.

10. In addition to the above mentioned studies, **UNICEF Mongolia** is supporting a rapid assessment of the COVID-responsive vertical expansion of the child money program (CMP) and food stamp program (FSP). This latter study is complementary to the current assessment providing information on the implementation of key social protection policy measures, use of the transfer, satisfaction and how people's living conditions have been affected.

1.4 Report structure

11. The remainder of this report is structured as follows. The next section develops the assumptions and hypothesis of the impact of the coronavirus pandemic on economic activities and incomes by reviewing information available to date and explaining how they are simulated in survey data. The third section looks at the policy measures adopted by the government of Mongolia and explains how they are re-produced in survey data. The fourth section presents the results: expected impact on national poverty rate and inequality as well as on different socioeconomic groups. A final section provides some preliminary conclusions and identifies possible next steps.

[2] See https://www.worldbank.org/en/country/mongolia/brief/monitoring-covid-19-impacts-on-households-in-mongolia.
[3] See https://1212.mn/BookLibraryDownload.ashx?url=Impact_of_COVID-19_on_Business_Activities.pdf&ln=En.

2 Assumptions and hypotheses on economic shock

2.1 Baseline scenario

12. While the 2018 HSES is a very recent survey, it is important to determine whether there have been significant changes from 2018 until the beginning of 2020, just before the coronavirus pandemic effects. This essentially means to consider whether anything significant happened to the economy in terms of overall economic growth, specific performance of certain sectors of the economy, and inflation.

13. Nominal GDP increased by 10% between 2018 and 2019, but in real term growth was relatively modest, i.e., 1.8%. Indeed, the average consumer price index in 2019 was 7.2% higher than in 2018. Moreover, while some sectors did better than others, especially in some quarters of the year, differences are not large.

14. Considering these changes and the low growth elasticity of poverty estimates observed in Mongolia (see Uochi 2020, page 25), we believe we can ignore them and consider the HSES data for 2018 as a reasonable representation of the situation before the shock caused by the pandemic.

15. Data for such year would provide information not only on the level of national poverty, but also the basic poverty profile: poverty and income levels of different socioeconomic groups.

2.2 COVID-19 induced recession

16. The coronavirus pandemic had a significant negative effect on economic activities and trade, which reduced incomes, especially those from employment (either wages or self-employment). The expected impact is different depending on the economic sector and a review of available information can help us build different assumptions of economic losses.

17. The fundamental approach used in the microsimulation is that of a partial equilibrium: we take into account the sudden impact of economic losses, but do not factor for behavioural changes that the shock could trigger (such as changing job). This appears to be a reasonable choice to understand short term effects of the shock.

18. Moreover, the simulations try to reproduce the reduction of income at the household level, and then assume that consumption expenditure decreases by the same percentage. This implies that we assume that households have very little ability to protect consumption using savings or borrowing. Indeed, from the first round of the Phone survey “COVID-19 High Frequency Monitoring Response” conducted in May we know that few households resorted to savings (about 7%), more households reported to take up a loan (from friends or institutions), but others reduced consumption and in general are very worried about their finances, and about food security. Therefore, while this assumption is particularly pessimistic, it is not unrealistic, especially for households in the lower part of the distribution.

19. Moreover, in simulating the income reduction, we consider the different household income sources and taking into account each household member employment income sources.

20. Incomes are simulated according to the following assumptions:

Income from employment is reduced based on the economic sector where people work

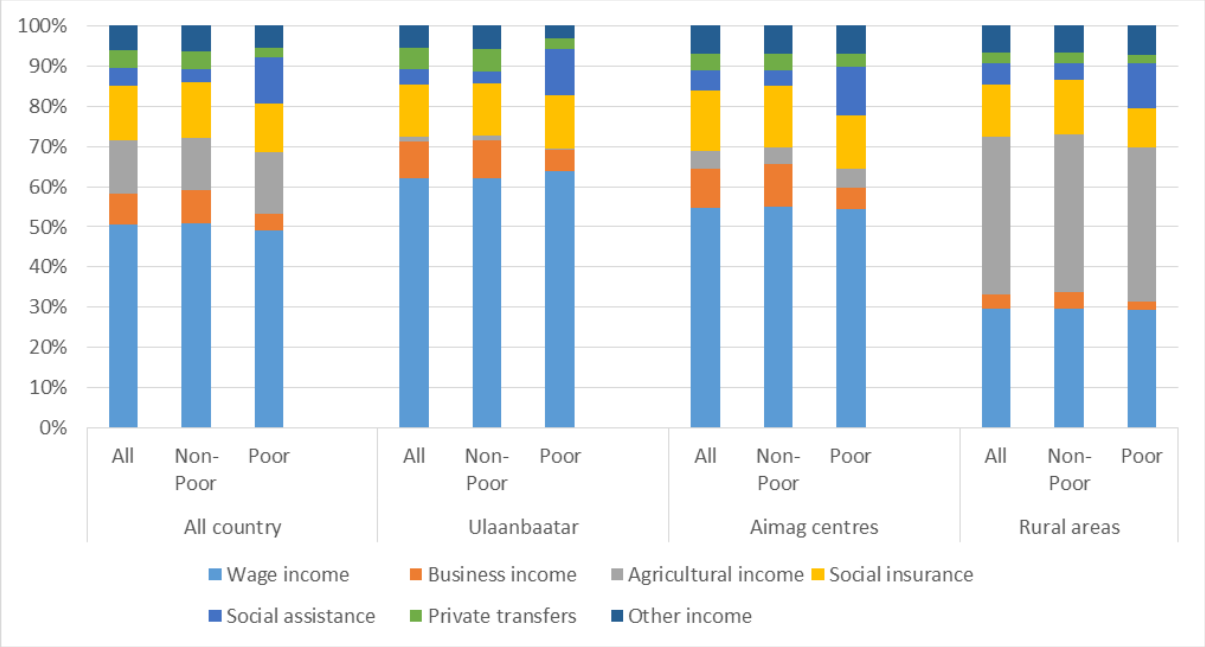
Income from foreign remittances is reduced by 20% (this is based on the general prediction of remittances decline at world level)[4]

Domestic remittances are reduced by 10% (the expected average decline)

- Income from pensions and other social transfers as well as income from property are not affected

21. Figure 1 shows the relative importance of different income sources for Mongolian households by different geographical areas and income levels at baseline. Across all different groups, labor income (wage, business or agricultural income) represents about 70% of people's income, but there are significant geographical differences in its composition, with wage income being more important in Ulaanbaatar and *aimag* centres and agricultural income being the largest source in rural areas. Concerning non-labor income, the significant difference in composition comes from the comparions of the poor and other households. For the poor social assistance provides about 12% of all income, whereas for the non-poor this is only 3% and, on the contrary, for the non-poor and the relatively better-off private transfers are a more significant income source.

Figure 1: Income Sources Across Geographical Areas and Level of Poverty, 2018



Source: Own analysis based on HSES 2018 data. Poor and non-poor are defined based on the official poverty line (poor = 28.4% of the population).

22. It is therefore clear that in understanding the potential economic impact of the coronavirus pandemic on households' income is crucial to assess how employment incomes have been affected. Moreover, for this it is important to understand the relevance of the different economic sectors.

23. Table 1 provides the estimated number of employees based on the 2018 HSES data by economic sector and whether people are paid employee or self-employed. The overall number of employed people is 1.22 million,[5] with the main sectors being agriculture, wholesale and retail trade, education and tourism. However, there are significant differences across paid employee and self-employment. Among the paid employee, employment is spread across various sectors, with the main ones being education, wholesale and retail trade, public

[4] See https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history.

[5] This is very close to the number provided by the NSO for 2018 of 1.25 million (https://1212.mn/tables.aspx?TBL_ID=DT_NSO_0400_010V1)

administration, construction, tourism, manufacturing and mining, while in self-employment, agriculture provides most of the jobs, followed by wholesale and retail trade and tourism.[6]

Table 1: Number of Employees by Economic Sector

Economic Sector	Paid employees	Self-employed	Total
Agriculture, forestry, fishing	20497	272750	293246
Mining and Quarrying	64311	6374	70685
Manufacturing	70601	21959	92560
Electricity, gas, steam and condit. supply	16243	53	16295
Water supply, sewerage, waste man.	5741	1020	6761
Construction	79053	11577	90631
Wholesale and retail trade	97966	67147	165114
Transportation and storage	17223	7566	24790
Information and communication	15591	603	16194
Financial and Insurance Activities	25276	714	25990
Real Estate Activities	1166	0	1166
Professional, scientific and tech. activities	12330	1469	13800
Adm. and Support Service Activities	17608	1346	18954
Public Administration and defense	87528	68	87596
Education	111503	988	112491
Human Health and Social Work Activities	47396	903	48300
Arts, Entertainment and Recreation	793	0	793
Other service activities	14493	7640	22133
Activities of households as employers	1665	1273	2939
Activities of extraterritorial organizations	1240	57	1297
Tourism	77457	31720	109177
Total	785682	435227	1220909

Source: Own analysis based on HSES 2018 data.

24. After reviewing the early analysis conducted by UNDP and FAO, and the findings of assessments conducted by NSO that interviewed firms as well as households (through a telephone survey conducted with support from the World Bank) we have some information on how different economic sectors have been affected by the crisis. Moreover, since these assessments took place before the main social protection measures fully kicked in, they credibly provide a picture of the COVID-19 economic effect before the main government's response.

25. In the NSO survey[7] firms from different sectors were asked to express a judgement on their level of economic activity. The percentage of those that declared the economic activity to be abnormal varied significantly by economic sector. Table 2 divides sectors based on high, medium or low economic disruption. High includes sectors where 65% or more firms declared that their economic activities were abnormal, medium if 35–65% of firms declared their economic activity abnormal and low if less than 35% declared the same.

[6] It is important to note that while tourism activities usually are not singled out as one sector itself, we have made an effort to distinguish it from other activities using disaggregated codes collected in the HIES as it is a sector that is likely to have been particularly affected by the crisis. Workers in the tourism sector come primarily from economic activities in accommodation and food services, as well as selected activities in the transport sector, auxiliary transport services, activities of travel agencies; recreational, cultural and sporting activities.

[7] See https://1212.mn/BookLibraryDownload.ashx?url=Impact_of_COVID-19_on_Business_Activities.pdf&ln=En.

Table 2: High, Medium, and Low Economic Disruption by Economic Sector

Hotel, accommodation and catering services; Education (though disruption in activity did not translate necessarily in loss of income); Tourism; Arts, entertainment and recreation	High
Wholesale and retail trade Manufacturing Construction Agriculture and forestry Other services Transportation and storage Real estate activities Professional, scientific and technical activities Administrative and support activities Mining and quarrying Information and communication Electricity and gas	Medium
Human health and social work activities Financial and insurance activities Public administration and defence Water supply, sewerage	Low

Source: Summary based on NSO survey of firms: https://1212.mn/BookLibraryDownload.ashx?url=Impact_of_COVID-19_on_Business_Activities.pdf&ln=En.

26. In terms of the scale of the economic losses, we only have an aggregated level of information across sectors, and even that is only self-reported in an approximate way. Overall, the average reported loss across all firms is of 40%, but 15% of firms did not report any losses, another 15% reported a loss of less than 20%, 20% of firms reported a loss between 20 and 40%, whereas the remaining 50% of firms reported a loss of more than 40%.

27. Furthermore, from the household telephone survey we also know that 16% of the self-employed received no income and that 73% had income losses compared to the previous year. Finally, 38% in wage employment reported lower incomes, but wage employment was protected from unemployment (this was also confirmed by employment figures for the first two quarters of 2020 available on the NSO website).

28. Based on this information we could assume that in high hit sectors the loss could well be of 60%, in average sectors 40% and low effect sectors 20%. However, it is also appropriate to assume that in state owned firms and public administration there was no loss of income.

29. We also know that herders producing and trading cashmere have been badly affected. Price of cashmere is now about MNT48,000 per kilogram, but it was MNT81,000 in May of the previous year. Therefore, in order to estimate their losses we can compare the average price of cashmere during the key selling season (March–May) 2019 with the prices in 2020 and assume that income derived from cashmere was reduced by the same percentage decline in prices (about a 50% loss). We also know that while livestock meat prices have increased a bit, 58% of farmers reported to be unable to sell their produce, and 70% reported lower incomes (based on NSO/World Bank telephone survey).

30. Based on the above information losses can be simulated considering employment income, whether they are from self-employment or wage employment and depending on the

economic sector. Moreover, the assumption of loss separates between those affected and the intensity with which their income is reduced.[8]

31. For herders (self-employment in agriculture) we do not assume an unemployment effect (or a full loss of income), but as explained above, their income loss depends on the share of revenues coming from cashmere and the drop in cashmere prices. By assuming a drop of 50% from the income they derive from cashmere, the overall average loss of agricultural income is equal to 20%. In other economic sectors among the self-employed we assume a full loss of income (unemployment) of 10% in some sectors and 50% in tourism (and the selection of those suffering this complete loss is done randomly), whereas for all other self-employed in that sector the average loss of income is reported in the last column of Table 3. Among the wage employee the selection of people with an income loss is reported in the first colum of Table 3 and, once again, is determined randomply within wage employee in each sector. For those affected the average income loss is reported in the second column of Table 3.

32. Given that there is a random element in the above attributions of losses, the calculation is repeated 100 times and the average value retained to ensure that results are more robust.

Table 3: Scenario of Economic Losses (April and September 2020)

Economic Sector	Wage employment		Self-employment	
	% with loss	Loss in %	% with full loss	% loss for others
Agriculture, forestry, fishing	40	40	0	20*
Mining and Quarrying	30	30	10	40
Manufacturing	30	30	10	40
Electricity, gas, steam and condit. supply	30	30	10	40
Water supply, sewerage, waste man.	10	10	10	20
Construction	30	30	10	40
Wholesale and retail trade	30	30	10	50
Transportation and storage	30	30	10	50
Information and communication	30	30	10	50
Financial and Insurance Activities	10	10	10	20
Real Estate Activities	30	30	-	-
Professional, scientific and tech. activities	30	30	10	40
Adm. and Support Service Activities	30	30	10	40
Public Administration and defense	0	0	0	0
Education	0	0	0	0
Human Health and Social Work Activities	0	0	0	0
Arts, Entertainment and Recreation	60	60	-	-
Other service activities	40	40	10	40
Activities of households as employers	40	40	10	40
Activities of extraterritorial organizations	40	40	10	40
Tourism	40	40	50	80

Note: For self-employment agriculture the fall depends on the reduced revenues from cashmere. This varies depending on the importance of cashmere for different herders. In general the percentage of losses are implemented using a random normal centred at the stated values but with a standard deviation of 10.

[8] We make average assumptions of losses by sector, but then these are implemented with some random variability, the loss is a random normal with a standard deviation equal to 10.

33. All the above losses are calculated at the individual level, based on the specific sector of employment people work, and used to compute a revised income that it is then aggregated at the household level and summed up to the amended household businesses income in agricultural or other sectors. In turn this is summed up to income from other sources so that for each household we obtain an estimated income loss compared to the baseline level.

34. The estimated income loss is computed for each household and we then assume that consumption expenditure is reduced by the same percentage, in turn this is used to estimate the impact on poverty and inequality.

35. An alternative simulation scenario can also be generated with a reduced impact on incomes and where all the above parameters are halved. This scenario is used to represent a situation where economic activities and trade resume and start to recover, and it is chosen to represent the situation in the last quarter of 2020.

3 The Government's response

36. The Government of Mongolia has implemented a robust package of measures to stimulate the economy and provide support to livelihoods amid the COVID-19 pandemic.

37. A first set of measures operates for half a year between April and September 2020 and was implemented through two packages (the first announced at the end of March and the other at the beginning of May). The detailed policies of these two packages are reported below.

Package 1 announced on 27 March 2020.

- All entities are fully exempted from social security contributions (SSC) for a period of 6months: this benefit employers, but also paid employees and self-employed people who make voluntary social insurance contributions
- Personal income tax (PIT) is not levied on citizens' salaries for 6 months (but civil servants are excluded)
- Companies with an income lower than MNT1.5 billion are completely exempted from corporate income tax (CIT) for 6 months
- Entities that have retained their employees on payroll despite their weakening operations, receive MNT200,000 allowance per employee per month between April and June
- Loans to finance cashmere purchase from herders at 3% interest rate
- Increased CMP allowance by MNT10,000 from MNT20,000 to MNT30,000 per month per child (under 18).
- Lower price of gasoline by MNT300–400 per litre, effective 15 April 2020.

Package 2 announced on 6 May 2020.

- The CMP monthly allowance is raised to MNT100,000 per month until the end of September. This represents a further increase of MNT70,000 compared to the already announced increase in the previous package.
- The monthly food stamps are doubled for five months from 1 May to 1 October 2020.
- Beneficiaries of social welfare pensions (persons with disabilities without social insurance, senior citizens who are not entitled to pension benefits from social insurance, orphaned or half-orphaned children and single parents with four or more children) will receive additional MNT100,000 for 5 months (May to September), totalling their monthly allowance to MNT280,000.
- Herders will receive a subsidy of MNT20,000 for each kilogram of cashmere.

38. The second set of measures will cover the period between **October and December 2020** and continues some of the above policies and interrupts others. In particular, the following will apply:

- The increased amount of allowances for the CMP, the FSP and the social welfare pensions will continue for extra 3 months until the end of the year
- Rates of SSC are no longer exempted, but will be paid at a reduced rate of 5% both by the employer and the employees
- Companies with an income lower than MNT1.5 billion will continue to be exempted from CIT until the end of the year

39. Other important measures not described here concerns interventions taken in the health sector to prepare for the pandemic and acquire relevant equipment, but they are less relevant for the assessment of the economic impact on households' welfare.

40. Moreover, not all measures mentioned above should be simulated for our exercise. In particular, measures that support firms and large enterprises do have an impact on employment retention, but are already accounted for in the assumptions on the impact of the shock, assuming that there is little or not extra unemployment caused by companies laying off staff because of the crisis.

41. These results were probably achieved by the waiver on SSC, the exemption of CIT for firms with a income lower than MNT1.5 billion, and subsidies for employees retention. Similarly we are not attempting to reproduce the effect on VAT exemption on some items or the reduction on the price of gasoline.

42. Instead, we focus on policies that have a direct impact on households' income, in particular we reproduced the following government measures:

- the personal waiver of SSC and the exemption of PIT (excluding civil servants)
- the increase in the CMP, FSP, and social welfare pensions
- the subsidy on the price of cashmere

3.1 Waiver for SSC and PIT

43. The first step in simulating this measure is in understanding who is entitled to it. While they have been presented as two different measures the same persons are potentially eligible to it. Paid employees in the formal sector see their gross wage reduced by health insurance (2%) and social security contributions (9.5%), and then on the remaining amount they are taxed 10%, but some income (which depends on wage bands) is exempted.[9] Employers usually automatically retain such amounts. Therefore, the effect of the policy measure introduced by the government has been to increase the net salary of all paid employees.

44. For example, if one has a gross salary of MNT1.8 million, their net salary before the introduction of the SSC and PIT waivers was MNT1.447 million,[10] whereas after the introduction of the policy measures her/his net salary would become MNT1.764 million (whereby only the health insurance contribution is retained). Threfore, there is a significant increase in people's net wage.

45. In addition to employees contributions, the employers also make contributions that vary slightly by the type of sector in relation to injury and occupational disease insurance, but overall contributions range between 10.5 and 12.5% (excluding health insurance contributions). Firms have also be exempted from making such contributions, this has a direct benefit to employers and indirectly employees through retention of staff and stimulus to maintain economic activity.

46. However, for the SSC there was an incentive also for people who are self-employed and decide to make voluntary contributions or otherwise make voluntary contributions. Theoretically, people who insured themselves on a voluntary basis should pay 13.5% of their incomes, but the minimum payment is linked to the minimum wage, which is equal to MNT420,000 per month (this is equivalent to an extra benefit of at least MNT56,700 per month).

[9] Tax exemptions on monthly figures are as follows: MNT20,000 for wages below MNT500,000; MNT18,000 for wages between MNT0.5 and 1 million; MNT16,000 for wages between MNT1 and 1.5 million; MNT14,000 for wages between MNT1.5 and 2 million; MNT12,000 for wages between MNT2 and 2.5 million; and MNT10,000 for wages between MNT2.5 and 3 million.

[10] This is obtained by detracting the health insurance contribution of MNT36,000 and the SSC of MNT171,000 and the PIT of MNT145,300. The latter is obtained by taking 10% of the difference between gross salary and health + social insurance contributions and adding the exempted income of MNT14,000 (for those with an income between MNT1.5 and 2 million).

47. The MOF estimated that about 526,000 employees should have benefited from the PIT waiver and then implicitly also for the SSC waiver. At the same time different estimates point to about 180,000 people making voluntary contributions.

48. In the HSES we only observe people's net wage, but from that amount and knowing contribution and tax rates as well as the tax exemption scale, we can simulate the increased salary for each paid employee. However, we had to identify people that were likely to be in the formal sector as well as those that are likely to make voluntary social insurance contributions. This information was derived indirectly based on information of health insurance payments (voluntary or through their employer, and the minimum wage in 2018).

49. For the increase of allowances, the simulation was relatively straightforward, since the HSES has specific questions that identify people receiving CMP, FSP, or social welfare pensions. However, in 2018 not all children were eligible to CMP, whereas in the simulations we have assumed that everyone under 18 now started to receive the extra support (MNT80,000 per month). For beneficiaries of the FSP the HSES under-estimates the actual number of beneficiaries reported to be about 240,000, we have therefore added about an extra 50,000 beneficiaries among those eligible and not in receipt of the FSP.[11]

50. Finally the subsidy on cashmere prices was estimated and assigned using the reported kilograms of cashmere sold by the herders as recorded in the HSES. The expectation of the MOF is that about 230,000 herders could have benefited for a total expenditure of MNT175 million.

51. Table 4 summarises the estimated coverage for the different policy measures as well as the simulated budget. In terms of number of beneficiaries we report three estimates. The number of direct beneficiaries (for example children, employees, herders), and the percentage of households and people that benefit from such support. As long as in the household there is one member benefiting from the policy, then the household is considered as beneficiary and all household members are considered to benefit from it. It is also important to note that not for all measures beneficiaries are supported on a monthly basis between April and September, but the numbers count people receiving support during that period. In particular, for the FSP and social welfare pension people received support for five, rather than 6 months. The budget is computed taking into account the expenditure for the whole period and so correct for the fact that some expenditure is executed only for some of the months.

Table 4: Estimated Coverage and Budget of Key Policy Measures in the HSES (April–September 2020)

Key policy measure	Beneficiaries			Budget	
	No. of people	Percentage of:			% of 2018
	(thousands)	Households	Population	(billion MNT)	GDP
Child Money Program top-up	1174.6	64.0	79.8	563.8	1.74
SSC waiver for enterprises				325.2	1.00
SSC + PIT waiver	513.0	43.6	49.0	574.6	1.77
SSC waiver for self employed	187.7	15.3	17.0	63.9	0.20
Social welfare pension	87.9	8.7	9.9	44.0	0.14
Food Stamp top-up	259.2	5.4	8.1	15.6	0.05
Cashmere support	173.6	19.5	20.4	134.7	0.42
Total				**1721.8**	**5.31**

Source: Own estimates based on the 2018 HSES.

52. Overall, estimates are relatively close with expected figures reported by the MOF. For example, the MOF reported a figure of MNT552.2 billion for the CMP against the HSES estimate of MNT564 billion, we also obtain the same figure for the social welfare pension

[11] Eligibility has been estimated by reproducing the proxy means test score and using the eligibility thresholds.

budget. However, there is a difference in the budget for SSC waiver. The MOF reports a combined MNT870 billion for SSC waivers and exemption of penalty and charges for late payments on SSC and separately an estimate of MNT175 billion for PIT exemption. We are not aware of the possible magnitude of penalties and charges exemptions, but believe these should not be large. However, combining our estimates of SSC waivers including those for employers and the PIT waiver we obtain an estimate of about MNT964 billion. Overall, while there seems to be a difference, figures are of similar magnitude. Finally, on the support to herders for cashmere HSES estimates are below those of the MOF, but again of a similar magnitude.

53. When all these measures are put together their budget is equivalent to 5.12% of the 2018 GDP, but only for 6 months, so they effectively represent an injection of 10% of the GDP for those months.

54. While all budget amounts are estimated considering values of 2020, in determining their impact on consumption expenditure, they have been deflated at 2018 prices.

55. The above interventions and income increases are combined with the scenario of COVID-19 losses to generate the final effect on household incomes and consumption, before estimating the resulting poverty and inequality estimates.

56. Finally, we also estimated the number of beneficiaries and budget for the measures that will be in place in the last quarter of 2020. Results are reported in Table 5, where it is important to draw attention on the reduced budget of SSC reductions and the fact that there is no longer PIT exemption. The budget estimated in the HSES is of MNT167.4 billion, whereas the MOF puts the same figure to 144.4, again confirming that amounts are of the same magnitude. For CMP and social welfare pension MOF gives an expected budget of MNT322 billion, whereas HSES provides an estimate of MNT308 billion.

Table 5: Estimated Coverage and Budget of Key Policy Measures in the HSES (October–December 2020)

Key policy measure	Beneficiaries			Budget	
	No. of people (thousands)	Percentage of: Households	Population	(billion MNT)	% of 2018 GDP
Child Money Program top-up	1174.6	64.0	79.8	281.9	0.87
SSC reduction for enterprises				98.9	0.31
SSC reduction	524.8	44.5	49.9	68.5	0.21
Social welfare pension	87.9	8.7	9.9	26.4	0.08
Food Stamp top-up	259.2	5.4	8.1	9.4	0.03
Total				**485.1**	**1.50**

Source: Own estimates based on the 2018 HSES.

57. The effect of policy measures for the last quarter of 2020 can be assessed as the previous one combining the effect of milder negative economic effects and the above effects on households' incomes.

4 Results

58. By applying the assumptions on economic losses described above, we obtain that on average the pandemic would have reduced real households' income by 10%, this is of the same amount of the decline in GDP reported by the NSO for the first and second quarter. However, as shown in Table 6, the average hides some significant differences in the changes, since there are people whose income is less than 50% of their baseline income (2.5% of people), about 12% of people whose income is between 50% and 75%, 46% whose income is between 75% and 100% and others whose income did not change and few for whom it increased (Annex A provides a graphical representation of the changes occurred across the distribution plotting incomes at baseline vs. those under the recession due to the pandemic). This is the scenario envisioned for the period between April and September in the absence of the main social protection policies.

59. However, once we consider the mitigation impact of the government's policies, we obtain that on average the negative effect is reversed and on the contrary people's incomes increased on average by 16% compared to the baseline values. Once again for some people there is still a loss, while for others the increase in income is even higher.

60. The COVID-19 and mitigation effects are also estimated for the last quarter of 2020, assuming that losses are half of those considered for the period of April–September and looking at the policy measures that will remain in place for the last part of the year.

Table 6: Average and Distributional Change in Incomes in 2020 Compared to Baseline

	April-September	October-December
Covid effect		
% change in income	-10.3	-4.0
Distribution:		
<50%	2.5	0.7
50-75%	11.6	2.5
75-100%	46.3	46.3
No change/increase	39.5	50.6
Total	100.0	100.0
Mitigation impact		
% change in income	16.3	14.2
Distribution:		
<75%	4.3	1.5
75-100%	16.1	14.2
100-125%	47.7	64.2
>125%	31.9	20.1
Total	100.0	100.0

Source: Own estimates based on the 2018 HSES.

61. Assuming that the income reduction translates into an equivalent drop in consumption expenditure, we can estimate the impact on inequality and poverty.[12] More specifically, we measure inequality (using the Gini coefficient) and the expected percentage of poor under

[12] This is because in Mongolia consumption expenditure, rather than income, is used for distributional analysis.

different scenarios, using the official national poverty line (this is equal to MNT166,580.3 per capita per month at 2018 prices), and also a lower and upper poverty lines (respectively equal to MNT127,724.5 and MNT218,613.9 per capita per month at 2018 prices).[13]

62. Table 7 summarises these results at baseline, under the effects of the pandemic and considering the mitigation impact of the social protection policies. This shows that both inequality and poverty would have increased significantly without government's measures, and that instead government policies seem to more than counteract the negative effects and could reduce poverty even compared to the baseline levels.

Table 7: Poverty and Inequality Measures – April–September 2020

	Inequality: Gini index	Official poverty line	Lower poverty line	Upper poverty line
Baseline	0.327	28.4	13.9	46.5
Pandemic effect	0.339	36.7	20.7	55.1
Mitigation measures	0.306	17.6	6.4	37.5

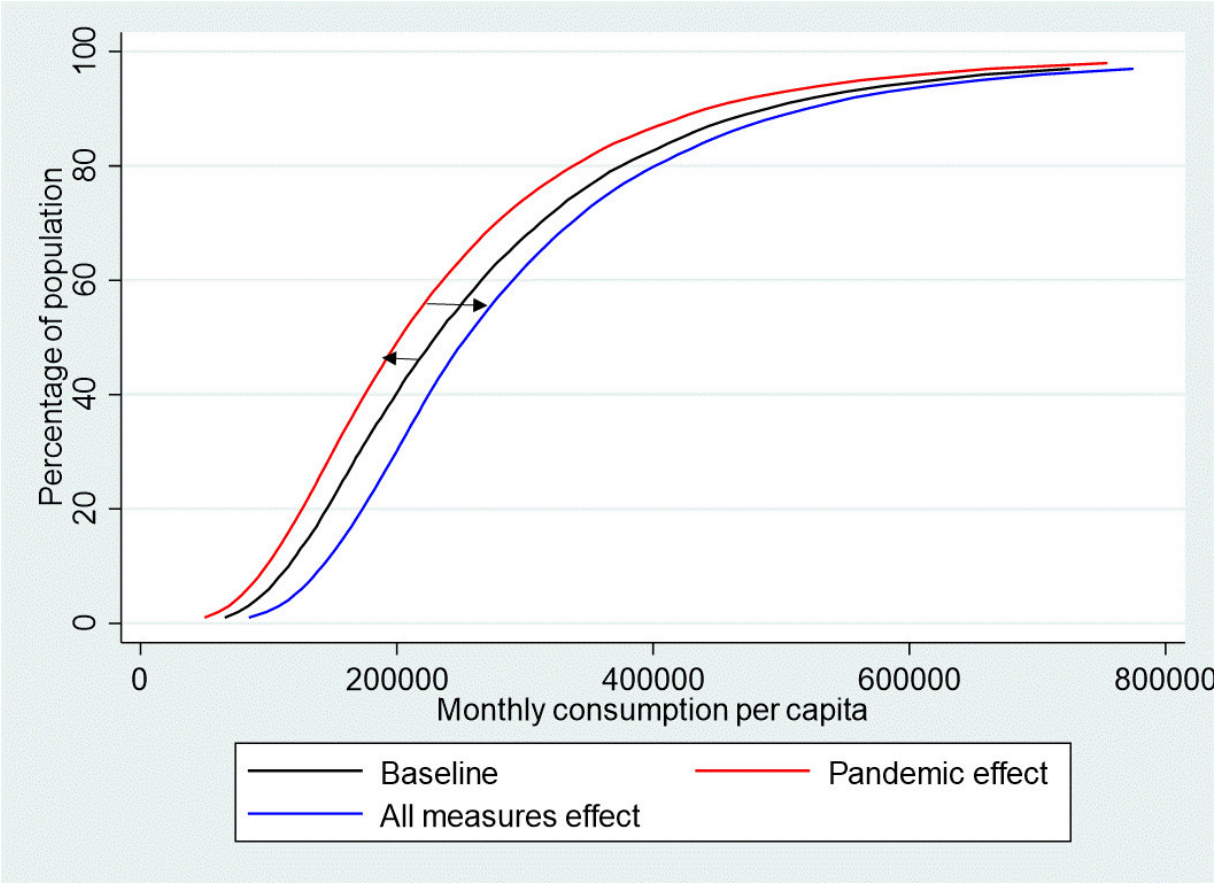
Source: Own estimates based on the 2018 HSES.

63. Indeed the percentage of the poor was 28.4% at baseline, could increase to 36.7% because of the economic recession, but is reduced to 17.6% thanks to social protection policies. Estimates are also provided for the lower and upper poverty lines.

64. Figure 2 reports the entire cumulative distribution functions at baseline, with the pandemic effect and with the social protection policies in place. At each consumption expenditure level, say 'x', the cumulative distribution function shows the percentage of population with a consumption equal or lower than x. It is evident how the pandemic shifts the curve to the left with a decrease of consumption expenditure across the whole distribution, but then the policy measures shift to the right the distribution with significant gains, especially in the lower part of the distribution.

[13] Lower and upper poverty lines are computed to offer a better understanding on the possible effects on extremely poor households as well as the middle of the distribution.

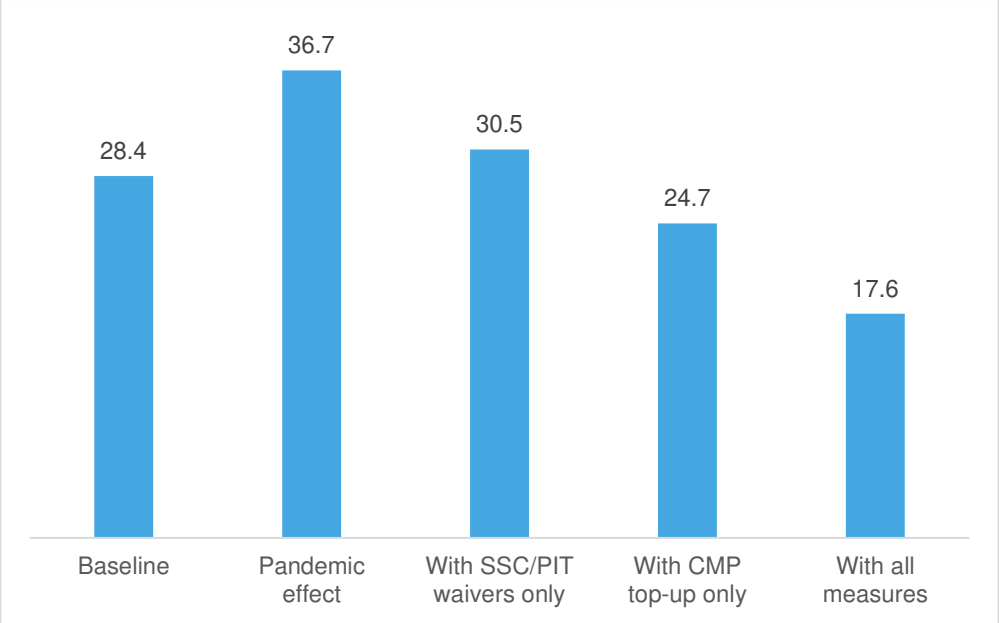
Figure 2: Cumulative Distribution Functions – April–September 2020



65. Moreover, we can also distinguish the effect of the different policies and in particular compare two of the measures that have the largest and comparable budgets: the SSC/PIT waiver and the CMP top-up. If we assume that the only policy response implemented by the government were the SSC/PIT waiver, the percentage of people falling below the official poverty line would be 30.5%, i.e., lower than the percentage under the pandemic effect, but higher than the pre-covid scenario.

66. On the contrary, if we analyse only the effect of the CMP top-up we find that the percentage of poor would fall to 24.9%. Therefore the CMP top-up alone could compensate the poverty effect of the pandemic (see Figure 3). Moreover, while only with the CMP top-up the Gini coefficient would decrease to 0.307 the SCC and tax waivers alone would increase the Gini coefficient to 0.342.

Figure 3: Percentage of Poor under Different Scenarios – April–September 2020



67. Table 8 shows how the budget of the different policy measures is distributed across population quintiles, estimated using the distribution of consumption with the pandemic effect. From the table it is clear that the SSC/PIT waiver provides most of the budget to the relatively better off, since 39% of the budget goes to the top 20% of population, whereas only 9% is received by the bottom 20%. On the contrary, for the CMP the bottom 20% of population receives 26.4% of the budget and only 13.2% goes to the top 20% of population. The most redistributive policy is the FSP top-up, but it has a relatively small budget and small coverage. Also social welfare pensions are redistributive, whereas the effect is milder for SSC waiver for the self-employed (who voluntarily pay for social insurance) and relatively neutral for the support provided to herders.

Table 8: Distribution of April–September Budget by Population Quintiles and Type of Intervention

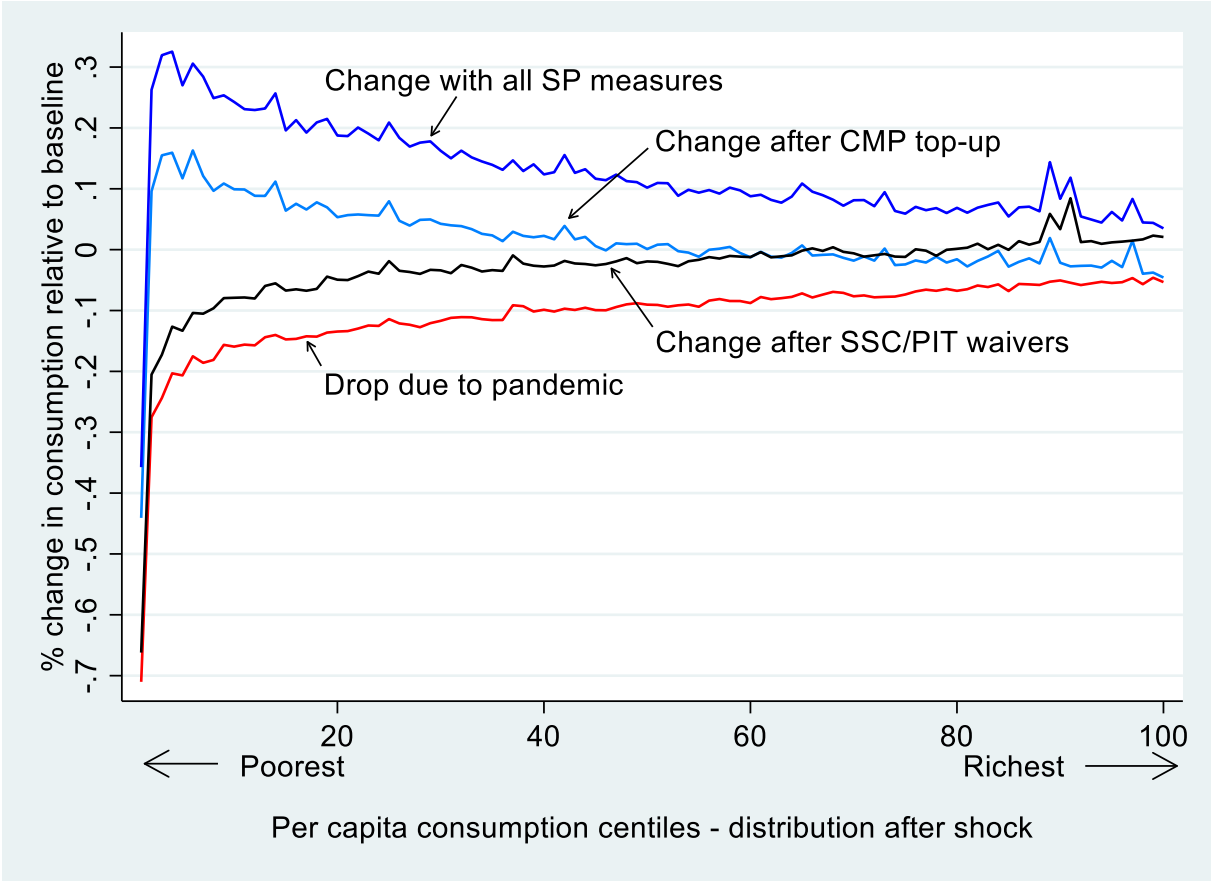
	SSC+PIT waiver	SSC for self-employed	Herders	CMP	Social pensions	Food Stamp
Budget	574.1	63.9	134.7	563.8	44.0	15.6
Distribution by population quintiles:						
Poorest	8.9	19.2	17.2	26.4	23.7	62.4
2nd	13.1	23.6	21.5	23.2	23.2	22.4
3rd	17.0	22.1	22.9	20.1	21.3	9.8
4th	22.0	20.0	21.3	17.1	18.7	3.7
Richest	39.0	15.1	17.1	13.2	13.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Own estimates based on the 2018 HSES, distribution of population quintile is estimated using the simulated pandemic economic effect.

68. However, Table 8 shows the absolute distribution of the budget, even if the same amount is provided to the bottom and top quintile, distributionally relative income will increase more in the bottom than in the top quintile. This effect is shown in Figure 4, where we rank the population from the poorest to the richest based on the consumption after the shock and plot the change in consumption compared to baseline under different scenarios. The figure is

drawn using average centile values (each centile contains 1% of the population). It shows that across the distribution on average everyone is worse off because of the pandemic, and also that the SSC and PIT waivers, while providing support across the whole distribution, would leave the bottom half of the population below baseline levels. On the contrary, the CMP top-up gives relatively much higher support to the lower part of the distribution offsetting almost for everyone the shock of the pandemic. When we combine all social protection measures the change compared to baseline is positive across the whole distribution, it is higher for those with lower consumption and then tends to decline as we move to the better-off. Only for the very first centile there are people that remain worse-off compared to baseline.

Figure 4: Relative Change in Per Capita Consumption Expenditure Compared to Baseline (Ranked Based on Consumption after the Shock) – April–September 2020



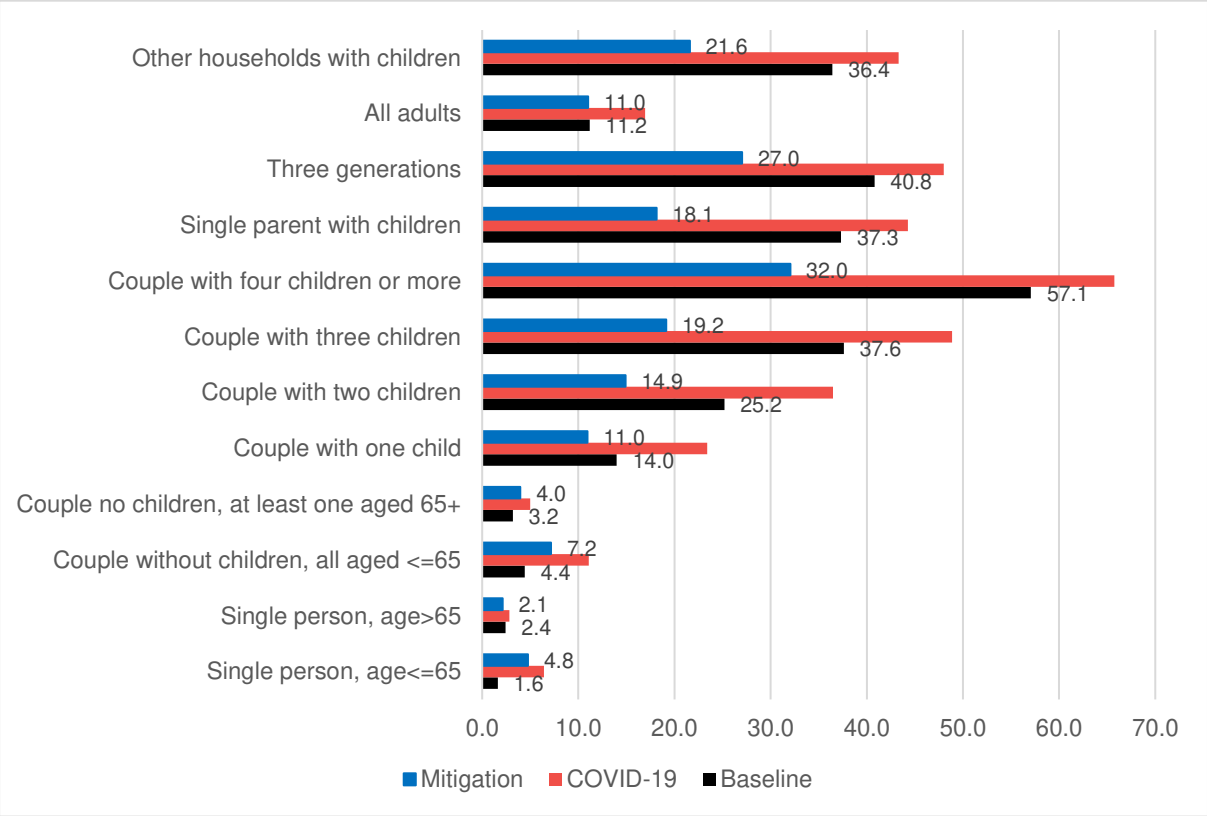
69. It is relevant to have a more granular assessment looking at the impact across different socioeconomic groups. Figure 5 compares the percentage of poor by household type under the three scenarios: baseline (pre-COVID), under the economic effects of the pandemic, and when the social protection measures are implemented to counteract the economic recession.

70. This clearly shows that while for all household types with children there is a significant drop in poverty, even compared to baseline, for couples without children, single-person households and households composed by all adult members poverty increases or remains the same as baseline, even after the social protection measures are taken into account. Nevertheless, the level of poverty among such households remains much lower than in households with children.

71. Annex A provides further disaggregations by location, geographic area, number of children, elderly and persons with disabilities. Moreover, poverty rates are compared also at

the lower and upper poverty lines (see Table 14). A table in the annex also provides the effect on poverty of different population sub-groups considering first only the effect of the CMP top-up and then only the SST/PIT waivers.

Figure 5: Percentage of Poor by Household Type under the Three Scenarios: Baseline, COVID-19 and Social Protection Measures – April–September 2020



72. Finally, we also computed similar estimates for the 4th quarter of 2020, assuming a reduced economic effect of the pandemic (half the losses simulated in the scenarios for April-Semptember) as well as the different package of support. The key results are reported in Table 9. As expected the negative effects of the pandemic have a lower impact on poverty, but once again the government measures offset its effect and reduce overall poverty levels, even compared to baseline.

Table 9: Poverty and Inequality Measures – 4th quarter 2020

	Inequality: Gini index	Official poverty line	Lower poverty line	Upper poverty line
Baseline	0.327	28.4	13.9	46.5
Pandemic effect	0.329	31.1	15.9	49.6
Mitigation measures	0.297	17.3	5.9	38.1

5 Alternative policy responses

73. The latest statistical bulletin with data up to September 2020 shows significant improvements in both manufacturing and mining,[14] which could signal the start of an economic recovery. However, for certain sectors the challenges are likely to continue, in particular in the hospitality and tourism sectors.

74. This seems to signal that the Government of Mongolia could start developing a more targeted strategy to support those particularly affected by the economic crisis, while continuing to strengthen systems of core policy choices.

75. Some policies have proven to be more redistributive than others and this should be taken into account in shaping interventions in 2021.

76. The options available are both in terms of interventions that could support people working in sectors still badly affected by the pandemic (tourism) through employment support programs and consider the use of the integrated household database (IHD), which contains an assessment of household welfare through a proxy means test (PMT).

77. For illustrative purposes, we show what the use of the IHD could achieve.

78. The latest data available in the IHD was collected in 2017 and the PMT model was estimated using the 2014 HSES. Therefore, there are three potential sources of targeting inaccurancies:

- Modelling imperfections, it is well known that being a proxy test, any model would carry a certain degree of inaccuracy;
- Implementation errors, whenever data collection was inaccurate or people mis-reported their conditions;
- Change of circumstances in the households since 2017, especially due to the pandemic.

79. A recent report of the World Bank[15] looked at the first and second issue and below we present analysis of the possible impact of the pandemic in changing the welfare distribution.

80. Table 10 shows the distribution of potential beneficiaries of the CMP and potential benefits that would target population based on the PMT score and covering different percentages of the population, namely 20%, 30%, 40% and 50%. The FSP makes use of the PMT, but only target about 8% of the population. More specifically Table 10 shows the coverage of population within each quintile, assuming that as long one person in the household is eligible to a transfer, all household members are receipients. It is expected that, when a transfer covers a higher percentage of the population, also coverage in the lower quintiles will be higher, thus reducing exclusion errors. The PMT has been reproduced using the observations and data reported in the HSES, this cannot take into account possible implementation errors, but it is nevertheless a robust assessment of the theoretical performance of the model. Moreover, Table 10 compares the performance using the welfare distribution before and after the pandemic, based on the assumption of our microsimulations.

81. It is useful to note how the targeting of the CMP is not affected by the pandemic, whereas as expected, for the PMT we do observe a worsening of the coverage of lowest quintiles when we consider the pandemic distribution, rather than the baseline distribution. For example, when the PMT covers 20% of the population, at baseline coverage of the bottom quintile was expected to be 61.7%, but becomes 55.6% considering the pandemic. Respective

[14] National Statistics Office. 2020. Socio-economic situation of Mongolia, 9/2020, page 95 (https://www.en.nso.mn/content/341).
[15] World Bank. 2020. *Improving the Integrated Household Database System for more effective Social Assistance in Mongolia.*

numbers when coverage using the PMT score is 50% are 93.8% and 87.1%. Nevertheless, the deterioration is not catastrophic and there remains a reasonable targeting that could be used in combination with other transfers.

Table 10: Distribution of Potential Beneficiaries of CMP and PMT Score Assuming Different Population Coverage, Before and During the Pandemic

Population quintiles	Pre-Pandemic					Pandemic				
	CMP	PMT20	PMT30	PMT40	PMT50	CMP	PMT20	PMT30	PMT40	PMT50
Poorest	95.6	61.7	77.7	88.5	93.8	95.3	55.6	69.8	80.2	87.1
2nd	88.6	25.0	42.5	58.1	73.1	89.8	26.6	43.3	58.0	71.3
3rd	81.6	8.7	19.0	32.1	47.0	82.9	11.7	23.1	36.2	48.9
4th	74.3	3.5	8.0	15.5	25.6	73.1	4.7	10.4	18.6	30.3
Richest	58.8	0.8	2.6	5.5	10.1	57.9	1.1	3.3	6.7	12.0
Total	79.8	20.0	30.0	40.0	50.0	79.8	20.0	30.0	40.0	50.0

82. It is also useful to understand what would be the expected distribution of the budget used by the different eligibility mechansims. We assume that for the CMP each child receives the same allowance and for the PMT the allowance would provide each household member the same amount. The results are presented in Table 11, where we can see that using the PMT a much higher percentage of the hypothetical transfer budget would reach the lower quintiles than the CMP.

Table 11: Budget Distribution of Potential Transfers Using Different Eligibility Criteria and with Economic Shock as Simulated in the Period of April–September 2020

Population quintiles	Pandemic distribution				
	CMP	PMT20	PMT30	PMT40	PMT50
Poorest	26.4	55.8	46.6	40.2	34.9
2nd	23.2	26.6	28.9	29.0	28.6
3rd	20.1	11.7	15.4	18.1	19.6
4th	17.0	4.8	6.9	9.3	12.1
Richest	13.2	1.1	2.2	3.4	4.8
Total	100.0	100.0	100.0	100.0	100.0

83. As an exemplification, below we show what would be the simulated poverty and inequality impact of different combinations of transfers and their budget. More specifically, under two different scenarios of economic impact (as simulated respectively for the periods of April-September and October–December), we show the possibility of using exclusively a large CMP transfer vs. a smaller CMP transfer combined with a poverty benefit that would use the IHD to reach relatively poorer households.

84. Results under the strong economic impact scenario (April–September 2020) compare the effect of the CMP top-up of MNT60,000 and MNT50,000 with the option of a CMP top-up of MNT20,000 combined with a poverty benefit that would reach 40% of the population providing MNT25,000 per month per household member. The first transfer would be significantly more expensive in terms of budget but would not yield better results of the third option, where the CMP is combined with a poverty benefit (see Table 12).

Table 12: Inequality and Poverty Impact of Different Combination of Transfers and Their Budget under Economic Shock as Simulated in the Period of April–September 2020

	CMP=60	CMP=50	CMP=20 + PB40=25
Inequality:			
Gini	0.3139	0.3175	0.3105
% of poor (different poverty lines)			
National	27.8	29.1	28.7
Lower	12.8	14.0	12.8
Upper	48.6	49.8	50.2
Monthly budget (million MNT)	70475	58729	55318

85. Table 13 looks at some options under the milder economic effect of the pandemic, which could be more representative of the economic situation in 2021. We compare a CMP top-up of MNT40,000 per month with a package that provides a CMP top-up of MNT20,000, a poverty benefit of MNT10,000 per month per capita to 40% of the population (the bottom 40% based on the PMT score) and an extra poverty benefit of MNT15,000 per month to 20%of the population (again the bottom 20% based on the PMT score).

86. At a yet lower budget level, we also consider a CMP top-up of MNT30,000 per month with combinations of a CMP top-up of MNT20,000 and poverty benefits either covering 20% of the population with a transfer of MNT20,000 per month or covering 30% of the population with a per capita transfer of MNT10,000.

Table 13: Inequality and Poverty Impact of Different Combination of Transfers and Their Budget under Economic Shock as Simulated in the Period of October–December 2020

	CMP=40	CMP=20 + PB40=10 + PB20=15	CMP=30	CMP=20 + PB20=20	CMP=20 + PB30=10
Inequality:					
Gini	0.3127	0.3055	0.3163	0.3106	0.3136
% of poor (different poverty lines)					
National	25.2	24.4	26.8	26.1	26.6
Lower	11.2	9.6	12.3	10.9	11.9
Upper	45.3	45.7	46.5	46.8	46.9
Monthly budget (million MNT)	46983	45761	35237	36210	33040

87. Once again, these simulations are only examples of how a blended strategy could achieve better or equal povery reduction at a lower budget than a relatively high CMP transfer. Money not spent for the CMP could instead be used to support specific sectors badly affected by the pandemic, promoting re-training and alternative employment together with an allowance while participating in such schemes.

6 Conclusions and next steps

88. While we should emphasise that the results presented in this report are essentially determined by the assumptions we have made, and there is inevitable uncertainty on their accuracy, the exercise shows that the government response has been very robust. In particular, the prediction on the economic effects of the crisis may be underestimated if job losses were higher than predicted. Nevertheless, social protection policies are due to reach a very large percentage of the population with relatively large transfers. The CMP, but also social welfare pensions and the food stamp program, are redistributive transfers that reduce inequality and poverty.

89. Therefore, we can conclude that the short term policy response of the government has been significant and pro-poor and should have avoided many of the negative economic effects of the pandemic that we have seen in other countries in the world. Of course the actual impact will depend on how well policies have been implemented and how quickly transfers reached eligible households, and this is the aspect addressed by the companion of this paper through the UNICEF-supported study.

90. Moreover, the government's measures entered a second stage in October, whereby some of the support to firms and employees has been reduced, while continuing the more pro-poor policies.

91. The next step will be to determine the actions for next year, from January 2021. We should recognise that, before being increased because of COVID-19, the value of the CMP has been MNT20,000 per child per month since 2012, this means that at prices of 2020 the value of CMP should have been around MNT35,000. Therefore, while financially it may be difficult to maintain the current amount of MNT100,000, the value of the transfer should be reduced gradually and in relation to signals of economic recovery, and considering a minimum level of about MNT40,000. Moreover, the top-up of the CMP could be combined with more targeted transfers that make use of the IHD as well as active market policies.

92. Indeed, moving forward it will also be important to understand whether there are economic sectors that are more likely to be affected also in 2021 and develop specific and more targeted measures for those sectors and households depending on them. The simulations of different combinations of transfers show an example of the possibility of using a combination of benefits and could be further tailored to provide guidance on the policy response in 2021.

93. Moreover, while so far inflation seems to have been contained, given the large number of transfers and cash injection in the economy and some supply rigidities, it will also be crucial to monitor closely the possible increase in prices, especially on items that could hit hard the poor.

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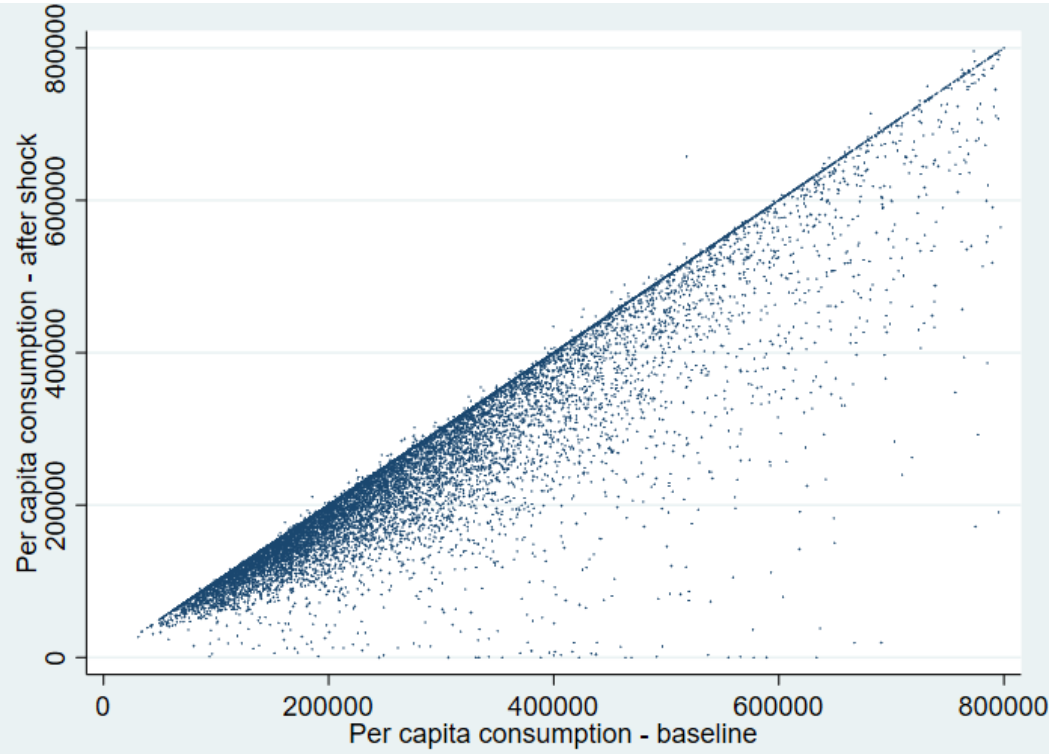
Annex A Detailed statistical measures

While in the main text we provided average and group measures of changes in the income and consumption before and the after the shock, Figure 6 shows the relationship between consumption before and after the shock for all the households in the survey, whereby each household is represented with a dot. We can see that the graph draws almost a line at a 45-degree angle because there are indeed many households for whom we do not expect a difference in consumption level (in real terms), but many others for whom we see a significant drop due to the coronavirus pandemic (all the points below the line) and some others for whom there is an increase (dots above the line).

Figure 6: Change in consumption before and after shock – April-September 2020



As an example of the effect of summarising the effect into centiles, the above graph is reproduced calculating average consumption after the shock by each centile. Figure 7 shows the line with not changes, consumption before and after the shock is the same, and each dot shows the average consumption after the shock by centile.

Figure 7: Change in Consumption Before and After Shock – Centile Averages– April–September 2020

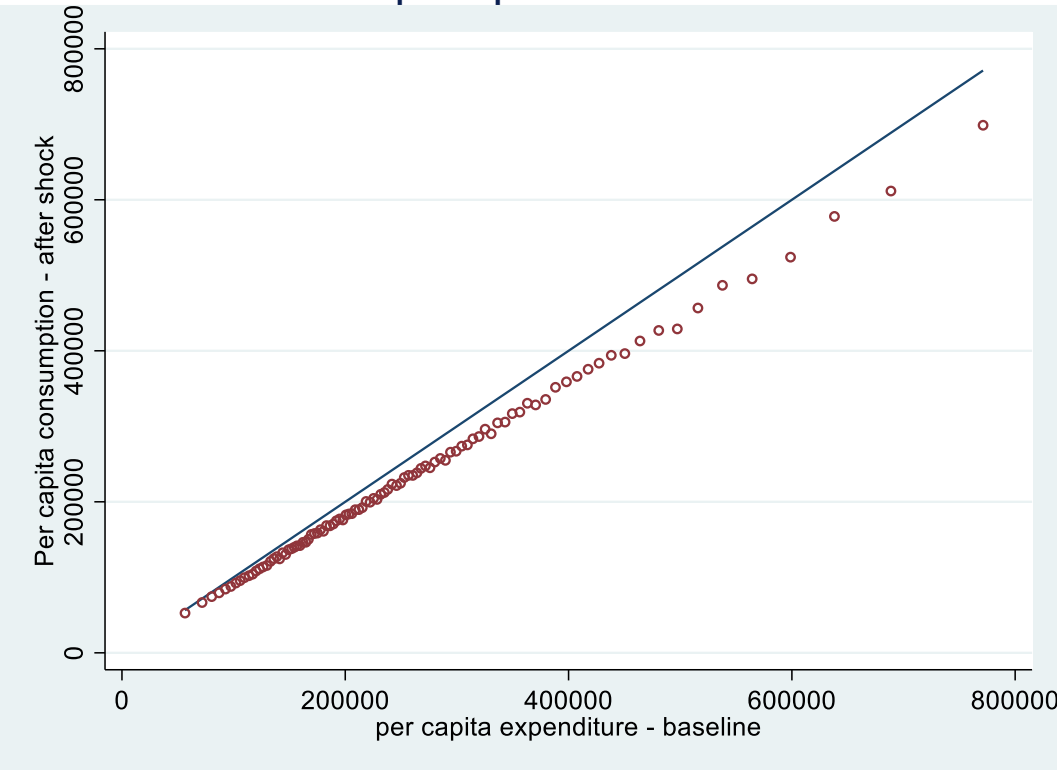


Figure 8 is the same as Figure 4 in the main text with the only difference that ranking is done based on the distribution at baseline, rather than after the shock.

Figure 8: Relative Change in Per Capita Consumption Expenditure Compared to Baseline (Ranked Based on Consumption at Baseline) – April–September 2020

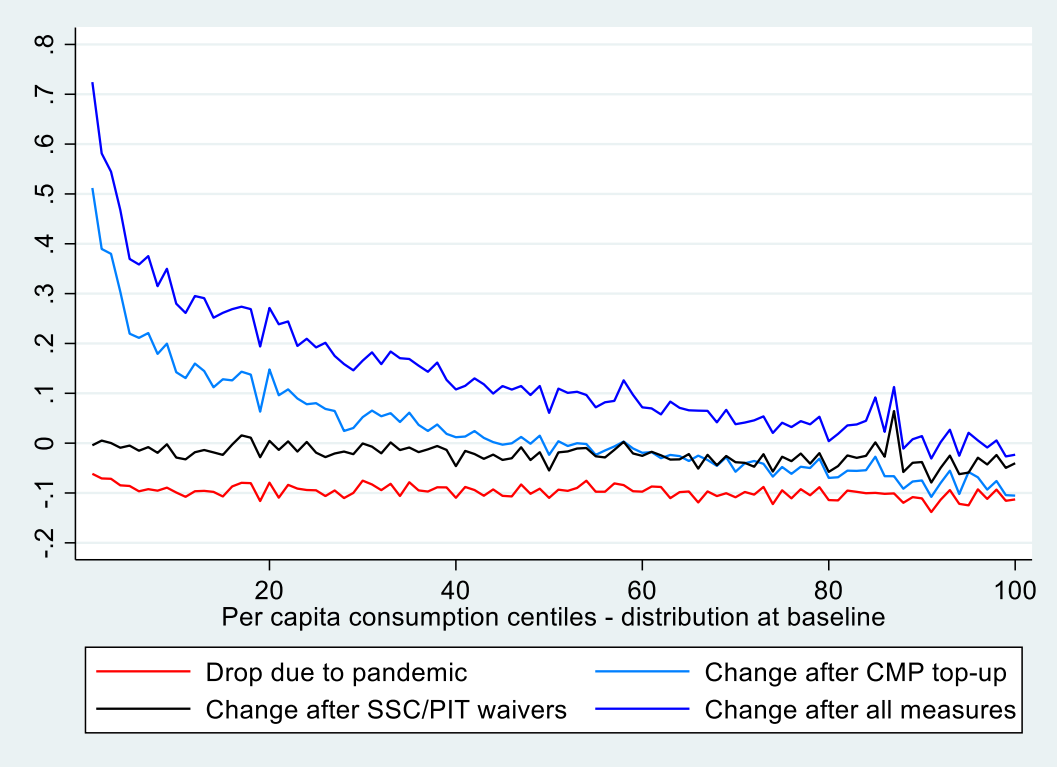


Table 14: Poverty Profile under Different Scenarios – April–September 2020

	Baseline			Pandemic effect			Mitigation measures		
Domain	Nat.	Lower	Upper	Nat.	Lower	Upper	Nat.	Lower	Upper
Overall	28.4	13.9	46.5	36.7	20.7	55.1	17.6	6.4	37.5
By location									
Urban	27.2	13.9	43.8	35.1	20.2	52.2	17.1	7.0	35.5
Rural	30.8	14.0	51.6	39.9	21.5	60.6	18.6	5.3	41.5
By geographic area									
West	31.8	15.3	53.4	42.3	23.6	63.3	19.5	7.0	42.3
Highlands	30.8	14.1	51.8	40.0	21.7	60.3	18.7	5.8	41.7
Central	26.1	12.6	44.0	34.2	18.8	53.2	16.1	5.6	35.6
East	37.4	20.3	55.3	43.2	26.4	61.5	24.9	6.6	46.8
Ulaanbaatar	25.9	12.9	41.8	33.7	19.1	50.2	16.1	6.8	33.8
By number of children (<=17)									
none	7.6	2.5	21.0	12.3	4.9	27.0	8.2	3.2	20.9
one	17.0	6.5	35.1	24.9	11.7	45.4	12.6	4.4	29.9
two	28.5	12.3	49.4	38.6	20.2	59.2	16.4	5.7	37.3
three	43.4	21.5	63.4	53.7	31.2	72.7	23.5	8.2	49.2
four or more	62.4	39.9	78.6	70.1	49.5	84.3	37.5	15.0	63.2
By number of pensioners									
none	29.9	14.7	48.1	39.5	22.7	57.7	18.1	6.7	38.0
one	26.4	13.6	44.5	31.7	17.3	50.5	18.2	6.7	38.5
two or more	17.7	6.4	35.2	20.6	7.9	38.6	12.0	3.7	30.7
By number of PWD									
none	27.4	13.2	45.1	36.0	20.2	54.1	17.1	6.1	36.6
one	33.0	17.2	53.5	40.0	22.5	59.5	19.7	8.2	41.9
two or more	46.3	25.8	65.2	50.6	31.8	69.2	27.5	10.8	54.9
Household type									
Single person, < pension age	1.6	0.4	6.8	6.5	3.1	14.4	4.8	2.6	9.3
Single person, pension age	2.4	0.7	11.1	2.8	0.7	12.2	2.1	0.7	11.4
Couple without children, no pension age	4.4	2.1	16.4	11.1	5.5	25.0	7.1	3.4	17.9
Couple no children, pension age	3.2	0.6	15.2	5.0	1.1	18.1	3.9	0.9	16.5
Couple with one child	14.0	4.6	30.6	23.4	10.7	42.7	10.9	4.0	26.8
Couple with two children	25.2	10.2	46.5	36.5	18.7	57.3	14.9	5.1	34.6
Couple with three children	37.6	16.4	58.2	48.8	27.0	68.7	19.1	6.3	43.8
Couple with four children or more	57.1	33.3	74.3	65.8	44.3	80.6	31.9	12.2	57.9
Single parent with children	37.3	21.6	57.2	44.4	28.0	63.2	18.1	6.1	38.5
Three generations	40.8	22.5	60.6	47.9	28.7	67.9	27.0	10.3	50.9
Other all adults	11.2	3.8	27.2	17.0	6.8	34.0	11.0	4.2	26.0
Other households with children	36.4	19.7	51.5	43.3	25.8	59.7	21.7	8.6	44.4

Table 15: Poverty Profile with CMP Top-up or SSC/PIT Waivers – April–September 2020

	Pandemic effect			CMP top-up			SSC+PIT waiver		
Domain	Nat.	Lower	Upper	Nat.	Lower	Upper	Nat.	Lower	Upper
Overall	36.7	20.6	55.0	24.8	10.6	46.2	30.5	16.3	48.8
By geographic area									
Urban	35.1	20.2	52.2	24.0	11.0	43.9	28.4	15.7	45.1
Rural	39.9	21.5	60.6	26.5	9.8	50.6	34.6	17.5	56.0
By geographic area									
West	42.3	23.6	63.3	26.7	11.5	51.9	37.6	19.9	59.0
Highlands	40.0	21.7	60.3	27.0	10.2	51.0	34.2	17.1	55.1
Central	34.1	18.9	53.3	22.6	9.1	43.7	28.4	14.9	47.2
East	43.2	26.4	61.5	31.9	12.6	52.8	38.6	22.0	57.6
Ulaanbaatar	33.7	19.1	50.2	23.1	10.6	42.5	26.4	14.5	42.6
By number of children (<=17)									
none	12.3	4.9	27.0	12.3	4.9	27.0	9.8	3.8	22.8
one	24.9	11.7	45.4	18.6	7.6	38.6	19.2	8.8	38.4
two	38.6	20.2	59.2	24.9	9.5	47.0	30.8	15.1	51.5
three	53.8	31.2	72.7	32.4	13.8	59.0	45.1	24.2	65.7
four or more	70.0	49.4	84.3	46.4	23.6	71.6	64.0	42.8	80.5
By number of pensioners									
none	39.4	22.7	57.7	25.9	11.0	47.5	32.6	17.7	50.7
one	31.8	17.2	50.5	24.1	10.8	45.3	26.8	14.4	46.2
two or more	20.6	7.8	38.6	16.3	5.4	34.7	17.7	6.9	35.7
By number of PWD									
none	35.9	20.1	54.1	23.8	10.0	45.0	29.6	15.6	47.6
one	40.1	22.5	59.5	29.2	13.4	52.0	34.1	18.8	55.1
two or more	51.0	31.7	69.4	42.7	20.1	65.5	47.7	29.8	66.3
Household type									
Single person, < pension age	6.4	3.1	14.4	6.4	3.1	14.4	5.2	2.7	11.0
Single person, pension age	2.8	0.7	12.2	2.8	0.7	12.2	2.8	0.7	12.1
Couple without children, no pension age	11.1	5.5	25.0	11.1	5.5	25.0	8.5	4.0	19.7
Couple no children, pension age	5.0	1.1	18.1	5.0	1.1	18.1	4.3	1.1	17.5
Couple with one child	23.3	10.7	42.7	17.2	6.8	36.3	17.3	7.8	34.9
Couple with two children	36.5	18.7	57.3	22.7	8.2	44.4	28.8	13.8	49.0
Couple with three children	48.9	27.0	68.8	27.6	10.7	53.6	40.0	20.4	60.8
Couple with four children or more	65.7	44.3	80.7	41.0	19.7	66.1	59.4	37.5	76.5
Single parent with children	44.3	28.1	63.2	24.3	10.0	48.9	38.1	23.6	57.8
Three generations	48.0	28.5	67.9	35.9	16.8	59.8	40.6	23.4	62.0
Other all adults	16.9	6.8	34.1	16.9	6.8	34.1	13.4	5.1	28.4
Other households with children	43.3	25.6	59.6	30.2	14.6	51.4	38.1	19.8	55.1