

COVID-19 and inequality

How unequal was the recovery from the initial shock?*

June 2021

The restrictions on mobility and economic activity that were put in place to mitigate the health impacts of the COVID-19 pandemic have had an unequal impact both across and within countries, with vulnerable populations within developing countries being affected disproportionately. An important concern is that the recovery may be similarly inequitable. Across the 17 developing countries in our sample, where policies became more conducive to mobility and economic activity, we indeed observe a partial recovery of employment and incomes in most countries, as well as improvements in food security. Although job recovery and lower policy stringency were accompanied by an overall fall in the share of the food-insecure population from 13% to 9%, those living in rural areas witnessed slower declines in food insecurity. However, the recovery was not only incomplete, but also uneven within countries. In particular, the recovery in employment among those who suffered larger initial shocks — women, non-college-educated, and urban workers — was not sufficient to significantly reduce the initial disparities in losses. By August-September, female employment had only recovered 30% of what was lost between pre-pandemic and May-June (versus 49% for men). Finally, more recent data for a smaller number of countries up to January 2021 indicates that while food security continued improving in these countries, recovery in employment appears to have stalled, while the disparities by gender and education persisted.

The impact of the global coronavirus pandemic (COVID-19) was felt by the entire world, but not everyone was affected equally. The COVID-19 pandemic led to the largest global economic crisis since the Great Depression, with 95 percent of countries experiencing a contraction in output in 2020, and global poverty increasing for the first time in a generation. Yet, the impacts of the crisis were not uniform. Income losses and food insecurity were more common among households in low-income countries, despite lower incidence of employment disruptions. Within countries, the immediate impacts of the pandemic fell disproportionately on vulnerable workers, women and youth, and on children in low-income households.¹

Will the recovery also be skewed against low-income countries and vulnerable segments of the population in ways that may exacerbate inequality? Lower-skilled workers, youth, and women may find it particularly hard to recover from the initial impacts of job losses. Strategies to cope with income losses, insofar as they rely on selling productive assets or cutting down on essential consumption, can reduce the productive capacity of households and make them more vulnerable to future shocks. And disruptions to schooling can widen learning gaps between children of different socioeconomic backgrounds. To gain some insight into the inequality impacts of the COVID-19 pandemic, we rely on data from repeated rounds of high-frequency phone

* This brief was prepared by Sarthak Agrawal, Alexandru Cojocaru, Veronica Montalva and Ambar Narayan (Poverty & Equity Global Unit, World Bank), with inputs on food insecurity from Tom Bundervoet and Andrey Ten.

surveys to examine the dynamics, across countries and population groups, of employment, income and food security that correspond to the economic recovery that is typically associated with the relaxation of restrictions.

DATA AND METHODOLOGY

This brief provides estimates of changes in employment, income, and food security several months after the COVID-19 pandemic first upended lives and livelihoods around the world. We use the May 18, 2021 vintage of the World Bank's High-Frequency Phone Surveys (HFPS) which contains consistent information from 171 surveys conducted between April 2020 and February 2021 across 59 countries, harmonized by the World Bank's Data for Goals team.²

We study the recovery between May-June 2020 (Round 1) and August-September 2020 (Round 2) — periods chosen in a way that maximizes the number of countries in our sample with at least one wave falling in each round, while ensuring that the two surveys of each country are roughly equidistant. Around 40% of the countries with harmonized HFPS data fulfil this requirement (23 out of 59).³ To focus on the patterns associated with economic recovery, we restrict our attention to 20 countries where policy stringency declined between Round 1 and Round 2.⁴ For the average country in our sample, policy restrictiveness — measured by the Oxford Stringency index — fell from 77 to 68 between rounds 1 and 2, where higher values indicate greater stringency.⁵ Our conclusions are thus reflective of countries covered by HFPS where policies became more favorable toward economic activity between May and September 2020. This fits our purpose of seeing distributional patterns in changes in well-being across households in an improving economic environment, as an indication of what is likely to happen as economies recover as pandemic restrictions are lifted.

Since we are focusing on changes in three outcome variables — income loss, employment, and food security — over time, and disaggregating by several sociodemographic characteristics, the sample of countries varies because of differences in coverage of variables across surveys and quality of data (for details, see endnotes). Our total sample of countries includes two countries in the World Bank's Europe and Central Asia region, two in East Asia and Pacific, eight in Latin America and the Caribbean, and eight in Sub-Saharan Africa. Of these, seven are low-income countries, seven are lower-middle-income, and six are either upper-middle-income or high-income countries (see Annex 1 for a complete list). Eight countries fall under World Bank's IBRD lending classification and 12 under the IDA category (including those classified as "Blend"). All results presented below are simple country averages in which each country carries the same weight (but workers and households within countries are weighted appropriately).

The period up to September 2020 does not reflect what happened during the subsequent months, which included a second wave of the pandemic that set the recovery back in some countries. But it does provide valuable information about the fledgling recovery: an early indication of the distributional pattern of changes in countries where policies became less stringent. To our knowledge, the harmonized HFPS data is the only database that allows analysis of changes over time in the pandemic period in a consistent manner across many developing countries. This brief also includes findings with more recent data from a few countries to shed some light on what might be happening in the months since September 2020 up to January 2021. As more recent data becomes available, these early findings can be updated and examined in greater detail to understand the nature of recovery across the developing world.

MAIN FINDINGS

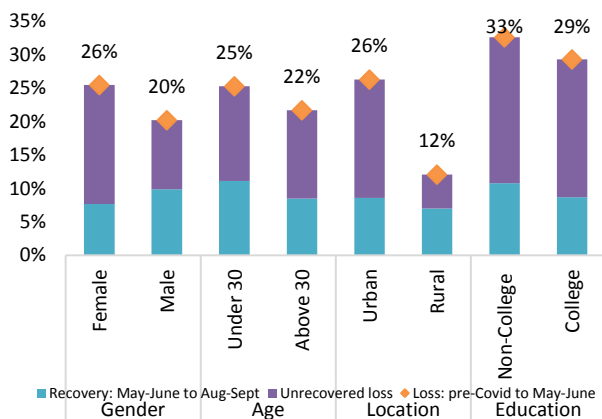
After severe dips initially, income, employment, and food security saw a rebound, but there are early indications of an unequal recovery within countries

While falling policy stringency was accompanied by a recovery in both employment and incomes, these were still well below pre-pandemic levels in September 2020. Across 17 countries,⁶ employment recovered

to only 83% of its pre-pandemic average by August-September after falling to 71% in May-June. While 63% of households in our sample reported a fall in income in May-June, 58% continued to have lower incomes in August-September compared to pre-COVID levels (see Annex 2 for country-wise descriptive statistics).

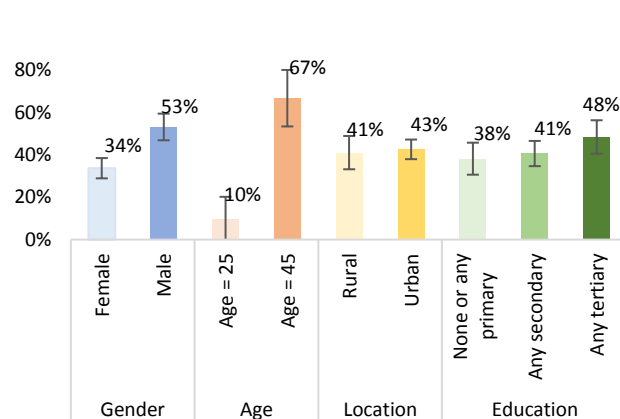
During the recovery of May to September, initial disparities in job losses — between men and women, urban and rural, non-college educated and college-educated, and young and older workers, were not significantly reduced. Within countries, those who suffered the larger initial shocks — women, younger workers, urban workers, and the low-educated — either recovered more slowly compared to their counterparts, or did not recover fast enough to substantially reverse initial disparities in losses (Figure 1). By August-September, *relative to the initial loss* suffered by men and women, the recovery in female employment lagged behind that in male employment — men recovered 49% of their initial employment losses while women recouped 30%, after the initial shock was more unfavorable to women by 6 percentage points (pp).⁷ Urban workers, hardest hit in the immediate aftermath of the crisis, similarly lagged behind rural workers in recovering their initial losses — while rural workers recovered 58% of initial losses by August-September, those living in urban areas recovered only a third of their initial losses. While the recovery was slightly faster in percentage point terms for workers below age 30 and those without college education than for older and non-college educated workers, the difference was not enough to significantly reduce the gaps in job losses by age and education. The recovery in income losses appears to be uneven as well. The share of households reporting a fall in income relative to pre-pandemic levels declined between the 1st and 2nd rounds of the surveys among those with tertiary education, while it increased among those with primary education or less.

FIGURE 1: DECLINE IN EMPLOYMENT RATES BETWEEN PRE-COVID AND MAY-JUNE (PP) & SHARE OF LOSS RECOVERED BY AUG-SEP



Note: Results for 17 countries (14 for education). All changes measured in percentage points (pp) terms. Loss in employment from pre-pandemic to May-June is split into (i) recovery in employment between May-June and Aug-Sep, and (ii) “unrecovered loss” by Aug-Sep.

FIGURE 2: PREDICTED PROBABILITY OF RECOVERING JOB BETWEEN MAY-JUNE AND AUG-SEP



Note: Results for 6 countries from logit models where the dependent variable is a binary variable that indicates whether the individual is working again in Aug/Sep 2020 (the sample is restricted to those who had a job pre-pandemic but lost it in May/June 2020). 95% confidence intervals shown for each bar.

Models that account for differences in demographic characteristics confirm the slower pace of recovery among women, younger and less educated workers (Figure 2). In six countries where detailed panel analysis is possible, we find that the probability of men regaining jobs was more than 1.5 times of the corresponding number for women. Similarly, a 45-year old had a 67% predicted probability of recovering a job between May/June and August/September, compared to just 10% for a 25-year old. Moreover, those with tertiary

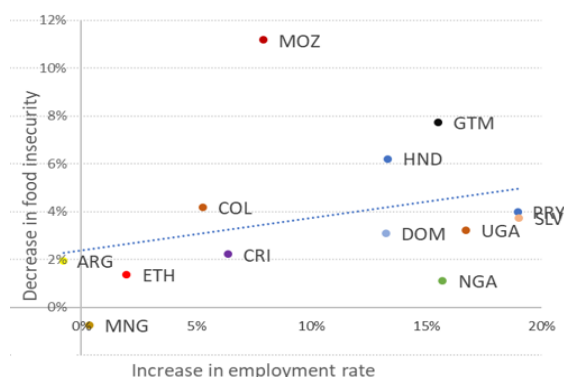
education were less likely to lose jobs in the initial phase of the pandemic and more likely to recover it during the period when economic restrictions were being lifted.⁸

Self-employment accounted for a large share of the recovery in employment for vulnerable groups. In 7 countries, 83% of the increase in employment rates from May-June to August-September occurred in self-employment for primary educated workers, compared to 55% and 58% respectively for workers with secondary and tertiary education.⁹ Further evidence from these countries suggests that self-employment also accounted for a large share of the recovery in employment for women (77% of the increase), older workers (69%), and urban workers (66%)¹⁰.

Agriculture’s share in total employment in 11 countries increased with the onset of the pandemic and remained high till September, primarily due to decline in employment in other sectors. The share of agriculture in total employment increased for both men and women, as total employment declined in May-June due to a sharp fall in employment in manufacturing and services and did not come back to pre-pandemic levels by September. In some countries, agricultural employment may have increased in absolute terms, suggesting that households could be taking on farm work as a coping strategy. In Nigeria, for example, data from December 2020 shows that the share of households doing farm work in the 2020-21 agricultural season was 10 percentage points higher than in the 2018-19 agricultural season, with a significant increase seen for urban households. The reliance on farm work was also much higher for the poorest 20% of households than among better-off households.¹¹

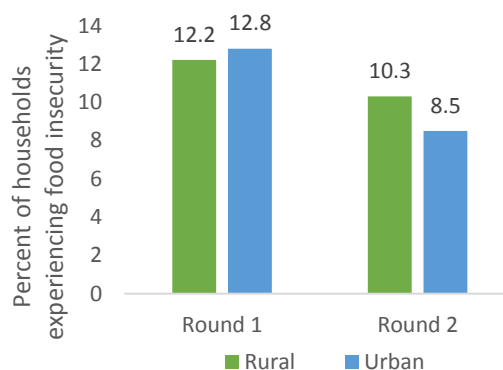
Food security among households improved as policies became less restrictive and employment recovered. Job and income losses due to COVID-19 were associated with rising food insecurity. While government policies across many countries tried to limit the damage, safety nets in low-income countries were insufficient to mitigate a rise in food insecurity.¹² As restrictions were scaled back, the share of food-insecure¹³ population in 16 countries fell from 13% to 9%. Job recovery was associated with decreasing food insecurity (Figure 3). For households across the socioeconomic spectrum, food insecurity became less of a concern by August-September, but improvements were more pronounced for households with college-educated members, the share of food insecure households among whom was halved to 2.3%. The decline in food insecurity was also steeper in urban areas (Figure 4)¹⁴.

FIGURE 3: FOOD SECURITY AND EMPLOYMENT DYNAMICS BETWEEN ROUNDS 1 AND 2 (PP)



Note: for 13 countries

FIGURE 4: FOOD INSECURITY DYNAMICS ACROSS SURVEY WAVES



The recovery in employment and food security was similar for IDA and non-IDA countries¹⁵

Employment recovered at a similar pace in IBRD and IDA countries, despite a steeper initial decline in the former group (Figure 5). Pre-pandemic, both IDA and IBRD countries had similar employment rates among working age adults in the HFPS data. The initial employment shock was much larger for IBRD countries (all middle-income countries) than for IDA countries (low or lower-middle income countries). Employment gains were similar for both groups of countries between May-June and August-September. Thus, while employment in IDA countries in August-September had returned to 92% of what it was before COVID-19, employment in IBRD countries was only 73% of pre-pandemic levels. Data from 7 of these countries suggests that the increase in employment is largely attributable to a rise in self-employment, as opposed to a rise in wage employment, especially in IBRD countries.¹⁶

FIGURE 5: RECOVERY IN EMPLOYMENT BY COUNTRY GROUP

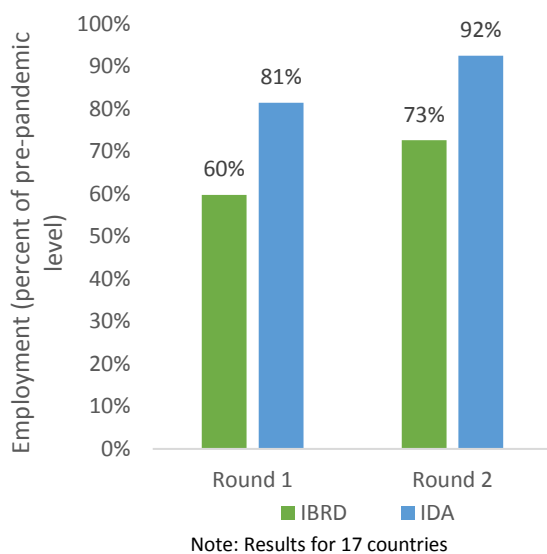
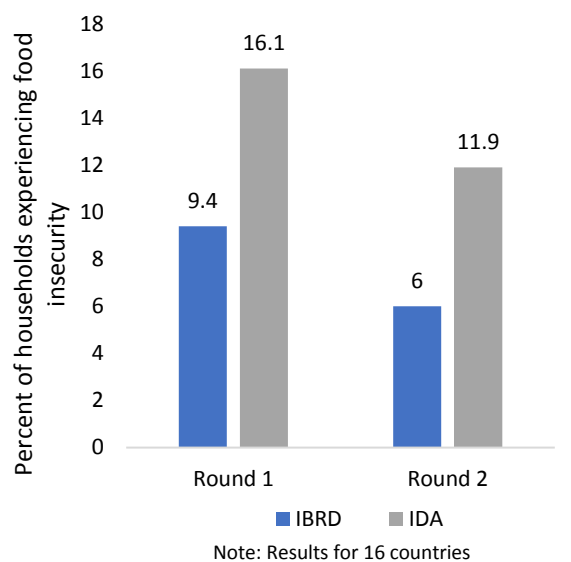


FIGURE 6: FOOD INSECURITY DYNAMICS BY COUNTRY GROUP



Both groups of countries saw the employment recovery being associated with rising food security (Figure 6). The percentage of households experiencing food insecurity by the August-September survey round fell by 3.4 pp in IBRD countries and 4.2 pp in IDA countries compared to figures for May-June (9.4% and 16.1%, respectively). These conclusions are however for a small sample of countries (8 each in IDA and IBRD) and must therefore not be assumed to be representative of the entire category.

More recent survey data from a handful of countries lends support to the idea of an uneven recovery

When we extend our analysis to January 2021 for a smaller set of countries, the conclusions presented in this brief with respect to employment and food security recovery remain largely unchanged.¹⁷ Importantly, employment recovery seemed to have stalled for the 8 countries included in this analysis since August-September 2020, even though policy stringency continued to improve through January 2021 (Figure 7).¹⁸ Women and those living in urban areas continued to experience a slower recovery in employment towards the end of 2020 and beginning of 2021 as a proportion of the initial losses suffered — while employment among men reached 95% of its pre-pandemic level by January 2021, women’s employment was only at 89% (Figure 7). Employment recovery also continued lagging for urban areas, with employment rates in November-January 2021 at 88% of pre-pandemic levels, compared to 98% in rural areas. Across education levels, improvements in food security took place, but were particularly pronounced among those with the lowest education levels, with the share of households experiencing food insecurity declining from 8.5% in May-July 2020 to 3.1% in November-January 2021 (Figure 8).

FIGURE 7: EMPLOYMENT DYNAMICS BY GENDER

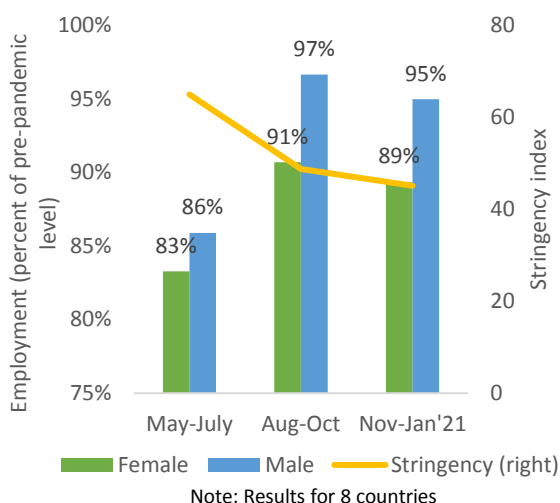
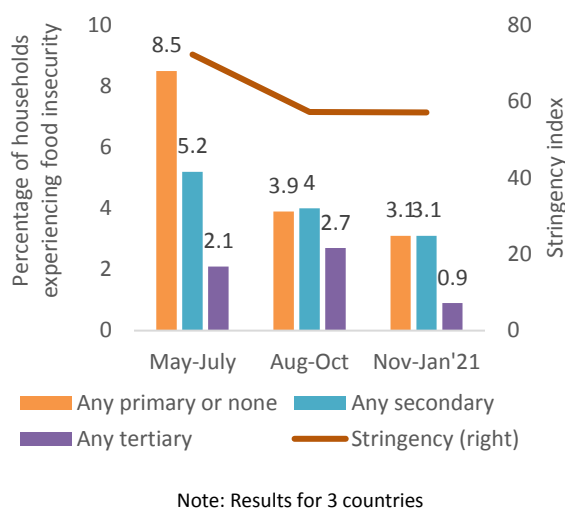


FIGURE 8: FOOD INSECURITY DYNAMICS BY EDUCATION



PRIORITIZING EQUITY AND RESILIENCE WILL BE CRITICAL TO “BUILDING BACK BETTER”

Analyses presented in this brief highlight some evidence of unequal recovery in employment, income and food security for already disadvantaged groups. Beyond the immediate impacts on employment and incomes, a large share of children in poorer families, particularly in low-income countries, have had difficulties accessing learning opportunities during school closures, resulting in disparities in learning losses which will persist overtime. Furthermore, a global shortage of COVID-19 vaccines adds to the risks of an uneven recovery, with vaccination rates in low income countries remaining very low compared to advanced economies. Worrying evidence on vaccine inequity within countries is also emerging as disadvantaged groups are facing stronger barriers in accessing jobs.

Making our societies resilient to future crises requires taking on structural inequalities today through multiple policy instruments. This brief has shed light on the need for policies to help women, low-skilled workers and urban informal sector workers recover from the deep losses they suffered, so that they do not fall further behind even as economies recover. Children and parents need to be supported through policies in their transition back to school. An inclusive recovery requires equalizing access to financial services and technology, building an effective and equitable public health system, and investing in safety nets and social insurance that cover all vulnerable segments of the population, including the urban poor who are often unable to benefit from existing social protection schemes in developing countries. A well-designed fiscal policy will be necessary to raise resources in a fair and efficient way to finance the investments needed to support an inclusive recovery.

ANNEX 1: LIST OF COUNTRIES IN SAMPLE

TABLE 1: COUNTRY NAMES, REGION, AND INCOME GROUP

Country Name	Region	Income group
Argentina	Latin America & Caribbean	Upper middle/high-income (UMIC/HIC)
Burkina Faso	Sub-Saharan Africa	Low-income (LIC)
Cambodia	East Asia & Pacific	Lower middle-income (LMIC)
Colombia	Latin America & Caribbean	UMIC/HIC
Costa Rica	Latin America & Caribbean	UMIC/HIC
Dominican Republic	Latin America & Caribbean	UMIC/HIC
El Salvador	Latin America & Caribbean	LMIC
Ethiopia	Sub-Saharan Africa	LIC
Guatemala	Latin America & Caribbean	UMIC/HIC
Honduras	Latin America & Caribbean	LMIC
Kenya	Sub-Saharan Africa	LMIC
Malawi	Sub-Saharan Africa	LIC
Mali	Sub-Saharan Africa	LIC
Mongolia	East Asia & Pacific	LMIC
Mozambique	Sub-Saharan Africa	LIC
Nigeria	Sub-Saharan Africa	LMIC
Paraguay	Latin America & Caribbean	UMIC/HIC
Tajikistan	Europe & Central Asia	LIC
Uganda	Sub-Saharan Africa	LIC
Uzbekistan	Europe & Central Asia	LMIC

ANNEXURE 2: COUNTRY-WISE DESCRIPTIVE STATISTICS ON AGGREGATE TRENDS

TABLE 2: DATA FOR 20 COUNTRIES INCLUDED IN OUR SAMPLE FOR MAY-JUNE AND AUGUST-SEPTEMBER 2020

Country	Employment (% of pre-pandemic)		Income fell since pandemic (% of households reporting)		Food insecurity		% change in policy stringency index
	May-June	Aug-Sep	May-June	Aug-Sep	May-June	Aug-Sep	May-June to Aug-Sep
Argentina	67.9%	66.9%			7.1%	5.2%	-1.0%
Burkina Faso	89.1%	99.1%					-12.4%
Cambodia	86.1%	85.4%					-20.7%
Colombia	51.7%	58.8%			12.1%	7.9%	0%
Costa Rica	66.7%	74.7%			5.2%	3.0%	-4.7%
Dominican Rep.	49.8%	67.1%			13.0%	9.9%	-16.9%
El Salvador	46.2%	70.2%			7.7%	4.0%	-6.6%
Ethiopia	115.6%	118.2%			11.3%	9.9%	-2.3%
Guatemala	59.7%	79.0%			15.7%	8.0%	-9.6%
Honduras	49.7%	68.0%			15.8%	9.6%	-11.1%
Kenya					11.6%	4.7%	-18.5%
Malawi	88.9%	101.5%					-7.1%
Mali					3.3%	1.5%	-14.7%
Mongolia	81.1%	81.6%			5.4%	6.1%	-29.6%

Mozambique	67.7%	76.6%	70.4%	72.3%	33.7%	22.5%	-4.7%
Nigeria	82.0%	99.6%			35.9%	34.8%	-17.7%
Paraguay	58.5%	80.9%			8.2%	4.2%	-3.7%
Tajikistan			61.0%	55.5%	5.3%	1.9%	-7.1%
Uganda	79.9%	98.8%			9.0%	5.7%	-3.4%
Uzbekistan	68.9%	88.3%	57.8%	46.8%			-14.7%
<i>Average</i>	<i>71.1%</i>	<i>83.2%</i>	<i>63.1%</i>	<i>58.2%</i>	<i>12.5%</i>	<i>8.7%</i>	<i>-10.3%</i>

Note: Chile and Mexico had a positive change in policy stringency of 9.1% and 1%, respectively, for which they were excluded from the sample of countries

TABLE 3: DATA FOR 9 COUNTRIES FOR MAY-JULY, AUGUST-OCTOBER, AND NOVEMBER-JANUARY 2021

Country	Employment (% of pre-pandemic)			Food insecurity		
	May-July	Aug-Oct	Nov-Jan	May-July	Aug-Oct	Nov-Jan
Burkina Faso	94.9%	102.2%	100.9%	12.0%	10.0%	4.5%
Bulgaria	95.6%	107.5%	98.2%			
Cambodia	86.1%	79.8%	88.3%			
Democratic Republic of Congo	77.1%	88.4%	95.5%	30.7%	16.8%	19.6%
Malawi	88.9%	101.5%	114.6%			
Mongolia	81.1%	81.6%	57.6%	5.4%	6.1%	3.2%
Tajikistan				1.8%	1.8%	2.3%
Uganda	79.9%	101.7%	101.4%	9.0%	2.7%	2.5%
Uzbekistan	68.9%	95.9%	75.3%			
<i>Average</i>	<i>84.1%</i>	<i>94.8%</i>	<i>91.5%</i>	<i>11.8%</i>	<i>7.5%</i>	<i>6.4%</i>

Note: Data may not always match with table 1 due to selection of different waves within the same time period to ensure surveys are approximately equally spaced for each country.

Notes

¹ See, for example, Bundervoet et al (2021)

² For a detailed description of the data and methods, including issues of representativeness and weighting, see Khamis et al (2020).

³ Survey waves were fielded at different times in each country. Therefore, these rounds do not necessarily correspond to waves 1 and 2 for all countries but can also correspond to waves 1 and 3.

⁴ Countries are Argentina Burkina Faso, Colombia, Costa Rica, Dominican Republic, Ethiopia, Guatemala, Honduras, Kenya, Cambodia, Mali, Mongolia, Mozambique, Malawi, Nigeria, Paraguay, El Salvador, Tajikistan, Uganda, and Uzbekistan. Please see Annex 1 for further details. Chile and Mexico witnessed a rise in the Oxford Stringency index in this period and are hence omitted for our analysis. We exclude St. Lucia as we lack data on stringency.

⁵ The Oxford stringency index is also highly correlated with Google mobility data, which is another commonly used indicator of the impact of COVID related restrictions. For further details, see Bundervoet et al (2021).

⁶ Tajikistan does not have data for current employment status in any of the waves within our chosen timeframe. Data for Kenya and Mali is beset with a high share of missing values (>50%) and thus they are left out of the employment analysis.

⁷ There are many different ways to compare the rate of recovery in employment between groups, including: (i) percentage point change in employment rate of each group between post-pandemic rounds 1 and 2; and change between rounds 1 and 2 as a share of (ii) employment rate in round 1, (iii) pre-pandemic employment rate, and (iv) initial decline (between pre-pandemic and round 1). We use (iv) as our metric to compare employment gains of different groups in Figure 1, as it has an intuitive interpretation: 100% would indicate that all losses suffered by a group (e.g. women) since the pandemic has been recovered, and the comparison of two rates (e.g. between men and women) would indicate how far away each group is, relative to the other, from its pre-pandemic employment rate. In Figures 5 and 7 we use a simpler measure (employment as a % of pre-pandemic level) to show the evolution of employment over time clearly.

⁸ Results in Figures 1 and 2 may not always match because of different samples (17 countries for Figure 1 and 6 for Figure 2 – for Figure 2 samples are restricted to individuals who had a job pre-pandemic and lost it during round 1) – and due to the use of controls in computing predicted probabilities.

⁹ These 7 countries are: Argentina, Costa Rica, Ethiopia, Guatemala, Mongolia, Paraguay, and El Salvador.

¹⁰ Data on respondents' urban/rural status is not available for Guatemala and El Salvador.

¹¹ Siwatu et al (2020).

¹² While public safety nets were scaled up, they were largely inadequate in lower income countries. Average per capita spending on COVID-19 social protection by LICs and LMICs was 3% and 19%, respectively, that of UMICs (that spent US \$156 per capita).

¹³ We measure food insecurity as the proportion of households with hungry adults who went without at least one meal in the last 30 days before the survey. Our results are based on a sample of 16 countries where policy stringency fell between May-June and Aug-Sep. 13 of these countries are also used in the employment analysis.

¹⁴ This data is for 13 countries, for which overall food insecurity fell from 12.6% to 9.3% during the same period.

¹⁵ IDA refers to International Development Assistance, the part of the World Bank that supports the world's poorest countries through concessional financing. IDA group includes both IDA-only and blend countries (those who receive both IBRD and IDA support).

¹⁶ These 7 countries are: Argentina, Costa Rica, Ethiopia, Guatemala, Mongolia, Paraguay, and El Salvador.

¹⁷ We use a sample of 9 countries with at least one wave in each of the following time periods: May-July, Aug-Oct, and Nov-Jan'21. Stringency did not necessarily decrease for all countries in this sample, although it did on average. These 9 countries are: Burkina Faso, Bulgaria, Democratic Republic of Congo, Cambodia, Mongolia, Malawi, Tajikistan, Uganda, and Uzbekistan. 2 of these are from East Asia & Pacific, 3 from Europe & Central Asia, and 4 from Sub-Saharan Africa. By income levels, 5 are LICs, 3 are LMCs, and 1 is a UMC.

¹⁸ These 8 countries are Burkina Faso, Bulgaria, Democratic Republic of Congo, Cambodia, Mongolia, Malawi, Uganda, and Uzbekistan.

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