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# **Early estimates of the unequal labour market effects of Covid-19**

**Zsoka Koczan**

Recent studies have highlighted the unequal labour market effects of the Covid-19 crisis in advanced economies. We contribute to this literature by drawing on a new survey of almost 40,000 adults in 14 advanced as well as emerging economies conducted in August 2020. We show that while labour market impacts are, on average, more severe in emerging markets, these are less unequally distributed than in advanced economies. In line with the findings of existing studies for advanced economies, we document that job losses in emerging markets are also concentrated among the young, less educated and those with lower levels of income before the pandemic. However, we find that the likelihood of job losses falls less sharply with income in emerging markets than in advanced economies. Drawing on a similar survey conducted in 2010 we show that, unlike the Global Financial Crisis, the Covid-19 crisis disproportionately hit women. Job losses also appear to me more concentrated among the young now than during the Global Financial Crisis.

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# 1. Introduction

The Covid-19 outbreak has caused severe disruptions to labour markets as countries shut down entire industries in an attempt to contain the spread of the virus. Diverse effects across sectors have raised concerns that the employment effects of the crisis are also unequal, exacerbating pre-existing trends of skill-biased technological change and job polarisation (see e.g. Blundell et al 2020). Early empirical evidence suggests that in advanced economies job losses were indeed concentrated among the young, those with lower levels of education and income, and those with more flexible work arrangements.

Our contribution to this expanding literature is two-fold. First, we rely on a new survey of almost 40,000 adults in 14 economies conducted in August 2020 to examine whether the patterns so far documented for advanced economies hold in emerging markets as well, and, in particular, whether labour market effects are more or less unequal in emerging markets than in advanced economies. The survey is representative by age, gender, region and income, and allows us to gain early insights into the labour market effects of the Covid-19 crisis in both advanced economies and emerging markets. We analyse how likelihoods of job losses, wage cuts or reduced hours, furlough and unpaid leave vary with individual characteristics such as age, education and pre-pandemic income, as well as work arrangements before the crisis, such as the type of contract and whether the individual worked in the public or private sector.

Second, we exploit a similar survey conducted in 2010 to compare the effects of the Covid-19 crisis to the effects of the 2008-09 Global Financial Crisis, and, in particular, to examine whether the labour market effects of the Covid-19 crisis are more or less unequal than those of the Global Financial Crisis. We rely on very similar survey questions across the 2020 and 2010 surveys to contrast labour market effects and their distribution across the two crises.

Our results suggest that the effects of the Covid-19 crisis vary widely across countries, but are typically more severe in emerging markets than in advanced economies. This is consistent with emerging markets on average having more limited fiscal space to mitigate the shock as well as a smaller share of jobs that can be done from home in these economies.

We find that job losses in emerging markets are also concentrated among the young, less educated and those with lower levels of income before the pandemic, similar to patterns that have been documented for advanced economies. Here too, workers who were on permanent contracts or working in the public sector before the pandemic appear to be better shielded from the effects of the crisis.

However, while overall effects are more severe in emerging markets than in advanced economies, they appear to be *less unequally distributed* in emerging markets. In particular, the likelihood of job losses falls *less sharply* with income in emerging markets than in advanced economies. Consistent with this, we find that the increase in inequality (as measured using the Gini coefficient) since the start of the pandemic has so far also been somewhat smaller in emerging markets than in advanced economies.

Contrasting the effects of the Covid-19 crisis with those of the Global Financial Crisis, we find that in both advanced economies and emerging markets job losses during the first few months of the Covid-19 crisis are already comparable to the cumulative effects of the Global

Financial Crisis. Furthermore, job losses are now concentrated among women—reflecting a larger hit to services this time around, in contrast with more severe effects in male-dominated manufacturing sectors during the Global Financial Crisis. Job losses also appear to be even more concentrated among the young than during the Global Financial Crisis, in line with the rise of more flexible working arrangements, in particular among this age group.

The paper starts off with a brief overview of the empirical literature on the labour market effects of crises, including the Covid-19 crisis, in Section 2. Section 3 describes the two surveys and Section 4 outlines the empirical approach. Section 5 presents the results for the Covid-19 crisis, zooming in on differences across advanced economies and emerging markets. Section 6 compares the labour market effects of the Covid-19 crisis with those of the 2008-09 Global Financial Crisis. Section 7 concludes.

## **2. Literature review**

The paper builds on the growing literature that looks at the unequal labour market effects of the Covid-19 crisis in advanced economies and finds that these are concentrated among the young, those with lower levels of education or income, the self-employed, those not paid a salary, workers in the gig economy and with ‘zero-hour contracts’, variable hours chosen at their employers’ discretion (e.g. Adams-Prassl et al. 2020 on Germany, the United Kingdom and United States, Alstadsaeter et al. 2020 on Norway, Apouey et al. 2020 on France, Bick, Blandin and Mertens 2020, Beland et al. 2020, Cortes 2020, Mongey et al. 2020 and Montenovio et al. 2020 on the United States, Kikuchi et al. 2020 on Japan, von Gaudecker et al. 2020 on the Netherlands).

A related literature uses data collected before the pandemic to examine channels through which the current crisis may affect workers differently depending on their gender, occupation and sector, including through their ability to work from home and whether their occupation is essential or closed (Alon et al. 2020; Brunori et al. 2020; Brussevich, Dabla-Norris and Khalid 2020; del Rio-Chanona et al 2020; Dingel and Neiman 2020; Irlacher and Koch 2020; Mongey and Weinberg 2020, Palomino, Rodriguez and Sebastian 2020), and work arrangements such as contract type (Koczan and Plekhanov 2020) or informality (ILO 2020, OECD 2020). More generally, a long literature has examined the roles of different work arrangements and contract types (Malcomson 1999; Koustas 2018; Mas and Pallais 2020) and the roles of firms and the government in providing insurance against shocks to labour demand (Bellante and Link 1981; Boeing-Reicher and Caponi 2016; Bonin et al. 2007; Buurman et al 2009; Clark and Postel-Vinay 2005; Dhingra and Machin 2020; Lewis and Frank 2002; Pfeifer 2008).

This paper aims to contribute to these literatures by drawing on a new survey of 14 economies to examine whether the patterns documented in advanced economies hold in emerging markets as well, and whether labour market effects are more unequal in emerging markets than in advanced economies. This new survey allows us to look at labour market effects specific to the current crisis, such as furlough schemes, as well as providing rich information on work arrangements (such as whether respondents had permanent contracts

before the pandemic and whether they were working for the public or private sector) and pre-pandemic income deciles.

More generally, we contribute to the literature on the role of crises, recessions and pandemics in exacerbating inequality by depressing employment for those most vulnerable, such as less skilled and youth, or exacerbating racial or ethnic inequalities (e.g. Buckley and Barua 2020, Furceri et al. 2020, Christiano et al. 2015, de Haan and Sturm 2017, Hoynes et al. 2012). Here we hope to add value by relying on unique data from two crises using very similar survey instruments to compare the labour market effects of the Covid-19 crisis to those of the Global Financial Crisis.

### 3. Data

In order to obtain early estimates of the impact of the Covid-19 crisis on individuals and firms, EBRD and the ifo Institute conducted an online survey of almost 40,000 adults in 14 countries in the first half of August 2020: covering about 2000-3000 adults per country in seven advanced economies (France, Germany, Greece, Italy, the Netherlands, Spain and Sweden) and seven emerging markets (Belarus, Egypt, Hungary, Poland, Serbia, Turkey and Ukraine). The survey was administered in each country's local language and was distributed in all countries at the same time.

Quota sampling was used to ensure that the survey is representative by age, gender, region and income. Potential respondents, adults aged 18 to 69 who received an email explaining the purpose of the survey and asking them to participate, were thus first asked about these characteristics, whereby quotas were assigned along each dimension based on information from population censuses and the Gallup World Polls to ensure that the proportion of samples for each category (age, gender, region and income) matched their shares in the population.

The survey asked respondents how they were affected by the Covid-19 crisis economically (in comparison with the situation at the end of February 2020):

- lost job
- on government-backed furlough (temporary paid layoff from work)
- on temporary unpaid leave from work
- working hours reduced
- wages delayed or suspended
- wages reduced<sup>1</sup>

Respondents were asked to tick all that apply. They could also separately tick all that applied to other household members.

In addition, the survey also provides detailed information on respondents' employment in August 2020 as well as their employment in February 2020, before the pandemic. The survey asked respondents which of these descriptions applies to what they have been doing as of the end February 2020, and in the last seven days before the survey (mid-August 2020):

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<sup>1</sup> They were also asked whether they increased work hours in an existing job, were working and took a second job or additional work or were not working before but found a new job (full-time or part-time).

- in paid work (employee, working for family business as paid employee),
- in paid work (self-employed, employer, including owning a family business),
- in unpaid work (trainee, apprentice, working for family business as unpaid employee),
- unemployed and actively looking for a job,
- on temporary leave (annual leave, sick/medical leave, maternity/paternity leave),
- out of labour force (retired, chronically sick or disabled, in education, in military service, house spouse, or unable/unwilling to work due to personal/family reasons),
- in government-backed furlough (a temporary paid layoff from work including short-time work),
- on temporary unpaid leave from work

The survey thus captures a range of possible labour market effects of the crisis, including elements specific to the Covid-19 crisis: we can distinguish between workers who kept their jobs, lost their jobs, have been furloughed, are on unpaid leave, or left the labour force.

Estimates based on this survey point to somewhat higher unemployment rates than seen in official statistics, in line with the findings of Coibion, Gorodnichenko and Weber (2020) for the United States (Annex Figure 1). Labour force surveys typically ask respondents whether they worked at least one hour in the last week. Some respondents with very few hours may thus be counted as employed in labour force surveys but may not consider themselves as employed in the EBRD-ifo Institute survey. Labour force surveys may also attach specific conditions related to the intensity or regularity of searching when categorizing those actively looking for employment as unemployed.

The survey also includes information on a range of individual characteristics (such as age, gender, education, location) and work arrangements (such as the type of contract and public versus private sector of employment at the time the survey was conducted as well as before the Covid-19 crisis). It also asks about the individual's income decile both before the pandemic and at the time of the survey (respondents were asked to tick the box corresponding to their income range, with country-specific thresholds based on national surveys and Gallup World Polls).

We contrast the effects of the Covid-19 crisis and the Global Financial Crisis by additionally drawing on the second round of the Life in Transition Survey, a household survey conducted by the EBRD and the World Bank in September to December 2010. The survey covered almost 39,000 households in 34 economies (Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, France, Georgia, Germany, Great Britain, Hungary, Italy, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Lithuania, Moldova, Mongolia, Montenegro, North Macedonia, Poland, Romania, Russia, Serbia, Slovak Republic, Slovenia, Sweden, Tajikistan, Turkey, Ukraine, and Uzbekistan). When comparing the effects of the Covid-19 crisis and the Global Financial Crisis we restrict our sample to the 10 economies covered in both surveys (Belarus, France, Germany, Hungary, Italy, Poland, Serbia, Sweden, Turkey and Ukraine). We also examine the robustness of our results to only limiting the Life in Transition Survey's sample to countries within the same GDP per capita range as the countries included in the EBRD-ifo Institute Survey (excluding Moldova, Kyrgyz Republic, Tajikistan and Uzbekistan).

The 2010 round of the Life in Transition Survey included a special module zooming in on the impacts of the Global Financial Crisis. In particular, it contained a question very similar to the one included in August 2020 survey, asking respondents how the economic crisis affected them (or other household members) in the preceding two years:

- head of household member lost job
- other household member lost job
- working hours reduced
- wages delayed or suspended
- wages reduced<sup>2</sup>

Again respondents were asked to tick all that apply. Due to the wording of this question, referring to the respondent *or other household members*, we can only link job losses of the household head to the individual's characteristics (such as age, gender and education). We do not know who the other affected household member(s) is/are, and are thus unable to match them to their individual characteristics. We thus restrict the Life in Transition Survey's sample to household heads in the regression analysis. While this reduces the sample size, 'household head' is interpreted quite broadly by respondents, it is not necessarily the primary income earner, and almost half of this sample are women (see also the discussion in Brock 2020).

This survey unfortunately does not include information on pre-crisis income or work arrangements, regressions comparing the Covid-19 crisis and the Global Financial Crisis thus include a more limited set of individual characteristics than those looking at the Covid-19 crisis.

While the similarity of the two surveys allows us unique insights into how labour market damages compare across two crises, a caveat on timing is in order. The survey conducted in late 2010 captures the cumulative effects of the Global Financial Crisis two years after its onset. Estimates based on this survey point to somewhat larger increases in unemployment rates than official statistics (similar to the pattern discussed above for the EBRD-ifo Institute Survey). More importantly, they are more closely correlated with trough to peak changes in unemployment rather than changes until 2010 (by which point unemployment rates had already fallen again in some countries) suggesting that some respondents may have subsequently found a new job, but still report having lost their job because of the Global Financial Crisis. This should be kept in mind when comparing estimates to those from the EBRD-ifo Institute Survey, which provides a snapshot of labour markets approximately six months into the Covid-19 crisis.

#### **4. Empirical approach**

We examine the labour market effects of the Covid-19 crisis and Global Financial Crisis through a series of logit and multinomial logit regressions.

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<sup>2</sup> Here too respondents were also asked whether they increased work hours in an existing job, were working and took a second job or additional work or were not working before but found a new job (full-time or part-time).

First, we restrict our attention to the Covid-19 crisis to document differences across advanced economies and emerging markets. Here various labour market effects of the Covid-19 crisis—job loss, reduction in wages or hours, temporary paid/unpaid leave—are regressed on a range of individual characteristics and work arrangements ( $\mathbf{X}$  in the equation below). Dependent variables are binary, equal to one if the individual lost their job (experienced wage or hour reductions, temporary paid or unpaid leave, respectively) and zero otherwise. All specifications control for country fixed effects ( $\gamma_c$ ) and have country-clustered standard errors. We also examine the effects of country-level characteristics, such as the share of services in total employment, available fiscal space or the share of jobs that can be done from home, instead of including country fixed effects. We include interaction terms between variables of interest and an advanced-economy dummy ( $AE$ ) to allow for different slope coefficients on say, education or pre-pandemic income, in the subsamples of advanced economies and emerging markets.

$$\ln(p/(1 - p)) = \beta_0 + \beta_1\mathbf{X} + \beta_2\mathbf{X}AE + \beta_3AE + \beta_4\gamma_c$$

While these regressions look at simple binary outcomes (for instance of job loss), the EBRD-ifo Institute Survey allows us to also examine a richer set of labour market effects. We thus look at the drivers of various labour market transitions for respondents who were in paid employment in February 2020. We rely on a multinomial logit model, looking at the outcomes of being furloughed, on unpaid leave, unemployed and inactive, relative to the base outcome of staying in paid employment. We rely on the same set of explanatory variables as above and again control for country fixed effects and cluster errors at the country level.

We then turn to contrasting labour market effects of the Covid-19 crisis with those of the Global Financial Crisis. Due to data limitations we zoom in on the drivers of job losses using logit models as described above, with a somewhat more limited set of explanatory variables to ensure comparability between the two surveys. We now include interaction terms between variables of interest and a Covid-19 crisis dummy to allow for different effects of say, age or gender, across the two crises.

$$\ln(p/(1 - p)) = \beta_0 + \beta_1\mathbf{X} + \beta_2\mathbf{X}Covid19 + \beta_3Covid19 + \beta_4\gamma_c$$

## **5. Labour market impacts of the Covid-19 crisis: advanced economies versus emerging markets**

### **5.1. Descriptive statistics**

The labour market impacts of the Covid-19 crisis vary widely across countries and are typically more severe in emerging market economies. For instance, job losses and temporary paid and unpaid leave are about twice as common in emerging markets as in advanced economies (Table 1; further descriptive statistics are reported in Annex Table 1). Reductions in wages and hours point to similar patterns. This could be consistent with more limited fiscal space in emerging markets, as well as a smaller share of jobs that can be done from home in these economies, discussed further in the following (Figure 1). In addition to differences in countries' occupational mix, the lower quality of ICT infrastructure may further restrict the ability of individuals in emerging markets to work from home effectively.

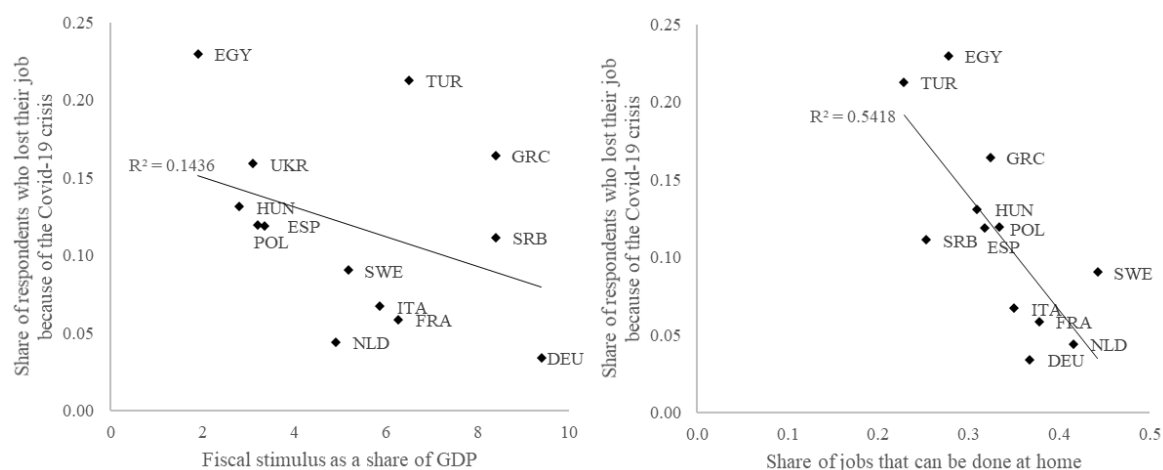
**Table 1. Share of respondents experiencing labour market shocks because of the Covid-19 crisis**

	Lost job	Wages reduced	Wages delayed/suspended	Hours reduced	Temp. unpaid leave	Temp. paid leave
France	0.06	0.14	0.05	0.16	0.04	0.13
Germany	0.03	0.10	0.03	0.16	0.03	0.07
Greece	0.16	0.25	0.18	0.21	0.13	0.15
Italy	0.07	0.18	0.12	0.18	0.07	0.10
Netherlands	0.04	0.09	0.04	0.04	0.03	0.03
Spain	0.12	0.16	0.12	0.14	0.05	0.11
Sweden	0.09	0.14	0.05	0.14	0.05	0.06
Belarus	0.09	0.14	0.09	0.11	0.07	0.14
Egypt	0.23	0.28	0.24	0.28	0.15	0.30
Hungary	0.13	0.19	0.09	0.16	0.09	0.10
Poland	0.12	0.26	0.14	0.25	0.15	0.14
Serbia	0.11	0.16	0.07	0.17	0.09	0.17
Turkey	0.21	0.27	0.20	0.23	0.20	0.26
Ukraine	0.16	0.22	0.18	0.18	0.11	0.22
<i>Advanced economies</i>	<i>0.08</i>	<i>0.15</i>	<i>0.08</i>	<i>0.15</i>	<i>0.06</i>	<i>0.09</i>
<i>Emerging economies</i>	<i>0.15</i>	<i>0.22</i>	<i>0.14</i>	<i>0.20</i>	<i>0.13</i>	<i>0.19</i>

Sources: EBRD-ifo Institute Survey and authors' calculations.

Notes: All differences (except reductions in hours) between the averages for advanced economies and emerging markets are statistically significant at the 5 percent level.

**Figure 1. Job losses, fiscal stimulus packages and share of jobs that can be done at home**



Sources: Dingel and Neiman (2020), EBRD (2020), EBRD-ifo Institute Survey, and authors' calculations.

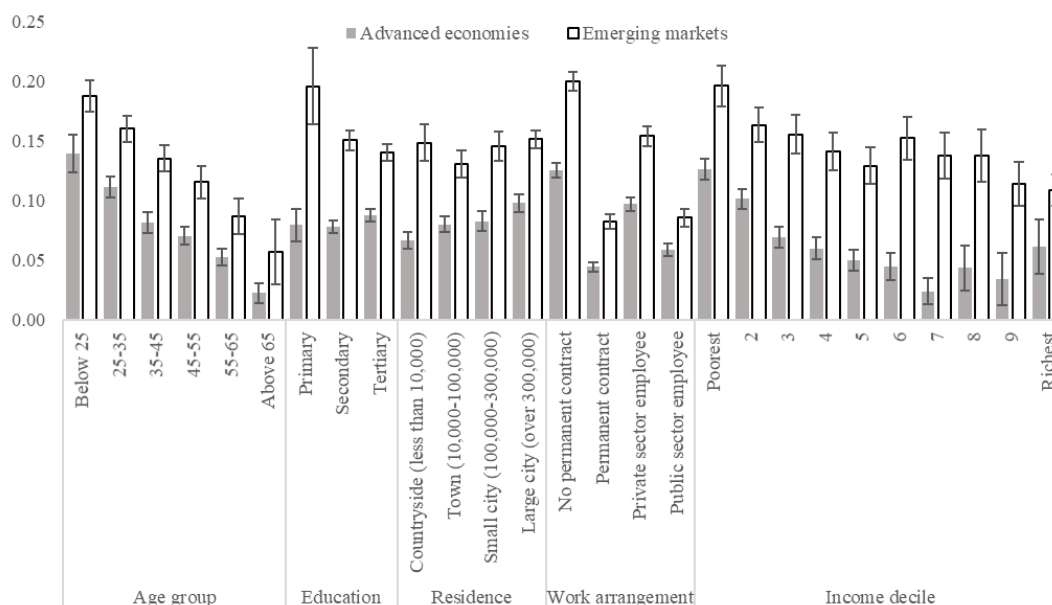
Notes: Share of jobs that can be done at home refers to 2018.

Country-level averages hide considerable differences across individuals within countries—by age, education, pre-pandemic work arrangements and income. Our results suggest that the patterns documented for advanced economies hold in emerging markets as well. The likelihood of job losses falls with age: those under the age of 25 were about 1.5 times more likely to lose their job than those aged 35-45. Those with primary education are more vulnerable than those with higher levels of education. Differences by work arrangements are



striking: workers without a permanent contract were about 2.5 times more likely to lose their job than those with a permanent contract; private sector employees (defined here as those working for private domestic firms or foreign firms) were more than 1.5 times more likely to experience job losses than those working for the state (including those in the public sector, for instance in education, health and public administration, state-owned enterprises and a small share in international organizations). The likelihood of job losses falls with pre-pandemic income: in the bottom decile it is around double the level observed in the top decile (Figure 2).

**Figure 2. Share of respondents who lost their job because of the Covid-19 crisis**



Sources: EBRD-ifo Institute survey and authors' calculations.

Notes: Work arrangements and income decile refer to employment status in February 2020. Typical gross monthly income from main job. Whiskers denote 95 percent confidence intervals.

## 5.2. Drivers of labour market effects

This section revisits these patterns in a regression framework, looking at the links between labour market shocks and individual characteristics in a series of logit regressions. The results are presented in Table 2; corresponding marginal effects for job losses are shown in Figure 3.

In line with the patterns seen in Figure 2, labour market effects are more severe for younger workers.<sup>3</sup> These effects are likely to be long-lasting, weighing on lifetime earnings, particularly for those just entering the labour market. Many of the same people who entered the labour market during the Global Financial Crisis are now experiencing another setback. As illustrated in Figure 3, while in emerging markets the likelihood of job losses falls monotonically with age, in advanced economies, which experienced larger recessions during the Global Financial Crisis, job losses are most common among the cohort who entered the labour market then.

<sup>3</sup> Results are very similar when including the logarithm of age instead of age groups.

**Table 2. Logit models of the determinants of labour market effects**

		Lost job		Wages reduced		Hours reduced		Temp. unpaid leave		Temp. paid leave	
		Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
Age group (baseline: under 25)	25-35	-0.0889	(0.0677)	-0.0834	(0.0792)	-0.0667	(0.108)	-0.0905	(0.0885)	-0.133*	(0.0599)
	35-45	-0.137*	(0.0623)	-0.0673	(0.0988)	-0.212	(0.122)	-0.163*	(0.0664)	-0.195*	(0.0858)
	45-55	-0.313*	(0.122)	-0.272	(0.142)	-0.271	(0.201)	-0.348**	(0.116)	-0.315***	(0.0711)
	55-65	-0.522***	(0.116)	-0.385***	(0.0905)	-0.545***	(0.156)	-0.885***	(0.141)	-0.572***	(0.111)
	Above 65	-1.076***	(0.176)	-1.486***	(0.137)	-1.588***	(0.357)	-0.975***	(0.197)	-2.181***	(0.490)
	25-35*AE	0.219*	(0.108)	-0.0946	(0.114)	-0.0953	(0.157)	-0.0703	(0.135)	0.0198	(0.134)
	35-45*AE	-0.0264	(0.150)	-0.137	(0.138)	-0.183	(0.170)	-0.162	(0.123)	-0.117	(0.160)
	45-55*AE	0.100	(0.150)	-0.0618	(0.154)	-0.133	(0.219)	-0.0884	(0.150)	0.00721	(0.134)
	55-65*AE	0.0994	(0.169)	-0.309	(0.162)	-0.202	(0.191)	0.212	(0.214)	-0.161	(0.170)
Above 65*AE	-0.595*	(0.262)	0.435**	(0.157)	0.316	(0.367)	-0.124	(0.354)	0.773	(0.521)	
Gender	Male	-0.00374	(0.0672)	-0.166***	(0.0326)	-0.0353	(0.0345)	0.0283	(0.0563)	-0.178***	(0.0536)
	Male*AE	-0.0953	(0.0938)	0.293***	(0.0580)	0.186***	(0.0462)	0.208*	(0.0916)	0.162*	(0.0653)
Education (baseline: primary)	Secondary	-0.390***	(0.0837)	-0.236	(0.152)	-0.00258	(0.114)	-0.511***	(0.0885)	-0.180	(0.188)
	Tertiary	-0.485***	(0.0746)	-0.290	(0.155)	-0.217	(0.146)	-0.672***	(0.0689)	-0.272	(0.203)
	Secondary*AE	0.267*	(0.111)	-0.0129	(0.196)	-0.0734	(0.145)	0.226	(0.195)	0.0886	(0.215)
	Tertiary*AE	0.292**	(0.110)	0.00719	(0.188)	0.171	(0.164)	0.345	(0.241)	0.0177	(0.228)
Residence (baseline: countryside, less than 10,000)	Town (10,000-100,000)	-0.0672	(0.124)	0.101	(0.0623)	0.201**	(0.0682)	0.248*	(0.113)	0.109	(0.111)
	Small city (100,000-300,000)	0.0187	(0.175)	0.262***	(0.0247)	0.326***	(0.0668)	0.339***	(0.101)	0.244***	(0.0668)
	Large city (over 300,000)	0.127	(0.127)	0.215**	(0.0809)	0.219**	(0.0674)	0.168	(0.110)	0.136*	(0.0587)
	Town (10,000-100,000)*AE	0.165	(0.131)	-0.0278	(0.0739)	-0.0727	(0.0786)	-0.163	(0.134)	-0.000710	(0.127)
	Small city (100,000-300,000)*AE	-0.0379	(0.204)	-0.166*	(0.0669)	-0.149	(0.0871)	-0.299	(0.161)	-0.104	(0.131)
Large city (over 300,000)*AE	-0.0374	(0.240)	-0.0226	(0.137)	-0.0361	(0.110)	-0.0274	(0.148)	-0.00770	(0.122)	
Work arrangement	Permanent contract	-0.882***	(0.123)	0.0394	(0.0417)	0.0861	(0.0601)	-0.0207	(0.154)	0.0132	(0.0538)
	Permanent contract*AE	-0.340	(0.259)	-0.0580	(0.0790)	-0.0230	(0.131)	-0.555**	(0.187)	0.305*	(0.124)
	Public sector employee	-0.647***	(0.167)	-0.242	(0.152)	-0.178	(0.145)	0.0445	(0.175)	0.00652	(0.0600)
	Public sector employee*AE	0.0319	(0.190)	-0.596***	(0.177)	-0.555***	(0.156)	-0.387	(0.218)	-0.448***	(0.0740)
Income decile (baseline: poorest)	2	0.0114	(0.118)	0.499***	(0.0516)	0.390***	(0.0596)	0.220*	(0.108)	0.422***	(0.105)
	3	-0.151	(0.155)	0.523***	(0.112)	0.401	(0.235)	0.305***	(0.0823)	0.402	(0.211)
	4	-0.174	(0.161)	0.572***	(0.0857)	0.398*	(0.158)	0.345**	(0.130)	0.389*	(0.182)
	5	-0.346**	(0.130)	0.593***	(0.0875)	0.355**	(0.127)	0.213	(0.138)	0.544***	(0.147)
	6	-0.0949	(0.173)	0.512***	(0.115)	0.215	(0.162)	-0.0137	(0.179)	0.359	(0.262)
	7	-0.318***	(0.0946)	0.409***	(0.0620)	0.233	(0.121)	-0.0297	(0.182)	0.285*	(0.121)
	8	-0.368	(0.235)	0.201	(0.115)	0.0813	(0.105)	0.00364	(0.213)	0.313	(0.175)
	9	-0.606**	(0.190)	0.363***	(0.0609)	0.326*	(0.134)	-0.00125	(0.129)	0.268	(0.212)
	Richest	-0.720***	(0.152)	0.176**	(0.0669)	0.00577	(0.109)	-0.0423	(0.163)	0.121	(0.207)
	2*AE	0.0220	(0.159)	-0.421***	(0.110)	-0.211**	(0.0776)	-0.274	(0.141)	-0.205	(0.161)
	3*AE	-0.0930	(0.196)	-0.563**	(0.176)	-0.444	(0.250)	-0.495***	(0.103)	-0.262	(0.227)
	4*AE	-0.234	(0.207)	-0.686***	(0.154)	-0.579***	(0.165)	-0.948***	(0.199)	-0.277	(0.230)
	5*AE	-0.103	(0.196)	-0.857***	(0.155)	-0.563***	(0.142)	-0.825***	(0.224)	-0.592**	(0.203)
	6*AE	-0.561**	(0.201)	-0.813***	(0.217)	-0.612**	(0.231)	-0.375	(0.242)	-0.344	(0.297)
	7*AE	-1.094***	(0.261)	-0.975***	(0.229)	-0.650**	(0.228)	-0.900***	(0.239)	-0.433*	(0.186)
	8*AE	-0.469	(0.394)	-0.655*	(0.265)	-0.258*	(0.126)	-0.672	(0.347)	-0.502	(0.320)
9*AE	0.130	(0.646)	-0.896***	(0.149)	-0.669***	(0.180)	-0.395	(0.579)	0.0257	(0.274)	
Richest*AE	0.825***	(0.241)	-0.139	(0.246)	-0.416	(0.301)	0.0555	(0.267)	-0.0353	(0.319)	
Advanced economies	0.109	(0.205)	1.081***	(0.225)	1.103***	(0.253)	0.445	(0.360)	-0.562**	(0.211)	
Number of obs.		25700		25193		25193		25700		25193	

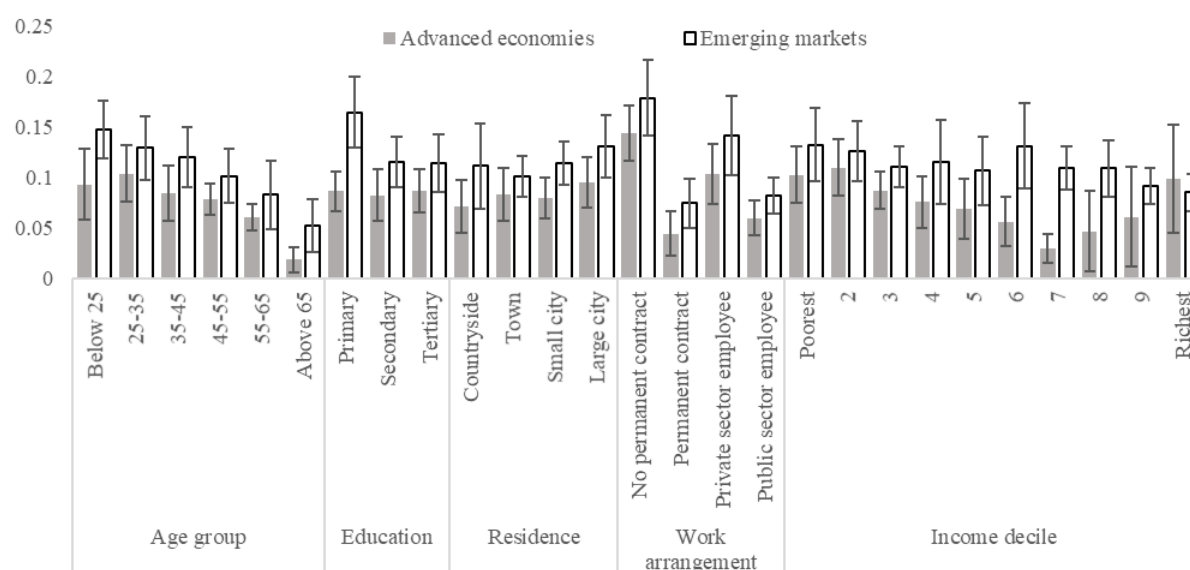
Sources: EBRD-ifo Institute Survey and authors' calculations.

Notes: Logit models with country fixed effects and country-clustered standard errors. \* denotes effects significant at the 5 percent level, \*\* at the 1 percent level, \*\*\* at the 0.1 percent level. \*AE denotes interactions with an advanced economy dummy variable.

Women are harder hit by the Covid-19 crisis, in line with their concentration in affected service sectors. In particular, men are less likely to see their wages reduced or to be on temporary paid leave. Gender differences are more pronounced in emerging markets than in advanced economies.

The likelihoods of job losses and temporary unpaid leave fall with education. While in advanced economies only the difference between tertiary and primary education has a significant effect on the likelihood of job losses, in emerging markets the effect of secondary education is also statistically and economically significant, in line with lower average levels of education in those economies. In both advanced economies and emerging markets both secondary and tertiary education reduce the likelihood of being on temporary unpaid leave relative to those with primary education, and differences between secondary and tertiary education are also statistically significant. The effects of education become more pronounced even in advanced economies when we do not control for pre-pandemic income decile.

**Figure 3. Marginal effects of individual characteristics on job losses**



Sources: EBRD-ifo Institute Survey and authors' calculations.

Notes: Marginal effects and 95 percent confidence intervals from logit models with country fixed effects and country-clustered standard errors.

Those living in rural areas are less affected, even when controlling for their other characteristics, reflecting the concentration of the hardest hit service sectors (such as hospitality, catering, events and arts) in cities.

Working arrangements play a role beyond the effects of individual characteristics: employees on permanent contracts are significantly less likely to lose their jobs in both advanced and emerging economies. This is in line with the results of Adams-Prassl et al. (2020) for three advanced economies, who show that firms are sheltering permanent workers more than those on temporary contracts. Palomino, Rodriguez and Sebastian (2020) also show that workers on permanent contracts are more likely to be able to work from home and be in essential occupations (rather than those affected by closures) than those on fixed-term contracts. We find that in advanced economies those on permanent contracts are also less likely to be on unpaid leave but more likely to be on paid leave.

Public sector employees are much better shielded from the crisis than employees in domestic private or foreign firms: they are less likely to experience job losses, in advanced economies they are also less likely to experience reductions in hours or wages or be on temporary paid leave. This reflects more stable employment in the public sector as well as differences in the public/private share of employment across sectors. For instance, many hard-hit service sectors such as sales, accommodation and food service activities are dominated by private firms, while the public sector would include many essential occupations, such as health care workers, and those less affected by economic conditions, such as those working in public administration.

So far patterns of labour market shocks appear to be similar across emerging markets and advanced economies: in both groups of countries job losses (as well as other effects) are concentrated among the young, women, those with lower levels of education, in urban areas,

among those without permanent contracts and working in the private (as opposed to the public) sector. However, when turning to the distribution of labour market effects by pre-pandemic income deciles, we observe significant differences across advanced economies and emerging markets.

In both groups of countries we find large differences in labour market effects by income. In particular, those with higher gross monthly incomes from their main job before the Covid-19 crisis are significantly less likely to lose their jobs. These effects, however, differ across advanced economies and emerging markets. While at the country-level labour market damage appears to be more severe in emerging markets, it is more unequally distributed in advanced economies. The likelihood of job losses declines with income in both advanced economies and emerging markets, however, it falls more sharply with income in advanced economies, and these differences are statistically significant (Figure 3).

While in advanced economies those with higher levels of income are also less likely to see reductions in their wages or hours, these effects are *more* common among richer respondents in emerging markets.

These results suggest that while unequal labour market impacts of the crisis would likely increase inequality in both advanced economies and emerging markets, this increase would be less pronounced in emerging markets.

These differences could reflect more limited ability of even better-paid individuals to work from home in emerging markets. While in advanced economies some workers, in particular those in the upper half of the income distribution and with higher levels of education could be shielded from the effects of the crisis by being able to continue working from home through lockdowns, this is much less common in emerging markets, and likely to be much more restricted to the top of the income distribution.

A number of recent papers estimate the share of jobs that can be done from home and show that this is lower in countries with lower levels of GDP per capita (and in poorer regions within countries), and that workers in occupations that can be performed from home typically earn more and tend to be higher skilled (see Bick, Blandin and Mertens 2020; Brussevich, Dabla-Norris, and Khalid 2020; Dingel and Neiman 2020; Irlacher and Koch 2020; Mongey et al. 2020; Palomino, Rodriguez and Sebastian 2020).

These findings could help explain within-country differences in labour market impacts as varying ability to work from home could result in different vulnerabilities of jobs to social distancing measures. To the extent that ability to work from home is more narrowly concentrated at the top of income distributions in emerging markets, it could also help explain why only those in the richest decile appear to be better shielded from the effects of the crisis in emerging markets, whereas the likelihood of job losses is already significantly lower around the 6<sup>th</sup> and 7<sup>th</sup> income deciles in advanced economies.

These patterns are also reflected in smaller increases in inequality in emerging markets than in advanced economies—as measured using the Gini coefficient at the country level. While Gini coefficients would ideally be calculated based on actual amounts (not available in this survey), we can obtain a first approximation by assigning the respective income bracket's

mean value to individuals in that bracket. This will be an underestimate of the true Gini based on the full distribution as it ignores inequality within brackets.<sup>4</sup> This calculation suggests that Gini coefficients already increased by 0.87 percentage points in advanced economies and 0.81 percentage points in emerging markets between February and August 2020. As noted above, this estimate is likely to be a lower bound, the ranking across advanced economies and emerging markets is, however, consistent with a more unequal distribution of job losses in advanced economies documented above.

These changes are within the range of existing estimates based on previous pandemics or simulations. Furceri et al. (2020) look at the effects of past pandemics on inequality using a sample of 175 economies and estimate an increase in the Gini coefficient of about 1.25 percentage points five years out. This corresponds to about half of a standard deviation in their sample; our estimate corresponds to about one third of a standard deviation in our smaller sample. Brunori et al.'s (2020) microsimulation model implies an increase in the Gini coefficient in Italy of about 0.2 percentage points. IMF (2020) expect the average Gini coefficient for a large sample of emerging market and developing economies to increase by 2.6 percentage points based on differences in ability to work from home across income deciles. Palomino, Rodriguez and Sebastian's (2020) estimates, based on individuals' teleworking capacity and whether their occupation is essential or closed and assuming a two-month lockdown, range between 0.7 and 1.9 percentage points. While their simulations point to a larger expected increase in inequality in Eastern and Southern Europe than in Central and Northern Europe based on uniform lockdowns, our estimates (based on self-declared income deciles in February and August 2020) reflect milder lockdowns in emerging markets than advanced economies in our sample, hence less disruption to economic activity and less of a role for unequal ability to continue working during social distancing. More limited broadband infrastructure in emerging markets also means that even occupations that can be done from home in advanced economies may not be teleworkable in practice in emerging markets—resulting in more job losses overall and fewer shielded workers even in higher income deciles in emerging markets.

While the above specifications controlled for country fixed effects, we could instead control for country-level characteristics, such as the share of employment in services, internet availability, the share of jobs that can be done from home and available fiscal space (all measured pre-crisis to mitigate endogeneity concerns). We would expect labour market effects to be more severe where services account for a larger share of employment (given their vulnerability to the effects of domestic containment measures), where internet infrastructure is more limited and fewer jobs can be done from home, and where governments have more limited fiscal capacity to respond (due to lower revenues or higher debt levels).

Annex Table 2 reports the results for the same logit specifications as above, but controlling for these country-level characteristics instead of country fixed effects. We find that job losses are more common in economies where services are more important, where there are fewer

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<sup>4</sup> As the top bracket is open-ended in the survey (including all incomes above a given threshold), we assign a value of 1.1 to 1.4 times the lower bound of this bracket to those in the top income decile, approximating the latest estimates of the Gini coefficient from PovcalNet.

internet users, and where general government revenues are lower and debt levels are higher. However, even controlling for these characteristics, job losses are more common in emerging markets, while adjustments along the intensive margin—reductions in hours—are more common in advanced economies.

### **5.3. Drivers of other labour market transitions**

This section turns to an examination of a richer set of labour market transitions rather than focusing on simple binary outcomes such as job loss.

Results from the EBRD-ifo Institute Survey suggest that among those who were in paid employment in February, on average around 4.7 percent became unemployed by August 2020, 1.9 percent were furloughed, 1.8 percent were sent on unpaid leave and around 1.2 percent left the labour force (Annex Figure 2). Contrary to the findings of Coibion, Gorodnichenko and Weber (2020) for the United States our results do not point to large increases in inactivity—government support schemes appear to have so far been able to prevent many workers from becoming discouraged. This is also in line with modest changes in official quarterly labour force participation rates for these economies.

Table 3 reports the results of a multinomial logit model, looking at the outcomes of being furloughed, on unpaid leave, unemployed and inactive, relative to the base outcome of staying in paid employment. These mirror the results shown above: unpaid leave, unemployment and inactivity are more likely relative to staying in employment among the young, women, those with lower levels of education, those without permanent contracts, those working in the private sector and those with lower pre-pandemic income. Again, the effects of pre-pandemic income are more pronounced in advanced economies. Our results also suggest that furloughs are more likely relative to staying in employment among older workers in advanced economies and those working in the public sector before the pandemic.

**Table 3. Multinomial logit model of the determinants of labour market transitions**

	Furloughed		Unpaid leave		Unemployed		Inactive	
	<i>Coef.</i>	<i>Std. Error</i>	<i>Coef.</i>	<i>Std. Error</i>	<i>Coef.</i>	<i>Std. Error</i>	<i>Coef.</i>	<i>Std. Error</i>
25-35	-0.600	(0.306)	-0.512*	(0.200)	-0.427*	(0.209)	-0.561	(0.387)
35-45	-0.554	(0.379)	-0.580*	(0.290)	-0.778***	(0.158)	-1.189**	(0.387)
45-55	-0.908**	(0.348)	-0.661	(0.501)	-0.750***	(0.200)	-0.809	(0.433)
55-65	-0.546	(0.328)	-0.978*	(0.461)	-1.077***	(0.223)	0.628	(0.392)
Above 65	0.592	(0.573)	-16.53***	(0.720)	-16.62***	(0.560)	1.409***	(0.416)
25-35*AE	1.043	(0.693)	-0.523	(0.432)	0.401	(0.293)	-0.425	(0.585)
35-45*AE	1.121	(0.615)	-0.0427	(0.506)	0.481	(0.285)	0.435	(0.500)
45-55*AE	1.471*	(0.716)	-0.473	(0.746)	0.578	(0.314)	-0.799	(0.598)
55-65*AE	1.232	(0.686)	1.101	(0.765)	1.257***	(0.334)	-0.391	(0.554)
Above 65*AE	0.902	(0.985)	-5.292***	(0.971)	15.78***	(1.120)	0.880	(0.499)
Male	-0.235	(0.176)	-0.370	(0.256)	-0.445	(0.232)	-0.775*	(0.321)
Male*AE	-0.368	(0.217)	0.214	(0.590)	-0.00372	(0.338)	0.413	(0.358)
Secondary	-0.854	(0.523)	-0.403	(0.816)	-0.864*	(0.410)	-0.168	(0.635)
Tertiary	-0.794	(0.642)	-1.125	(0.813)	-1.124**	(0.419)	-0.770	(0.722)
Secondary*AE	0.578	(0.647)	0.440	(0.931)	0.758	(0.478)	1.483	(0.961)
Tertiary*AE	0.772	(0.701)	1.221	(1.016)	1.219**	(0.470)	2.275	(1.199)
Town (10,000-100,000)	-0.384	(0.559)	-0.0630	(0.520)	-0.648**	(0.238)	0.485	(0.969)
Small city (100,000-300,000)	-0.0377	(0.369)	0.902*	(0.457)	0.172	(0.269)	0.881	(0.714)
Large city (over 300,000)	-0.158	(0.476)	0.397	(0.470)	-0.000207	(0.261)	0.283	(0.636)
Town (10,000-100,000)*AE	0.621	(0.576)	-0.532	(0.629)	0.504	(0.269)	-0.258	(1.011)
Small city (100,000-300,000)*AE	0.210	(0.432)	-1.569*	(0.639)	-0.546	(0.306)	-1.142	(0.765)
Large city (over 300,000)*AE	0.118	(0.552)	-0.931	(0.485)	-0.231	(0.334)	-1.273	(0.712)
Permanent contract	-0.190	(0.312)	-0.897***	(0.239)	-1.348***	(0.196)	-1.691**	(0.562)
Permanent contract*AE	0.226	(0.333)	-0.377	(0.350)	-0.304	(0.330)	0.739	(0.590)
Public sector employee	0.794**	(0.294)	-0.572**	(0.187)	-0.970***	(0.181)	-0.187	(0.280)
Public sector employee*AE	-0.528	(0.404)	0.985*	(0.384)	0.499*	(0.219)	0.330	(0.447)
2	0.257	(0.276)	-1.244***	-0.373	-0.00235	(0.283)	-1.573	(0.994)
3	0.594	(0.327)	-0.806*	-0.357	-0.645*	(0.327)	-0.954	(0.532)
4	0.0957	(0.308)	-1.374*	-0.646	-0.736	(0.530)	-0.834	(0.635)
5	0.240	(0.601)	-1.446*	(0.728)	-0.502	(0.378)	-1.301*	(0.604)
6	-0.0225	(0.369)	-1.866***	(0.558)	-0.711	(0.421)	-1.123*	(0.530)
7	0.0389	(0.505)	-0.705	(0.375)	-0.899	(0.525)	-17.29***	(0.510)
8	0.478	(0.526)	-2.309***	(0.382)	-0.252	(0.359)	-2.449*	(1.099)
9	-0.509	(0.616)	-1.430***	(0.297)	-1.403***	(0.360)	-2.117*	(0.910)
Richest	0.231	(0.418)	-1.561***	(0.445)	-1.118**	(0.404)	-2.241**	(0.821)
2*AE	-0.717	(0.391)	0.242	(0.587)	-0.205	(0.392)	0.820	(1.025)
3*AE	-0.865*	(0.435)	-0.453	(0.711)	-0.0544	(0.394)	-0.156	(0.574)
4*AE	-0.435	(0.380)	-0.623	(1.056)	0.0218	(0.568)	-0.536	(0.745)
5*AE	-0.704	(0.671)	0.0714	(0.959)	-0.0201	(0.523)	0.829	(0.648)
6*AE	-0.470	(0.507)	0.493	(1.007)	0.0226	(0.605)	-0.442	(1.032)
7*AE	-0.429	(0.759)	-15.84***	(0.658)	-1.009	(0.702)	15.56***	(1.116)
8*AE	-0.933	(0.662)	0.856	(1.034)	-1.946*	(0.968)	2.912*	(1.234)
9*AE	-0.782	(1.089)	-15.15***	(0.607)	-0.378	(1.059)	-14.09***	(1.116)
Richest*AE	-1.841*	(0.819)	0.462	(0.983)	-0.713	(1.201)	-13.26***	(0.966)
Advanced economies	-1.507	(1.207)	-1.695	(1.032)	-1.436*	(0.690)	-3.262*	(1.314)
<i>Number of obs.</i>	14301							

Sources: EBRD-ifo Institute Survey and authors' calculations.

Notes: Country-clustered standard errors. \* denotes effects significant at the 5 percent level, \*\* at the 1 percent level, \*\*\* at the 0.1 percent level. \*AE denotes interactions with an advanced economy dummy variable.

## 6. Labour market impacts of the Covid-19 crisis and the 2008-09 Global Financial Crisis

In the following we compare the labour market effects of the Covid-19 crisis with those of the Global Financial Crisis. We draw on the special crisis module of the 2010 Life in Transition Survey, looking at a very similar question on the effects of the crisis as used in the 2020 survey. We restrict our sample to the same set of 10 countries covered in both surveys, or, as an alternative (to allow for a larger sample size) to countries within the same GDP per capita range. We restrict the age range in the Life in Transition Survey to match the range of the EBRD-ifo Institute Survey (18-69). The following results should, however, be interpreted with caution given the smaller sample size in the Life in Transition Survey and possible differences in sampling between an online and a face-to-face survey.

In most economies in our sample job losses during the early months of the Covid-19 crisis are already comparable to those of the Global Financial Crisis (note that, as discussed in Section 3, the Life in Transition Survey captures cumulative job losses two years after the onset of the crisis; Table 4). However, wage reductions are less common in 2020, likely reflecting widespread use of furlough schemes. These patterns hold in both advanced and emerging economies.

**Table 4. Share of respondents experiencing labour market effects because of the Global Financial Crisis and the Covid-19 crisis**

	Lost job		Wages reduced		Hours reduced	
	Global Financial Crisis	Covid-19 crisis	Global Financial Crisis	Covid-19 crisis	Global Financial Crisis	Covid-19 crisis
France	0.07	0.06	0.27	0.14	0.12	0.16
Germany	0.08	0.03	0.18	0.10	0.26	0.16
Italy	0.04	0.07	0.36	0.18	0.30	0.18
Sweden	0.07	0.09	0.17	0.14	0.13	0.14
Belarus	0.06	0.09	0.64	0.14	0.14	0.11
Hungary	0.14	0.13	0.24	0.19	0.07	0.16
Poland	0.06	0.12	0.33	0.26	0.11	0.25
Serbia	0.14	0.11	0.45	0.16	0.09	0.17
Turkey	0.24	0.21	0.61	0.27	0.10	0.23
Ukraine	0.16	0.16	0.55	0.22	0.18	0.18
<i>Advanced economies</i>	<i>0.06</i>	<i>0.06</i>	<i>0.25</i>	<i>0.14</i>	<i>0.20</i>	<i>0.16</i>
<i>Emerging economies</i>	<i>0.14</i>	<i>0.14</i>	<i>0.47</i>	<i>0.21</i>	<i>0.11</i>	<i>0.18</i>

Sources: EBRD-ifo Institute Survey, Life in Transition Survey 2010 and authors' calculations.

Notes: Life in Transition Survey sample restricted to household heads.

Table 5 reports the results of logit models looking at the differential drivers of job losses across the two crises. Figure 4 reports corresponding marginal effects.

Job losses during the Covid-19 crisis appear to be more unequal by age than those seen during the Global Financial Crisis: the young seem to be hit relatively more this time around, likely correlated with the increasing role of flexible work arrangements, in particular among this group.



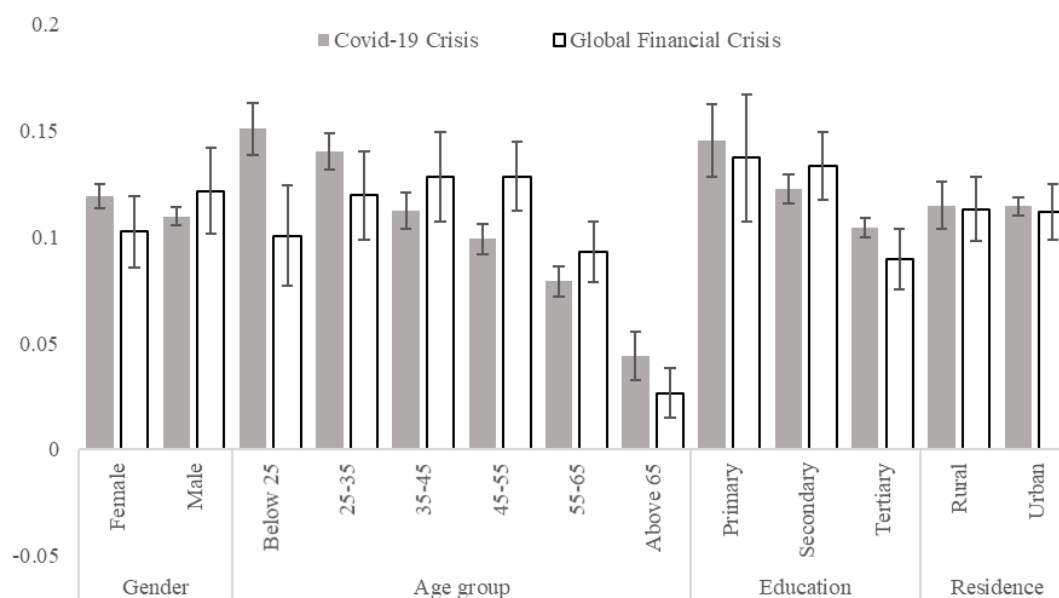
**Table 5. Logit models of the determinants of job losses**

		Same set of countries		Countries in same GDP per capita range		Full set of countries	
		Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
<i>Age group</i> (baseline: under 25)	25-35	0.00477	(0.262)	0.200	(0.153)	0.203	(0.141)
	35-45	0.0644	(0.332)	0.285	(0.146)	0.336*	(0.140)
	45-55	-0.230	(0.314)	0.286*	(0.145)	0.313*	(0.137)
	55-65	-0.633*	(0.297)	-0.0899	(0.141)	-0.0785	(0.130)
	Above 65	-1.880***	(0.521)	-1.441***	(0.240)	-1.385***	(0.209)
	25-35*Covid-19	-0.133	(0.262)	-0.288	(0.159)	-0.291*	(0.147)
	35-45*Covid-19	-0.400	(0.357)	-0.635***	(0.170)	-0.685***	(0.165)
	45-55*Covid-19	-0.201	(0.311)	-0.781***	(0.158)	-0.809***	(0.150)
	55-65*Covid-19	-0.0844	(0.335)	-0.656***	(0.176)	-0.668***	(0.166)
	Above 65*Covid-19	0.613	(0.536)	0.0553	(0.308)	-0.000959	(0.283)
<i>Gender</i>	Male	0.146	(0.115)	0.202**	(0.0616)	0.204***	(0.0543)
	Male*Covid-19	-0.198	(0.124)	-0.298***	(0.0825)	-0.301***	(0.0771)
<i>Education</i> (baseline: primary)	Secondary	-0.418	(0.319)	-0.0343	(0.142)	-0.0197	(0.137)
	Tertiary	-0.783*	(0.308)	-0.501**	(0.163)	-0.489**	(0.154)
	Secondary*Covid-19	0.216	(0.366)	-0.172	(0.174)	-0.187	(0.170)
	Tertiary*Covid-19	0.411	(0.377)	0.102	(0.205)	0.0900	(0.197)
<i>Residence</i>	Urban	0.118	(0.0972)	-0.0130	(0.0658)	-0.0225	(0.0596)
	Urban*Covid-19	-0.0490	(0.127)	0.00993	(0.0888)	0.0195	(0.0840)
	Covid-19	-0.0744	(0.466)	0.673**	(0.253)	0.707**	(0.246)
<i>Number of obs.</i>		28007		44768		45624	

Sources: EBRD-ifo Institute survey, Life in Transition Survey and authors' calculations.

Notes: Logit models with country fixed effects and country-clustered standard errors. Life in Transition Survey sample restricted to household heads. \* denotes effects significant at the 5 percent level, \*\* at the 1 percent level, \*\*\* at the 0.1 percent level. \*Covid-19 denotes interactions with a Covid-19 crisis dummy variable.

**Figure 4. Marginal effects of individual characteristics on job losses**



Sources: EBRD-ifo Institute survey, Life in Transition Survey and authors' calculations.

Notes: Marginal effects and 95 percent confidence intervals from logit models with country fixed effects and country-clustered standard errors. Life in Transition Survey sample restricted to household heads and countries in the same GDP per capita range as in the EBRD-ifo Institute survey.

Women are also more adversely affected relative to men than they were in 2008-09, likely reflecting the larger hit to the service sector this time around. We do not observe significant differences across the two crises in terms of the effects of education (tertiary education lowers the likelihood of job losses during both crises) or urban-rural residence.

## **7. Conclusions**

We provide early evidence on the labour market effects of the Covid-19 crisis, complementing existing studies focusing on advanced economies by looking at a new survey covering 14 advanced as well as emerging economies, and comparing these to the effects of the Global Financial Crisis.

We find that the labour market effects of the Covid-19 crisis are typically more severe in emerging economies, but are more unequally distributed in advanced economies. In particular, the likelihood of job losses falls more sharply with income in advanced economies than in emerging markets. This could reflect both a lower share of jobs that can be effectively done from home in emerging markets, and these jobs being more concentrated at the top of the income distribution in these economies. Consistent with this, we show that so far Gini coefficients increased by less in emerging markets than in advanced economies.

Contrasting the effects of the Covid-19 crisis with those of the Global Financial Crisis, we find that in both advanced economies and emerging markets job losses during the first few months of the Covid-19 crisis are already comparable to the cumulative effects of the Global Financial Crisis. Furthermore, job losses are now concentrated among women—reflecting a larger hit to services this time around, in contrast with more severe effects in male-dominated manufacturing sectors during the Global Financial Crisis. Job losses also appear to be more concentrated among the young than during the Global Financial Crisis.

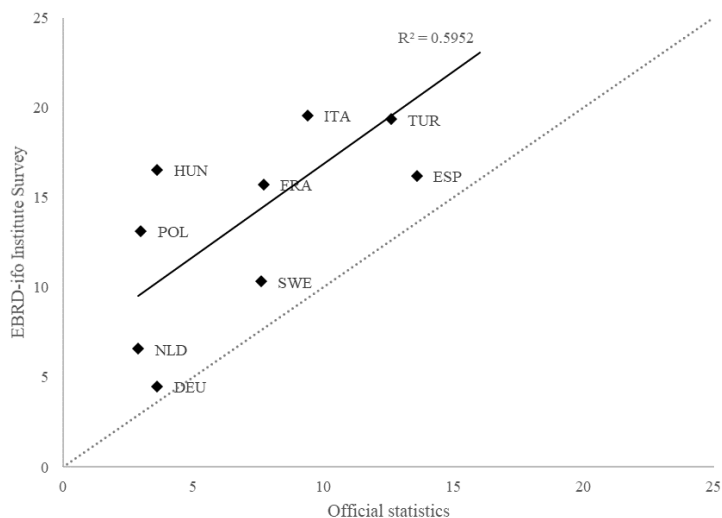
We thus hope to contribute to a better understanding of the distribution of impacts of the Covid-19 crisis—crucial for designing policy responses that target those individuals who have been most affected by the crisis.

Many countries turned to unprecedented fiscal stimulus packages to mitigate the negative effects of the crisis on individuals and firms: offering wage subsidies, subsidized loans, universal cash benefits or various forms of targeted support. However, those most vulnerable to the impact of the crisis—workers on temporary contracts, in hard-hit service sectors, working at small enterprises, in the gig economy or in the informal sector—are often also the most difficult to reach through government support schemes, in particular in emerging markets.

Unless governments find ways to cushion the impact on those most vulnerable, the economic fallout from Covid-19 may increase inequality, exacerbate job polarisation and weigh on social cohesion and trust. The crisis may also tilt (especially severely affected young) people's preferences further towards more stable jobs, including those with permanent contracts as well as those in the public sector.

## Annex Figures

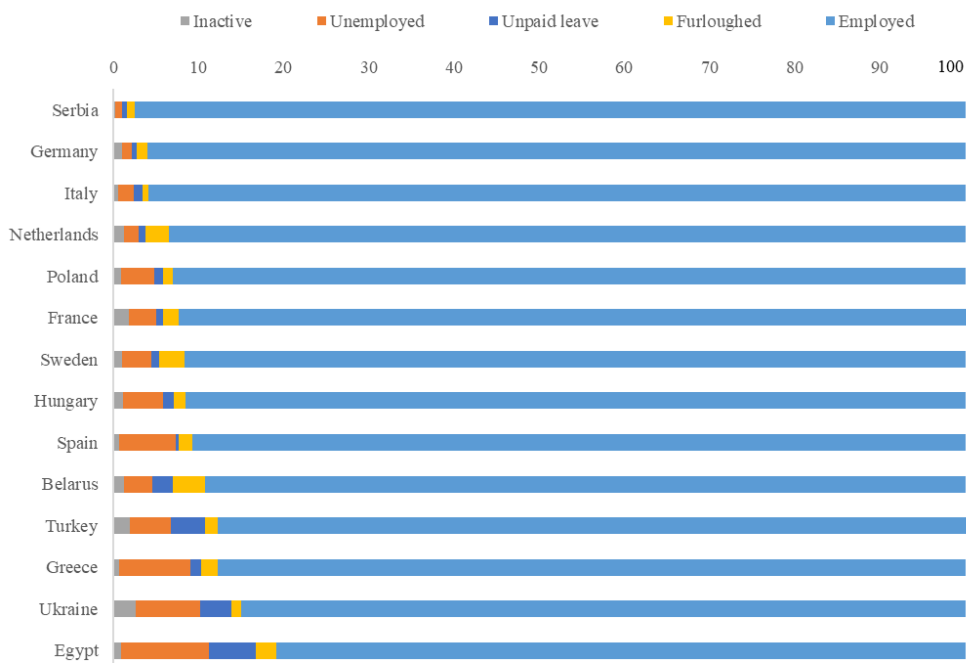
**Annex Figure 1. Unemployment rate estimates, February 2020**



Sources: EBRD-ifo Institute Survey, Eurostat and authors' calculations.

Notes: Subset of economies with Eurostat monthly labour market statistics. Employed refers to those in paid employment, calculations exclude those in unpaid employment (such as trainees, apprentices and those working for their family business as unpaid employees) and those on temporary leave (including annual leave, sick/medical leave and maternity/paternity leave).

**Annex Figure 2. Movements out of employment, February-August 2020**



Sources: EBRD-ifo Institute Survey, Eurostat and authors' calculations.

Notes: Share of those in paid employment in February 2020 by August 2020 status. Calculations exclude those in unpaid employment (such as trainees, apprentices and those working for their family business as unpaid employees) and those on temporary leave (including annual leave, sick/medical leave and maternity/paternity leave).

## Annex Tables

**Annex Table 1. Descriptive statistics**

	<b>Advanced economies</b>		<b>Emerging economies</b>	
	<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
Lost job	0.08	0.28	0.15	0.35
Wages reduced	0.15	0.36	0.22	0.41
Hours reduced	0.15	0.36	0.20	0.40
Temp. unpaid leave	0.06	0.23	0.12	0.33
Temp. paid leave	0.09	0.29	0.18	0.38
Age	43.6	13.8	36.6	12.8
Male	0.47	0.50	0.50	0.50
Primary	0.07	0.25	0.03	0.18
Secondary	0.46	0.50	0.38	0.49
Tertiary	0.47	0.50	0.59	0.49
Countryside (less than 10,000)	0.21	0.41	0.12	0.33
Town (10,000-100,000)	0.32	0.47	0.19	0.39
Small city (100,000-300,000)	0.19	0.40	0.19	0.39
Large city (over 300,000)	0.27	0.45	0.50	0.50
1 person	0.22	0.41	0.15	0.36
1-20 people	0.23	0.42	0.28	0.45
21-100 people	0.16	0.37	0.22	0.42
101 or more	0.38	0.49	0.34	0.47
Self-employed	0.21	0.41	0.25	0.43
Permanent contract	0.53	0.50	0.46	0.50
Public sector employee	0.42	0.49	0.43	0.49

Sources: EBRD-ifo Institute Survey and authors' calculations.

Notes: All differences between groups significant at the 5 percent level, except public sector employee, which is significant at the 10 percent level.

**Annex Table 2. Logit models of the determinants of labour market effects**

		Lost job		Wages reduced		Hours reduced		Temp. unpaid leave		Temp. paid leave	
		Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error	Coef.	Std. Error
Age group (baseline: under 25)	25-35	-0.138	(0.0796)	-0.143*	(0.0724)	-0.117	(0.0897)	-0.179*	(0.0716)	-0.161**	(0.0579)
	35-45	-0.202*	(0.0843)	-0.162	(0.105)	-0.296**	(0.114)	-0.299***	(0.0553)	-0.238**	(0.0844)
	45-55	-0.365**	(0.142)	-0.334*	(0.132)	-0.323	(0.180)	-0.469***	(0.124)	-0.368***	(0.0686)
	55-65	-0.575***	(0.140)	-0.445***	(0.0657)	-0.578***	(0.136)	-1.054***	(0.131)	-0.676***	(0.107)
	Above 65	-1.097***	(0.195)	-1.544***	(0.153)	-1.591***	(0.307)	-1.206***	(0.197)	-2.336***	(0.475)
	25-35*AE	0.287*	(0.116)	-0.0287	(0.106)	-0.0456	(0.155)	-0.0982	(0.143)	0.00597	(0.151)
	35-45*AE	0.0714	(0.158)	-0.0301	(0.137)	-0.100	(0.174)	-0.0963	(0.131)	-0.117	(0.183)
	45-55*AE	0.179	(0.173)	0.0159	(0.142)	-0.0749	(0.203)	-0.0467	(0.167)	0.0229	(0.144)
	55-65*AE	0.172	(0.171)	-0.221	(0.139)	-0.164	(0.180)	0.287	(0.197)	-0.127	(0.183)
	Above 65*AE	-0.439	(0.253)	0.560***	(0.159)	0.348	(0.329)	0.117	(0.338)	0.829	(0.513)
Gender	Male	0.0405	(0.0723)	-0.131***	(0.0312)	0.0129	(0.0363)	0.0718	(0.0552)	-0.157**	(0.0566)
	Male*AE	-0.125	(0.103)	0.255***	(0.0590)	0.153**	(0.0501)	0.140	(0.0938)	0.170*	(0.0684)
Education (baseline: primary)	Secondary	-0.440***	(0.0907)	-0.294*	(0.143)	-0.0469	(0.114)	-0.607***	(0.112)	-0.207	(0.186)
	Tertiary	-0.546***	(0.0714)	-0.395**	(0.133)	-0.305*	(0.130)	-0.776***	(0.109)	-0.257	(0.207)
	Secondary*AE	0.356**	(0.115)	0.0462	(0.187)	-0.00306	(0.147)	0.351	(0.190)	0.160	(0.217)
	Tertiary*AE	0.415***	(0.105)	0.122	(0.171)	0.323*	(0.155)	0.518*	(0.240)	0.125	(0.247)
Residence (baseline: countryside, less than 10,000)	Town (10,000-100,000)	-0.0742	(0.125)	0.110	(0.0614)	0.189**	(0.0668)	0.278*	(0.109)	0.116	(0.103)
	Small city (100,000-300,000)	0.0292	(0.175)	0.245***	(0.0396)	0.292***	(0.0835)	0.367***	(0.102)	0.261***	(0.0626)
	Large city (over 300,000)	0.163	(0.134)	0.167	(0.108)	0.150	(0.119)	0.226	(0.148)	0.190**	(0.0660)
	Town (10,000-100,000)*AE	0.215	(0.135)	-0.0173	(0.0734)	-0.0766	(0.0742)	-0.177	(0.131)	-0.0665	(0.124)
	Small city (100,000-300,000)*AE	0.00744	(0.210)	-0.130	(0.0824)	-0.128	(0.102)	-0.279	(0.172)	-0.171	(0.144)
	Large city (over 300,000)*AE	0.0654	(0.283)	0.0725	(0.169)	0.0512	(0.170)	0.0395	(0.199)	-0.101	(0.163)
Work arrangement	Permanent contract	-0.899***	(0.121)	0.00608	(0.0375)	0.0391	(0.0654)	-0.0695	(0.155)	-0.00925	(0.0548)
	Permanent contract*AE	-0.303	(0.260)	-0.0230	(0.0762)	0.0439	(0.135)	-0.533**	(0.175)	0.330*	(0.131)
	Public sector employee	-0.640***	(0.170)	-0.284	(0.148)	-0.225	(0.140)	0.0254	(0.176)	0.0155	(0.0575)
	Public sector employee*AE	0.0902	(0.208)	-0.527**	(0.175)	-0.450**	(0.151)	-0.333	(0.223)	-0.409***	(0.0757)
Income decile (baseline: poorest)	2	-0.0172	(0.119)	0.482***	(0.0616)	0.348***	(0.0725)	0.252*	(0.115)	0.459***	(0.106)
	3	-0.191	(0.138)	0.464***	(0.134)	0.305	(0.275)	0.302**	(0.0922)	0.412*	(0.206)
	4	-0.190	(0.158)	0.513***	(0.104)	0.322	(0.179)	0.319*	(0.126)	0.391*	(0.176)
	5	-0.341*	(0.135)	0.535***	(0.113)	0.293*	(0.147)	0.178	(0.133)	0.538***	(0.139)
	6	-0.107	(0.176)	0.431***	(0.105)	0.125	(0.170)	-0.0533	(0.182)	0.357	(0.250)
	7	-0.323***	(0.0870)	0.318***	(0.0915)	0.124	(0.112)	-0.0531	(0.188)	0.291**	(0.108)
	8	-0.372	(0.234)	0.117	(0.139)	-0.0242	(0.137)	-0.0146	(0.203)	0.330*	(0.164)
	9	-0.599**	(0.187)	0.299**	(0.104)	0.240	(0.159)	0.00914	(0.124)	0.292	(0.202)
	Richest	-0.733***	(0.144)	0.105	(0.0892)	-0.0608	(0.134)	-0.0740	(0.165)	0.138	(0.209)
	2*AE	0.0496	(0.175)	-0.399***	(0.115)	-0.135	(0.0899)	-0.329*	(0.146)	-0.184	(0.159)
	3*AE	-0.0543	(0.193)	-0.483*	(0.188)	-0.318	(0.283)	-0.464***	(0.114)	-0.237	(0.216)
	4*AE	-0.217	(0.209)	-0.598***	(0.170)	-0.492**	(0.183)	-0.843***	(0.188)	-0.291	(0.223)
	5*AE	-0.172	(0.203)	-0.815***	(0.176)	-0.540**	(0.164)	-0.769***	(0.220)	-0.611**	(0.197)
	6*AE	-0.621**	(0.207)	-0.761***	(0.213)	-0.591*	(0.250)	-0.323	(0.242)	-0.407	(0.291)
7*AE	-1.118***	(0.268)	-0.911***	(0.247)	-0.605*	(0.239)	-0.850***	(0.255)	-0.492**	(0.169)	
8*AE	-0.523	(0.384)	-0.586*	(0.270)	-0.229	(0.158)	-0.632	(0.327)	-0.609	(0.325)	
9*AE	0.0167	(0.639)	-0.878***	(0.184)	-0.650**	(0.223)	-0.455	(0.597)	-0.0487	(0.261)	
Richest*AE	0.698**	(0.245)	-0.118	(0.248)	-0.449	(0.333)	0.0590	(0.231)	-0.147	(0.339)	
Country characteristics	Services as a share of total employment	0.0773**	(0.0247)	-0.00258	(0.0238)	-0.0772**	(0.0291)	-0.0120	(0.0361)	-0.0100	(0.0234)
	General government revenue as a share of GDP	-0.0547***	(0.0148)	-0.00917	(0.00860)	0.0198	(0.0145)	-0.0147	(0.0171)	0.00122	(0.0133)
	General government gross debt as a share of GDP	0.00751*	(0.00299)	0.00482	(0.00259)	-0.000802	(0.00238)	0.00430	(0.00468)	-0.000124	(0.00160)
	Share of jobs that can be done from home	0.00595	(0.0257)	0.0167	(0.0270)	0.0114	(0.0270)	-0.0117	(0.0363)	-0.0322**	(0.0112)
	Share of population using the internet	-0.0100*	(0.00458)	-0.00823	(0.0117)	-0.00908	(0.0119)	-0.00441	(0.0140)	-0.0356***	(0.00798)
Advanced economies	-1.991***	(0.305)	-0.0106	(0.415)	1.220**	(0.375)	-0.110	(0.698)	0.323	(0.354)	
Number of obs.		25700		25193		25193		25700		25193	

Sources: Dingel and Neiman (2020), EBRD-ifo Institute Survey, IMF, World Bank and authors' calculations.

Notes: Logit models with country-clustered standard errors. \* denotes effects significant at the 5 percent level, \*\* at the 1 percent level, \*\*\* at the 0.1 percent level. \*AE denotes interactions with an advanced economy dummy variable. Country-level variables refer to 2019 (2018 for the share of jobs that can be done from home). Russia's estimate used for share of jobs that can be done from home for Belarus and Ukraine. Share of population using the internet refers to 2018 for Italy and Ukraine.

**Annex Table 3. Descriptive statistics**

		<b>Covid-19 crisis</b>		<b>Global Financial Crisis</b>	
		<i>Mean</i>	<i>Std. Dev.</i>	<i>Mean</i>	<i>Std. Dev.</i>
	Lost job	0.10	0.30	0.11	0.31
<i>Personal characteristics</i>	Age	40.50	14.01	46.51	13.52
	Male	0.47	0.50	0.55	0.50
<i>Education</i>	Primary	0.06	0.23	0.02	0.16
	Secondary	0.46	0.50	0.70	0.46
	Tertiary	0.48	0.50	0.27	0.44
	Urban	0.81	0.39	0.66	0.47
<i>Firm size</i>	1 person	0.18	0.39	0.02	0.15
	1-20 people	0.25	0.43	0.34	0.48
	21-100 people	0.20	0.40	0.26	0.44
	101 or more	0.36	0.48	0.37	0.48
<i>Work arrangement</i>	Self-employed	0.23	0.42	0.08	0.28
	Public sector employee	0.44	0.50	0.39	0.49

Sources: EBRD-ifo Institute Survey, Life in Transition Survey and authors' calculations.

Notes: Urban is coded as one (zero) if the respondent's place of usual residence has a population of more than (less than) 10,000 people in EBRD-ifo Institute Survey, and if the type of settlement is urban or metropolitan (rural) in the Life in Transition Survey. Sample includes the same 10 economies for both crises. Life in Transition Survey sample restricted to household heads.

## References

- Adams-Prassl, A., T. Boneva and M. Golin (2020). “Inequality in the impact of the coronavirus shock: Evidence from real time surveys”, *Journal of Public Economics*, Vol. 189.
- Alon, T., M. Doepke, J. Olmstead-Rumsey and M. Tertilt (2020). “The impact of COVID-19 on gender equality”, NBER Working Paper No. 26947.
- Alstadsaeter, A., B. Bratsberg, G. Eielsen, W. Kopczuk, S. Markussen, O. Raum and K. Roed (2020). “The first weeks of the coronavirus crisis: Who got hit, when and why? Evidence from Norway”, National Bureau of Economic Research Working Paper No. 27131.
- Apouey, B., Roulet, A., Solal, I. et al. (2020). “Gig workers during the COVID-19 crisis in France: Financial precarity and mental well-being”, *Journal of Urban Health*.
- Beland, L.-P., A. Brodeur and T. Wright (2020). “The short-term economic consequences of Covid-19: exposure to disease, remote work and government response.”
- Bellante, D. and A. N. Link (1981). “Are public sector workers more risk averse than private sector workers?” *Industrial and Labor Relations Review*, Vol. 34, No. 3, pp. 408-412.
- Bick, A., A. Blandin and K. Mertens (2020). “Work from home after the Covid-19 Outbreak”, CEPR Discussion Paper No. DP15000.
- Blundell, R., M. Costa Dias, R. Joyce and X. Xu (2020). “Covid-19 and inequalities”, *Fiscal Studies*.
- Boeing-Reicher, C.A. and V. Caponi (2016). “Public wages, public employment, and business cycle volatility: Evidence from U.S. metro areas”, IZA Discussion Paper No. 9965.
- Bonin, H., T. Dohmen, A. Falk, D. Huffman and U. Sunde (2007). “Cross-sectional earnings risk and occupational sorting: The role of risk attitudes”, *Labour Economics*, Vol. 14, No. 6, pp. 926-937.
- Brock, M. (2020). “Unfair inequality, governance and individual beliefs”, *Journal of Comparative Economics*, Vol. 48, No. 3, pp. 658-687.
- Brunori, P., M.L. Maitino, L. Ravagli and N. Sciclone (2020). « Distant and unequal. Lockdown and Inequalities in Italy”, Mimeo, Italy.
- Brussevich, M., E. Dabla-Norris and S. Khalid (2020). “Who will bear the brunt of lockdown policies? Evidence from tele-workability measures across countries” IMF Working Paper No. 20/88.
- Buckley, P. and A. Barua (2020). “COVID-19’s impact on US income inequality: It’s going to get worse before it gets better”, Deloitte Insights, Issues by the Numbers, July 2020.
- Buurman, M., R. Dur and S. Van den Bossche (2009), “Public sector employees: Risk averse and altruistic?” IZA Discussion Paper No. 4401.
- Christiano, L.J., M.S. Eichenbaum and M. Trabandt (2015). “Understanding the great recession”, *American Economic Journal: Macroeconomics*, Vol. 7, No. 1, pp. 110–167.
- Clark, A. and F. Postel-Vinay (2009). “Job security and job protection”, *Oxford Economic Papers*, Vol. 61, No. 2, pp. 207-239.

- Coibion, O., Y. Gorodnichenko and M. Weber (2020). “Labor markets during the COVID-19 Crisis: A preliminary view”, Becker Friedman Institute Working Paper No. 41.
- Cortes, G.M. (2020). “Heterogeneous labor market impacts during the early stages of the Covid-19 pandemic.” Rimini Centre for Economic Analysis Working Paper No. 20-13.
- De Haan, J. and J.-E. Sturm (2017). “Finance and income inequality: A review and new evidence”, *European Journal of Political Economy*, Vol. 50, pp. 171-195.
- Del Rio-Chanona, R M, P Mealy, A. Pichler, F Lafond and J D Farmer (2020). “Supply and demand shocks in the COVID-19 pandemic: An industry and occupation perspective”, *Covid Economics*, Vol. 6, pp. 65-104.
- Dhingra, S. and S. Machin (2020). “The crisis and job guarantees in urban India” CEPR Discussion Paper No. 15334.
- Dingel, J. and B. Neiman (2020). “How many jobs can be done at home?” *Journal of Public Economics*, Vol. 189.
- EBRD (2020). “Covid-19: Early estimates of the damage, uncertain prospects”, Regional Economic Prospects, September 2020.
- Furceri, D., P. Loungani, J.D. Ostry and P. Pizzuto (2020). “Will Covid-19 affect inequality? Evidence from past pandemics”, *Covid Economics*, Vol. 12.
- Hoyne, H., D.L. Miller and J. Schalle (2012). “Who suffers during recessions?” *Journal of Economic Perspectives*, Vol. 26, No. 3, pp. 27–48.
- ILO (2020). “COVID-19 crisis and the informal economy: Immediate responses and policy challenges”, ILO Brief, May.
- IMF (2020). World Economic Outlook: A long and difficult ascent. Box 1.2. Inclusiveness in emerging market and developing economies and the impact of COVID-19. Washington DC.
- Irlacher, M. and M. Koch (2020). „Working from home, wages, and regional inequality in the light of Covid-19”, CESifo Working Paper No. 8232.
- Kikuchi, S, S Kitao and M Mikoshiba (2020). “Heterogeneous vulnerability to the COVID-19 crisis and implications for inequality in Japan”, RIETI Discussion Paper.
- Koczan, Zs. and A. Plekhanov (2020). “The Covid-19 shock: Employment in middle-income economies”, VoxEU.
- Kousta, D. (2018). “Consumption insurance and multiple jobs: Evidence from rideshare drivers”, unpublished working paper.
- Lewis, G.B. and S.A. Frank (2002). “Who wants to work for the government?” *Public Administration Review*, Vol. 62, No. 4, pp. 395-404.
- Malcomson, J.M. (1999). Individual employment contracts. In: *Handbook of Labor Economics*, Vol. 3, and pp. 2291–2372.
- Mas, A. and A. Pallais (2020). “Alternative work arrangements”, National Bureau of Economic Research Working Paper.



- Mongey, S. and A. Weinberg (2020). “Characteristics of workers in low work-from home and high personal-proximity occupations”, Working Paper.
- Mongey, S., L. Pilossoph and A. Weinberg (2020).”Which workers bear the burden of social distancing policies?” Becker Friedman Institute White Paper.
- Montenovo, L., X. Jiang, F. Lozano Rojas, I.M. Schmutte, K.I. Simon, B.A. Weinberg and C. Wing (2020). “Determinants of disparities in Covid-19 job losses”, National Bureau of Economic Research Working Paper No. 27132.
- OECD (2020). “Why protecting informal economy workers is so critical in time of COVID-19”, *Development Matters*, 17 April.
- Palomino, J C, J G Rodríguez and R Sebastian (2020). “Wage inequality and poverty effects of lockdown and social distancing in Europe”, *European Economic Review*, Vol. 129.
- Pfeifer, C. (2008). “Risk aversion and sorting into public sector employment”, IZA Discussion Paper No. 3503.
- Saltiel, F. (2020). “Who Can Work From Home in Developing Countries?” 6 April, Mimeo.
- Von Gaudecker, H.-M., R. Holler, L. Janys, B. Siflinger and C. Zimpelmann (2020). “Labour supply in the early stages of the Covid-19 pandemic: empirical evidence on hours, home office, and expectations”, IZA Discussion Paper No. 13158.