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Job market effects of COVID-19 on urban Ukrainian households

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Outline

- Motivation
- Gradus survey
- 4 questions of interest
- Results & further steps

Project details

- Joint work with Timofii Brik (KSE)

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- Working paper “Job market effects of COVID-19 on urban Ukrainian households”:
<https://arxiv.org/ftp/arxiv/papers/2007/2007.15704.pdf>
- Media version “COVID-19, quarantine and the job market expectations in urban Ukraine”:
<https://voxukraine.org/uk/kovid-karantin-ta-rinok-pratsi-v-mistah-ukrayini/>
<https://www.epravda.com.ua/publications/2020/08/18/664111/>

Motivation

- There seems to be only a few micro-level studies about the effect of COVID-19 on the economic well-being of citizens
- Existing studies cover primarily the US (Baker et al., 2020; Coibion, Godonichenko and Weber, 2020) and OECD countries (Ambrocio, 2020; Rothwell and Van Drie, 2020)
- To address this gap we present new evidence for Ukraine and contribute to the literature on the socio-economic effects of COVID-19

Coronavirus, quarantine and the labor market

- Coronavirus has affected the employment of millions of people around the world
- The IMF forecasts an increase in the unemployment rate in Ukraine to 12.6% in 2020 compared to 8.5% in 2019
- We examine the characteristics of urban dwellers who are more likely
 1. To save jobs during quarantine
 2. To work at home part-time or full-time
 3. To be afraid of losing job
 4. To have savings for less than one month

Quarantine

- Nationwide quarantine was introduced in Ukraine on March 12th, 2020
- Due to early implementation of coronavirus containment policies Ukraine has had relatively low incidence and mortality
- In July 2020, Ukraine ranked 87th in terms of the total number of COVID-19 cases per million people and 78th in terms of mortality per million people among 213 countries.

Gradus Survey

- Despite positive consequences for health, quarantine has jeopardized the employment prospects and financial security of many Ukrainian households
- Gradus uses mobile app to survey respondents aged 18-60 living in Ukrainian cities with a population of 50,000 or more (representative for urban population)
- 1,176 (or 54%) respondents out of of 2,177 registered in application participated in the poll which lasted less than 24 hours
- Poll was conducted on April, 8th so results show *short-term* consequences of quarantine

Variables of interest

- “Not working” – equal to 1 for respondents who answered that there is no work for them and they are fired, on paid or unpaid leave (and 0 otherwise)
- “Working from home” – equal to 1 for those who work from home part or full time (and 0 otherwise)
- “Fears to lose a job” – equal to 1 for respondents who are afraid to lose a job (and 0 otherwise)
- “Savings for <1 month” – for respondents who have enough financial resources for one month or less (and 0 otherwise)

The first two variables are only asked of respondents who worked before quarantine, while the last two are asked of all respondents.

Dependent variables*

- 24.8% of respondents (employed before quarantine) did not work at the time of the survey
- 40.4% respondents worked from home part or full-time
- 24.6% of respondents were afraid to lose jobs (including those who did not work before the quarantine)
- An impressive 54.7% reported that they have enough savings for 1 month or less in case quarantine continues

* *We report unweighted averages in the sample*

Method

- Each of the dependent variables (DV_i) was estimated via linear probability model with robust standard errors clustered at the city level

$$DV_i = \alpha_0 + SD \cdot \alpha'_{SD} + RC \cdot \alpha'_{RH} + FS \cdot \alpha'_{FS} + IN \cdot \alpha'_{IN} + OC \cdot \alpha'_{OC} + \varepsilon_i, \quad (1)$$

where ε_i is the individual error term for respondent i .

- We include a rich set of socio-demographic factors (SD), regional characteristics (RC), measures of financial status (FS), and indicators for industry (IN) and occupation (OC).
- Caution: The methods used in this descriptive study are not causal and we only talk about association.

Variable №1: Not working

- Respondents aged 25-34 are 9.6% more likely **to not work** during quarantine (compared to 18-24 y.o.)
- Respondents who are married are 9.9% more likely to be employed
- There is a consistent negative impact of household size on the probability of employment: respondents from large households are 11.9-17.7% more likely. **will not work** compared to those who live alone.

Variable №2: Working from home

- Women are 12.7% more likely to work from home than men.
- Respondents from large households are 10.6-14.1% less likely to work remotely, possibly due to limited space at home.
- Those living in Kyiv are 20.4% points more likely to work from home.
- Vocational and higher education increase the probability to work from home by 13.8% and 11.8% points correspondingly.

Variable №3: Fears to lose a job

- Fears are irrational so for this model adjusted R-squared is the lowest (3.6%) compared to 11.1-21.7% points for other models
- Larger households are 14.9-20.5% points more likely to fear a job loss

Variable №4: Savings for <1 month

- Higher education is associated with better financial security: such respondents are 10.4% less likely to have just 1 month of savings.
- Respondents who know the number of COVID-19 cases in the world are 7.1% less likely to have savings for just 1 month.
- Yet another interesting result – working before quarantine is not statistically associated with increased financial security.

The effect of industry and occupation

	Not working		Working from home		Savings for <1 month	
	Coef	Std. Er.	Coef	Std. Er.	Coef	Std. Er.
Public administration	-0.183	(0.079)	-0.080	(0.074)	-0.096	(0.102)
Health care and social assistance	-0.086	(0.124)	-0.190	(0.098)	-0.133	(0.084)
Research	-0.238	(0.066)	0.223	(0.061)	-0.277	(0.111)
Education	-0.134	(0.087)	0.327	(0.120)	0.003	(0.077)
Programming and IT	-0.216	(0.078)	0.111	(0.101)	-0.196	(0.078)
Advertising and mass media	-0.169	(0.086)	0.121	(0.070)	-0.171	(0.062)
Finance, banking and legal	-0.123	(0.109)	-0.036	(0.067)	-0.177	(0.093)
Army and police	-0.359	(0.103)	-0.003	(0.201)	-0.021	(0.183)
Highly qualified specialist	-0.154	(0.072)	0.256	(0.067)	0.138	(0.094)
Middle manager	-0.202	(0.096)	0.336	(0.093)	0.069	(0.097)
Department Manager	-0.158	(0.077)	0.155	(0.066)	0.078	(0.091)

Variable №1: Not working

- In some areas, respondents are more likely to remain employed even during quarantine:

In public administration – by 18.3% points (significant at 5%), in research sphere – by 23.8% points (significant at 1%), in programming and IT – by 21.6% points (significant at 1%).

- For some occupations, employment prospects remain good even during the epidemic:

Highly qualified specialists – doctors, lawyers – are less likely (by 15.4% points) to lose their jobs, and the chances of middle managers and department heads to stay at work are higher by 20.2% and 15.8% points, respectively (all coefficients significant at 5%).

Variable №2: Working from home

- Respondents in the field of research and education were more likely to work from home – by 22.3% and 32.7% (both significant at 1%).
- Highly qualified specialists were 25.6% more likely to work remotely (significant at 1%).
- Among middle managers and heads of departments, the chances of working remotely were higher by 33.6% (significant at 1%) and 15.5% (significant at 5%).

Variable №3: Savings for <1 month

- Respondents engaged in research, programming and IT, advertising and media, as well as in the financial, banking and legal fields have a better financial situation.
- The probability that they have savings for only a month is lower by 17.1-27.7% points.

Conclusions

- COVID-19 may increase socio-economic inequality: better educated respondents and those living in Kyiv are more likely to work from home
- Respondents from larger households have lower probability to work and also lower probability to work from home perhaps because of better financial status.
- Better educated respondents are not necessarily protected against job loss or financial hardship which may indicate low quality of education.

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Thank you!