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Article

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Saving behavior along the income distribution during the COVID-19 pandemic

Elena Ellmeier, Melanie Koch, Thomas Scheiber[1]

Aggregate data suggest that in several middle- and high-income countries, household savings increased during the first phase of the pandemic. Statistics from countries in Central, Eastern and Southeastern Europe (CESEE) also point in this direction. However, data and research on how this increase in savings is distributed along the income distribution are scarce. We provide evidence for eight CESEE countries, evaluating data from the OeNB Euro Survey wave 2021 on that matter. More precisely, we focus on how saving behavior of individuals differs across income and education groups. We find that, in general, people with higher levels of income and education have higher saving abilities – this is true before and during the pandemic. However, overall, only very few individuals have increased their saving since the start of the pandemic. When asked about saving intentions after the pandemic, particularly individuals from the highest income tercile say that they expect to increase their saving in the future. The combined evidence of aggregate and survey data points to a high degree of saving inequality across the population in all countries.

JEL classification: D14, D31, G51
Keywords: household saving, inequality, survey data, CESEE

Across Europe, aggregate statistics show that the household sector accumulated substantial savings during the first one and a half years of the COVID-19 pandemic (European Commission, 2021). Also for the countries in Central, Eastern and Southeastern Europe (CESEE), for which the household saving ratio is not always available, aggregate statistics point in this direction (see chart 1): The growth rate of household deposits remained positive, sometimes even accelerated, over the course of the pandemic (Astrov et al., 2021). Yet, how the rise in household savings is distributed across the population cannot be easily inferred from these aggregate numbers. It is commonly believed that while some households may have increased their saving stocks and flows, many others have been forced to dissave.[2]

In general, differences in saving behavior during the pandemic can be attributed to pre-existing inequalities prior to the pandemic or to changes of factors which determine the ability to smooth consumption in crisis times. Early evidence suggests that the economic impact within countries was felt rather unevenly (e.g. Alstadsæter et al., 2020, for Norway; Adams-Prassl et al., 2020, for Germany, the UK and the US; Bundervoet et al., 2022, for 34 countries; Scheiber and Koch, 2022, for CESEE). The pandemic impacted households' disposable income in the EU significantly – with lower-income households being more severely hit (Almeida et al., 2021). Underlying inequalities, including socioeconomic status, education,

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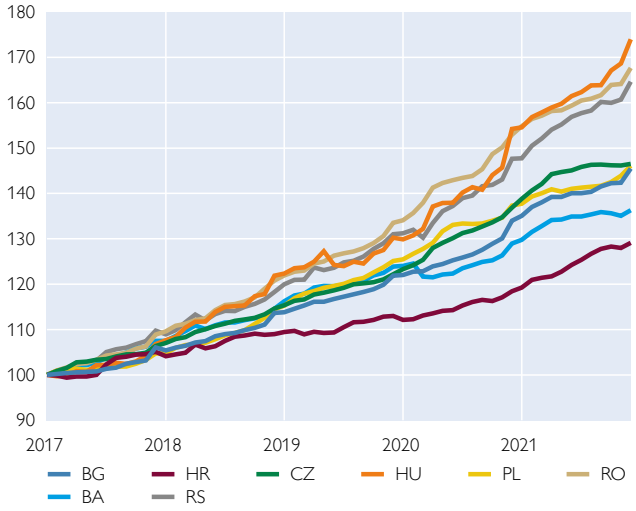
[2] *In emerging or developing countries where institutions are weaker and labor informality is prevalent, private agents resort to various modes of precautionary behavior not captured with the precautionary saving theory (Aizenman et al., 2015).*

Chart 1

Aggregate household savings in CESEE

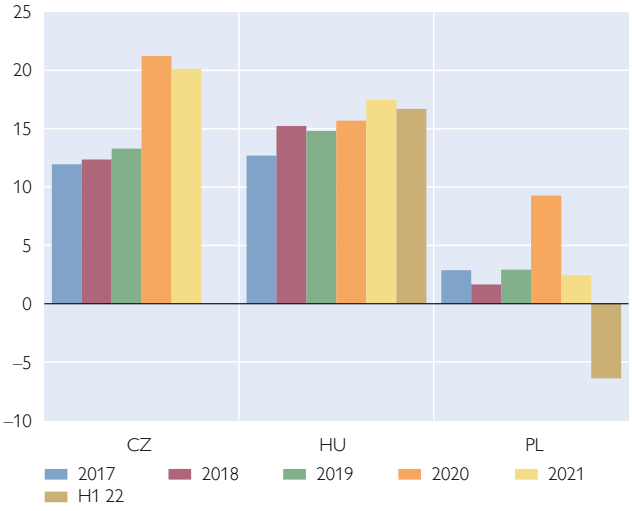
Household deposits (exchange rate-adjusted)

Index January 2017 = 100



Household gross saving ratio

% of gross disposable income



Source: Eurostat.

Note: The gross saving ratio of the household sector (including nonprofit institutions serving households) is defined as the ratio of gross savings to gross disposable income. No data available for Czechia for H1 22 at the time of printing.

age, gender, ethnicity and geography, are crucial to understand the impact of the pandemic itself. The pandemic crisis has potentially exacerbated pre-existing inequalities and it will leave legacies that will impact inequalities in the long run (Blundell et al., 2020; Adams-Prassl et al., 2020; Bundervoet et al., 2022).[3] Furthermore, from a cross-country perspective, Wildman (2021) finds that countries with high levels of income inequality prior to the outbreak of the COVID-19 pandemic have performed significantly worse when dealing with the COVID-19 outbreak in terms of registered cases and deaths. Income inequality can be interpreted as a proxy for many elements of socioeconomic disadvantages that impede an effective response to the pandemic.

Concerning consumption smoothing, it is a well-established fact for advanced economies that the household saving ratio increases during recessions (Adema and Pozzi, 2015). This is attributed to higher unemployment risk, lower household wealth and tighter credit constraints. Recent literature looks beyond conventional recessions and examines the effects of the pandemic on saving. Jordà et al. (2022) use historical data for Europe back to the 14th century and argue that pandemics induce persistent shifts toward higher precautionary saving. Similarly, Pozzi and Sabada (2022) find more volatile and higher saving ratios during macroeconomic disasters (wars, pandemics, depressions). They attribute this to a reduction in consumption smoothing opportunities, i.e. credit-constrained households consume

[3] *The return on assets of wealthy households in the USA during the pandemic has risen faster than that of other households, reinforcing the wealth concentration at the top. Kartashova and Zhou (2021) show that the increase in wealth inequality was driven by portfolio heterogeneity and asset price movements, whereas differences in the saving ratio played a minor role.*

according to their (decreasing) current income while more affluent households choose to increase precautionary saving. MacGee et al. (2022) conduct macroeconomic simulations with heterogenous agents with respect to income, unemployment risk, debt portfolios and consumption baskets and conclude that during the pandemic most unplanned savings have been accumulated by high-income households that face lower unemployment risk and larger consumption expenditures in areas affected by lockdowns and social distancing rules (i.e. forced savings). However, more clear-cut, microeconomic evidence for this conclusion is currently small.

This is where we want to contribute with our short study. We provide survey evidence for eight different countries in CESEE and look at saving behavior along the income distribution. We also look at education as a proxy for lifetime income (e.g. Tamborini et al., 2015, again show the positive correlation between education and lifetime earnings). Our descriptive results based on data from the 2021 wave of the OeNB Euro Survey show that the observed increase in aggregate savings associated with the pandemic is not at all equally distributed over the population in CESEE countries. Only few individuals in CESEE increased their saving or started to save at all. The results point toward decreasing saving ability for individuals with lower levels of income and lower educational attainments, but due to the low number of savers per country, detecting significant differences suffers from low power at the country level. When asked about planned saving after the pandemic, particularly individuals from the highest income tercile say that they expect to increase their saving in the future.

Several works study household savings in the wake of COVID-19. Most of them point into the direction of significant increases in aggregate household savings (e.g. Basselier and Minne, 2021; Bryne et al., 2020; Dossche and Zalatnos, 2021). However, few researchers investigate distributional effects, for which microdata are required.[4] For instance, Dang and Nguyen (2021) look at gender inequality in income and savings during the beginning of the pandemic in six different countries. They find that in this early stage of the pandemic, women were more likely to have increased their savings and reduced their consumption than men.

Investigating the unequal distribution of saving can provide deeper insights into the impact of the pandemic on the financial situation of households and the shape of the recovery for private consumption. Overall, saving behavior along the income distribution during the pandemic has not been well monitored, especially not in CESEE, although it has important implications for the financial resilience of households in the region. Our short study reveals some discrepancies between macro- and microdata but cannot close this research gap. We proceed as follows: In section 1, the OeNB Euro Survey data and variables are described. In section 2, we present and discuss the results, and section 3 concludes.

1 Data

We base our analysis on data from the OeNB Euro Survey. The main focus of this survey lies on the financial behavior of individuals in CESEE and the extent of euroization in this region. The survey is an annual, repeated cross section with

[4] *For studies combining macro- and microdata to derive some distributional insights with respect to consumption and savings, see Hacioglu-Hoke (2021), Banco de Portugal (2020), Bryne et al. (2020) as well as Guglielminetti and Rondinelli (2021).*

face-to-face interviews of about 1,000 persons per country. Our analysis includes eight of the ten countries, i.e.: Bosnia and Herzegovina, Bulgaria, Czechia, Croatia, Hungary, Poland, Romania and Serbia.[5] In order to provide representative samples for each of the countries' population, we work with population weights for individuals. Weights are calculated with respect to age, gender and the region a respondent is living in (urban versus rural), sometimes additionally with respect to education and ethnicity.

1.1 Evidence for saving during the pandemic

To shed some light on saving behavior around the COVID-19 pandemic, we included a special module on this topic in the 2021 wave of the OeNB Euro Survey. The data were gathered between October and November 2021, thus amid the pandemic.[6] Moreover, the interviews took place after the first, mostly energy-related, price hikes in early fall. It is reasonable to assume that, by that point in time, people must have adapted their saving behavior to the pandemic situation and started to feel the pressure of these hikes.

In this short study, we limit our analysis to five different questions from that special survey module. The first question refers to regular saving prior to the pandemic as a basis for investigating the overall change in saving behavior:

Box 1

Question 1

If you think about the time before the Covid-19 pandemic: At the end of the month, did you usually have[7] some money left that you were able to save for large purchases or emergencies, or to accumulate wealth?

1. Yes 2. No

The second and third questions were asked to find out whether regular saving has changed since the start of the pandemic. These are the core questions under investigation. Depending on whether respondents answered "yes" or "no" to question 1, they were directed to either question 2 or 3:

Box 2

Question 2 (if answer to question 1 was "Yes", "Don't know" or "No answer")

Has the level of your monthly savings changed since the start of the Covid-19 pandemic compared to pre-pandemic times?

1. Yes, I have been saving more than before

[5] *We exclude Albania because of ongoing data checks for the survey waves 2020 and 2021 for this country. North Macedonia is excluded due to a translation error in two of the questions we use.*

[6] *As explained in Scheiber and Koch (2022), data collection was finalized mostly before the countries were hit by the next infection wave. Although increasing, nonresponse rates were in the range of previous years in Croatia, Czechia, Hungary, Poland, Romania and Serbia. A sharper increase was only observed in Bosnia and Herzegovina. In Bulgaria, the nonresponse rate marginally decreased.*

[7] *The original English master questionnaire read "do you usually had" – however, this error was not reflected in the translations into the national languages for the survey.*

2. *Yes, I have been saving less than before*
3. *No, I have been saving as much as before*
4. *No, I did not have the money to save before the pandemic and I have not been able to save during the pandemic*

Box 3

Question 3 (if answer to question 1 was "no")

During the lockdowns, spending possibilities were limited. Have you saved some money since the start of the Covid-19 pandemic?

1. *Yes, I have saved some money since the start of the pandemic*
2. *No, I have not managed to save any money since the start of the pandemic*

Subsequently, those people who say that they have saved more since the start of the pandemic, i.e. those who choose option 1 in question 2 or option 1 in question 3, are asked why they have saved more. The reasons mainly revolve around forced or precautionary saving. However, an open answer category was offered as well. Respondents could choose more than one option.

Box 4

Question 4 (if answer to question 2 was option 1 or answer to question 3 was option 1)

I am now going to read out some reasons why your monthly savings might have increased during the pandemic. Please pick all reasons that apply to you.

1. *I have been saving more because spending was limited during the lockdowns*
2. *I decided to save more for precautionary reasons due to the pandemic*
3. *Other reasons: _____*

Our last question focuses on future saving intentions in order to provide some insights into the beliefs people in CESEE held in fall 2021.

Box 5

Question 5

Looking ahead to post-pandemic times: Do you intend to save more or less compared with what you used to save before the pandemic?

1. *Yes, I intend to save more than before*
2. *Yes, I intend to save less than before*
3. *No, I intend to save as much as before the pandemic*
4. *No, I did not have the money to save before the pandemic and am unlikely to save after the pandemic*

Note that given the questions, savings are not measured according to economic standard theory as income minus consumption and liabilities. Instead, they are purely self-reported perceptions of saving behavior. As discussed below, this might

blur the relationship between saving and income as well as education. Some people might not be aware of a change in their savings flow or might not take everything into account that should be considered as savings.

1.2 Measures for income and education

We look at saving outcomes along the income distribution. In the survey, information on both the monthly net income of the respondent and the monthly net income of the whole household is elicited. Of these two income types, we will use household income, as many people do not save on their own but together with other people in their household. Moreover, within a household, income, expenses and savings are often shared. We take the different composition of households into account by calculating the equivalized monthly net income of the household.[8] To better illustrate effects along the income distribution, we then divide the sample into income terciles, separately for each country, creating groups with low, middle and high income.[9]

Income is measured at the time of the interview on the basis of the last 12 months; it is not observed over the last few, pre-pandemic years. To get a feeling how saving behavior might be related to expected lifetime income or pre-shock income, we also look at education. Education is a useful proxy for lifetime earnings. Moreover, it is potentially a more stable measure of the general income level of a person than income itself during a shock period like the one we are looking at. Education in the 2021 survey wave was measured with individual categories in each country but was ex post harmonized using the ISCED-2011 categorization, which classifies people's education into nine levels.[10] However, as some of these levels produce very few observations, we again divide the sample into three groups: low, medium and high education.[11] It should be noted that in contrast to the income terciles, the education groups are not equally sized. In most countries, the bulk of respondents have a medium level of education.

Since nonresponse is quite common for all income figures in the OeNB Euro Survey, we use the imputed datasets Enzinger et al. (2022) constructed for their study. For the 2021 (and 2020) wave, they performed multiple imputation using chained equations to receive values for household income, the three education categories, ownership of durables and real estate as well as debt statistics whenever the values were missing in the original data. Five imputed datasets were obtained with this procedure. Following their approach, we adjust statistics presented in

[8] *Equivalized income is obtained by multiplying reported income with a household's equivalence factor. The OECD-modified scale for this factor assigns a value of 1 to the first adult, 0.5 to each additional adult and 0.3 to each child.*

[9] *We cannot use more granular income percentiles due to the power issues previously mentioned.*

[10] *0 – early childhood education, 1 – primary education, 2 – lower secondary education, 3 – upper secondary education, 4 – post-secondary non-tertiary education, 5 – short-cycle tertiary education, 6 – bachelor's or equivalent level, 7 – master's or equivalent level and 8 – doctoral or equivalent level.*

[11] *ISCED-2011 levels 0–2 were grouped into low education, levels 3 and 4 to middle education and every level from level 5 on was regarded as high education.*

our study using Rubin's rules (see Little and Rubin, 2019) if necessary.[12] However, none of our saving variables were used in the imputation procedure. This might downward bias their correlation with income as well as education (e.g. White et al., 2011).

Overall, income and education are correlated to each other but even if categorized into three broad groups, they are far from perfectly aligned. The relationship of both variables to saving behavior can reveal important heterogeneities within the population, like the shock-absorbing capacity of the household sector.

2 Results

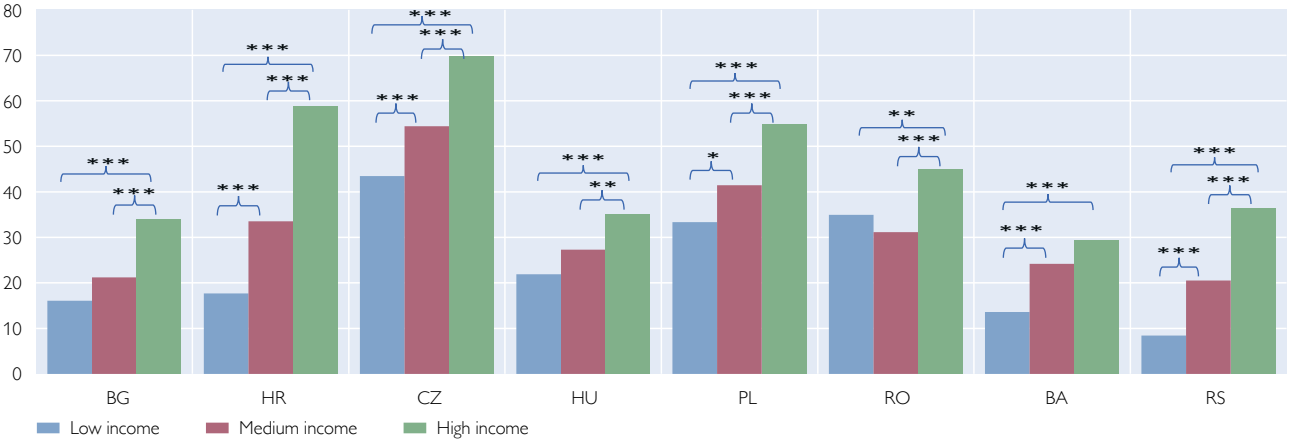
First, using question 1, we calculate the share of people who were able to save regularly before the pandemic. Persons who answered "don't know" or gave "no answer" to this question are treated as unable to save regularly prior to the pandemic.[13]

As we can see in chart 2, the share of individuals who saved regularly before the pandemic markedly increases with income in all eight countries. On average across countries, 44% of high-income respondents were regular savers, whereas the average among individuals with low income is only 22%. The difference in the share of savers with low and high income is statistically significant in all reviewed countries but least pronounced in Hungary and Romania. In Romania, the share of regular

Chart 2

Share of individuals who saved regularly before the pandemic – by income

% of individuals in the indicated income tercile



Source: OeNB Euro Survey 2021.

*Note: Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country). *** p<0.01, ** p<0.05, * p<0.1.*

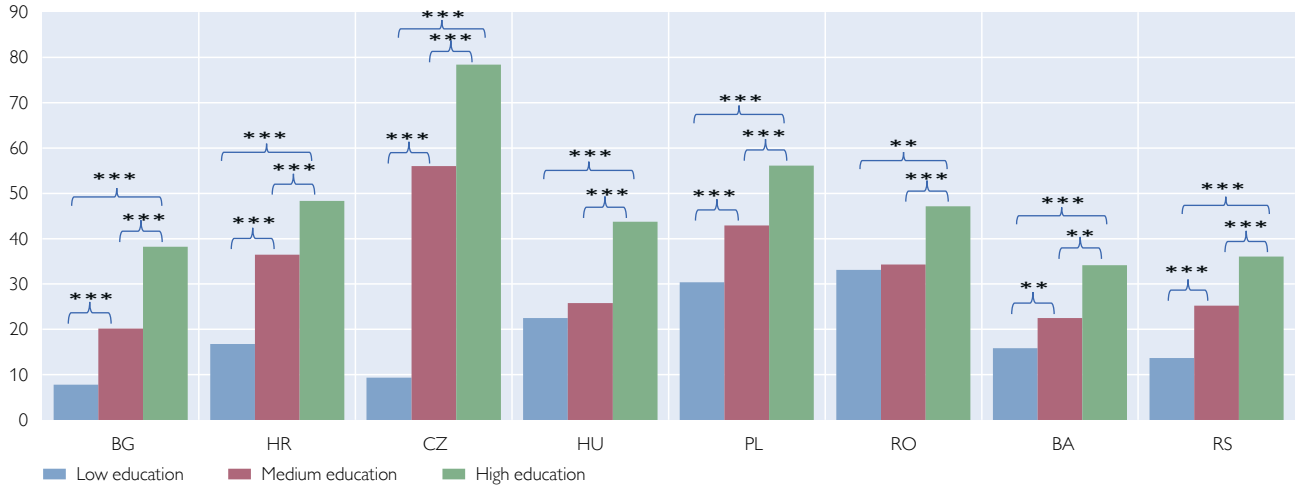
[12] *The income terciles are based on the sample at hand, not on official thresholds as in the case of education. This makes their construction nontrivial as values change from dataset to dataset. Therefore, we calculated the threshold values for the income terciles not separately for each dataset but across all imputed datasets. This means that for each country and across all datasets, there is a common value below which a respondent is classified as "low income" or as "middle income."*

[13] *Alternatively, treating these cases either as being able to save regularly or completely excluding them does not change our results tremendously. The largest differences can be observed in countries with relatively high nonresponse rates, i.e. Bulgaria, Poland and Bosnia and Herzegovina. The share of savers increases marginally, if at all, when excluding nonresponse cases. It naturally increases more if the cases are treated as being savers. Still, significance levels are very similar under all three approaches.*

Chart 3

Share of individuals who saved regularly before the pandemic – by education

% of individuals in the indicated education group



Source: OeNB Euro Survey 2021.

*Note: Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country). *** p<0.01, ** p<0.05, * p<0.1.*

savers is smaller for medium-income households than for low-income respondents, albeit not significantly so. Overall, in all countries except Bulgaria, Hungary and Romania, the share of low-income respondents who saved regularly is even significantly smaller than the share of medium-income respondents who saved regularly. For education, which serves as a proxy for lifetime income, similar patterns can be observed (see chart 3). On average, around 43% of highly educated people and only 19% of people with low education levels indicated that they saved regularly prior to the pandemic. Again, the gap differs across countries but the positive correlation between education and saving ability is present in every country.

So how did the savings flow change during the pandemic? We analyze this issue by looking at questions 2 and 3. What can already be inferred from charts 2 and 3 is that more individuals answered question 3 than question 2: Except in Czechia and Poland, in every country there are more people who did not regularly save before the pandemic than people who did.[14] This ratio did not change in favor of regular saving through the first 18 months of the pandemic. Rather, saving ability decreased across all income and education groups after the onset of the pandemic. Many more individuals reported to have been saving less rather than saving more compared to pre-pandemic times. For some income and education groups, *saving less than before* was the most frequently chosen answer to question 2 (top panels of charts 4 and 5). Similarly, the vast majority of people who did not save prior to the pandemic – who answered question 3 – did not start to save after the onset of the pandemic (bottom panels of charts 4 and 5). Of all respondents, only around 8% reported either having saved more or having started to save (see also pie chart in chart 6) whereas 11% reported having saved less. Only in Croatia and Czechia did

[14] *See also Koch and Scheiber (2022), who use data from 2019 directly, and come to the same conclusion.*

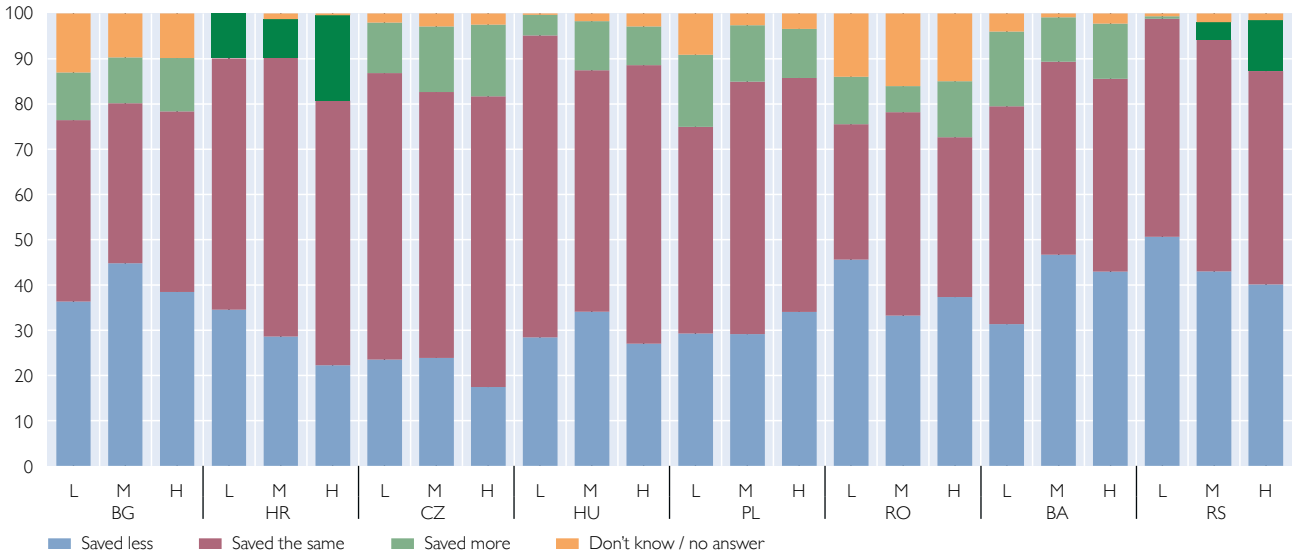
those who saved more make up for those who saved less, at least on the extensive margin.

Chart 4

Changes in saving behavior after the onset of the pandemic – by income

Change in saving behavior among those who answered "yes" to question 1

% of individuals in the indicated income tercile: low (L), medium (M) and high (H) income



Change in saving behavior among those who answered "no" to question 1

% of individuals in the indicated income tercile: low (L), medium (M) and high (H) income

Source: OeNB Euro Survey 2021.

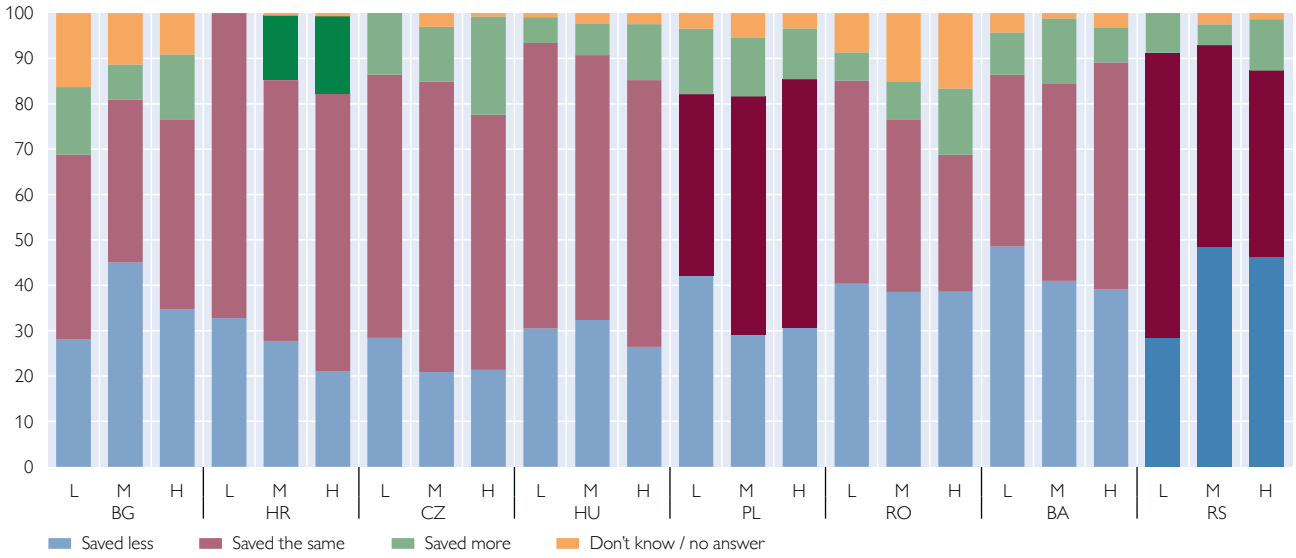
Note: The top panel is based on question 2. "Saved less" combines response options 2 and 4, "saved the same" corresponds to option 3 and "saved more" to option 1. Darker bars indicate that the difference between low/middle and high income is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country).
The bottom panel is based on question 3. "Did not start to save" corresponds to response option 2 and "started to save" corresponds to option 1. Darker bars indicate that the difference between low/middle and high income is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country).

Chart 5

Changes in saving behavior after the onset of the pandemic – by education

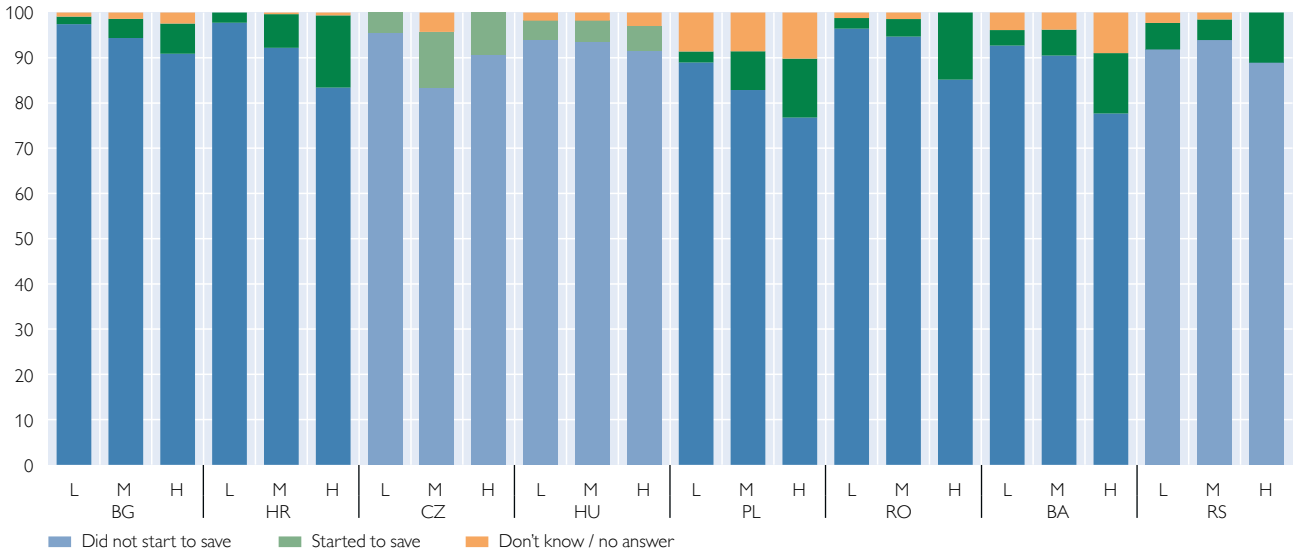
Change in saving behavior among those who answered "yes" to question 1

% of individuals in the indicated education group: low (L), medium (M) and high (H) education



Change in saving behavior among those who answered "no" to question 1

% of individuals in the indicated education group: low (L), medium (M) and high (H) education



Source: OeNB Euro Survey 2021.

Note: The top panel is based on question 2. "Saved less" combines response options 2 and 4, "saved the same" corresponds to option 3 and "saved more" to option 1. Darker bars indicate that the difference between low/middle and high education is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country).
The bottom panel is based on question 3. "Did not start to save" corresponds to response option 2 and "started to save" corresponds to option 1. Darker bars indicate that the difference between low/middle and high education is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census populations statistics for age, gender, region and, where available, education and ethnicity (separately for each country).

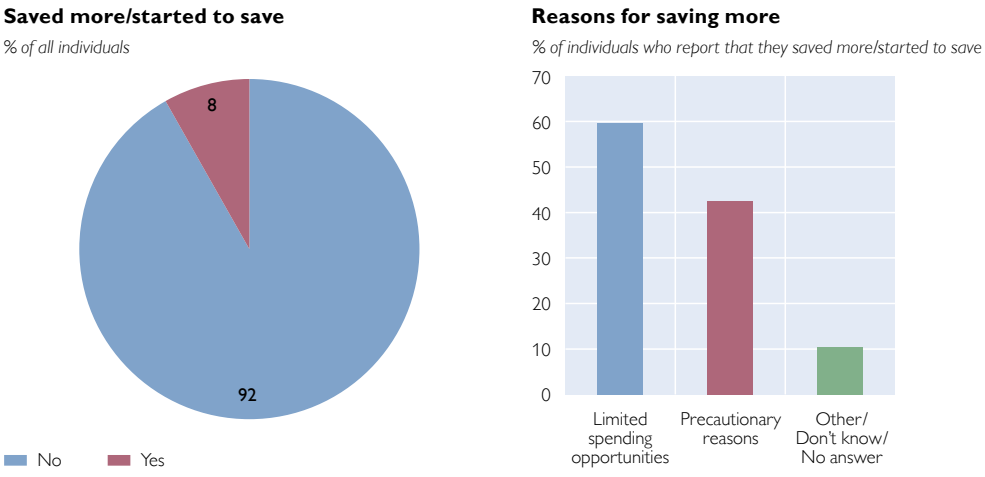
Income and education effects are more ambiguous than those seen in question 1. In some countries, the share of high-income savers who answered that they have been saving less was lower than the share of low-income savers who gave that answer. But in some countries, it seems to be the other way around. In any case, differences in both directions are often small and power can be worryingly low. For former nonsavers, differences in education and income seem to point in the direction that the share of high-income and high-education respondents who began saving after the onset of the pandemic is larger than the share of low-income and low-education respondents who began to save. However, on average, only 6% of the nonsavers stated explicitly that they had begun saving. The small share of new savers in most countries makes comparison across income and education groups noisy and less reliable.

Still, across all countries, the data show that the likelihood to save more than before the pandemic slightly increases with income and education. Among savers with high income, the average share of those who have been saving more since the start of the pandemic is about 14%, among nonsavers with high income, the average share is about 9%. For low-income respondents, the shares amount to 10% and 4%, respectively. The numbers are comparable to the results related to education. However, at the country level, differences are mostly not significant because sample sizes get very small and differences, in the end, are not that large. Thus, it is hard to tell from our data if regular saving has increased more in the affluent part of the population because we hardly see an increase in saving at all. Much more often, the savings flow stayed the same or decreased across all population groups.

Eventually, one further possible aspect should be considered. It is possible that respondents simply do not realize that they have saved more since the start of the pandemic. Given the nature of the pandemic shock, some additional savings are

Chart 6

Only few started to save more after the onset of the pandemic



Source: OeNB Euro Survey 2021.

Note: The multiple-choice question underlying the right-hand panel reads as follows: "I am now going to read out some reasons why your monthly savings might have increased during the pandemic. Please pick all reasons that apply to you." "Other" was an open answer option. Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separatly for each country). Results not weighted by country size.

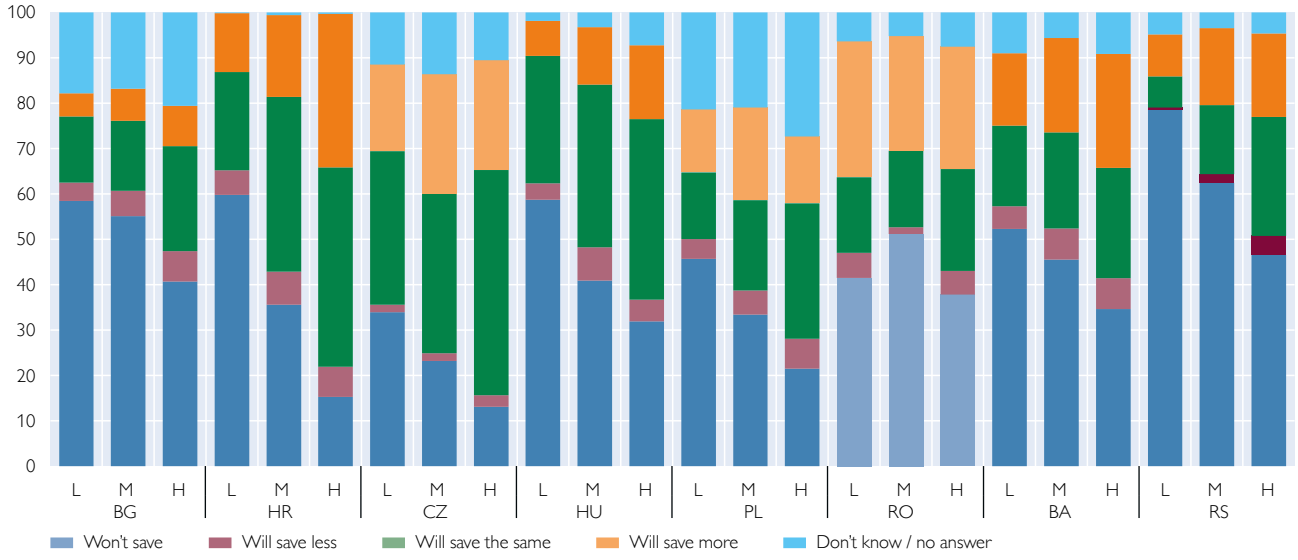
believed to be involuntary or forced savings. Lockdown policies, traveling restrictions and reduced social interactions all limited consumption opportunities. This may have led to an automatic increase in saving that may have gone unnoticed by some households. We find that forced saving is indeed an important motive, at least among those who noticed increased saving, i.e. the few who reported having saved more. On average, around 60% of this minority reported limited spending opportunities as one of the reasons why they saved more after the onset of the pandemic (chart 6). Over the whole sample, the share of high-income savers who mentioned forced saving as a motive is significantly larger than the share of low-income savers (66% versus 56%). Precautionary saving motives are frequently mentioned as well. Here, we do not find significant differences between high- and low-income savers. Results for low- and high-education groups are very similar.[15] Again, it has to be stressed that sample size for these results is low but still these results could be an indication that forced saving plays a crucial role.

Looking ahead, we additionally included a question regarding saving intentions after the pandemic (see charts 7 and 8). These intentions reveal considerable heterogeneities along the income and education distributions. For instance, the share of people reporting they will not save because they lack money decreases drastically with higher income and education levels. More precisely, the share for the groups with a high level of income and education who report lacking money averages 31% and 33% across countries. For low-income individuals, on average,

Chart 7

Saving intentions after the pandemic – by income

% of individuals in the indicated income tercile: low (L), medium (M) and high (H) income



Source: OeNB Euro Survey 2021.

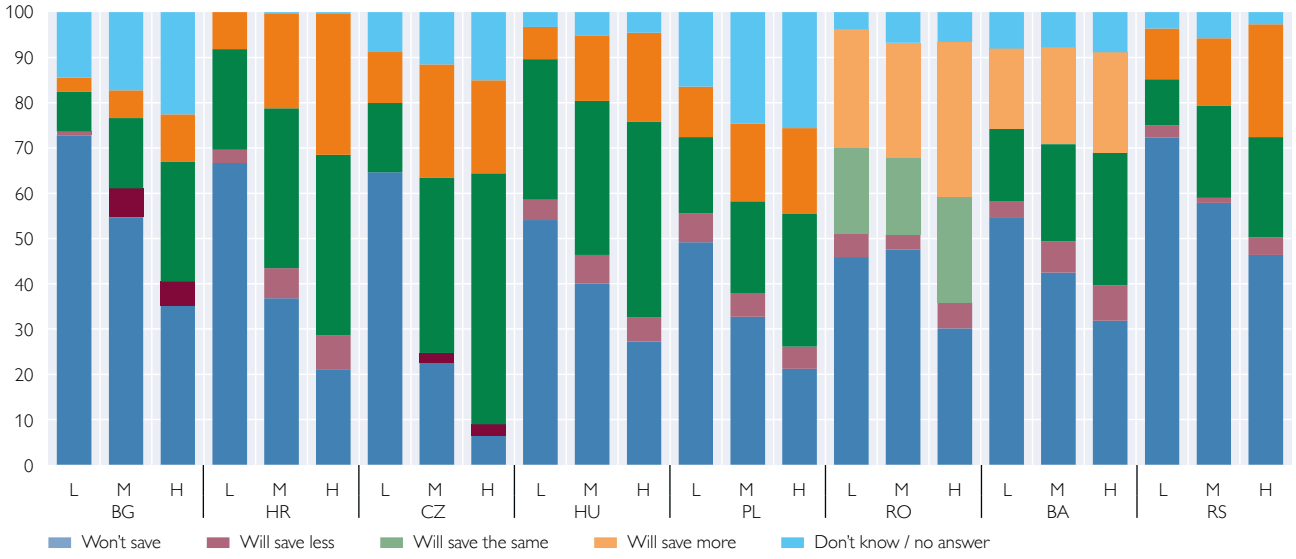
Note: Based on question 4. "Won't save" corresponds to response option 4, "will save less" corresponds to option 2, "will save the same" corresponds to option 3 and "will save more" corresponds to option 1. Darker bars indicate that the difference between low/medium and high income is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country).

[15] *The most frequently mentioned „other reasons" for higher saving have been higher income.*

Chart 8

Saving intentions after the pandemic – by education

% of individuals in the indicated education group: low (L), medium (M) and high (H) education



Source: OeNB Euro Survey 2021.

Note: Based on question 4. "Won't save" corresponds to response option 4, "will save less" corresponds to option 2, "will save the same" corresponds to option 3 and "will save more" corresponds to option 1. Darker bars indicate that the difference between low/middle and high education is significant for that answer category (excluding don't know/no answer). Weighted averages based on datasets for which education, income, debt statistics and asset ownership were imputed. Weights are calibrated on census population statistics for age, gender, region and, where available, education and ethnicity (separately for each country).

57% indicated they will be unable to save. For individuals with a low level of formal education, that share is even higher with 60%. Similarly, the share of high-income and high-education respondents who plan to save more is larger than among persons with low income and a low level of education. The difference for the income tercile is significant in all countries except Czechia, Poland and Romania. As common for survey items dealing with expectations, the share of nonresponse is relatively large for future saving intentions. Nevertheless, the results point to persistent inequality in saving ability.

3 Conclusion

Descriptive results based on the 2021 wave of the OeNB Euro Survey show that the observed increase in aggregate savings associated with the pandemic is unequally distributed across CESEE citizens. Only 8% of individuals in the covered eight CESEE countries were able to save more during the first one and a half years of the pandemic. Yet, most of the individuals who were able to save prior to the pandemic reported that they continued to save after the onset of the pandemic, while some were forced to save less. Among those who did not save before, only a few started to save during the pandemic – mostly individuals from high-income households. In general, the likelihood to save more than prior to the pandemic slightly increases with income and education, which is a proxy for lifetime income. These results point to a persistent inequality in saving ability also during the pandemic in the CESEE region. However, due to the low number of new savers per country, detecting significant differences suffers from low power at the country level.

Moreover, across the region, forced saving was significantly more often cited as a motive by high-income savers than by low-income savers. Precautionary motives are mentioned frequently as well, but with no significant differences across income groups. Referring to planned saving after the pandemic, particularly individuals from the highest income tercile expect to increase their saving in the future. Whether this indicates a presumably persistent higher demand for precautionary saving in the future as historic examples would suggest (Jordà et al., 2022) remains open.

References

Adams-Prassl, A., T. Boneva, M. Golin and C. Rauh. 2020. Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys. In: Journal of Public Economics 189, 104245.

Adema, Y. and L. Pozzi. 2015. Business cycle fluctuations and household saving in OECD countries: A panel data analysis. In: European Economic Review 79. 214–233.

Aizenman, J., E. Cavallo and I. Noy. 2015. Precautionary Strategies and Household Saving. In: Open Economy Review 26. 911–939.

Almeida, V., S. Barrios, M. Christl, S. De Poli, A. Tumino and W. van der Wielen. 2021. The impact of COVID-19 on households' income in the EU. In: The Journal of Economic Inequality 19. 413–431.

Alstadsæter, A., B. Bratsberg, G. Eielsen, W. Kopczuk, S. Markussen, O. Raaum and K. Røed. 2020. The first weeks of the Coronavirus crisis: Who got hit, when and why? Evidence from Norway. In: Covid Economics 15. 63–87.

Astrov, V., A. Bykova, R. Dobrinsky, S. Duraković, R. Grieveson, D. Hanzl-Weiss, G. Hunya, B. Jovanović, N. Korpar, S. Leitner, I. Mara, O. Pindyuk, L. Podkaminer, S. Richter, B. C. Ströhm and M. Tverdostup. 2021. Recovery beating expectations. wiiw Forecast Report No. Autumn 2021. The Vienna Institute for International Economic Studies.

Banco de Portugal. 2020. Propensity to consume in Portugal and the euro area: an analysis with survey data. In: Economic Bulletin, Banco de Portugal, May 2020.

Basselier, R. and G. Minne. 2021. Household savings during and after the COVID-19 crisis: Lessons from surveys. In: NBB Economic Review 3. 60–78.

Blundell, R., M. Costa Dias, R. Joyce and X. Xu. 2020. COVID-19 and Inequalities. In: Fiscal Studies 41(2). 291–319.

Bryne, S., A. Hopkins, T. McIndoe-Calder and M. Sherman. 2020. The impact of Covid-19 on consumer spending. In: Economic Letter 2020(15). Central Bank of Ireland.

Bundervoet, T., M. Dávalos and N. Garcia. 2022. The short-term impacts of COVID-19 on households in developing countries: An overview based on a harmonized dataset of high-frequency surveys. In: World Development 153. 105844.

Dang, H.-A. and C. V. Nguyen. 2021. Gender inequality during the COVID-19 pandemic: Income, expenditure, savings, and job loss. World Development 140, 105296.

Dossche, M. and S. Zalatnos. 2020. COVID-19 and the increase in household savings: precautionary or forced? In: ECB Economic Bulletin.

Enzinger, M., M. Koch and A. Riedl. 2022. Financial vulnerabilities of CESEE borrowers and their debt at risk: a cross-country analysis. In: Financial Stability Report 44. OeNB. 25–44.

European Commission. 2021. European Economic Forecast, Autumn 2021. In: Institutional paper 160.

Guglielminetti, E. and C. Rondinelli. 2021. Consumption and saving patterns in Italy during Covid-19. In: Bank of Italy Occasional Paper 620.

Hacioglu-Hoke, S., D. Känzig and P. Surico. 2021. The distributional impact of the pandemic. In: European Economic Review 134 (103680).

Jordà, O., S. R. Singh and A. M. Taylor. 2022. Longer-run economic consequences of pandemics. In: The Review of Economics and Statistics 104(1). 166–175.

Kartashova, K. and X. Zhou. 2021. Wealth inequality and return heterogeneity during the COVID-19 pandemic. Federal Reserve Bank of Dallas Working Paper 2114.

Koch, M. and T. Scheiber. 2022. Household savings in CESEE: expectations, experiences and common predictors. In: Focus on European Economic Integration Q1/22. OeNB. 29–54.

Little, R. J. and D. B. Rubin. 2019. Statistical analysis with missing data. In: John Wiley & Sons. Volume 793.

MacGee, J., T. M. Pugh and K. See. 2022. The heterogeneous effects of COVID-19 on Canadian household consumption, debt and savings. In: Canadian Journal of Economics / Revue canadienne d'economique 55(S1). 54–87.

Pozzi, L. and B. Sabada. 2022. Macroeconomic disasters and consumption smoothing. In: Tinbergen Institute Discussion Paper 2021-030/VI.

Scheiber, T. and M. Koch. 2022. Mitigating the impact of the pandemic on personal finances in CESEE: descriptive evidence for 2020. In: Focus on European Economic Integration Q2/22. OeNB. 63–96.

Tamborini, C. R., C. Kim and A. Sakamoto. 2015. Education and Lifetime Earnings in the United States. In: Demography 52(4). 1383–1407.

White, I. R., P. Royston and A.M. Wood. 2011. Multiple imputation using chained equations: Issues and guidance for practice. In: Statistics in Medicine 30, 377–399.

Wildman, J. 2021. COVID-19 and income inequality in OECD countries. In: The European Journal of Health Economics 22. 455–462.