European Commission

SCIENCE FOR POLICY BRIEFS

Households´ income and the cushioning effect of fiscal policy measures in the Great Lockdown

Headlines

- Simulations based on the EUROMOD model show that households´disposable income would fall by 5.9% on average in the EU in 2020 compared to 2019, as a result of the COVID-19 pandemic and in absence of policy response. We also find that policy interventions would susbtantially cushion this fall, limiting it to -3.6%.
- The impact of the Great Lockdown is likely to be highly regressive, with the poorest households being the most severely hit. However, discretionary policy measures are found to contain the regressive effects of the recession, resulting in a quite balanced impact along the income distribution.
- Poverty, measured by the at risk of poverty rate (AROP), would increase by 1.8pp on average in the EU. By comparison, the AROP increased by 0.1pp between 2008 and 2009 as a result of the financial crisis.
- Automatic stabilisers i.e., the automatic fall in taxes and increases in social benefits resulting from the adverse shock in market incomes, would absorb on average 49% of the COVID-19 shock. This proportion would be significanlty larger in countries with progressive tax systems and generous social benefits.

The social consequences of the Great Lockdown

Preliminary indicators on job destruction and unemployment benefit claims across EU countries suggest that the impact of the COVID-19 pandemic on households is likely to be exceptionally high. The consequences of the COVID-19 crisis on households´ income in particular, although unknown yet, raise serious concerns. Policy interventions aimed at protecting those most directly hit by the crisis through discretionary policies (e.g., income subsidies or tax rebates), or automatic stabilisers (e.g., unemployment benefits or lower taxes paid as a result of job loss and/or decrease in market incomes), could partly reduce the toll on household income and consumption. This Brief provides an assessment on the potential impact of policy measures adopted in the wake of the COVID-19 crisis on household income, poverty and inequality in the EU in 2020 compared to 2019. We focus on discretionary fiscal policies dealing for instance, with support to workers´income (e.g. short-term working schemes, STW), direct support to self-employed and other changes in tax and social policy measures taken to cushion the effect of the Great Lockdown on households´income. We take into account the Commission Spring 2020 forecasts and construct a counterfactual no policy-change scenario based on estimates for the budgetary impact of policy measures (based on information from the Stability and convergence programmes) together with estimates on spending and revenue multipliers taken from the literature. We use the microsimulation model EUROMOD (https://www.euromod.ac.uk/), to simulate the impact of aggregate employment changes on households' incomes and apply a reweighting approach to mimic the aggregate (un)employment and wages figures in each scenario in the EU-SILC data used by EUROMOD (a full description of our approach will be provided in a forthcoming JRC Technical Report).

Impact on household income, inequality and poverty.

Figure 1 provides results on the impact of COVID-19 on households´ equivalised disposable income by income decile in the EU according to the two scenarios described previously. On average, household income would fall by 5.9% due to the impact of COVID-19 (without policy measures), while policy intervention reduces this impact to -3.6% . The COVID pandemic would therefore affect households disproportionally, affecting the poorest households much

Figure 1: The impact of COVID-19 on household disposable income
% change by income decile

Note: The impact of COVID-19 concerns 2020 (source: EUROMOD simulation) and is estimated using household net disposable income by income decile.

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more severely, although all households deciles would potentially experiment a fall in their disposable income. Looking at the policy change scenario, we can see that the measures taken by governments lead to a reduction of the regressive effect, resulting in a quite stable impact (of about -4%) all along the income distribution. This highlights that policy measures to counteract the regressive effect of the COVID crises are likely to work quite well. Figure 2 provides a synthetic view on the impact of the COVID crisis on income

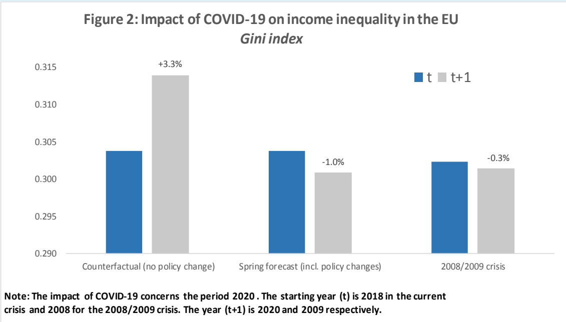

Figure 2: Impact of COVID-19 on income inequality in the EU

Note: The impact of COVID-19 concerns the period 2020. The starting year (t) is 2018 in the current crisis and 2008 for the 2008/2009 crisis. The year (t+1) is 2020 and 2009 respectively.

inequality by reporting the Gini index, for each of the two simulated scenarios, and comparing these results with the impact of the 2008/2009 financial crisis. This figure shows that the Great lockdown would trigger a substantial rise in inequality (+3.3%). Policy measures, however, would reduce inequalities by 1%. By comparison, the 2008/2009 crisis led to very small changes in income inequality in the EU, and was actually even followed by a small decrease in income inequality (-0.3%, sources: Eurostat and authors´ calculations). Figure 3 provides evidence on the potential impact of the COVID-19 crisis on poverty, measured by the At risk of Poverty (AROP) rate (using the 60% of median income as threshold), and compares the simulated effect of the COVID crisis with the 2008/2009 crisis. According to these results, the AROP rate would increase significantly due to the Great Lockdown, moving from 16.8% (2018 data, source: EUROSTAT) on average in the EU, up to 21.4% (no policy change). This increase would be much less pronounced, from 16.8% to 18.6%, when accounting for policy measures. By comparison, the 2008/2009 crisis implied much lower increases in the AROP rate, from 16.2 to 16.3%. It follows that the current crisis is likely to have greater social impact than the 2008/2009 crisis, at least in the short-run.

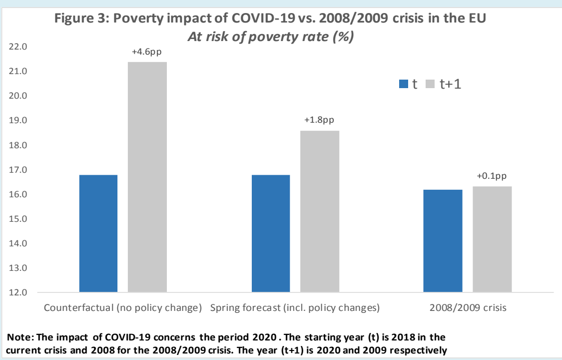

Figure 3: Poverty impact of COVID-19 vs. 2008/2009 crisis in the EU

Note: The impact of COVID-19 concerns the period 2020. The starting year (t) is 2018 in the current crisis and 2008 for the 2008/2009 crisis. The year (t+1) is 2020 and 2009 respectively

Income stabilisation after COVID-19

The change in households´ disposable income resulting from the impact of COVID-19 on economic activity, employment and wages, is likely to be absorbed, at least partly, through automatic stabilisers. Taxes tend to increase during expansions and to decrease during recessions, the opposite happens for some social benefits, in particular unemployment benefits. Therefore, the tax and social benefits systems tend to smooth fluctuations in households´ income "automatically" (i.e., without government intervention) and, thereby, tend to attenuate variations in households´ consumption. The EUROMOD model can be used to measure the degree of automatic stabilisation due to personal income tax, social security contributions and social benefits, as a result of the COVID crisis. Following Dolls et al. (2012)[1], this indicator can be calculated as the percentage variation in market income resulting from COVID-19 which could be "absorbed", given the structure of the tax and social benefits system in place in the Member States as of 2019.[2] Table 1 suggests that, on average in the EU, the tax and social benefits system could absorb 49% of the reduction in households' income caused by the COVID-19 crisis. Countries with progressive tax systems

Table 1: Automatic stabilisation of households´ income following the COVID-19 crisis

	(1) All households	*(2) Low-income households*	*(2) -(1)*
EU average	49%	51%	1%
Top-3			
Netherlands	64%	65%	1%
Belgium	63%	72%	9%
Denmark	62%	77%	15%
Bottom-3			
Bulgaria	27%	30%	3%
Estonia	34%	35%	1%
Greece	36%	40%	4%

and/or generous social benefit systems such as the Netherlands, Belgium or Denmark display a much higher degree of automatic stabilisation. Other countries where such features are less prominent, such as Bulgaria, Estonia or Greece display the lowest automatic stabilisation properties. The differences observed for the entire population are also evident when considering the poorest households (Column 2).

Overall the evidence provided in this Brief suggests that policy interventions will help containing the impact of the crisis on households in the EU. However, despite this, the Great Lockdown is likely to lead to unprecedented income losses, affecting in particular the most vulnerable strands of the population.

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[1] See Dolls, M., Fuest, C., & Peichl, A. (2012). Automatic stabilizers and economic crisis: US vs. Europe. *Journal of Public Economics*, 96(3-4), 279-294.

[2] STWs and monetary compensation can be considered as discretionary policy measures in most EU countries (since these were reformed or implemented because of the COVID crisis) and treated as market incomes in the calculations reported here.