Unequal scars – distributional consequences of the pandemic

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*This is a slightly amended version of a presentation given at the Deutscher Juristentag on 18 September 2020.

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Large differences in evolution of COVID-19 cases

Total number of COVID-19 infections worldwide (per million inhabitants)

Source: Bloomberg.
Note: Counts are subject to change as governments survey and confirm cases. Data are based on reported infection numbers as of midnight EST at each date. Sources also include Johns Hopkins University, World Health Organization, DXY, NHC, BNO News, China CDC, European CDC, US CDC, Italy Ministry of Health, Hong Kong Department of Health, Macau Government, Taiwan CDC, Government of Canada, Australia Government Department of Health, and Ministry of Health Singapore. Latest observation: 3 November 2020.

Total number of COVID-19 infections in Europe (per million inhabitants)

Source: Bloomberg.
Note: Total case numbers based on a 7-day moving average. Counts are subject to change as governments survey and confirm cases. Data are based on reported values as of midnight EST at each date. Based on population data as of 3 September 2020. Sources include Johns Hopkins University, World Health Organization, DXY, NHC, BNO News, European CDC, Italy Ministry of Health. Latest observation: 3 November 2020.
Sharp decline in economic activity with substantial heterogeneity

Real Gross Domestic Product (GDP): euro area (index: 2019Q4 = 100)

Source: ECB (Macroeconomic Projection Exercise, September 2020).
Note: The grey area indicates the range of ECB staff projections that cover the different pandemic scenarios included in the Macroeconomic Projection Exercise.

Annual growth rate of real GDP: Germany, France, Italy, Spain (percent)

Differences in economic growth due to lockdown measures and structural factors

Stringency of national crisis measures vs. projection of real GDP growth rate in 2020 (index, percent)

Travel exports as a share of total services exports vs. projection of real GDP growth rate in 2020 (percent)

Note: The Oxford Stringency Index defines the stringency of national crisis measures between 0 (no restrictions) and 100 (maximum level of restrictions).

Fiscal measures cushion pandemic crisis

Share of employees in lockdown sectors (percent)

Unemployment rate and share of workers in job retention schemes (percent)

Source: Eurostat; Bundesagentur für Arbeit and Ifo Institute Munich; Ministère du Travail, de L’Emploi et de L’Insertion; INPS; Ministerio de Inclusión, Seguridad Social y Migraciones, and ECB staff computations.

Latest observation: September 2020 for the unemployment rate; September 2020 for the various job retention schemes (ERTE in Spain, Kurzarbeit in Germany, Activité Partielle in France and Cassa Integrazione in Italy).


Note: The chart shows the distribution of the share of employees in lockdown sectors across 6 largest euro area countries. Lockdown sectors are: wholesale and retail trade, repair of motor vehicles and motorcycles; transporting and storage; accommodation and food service activities; arts, entertainment and recreation (sectors G, H, I and R in the Statistical Classification of Economic Activities in the European Community (NACE) classification).
Fiscal space limits fiscal response

Public debt in the euro area in 2019 vs. projection for 2021 (percent of GDP)

Projection of real GDP growth rate in 2020 and fiscal stimulus (percent)


Note: Real GDP growth estimates and fiscal stimulus estimates are based on data published by the European Commission (Autumn Economic Forecast, November 2020). Fiscal stimulus is calculated as the change in the primary deficit, adjusted for cyclical effects.
Monetary policy response prevents financial crisis and reduces risk of fragmentation

Indicator for systemic stress in financial markets (CISS) (index)

10-year yield spreads of selected government bonds over German equivalents (basis points)

Note: CISS denotes the Composite Indicator of Systemic Stress (0 = No stress, 1 = High stress). The indicator aggregates stress signals from money, bond, equity and foreign exchange markets.

Source: Bloomberg.
Latest observation: 3 November 2020.
Heterogeneous impact of crisis across the income distribution

Share of employees in lockdown sectors by income quintiles (percent)

<table>
<thead>
<tr>
<th>Income Quintile</th>
<th>Share of Employees in Lockdown Sectors</th>
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</thead>
<tbody>
<tr>
<td>0-20</td>
<td>45%</td>
</tr>
<tr>
<td>20-40</td>
<td>40%</td>
</tr>
<tr>
<td>40-60</td>
<td>35%</td>
</tr>
<tr>
<td>60-80</td>
<td>30%</td>
</tr>
<tr>
<td>80-100</td>
<td>25%</td>
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</tbody>
</table>

Note: The chart shows the distribution of the share of employees in lockdown sectors across quintiles of the income distribution in the euro area.

Categories of spending and savings by income quintiles (euro)

- **Saving**
- **Spending restricted by lockdown**
- **Postponable spending**
- **Unaffected spending (necessities)**

Source: Household Budget Survey.
Note: The chart shows the structure of household expenditures (spending) and saving across income quintiles. Blue bars denote necessities, items unaffected by lockdown, such as food at home, housing and utilities, health items, communications and education. Yellow bars denote items restricted by the lockdown, such as food in restaurants, transport services, holidays, hotels and cultural services. Red bars denote postponable spending items, such as purchases of motor vehicles, clothing and footwear, and furnishings and furniture. Green bars show household saving. The chart shows an aggregate of Germany, Spain and France.
Level of education dampens effect of lockdown measures, home schooling exacerbates differences in educational outcomes

Share of workers with tertiary education vs. share of working hours in home office (percent)

Students’ performance by estimated household income in the United States (index)

Source: von Gaudecker et al. (2020), Longitudinal Internet Studies for the Social Sciences (LISS), CentERdata/Tilburg University.
Note: Data refer to survey results obtained in the Netherlands between 20 March and 31 March 2020. Response rate: 80% (5,544 individuals).

Note: Average number of students using Zearn math teaching program (in a week) relative to January 6–February 7, 2020. The lines show ZIP codes in bottom 25% of income [low], 25%-75% [middle] and above 75% [high]. A similar chart was published by The Economist on 27 July 2020.
Younger employees and women particularly affected by lockdown measures

Share of employees in lockdown sectors by age and gender (percent)

Labour supply during recessions by gender (ratio of labour hours supplied by women vs. men, quarters since start of recession)

Note: The chart shows the distribution of the share of employees in lockdown sectors across age and gender.

Source: Alon, Doepke, Olmstead-Rumsey and Tertilt (2020).
Note: Chart is based on Figure 4 in the latest available paper draft (August 2020).
Thank you very much for your attention!