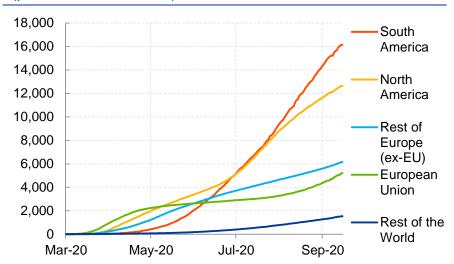


Unequal scars – distributional consequences of the pandemic

Deutscher Juristentag, 18 September 2020

Large differences in evolution of COVID-19 cases

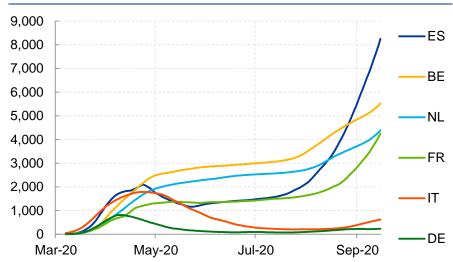
Total number of COVID-19 infections worldwide (per million inhabitants)



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.

Number of active COVID-19 infections in Europe (per million inhabitants)



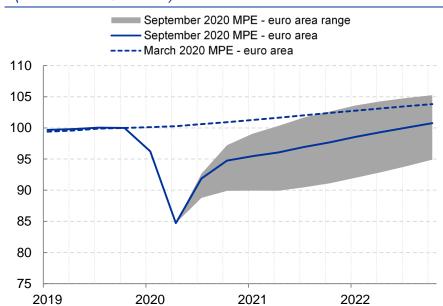
Source: Bloomberg.

Note: Active 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.

Sharp decline in economic activity with substantial heterogeneity

Real Gross Domestic Product (GDP): euro area

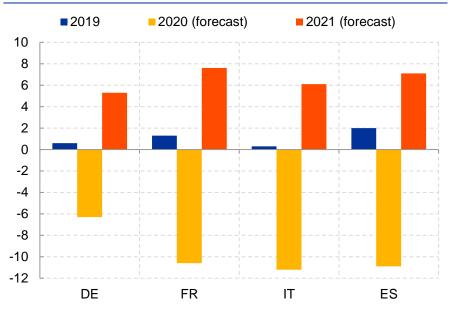
(index: 2019Q4 = 100)



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.

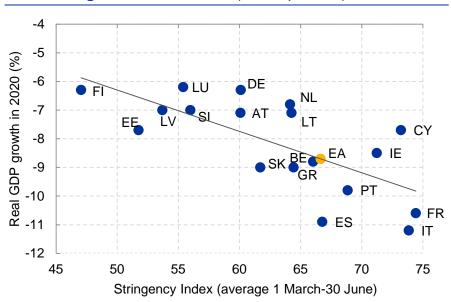
Annual growth rate of real GDP: Germany, France, Italy, Spain (percent)



Source: European Commission (Summer Economic Forecast, July 2020).

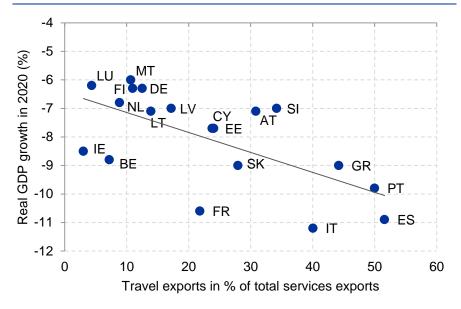
Differences in economic growth due to lockdown measures and structural factors

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



Source: European Commission (Summer Economic Forecast, July 2020), University of Oxford. Note: The Oxford Stringency Index defines the stringency of national crisis measures between 0 (no restrictions) and 100 (maximum level of restrictions).

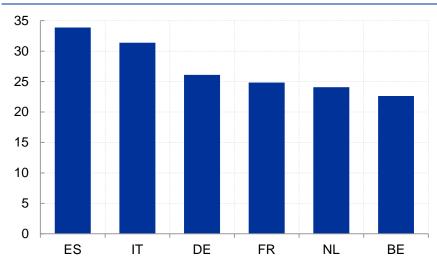
Travel exports as a share of total services exports vs. projection of real GDP growth rate in 2020 (percent)



Source: European Commission (Summer Economic Forecast, July 2020), Eurostat Balance of Payments.

Fiscal measures cushion pandemic crisis

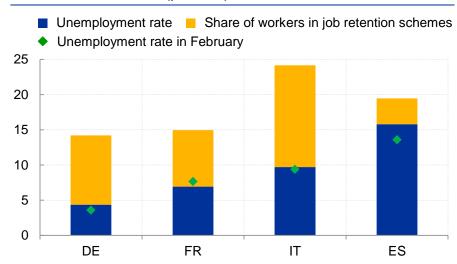
Share of employees in lockdown sectors *(percent)*



Source: EU Statistics on Income and Living Conditions (EU-SILC), 2018.

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).

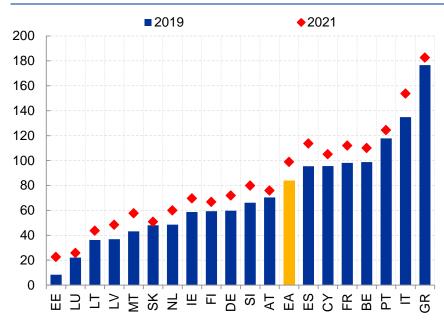
Unemployment rate and share of workers in job retention schemes (percent)



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: July 2020 for the unemployment rate; July 2020 for the number of workers in *ERTE* in Spain; June 2020 for the number of workers in *Kurzarbeit* in Germany and *Activité Partielle* in France; May 2020 for the number of workers in *Cassa Integrazione* in Italy.

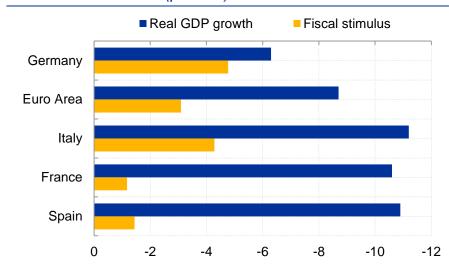
Fiscal space limits fiscal response

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



Source: European Commission (Spring Economic Forecast, May 2020).

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

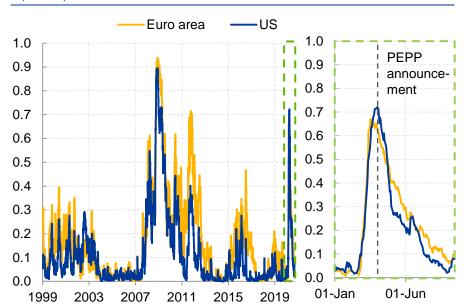


Source: European Commission (Ameco).

Note: Real GDP growth estimates are based on data published by the European Commission (Summer Economic Forecast, July 2020). Fiscal stimulus estimates are based on data published by the European Commission (Spring Economic Forecast, May 2020), the most recent harmonised projection. These estimates therefore do not include the latest announcements of fiscal support measures. 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)



Source: ECB Working Paper No. 1426.

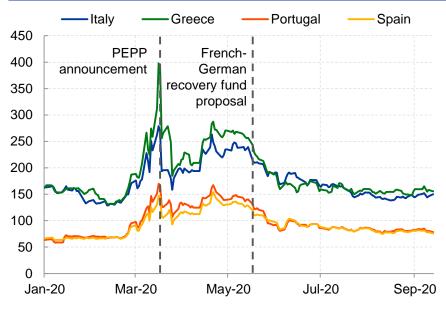
Note: CISS denotes the Composite Indicator of Systemic Stress (0 = No stress,1 = High stress). The

indicator aggregates stress signals from money, bond, equity and foreign exchange markets.

Latest observation: 14 September 2020.

10-year yield spreads of selected government bonds

over German equivalents (basis points)

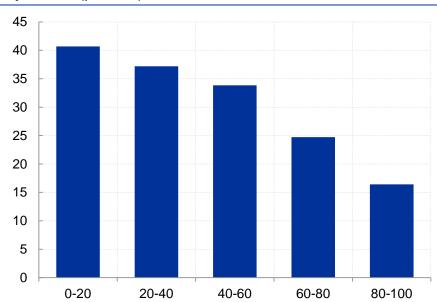


Source: Bloomberg.

Latest observation: 16 September 2020.

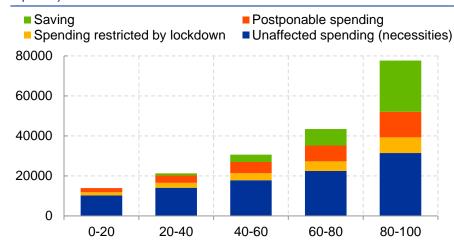
Heterogeneous impact of crisis across the income distribution

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



Source: EU Statistics on Income and Living Conditions (EU-SILC), 2018; Ireland and Slovakia 2017. 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)

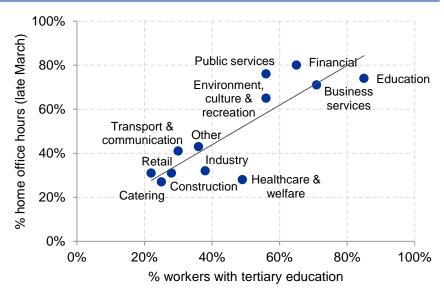


Source: Household Budget Survey.

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

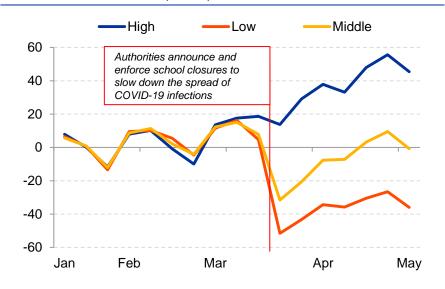
Share of workers with tertiary education vs. share of working hours in home office (percent)



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).

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

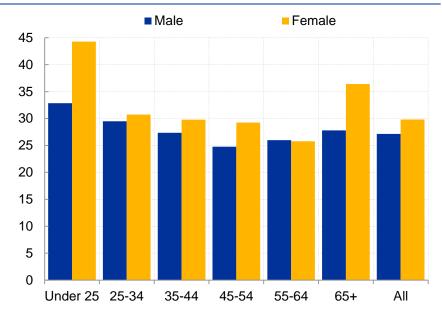


Source: Zearn, Inc., Opportunity Insights.

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

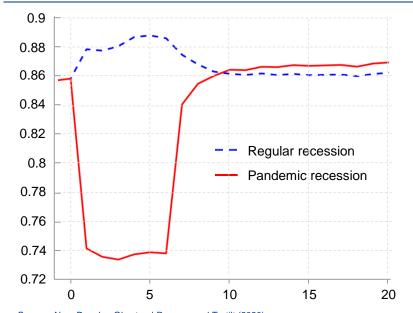
Share of employees in lockdown sectors by age and gender (percent)



Source: EU Statistics on Income and Living Conditions (EU-SILC), 2018; Ireland and Slovakia 2017. Note: The chart shows the distribution of the share of employees in lockdown sectors across age and gender.

Labour supply during recessions by gender

(ratio of labour hours supplied by women vs. men, quarters since start of recession)



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!