Building a smart and green Europe in the COVID-19 era

Chapter 1

The macroeconomic environment
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About the Report
The EIB annual report on Investment and Investment Finance is a product of the EIB Economics Department, providing a comprehensive overview of the developments and drivers of investment and its finance in the European Union. It combines an analysis and understanding of key market trends and developments with a more in-depth thematic focus, which this year is devoted to European progress towards a smart and green future in a post-COVID-19 world. The report draws extensively on the results of the annual EIB Investment Survey (EIBIS) and the EIB Municipality Survey. It complements internal EIB analysis with contributions from leading experts in the field.

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The measures taken to fight the coronavirus pandemic have severely disrupted the global economy. Trade and investment channels have been interrupted, the movement of people has been seriously restricted, and businesses have been forced to operate at reduced capacity or to temporarily abandon their operations. Confidence levels have fallen markedly and labour markets have frozen. Prior to the second lockdown, the International Monetary Fund (IMF) and other institutions were already expecting gross domestic product (GDP) in the European Union to shrink by 6% to 8%, a fall unrivalled since the Great Depression.

In Europe, the policy response has been swift and unprecedented. Monetary policy, national fiscal policies and European economic policy have all contributed to circumventing the economic fallout. The response from EU institutions, Member State governments and the European Central Bank (ECB) was quick and comprehensive. To some extent, the magnitude and nature of the action are a game-changer for Europe. An obvious example is the joint issuance of debt securities by Europeans – a crisis response that was very well received by the markets.

Subsequent virus waves remind us that pandemic concerns will dwarf most of the other policy issues until a vaccine is widely distributed, which won’t be until well into 2021. Policy measures were designed in emergency situations, but second lockdowns around Europe illustrate that a series of waves cannot be ruled out. Because the side-effects of the lockdown measures might be expected to intensify as the crisis becomes more protracted, there is good reason to revisit policy measures to fine-tune the balance between short-term support and longer-term programmes. In addition to shoring up short-term demand, the policy package can become truly instrumental in ensuring the success of the three pillars of the recovery: resilience – greening – digitalisation.
Introduction

In 2019, the European economy was gradually slowing down after six years of relatively weak expansion. The slowdown could be traced back to more sluggish international trade resulting from tensions between the United States and some of its main trading partners. Just as the export-oriented engines of European growth were running out of steam, the coronavirus pandemic broke out. The virus spread quickly around the globe, forcing governments to take sweeping measures in an attempt to arrest it. The associated restrictions brought whole swathes of the EU economy to a near complete standstill with severe implications for consumer spending, investment and overall economic activity. The ECB deployed a major policy package in response, and this time, domestic fiscal policies and European policy also joined forces to safeguard the European ecosystem during the lockdowns imposed in the various countries.

This chapter sets the stage for the analysis provided throughout this report by giving an overview of the economic situation at the outbreak of the pandemic. The first section outlines the macroeconomic environment in Europe and the world in the first half of 2020, focusing on the link between EU economies, global growth and international trade. The second section details the latest developments in real GDP growth and labour markets in the European Union. Four boxes provide further detail. Box A quantifies the likely effects on GDP of the re-introduction of government restrictions in the fourth quarter of 2020. Box B frames the economic shock due to the pandemic in a historical perspective. Box C outlines the challenges to European social protection systems posed by the pandemic. Box D discusses the use of short-term working schemes in the European Union during the crisis. The third section focuses on financial developments and the fiscal and monetary policy response to the considerable economic shock. Box E in this section outlines EU banks’ credit exposure and policy responses. The chapter ends with concluding remarks and policy implications.

The cross border environment in Europe and the world

The COVID-19 crisis erupted in the beginning of 2020, when the world economy was already slowing as uncertainties and geopolitical and trade tensions mounted. The pandemic was, by its very nature, unexpected. The virus emerged in China and quickly spread to the rest of the world. It propagated quickly within Europe as a result of the closer integration of economies through trade and personal travel. This section explores the cross-border dimension of the crisis, focusing on the European economy and stressing the need to protect the long-term integrity of the single market.

Using lockdowns to flatten the curve

COVID-19 is a genuinely global shock to the world’s economy. By its very nature, the original pandemic shock was unrelated to the structure of the world’s economies. Its origin was independent from economic policies, but the policies put in place to limit the virus’s spread had economic implications. Most countries implemented lockdowns and restricted the free movement of people within national territories and across borders. Infection waves were not fully synchronised across continents, but they tended to be relatively closely aligned within Europe, with its highly integrated landscape.

The first wave hit Europe towards the end of the first quarter of 2020 and the second wave in the beginning of the fourth quarter. Figure 1 shows the trend in COVID-related deaths in the world’s major economies. In the second wave, the rise in the death rate seemed to be less acute as countries are better prepared thanks to the lessons learned from the first wave. However, the implementation of a second lockdown in most European countries serves as a reminder that the situation will remain problematic until a vaccine is distributed to a large share of the population.
Imposing lockdowns has, so far, been the policy option to curbing the increase in infection rates and avoiding bottlenecks in the health system. The chain of events is as follows. Higher infection numbers help the virus spread. This increases the likelihood of vulnerable people becoming infected, who, more than other people, may require hospitalisation in intensive health care units. Given the limited number of spaces, the system can quickly be stretched to its capacity, driving the fatality rate up substantially. To avoid this, lockdown policies, with varying degrees of strictness, have been implemented across the world to flatten the curve. As shown in Figure 2, these policies drastically limit freedom of movement and require some shops and public places to be closed.

**Figure 1**

**Fatality rates** (COVID-19 deaths per 100 000 inhabitants)

![Fatality rates graph](image)

Source: European Centre for Disease Prevention and Control (ECDC) and EIB calculations.
Note: Last record 3 November 2020.

**Figure 2**

**Google mobility indicators** (EU average)

![Google mobility indicators graph](image)

Source: Google Community Mobility Reports and EIB calculations.
Note: Last record 2019. GDP weighted. The reports chart movement trends over time by geography, across different categories of places. Mobility is compiled in deviation from a baseline day, defined as the median value from the five week period 3 January – 6 February 2020.
Lockdown policies took a toll on economic activity, and in 2020 global trade and world GDP collapsed. It is not only Europe, but the entire world economy that has been hugely affected. In its October 2020 World Economic Outlook, the IMF forecasts that global real GDP will contract by 4.4% in 2020, and rebound in 2021 (Figure 3). Emerging market economies are facing an extremely challenging situation, with GDP declining in 2020 for the first time since the early 1990s, if not earlier. This is in stark contrast with the global financial crisis. In addition to the toll on public health, emerging economies have had to deal with the losses in domestic activity caused by containment measures, plummeting foreign demand, collapsing commodity prices and disappearing capital flows.

Prior to the second wave, a relatively swift rebound in worldwide economic activity was still expected. The IMF October 2020 World Economic Outlook was prepared and issued well before the second wave of infection and lockdown in Europe, and pointed towards a relatively swift rebound in the world economy. However, the arrival of the second wave means that it will take longer for economies to begin fully functioning again, which is not expected before a vaccine is widely distributed. As the crisis may last well into 2021, some emerging economies very dependent on tourism may well suffer two consecutive years of ultra-weak activity.

The pandemic hit some European economies harder than others. It is not fully understood how the virus spreads, but in Europe higher infection rates triggered more stringent lockdowns, which weighed on individual economies. Other factors were also at play, such as the composition of GDP and the share of tourism (Sapir, 2020). The COVID-19 crisis will most likely lead to structural changes in the economy as some sectors decline or remain lacklustre for a long time (including international travel and tourism, or transport services as people turn more to remote working and therefore commute less) while others expand to support new lifestyles (such as telecoms, and, more broadly, digital activities). Given the differences in the composition of European economies, some economies are likely to be more affected than others.

During the second wave, governments have tried to rebalance the economic costs of lockdown policies. After the first wave, the strategy of limiting the spread of infection by testing and isolating positive cases was stepped up, but so far, this strategy has not sufficed. At the onset of the second wave, bars and restaurants were closed in most of Europe, followed by the introduction of curfews, and then lockdowns.
The longer the crisis, the deeper the scars. Infection waves may continue until a vaccine is widely distributed. Relatively good news was reported in the beginning of December with several vaccines approved for use by medical authorities in various countries. In the best case scenario, however, the mass production and administering of a vaccine will take months, which means the crisis is likely to continue well into 2021. The longer the crisis, the deeper the scars, and the greater the increase in corporate and government borrowing. Meanwhile, as the pandemic wears on, containment policies will inevitably continue to immobilise the economy, while public support will focus on maintaining the ecosystem and limiting capital erosion (Lagarde, 2020).

A protracted drag on external trade?

Prior to the crisis, globalisation was at a standstill. The reasons for the halt in the ascent of globalisation are numerous: fears stemming from the global financial crisis, the trade war between the United States and China, the maturing of the Chinese economy, the limits to manufacturing growth and the stronger development of services, and receding multilateralism. As a result, the GDP-to-external-trade ratio had flattened somewhat since 2008, as shown in Figure 4.

The COVID-19 crisis may further dampen the long-term prospects for external trade. With the crisis, firms have taken on-board the need to increase the resilience of their production chains. They have started rethinking their global value chains, no longer focusing simply on maximising returns but also looking at how they can reduce risks by increasing the strength of their networks. Governments are also likely to take on greater weight in the post-pandemic economy with increased public spending, partly to reinforce healthcare systems (Organisation for Economic Co-operation and Development (OECD), 2020b). Finally, countries may reallocate the production of products deemed strategic to guarantee national independence (medicines and health equipment for instance).

What impact will the pandemic have on globalisation vs. regionalisation? How will the rethinking of resilience vs. cost change global supply chains? Bonadio et al. (2020) estimate that the impact of foreign lockdowns accounted for one-third of the total pandemic-related contraction in global GDP. However, the immediate impact of the crisis on the redefinition of supply chains appears to be limited, as it takes a lot of time and effort to find different suppliers of comparable quality. Car manufacturers, for example, cannot simply move from China to another country with low labour costs and expect to find manufacturers of, say, airbags that can meet the same quality standards quickly.

The COVID-19 crisis, however, will have a permanent impact. It is magnifying the effects of existing megatrends: the new industrial revolution, growing economic nationalism and the drive for sustainability. The extent of the COVID-19 crisis’s disruption to working practices and behaviour patterns seems substantial. Companies have accelerated the digitalisation of their supply chains and customer channels, and many are moving faster in adopting artificial intelligence and automation. Other changes in the workforce are also afoot.

The pandemic may accelerate longer-term shifts toward shorter and less fragmented value chains (United Nations Conference on Trade and Development (UNCTAD), 2020b). Industry 4.0 is pushing the move towards automation and smart technologies in manufacturing and industrial processes (Baldwin, 2019), along with growing economic nationalism and the need to make human activity more environmentally sustainable and less resource dependent. These trends are set to reduce gross trade in the global value chain, limiting the circulation of intermediate inputs and final products in the medium term. These trends will also lead to further concentration in the value added in certain geographic areas. As another consequence, production will shift from global to regional and sub-regional value chains. Automation and reshoring will see an upswing to increase flexibility and reduce the risks that firms face during a global shock. These trends are driven by considerations related to the resilience and robustness of supply chains, not national protectionism.

Maintaining cross-border transport infrastructure is key to ensuring good conditions for the economic recovery. Much-reduced mobility has put transport infrastructure at risk. The air transport of passengers
and goods is a core component of the world’s economy. According to Airport Council International, traffic at Europe’s airports decreased by 73% in September 2020 compared to a year earlier. More than one-quarter of Europe’s airports are at risk of insolvency if passenger traffic does not start to recover by the end of 2020. While these airports are mainly regional, larger airports are affected too. The sudden spike in their debt levels – an additional EUR 16 billion for the top 20 European airports – represents 60% of their average debt in a given year. Internal transport infrastructure is also at risk. According to Eurostat, the number of rail passengers was cut in half in the majority of EU Member States in the second quarter of 2020, compared with the same quarter a year earlier.\(^1\)

**Protecting the single market and reducing the spillover of negative effects**

**European economies are more open than other advanced economies.** Export dependence, defined as the share of exports and imports to GDP, is above 66% in Germany and higher than 40% in France (Figure 5). Overall, external trade in goods and services accounts for 27% of euro area GDP, a share that rises to 45% when including trade among EU members. The European economy is therefore highly integrated and maintaining cross-border movement is key to its functioning, more so than elsewhere in the world. Regions located close to borders also rely heavily on commuting foreign workers to function (Figure 6). Taking into account the implications of cross-border mobility restrictions is therefore of paramount importance, and the corresponding policies must be developed at the European, and not just the local, level. A major risk is that uncoordinated lockdowns lead to repeated virus outbreaks and, in turn, further lockdowns across Europe, resulting in steeper declines in GDP (Kohlscheen et al., 2020).

**Figure 5**

External trade in goods in EU economies (% GDP, 2019)

 Guarantying a level playing field and preventing increased divergence within Europe are essential. Given asymmetries in financial conditions, the European single market is at risk and widening disparities should be avoided. In Figure 7, we correlate the decline in GDP with GDP per capita for EU economies. While EU countries have been affected to different extents – the decline in GDP following the first wave ranged from zero to 14% – the impact is unrelated to countries’ relative wealth. It would have been reasonable to expect the capacity of hospitals and health services to be related to income per capita, with poorer countries less able to provide medical assistance and therefore implementing longer and more stringent lockdown policies to prevent the rapid saturation of the medical system. While this factor

\(^1\) The largest decrease in the number of rail passengers was in Ireland (-94%), followed by France (-78%), Spain (-78%), Luxembourg (-78%) and Italy (-77%).
may have played a role, many others were also at issue. Ultimately, and fortunately, the magnitude of the shock was unrelated to the level of economic development. Preventing a widening of divergences in Europe after the pandemic will be critical.

**Figure 6**
Cross-border workers (country of work, thousands, 2018)

![Cross-border workers chart](image)

**Source:** European Commission, 2019 Report on intra-EU Labour Mobility.

**Figure 7**
EU economies: Income per capita and output decline during the first wave

![EU economies chart](image)

**Source:** Eurostat and EIB calculations.

**Note:** Last record, October 2020.

**A strong EU response is needed to avoid second-round effects and negative spillovers.** Above and beyond the policy measures of individual Member States, a strong need exists for a common, mutually reinforcing EU response to the crisis. European economies are strongly interconnected and a shock experienced in any member spreads to the rest of the European Union through labour movements, value chains, terms of trade and external demand. These spillovers can be fairly significant. In addition to the direct impact of the crisis, a 1% change in the GDP of Germany, France, Italy and Spain results in a further indirect change in the euro area’s GDP of 0.25%, 0.2%, 0.1% and 0.1% respectively, merely on account of trade spillovers in the euro area (ECB, 2013).
Similarly, a positive shock in any EU country triggers favourable effects throughout the European Union. The impact of EIB loans is a good illustration of how interdependent EU economies are. Macroeconomic modelling by the Economics Department of the EIB Group together with the Joint Research Centre of the European Commission shows that, in the long run, indirect effects can be substantial. Cross-country spillovers in the European Union explain, on average, 40% of the impact of EIB investment on jobs and GDP in EU members. While smaller and more integrated countries gain more in relative terms, large EU countries also benefit greatly from positive spillover effects. In Germany, for instance, spillover effects account for more than 30% of the total impact of EIB investment on jobs (EIB, 2018).

## Latest developments in the real European economy

**EU GDP shrank massively in the first half of 2020**

Growth in most EU economies slowed in 2019, especially in the second half of the year (Figure 8a). Slowing exports and a drawing down of inventories dragged down growth in real GDP in a majority of EU Member States. Declining international trade throughout the year, the result of intensifying trade tensions between the United States and its key trading partners, was the most likely reason (UNCTAD, 2020a). The US economy was affected by these developments too, but growth there remained well above the European Union’s because of a strong increase in private consumption (Figure 8b).

**Figure 8**

Real GDP and contribution of aggregate demand (% change vs. the same quarter in the previous year)

![Graph](image)

Source: Eurostat, OECD national accounts and EIB staff calculations.

Note: Data for Q3 2020 are preliminary: Eurostat flash estimate for the European Union, and US Department of Commerce advance estimate for the United States. No breakdown of the components of aggregate demand components is provided. GFCF stands for gross fixed capital formation.

In the European Union, the impact of the pandemic was already evident in the first quarter of 2020. Although sweeping measures to contain the spread of the coronavirus were introduced in the last two weeks of the first quarter, consumer spending and net exports declined significantly, causing a drop in real GDP in almost all EU members, particularly in Southern and in Western and Northern Europe. Nearly all EU members restricted the non-essential movement of people and closed most shops, along with schools and national borders, mid-March. Gatherings with people outside the household were also restricted. In most countries, the harshest measures lasted throughout April and for much of May. Figure 9 plots a stringency index of the measures taken by EU governments.
Real GDP fell precipitously in the second quarter of 2020, as economic activity was stifled by government restrictions across the European Union (Figure 9). The overall decline in real GDP in the European Union was more than 11% relative to the first quarter of 2020 and was the largest decrease in a single quarter on record. The falloff was clearly caused by government measures to contain the spread of the virus, and the decline varied widely across Member States. It was smallest, on average, in Central and Eastern Europe where real GDP in the second quarter fell by 9.7% relative to the first quarter. In Western and Northern Europe, it fell by 11.5%, while in Southern Europe the decline was nearly 15%. By way of comparison, the decline of real GDP in the United States in the second quarter was about 9%, compared to the first quarter.

EU GDP increased 13% in the third quarter of 2020 compared to the second quarter, recovering some of its losses. This increase is not surprising as most EU governments relaxed restrictions on movement and economic activity substantially in the third quarter. The biggest increases were in France, Spain and Italy, where GDP had declined by more than the EU average. While substantial, the increase in the third quarter still left EU real GDP 4% lower than the level in the same period a year earlier.

Significant declines in private consumption drove the decline in real GDP in the second quarter (Figure 10). Constrained private consumption accounted, on average, for about two-thirds of the total decline in GDP. Lower consumption represented around one-third or less of the total decline in only four countries.² In addition to the restrictions on shopping, private consumption most likely declined because many workers were uncertain about their jobs. In the European Commission’s Business and Consumer surveys, measures – such as unemployment expectations or respondents’ expectations for their financial situation in the next 12 months – indicated consumer anxiety (Figure 11a).

The decline in investment was the second largest cause of the overall contraction in the European Union’s GDP. Investment accounted for about one-third of the decrease, compared with only 14% in the United States. Within the European Union, the depth of the decline varied widely, ranging from just

² Bulgaria (18%), Hungary (35%) and Slovakia (21%) introduced relatively weak restrictions on shops and the Czech Republic (35%) allowed shops to re-open as early as 9 April.
below 2% in Finland to 50% in Luxembourg. In general, the contribution of investment to the fall in GDP was higher in Western and Northern Europe (34%) than in Southern (21%) and Central and Eastern Europe (19%). Uncertainty is very likely to have played a larger role in the contraction in investment than government restrictions. Chapter 2 provides a more in-depth analysis of this drop in investment.

**Figure 10**
Real GDP change in H1 2020 and contribution of aggregate demand (percentage change in Q2 2020 vs. Q4 2019)

Source: Eurostat, OECD national accounts and EIB staff calculations.
Note: Other includes government consumption expenditure, net export and change in inventories.

**Figure 11**
Consumer expectations for the next 12 months and real disposable income per capita

Source: European Commission’s Business and Consumer Surveys and Eurostat.
Expectations about future consumption do not suggest a rapid recovery in GDP (Figure 11a). Consumers’ expectations about their financial situation and their willingness to make major purchases in the next 12 months improved to some extent in June and July. Those expectations stabilised in August and September, but they were well below levels seen before the pandemic. The expectations started to deteriorate again in October as the pandemic intensified again across EU members. Disposable income per capita fell sharply in the second quarter of 2020, and this decline will affect consumer spending, especially for lower-income, liquidity-constrained households (Figure 11b). Such developments in income and consumer expectations make a quick rebound in consumer spending somewhat unlikely, even though strict government restrictions on movement have been largely avoided in the fourth quarter of 2020. The corporate sector is not optimistic about investment either, as discussed in detail in Chapter 2. The economic recovery is therefore likely to be more gradual and prolonged (Box A).

**Box A**

**Real-time monitoring of the pandemic’s impact**

Since the start of the pandemic, new data sources have become available that help assess economic activity in almost real time. Oxford University coordinates an effort to compile daily indicators of policy stringency (Blavatnik School of Government, 2020). Google provides daily measures of the extent to which people, under these restrictions, are still going to work (Google, 2020). Policies and mobility vary substantially across EU Member States but still show a common pattern (Figure A.1).

**Figure A.1**

Indicators of policy stringency and mobility trace the impact of the first and second waves of the pandemic, with significant diversity across EU countries

- a. Policy stringency affecting ability to work
- b. Mobility in places of work

Source: Blavatnik School of Government (2020), Google (2020), and EIB staff calculations.

Note: Monthly averages of work-related measures of policy stringency and mobility. Each diamond shows an EU country. Lighter shades result from overlapping diamonds. The lines show the GDP-weighted EU averages. Data were collected on 23 November.

These indicators help assess economic activity using relatively simple econometric specifications. We base our assessments on pooled linear regressions of economic activity (industrial production or service sector turnover) in EU members on visits to places of work and on a composite indicator of policy stringency (Table A.1). The policy stringency indicator is an average of the extent to which workplaces, schools and public transport are closed, the stringency of stay-at-home requirements and restrictions on movement within the country. The regressions are weighted by active population and contain country fixed effects.
Assessments based on these indicators suggest that EU GDP declined by about 1-2% in October and 5-6% in November. Industrial production and service sector turnover, used here as monthly proxies for GDP, move closely in line with the policy index (Figure A.2, dark blue and red lines). Our forecasts suggest that by November, the start of the second wave had undone most of the recovery witnessed since May (Figure A.2, light blue and red lines). Google’s mobility indicator points in the same direction but suggests a somewhat smaller decline in activity. Given that a substantial relaxation of policies in December seemed unlikely, EU GDP may fall in the fourth quarter by about 3-4% vs. the third quarter, leaving GDP about 7-9% below its pre-crisis level.

Figure A.2
The pandemic’s second wave appears to reverse the summertime recovery

![Graph showing the relationship between policy stringency and industrial production and service turnover](image)

Source: Blavatnik School of Government (2020), Eurostat, and EIB staff calculations.
Note: Forecasts computed using pooled, population-weighted regressions of industrial production and service sector turnover on a work-related subset of Oxford stringency indices and on country fixed effects. Data as of 23 November 2020.

Table A.1
Regression specifications and results

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Level of industrial production</th>
<th>Level of service sector turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td>Impact of a 1 point increase in the policy stringency index</td>
<td>-14.0 [-10.0, -11.0]</td>
<td>-16.5 [-20.6, -12.2]</td>
</tr>
<tr>
<td>Impact of a 1 point increase in mobility</td>
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<td>0.7 [0.61, 0.79]</td>
</tr>
<tr>
<td>R2</td>
<td>71.5%</td>
<td>74%</td>
</tr>
<tr>
<td>N</td>
<td>223</td>
<td>199</td>
</tr>
</tbody>
</table>

Source: EIB staff calculations.
Note: 1 Seasonally and calendar day adjusted. 95% confidence intervals in square brackets.

As long as compliance with restrictions is high, the policy stringency indicator appears more useful than the mobility data in assessing economic activity. Google’s mobility indicator can be seen as a
measure of compliance with the restrictions and might therefore be a more direct measure of activity. However, the mobility indicator shows pronounced seasonal variations, which detract from the underlying momentum in activity. For example, it declined during the summer holidays in August. And so far, surveys do not seem to suggest that compliance with restrictions is significantly declining in EU countries (Institute of Global Health Innovation, 2020).

The impact of the coronavirus pandemic varies substantially by sector. Sectors that rely significantly on physical presence, including passenger transport, the arts, entertainment, tourism and hospitality, were hit the hardest, declining by some 30% in the second quarter of 2020 from the first quarter. Others, such as agriculture, finance or real estate, contracted by 3% or less over the same period. The distribution of the economic impact across the various sectors was very different during the global financial crisis, when EU manufacturing sustained the largest decline – nearly 20% in the first quarter of 2009. The drop in other sectors remained relatively contained at near or below 6%.

The sectoral distribution of the decline will have a decisive impact on the speed of the economic recovery in the near to medium term. The industrial sector’s share in the overall decline in 2020 is the same as during the global financial crisis, while that of services is much higher (Figure 12). Given that a large part of the contraction in services is due to their being delivered in person, as is the case in passenger transport or accommodation, the recovery of a large part of the services sector will remain subdued until the pandemic is reined in, especially as many government restrictions on economic activity were being reintroduced in the fourth quarter of 2020. On the other hand, the recovery of the industrial sector, where manufacturing dominates, is dependent on the upturn in international trade. The different speeds of recovery exhibited by manufacturing and services became clear over the summer when the industrial sector bounced back fairly quickly, while certain services lagged significantly behind.

Figure 12
Gross value added of all industries (% change vs. the same quarter in the previous year)

The speed of the recovery is likely to be uneven across the European Union. The decline in services, especially trade, transport and hospitality, is much larger in Southern Europe than in the rest of the European Union. Because these services represent a large share of the economies of Southern Europe, they will weigh significantly on the recovery, both weakening it and stretching it out over time.
Box B
The pandemic’s impact on GDP: A historical perspective

The extent of the expected economic decline in 2020-2021 rivals the steep drop in activity that followed the global financial crisis. It is therefore worth comparing the intensity of the ongoing economic crisis to the global financial crisis, which could provide insight into the likeliest paths to recovery. To this end, this analysis compares the expected decline in GDP in 2020-2021 (defined as the COVID-19 recession) with the worst two-year cumulative losses in GDP and with the global financial crisis for individual countries. One obvious caveat is that the 2020 and 2021 forecasts might turn out to be quite different from the actual data given the high uncertainty surrounding the recovery.

Figure B.1
Cumulative two-year contractions – comparison with the global financial crisis

The global financial crisis is identified as the worst crisis in post-World War II history for many countries in Western and Northern Europe (Figure B.1). In Southern Europe, it sits close to the COVID-19 crisis. The expectations of a rebound in 2021 make COVID-19 a relatively short-lived recession. This latter forecast is also based on the assumption that the health crisis will be resolved in 2021.

Figure B.2 illustrates the comparison from a different angle. The vertical axis shows the percentage of two-year cumulative decline and the percentage of those contractions that are worse than the 2020-2021 result for the total sample. In general, the figure depicts the well-known fact that mature economies are more stable and less susceptible to frequent declines in output. For nine countries, all two-year periods of contraction were harsher than the 2020-2021 crisis. The countries of Central and Eastern Europe experienced dramatic losses after the fall of Communism with the entire economic system wiped out, which explains why for most of them the decline in 2020-2021 is smaller than previous declines. For Southern European countries, however, the decline from the pandemic stands out as one of the harshest contractions since World War II.
Aggressive policy measures soften the blow of unemployment across the European Union

Labour productivity, measured as GDP per hour worked, slightly increased in the second quarter of 2020, in contrast to a large decline in GDP per employee. While the cyclical nature of labour productivity is an empirical fact, the significant difference between the change in GDP per employee and that of GDP per hour worked is unusual. In the second quarter of 2020, EU GDP per hour increased by 0.3% relative to the same period of 2019, whereas GDP per employee fell 11.5%. A difference of this scale was not seen even at the peak of the recession following the global financial crisis. In 2009, for instance, EU GDP per hour fell 1.2%, while GDP per employee declined by 2.6%. The difference in 2020 indicates the extent of the employment subsidies that most EU governments made available to businesses in the second quarter of 2020.

Massive government support kept the increase in unemployment relatively contained at the end of the third quarter of 2020 (Figure 13). The unemployment rate rose by about 0.5 percentage points in Western and Northern Europe and Central and Eastern Europe (Figure 13a). The increase was higher in Southern Europe (1.5 percentage points). The United States saw an increase of 4 percentage points over the same period with a peak of 10 percentage points in April. The difference between the two sides of the Atlantic can be mostly explained by significant differences in labour-market institutions and also by substantial government financing of policies to retain labour (Box D). The effect of government measures can also be indirectly gauged by comparing the contained increase in unemployment with the steep decline in total hours worked across the European Union (Figure 13b). This suggests that if employment was not subsidised, the increase in unemployment would have been much greater (Box D for caveats).
Increasing risks of a slow recovery and a substantial increase in government indebtedness do not bode well for the unemployment outlook in the near term. General government debt in the European Union increased by 8.5 percentage points of GDP to 88% from the first to second quarter of 2020 as the pandemic intensified. The sharp increase in debt is likely to curb governments’ ability to act as decisively should the pandemic’s second wave require further restrictions in the fourth quarter of 2020 or first quarter of 2021. With a stalled recovery and, possibly, a weaker fiscal response, unemployment is bound to increase significantly. Higher unemployment will exert additional pressure on social protection systems to extend their remit to parts of the population not covered by current programmes (Box C).

**Box C**

**Social protection systems and the COVID-19 shock: Adapting short- and long-term support**

Social protection systems play a central role as stabilisers when economic shocks occur. Unemployment benefits are clearly countercyclical but other forms of social spending such as pensions or sickness benefits also contribute to maintaining households’ disposable income in times of economic stress. Structurally, social protection systems help to reduce the incidence and depth of poverty, improve the health of the population and facilitate access to education.

The stabilising effects of social protection systems are stronger in higher-income countries due to the size and composition of spending. EU Member States with higher incomes spend relatively more on social protection and typically place greater emphasis on sickness, family and unemployment benefits (European Commission, 2019). Following the global financial crisis, social protection expenditure increased, reflecting in particular the higher spending on unemployment benefits following the shock to the economy.

The pandemic prompted unprecedented policy action to support firms and households. The introduction and/or extension of short-time work (government programmes that subsidised the salaries of workers whose hours were temporarily reduced for economic reasons) is a distinctive feature of this crisis (Box D) but all governments have gone further. Their action includes providing easier access to regular support instruments in the event of unemployment or sickness, a stronger emphasis on safety and health protection at workplaces, increased support for parents staying at
Part I
Investment and investment finance

The macroeconomic environment

Chapter 1

Home or additional child/family allowances. In addition, housing has emerged as a key area in limiting the negative social impact of the pandemic, with policymakers introducing measures to protect tenants and mortgage holders, such as support for payment moratoriums, suspension of evictions, or subsidies for rent and utility bills.

The pandemic highlighted some of the existing gaps in social protection systems. A lack of access can reduce their effectiveness in protecting people when they lose their jobs and income, fall sick or experience poverty. Typically, unemployment benefits and short-time work tend to be geared towards those on full-time permanent contracts. In contrast, non-standard workers, including the self-employed or those on part-time or fixed-term contracts, may lack adequate income protection and often face a higher risk of losing their jobs. Pre-crisis estimates suggest that non-standard workers are 40-50% less likely to receive income support during the periods they are out of work, and even if they do, the benefits tend to be less generous (OECD, 2019). Incentives for employers to use short-time work for non-standard staff are likely lower, particularly if firms expect some of the impact on employment to be permanent (see analysis in Chapter 2).

The prevalence of non-standard work differs across EU countries but is particularly frequent in certain sectors hit hard by the pandemic, such as hotels and restaurants or the arts and entertainment. Challenges for social policy mount in countries in which employment in these sectors is higher and non-standard employment more prevalent. Several Southern European countries appear to have a particularly high share of vulnerable workers (Figure C.1, upper-right quadrant). By socio-demographic group, women and younger workers seem more vulnerable and have a higher probability of being non-standard workers. Moreover, informal workers are a particularly vulnerable group with few entitlements and often have limited scope for claiming benefits.

Figure C.1
Total employment and non-standard employment in activities most affected by the pandemic

Source: OECD (2020a), OECD Annual National Accounts; EU Labour Force Survey Database; and OECD calculations, EIB Economics Department.

Note: Black lines indicate the EU average. Non-standard workers include those on temporary contracts or in part-time jobs, and the self-employed. Activities affected most by containment measures include wholesale and retail trade, accommodation and food services, real estate services and construction, professional service activities, other service activities and the arts, entertainment and recreation. See OECD (2020a) for further explanation.
Strengthening non-standard workers’ access to regular benefits and facilitating their inclusion in short-term work schemes have been a feature of COVID-19 policy responses, as a result of the spotlight cast by the pandemic on the existing gaps. Some countries have introduced special sectoral support and/or targeted measures for vulnerable groups. In Spain, for example, temporary workers whose contracts expired during lockdown before they reached the minimum contribution period for unemployment benefits received provisional allowances (ECIU, 2020). Moreover, several countries have acted to support freelance workers and the self-employed. Relatively few actions have focused on informal workers (Table C.1).

Table C.1
Support for non-standard and vulnerable workers in the pandemic: Income replacement and support measures in EU Member States

<table>
<thead>
<tr>
<th>Self-employed</th>
<th>Temporary/part-time workers</th>
<th>Informal workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits available and access equal to standard workers</td>
<td>Benefits available and enhanced during the COVID-19 crisis (access, coverage)</td>
<td>Benefits did not exist and was introduced in the context of the crisis</td>
</tr>
<tr>
<td>Benefits exist but access is not equal to standard workers (partial coverage or voluntary enrolment)</td>
<td>No information</td>
<td>Benefit not available to non-standard workers</td>
</tr>
<tr>
<td>Benefit available and enhanced during the COVID-19 crisis (access, coverage)</td>
<td>No information</td>
<td>Benefit not available to non-standard workers</td>
</tr>
</tbody>
</table>

Source: OECD (2020a).

Note: 1 Includes lump sum or temporary income replacement schemes; 2 access relative to standard workers assessed on the basis of the gap in the probability of benefit accessibility.

The pandemic is affecting social protection systems in the short term and may have long-term effects. Some of the measures introduced to protect workers are temporary, such as support for the self-employed via lump sum transfers, “employer salaries” or sectoral aid packages (such as for hospitality and the arts and entertainment). Other changes, for example improved access to benefits for temporary or part-time workers, might become permanent. They could be a step towards a gradual “update” of social protection systems to respond to more structural shifts in employment patterns linked to factors including developments following the global financial crisis and digitalisation. Closing some gaps could help to address the issue of rising inequalities that predated the pandemic, and prevent a further widening in its aftermath.
For housing, measures such as eviction suspensions or payment moratoriums are temporary and geared towards protecting vulnerable parts of the population. However, the pandemic has increased awareness of imbalances in this area. Inequalities in access to affordable, quality housing have widened in recent years, with rising housing costs contributing to the financial vulnerability of many households. Demand for housing is widely expected to receive a structural boost from the pandemic. Against this background, housing policy measures aiming to improve supply and guarantee well-functioning housing markets remain a key area for addressing inequalities.

**Box D**

**How significant are the benefits of short-time working schemes for firms?**

Participation in short-time work (STW) increased sharply as economic activity collapsed in the second quarter of 2020. STW schemes are part of a series of measures that provide support to firms (such as grants, equity injections, and loan guarantees) and households. At the end of May 2020, about one-third of employees participated in STW schemes in Austria, France and the Netherlands, and one-fifth in Germany, Spain and Ireland (OECD, 2020c). As economies recovered, participation declined (Figure D.1).

**Figure D.1**

Participation in short-time working schemes peaked during the lockdowns, percentage of employees

![Graph showing participation in short-time working schemes](image)


The benefit that a firm derives from an STW scheme depends on how it would have behaved had the scheme not been offered. A key question is whether a firm only retained staff because it participated in the scheme or whether it would have retained the staff anyway. One factor influencing a firm’s response is the availability and cost of other mechanisms for adjusting its payroll. A firm operating under stringent employment protection laws and with contracts allowing it to adjust the number of employee hours might have retained staff even in the absence of the STW scheme. The same might be true of a firm employing highly skilled staff that are expensive to re-hire.
The evidence for firms’ response to STW schemes is mixed. At the macroeconomic level, STW schemes appear to have helped avoid layoffs by increasing flexibility in the number of hours worked (Abraham and Houseman, 1994; Arpaia et al., 2010). From a microeconomic perspective, the effect of STW schemes is more difficult to demonstrate, not least because firms that have other ways of adjusting their payroll are less likely to adopt STW schemes (see Lydon et al., 2019 for evidence). For example, Kruppe and Scholz (2014) find that German firms participating in STW schemes during the 2007-2009 crisis reduced their headcount by about the same amount as those not participating. Against this background, we discuss the benefit of STW schemes for two scenarios representing firms at the opposite ends of the spectrum.

For firms that participate in the STW scheme but would have retained and paid in full their employees even in the absence of the scheme, the benefit is equal to the scheme’s transfers. A rough estimate of these transfers is the share of wages replaced by the STW schemes. This varies by country. For most, it is around 50% to 80% of the wages that employees lose because their working hours are reduced (Mueller and Schulten, 2020). The transfer is also reflected in institutional sector accounts. The drop in employee compensation raised entrepreneurial income growth in the second quarter of 2020 even more than during the financial crisis in 2009 (Figure D.2).

Figure D.2
Falling employee compensation added to entrepreneurial income

For firms that would have laid off staff without the scheme, the benefit is about equal to the frictional costs of firing existing employees and hiring replacements once demand picks up again. Assume that if the firm had laid off staff, its salary payment would have fallen by the same amount that it receives in transfers when participating in the STW scheme and retaining its staff. In that case, participation in the scheme only saves the costs associated with firing and re-hiring employees. These costs, however, can be substantial. Estimates come in at about half of a worker’s annual salary, with significant variations across jobs and countries. Firing costs are typically in the range of one to five months of salary for OECD countries, depending on job tenure and the circumstances of dismissal (OECD, 2020b). Hiring

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3 See also European Network of Public Employment Services (2020) for an overview.
costs, for recruitment and training, greatly depend on the position to be filled. Muehlemann et al. (2016) find that hiring costs are about two months’ salary for skilled German workers, while Blatter et al. (2012) estimate the costs at about three to four months’ salary for skilled Swiss workers, ranging from about one month for a medical assistant to six months for an automation technician. The bulk of these costs are associated with training (see also Manning, 2011, for an overview).

Aside from these direct effects, STW schemes are likely to generate indirect benefits for firms by stimulating aggregate demand. Like other schemes that insure against a sudden decline in income, STW schemes transfer funds to cash-constrained firms and households, whose marginal propensity to spend is likely to be higher than that of those funding the transfers. As a result, aggregate demand is likely to fall less than without the scheme.

Relative to the 2008-2009 recession, the benefits firms derived from STW schemes in the current crisis increased because the schemes were more generous. As a result, take-up has been much higher during the COVID-19 crisis than the 1% to 3% of employees observed in most EU countries in 2009 (Hijzen and Venn, 2011 and European Network of Public Employment Services, 2020). Indeed, a few countries, such as the United Kingdom, introduced STW schemes only in 2020. The schemes were made more generous for several reasons. First, economic activity collapsed as lockdowns were imposed, leaving firms with no time to prepare. In contrast, the 2007-2008 global financial crisis reached its peak with the insolvency of Lehman Brothers in September 2008 and only gradually started to affect real economic activity over the following six months. Second, uncertainty about the depth of the economic crisis was considerably higher in 2020 (Figure D.3). This greater uncertainty has increased the option value of temporarily supporting firms that might become profitable again after the crisis subsides. Third, in many EU countries the decline in output has been more broadly spread out during the COVID-19 crisis than in 2009, when the service sector fared better than construction and manufacturing (Figure D.4). The risk that STW schemes discourage workers from finding jobs that are more productive in other sectors therefore appeared smaller than in 2009.

Figure D.3
Standard deviations of consensus forecasts of euro area GDP growth in 2009 and 2020

Source: Consensus Economic Forecasts.
Note: Forecasts were made in the month shown and were for the annual GDP growth in 2009 and 2020, respectively.

Over time, the unintended effects of STW schemes may become more apparent. As countries emerged from lockdowns over the summer, participation in STW schemes declined. With the health crisis continuing, however, a number of countries extended their schemes (including Germany, France and the Netherlands). This raises the risk that in some sectors, firms that continue to participate in STW
schemes might become unviable because demand for their products has declined permanently. For example, demand for office space and public transport may not fully recover. In addition, the cost of discouraging workers from finding jobs that are more productive may soon increase.

**Figure D.4**

*Euro area GDP declined more sharply during the pandemic than in 2009*

Schemes may therefore need to be recalibrated to contain their unintended effects, and they must continue to reflect the institutional and market environment of the various countries, as well as the unfurling of the health crisis. In general, directing the STW schemes towards the sectors worst hit by government measures and promoting the mobility of workers from subsidised to unsubsidised jobs could help mitigate the schemes’ unintended effects.⁴

**Financial developments and policies**

*Compared to the global financial crisis, the COVID-19 crisis took hold against the backdrop of already ultra-accommodative monetary policies and apparently smaller and very limited fiscal space.* However, major steps had been taken to increase the resilience of Europe and its institutions: the creation of the European Systemic Risk Board and the three European Supervisory Authorities,⁵ the setup of the Single Supervisory Mechanism and other building-blocks of the banking union, and the establishment of the European Stability Mechanism. Contrary to what might have been expected prior to the crisis, policy support unfolded massively and swiftly. As the eradication of the virus and the return to normal take longer than previously thought, this support may be recalibrated to ensure it can continue while minimising its side-effects.

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⁴ See OECD (2020c) for suggestions of how STW schemes could be recalibrated.

⁵ These are the European Banking Authority (EBA), the European Securities and Markets Authority (ESMA) and the European Insurance and Occupational Pensions Authority (EIOPA).
An unprecedented crisis

The COVID-19 crisis is not a normal recession but a halting of activity triggered to prevent a public health disaster. The policy response has therefore had to be different. The purpose is to limit social distress and avert unnecessary bankruptcies that could hold back the recovery. Monetary and fiscal policies have cushioned the blow, mainly by providing financial assistance to companies and workers.

Figure 14
Corporate and bank stock prices (European Union, 100=Dec. 2019)

The initial contraction could have easily turned into a financial collapse. At the onset of the crisis, the stock market plunged, with corporate stock prices indices plummeting by 35% and bank stocks by 40% as investors fled to safer assets (Figure 14). However, a massive and unprecedented response by central banks and governments prevented a financial collapse from compounding the freefall in output. Share prices recovered strongly for corporate stocks, whose performance was uncoupled from bank stocks. Nine months after the start of the crisis, in late November 2020, bank stocks are still 30% below pre-crisis levels. In the longer term, banks’ profitability is likely to remain subdued, given the persistent low interest rate environment that is squeezing net interest income and the returns from maturity transformation.

The ECB swiftly dispelled initial fears about the integrity of the euro area. In Figure 15, we plot quanto CDS spreads, or the difference between credit default swap quotes in US dollars and euros. The resulting measure is an indication of the risk associated with the break-up of the euro area as perceived by investors. In contrast to what happened during the sovereign debt crisis, the quanto CDS spreads did not escalate for the three major sovereigns – France, Italy and Spain – compared to Germany, and stayed almost unchanged compared to the period prior to the COVID-19 crisis. This suggests that the ECB’s response was perceived as bold enough to support the integrity of the euro area.

Lower inflation for longer. At its onset, some analysts argued that the crisis could have a negative or positive impact on inflation (Shapiro, 2020). Since the lockdown has resulted in both an adverse supply shock and an adverse demand shock, inflation could theoretically have responded either way. In the first few months, however, inflation slowed down sharply across Europe, and the decline was due to other factors than the most volatile components, such as energy (Figure 16). In the long term however, the risk
of inflation rising beyond its target is substantial given the amount of liquidity injected in the system. Moreover, as public debt accumulates, monetary policy may well give way to fiscal constraints (come under fiscal dominance), if rate hikes are seen as doing too much damage to public finances.7

**Figure 15**

**Quanto CDS spreads** (basis points)

![Quanto CDS spreads](image)

Source: Refinitiv and EIB calculations.
Note: Last record, October 2020.

**Figure 16**

**EU Harmonised Index of consumer prices and dispersion** (annual rate, %, and interquartile quartile range, in percentage points)

![EU Harmonised Index of consumer prices and dispersion](image)

Source: Eurostat and EIB calculations.
Note: Last record September 2020.

Major central banks entered the crisis with little leeway for lowering short-term policy rates. Figure 17 plots the interbank money market rates for the three major advanced economies. While the US Federal Reserve had embarked on tightening its monetary policy, the ECB and Bank of Japan were already deploying negative short-term rates close to the effective zero lower bound. Consequently, only the United States had some latitude to use standard monetary policy to support the economy. From February 2020 until October 2020, the effective federal funds rate decreased by 150 basis points in the United States.

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7 When public debt amounts to 100% of GDP, a 100 basis point increase in the short-term rate passed through the long-term rates increases interest expenses for governments by 1% of GDP each year in the long term.
Long-term rates also were already low prior to the crisis. Several structural drivers were already fuelling the downward trend in long-term interest rates (Figure 18). While monetary policy can be a contributor, demographic changes are a major cause. As the populations in advanced economies age, the balance between the various age groups in these populations shifts, affecting the overall supply of savings. Middle-aged individuals tend to save and provide funds to the rest of the economy, while the young and the old tend to spend more than their disposable income and demand funds. As a result, the real interest rate that balances the overall supply of savings with the demand for investment is affected by the relative size of these age groups (del Negro et al., 2018).

Long-term rates are most likely to remain low for longer, and might even drop further. While the rapid and unprecedented collapse of production, trade and employment may be reversed when the pandemic eases, historical data suggest that long-term economic consequences could persist (Jordà et al., 2020). Among these are a prolonged period of depressed real interest rates – akin to secular stagnation – that may linger for a long time. Chudik et al. (2020) estimate that the pandemic will likely drive long-term interest rates in the advanced economies about 100 basis points lower than their pre-COVID-19 lows over the next few years. This is because the crisis raises precautionary savings and dampens investment demand.

With increasing capital inflows and an appreciating exchange rate, Europe is perceived as resilient. Figure 19 plots net portfolio inflows in the euro area and the euro effective exchange rate. Since the start of the crisis, both have clearly been on a positive trend. From February 2020 until October 2020, the effective exchange rate of the euro, the exchange rate against a basket of currencies, increased by 7%. The stronger exchange rate partly reflected the trend in cumulative annual capital flows, which increased by more than 2% of GDP over the same period, with a shift from net outflows to net inflows. These developments suggest that during the crisis, the European Union’s performance, which was partly the result of the policy response, was perceived as credible and reassuring by international investors. Over the same period, the European Commission issued the first tranche of bonds to finance the SURE instrument (Support to Mitigate Unemployment Risks in an Emergency) and the recovery plan. The issuance was a major success, and was largely oversubscribed. This bodes well for the future of these bonds as a potential safe asset for investors, and also for the financing of the green transition.
A central bank with two arms

For the first time, the ECB acted both on monetary policy and on financial prudential policy. To ensure financial prudence, macro and micro policy measures were deployed. Following the global financial crisis, the ECB became in charge of the micro-supervision of euro area banks while the European Systemic Risk Board (ESRB) was created to coordinate macro-prudential policies across Europe. The COVID-19 crisis provided the first opportunity to coordinate these two types of policy intervention at the European level.

On the monetary policy side, the ECB deployed several measures to support banks’ liquidity. At the onset of the crisis, new non-targeted, longer-term refinancing operations were launched, the interest rates in targeted longer-term refinancing operations were lowered and collateral measures were eased (for a comprehensive presentation, see Lane, 2020). In June 2020, 742 European banks tapped the ECB’s TLTRO III for EUR 1.3 trillion. The multiyear loans are offered to banks at interest rates below the ECB’s main deposit rate, sometimes as low as minus 1% if certain conditions were met.8 In net terms, after adjusting for the repayment of maturing loans, the June operation provided a liquidity injection of EUR 158 billion. From the start of the crisis until September 2020, liquidity injections for banks in the euro area almost tripled, increasing by almost EUR 1.2 trillion (Figure 20). The ECB also decided on a new series of non-targeted pandemic emergency longer-term refinancing operations (PELTROs) to support liquidity in the euro-area financial system and to help preserve the smooth functioning of money markets by providing an effective liquidity backstop.

The ECB also strengthened its asset purchase programme. At the beginning of the crisis, the ECB increased its asset purchase programmes by EUR 870 billion (more than 7% of the euro area’s 2019 GDP) until end-2020. The Pandemic Emergency Purchase Programme (PEPP), a new programme with an envelope of EUR 750 billion, was created, with eased conditions for eligibility. In June 2020, the programme was extended until June 2021 at least, with its envelope raised to EUR 1.35 trillion and maturing principal payments reinvested until the end of 2022 at least.

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8 The condition aims at avoiding banks’ deleveraging. To benefit from the cheapest funding, the corporate loan book of banks has to remain above a certain benchmark during the horizon of the liquidity provided by the central bank. The dual-rate system was introduced in June 2020.
On the prudential regulation side, several measures were decided by the ECB, the European Commission and supervisory authorities to provide temporary capital relief for banks. Banks were allowed to operate below the level of capital defined by the Pillar 2 Guidance for the capital buffer and the liquidity coverage ratio. Supervisory flexibility regarding the treatment of non-performing loans was allowed and the capital requirements for market risk were reduced. To counteract the potentially destabilising impact of the more stringent banking regulations that were on the horizon, the implementation of certain new measures was frozen or postponed (ECB, 2020d).9

This extensive set of monetary and prudential measures proved very effective in keeping credit flowing. The coronavirus recession has resulted in large-scale changes to the balance sheets of euro-area banks. Corporate borrowers frontloaded their liquidity needs by taking out loans and placing the financing obtained in liquid assets, mostly held in commercial bank accounts. Banks significantly increased their funding from central banks while also building up their liquidity buffers there. The funding markets for banks have not shown the major signs of the distress they exhibited during the global financial crisis. In addition, most EU national governments provided state guarantees for bank loans, mainly targeting small and medium-sized enterprises (SMEs). In some countries these guarantees amount to more than 20% of GDP and represent over half of the existing stock of loans to non-financial corporations.

Fiscal policy

In Europe, central banks have retained their key roles, but are no longer the only major players. This time, governments and the European Commission have acted swiftly and strongly to cushion the economic shock caused by the pandemic with fiscal measures. Around EUR 2.7 trillion will be mobilised in response to the pandemic. This amount includes national liquidity measures, including the schemes approved under the temporary EU state aid rules, and measures taken under the flexibility arrangements of the EU budgetary rules (general escape clause).

Policymakers have fully grasped their crucial role in mitigating the impact of the crisis, avoiding a prolonged and painful slowdown and supporting a rapid and strong recovery. Government policies are key to stemming the amplification of the demand-side shock, and can help cushion the impact on the long-term potential output of EU economies. Within the European Union, governments have taken a wide array of measures to support households and firms. Support at the European level comes on top of these national measures and helps to preserve a level playing field as governments’ capacities to respond to the shock are not equally distributed across the European Union. The option of common support instruments continues to be important in light of the varying capacity of Member States to weather a further economic shock brought about by a second wave of infections. These common support instruments are also crucial to avoid repeating the pattern of the Europe’s last crisis, which was followed by a prolonged period of subdued investment and widening divergence (Anderson et al., 2020).

Economic and fiscal policies have also been set up at the EU level. A temporary Support to Mitigate Unemployment Risks in an Emergency (SURE) instrument was designed to provide Member States with temporary funding of up to EUR 100 billion by covering part of the cost of creating or extending national short-time work schemes. In addition, direct EU budget support of up to EUR 70 billion will be made available, mainly through the Coronavirus Response Investment Initiative. The initiative uses unspent EU cohesion funds and allows for greater flexibility and more upfront spending by providing 100% EU financing for measures to fight the crisis. Through the European Guarantee Fund, the EIB Group can support up to an additional EUR 200 billion of liquidity and risk finance, targeting SMEs in particular. The

9 The proposed changes to Capital Requirements Regulation (CRR) in the bank regulatory framework to avoid pro-cyclicality: implementation of the Basel III standards has been deferred to provide additional operational capacity for banks and supervisors. Standards for revised risk: the leverage ratio buffer and Pillar 3 disclosures have been deferred by one year to 1 January 2023. Transitional arrangements for the output floor have also been extended by one year to 1 January 2028. The Basel Committee on Banking Supervision (BCBS) and supervisory authorities also acted to mitigate unintended consequences of the accounting framework on banks’ capital position. Under the IFRS 9 Expected Credit Loss (ECL) approach, a system-wide rise in credit risk can prompt a large increase in loan-loss provisions and weigh on capital across banks. The BCBS decided to adjust, on a temporary basis, how additional provisions would flow through to capital. Corresponding legislative proposal on the CRR/CRD review published by the European Commission.
European Stability Mechanism (eSM) also introduced a Pandemic Crisis Support credit line. The credit line includes a liquidity facility of up to a maximum of 2% of Member States’ GDP. The facility can be drawn in several tranches until the end of 2022 at least, representing a maximum of EUR 240 billion.

The NextGenerationEU recovery plan tops up the immediate crisis response. The NextGenerationEU recovery plan aims to raise money by temporarily lifting the limit of 2% of EU gross national income it is allowed to raise for its own funds. The change enables the European Commission to borrow EUR 750 billion on the financial markets. This additional funding will be channelled through EU programmes and repaid over a long period of time through future EU budgets. In addition, the Commission has also proposed a revamped long-term EU budget and will dedicate some of its own resources to round out the NextGenerationEU programme.

Public debt is on the rise, but this is not the most pressing issue. The October 2020 IMF Fiscal Monitor estimated that the global fiscal response to the pandemic totals an unprecedented EUR 10 trillion, about 12% of the world’s GDP (IMF, 2020c). The pandemic will continue to drive up public debt, which the IMF expects to reach 99% of GDP in 2020 and to stabilise at around 100% of GDP by 2025. The IMF urges governments to maintain/extend support at least into 2021 to sustain the recovery and limit long-term scarring. Investment should therefore focus on health, education, digitalisation and green infrastructure to address climate change and future pandemics.

After the crisis, the attention will need to shift towards boosting the recovery by ensuring that the pandemic’s legacy does not weigh on economic activity. Creating a favourable environment for private investment and fostering structural change will be important. In the EU context, it is important that the recovery plan be combined with measures that tackle the key structural challenges that Europe faces, such as climate change, digitalisation and inclusiveness.

With non-performing loans looming, are financial markets correctly pricing risk?

The EU banking sector entered the COVID-19 crisis on a stronger capital footing than after the global financial crisis. The current economic crisis triggered by the pandemic did not originate in the financial sector and ten years of structural transformation has put banks in a much stronger capital position and given them a much deeper understanding of the various risks and interdependencies. The average core tier 1 capital ratio in the European Union now stands at 18.3% of risk-weighted assets, 8 percentage points higher than in 2008 (Figure 21). Although the rise masks some major differences between countries, countries with a weaker capital position are still in a much stronger position than before the onset of the global financial crisis.

Non-performing loans (NPLs) might increase at a faster pace than during past crises, despite the payment deferrals put in place in most EU countries. Prior to the COVID-19 shock, NPL ratios were declining in most countries (3.2% of total loans in the euro area). However, they are now likely to increase, and will possibly do so faster than in the past two recessions as the fall in GDP is expected to be much steeper and more broad-based, with households, small businesses and companies in several economic sectors affected simultaneously. The allotment of credit lines to firms hit by the lockdown is likely to be accompanied by a rise in the risk for banks. However, the ECB has taken several measures to guarantee the liquidity of European banks, limit haircuts on debt and extend the pool of eligible collateral.
Banks have significantly improved the quality of their assets in recent years, but the crisis could take a toll if it wears on. After peaking in the fourth quarter of 2014 (at 7.1%), the volume of non-performing loans dropped by more than half to 3.2% in the fourth quarter of 2019. These efforts enabled banks to enter the COVID-19 crisis in a stronger position than would have been the case some years ago. In addition to consistent policy support, two factors are likely to play a role in determining the rise in non-performing loans: the length of the crisis and banks’ asset composition (Box D).

Are markets too benign in their assessment? A European Securities and Market Authorities’ report analysed the impact of COVID-19 on financial markets during the first half of 2020 and highlighted the risk of a potential uncoupling of bond and stock markets from underlying economic activity, which calls the sustainability of the current market rebound into question. Since the end of the first lockdown, risky assets have attracted investors despite the subdued economic outlook. The ample liquidity provided by central banks could be fuelling the price rises and leading to an overall disconnection from economic prospects (Bank for International Settlements, 2020).

**Box E**

Bank exposure and COVID-19 policy responses

The ability and willingness of banks to lend will be critical to offsetting the current recession and supporting the recovery. Firms rely on external sources for one-third of their funding, to improve their cash flow and to fund their investments. Whereas larger firms can access the capital markets, bank loans play a significant role in funding small and medium-sized companies. During the pandemic, demand has increased for short-term loans to fund working capital in particular (ECB, 2020c).

A series of monetary, fiscal and prudential policy measures have supported the supply of bank credit. Central banks have lowered refinancing rates, in the ECB’s case to as low -1% for banks that increase their lending to the real economy (ECB, 2020a). In addition, fiscal policy measures have reduced the credit risk associated with lending to businesses, for example by injecting equity, providing loan guarantees, and supplying liquidity to firms via tax deferrals and wage subsidies (see IMF, 2020a, for an overview). By June 2020, banks had granted COVID-19-related payment moratoriums amounting to 7.5% of their outstanding loans to households and companies in the European Union. Public guarantees covered new lending amounting to 1.6% of outstanding loans to households and companies (European Banking Authority, 2020).
Prudential policy measures were introduced to alleviate banks’ concerns that risky lending to businesses would erode the buffers they hold over regulatory capital and liquidity requirements (for an overview of the measures, see for instance International Institute of Finance, 2020). Several supervisors have lowered requirements that were designed explicitly to be relaxed in downturns (Drehmann et al., 2020). For example, Sweden lowered the countercyclical capital buffer requirement by 2.5 percentage points of risk-weighted assets to zero. Many other countries had less scope for such large reductions as their countercyclical buffers were smaller at the outset of the crisis (ESRB, 2020). In addition, the implementation of some new requirements was delayed. For example, banks were effectively allowed to postpone holding capital against expected but not-yet-incurred credit losses (Ehrentraud and Zamil, 2020). Here, the concern was that banks with high, perhaps overly pessimistic, estimates of COVID-related credit losses would curtail their lending if they had to set aside more capital to cover expected losses. At the same time, supervisors have encouraged banks to build their capital buffers by retaining a greater share of their earnings (ECB, 2020b).

While these measures support the supply of bank credit and reduce defaults in the near term, loan losses are likely to mount in the medium term. First, loans typically take a couple of years to turn sour after the start of a recession. Second, most fiscal and prudential policy relief programmes are set to expire within the next few years. Third, the bulk of fiscal support has been granted in the form of debt, not equity. Loans provide liquidity but increase corporate leverage. Once loan guarantees expire, many firms will therefore pose a higher credit risk than before the crisis. Accordingly, recent surveys show that banks, on balance, are seeing loans to firms as more risky, and that banks are becoming more risk averse (ECB, 2020c).

Figure E.1
NPLs and GDP growth by region in the aftermath of the global financial crisis

Following the first lockdown, aggregate credit losses may ultimately amount to 5-10% of banks’ exposures. One approach for estimating eventual credit losses relies on past correlations between GDP and non-performing loans, ignoring the support measures granted so far. This analysis suggests that non-performing loans to households and firms could have doubled from 2019 to about 7% of bank loans in 2020. This estimate is based on a panel regression of changes in euro area bank
non-performing loans on output gaps. According to the estimate, non-performing loans rise by 0.6 percentage points if the output gap increases by 1 percentage point. That said, non-performing loans may increase later, or remain below what past trends suggest because of the scale of fiscal and monetary policy measures. If the recovery resumes soon, viable firms might be able to restart their activity, while the weight of losses will not only be carried by banks but also by governments that provided guarantees. Another approach for estimating credit losses is to infer default likelihoods from the value and the volatility of listed firms’ share prices. This estimate reflects the impact of support measures, but loss estimates depend heavily on the model used and its calibration. Using corporate equity prices as of April 2020, Reinders et al. (2020) estimate, for example, that corporate loan losses could equal 5% of banks’ corporate exposure.

If the crisis lasts longer, however, the stimulating effect of support measures on bank credit may vanish and additional risks might arise. In these programmes, sovereign nations are effectively sharing their lower credit risk with the corporate and banking sectors. But sovereign risk itself is rising as governments’ explicit and implicit liabilities are mounting. Sovereigns might themselves be dragged down by banking and corporate sector debt. This situation has proven explosive for highly indebted economies in the past, resulting in deep recessions and prolonged deteriorations in bank loan books. Figure D.1 shows that non-performing loans rose by significantly and for longer periods in places where sovereign-bank spirals developed.

If the pandemic lasts too long and triggers a major deterioration of bank asset quality, bad banks could be created to take over the non-performing loans, which could help the recovery.

Fortunately, banks are in a better position to absorb losses than at the outset of the 2007-2009 financial crisis. Bank capital levels have increased, and a great deal of effort has gone into reducing non-performing loans back to their 2007 level (European Commission, 2019).
Conclusion and policy implications

The government restrictions to contain the spread of the coronavirus pandemic are having a significant negative impact on the global economy. As the pandemic spread rapidly across the globe, many governments, especially in advanced economies, took drastic measures to contain the virus that severely constrained domestic economic activity and international trade. While most economies were bouncing back after the removal of the measures, concerns were rising of longer-term economic effects. Those concerns were intensified by the second wave of infections that washed over Europe in the fourth quarter of 2020.

The policy measures put in place have been expansive enough to contain the economic damage caused by severe government restrictions across the European Union. National governments, national central banks, the ECB and the European Union have rapidly mobilised resources to counteract the effect of restrictions on movement and social distancing. Fiscal and monetary policymakers, as well as financial supervisors, acted in coordination to mitigate the effects on firms, banks and employees. Most of these measures, however, were designed as an emergency response and were intended to be temporary. Removing them too soon might quickly prove devastating as a second wave of infections hit most EU members in the fourth quarter. At the same time, the policy measures’ bluntness and expansive use of resources suggest that they may not be sustained in full for much longer.

The symmetry and intensity of the shock is pushing EU members to substantially strengthen common economic policy. The EU policy response to the pandemic is impressive both in its size and speed of delivery. Several indicators show that the policy response was well received by markets and strengthened confidence in the future of the European Union. Progressing swiftly and delivering on expectations remains key. The rapid economic rebound in the third quarter shows how successful the policy response to the first lockdown was. If anything, the second virus wave is a strong argument for maintaining the policy measures over a longer-term horizon, until a vaccine is widely distributed. When this happens, support may be recalibrated to reduce possible long-term side-effects, but the overriding concern should be to preserve the ecosystem as it was before the pandemic.

In addition to supporting the income of those unable to work and minimising negative effects on demand, the policy package could also be instrumental in shaping the future of Europe. The crisis provided an opportunity to address the major challenges facing the European economy, such as climate change and digitalisation. The crisis response is also historic as it led to the first joint European issuance of debt on a large scale. The joint debt issuance could turn out to be a cornerstone of the capital markets union. The crisis has affected European economies differently, and recovery needs to focus on stronger financial integration if cohesion is to be maintained within the European Union.
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