

# COVID-19 PANDEMIC: OVERVIEW OF THE FISCAL POLICY RESPONSE AND MACROECONOMIC DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES

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## ABSTRACT

The COVID-19 pandemic has had a profound impact on the European Union and the United States, with varying waves of severity and divergent progress in vaccination campaigns across regions. To address the short-term costs and potential long-term effects of the crisis, policymakers adopted support measures, particularly fiscal policies. This paper provides an overview of the fiscal support measures implemented, with a focus on the euro area and the United States. It also examines the impact of the pandemic and of support policies on the economies of both regions, as well as the ongoing economic recovery. By analysing the fiscal responses and the macroeconomic developments, this study aims to contribute to a better understanding of the diverse approaches taken by policymakers in combatting the COVID-19 crisis and mitigating its economic consequences.

**Keywords:** COVID-19; fiscal support; economic recovery; labour productivity

**JEL classification:** E62; H12; H25; H51; J38; J68

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# ΕΠΙΣΚΟΠΗΣΗ ΔΗΜΟΣΙΟΝΟΜΙΚΩΝ ΜΕΤΡΩΝ ΣΤΗΡΙΞΗΣ ΚΑΙ ΜΑΚΡΟΟΙΚΟΝΟΜΙΚΩΝ ΕΞΕΛΙΞΕΩΝ ΣΤΗ ΖΩΝΗ ΤΟΥ ΕΥΡΩ ΚΑΙ ΣΤΙΣ ΗΠΑ ΤΗΝ ΠΕΡΙΟΔΟ ΤΗΣ ΠΑΝΔΗΜΙΑΣ ΤΟΥ ΚΟΡΩΝΟΪΟΥ (COVID-19)

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## ΠΕΡΙΛΗΨΗ

Η πανδημία του κορωνοϊού (COVID-19) είχε σοβαρές επιπτώσεις στην Ευρωπαϊκή Ένωση και τις Ηνωμένες Πολιτείες, με διαφορές μεταξύ των δύο περιοχών όσον αφορά τις εξάρσεις των κρουσμάτων και την πρόοδο των προγραμμάτων εμβολιασμού. Για να αντιμετωπίσουν το βραχυπρόθεσμο οικονομικό κόστος και τις πιθανές μακροπρόθεσμες επιπτώσεις της κρίσης, οι υπεύθυνοι χάραξης πολιτικής υιοθέτησαν μέτρα οικονομικής στήριξης, ιδίως δημοσιονομικά. Το παρόν άρθρο περιλαμβάνει μια επισκόπηση των μέτρων δημοσιονομικής στήριξης που εφαρμόστηκαν, με έμφαση στη ζώνη του ευρώ και τις Ηνωμένες Πολιτείες. Εξετάζει επίσης τον αντίκτυπο της πανδημίας και των πολιτικών στήριξης στις οικονομίες και των δύο περιοχών, καθώς και τη συνεχιζόμενη οικονομική ανάκαμψη. Αναλύοντας τις δημοσιονομικές πολιτικές που υιοθετήθηκαν και τις μακροοικονομικές εξελίξεις, η παρούσα μελέτη στοχεύει να συμβάλει στην καλύτερη κατανόηση των διαφορετικών προσεγγίσεων που ακολούθησαν οι υπεύθυνοι χάραξης πολιτικής για την καταπολέμηση της πανδημικής κρίσης και το μετριασμό των οικονομικών συνεπειών της.

# COVID-19 PANDEMIC: OVERVIEW OF THE FISCAL POLICY RESPONSE AND MACROECONOMIC DEVELOPMENTS IN THE EURO AREA AND THE UNITED STATES\*

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## I INTRODUCTION

The COVID-19 crisis has profoundly affected both the European Union and the United States. Different countries have been hit by waves of different severity at different times, while progress in vaccination campaigns has also varied across countries. Compared to the European Union, the impact on human health has been larger in the United States, which experienced a higher total number of deaths due to COVID-19 per million people (see Chart 1). As for the euro area, although it reported the highest number of per capita cases in the spring of 2021, vaccine rollouts accelerated in the summer of 2021, with the percentage of fully vaccinated people overtaking that of the United States, an early leader in the share of the population vaccinated.<sup>1</sup>

As the COVID-19 pandemic caused an enormous health crisis, lockdown measures were implemented in order to contain the spread of the virus, resulting in a prolonged suspension of various economic activities. To overcome the short-run costs of the COVID-19 crisis and its possible scarring effects in the long run, policymakers adopted economic (especially fiscal) policy support measures. Each country has been affected differently by the pandemic and, accordingly, responded differently (Dimitropoulou and Theofilakou 2021). The measures encompassed preventive and mitigating health actions, as well as comprehensive macroeconomic policies, such as fiscal and monetary support to assist struggling businesses and households. This paper focuses on the fiscal responses to the COVID-19 crisis.

During mild economic shocks, automatic stabilisers have proven effective as policy tools for fiscal authorities to stabilise aggregate demand.<sup>2</sup>

However, the economic impact caused by the spring 2020 lockdowns was unprecedented in both scale and duration. In essence, a fiscal response was both necessary and timely (Bouabdallah et al. 2020).<sup>3</sup>

In order to assess the short-run economic impact of the COVID-19 crisis on the euro area and the United States, this paper surveys the fiscal responses in the two regions and the macroeconomic developments during the pandemic and until today.<sup>4</sup> The recovery has exhibited notable disparities between these two economies. These differences can be attributed not only to the inherent differences of these economies, but also to the distinct approaches adopted by the respective governments in terms of support measures. Euro area countries primarily empha-

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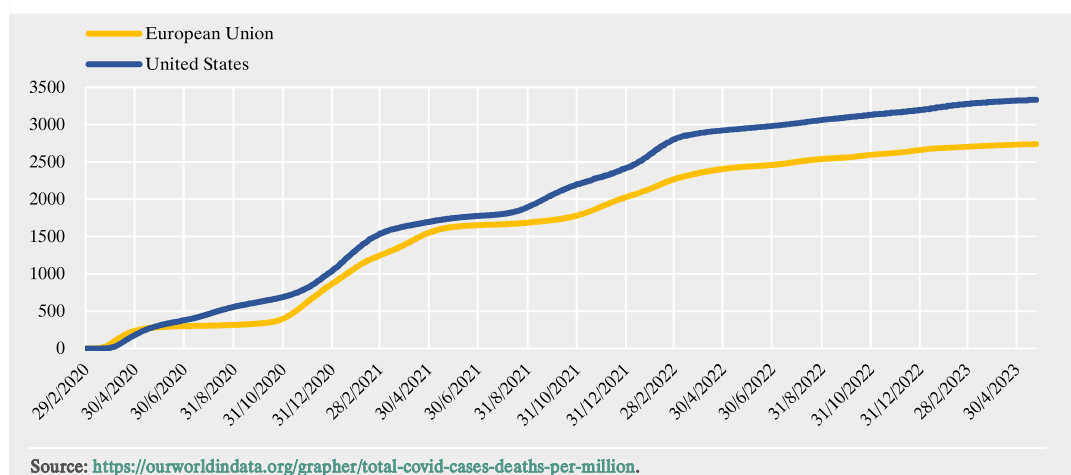
1 <https://www.whitehouse.gov/wp-content/uploads/2022/04/Chapter-3-new.pdf>.

2 For an analysis of how automatic fiscal stabilisers operated during the pandemic crisis and of their effectiveness, see Bank of Greece (2021), *Annual Report 2020*, Box V.1 (in Greek).

3 Nonetheless, questions arise regarding the extent of fiscal responses in certain countries and their appropriateness. As discussed in Romer and Romer (2022), the sensible approach to policy during a pandemic is to compensate individuals for the losses they would have incurred if they had been able to protect themselves against pandemic-related effects. However, if the pandemic leads to an aggregate demand shortfall and output falls below a level that can be produced safely, implementing broad fiscal stimulus becomes appropriate and desirable (Romer 2021).

4 Using a novel database of daily fiscal policy announcements for 52 countries from 1 January to 31 December 2020, Deb et al. (2021) find that fiscal policy announcements have been effective in stimulating economic activity, boosting confidence and reducing unemployment, but their effect varies by the type of measure and the stage of the pandemic. Jordà and Nechio (2023) find that aggressive fiscal support in the United States added 2.5 percentage points to wage and price inflation, compared to a situation where the extent of fiscal support was calibrated to maintain real disposable income on trend. De Soyres et al. (2022) similarly find that domestic fiscal stimulus added 2.5 percentage points to inflation in the United States. In a recent communication, the European Commission stated that the necessary fiscal response to the COVID-19 pandemic and the contraction in output have resulted in a significant increase in government debt ratios, in particular in some high-debt Member States, though without rising debt servicing costs. See [https://ec.europa.eu/commission/presscorner/detail/en/ip\\_22\\_1476](https://ec.europa.eu/commission/presscorner/detail/en/ip_22_1476).

**Chart 1 Total confirmed deaths due to COVID-19 per million people**



sised employment support schemes, while the United States largely focused on measures aimed at bolstering disposable income. Finally, several indicators confirm that the health and economic crisis caused by COVID-19 affected sectors in a heterogeneous way. Some sectors have been hit particularly hard (Battistini and Stoevsky 2021), while the recovery has been also uneven.

The structure of this paper is as follows: Section 2 provides a concise overview of the fiscal support measures implemented, with a focus on the euro area and the United States. Section 3 examines the impact of lockdown and support measures on the economies on both sides of the Atlantic, as well as the economic recovery up to now. Section 4 concludes.

## 2 FISCAL POLICY RESPONSE TO THE ECONOMIC FALLOUT OF THE CORONAVIRUS PANDEMIC

Discretionary measures aimed at cushioning the economic shock by protecting employment, containing the fall in private consumption and supporting disposable income. The main fiscal support measures adopted can be grouped into two categories. First, directly budget-relevant measures, such as income transfers through benefits or taxes and social security contribution deferrals. Job retention schemes, which

provided support to both businesses and households, played a crucial role.<sup>5</sup> Second, measures without a direct budget impact, to support liquidity and solvency, such as loan moratoria, public guarantees and government loans, trade credit insurance and capital injections (e.g. to airline companies).

### 2.1 EURO AREA

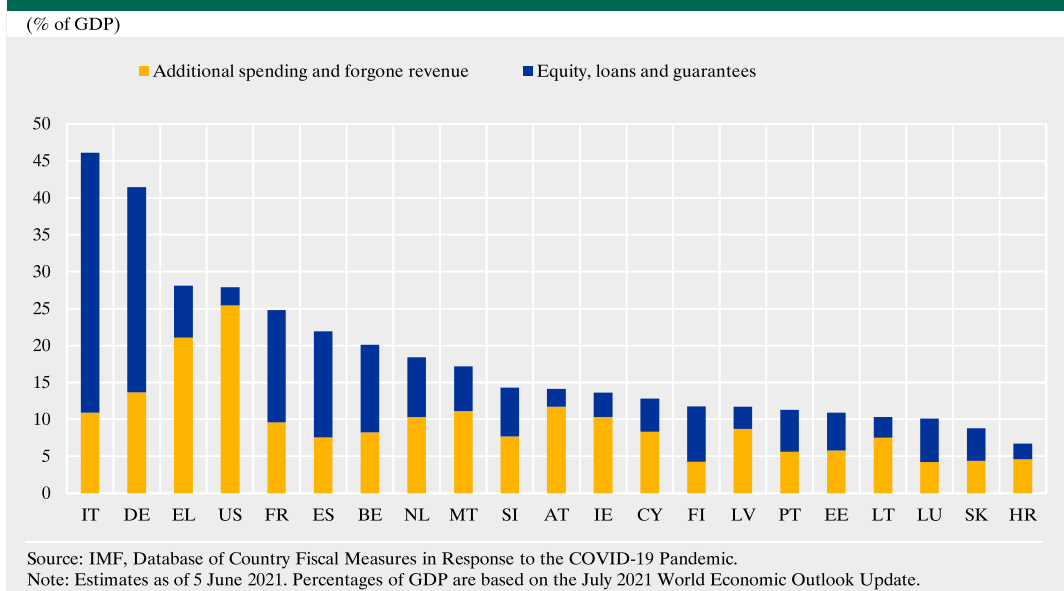
In 2020, in order to contain the coronavirus pandemic and minimise its socio-economic impact, euro area governments adopted considerable fiscal and liquidity support measures at the national level.<sup>6</sup> According to the European Commission, the discretionary fiscal measures implemented by euro area governments in 2020 amounted to around 4% of GDP, on average, at the euro area level, while loan guarantees and other liquidity support measures for businesses, which, however, have no direct budgetary impact, reached around 17% of the euro area GDP.<sup>7</sup> An alternative metric of fiscal support is based on the general government primary surplus. The change in the

<sup>5</sup> For more details about job retention schemes across countries, see Eichhorst et al. (2022).

<sup>6</sup> For the economic measures taken in 2020 to address the consequences of the coronavirus crisis, see Bank of Greece (2020), *Monetary Policy 2019-2020*, Box II.1 (in Greek).

<sup>7</sup> See European Commission, *European Economic Forecast: Autumn 2020*.

**Chart 2 Discretionary fiscal response to the COVID-19 pandemic in selected economies**



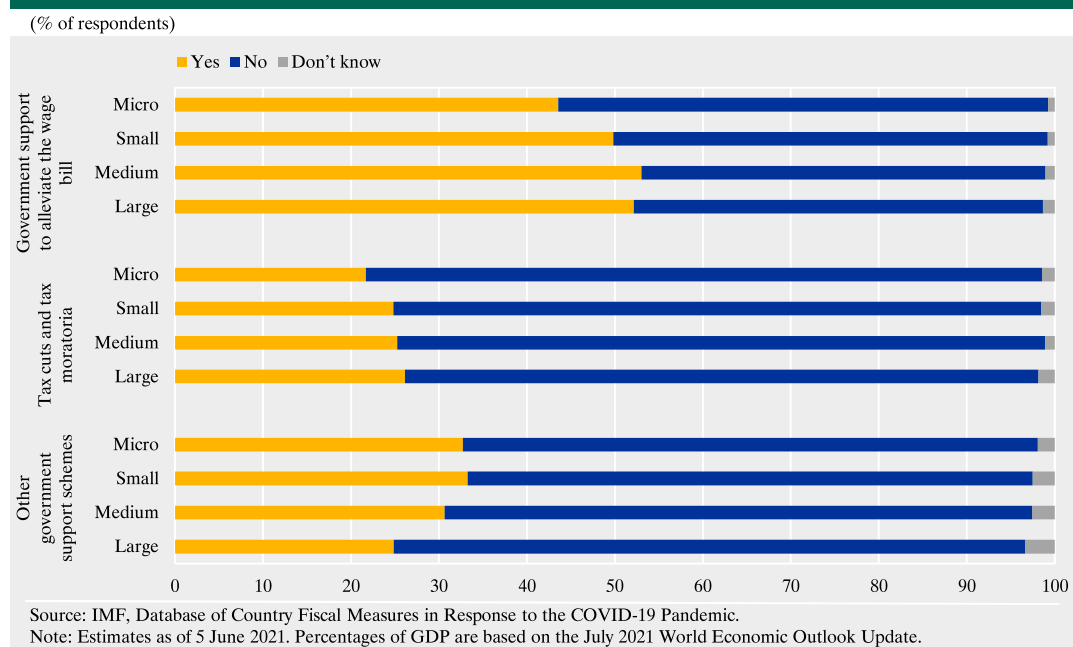
primary surplus captures the impact of the discretionary measures introduced and expired or expected to expire, as well as the impact of automatic stabilisers (excluding liquidity support and guarantee-providing measures that have no direct budgetary impact). In euro area countries, the cumulative change in the primary fiscal balance relative to 2019 is estimated on average at 13.8% of GDP in 2020-21 and 17% of GDP in 2020-22. If inflows of funds from the Recovery and Resilience Facility (RRF) are also taken into account, total support comes to 17.9% of GDP.<sup>8</sup> It should be noted that by the first half of 2022 the pandemic-related support measures introduced over the previous two years had been largely lifted.

Yet, there is significant cross-country heterogeneity within the euro area in terms of both the amount and the composition of such measures (see Chart 2). The International Monetary Fund (IMF), in an overview of policy responses during the pandemic crisis (IMF 2021), classifies discretionary measures into two categories: (i) above-the-line support; and (ii) below-the-line measures and contingent liabilities. The first category includes meas-

ures such as higher public spending on the health sector, extension of unemployment benefits, grants, tax and social security contribution moratoria. The second category comprises measures such as state-guaranteed loans, capital injections and government guarantees. On the basis of data on the discretionary fiscal measures announced between January 2020 and June 2021 (with an implementation horizon from 2020 onwards), Italy and Germany stand out, with overall measures surpassing 45% and 40% of their 2020 GDP, respectively, followed by France with about 25% and Spain with 22%. The composition of measures is also very different. Large European economies, such as Germany, France, Italy and Spain, announced government loans and guarantees to a much greater extent than above-the-line support. Consequently, the ranking changes if only above-the-line measures are taken into account: Greece ranks first, with overall measures accounting for 17.5% of 2020 GDP, followed by Germany and Austria (around 15% each), Italy (around 11%), France (9.6%) and Spain (slightly above 8%).

<sup>8</sup> See Licchetta, M., G. Mattozzi, R. Raciborski and R. Willis (2022).

**Chart 3 Euro area companies that have received government support in response to the pandemic**



### Measures to support businesses

Most euro area governments introduced policies to support businesses, with a focus on small and medium-sized enterprises (SMEs) and households during the implementation period of containment measures. Business support policies mostly included measures to enhance firms' liquidity in order to prevent lay-offs and/or bankruptcies.<sup>9</sup> Sizeable measures were adopted to improve access to finance of businesses through public guarantees, government loans on favourable terms or subsidies.

According to the responses to the Survey on the Access to Finance of Enterprises (SAFE) conducted between October 2020 and March 2021 (see Chart 3), 55% of large and medium-sized companies, as well as 49% and 45% of small and micro firms, respectively, reported having received government support aimed at alleviating their wage bills. At the same time, 28% of large firms and more than 25% of SMEs mentioned tax cuts and tax moratoria. Finally, other forms of government support (including loan guarantee schemes, as well as

other country-specific policies) were mentioned by more than 33% of micro and small firms and by only 24% of large companies. Of those SMEs that had made use of such government support measures, the vast majority considered them to be extremely important in terms of meeting their immediate and short-term obligations. At the euro area level, almost two-thirds of SMEs stated that such schemes were also important in terms of overcoming the difficulties caused by the pandemic and avoiding bankruptcy, as did 52% of large firms.

### Job retention schemes

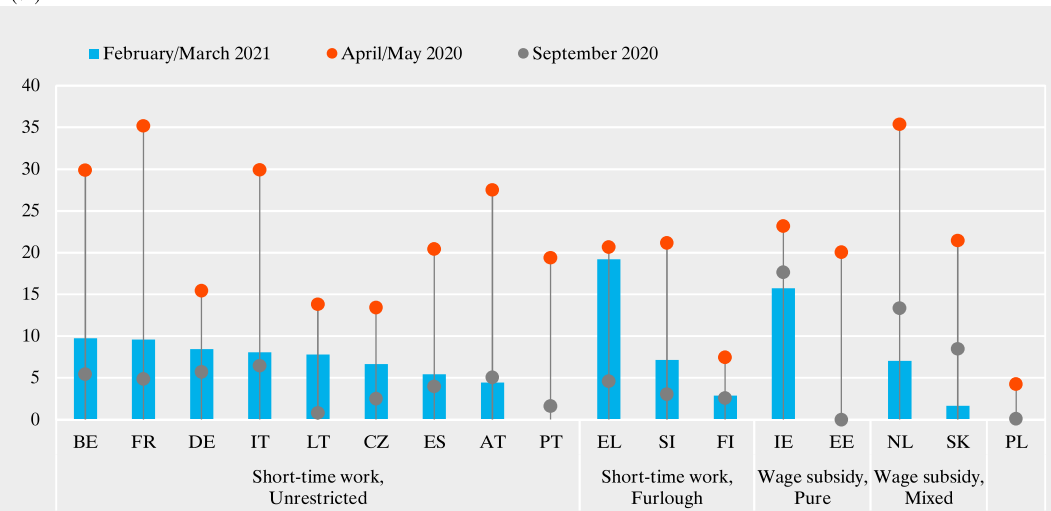
Most euro area countries used job retention schemes in order to mitigate the labour market impact of the COVID-19 crisis. Employment support programmes took three different forms, as outlined by the OECD (2020). First, short-time work schemes, such as *Kurzarbeit* in Germany, under which businesses facing difficulties because of COVID-19 could, subject

<sup>9</sup> See [https://www.eca.europa.eu/Lists/ECADocuments/INSR22\\_28/INSR\\_SURE\\_EN.pdf](https://www.eca.europa.eu/Lists/ECADocuments/INSR22_28/INSR_SURE_EN.pdf).



**Chart 4 Use of job retention schemes as a percentage of dependent employment**

(%)



Source: OECD Employment Outlook 2021.

Note: Short-time work – unrestricted: no significant limits on the reduction in working time; short-time work – furlough: no partial reductions in working time allowed; wage subsidy – pure: based on wage bill only; wage subsidy – mixed: based on wage bill and reduction in business activity. Take-up rates are calculated as a percentage of all dependent employees in Q1 2020. Italy, Slovenia and Slovakia: latest data refer to December 2020. Portugal: data for December unavailable.

to conditionality, temporarily reduce their employees' working hours instead of laying them off, while ensuring their full-time employment income through government grants. Businesses were only burdened with the cost of actual hours worked by their employees, while employees received a government grant for the hours not worked, thereby securing their full-time employment income. Second, furlough schemes, which provided grants to workers whose employment contracts were suspended, such as the Spanish *ERTE* scheme. Third, wage subsidy schemes, which entailed the subsidisation of businesses for recruiting unemployed persons, such as the Dutch *Noodmatregel Overbrugging Werkgelegenheid (NOW)*. A crucial aspect of all these schemes was that workers kept the contract they had signed with their employer even if their work was suspended (OECD 2020).

Overall, the use of job retention schemes was high, as suggested by the OECD (OECD 2021). The use of these schemes responded to varying lockdown measures and the structure

of the economies and, thus, cross-country differences were observed in their design and implementation (see Chart 4). The actual use of these schemes was considerably lower than the initial requests in some countries, but still about ten times as high as during the global financial crisis across the OECD (OECD 2020). The majority of European countries (including the United Kingdom) had already in place relatively generous unemployment benefit schemes and short-time work schemes prior to the pandemic. With the outbreak of the pandemic and the ensuing imposition of restrictions, all euro area countries introduced such schemes or expanded existing ones to protect employment and support incomes. In Germany, for instance, the existing short-time work scheme became temporarily more flexible and broader in scope. It is estimated that almost 10 million people had benefited from the *Kurzarbeit* scheme by mid-May 2020, compared with around 1.4 million people during the global financial crisis.<sup>10</sup>

<sup>10</sup> <https://www.bundesfinanzministerium.de/Web/EN/Home/home.html>.

The use of both new and old job retention schemes was widespread during the first wave of the COVID-19 pandemic (OECD 2022). Take-up as a share of dependent employment peaked at above 20% in most countries in April/May 2020. Take-up rates tended to be considerably high in countries with general short-time work schemes, reaching or exceeding 30% in France, Belgium and Italy. The use of job retention support declined quickly, as most countries relaxed restrictions over the summer of 2020. Take-up fell to below 6% in almost all countries by September 2020, just before several countries began to see a resurgence of the pandemic. Countries that were hit by a new wave of the coronavirus, such as France and Italy, saw increases in take-up in February/March 2021 – although to levels well below the peak of spring 2020. However, in Greece, take-up reached levels very close to the peak seen at the start of the crisis (20%). Lastly, from a sectoral point of view, the use of these schemes was particularly large in the sectors most affected by restrictions and social distancing measures, such as accommodation and food services, arts and entertainment, wholesale and retail trade.

### EU-wide policies

On top of the national measures adopted, the EU's response has also been significant and complemented national efforts. First, as the health situation in the EU worsened, the European Commission and the Council of the European Union activated the general escape clause of the Stability and Growth Pact in March 2020. The activation of this clause allowed Member States to temporarily depart from the normal budgetary requirements of the Pact. This facilitated Member States taking steps to sustain the economy during the pandemic and support a sustainable recovery, while safeguarding fiscal sustainability.<sup>11</sup> Moreover, on 9 April 2020, the Eurogroup decided to put in place additional financial tools to deal with the consequences of the health crisis and facilitate the reopening of the economy: a) the creation by the European Investment Bank (EIB) of a pan-European guarantee fund that could lever-

age loans amounting to €200 billion to SMEs; b) the establishment by the European Stability Mechanism (ESM) of a special lending mechanism, through the existing Enhanced Conditions Credit Line (ECCL), enabling Member States to access credit at almost zero interest rates without additional conditions, equal to 2% of their GDP at the end of 2019; and c) the establishment by the European Commission of a temporary lending instrument for the protection of employment in the form of low-interest loans totalling up to €100 billion (SURE programme). Through the temporary SURE instrument, EU Member States can obtain funding for the deployment of new or the extension of already existing job retention schemes, such as short-time work and wage subsidy schemes, as well as for health-related measures. The European Commission estimates that SURE supported about 31.5 million workers and 2.5 million businesses in 2020, and that nine million people participated in SURE-funded job retention schemes in 2021. On 27 May 2020, the European Commission presented a proposal for the creation of a new recovery instrument covering the period 2021-2026, the so-called “Next Generation EU” programme with a total envelope of €750 billion consisting of grants (up to €500 billion) and loans (up to €250 billion).

## 2.2 UNITED STATES

In the United States, the cumulative change in the primary fiscal balance relative to 2019 was larger than in the euro area and is estimated at 14.9% of GDP in 2020-21 and 17.4% of GDP in 2020-22. Unlike euro area countries, discretionary support in the United States was provided mostly through directly budget-relevant (above-the-line) measures. Thus, on the basis of IMF data, out of a total of discretionary fiscal measures amounting to 28% of GDP (announced in the United States between January 2020 and June 2021 with an implementation horizon from 2020 onwards), above-the-

<sup>11</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0123>.



line measures accounted for slightly more than 25% of 2020 GDP, i.e. 7.5 p.p. above the figure for the euro area country with the most generous above-the-line package (see Chart 2).<sup>12</sup> It is indicative that directly budget-relevant measures were about twice as high as the liquidity-providing measures for businesses.<sup>13</sup>

Table 1 shows the major components of the United States' fiscal response, totalling \$5.2 trillion. Around 19% of the total was allocated to business support, 18% to income support, 17% to state and local governments, more than 16% to direct payments to households and 13% to public health measures. More specifically, \$808 billion of the Business Support component was allocated to the Paycheck Protection Programme which provided forgivable loans to small businesses if they maintained payrolls, while \$711 billion of the Income Support component was allocated to unemployment benefits.

Specifically, the Coronavirus Aid, Relief, and Economic Security (CARES) Act<sup>14</sup> in 2020 provided direct economic assistance for American workers, households, small businesses and industries, amounting to about 11% of GDP (\$2.3 trillion).<sup>15</sup> Through Economic Impact Payments, amounting to about 6% of GDP, households received relief payments of up to \$1,200 per adult for eligible individuals and \$500 per qualifying child.<sup>16</sup> At the same time, owing to soaring unemployment and the relatively modest unemployment benefits in the United States (compared with Europe), the US administration announced Short-Time Compensation (STC) programmes as part of the CARES Act. However, the use of STC programmes remained rather weak and the US administration introduced various temporary wage subsidy schemes, such as the Paycheck Protection Program (PPP)<sup>17</sup> and the Employee Retention Tax Credit (ERTC)<sup>18</sup>. Notwithstanding this, most employers in the United States opted for temporary lay-offs. Respectively, on their part, many unemployed persons lacked incentives to seek employment, as they received unemployment benefits plus an additional weekly payment of

**Table 1 Deficit impact of US pandemic-related measures**

Provision	Impact on deficit (USD billions)
Business support	995
Income support	963
State & local funding	868
Direct payments	859
Health spending	690
Tax policy	418
Other spending	428
Total	5,221

Source: Committee for a Responsible Federal Budget (CRFB) Covid Money Tracker, <https://www.covidmoneytracker.org/explore-data/interactive-table>, accessed 16 May 2023.

\$600 for four months under the CARES Act (Springford and Tilford 2020).

As part of the 2020 Annual Capital Expenditures Survey (ACES), US companies were asked about the impact of the COVID-19 pandemic on business operations (see Table 2). In total, 62.8% of companies with employees received financial assistance in 2020. In more

<sup>12</sup> It should be recalled that the change in the primary balance reflects the effect of discretionary measures and automatic stabilisers, but does not capture the effect of measures without a direct fiscal impact, while the IMF definition includes measures with or without a fiscal impact and excludes the effect of automatic stabilisers.

<sup>13</sup> According to a study by Bruegel, the United States spent \$561 billion on payment deferrals for taxes and social security contributions to ease liquidity conditions for firms and workers, as well as another \$560 billion on liquidity-providing measures through government loans and public guarantees to firms. The respective amount for immediate fiscal impulse measures, i.e. additional government spending (such as expenditure on health care, job retention schemes, subsidising SMEs, public investment and forgone revenues) was \$1,940 billion. For further information, see <https://www.bruegel.org/dataset/fiscal-response-economic-fallout-coronavirus>.

<sup>14</sup> <https://home.treasury.gov/policy-issues/coronavirus/about-the-cares-act>.

<sup>15</sup> <https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19#U>.

<sup>16</sup> For a four-member family, these payments provided direct economic relief totalling up to \$3,400. For further information, see <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-american-families-and-workers/economic-impact-payments>.

<sup>17</sup> Under the PPP, businesses employing up to 500 persons could apply for loans in order to cover their payroll costs and retain their employees. For further information, see <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-small-businesses/pay-check-protection-program>.

<sup>18</sup> The ERTC provides a tax credit to businesses whose sales dropped by more than 50%. For further information, see <https://www.irs.gov/newsroom/faqs-employee-retention-credit-under-the-cares-act>.

**Table 2 Financial assistance requested and received by companies with employees, by source**

(% of companies with employees, 2020)

NAICS code	Industry	Paycheck Protection Programme (PPP)		Economic Injury Disaster Loans (EIDL)		Small Business Administration (SBA) Loan Forgiveness	
		Requested	Received	Requested	Received	Requested	Received
	Total <sup>1</sup>	61.7	58.3	21.6	18.5	21.0	16.2
21	Mining	70.2	68.7	12.2	11.8	11.3	10.4
31-33	Manufacturing	69.3	65.7	21.2	19.1	24.4	19.5
44-45	Retail trade	69.9	66.3	25.1	21.3	24.9	19.2
61	Educational services	69.1	67.9	27.8	23.9	23.8	17.9
62	Health care and social assistance	71.0	67.3	26.2	23.3	26.9	22.7
71	Arts, entertainment and recreational services	58.8	56.2	27.9	23.8	19.5	15.6
72	Accommodation and food services	74.1	67.7	40.7	33.5	32.5	23.1

Source: US Annual Capital Expenditure Survey for 2020.

<sup>1</sup> Total across all sectors. Companies were able to select more than one survey response.

detail, the financial assistance requested (received) during the coronavirus pandemic in 2020 by companies with employees, broken down by source, is as follows: (i) 61.7% of companies requested financial assistance from the PPP (received by 58.3%); (ii) 21.6% from the Economic Injury Disaster Loan (EIDL) (received by 18.5%)<sup>19</sup>; (iii) 21% from the Small Business Administration (SBA) Loan Forgiveness programme (received by 16.2%)<sup>20</sup>. Furthermore, 61% of companies with employees received financial assistance from one or more sources and used the funds to rehire or maintain employees on their payroll, 20.1% used the funds to pay the rent/mortgage, 15.3% to pay for utilities, 2.2% for capital expenditures and 5.6% for all other expenses. Looking at the sectoral breakdown, companies in the accommodation and food services sector requested (and received) the largest amount of financial assistance from all sources.

### 3 THE ECONOMIC IMPACT OF THE PANDEMIC AND THE SUPPORT MEASURES

The macroeconomic shock caused by the COVID-19 pandemic affected both supply and

demand. The pandemic crisis started as a supply-side shock due to government interventions imposing supply-side restrictions to contain the spread of the virus. The supply-side shock turned into a demand-side shock due to the high uncertainty related to the pandemic.

In an effort to counteract low aggregate demand and bring the economy back to its full working capacity, policymakers intervened with support measures. As aforementioned, the focus of fiscal support measures differed between the euro area and the United States. Euro area countries have used short-time working and wage subsidies together with guaranteed loans and liquidity-providing measures for firms, aiming to keep workers attached to firms. The United States relied upon lending, increased unemployment insurance and tax rebates for households. These differences have

<sup>19</sup> The EIDL programme, administered by the US Small Business Administration (SBA), was designed to provide economic relief to businesses that were experiencing a temporary loss of revenue due to COVID-19. For further information, see <https://www.sba.gov/funding-programs/loans/covid-19-relief-options/covid-19-economic-injury-disaster-loan/about-covid-19-eidl>.

<sup>20</sup> The Small Business Administration (SBA) Loan Forgiveness programme was available to companies that defaulted on a loan during the coronavirus pandemic. After making some payments, a company could apply for the forgiveness of the loan and generally a certain percentage of the loan would be forgiven.

important consequences for growth, jobs and inflation. In what follows, we study the imprint of these different strategies on the two economies in the short run.<sup>21</sup>

### 3.1 ECONOMIC RECOVERY

Despite the timely response of governments to support their economies, the recession caused by the pandemic was deep, albeit short-lived. The economic slowdown was stronger in the euro area than in the United States and the return of GDP to its pre-pandemic level was achieved in the first quarter of 2021 for the United States, compared with the third quarter of 2021 for the euro area (see Chart 5).

Private consumption declined less in the United States than in the euro area (see Chart 5). This was mainly due to the direct transfers to households, which boosted real disposable income in 2020 and 2021. Moreover, in the United States consumption recovered faster compared to GDP, while the growth rate of GDP was lower than the growth rate of consumption in the euro area. Against this backdrop, private consumption in the United States had already returned to pre-pandemic levels by the first quarter of 2021, whereas euro area consumption recovered in the third quarter of 2022, before falling below the pre-pandemic

level again in the following quarter. However, it should be noted that the slow recovery of euro area consumption was also due to a worsening in the terms of trade caused by the euro area's greater energy reliance on natural gas imports compared with the United States, which is reducing disposable income.

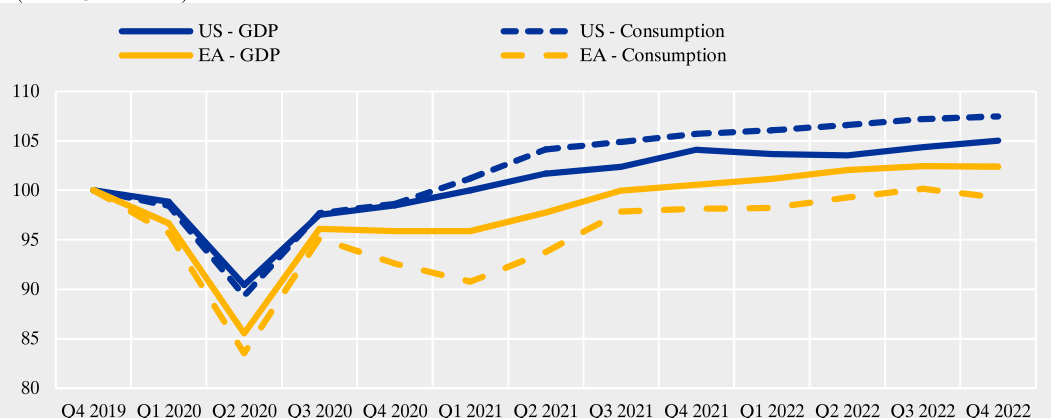
With the consumption boom in the United States, pressures on prices shot up, while inflation also increased in the euro area, although at a slower pace (see Chart 6). The successive waves of the pandemic caused major supply chain disruptions, which were exacerbated with the outbreak of the war in Ukraine, initially leading to higher prices of commodities and food and subsequently pushing core inflation upwards due to pass-through effects. Meanwhile, the phasing-out of pandemic-related restrictions led to the release of pent-up demand, especially in the services sector, which in turn strengthened upward price pressures. Lastly, the euro area economy had been affected by imported inflation from the United States.<sup>22</sup> The increase in private consumption

<sup>21</sup> For an analysis of the impact in the long run, see, among others, Barisic and Kovac (2022).

<sup>22</sup> See an intervention by Bank of Greece Governor Yannis Stournaras at the panel "Monetary policy fit for today and tomorrow" of the 13th Limassol Economic Forum, 21.10.2022, available at <https://www.bankofgreece.gr/en/news-and-media/press-office/news-list/news?announcement=05be290a-c8d9-4dc1-b331-8f45a060786a>. See also Hall, S.G., G.S. Tavlás and Y. Wang (2022).

**Chart 5 GDP and consumption**

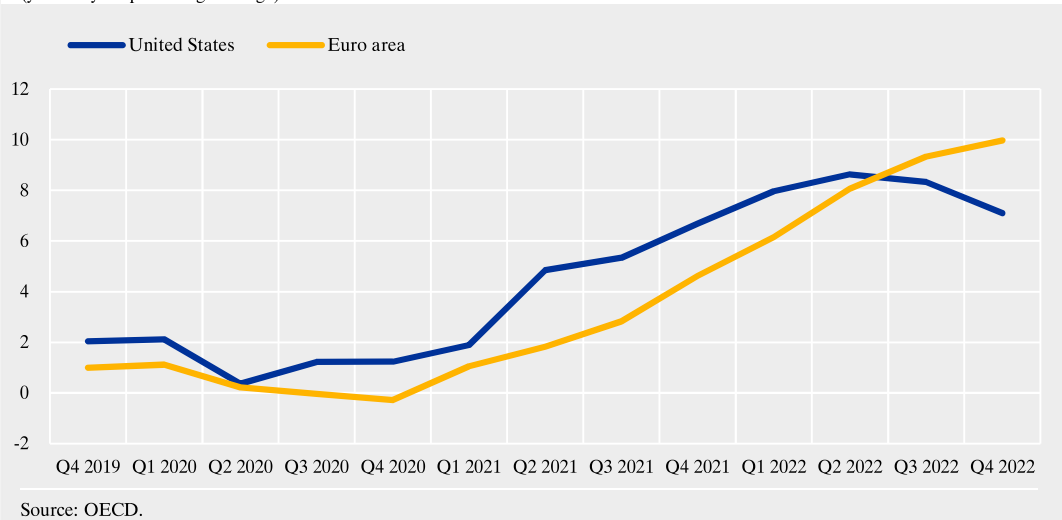
(index: Q4 2019=100)



Source: OECD.

**Chart 6 CPI inflation rate**

(year-on-year percentage change)



in the United States indicates that rising inflation largely reflects demand-side effects, alongside supply-side effects. By contrast, in the euro area, inflation was mainly driven by a series of supply-side shocks, with high energy costs being the key driver.<sup>23</sup>

### 3.2 IMPLICATIONS FOR THE LABOUR MARKET

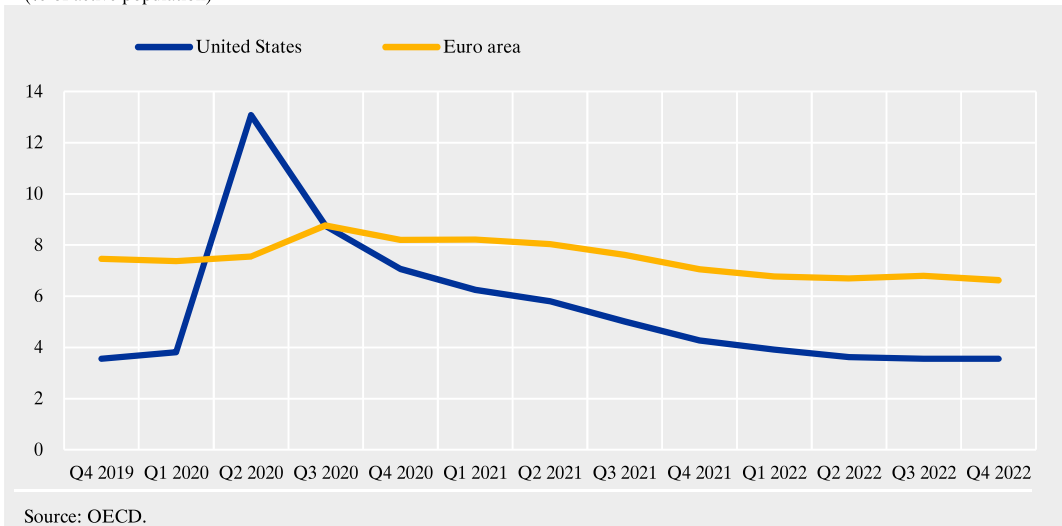
The unprecedented recession resulted in very negative labour markets outcomes. However, despite comparably sized economic shocks and stimulus packages, developments in the United States and euro area labour markets were different. The literature suggests that the cyclical volatility of (un)employment is much more pronounced in the relatively less regulated labour market of the United States than in continental Europe (see, among others, OECD 2009; Elsby et al. 2011). But this alone is probably not enough to explain the disparity observed during and after the period of the pandemic. It was the focus of the US policies on supporting disposable income, as opposed to the euro area policies of protecting existing jobs, that resulted in a sharp increase of unemployment in the United States, compared to more stable outcomes in the euro area (see Chart 7).

The findings are similar for employment (see Chart 8). Specifically, employment in 2020 declined by 5.5% in the United States and recovered to pre-pandemic levels in the third quarter of 2022. In the euro area, the decline averaged 1.8% and employment recovered to pre-pandemic levels in the third quarter of 2021, i.e. four quarters earlier than in the United States. The picture is different when considering hours worked. The extended use of job retention schemes in the euro area resulted in a considerable adjustment in hours worked, which also occurred in the United States, albeit to a smaller degree (see Chart 8). Hours worked in the euro area had declined sharply already since the first quarter of 2020, as lockdown measures were immediately imposed, while it took one more quarter for the United States. During the first half of 2020, hours worked in the euro area fell by 17%, i.e. much more than employment, which fell by 2.3%. This difference is explained by the fact that people in job retention schemes were recorded as employed. Hours worked in both regions started recovering in the third

<sup>23</sup> For a detailed discussion of the role of demand and supply in driving inflation in the United States and the euro area, see Bank of Greece (2023), *Summary of the Annual Report 2022*, Box 1.

### Chart 7 Unemployment rate

(% of active population)

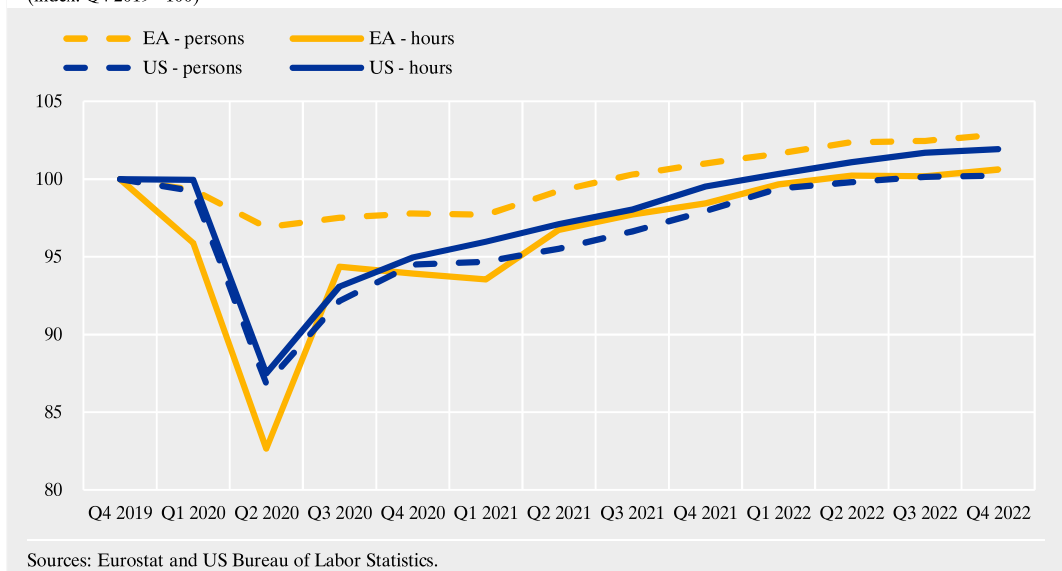


quarter of 2020, when lockdown measures were lifted. This recovery has been continuous for the United States, unlike the euro area: hours worked in the euro area stalled again in the last quarter of 2020 and the first quarter of 2021, as extensive lockdown measures were re-introduced.

Developments also differed between the two economies in terms of participation rates in the labour market. Participation declined in both regions, but the contraction was larger and longer lasting in the United States than in the euro area (see Chart 9). Low participation rates are explained by the pandemic, in the

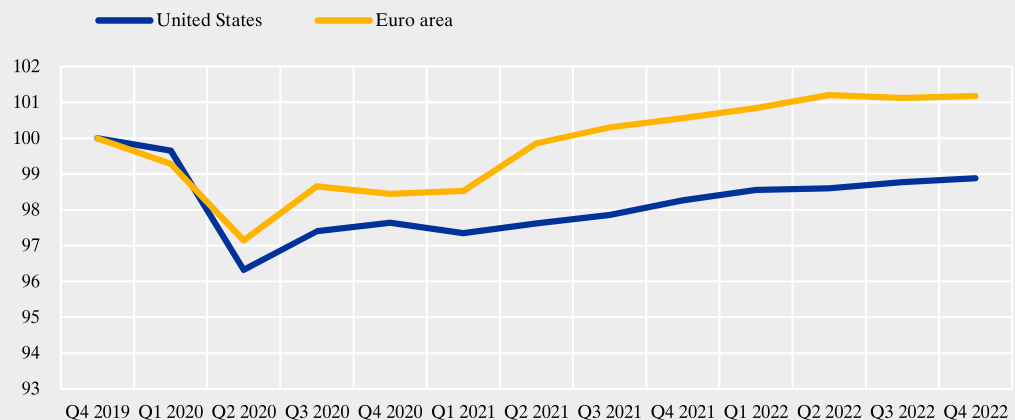
### Chart 8 Employment - headcount and hours worked

(index: Q4 2019=100)



### Chart 9 Participation rate

(index: Q4 2019=100)



Source: OECD.

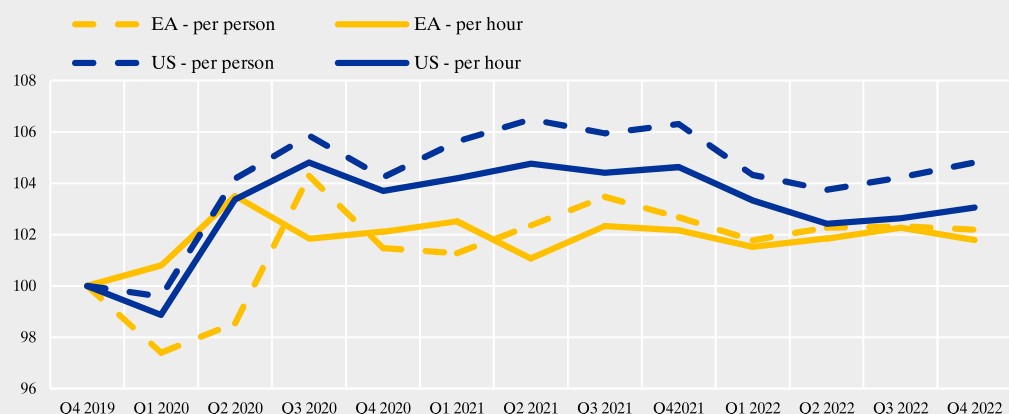
sense that people exited the labour force due to caregiving needs and for fear of the virus. In the case of the United States, low participation also coincided with record-high levels of voluntary quits from jobs, a phenomenon that came to be known as the “great resignation”. However, Fuller and Kerr (2022) allege that although a record number of workers did quit their jobs in 2021, the phenomenon reflected the long-term trend of increased rates of resignation. In 2020, because of the uncertainty

brought on by the COVID-19 pandemic, the resignation rate slowed as workers held on to their jobs. In 2021, as stimulus policies were adopted and the uncertainty abated, a record number of workers quit their jobs. Today, participation rates have recovered to a great extent, although they are still below their pre-crisis level in the case of United States.

The large shifts in labour indicators together with the large shift in output led to swings in

### Chart 10 Developments in labour productivity per person employed and hours worked

(index: Q4 2019=100)



Sources: US Bureau of Labor Statistics and OECD.



labour productivity in both regions.<sup>24</sup> During the pandemic, productivity per hour was stronger than the pre-crisis trend in both regions, although this development was more pronounced in the United States (see Chart 10) (Gomez-Salvador and Soudan 2022). This might also reflect a composition effect, as most of the job losses were in low-wage industries or among low-wage workers, thus leading to increased average labour quality (Stewart 2022). This effect waned as activity recovered. For the euro area, productivity figures differ when measured according to persons employed or hours worked. More specifically, productivity based on hours worked suggests a continuous increase since the outbreak of the pandemic and throughout 2021. However, productivity based on the number of persons employed temporarily decreased in the first two quarters of 2020, reflecting a stable employment headcount, but a large output adjustment, before increasing thereafter. Finally, labour productivity decreased (year-on-year) in 2022 for the economies of both the United States and the euro area.

### 3.3 SECTORAL ANALYSIS

The pandemic had asymmetric effects across the various sectors of the economy. The so-called “contact-intensive sectors” suffered the strongest impact during the pandemic period. Although support measures were often targeted towards these sectors, this was not enough to fully offset the impact. In more detail, for the euro area a large decrease in the number of persons employed/hours worked and in value added is observed in the “Trade and accommodation” and “Recreation” sectors. For the United States, the sectors with the largest drop in employment and activity were “Recreation”, “Accommodation” and “Mining”.<sup>25</sup> In the aftermath of the pandemic, some sectors have grown above their pre-pandemic employment level, possibly having benefited by the pandemic. In the euro area, these sectors are the following: (i) in terms of employment, a large increase is observed in “Information and communication”, followed by smaller increases in “Construction”

and “Real estate”; and (ii) in terms of value added, “Information and communication”. In the United States, employment grew above its pre-pandemic level in the following sectors: (i) in terms of employment, “Transportation”, “Other services” and “Information”; and (ii) in terms of value added, “Information”, “Management services” and “Other services”. The exceptional performance of sectors related to information and communication is in line with findings regarding the increased prevalence of teleworking and the digitalisation trend of firms during the pandemic.<sup>26</sup> These effects are permanent, as ICT infrastructure, security, hardware and software imply large investment costs and are thus expected to impact production procedures and the labour market beyond the short-term horizon.

Chart 11 shows developments in labour productivity. In the euro area, productivity was hurt in the second quarter of 2020 in “Recreation”, “Industry” and “Public services”, with rather protracted losses in “Recreation” and a strong recovery in “Industry”. In the United States, productivity developments were similar. More specifically, productivity decreased sharply in “Recreation”, “Transportation” and “Accommodation”, while recovery was exceptional in “Management services” and “Information”.<sup>27</sup> Today, productivity in most sectors is above its pre-pandemic level in both regions.

## 4 CONCLUSIONS

The pandemic resulted in an unprecedented recession across economies. Government

<sup>24</sup> For a more detailed analysis of productivity developments during the COVID-19 pandemic, see “The impact of the COVID-19 pandemic and policy support on productivity” (European Central Bank 2023).

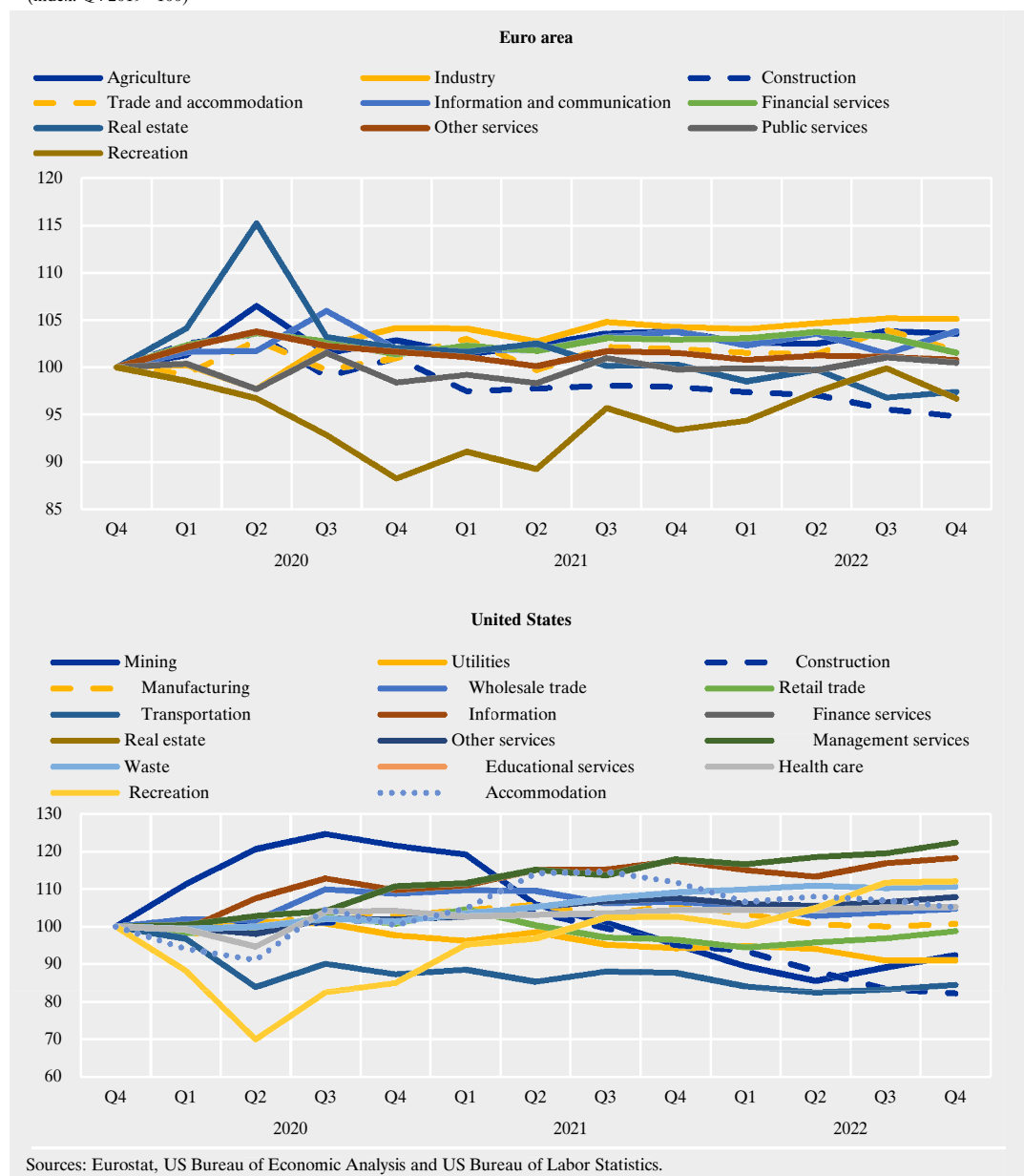
<sup>25</sup> Production and jobs in the coal industry had already been in decline before the COVID-19 pandemic. A number of explanations have been offered, including environmental regulations, technological innovations in the extraction of natural gas impacting its supply and price, productivity gains in coal mining, etc. (Kolstad 2017). The pandemic slowed global demand for coal internationally and the US electric power sector demand for coal. A robust post-pandemic economic recovery and soaring gas prices provided opportunities for a coal rebound, although the benefits will likely be brief, as the long-term structural decline resumes (Feaster 2023).

<sup>26</sup> See, among others, European Central Bank (2023).

<sup>27</sup> For developments in “Mining”, see footnote 25.

**Chart 11 Sectoral labour productivity per hour worked**

(index: Q4 2019=100)



responses included lockdown measures to contain the spread of the virus and macroeconomic and financial policies to mitigate the negative impact on their economies. Both the euro area and the United States responded to the pandemic-induced economic shock with unprecedented fiscal support measures. Furthermore, the EU introduced new common fis-

cal instruments, which were designed to ensure broad-based and faster recoveries, signalling maybe for the first time that the EU is more than the sum of its parts.

The quantification of the fiscal measures implemented in response to the COVID-19 crisis, as well as a comparison across euro area countries

or between the euro area and the United States, can be very challenging. First, the initial estimates of the fiscal cost to euro area countries are often subject to substantial revisions, especially because of smaller actual uptakes compared to announced volumes. In fact, data from the European Systemic Risk Board (ESRB) based on the reports published by national macropudential authorities (up to September 2020) show that in the first quarter of 2021 the overall volume of announced fiscal measures stood at 18.7% of GDP, relative to 14.6% in the third quarter of 2020 (loan moratoria are not included). At the same time, the actual uptake of measures was 6.9% of GDP in the first quarter of 2021, against 4.2% in the third quarter of 2020, showing that the announced size was not fully used (see Wieland 2022). Second, it is not always easy to distinguish between discretionary measures and the result of automatic stabilisers. It should be stressed that European economies have typically incorporated much stronger automatic stabilisers than the US economy. In order to achieve an equivalent total stabilisation effect, more sizeable discretionary measures are required in the United States than in Europe.

Both the euro area and the United States have recovered markedly, with GDP now standing above its pre-pandemic level. Recovery in the United States was supported by strong consumption. In the euro area, while incomes and employment have recouped their losses, this is not the case with demand. Demand still falls short of its pre-pandemic level, because of both consumption and investment, although RRF resources will help to cover the shortfall in

investment. These divergent developments suggest that the drivers of high inflation facing both economies (7.2% in the United States and 10% on average in the euro area in the fourth quarter of 2022) are different. In the United States, rising inflation is largely demand-driven. By contrast, the drivers of euro area inflation are complex and largely reflect the multiple supply-side inflationary shocks hitting the economy.

Labour market developments have been different in the two regions. Governments in the euro area aimed to protect jobs through job retention programmes, while policies in the United States allowed unemployment to rise. Thus, the United States experienced a stronger and longer contraction in the labour market compared to the euro area. The labour market has recovered by now in both regions, with the exception of the participation rate in the United States, which is still lagging behind its pre-crisis level. Finally, labour productivity has been increasing, although this is also related to a temporary compositional effect which unwinds as activity recovers in the two regions.

At the sectoral level, contact-intensive sectors (e.g. “Recreation” and “Accommodation”) suffered the strongest impact in terms of employment, value added and labour productivity. However, in the post-pandemic period certain sectors, such as “Information”, grew fast. Thus, data already show the first signs that the pandemic accelerated digitalisation and automation in ways that may transform production processes and the labour market in the future.

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