Monetary Policy Review

International economy making swift recovery from COVID-19 crisis, but there's still some way to go

International economy | 12 October 2021

The international economy is recovering from the COVID-19 crisis. Recovery is underpinned by the rising vaccination coverage and accommodative monetary policies. The steep contraction in the international economy last year is now giving way to growth of 6% for 2021. In the euro area, the economy will close the COVID-19 gap by the end of the year, posting growth of 5% for 2021. The euro area's recovery is nevertheless still in progress and remains reliant on economic policy support. Furthermore, the Delta variant of coronavirus brings uncertainty to the euro area's short-term outlook. As the vaccination coverage increases and restrictive measures become more targeted, the spread of the virus presents a lower health risk and the economic impacts will become less significant than before. Nevertheless, for some time to come the outlook will be overshadowed by the low vaccination coverage in developing countries and the threat of new variants of the virus.

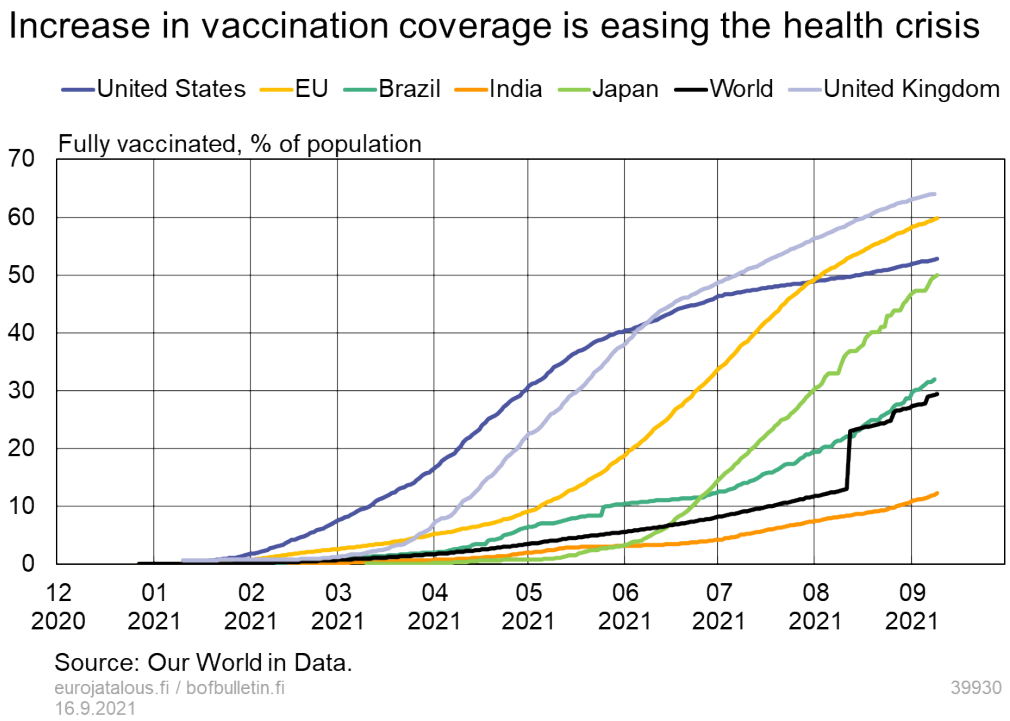


International economy recovering from pandemic crisis, bolstered by increasing vaccination coverage and support from economic policy

The international economy is making a recovery from the sudden and severe economic crisis brought about by the COVID-19 pandemic, but the pandemic is still affecting the economic outlook. As vaccination coverage increases, the spread of the virus presents a lower health risk and the economic impacts are less significant than before. Nevertheless, for some time to come the outlook will be overshadowed by the low vaccination coverage in developing countries and the threat of new variants of the virus (Chart 1).

The COVID-19 crisis has led to sharper economic fluctuations than in previous crises, and the recovery has been uneven among different countries and sectors. Private consumption has also fallen by an exceptional amount. There is still uncertainty over the longer term effects of the pandemic on output and on the structure of the economy. But despite what was feared in the early stages of the crisis, the forceful economic policy measures taken are expected to mitigate the longer term economic scarring considerably, especially in the advanced economies. Nevertheless, general government debt has grown and central bank balance sheets have expanded as a consequence of the necessary support measures taken. As the recovery progresses, it will be essential to ensure a phased dismantling, at a fitting scale and with appropriate timing, of the exceptionally expansionary economic policy.

Chart 1.



The international economy has continued to make a rapid recovery from the COVID-19 crisis, but the outlook, particularly in developing economies, is overshadowed by the increase in infections due to the Delta variant. In the advanced economies, vaccination roll-outs have proceeded swiftly. The proportion of the population that is fully vaccinated in the United Kingdom and the European Union has reached around 60% or more. In the United States, and in Japan, too, the corresponding figure is more than 50%, but worldwide it is only about 30%. In the advanced economies, the rising vaccination coverage and the lifting of restrictions have improved the outlook especially for service sectors.

The international economy is forecast to grow this year by approximately 6%; the corresponding growth figures for the United States and the euro area are about 6% and 5%, respectively (Table 1). Nevertheless, there is still uncertainty over the outlook, as the health crisis has not yet receded. The main risks are a prolonged presence of production bottlenecks, the emergence of new coronavirus variants, the effectiveness of medical solutions, the performance of recovery packages, and the effective timing and implementation of the cessation of pandemic-related support arrangements. However, the economic outlook could become brighter than at present if households decide to engage in a spending spree, particularly using savings accumulated during the pandemic, thereby producing a rise in private consumption.

Steep contraction in international economy in 2020, giving way to 6% growth in 2021					
Global GDP, % growth	**Date**	**2020**	**2021**	**2022**	**2023**
ECB*	Sep 2021 (Jun 2021)	-2.3	6.3 (6.2)	4.5 (4.2)	3.7 (3.7)
IMF	Jul 2021 (Apr 2021)	-3.2	6.0 (6.0)	4.9 (4.4)	-
OECD	May 2021 (Mar 2021)	-3.5	5.8 (5.6)	4.4 (4.0)	-
European Commission	May 2021 (Nov 2020)	-3.4	5.6 (4.6)	4.3 (3.6)	-
Consensus	Aug 2021 (Jul 2021)	-3.3	5.8 (5.9)	4.4 (4.4)	-

**Global GDP, excl. euro area.*
Previous forecast in brackets.
Sources: Consensus Economics, IMF, OECD, ECB/Eurosystem and European Commission.

The recovery in the euro area economy has gathered pace, but the number of people in work is still more than two million fewer than the pre-pandemic level. The economy grew by 2.2% in the second quarter of 2021. In the euro area, confidence has remained strong and the economic recovery appears to be continuing. However, the Delta variant may delay the lifting of restrictions and slow the recovery. According to the ECB's September forecast, output is expected to exceed pre-pandemic levels by the end of the year (Table 2). The financing conditions for businesses, households and the public sector have remained favourable, which is essential for the continued recovery in the economy.

Euro area economy closes COVID-19 gap with 5% growth in 2021					
Euro area GDP, % growth	**Date**	**2020**	**2021**	**2022**	**2023**
ECB	Sep 2021 (Jun 2021)	-6.5	5.0 (4.6)	4.6 (4.7)	2.1 (2.1)
European Commission	Jul 2021 (May 2021)	-6.5	4.8 (4.3)	4.5 (4.4)	-

Previous forecast in brackets.
Sources: Consensus Economics, IMF, OECD, ECB/Eurosystem and European Commission.

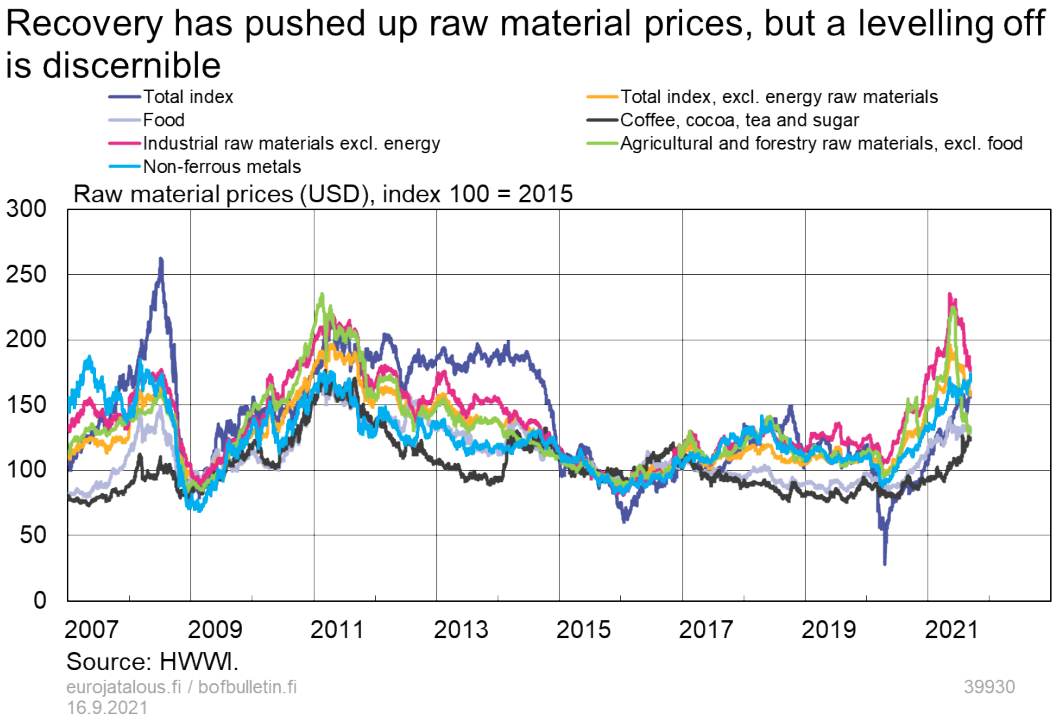
Euro area economy closes COVID-19 gap with 5% growth in 2021					
IMF	Jul 2021 (Apr 2021)	-6.5	4.6 (4.4)	4.3 (3.8)	-
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Previous forecast in brackets.
Sources: Consensus Economics, IMF, OECD, ECB/Eurosystem and European Commission.

Inflation accelerated globally during recovery phase

Following the start of the COVID-19 crisis the outlook for prices also deteriorated rapidly. Inflation in the euro area, for example, turned negative from August to December 2020. Now, with the gradual opening of the economy, prices, too, have risen, driving up inflation and adding to inflation expectations. Inflation has been temporarily boosted by the 'base effect' of the lower price level that prevailed in the reference period a year earlier, and by the rise in raw material prices and the production bottlenecks that have occurred as a consequence of lockdowns and subsequent reopening (Chart 2). Inflation has increased more quickly than anticipated, but the pace is expected to level off in the euro area next year, staying below the 2% target.

Chart 2.



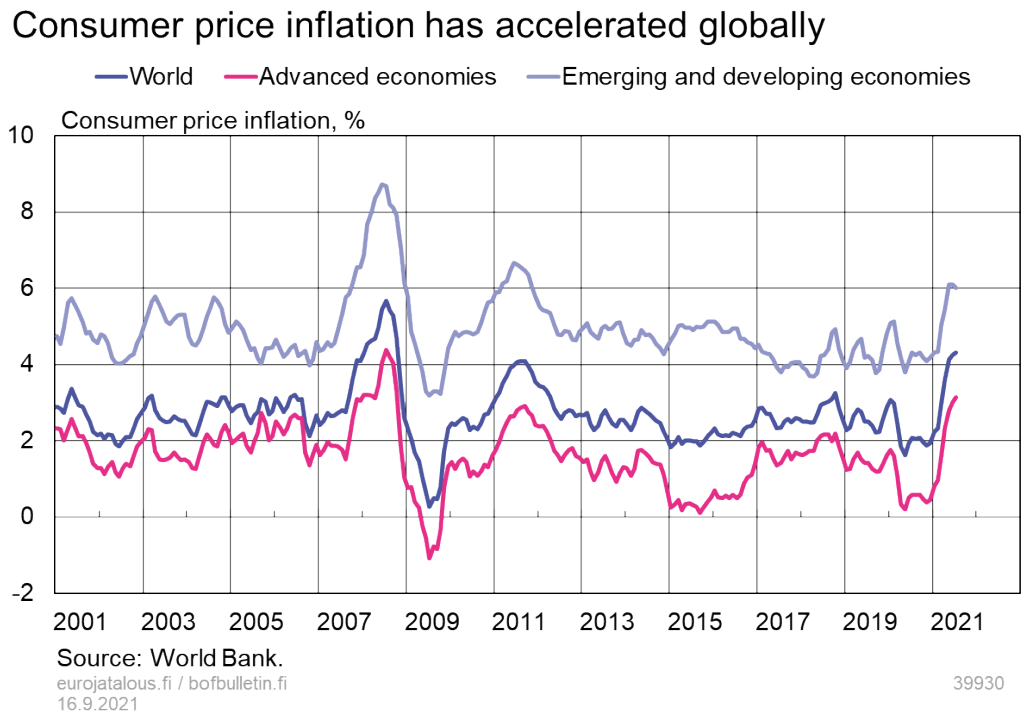
The global inflation rate has gained momentum to approximately 4%, which is about the same as the 2011 rate following the financial crisis (Chart 3). Contributing to this rise in inflation have been the increase in raw material prices and problems with the availability of production components, such as semiconductors in the electronics industry, but there are signs that inflation will level off. Euro area headline inflation in August was 3%; as in the United States and the United Kingdom, this rise in inflation has been fuelled by temporary factors (e.g. the rise in raw material prices, production bottlenecks and post-crisis pricing adjustments for certain items).

Over the medium term, US inflation is forecast to return to 2% or slightly above, and UK inflation to 2%. The medium-term outlook for the euro area is more muted. The likelihood of a euro area medium-term inflation rate of less than 2% is reinforced by the lacklustre pace of underlying inflation, the slack in the economy, the continued moderation in pay settlements and the subdued inflation expectations in relation to the inflation target. Nevertheless, although the euro area still has some way to go towards achieving the inflation target, the prospects for its sustainable return to a rate of 2% in the medium term have improved as a result of the ongoing recovery in the economy. This is also supported by the ECB's new monetary policy strategy published by the Governing Council in July. The strategy anchors euro area inflation expectations more firmly in the symmetric 2% target (see ECB revised its monetary policy strategy – what's changed?).

The most significant change in the ECB's monetary policy strategy is the newly defined inflation

target, together with how it is to be applied in decision-making in the future. Under the new strategy, price stability can best be maintained by aiming for a 2% inflation target over the medium term. The inflation target is symmetric: the Governing Council considers that both negative and positive deviations from this 2% target are equally undesirable. The symmetric inflation target provides an anchor for inflation expectations, which is essential for maintaining price stability. The new strategy will help to ensure that the economy does not get stuck for long in a position where inflation is too low. Inflation may also be moderately above the target for a transitory period. Following the revision of the strategy, the Governing Council also took a decision concerning forward guidance on interest rates,[1] which it confirmed at its September meeting.

Chart 3.



Crisis recovery still needs support from economic policy

The task of monetary policy in this type of crisis situation is to maintain financing conditions that are favourable to recovery for a sufficiently long period. In this way, monetary policy will foster growth and gradually drive up inflation especially in the euro area, where it has long been excessively low in relation to the price stability objective. The economic crisis caused by the pandemic has been exceptional in that the measures taken to restrict the spread of the disease and the caution exercised by the general public have together directly curbed production in many sectors, especially private services. Although monetary policy is unable to prevent such effects, it

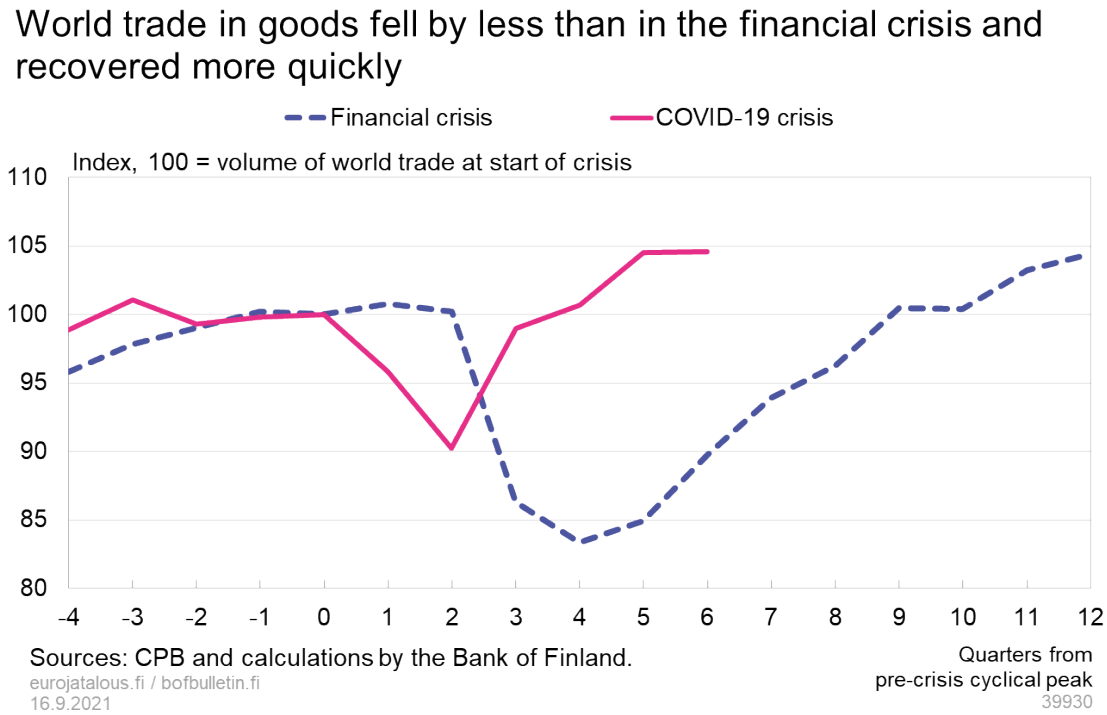
can nonetheless help businesses and households through the worst phase of the crisis and provide support for the subsequent recovery in the economy. At its September meeting, the Governing Council of the ECB decided to continue with the stance and magnitude of its strongly accommodative monetary policy. The Governing Council took the view that, thanks to a faint improvement in the medium-term inflation outlook, favourable financing conditions can be maintained even if net purchases under the pandemic emergency purchase programme (PEPP) were to be made at a moderately slower pace in the final quarter of the year. The revised forward guidance on key ECB interest rates along with other monetary policy measures will foster recovery and the sustainable return of inflation to 2%, in line with the target.

During the present crisis it has been important that the stimulus measures taken in the euro area and elsewhere through monetary policy and through fiscal policy have served to support each other. The need to assist households and businesses in the pandemic has compelled countries around the world to take on substantial amounts of additional debt. Without this, businesses would have collapsed and jobs been lost at a scale quite different to that which has transpired. The long-term economic impact of the pandemic will become clear only when it is possible to gradually abandon the substantial support measures and when economic policy can be normalised.

The COVID-19 crisis struck suddenly and globally

The nature of the COVID-19 crisis differs from other economic crises of recent decades in that its source was external to the economy. The recovery phase and associated challenges consequently include elements that are new. The crisis struck suddenly and globally, with a collapse of the world trade in goods in the first quarter of 2020 (Chart 4).[2] The global goods trade shrank in the early phase of the crisis by as much as around 10% from its pre-crisis level. However, this contraction was less severe than in the financial crisis of 2008–2009 (more than 15%).[3] In the present crisis, world trade also began to recover distinctly more quickly than after the financial crisis. This time, industrial plants have managed to restart their operations around the world once the pandemic-related restrictive measures were refocused in a more targeted way than during the early stages of the crisis. Financing conditions have remained accommodative, which has also supported the recovery. The swift recovery in the economies of China and the United States through substantial stimulus measures also contributed to the early recovery of world trade.

Chart 4.



Recovery in euro area GDP more rapid than after the financial crisis

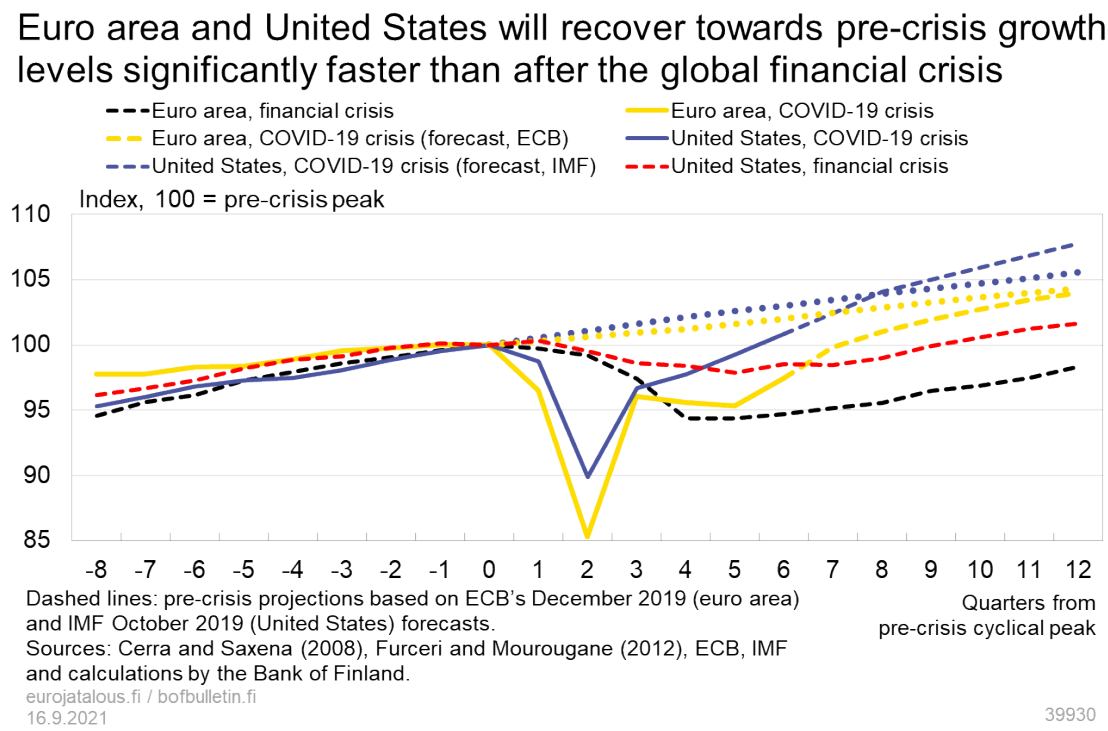
The COVID-19 crisis has been exceptionally severe and sudden in the euro area, but the recovery in gross domestic product (GDP) is also proving more rapid than after the financial crisis (Chart 5). Following the financial crisis the euro area economy did not return to its pre-crisis growth track; instead, the crisis left a deep and prolonged imprint on GDP.

Now, after the COVID-19 crisis, euro area GDP is forecast to recover to almost its earlier growth track by the end of 2022. This would mean that GDP will not remain clearly and persistently below the growth track feared prior to the pandemic, in contrast to what occurred after the financial crisis.[4] The pandemic would not then have led to a permanent slowing of the rate of GDP growth.

In the United States the recovery in the economy has been faster than in the euro area. The country's GDP returned to its pre-crisis level in the second quarter of 2021, when euro area GDP was still 2.5% below its pre-crisis peak. The IMF's updated forecast in July indicates that during 2022 the United States' GDP is expected to reach or even exceed the level forecast before the pandemic. Nevertheless, uncertainty surrounds the long-term effects of the crisis presented in these forecasts, and significant long-term effects of the pandemic are still possible. The factors

determining the long-term effects of economic crises include the recovery in total factor productivity, the extent to which the labour market recovers and, especially in the case of financial crises, the pace of recovery in capital stock and in investment.[5]

Chart 5.



The initial phase of the COVID-19 crisis does not resemble past economic crises

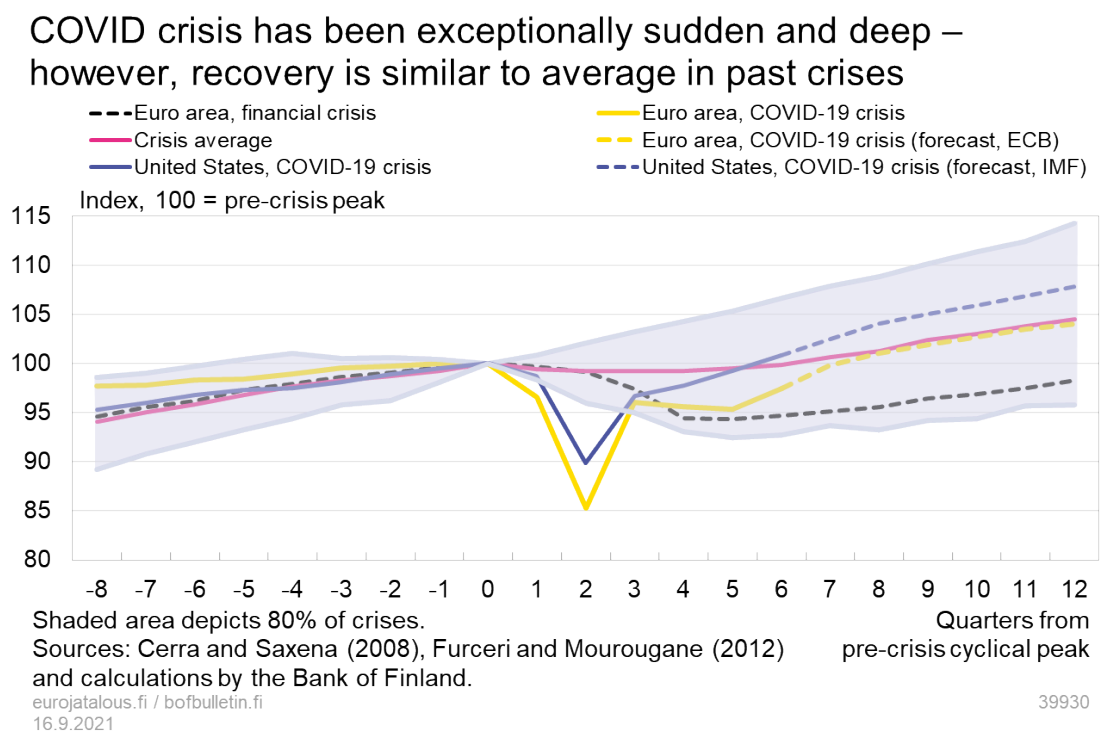
The COVID crisis can be compared not only with the financial crisis but also with a large number of past crises. Barrett et al. (2021) and Cerra & Saxena (2008) have noted that, in the past, economic crises have typically been associated with significant and persistent negative impacts. On average, the permanent impact of a crisis on GDP has ranged from approximately −4 to −16%.[6] In the past, the effects of an economic crisis have been aggravated especially by the simultaneous onset of a banking crisis. On the other hand, economies have been found to recover faster from civil wars than from other crises. For example, after a typical crisis, productivity growth is weakened by the reallocation of resources to less productive sectors. However, with the COVID crisis, it is still too early to assess the effects of sectoral reallocation of resources on aggregate productivity. Through appropriately targeted policy measures, it is possible to facilitate the effective reallocation of resources [7].

Chart 6 shows the development of GDP in the euro area and the United States at the time of the financial crisis, during the COVID-19 crisis and in economic crises on average. The chart also shows the impact range for most crises (80%) based on Cerra & Saxena (2008).[8]

At the beginning of the COVID crisis, the decline in GDP was significantly more sudden and sharper than in previous economic crises. Recovery from the crisis began rapidly both in the euro area and in the United States, supported by fiscal and monetary policy measures. GDP began to recover as early as the third quarter of 2020, but the recovery reversed due to the containment measures imposed to curb new waves of the virus, particularly in the euro area. The recovery strengthened again in the second quarter of 2021 as vaccination coverage increased and containment measures were relaxed. What also helped was the improved targeting of the containment measures and how society adapted to the restrictions, which reduced their adverse effects.

But while recovery has been better than feared, it is still under way, and euro area GDP is still recovering considerably more weakly than in economic crises on average (Chart 6).[9] However, according to the baseline scenario in the ECB's September projections, GDP will reach pre-crisis levels at the end of 2021 and recover close to an average post-economic crisis path before the end of 2022. So far, the COVID crisis has caused neither significant problems in financial intermediation nor a widespread bankruptcy wave among businesses. However, as a result of the crisis, corporate indebtedness has increased in all major countries, which increases long-term downside risks to recovery from the current crisis.

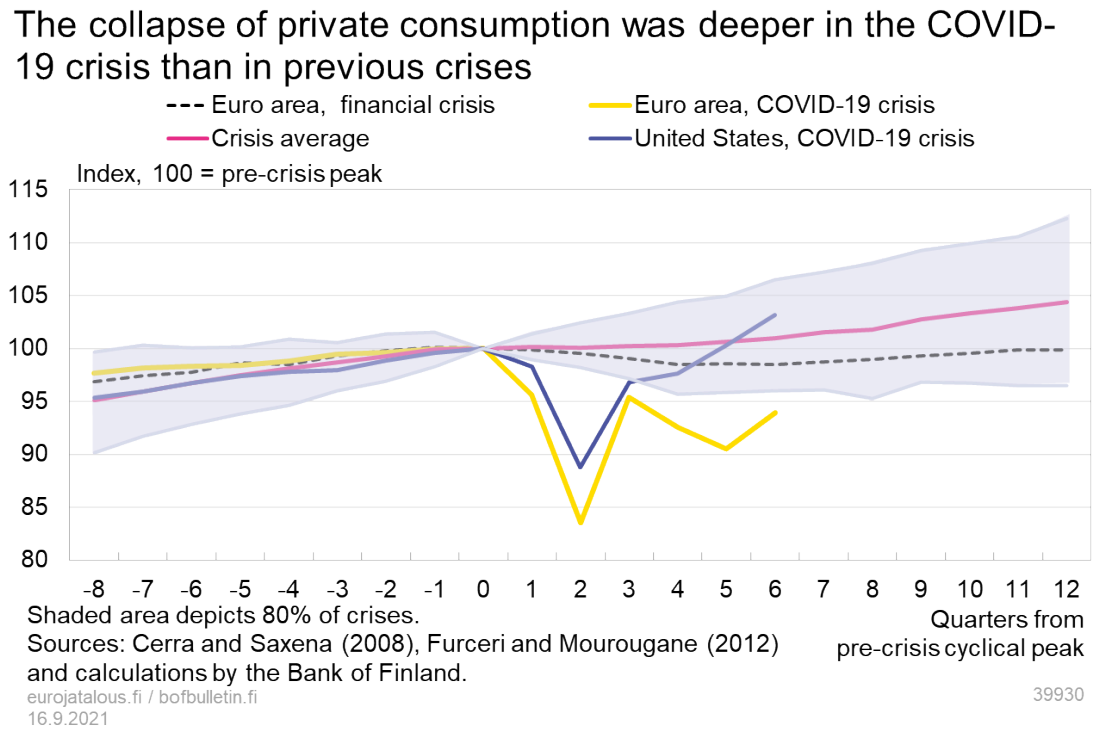
Chart 6.



COVID crisis hit private consumption exceptionally hard, investments recovering faster

In a typical economic crisis, private consumption follows a fairly steady path, like it did in the euro area during the financial crisis.[10] With the COVID-19 crisis, however, private consumption collapsed due to uncertainty, restrictions, health-related fears and people's reduced mobility (Chart 7). In the second quarter of 2021, private consumption in the euro area was still a good 5% below pre-pandemic levels, when, on average, economic crises have had virtually no post-crisis effects on private consumption.

Chart 7.

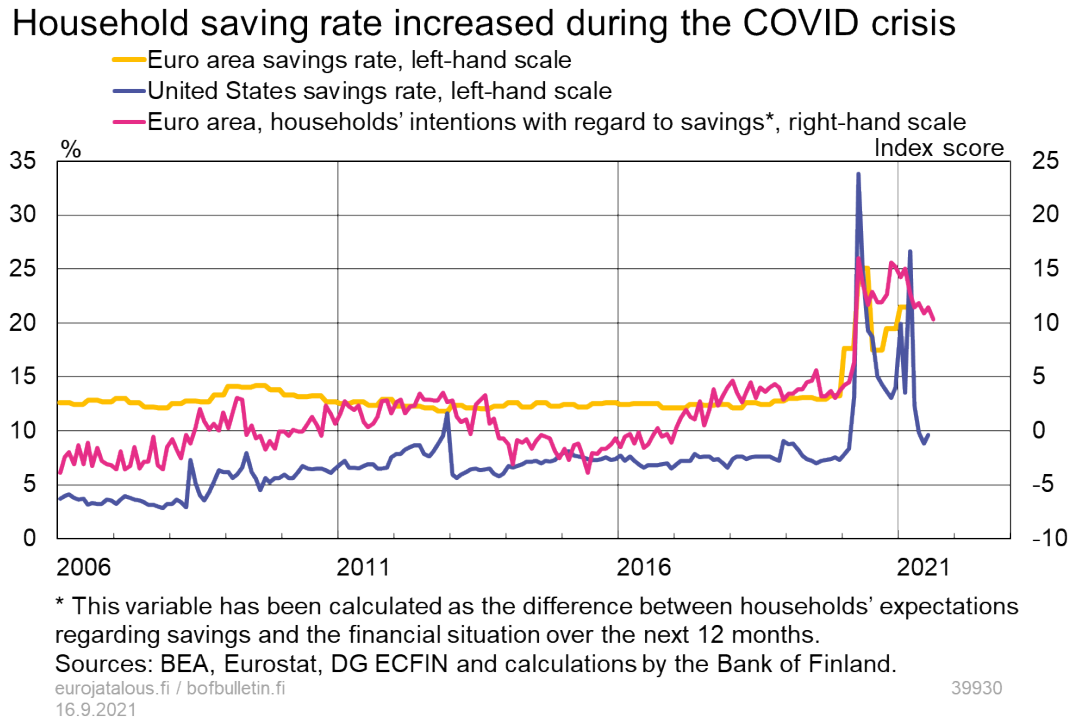


In the United States, private consumption has received considerable support, for example through rounds of stimulus payments to households, even to the extent that US household income levels have increased during the pandemic. These measures, combined with faster normalisation of mobility than in the euro area, have supported a strong recovery of private consumption in the United States from the deep slump caused by COVID-19.

Both in the euro area and in the United States, the savings rate increased markedly in the wake of the crisis due to precautionary saving, limited consumption possibilities and policy measures supporting household income growth. In the United States, support measures notably increased household disposable income, whereas in the euro area, growth in disposable income somewhat slowed. In the United States, the household savings rate began to normalise in May 2021, reflecting a strong recovery in private consumption. Indicators show that in the euro area, savings rates are still relatively high (Chart 8). Due to the elevated savings rates, households have accumulated wealth which, upon release, would support recovery. However, the intensity at which these pent-up savings can be released is limited by several factors. Firstly, savings have been accumulated unevenly and mostly among the high-income households. Contrarily, income levels may have declined among low-income earners, especially among those working in services. Typically, marginal propensity to consume is higher among low-income earners than among the high-income population. Secondly, accumulated savings can also be used to repay debts. Thirdly, household income levels have been maintained through massive public subsidies. After the

support measures are wound down, growth in disposable income may be sluggish. The exceptional effects of the COVID crisis on household saving behaviour also make it difficult to forecast the recovery of private consumption, and consequently, GDP.

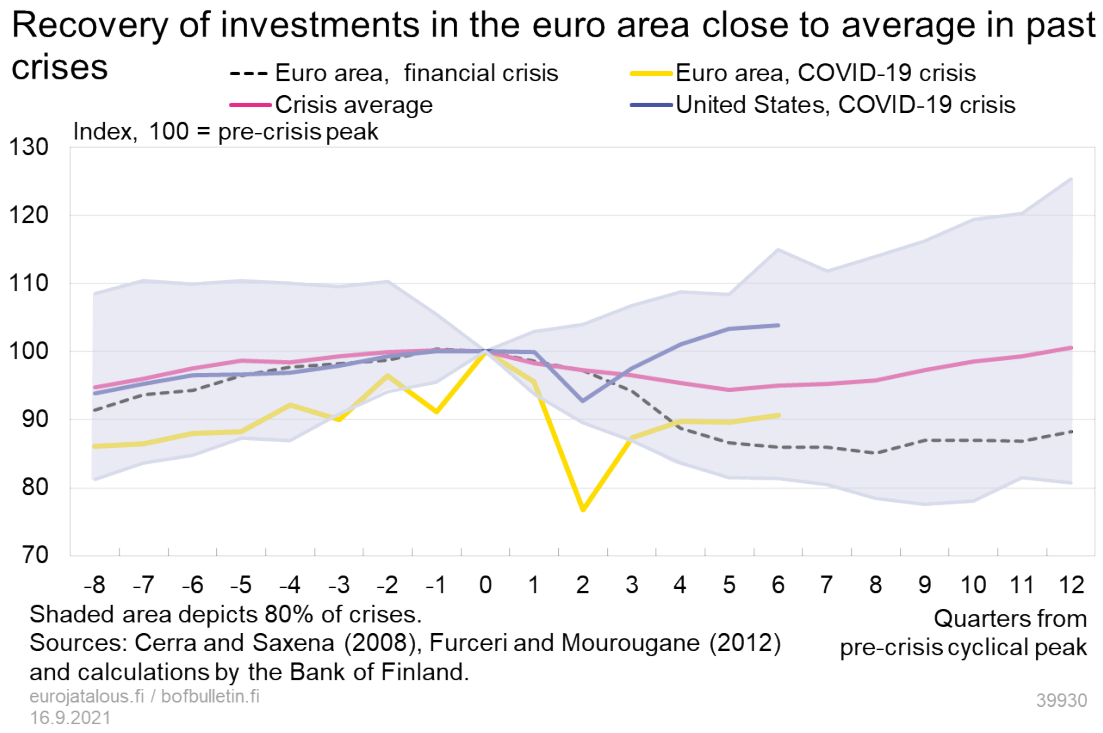
Chart 8.



Crises typically have a stronger impact on investment than on private consumption. Right after the outbreak of the COVID crisis, investment declined even more significantly than in a typical crisis (Chart 9). However, private investment began to recover significantly faster than private consumption, underpinned by strengthening export demand and growth in industrial output. In the COVID crisis, it appears that the persistent investment recession that took place after the financial crisis is being avoided, although growth in private investment has been slightly weaker than in the history of economic crises in general. Meanwhile in the United States, growth in private investment has been exceptionally strong compared with previous economic crises.

Robust economic policy support measures have been essential to the development of investments, as they have, for instance, reduced uncertainty related to the outlook and maintained companies' access to finance, thus preventing large-scale financial market disturbances. Fixed investments will directly increase future production capacity, and their strong recovery in the euro area will also reduce the risk of long-term adverse effects from the crisis. The recovery of investments will be supported by continued favourable financing conditions.

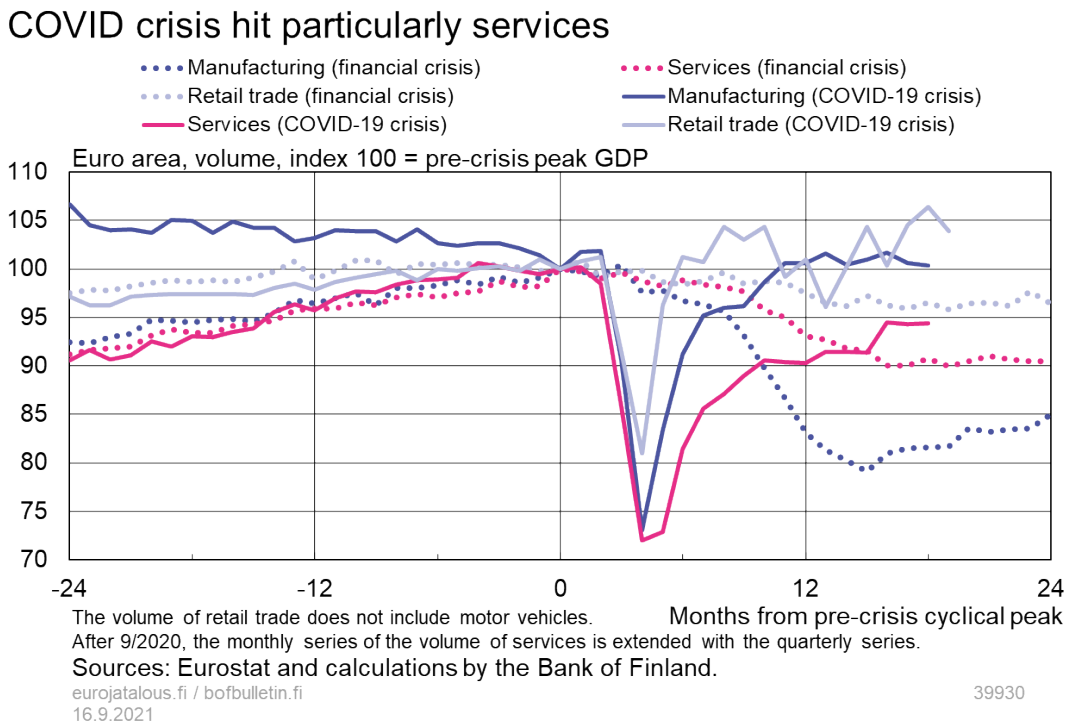
Chart 9.



Unlike the global financial crisis, the COVID crisis has hit services exceptionally hard

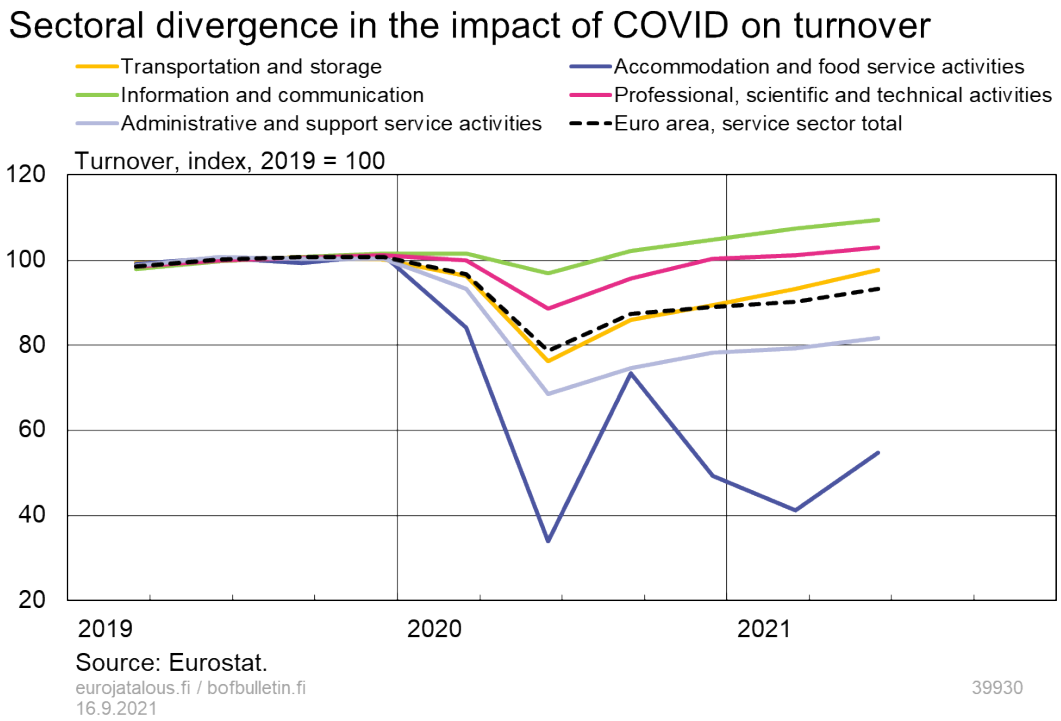
In a sectoral comparison, the COVID-19 crisis is clearly different from past crises, such as the global financial crisis. In the financial crisis, manufacturing was hit the hardest, both in the euro area and elsewhere, but in the early stages of the COVID crisis, services and retail trade also suffered a notable impact (Chart 10). In contrast to the financial crisis, the rebound in retail trade and manufacturing has been strong, and output volumes have already recovered close to pre-crisis levels. On the other hand, the containment measures imposed to prevent the spread of the virus and consumer caution are still reflected in the weak output of the service sector. During the COVID crisis, consumption shifted from services to goods.[11]

Chart 10.



The differences are significant also within the service sector. The crisis has had a particularly noticeable impact on accommodation and food services (Chart 11), whereas in other sectors, such as information and communication services, the effects have been only minor. As the effects of the COVID crisis differ from past crises, its long-term effects may also be different.

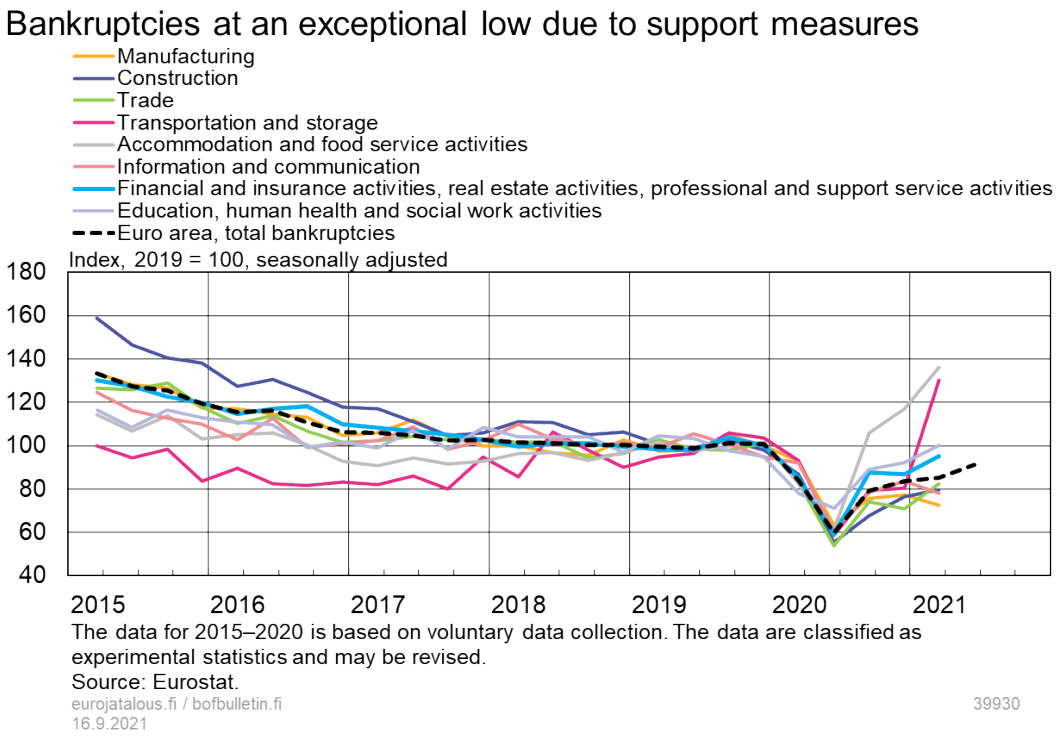
Chart 11.



Number of bankruptcies has remained moderate except in sectors most affected by the crisis

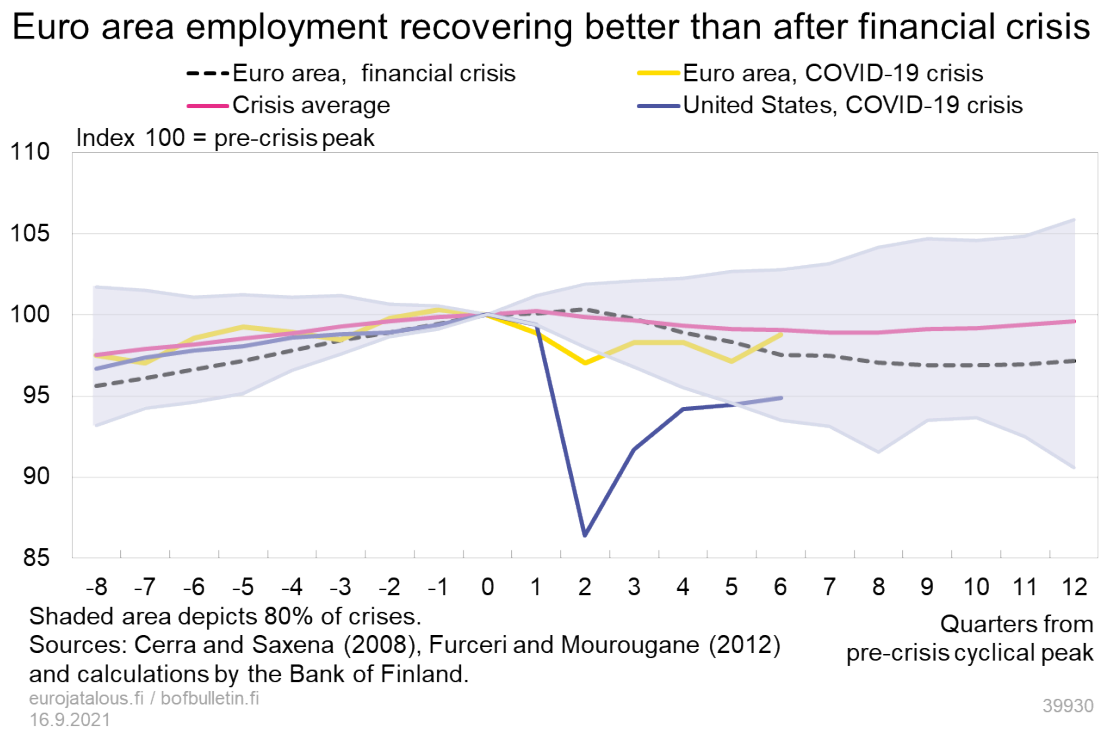
In addition to damage from subdued investment, long-term damage may occur in a crisis if the capital stock is destroyed due to bankruptcies, closures and dampened new business entries, i.e. business dynamics. The number of bankruptcies varies significantly between sectors, as the number of bankruptcies in the euro area has increased sharply in the sectors most affected by the crisis, particularly in accommodation and catering. While some sectors have suffered considerable difficulties, data from the second quarter of 2021 (Chart 12) shows that so far, there has been no large wave of bankruptcies. Businesses have been supported and bankruptcies prevented by favourable financial conditions, strong public sector support and amendments to the Bankruptcy Act. These explain the decline in bankruptcies during the crisis. Some of the relaxations made to the bankruptcy legislation are still in force. Therefore, the final effects of the COVID crisis on business dynamics will not be seen until after the exceptional measures are wound down. Registrations of new companies have bounced back strongly from the collapse in the second quarter of 2020.

Chart 12.



Moreover, employment trends do not look as gloomy as they did after the financial crisis, and employment in the euro area has started to grow since the initial collapse (Chart 13). In the second quarter of 2021, employment was around 1.5% below the pre-crisis peak. It appears that the sharp decline in employment typical of past crises has been avoided through the support measures, and the number of employed people has already recovered close to typical crisis figures. However, the recovery of the labour market is still under way, and the number of employed persons in the euro area in the second quarter of 2021 was 2.5 million less than before the COVID crisis.

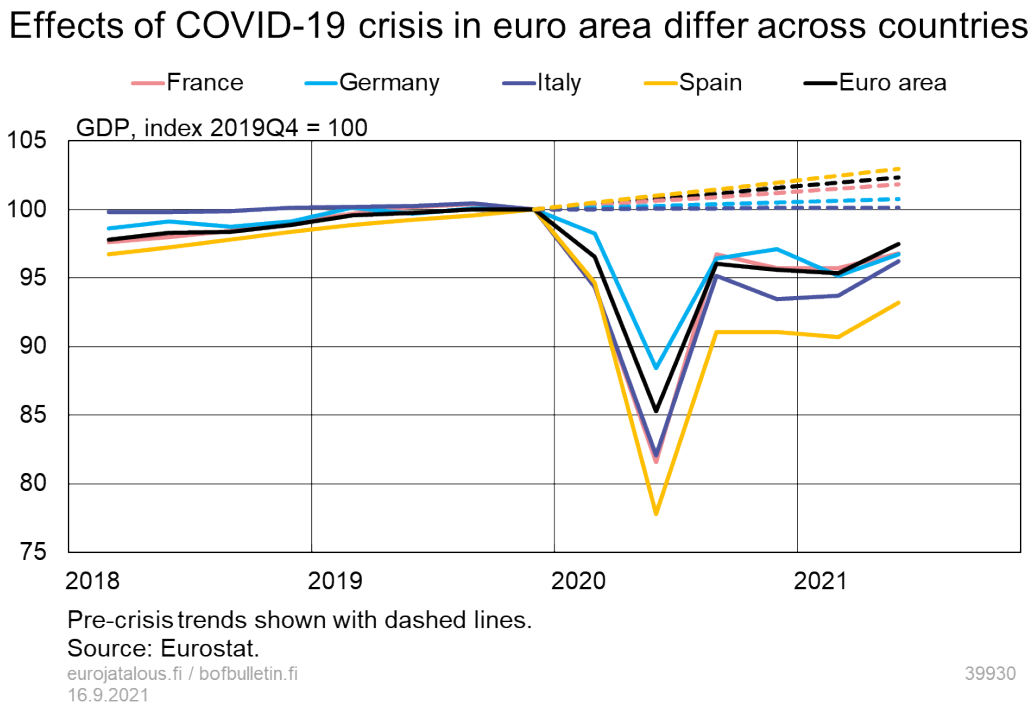
Chart 13.



Divergent recoveries in the euro area

There has been significant variation in the economic impact of the COVID-19 crisis on euro area countries' economies. For example, in Italy and Spain, where the service-intensive tourism sector is of particular importance for the national economy,[12] income losses caused by the containment measures led to a larger drop in GDP than in other countries (Chart 14). The varying designs of the containment measures, their effectiveness and the regional variation in the intensity of the pandemic have also affected economic developments. Of the large euro area countries, in Spain in particular, total output remains considerably below the pre-pandemic growth trend. Differences in economic structures, such as labour market dynamics, also contribute to the divergent recovery rates. The protracted crisis is weakening the recovery, particularly in the service sector. Nonetheless, financial conditions are still accommodative in all Member States, and fiscal policy measures have also helped households and businesses manage through the crisis. However, the size of the fiscal support in proportion to the impact of the crisis differs across countries,[13] and the EU has sought to reduce this divergence through a number of Union-level initiatives.[14]

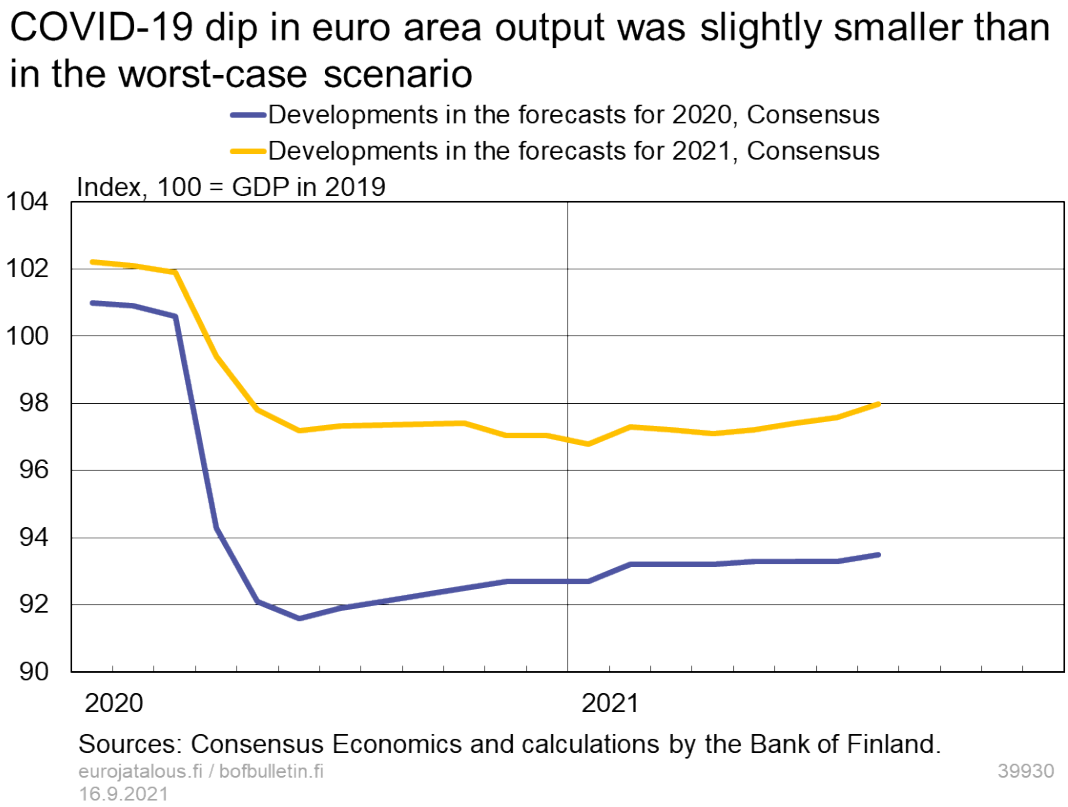
Chart 14.



Stronger understanding of the crucial importance of economic policy

The COVID-19 crisis caused an extremely rapid change in the economic outlook (Chart 15). The Chart shows the forecasts for the level of GDP for the years 2020 (blue line) and 2021 (yellow line) and their development between January 2020 and August 2021, derived from the results of the Consensus Survey. Forecasts for the average level of GDP in 2020 collapsed in the wake of spring 2020, reflecting the strengthened understanding of the exceptional depth of the crisis. The forecast figures were at their lowest level in June 2020, but started to improve in the second half of 2020, i.e. the dip caused by COVID-19 turned out to be slightly smaller than in the worst-case scenario. Forecasts for the level of GDP in 2021 also weakened significantly in spring 2020 and were at their lowest in January 2021. These estimates have thus far improved only slightly.

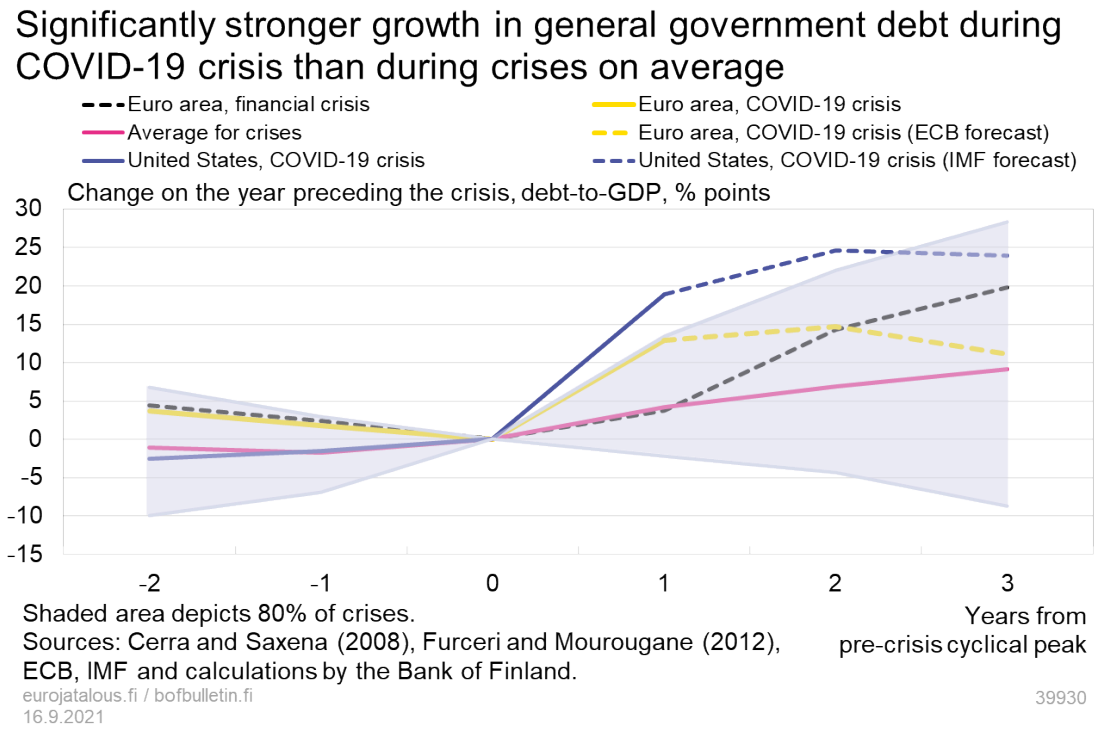
Chart 15.



Aggregate output collapsed less than feared in a worst case scenario, and estimates of the recovery have also improved slightly. The understanding of the crucial importance of economic policy in these developments has strengthened. The alternative scenarios would have been very severe: a loss of financial stability, slower pace of recovery and inflation and a further weakening in inflation expectations relative to the central bank's target. Strong economic policy measures seem to have reduced the feared longer-term scars.

One of the key monetary policy instruments used by the ECB is the Pandemic Emergency Purchase Programme (PEPP). The central bank has also taken other measures; it has for example adjusted the terms of the targeted longer-term refinancing operations (TLTROs), making them even more incentivising and favourable.[15] The ECB's monetary policy measures during the pandemic and their effects are discussed in the article 'Monetary policy measures taken during pandemic revived euro area economy'. The results show that just without the asset purchases, aggregate output at the end of 2021 would be some 3.5% lower and consumer prices some 1% lower. In the same period, the adjustments in the terms of the TLTROs increased aggregate output by some 1% and the level of prices by some 0.3%.

Chart 16.



Fiscal policy, too, has played a key role particularly in advanced economies in preventing a deep recession.[16] In the euro area, companies' ability to cope with the crisis has been supported by, for example, direct business subsidies, loans and loan guarantees. In 2020, the COVID support programmes amounted at their height to EUR 2,507 billion.[17] Preservation of jobs and consumer purchasing power has been supported with a variety of short-time-working schemes. Due to the measures taken by governments, growth in public debt particularly in the United States but also in the euro area has been significantly stronger than in earlier economic crises in general (Chart 16). A similar growth in public debt was experienced in just some countries during the financial crisis.[18] The extensive and strong economic policy response to the COVID crisis can be considered as a success, as the negative impact of the pandemic on aggregate output will not be as significant and long-term as feared in a worst-case scenario. The scar on the public finances will, however, be long-term.

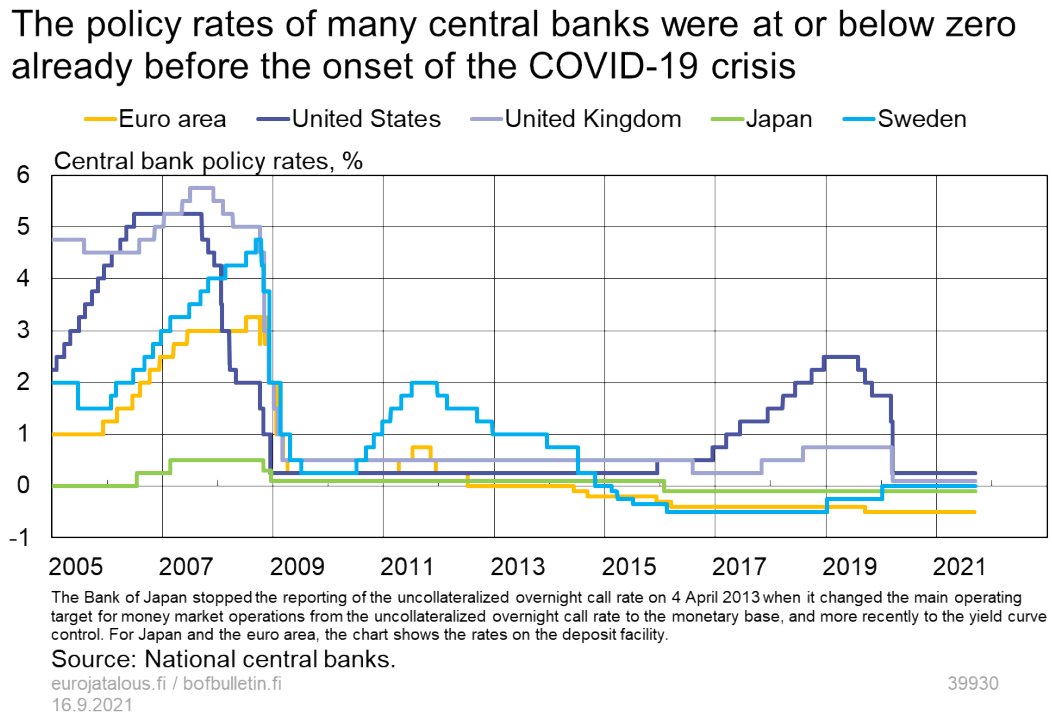
The economy is, however, still recovering from the crisis, and appropriately targeted, dimensioned and timed policy measures can still help reduce the long-term scars to the economy. Measures supporting the recovery of productivity, employment and investment, in particular, can contribute to the return of economic growth to the pre-crisis trend. During the COVID crisis, the EU adopted the recovery instrument NextGenerationEU (NGEU). This reduces the risk of a decrease in fiscal space in the Member States that have suffered most from the pandemic. At the same time, it

channels resources to investments, reform, and to green and digital transition, which will all play a key role in the public interest and future economic growth of the EU. As the recovery proceeds, the first step is the appropriately timed and calibrated gradual unwinding of economic stimulus measures, followed only thereafter by the reduction of the high debt levels caused by the crisis.

Non-standard monetary policy measures maintain favourable financing conditions and increase central banks' balance sheets

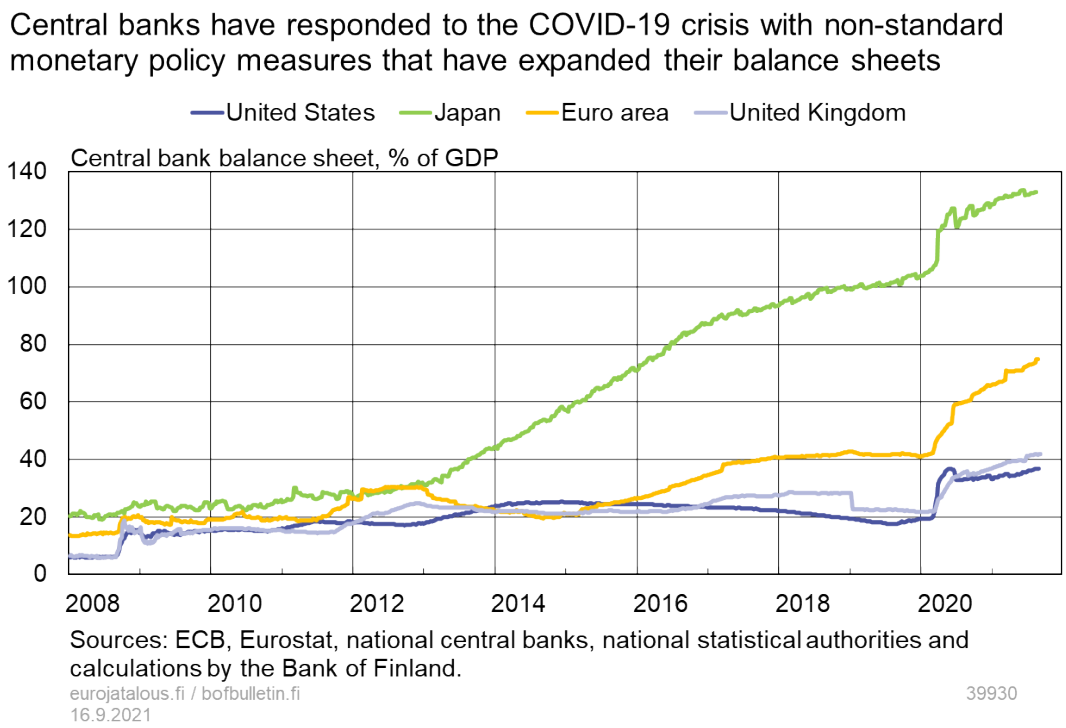
The policy rates of many key central banks were at or below zero already before the onset of the COVID-19 crisis (Chart 17). Only in the United States was the central bank able to lower the key policy rate significantly. In March 2020, the Fed lowered its policy rate by a total of 1.5 percentage points, leaving the target range at 0–0.25%. In the United Kingdom, too, the Bank of England was able to lower its policy rate in March 2020, by 0.65 percentage points, to 0.1%. In the euro area, the rate on the deposit facility has been negative already since mid-2014, and it was already lowered to the current level of -0.5 per cent in early autumn 2019.

Chart 17.



Due to the limited room for manoeuvre in the policy rates, central banks have responded to the COVID-19 crisis with non-standard monetary policy measures, for example securities purchases on the secondary markets. As a result of the securities purchases, central banks' holdings of government bonds have grown significantly. In addition to the asset purchases, central banks have mitigated the blow caused by the COVID-19 crisis to the economy by also conducting other monetary policy measures that have expanded their balance sheets. By August 2021, the Bank of England's balance sheet had expanded to over 40%, the ECB's to over 70% and the Bank of Japan's to over 130% of GDP (Chart 18). The Fed's balance sheet was below 40% of GDP. The recent developments in the Fed's balance sheet relative to GDP have been dampened by the strong growth in US nominal GDP. The economic recovery and improvements in the inflation outlook have started a debate on whether the net securities purchases should be decreased or ended, particularly in the United States.

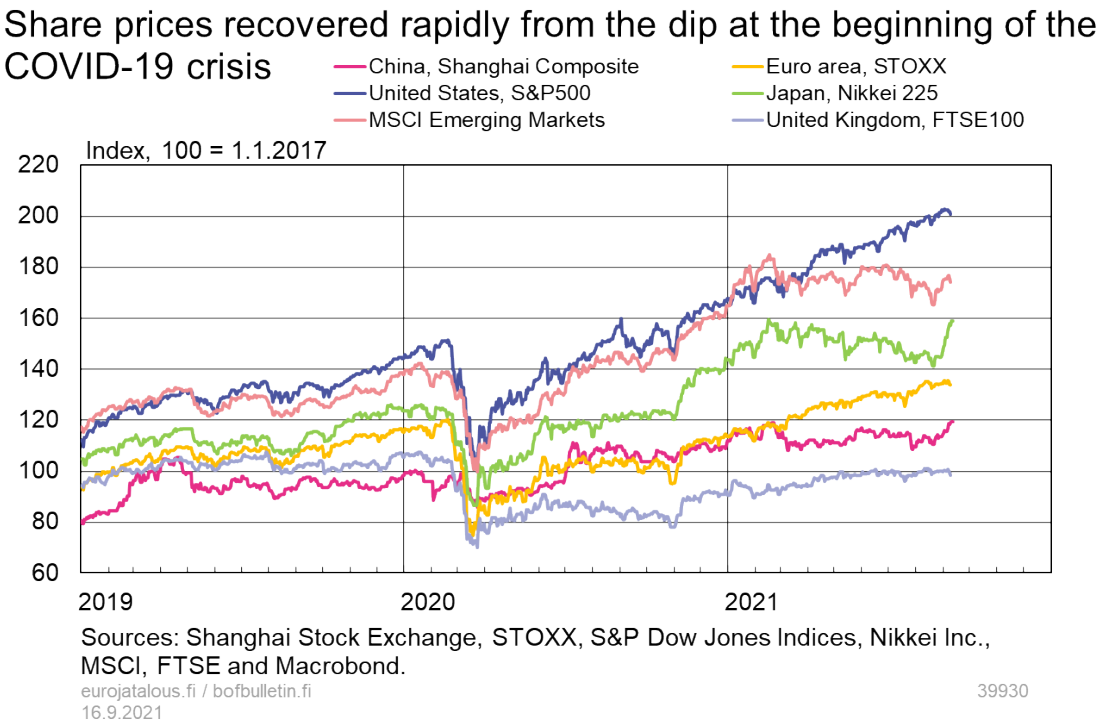
Chart 18.



Long-term interest rates were globally already at very low levels before the outbreak of the pandemic. The strong measures by central banks prevented the COVID-19 crisis from spilling over onto the financial markets, and the risk premia on sovereign bonds rose moderately in the early phase of the crisis and then began to decrease rapidly. Due to their low initial level, long-term interest rates have thus not declined significantly, but central banks have succeeded in maintaining favourable financing conditions. For a more detailed analysis, see for example the article 'Monetary policy measures taken during pandemic revived euro area economy'. Share

prices, too, began to recover rapidly after the early phase of the COVID-19 crisis (Chart 19). The stock market has been especially strong in the United States, but developments have differed notably between industries. In 2021, stock markets have been robust in the euro area, too.

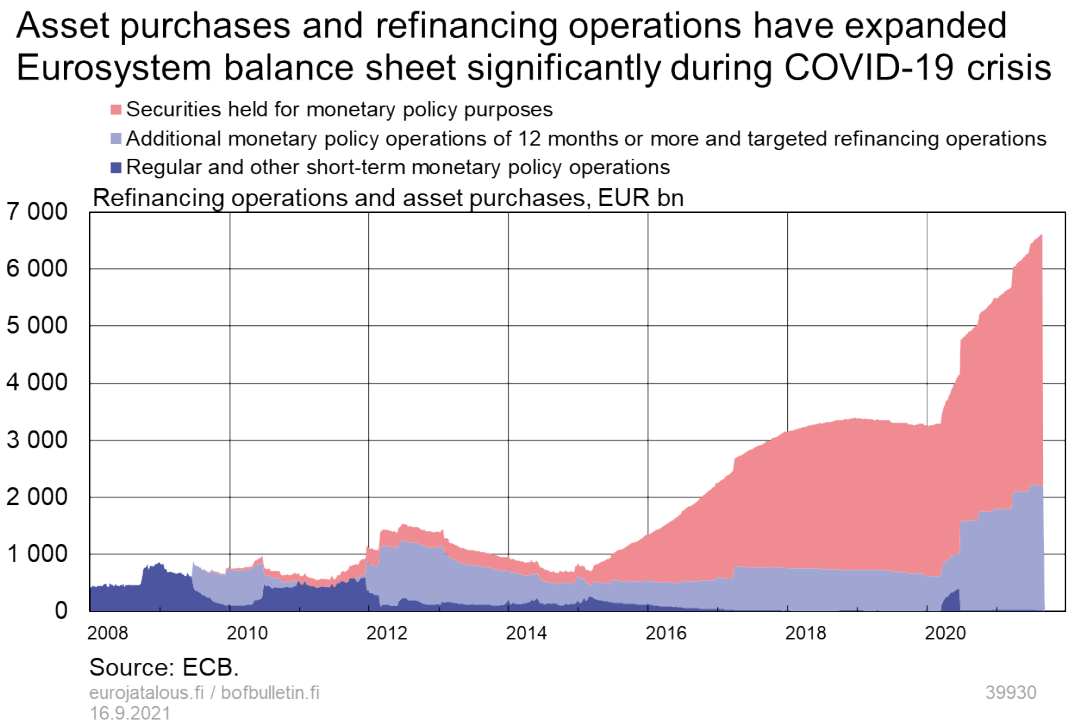
Chart 19.



The ECB will maintain favourable financing conditions for economic recovery for as long as necessary

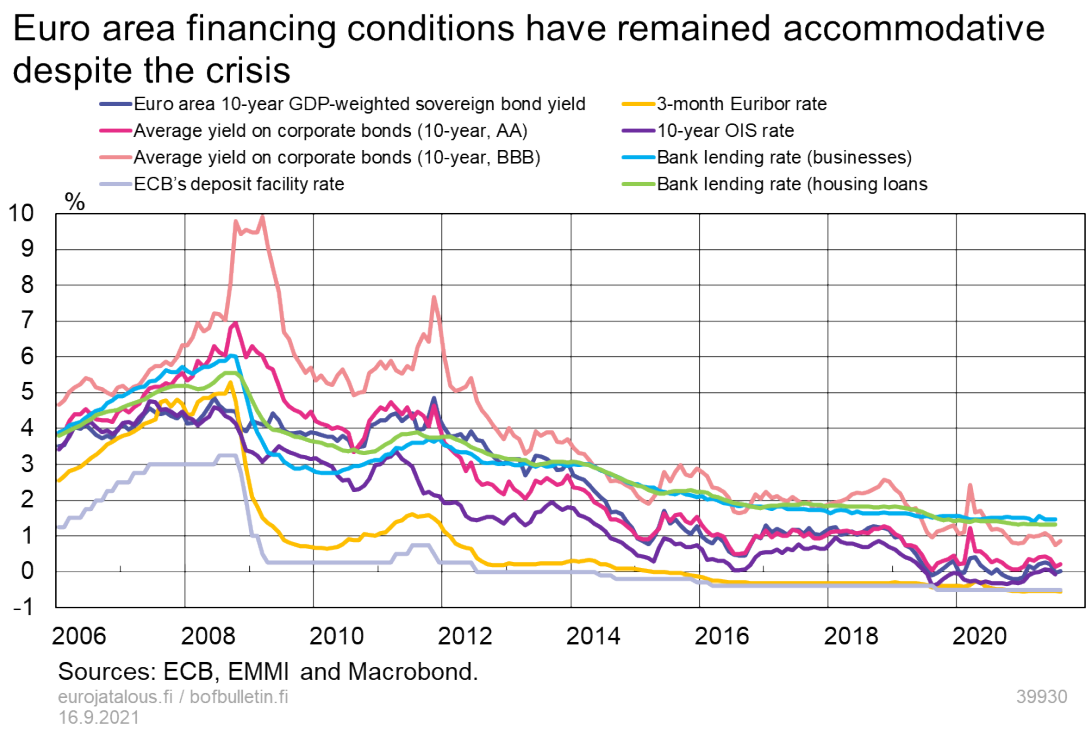
The ECB's measures during the COVID-19 crisis are reflected on the Eurosystem balance sheet particularly as an increase in the volume of securities held for monetary policy purposes and the volume of refinancing operations (Chart 20). As a result of the Pandemic Emergency Purchase Programme (PEPP) and the Asset Purchase Programme (APP) launched earlier, the volume of securities held for monetary policy purposes has increased and is now clearly over EUR 4,000 billion. Moreover, banks have to date borrowed over EUR 2,000 billion in targeted longer-term refinancing operations (TLTRO III). The strong growth of borrowing under the TLTRO programme is explained by the reduction of the interest rate applied to these operations, as well as by the increase in the bank-specific maximum entitlement during the crisis, and the lowering of the lending performance target that is a criterion for a low borrowing rate.[19] The increase in the ECB's balance sheet has been notably stronger than during the years following the onset of the financial crisis in 2008.

Chart 20.



Financial conditions have remained very accommodative throughout the COVID-19 crisis, reflecting the ECB's monetary policy measures, as well as fiscal support measures and the easing of regulations related to bank lending during the crisis. In the early phase of the crisis, the rise in risk premia required by investors pushed up the interest rates on both government and corporate bonds. This rise was, however, temporary. Banks' credit channel has also operated smoothly during the pandemic: lending rates have remained stable throughout the crisis (Chart 21) and banks have been able to continue or even increase their provision of credit (Chart 22). In contrast to the financial crisis, financial intermediation in the euro area has been even, without significant cross-country differences in bank lending rates. In 2021, long-term interest rates have risen slightly, reflecting, for example, the stronger economic outlook and the increase in inflation expectations.

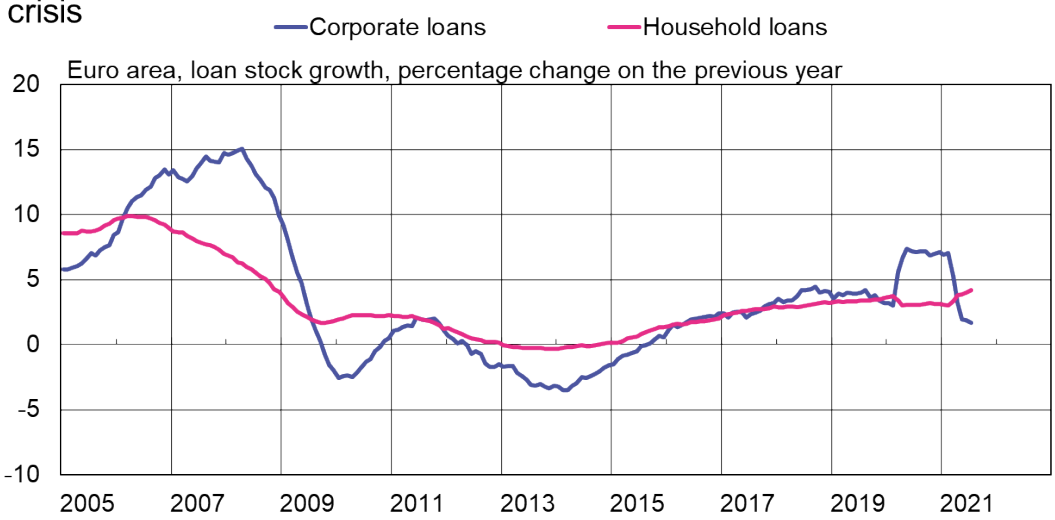
Chart 21.



Following the onset of the crisis, annual growth in the stock of corporate credit picked up notably, in response to the stronger demand for loans caused by the drying up of companies' cash flows (Chart 22). Banks' lending policies and credit terms have remained fairly relaxed throughout the crisis. Results of the euro area Bank Lending Survey (BLS) show that banks tightened their credit standards considerably less than during the global financial crisis.[20] This is partly explained by COVID-19-related government guarantees and the ECB's targeted longer-term refinancing operations (TLTROs) that encourage banks to provide credit to businesses. The recent slowdown in growth in the stock of corporate loans reflects the fact that the exceptional demand for finance in the acute phase of the crisis has levelled off. The stock of housing loans has also grown throughout the crisis. According to the BLS, this is explained by not only the continuation of favourable credit standards but also growth in demand, which in turn is due to, in particular, the low level of interest rates as well as borrowers' confidence in the outlook for the housing market and the general economic situation.

Chart 22.

Accommodative financing conditions and government support measures have helped ensure access to credit and euro area recovery from the crisis



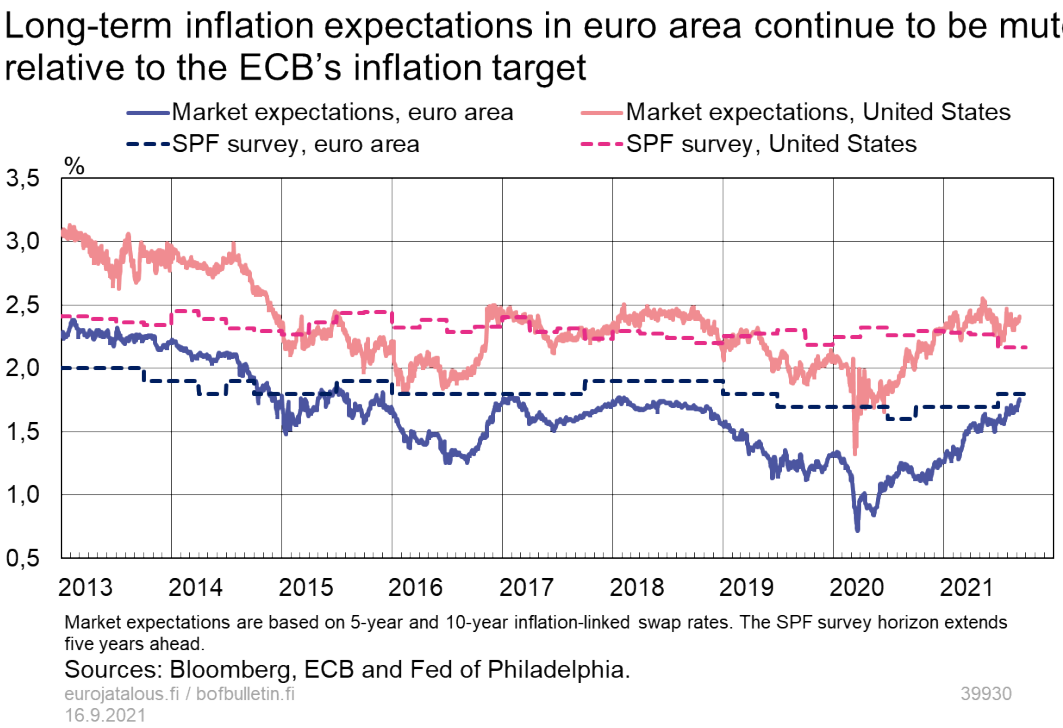
Loan stocks adjusted for balance sheet transfers and securitisation.
Source: ECB.

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Inflation expectations have strengthened since the worst phase of the COVID-19 crisis

After the COVID-19 crisis erupted, inflation slowed globally, as overall demand decreased and commodity prices fell sharply. The weaker outlook and growing uncertainty meant that expectations regarding the future development of inflation were widely subdued. It is understandable that short term inflation expectations should have been dampened, since the COVID-19 crisis weakened the economy. More worrying, however, was the fact that longer-term inflation expectations declined significantly. Both in the euro area and the United States, long-term inflation expectations for the next five to ten years have fallen to exceptionally low numbers: 0.73% in the euro area and 1.39% in the USA.

Chart 23.

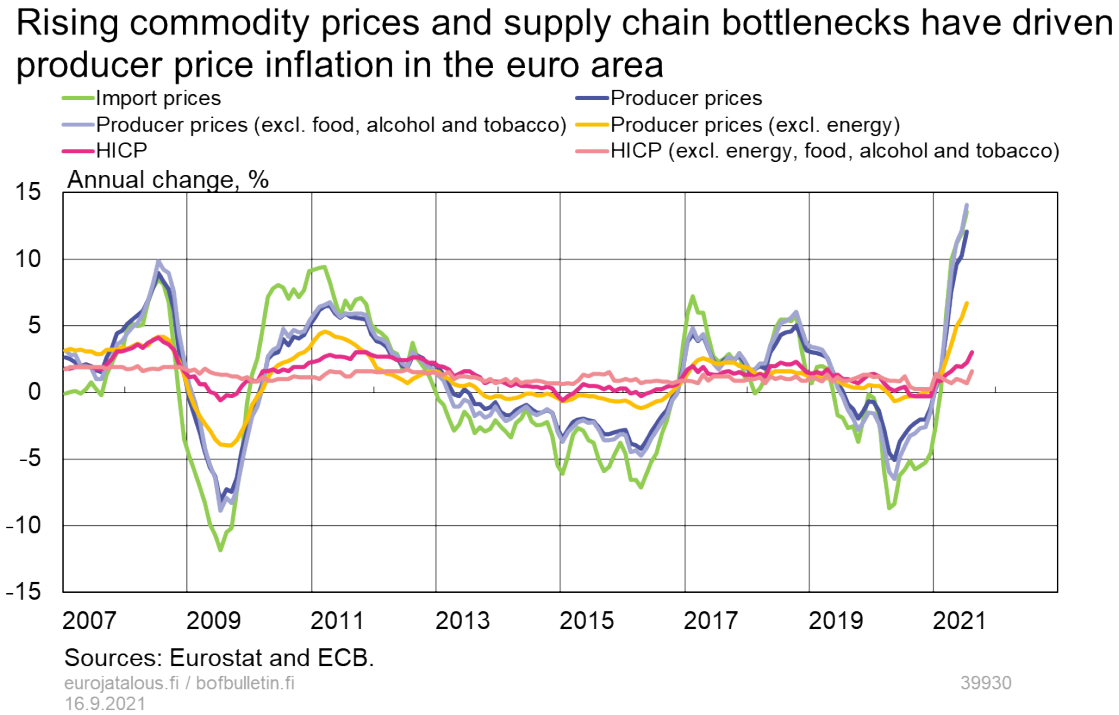


The dramatic decline in inflation expectations measured from the financial markets nevertheless proved to be short-term. Expectations gradually strengthened as uncertainty began to fade and the worst fears concerning the economic crisis eased. Furthermore, the accommodative monetary policy boosting recovery and providing the much-needed stimulus that has been witnessed worldwide also helped significantly, putting a stop to the decline in inflation expectations and allowing them to return to previous levels. The recovery of inflation expectations has also contributed to the development of actual inflation and improved the inflation outlook (see Inflation expectations help in analysing the euro area inflation outlook). Assumptions about future inflation levels affect the behaviour of economic agents, and if they rise/dip sustainably over/below the central bank's inflation target, the result can be a self-perpetuating cycle where strengthened/weakened inflation expectations lead to an acceleration/slow-down in actual inflation. At present, long-term inflation expectations in the United States have stabilised at slightly over 2%. In the euro area too, expectations have returned to the level preceding the COVID-19 crisis, although they are still well below the inflation target of 2% announced by the ECB in July. (see ECB revised its monetary policy strategy – what's changed?[1]).

The inflation peak due to the opening-up of the economy and economic recovery is thought to be mainly temporary

As the economy has gradually opened up and signs of recovery become visible, so inflation has accelerated. Commodity prices have risen substantially across the board. At the same time, in some production sectors supply has failed to keep up with the rapid increase in demand. For example, there is now a serious shortage of microchips around the world, which is causing disruptions in production, e.g. in the car industry. Moreover, increased demand has pushed up the cost of transport, as there is a shortage of transport capacity. All this has resulted in markedly higher import and producer prices in the euro area. Import and producer prices rose by a good 10% in June and July compared with last year. Compared with the end of 2019, import prices are up by at least 4% and producer prices by around 8.5%. Although this largely represents an adjustment resulting from the recovery from the COVID-19 crisis, cost pressures are expected to keep inflation rising at least through the current year. Thereafter, consumer price inflation is predicted to gradually slow to below 2%. For example, sales prices in the near future in manufacturing and the service sectors are currently expected to be quite high.

Chart 24.



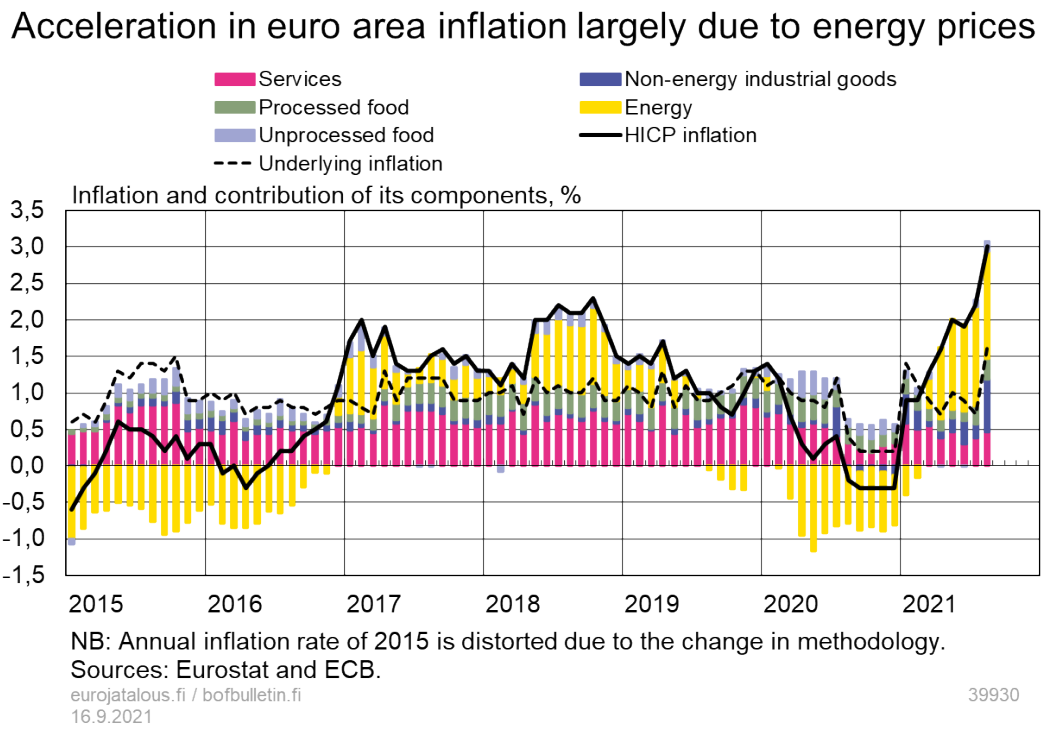
Consumer price inflation since the start of the year has gradually accelerated in both the euro area and the United States. Inflation in the euro area was 0.3% last year (see chart). From the beginning

of the current year, however, inflation increased rapidly to 0.9% and by August already stood at 3.0%. In the United States, consumer price inflation (CPI) rose especially swiftly from March, reaching 5.4% in July.

The acceleration in consumer price inflation, however, has mainly been due to individual, one-off factors. The main explanatory factor has been energy inflation, which has speeded up significantly as a result of the changes in oil prices. The price per barrel of oil fell to a low of USD 20 and has now climbed to around USD 70. Thus, the price of oil has risen substantially since last year, although it is now more or less what it was prior to the pandemic.

Inflation in the euro area also increased as a result of the reduction in the VAT rate in July–December 2020 in Germany coming to an end at the end of the year. Ending the cut in VAT caused prices to return to their previous levels, which in turn led to a one-off acceleration in inflation in January. In addition, the VAT reduction will have the effect of increasing the inflation rate for the period July–December this year, as the now normalised prices will be compared against those the year before during the time of the tax cut. Inflation in August also accelerated temporarily because the usual seasonal sales were held at different times due to the COVID restrictions last year, and this was reflected in higher non-energy industrial goods inflation.

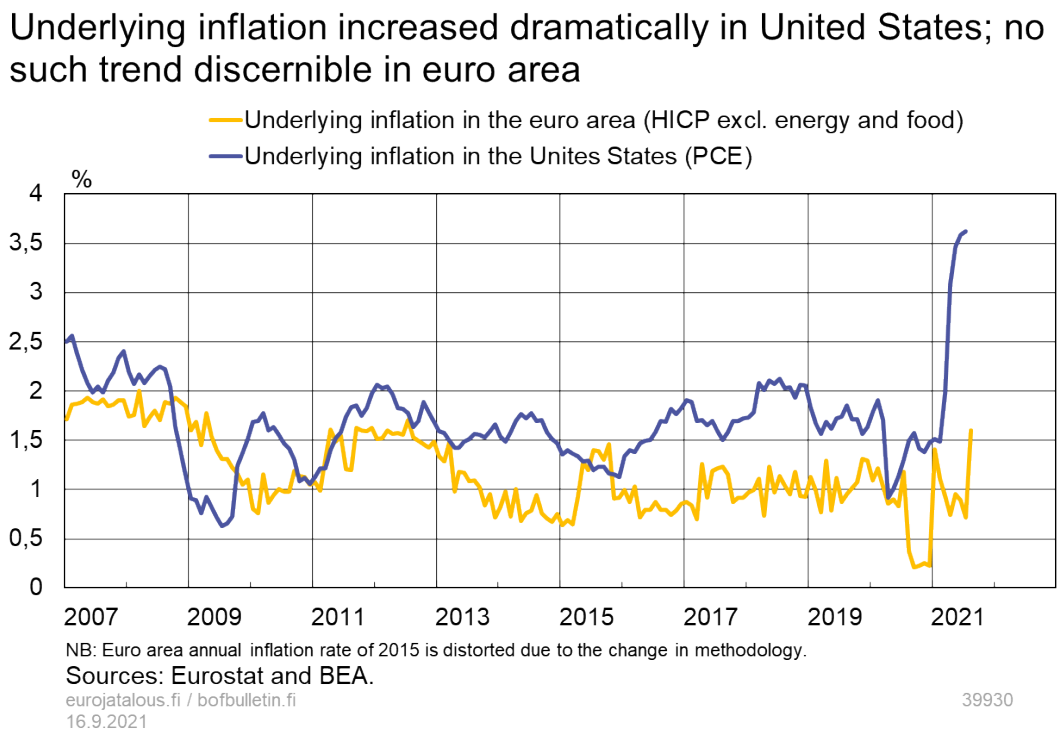
Chart 25.



The development in the measure of underlying inflation monitored by the Fed[21] appears to be

exceptional compared with previous years (including the financial crisis years) and with the situation in the euro area (see Chart 26). Underlying inflation in the USA has apparently risen to a level of 3.6%. The shortage of components in the US car industry and the production and delivery problems that this has caused have pushed up the prices for used cars significantly. Increased mobility has also caused other items related to transport, travel and tourism to increase. In general, the gradual easing of the COVID situation and the end of restrictions have to some extent led to a resurgence in demand for services, wich is very evident in, for example, the travel and accommodation sector.

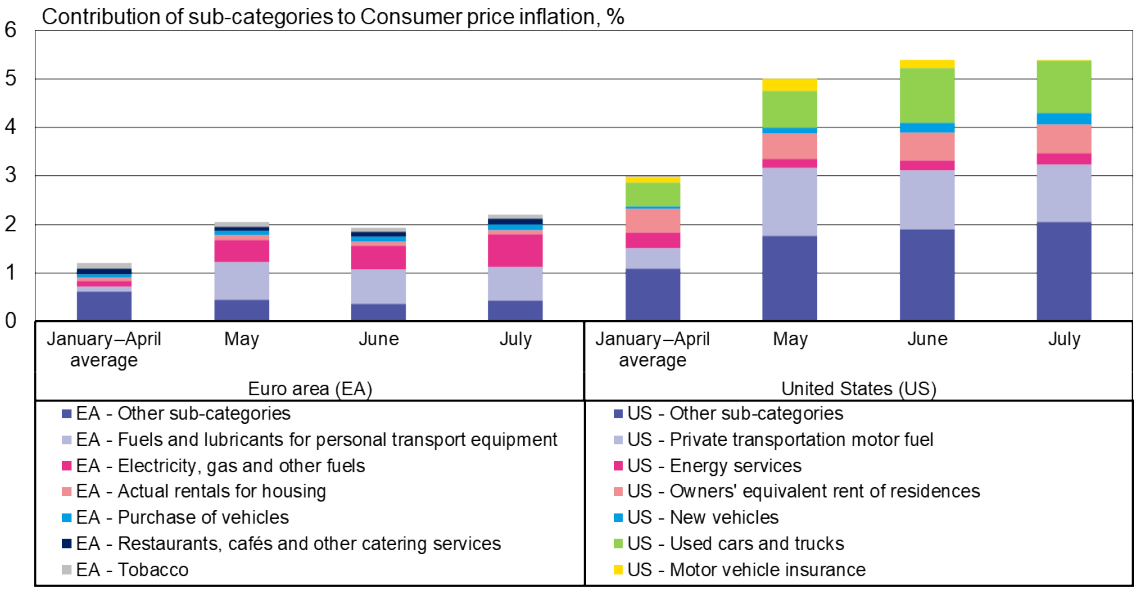
Chart 26.



A detailed examination of the inflation components reveals that in both the euro area and the United States energy and fuel are a major explanatory factor in the increase in inflation. That is especially true of the euro area, where these components account for approximately two-thirds of the inflation rate for the May–July period. Additional significant explanatory factors in the United States[22] are items related to motor vehicle sales and owner-occupied housing. It is nevertheless worth noting that, when these exceptional individual price shocks caused by the COVID crisis are omitted, the combined impact of all the remaining sub-categories of inflation in the euro area and the USA is still quite moderate. In the USA, inflation, without these very few sub-categories that have caused the acceleration, is more or less on target, while in the euro area it is still a good 2% under target.

Chart 27.

Inflation acceleration in the euro area and United States mainly attributable to individual sub-categories



NB: Sub-categories of inflation data in the euro area and the United States are not mutually comparable.
Sources: Eurostat, BLS and calculations by the Bank of Finland.

Inflation in the euro area is predicted to moderate when the exceptional impact on prices due to the COVID crisis ends

Overall, rising inflation has been due to individual, one-off factors and largely reflects the normalisation of exceptional circumstances. In the euro area, underlying inflation, from which is omitted energy and food prices, is still well below 2%, and there are no major price pressures in sight. If temporary inflation spikes were to transfer to wage pressures, this could have a more lasting effect on inflation. However, wage inflation in the euro area has been very modest. The indicator of negotiated wage rates, which proactively measures wage pressures, has remained moderate and predicts wage inflation rates of less than 2%.

Upward pressure on wages and prices is dampened by spare capacity in the euro area, which increased as a result of the COVID crisis, from which the labour market in the euro area has not yet recovered. Unemployment increased substantially due to the pandemic and has not yet returned to pre-COVID levels. The unemployment rate was 7.6% in July. The number of persons employed also decreased significantly in the spring of 2020 and is still significantly lower than before the crisis (Chart 13). The output gap, which is a measure of spare capacity in the euro area – i.e. the difference between the actual output of an economy and its estimated potential output – remains negative. According to the latest estimates from key international institutions, it is

expected to close no earlier than the end of next year, or not until 2023. The euro area economy is thus still not operating at full capacity. However, the challenge for assessing the outlook for inflation is that it is exceptionally difficult to estimate the full extent of the under-utilisation. The varying rates at which different sectors of the economy recover may also result in inflation divergence compared with the pre-crisis period. The effects of longer-term trends, such as globalisation and technological development, will dampen the outlook for inflation even after the pandemic ends.

Thanks to the brighter outlook for the economy and the improved situation with regard to COVID, the outlook for inflation has nevertheless obviously improved, and all the main forecasters have raised their euro area inflation forecasts. There may be slight differences in their views, but euro area inflation is expected to increase to around 2% this year. With the end in sight of the unusual impact that the COVID crisis has had on prices, inflation in 2022 and 2023 is predicted to settle around 1.5%. If it takes longer to ease production bottlenecks and achieve a balance of supply and demand, inflation may accelerate slightly faster than this over the forecast horizon. In September the ECB raised its inflation forecast compared with June and now predicts that inflation will increase to 2.2% this year and then slow gradually to 1.7% in 2022 and 1.5% in 2023. The preconditions in the euro area for a sustainable return in the medium term to an inflation rate of 2% have nevertheless improved. Economic recovery in the euro area and the ECB's new monetary policy strategy will prevent the economy from being beset for a prolonged period by inflation that is too low.

Euro area inflation forecasts have recently been raised but inflation will still remain below 2% in the period 2022–23

HICP, euro area, % change	Date	2020	2021	2022	2023
ECB	09/2021 (06/2021)	0.3	2.2 (1.9)	1.7 (1.5)	1.5 (1.4)
European Commission	07/2021 (05/2021)	0.3	1.9 (1.7)	1.4 (1.3)	-
IMF	04/2021 (10/2020)	0,3	1.4 (0.9)	1.2 (1.2)	-
OECD	05/2021 (12/2020)	0,3	1.8 (0.7)	1.3 (1.0)	-

Previous forecast in brackets.
Sources: ECB/Eurosystem, European Commission, IMF, OECD, Consensus Economics.

Euro area inflation forecasts have recently been raised but inflation will still remain below 2% in the period 2022–23					
SPF	07/2021 (04/2021)	0.3	1.9 (1.6)	1.5 (1.3)	1.5 (1.5)
Consensus	08/2021 (07/2021)	0.3	2.1 (1.9)	1.5 (1.4)	-

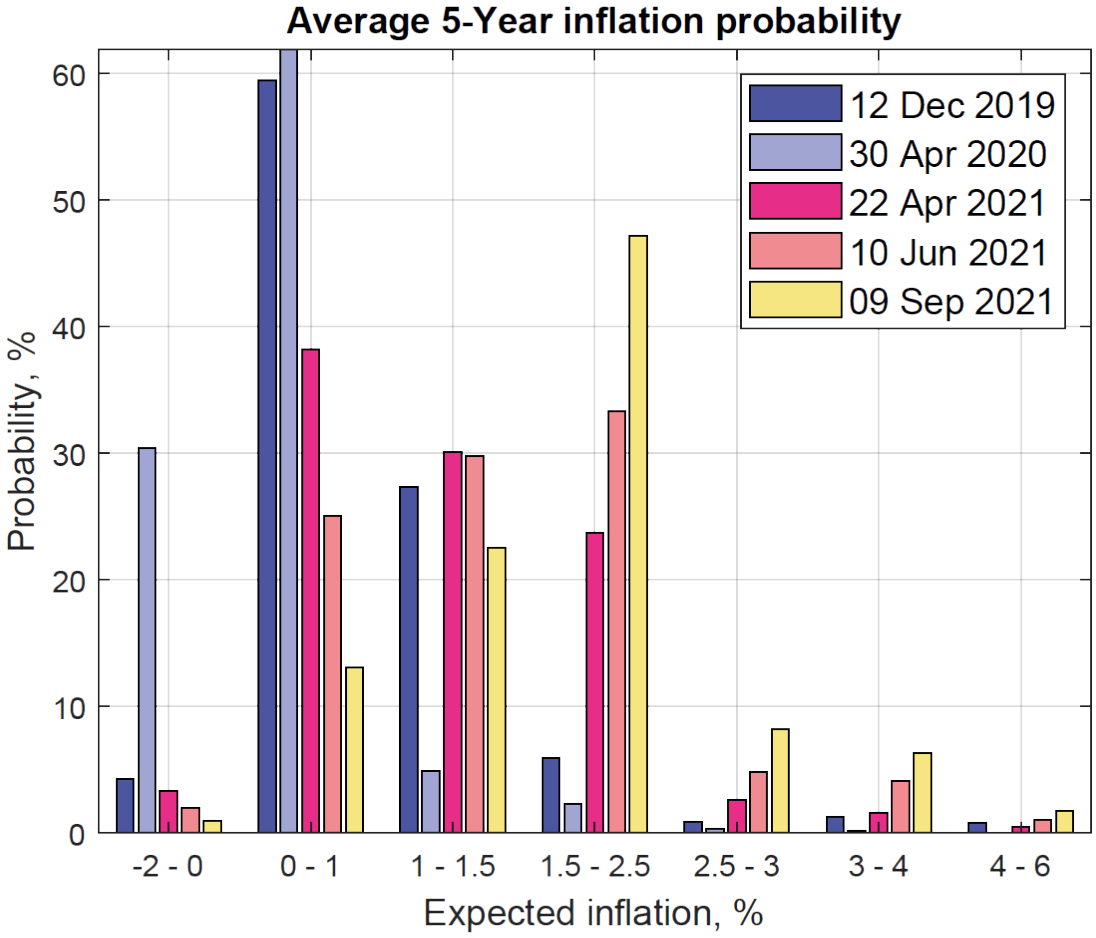
Previous forecast in brackets.
Sources: ECB/Eurosystem, European Commission, IMF, OECD, Consensus Economics.

Reform of the monetary policy strategy has anchored inflation expectations for the euro area more firmly than before at 2%

Inflation expectations derived from market-based inflation options suggest that the market expects inflation in the euro area to settle increasingly around 1.5–2.5% for a five-year period. Thus, the markets view the recent acceleration in inflation as temporary and see the inflation rate settling close to the ECB's new symmetric inflation target of 2%. The ECB's SPF survey among professional forecasters reveals that inflation is expected to be at 1.8% in five years' time.

Chart 28.

Market expectations over the longer term is for inflation to settle at 1.5–2.5%



Sources: Bloomberg and calculations by the Bank of Finland.

12 Oct 2020

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Although the recent rise in inflation is generally thought to be short-term and mainly due to the economic disruption caused by the COVID crisis, it may turn out to be longer-term in nature than currently predicted. If prolonged, the increase in the costs of raw materials and disruptions to global supply chains may be reflected in inflation expectations, upward pressures on wages and, ultimately, accelerating inflation. For now, however, no such trend is visible in the euro area and inflation expectations are anchored to or somewhat below the inflation target. Inflation in the euro area has long been too low when compared with the ECB's target, and thus a sustained rise of inflation to its target of 2% is desirable as the COVID crisis eases and the economic outlook improves.

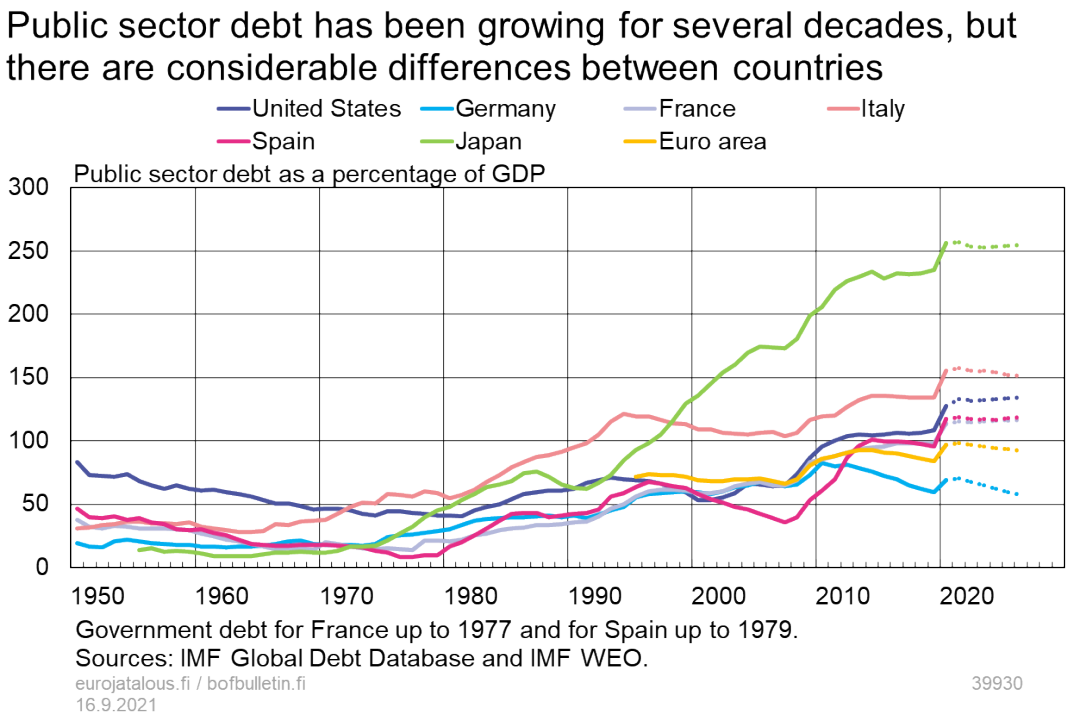
Reducing public sector indebtedness will be a long-term challenge

The COVID crisis has caused public sector debt to increase significantly. Of three key economic areas, the increase in indebtedness is greatest in the United States, where public sector debt relative to GDP will have grown by around 25 percentage points in the period 2020–2021. The corresponding figure for Japan is approximately 20 percentage points, and for the euro area around 15. Of the countries in the euro area, Germany's public sector debt relative to GDP is predicted to increase by 13 percentage points during the COVID crisis, which is significantly less than the figure for France, Italy and Spain, which is between 20 and 25 percentage points. Public sector debt in the euro area is expected to rise to 99% relative to GDP in 2021. Current forecasts suggest that the debt-to-GDP ratio will decline slightly over the next few years, mainly as a result of the trend in Germany.[23]

There are considerable differences between the countries in the euro area. In 2021, public sector debt relative to GDP is expected to grow to 73% in Germany, 117% in France, 120% in Spain and 158% in Italy. In the USA it is expected to increase to around 135%, and in Japan to approximately 257% relative to GDP in 2021. There is some uncertainty attached to the forecasts, however, and, for example, new fiscal policy measures could alter the picture quite significantly.

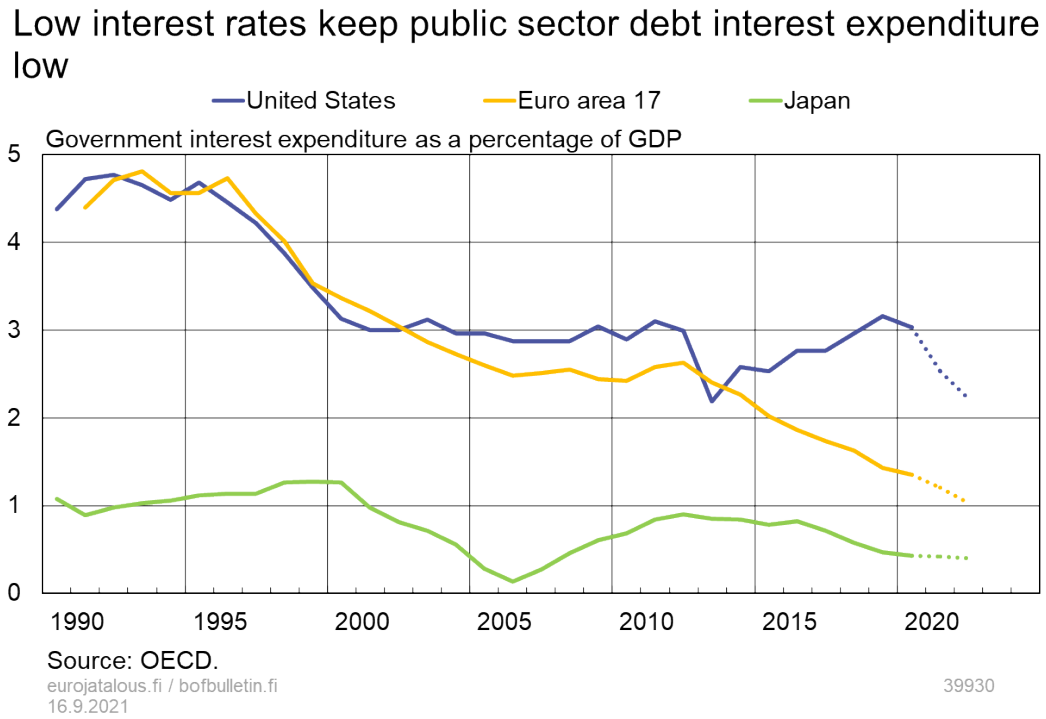
The dramatic increase in public indebtedness is not just a phenomenon associated with the COVID crisis: public sector debt relative to GDP has seen an upward trend for several decades now in the United States, in Japan and in the largest economies of the euro area, with the exception of Germany. It has not always been this way. After the Second World War, public sector indebtedness fell in some of these countries for a period of several decades, and in others it remained relatively stable, at least for some time, from the start of the 1950s. The decrease in indebtedness was the result of strong economic growth, inflation and regulation of the financial markets restricting the cost of public sector debt (financial repression) [24]. Public sector debt relative to GDP began to rise in all these economies by at least the start of the 1980s, and the trend has continued ever since. Only Germany succeeded in reversing the trend after the financial crisis, and public sector debt there began to fall. This was the result of strong economic growth, low rates of interest and compliance with fiscal policy rules (what is called the 'debt brake').

Chart 29.



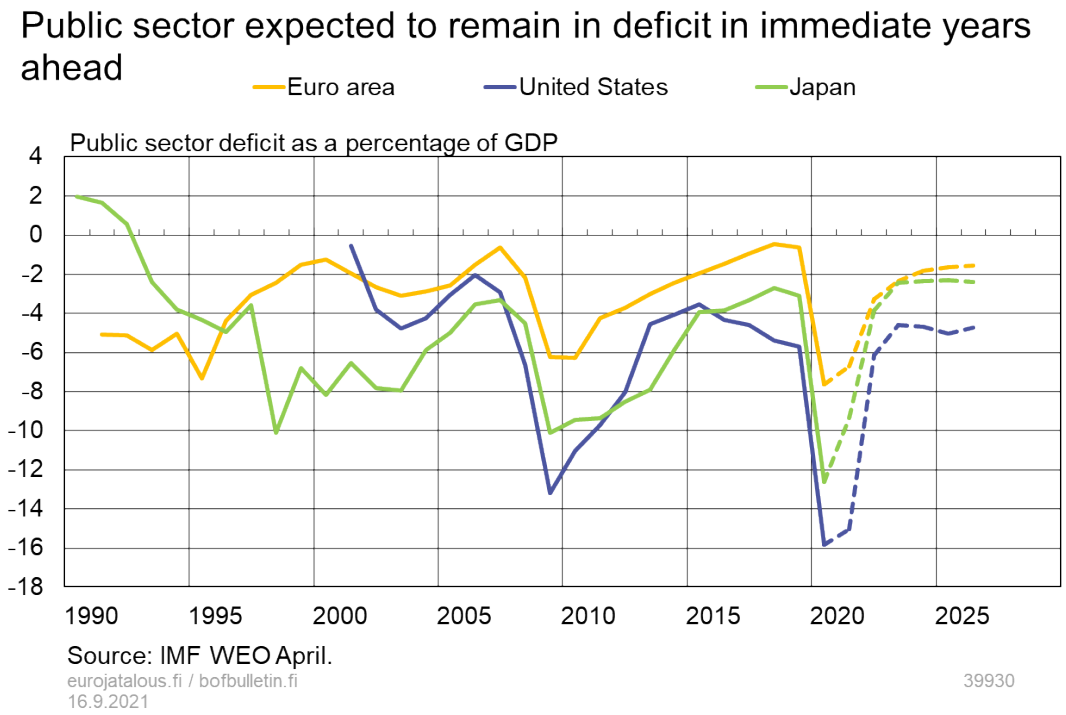
Low interest rates keep public sector debt interest expenditure in the key economic areas at a low level, despite the growth in public debt. In the euro area, the interest payable on public sector debt relative to GDP has decreased sharply since the start of Economic and Monetary Union. In the United States, interest expenditure declined sharply in the 1990s and since the turn of the millennium has remained more stable. Public debt expenditure relative to GDP in Japan has long been low. During the COVID crisis, fiscal and monetary policy have both contributed to the recovery, as the crisis has dampened economic growth in the euro area.

Chart 30.



The overall public sector deficit in the euro area has remained a good deal smaller than in the United States or Japan since the early 2000s. The public sector deficit as a whole is expected to remain considerable in the key economic areas in 2021 and to continue in subsequent years. In the euro area, the ECB predicts that the deficit will be 7.1% relative to GDP in 2021. The continued high deficit in the euro area will be due to a continuation of the fiscal stimulus and the fact that GDP will be less than potential output, despite the commencement of economic growth. The deficit is predicted to narrow over the next few years as economic growth continues and the economic recovery tails off. The overall government deficit in the USA is expected to be 13.3% and in Japan, 9.2% relative to GDP in 2021.

Chart 31.



Notes

1. Based on its symmetric 2% target and its monetary policy strategy, the ECB Governing Council expects policy rates to remain at or below the present level until inflation rises durably to 2% well ahead of the end of the projection horizon and the Governing Council considers the progress in underlying inflation to be sufficiently advanced to be consistent with inflation stabilizing at 2% over the medium term. Inflation may also be moderately above the target for a transitory period. ↑
2. In the chart, the zero point selected for each crisis is the final quarter before GDP turned onto a declining path, i.e. the pre-downturn or pre-recession peak in output. ↑
3. It should nevertheless be noted that the collapse which occurred in the financial crisis could have been attributable not only to the crisis itself but to the concurrent effects of structural changes. See e.g. Cabrillac, B. et al (2016) Understanding the weakness in global trade- What is the new normal?, ECB Occasional Paper No. 178. ↑
4. The IMF assesses that the international economy will experience significant, lasting adverse effects on the level of total output, though these effects are likely to be smaller than what was seen during the global financial crisis. The extent of permanent damage will also vary from one country to another and is likely to be greater in emerging economies than in advanced economies. See IMF WEO (2021) Managing Divergent Recoveries, Chapter 2, April 2021. ↑
5. Barrett, P., Das, S., Magistretti, G., Pugacheva, E., Wingender, P. (2021) After-Effects of the ↑

COVID-19 Pandemic: Prospects for Medium-Term Economic Damage, IMF Working Paper No. /21/203.

6. Cerra, V., Saxena, S. C. (2008) Growth dynamics: the myth of economic recovery, American Economic Review, 98(1), 439–57. ↑
7. See Furceri, D., Celik, S. K., Jalles, J., T., Koloskova, K. (2021) Recessions and total factor productivity: Evidence from sectoral data, Economic Modelling, Volume 94, pages 130–138. ↑
8. The data consists of 119 economic crises in OECD countries before the COVID-19 crisis, based on the data used in Cerra & Saxena (2008) and Furceri & Mourougane (2012), supplemented with data from the latest economic crises. The last quarter before GDP turned down has been chosen as the starting point for each crisis, i.e. the GDP peak preceding the recession or depression. ↑
9. When forecasting the recovery from the COVID-19 crisis, it is worth noting that economic growth in the euro area had already slowed slightly pre-COVID, especially due to the economic slowdown caused by Brexit and the trade war between China and the United States. Economic growth in the euro area before the COVID crisis was, in fact, considerably slower than before the global financial crisis, when the economy was essentially overheated. ↑
10. For example, Kose, M; Sugawara, N; Terrones, M (2020) Global Recessions, Policy Research Working Paper No. 9172, World Bank, Washington, DC. ↑
11. The IMF (2021) and Rungcharoenkitkul (2021) have also noted that recovery is slower in services than in other sectors. See IMF WEO (2021) Managing Divergent Recoveries, chapter 1, April 2021, and Rungcharoenkitkul, P. (2021) Macroeconomic effects of Covid-19: a mid-term review, BIS Working Papers No. 959, August 2021. ↑
12. Before the crisis, the GDP share of tourism in large euro area countries was the largest in Spain (more than 10% of GDP), whereas in Germany it accounted for around 4% of GDP. ↑
13. ECB (2021) The heterogeneous economic impact of the pandemic across euro area countries, ECB Economic Bulletin 5/2021. ↑
14. The most important measures at EU level have been the Next Generation EU (NGEU) programme, European Stability Mechanism (ESM) loans to Member States to support the financing of healthcare, loans to Member States under the SURE initiative to support employment and increasing the capital of the European Investment Bank (EIB) for providing corporate loan guarantees. ↑
15. In TLTROs, banks are provided secured loans with long maturities, with the aim of incentivising banks to increase lending to the private sector, i.e. households and firms (excl. loans for house purchase). If banks' lending patterns develop favourably, the borrowing rate in these refinancing operations can be as low as -1%. ↑
16. Chudik, Mohaddes and Raissi (2021) estimate that the growth impact of discretionary fiscal measures on GDP in the acute phase of the crisis (in Q2 and Q3 2020) was 4.5 percentage points in the euro area and 7.1 percentage points in the United States. In addition, a variety of measures for safeguarding funding conditions for businesses (loans, loan guarantees, equity injections) contributed to maintaining business activity and economic recovery. See ↑

Chudik, A., Mohaddes, K., Raissi, M. (2021) Covid-19 fiscal support and its effectiveness, Economics Letters, Volume 205.

17. For a more detailed analysis of the measures taken in 2020, see Kauko, K. - Räsänen, T. (2021). The national COVID-19 support granted in Europe totalled some EUR 1,300 billion in 2020, Bank of Finland Bulletin: analysis. Available only in Finnish. ↑
18. The increase in the debt ratio in 2020 is also explained by the temporary effect of the collapse in GDP, which will fade as the economy recovers. ↑
19. In December 2020, the Governing Council of the ECB decided to raise the total amount that counterparties will be entitled to borrow in TLTRO III operations from 50% to 55% of their stock of eligible loans. The Governing Council also decided to extend the period over which considerably more favourable terms will apply, and to increase the number of operations to be conducted by three. For more information on the decision, see the monetary policy decisions published on 10 December 2020. The target levels of credit provision were lowered already with the decision of 12 March 2020. ↑
20. For more information, see https://www.ecb.europa.eu/stats/ecb_surveys/bank_lending_survey/html/index.en.html. ↑
21. Annual change in personal consumption expenditure (PCE) price index (excluding food and energy). ↑
22. Here we have used the annual change in the US consumer price index (CPI). ↑
23. The figures for public sector debt and the public deficit in the euro area given in this section are based on the ECB's September forecast. Those for individual euro area countries, the USA and Japan are based on the IMF's July forecast. ↑
24. Financial market regulation can, however, inhibit the efficient allocation of economic resources. ↑

Keywords

COVID-19, COVID-19 crisis, euro area, inflation, international economy, monetary policy, USA