Central banks facing an unprecedented crisis

The rapid and large-scale intervention by central banks illustrates the unprecedented nature of the crisis since March 2020. In particular, the measures implemented have ensured the provision of low-cost financing for enterprises and governments during a period of plummeting economic activity. Since the beginning of the year, European sovereign bond yields have risen slightly, driven by higher prospects of growth and inflation. The changes in these prospects will influence future monetary policy choices.

The US and European central banks have reacted very strongly in response to the health crisis

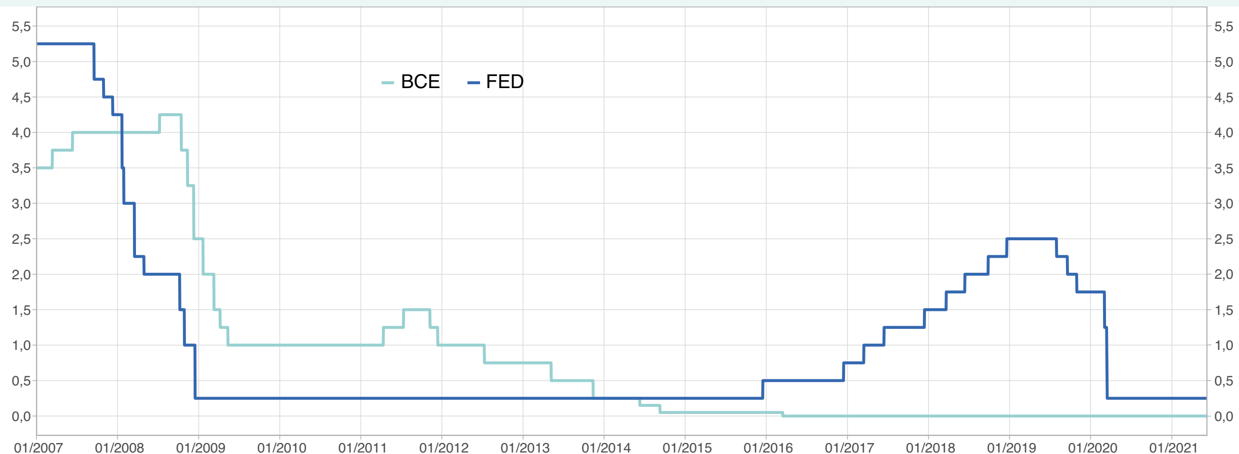
In 2020, in response to the crisis, the US Federal Reserve (Fed) initially lowered its base interest rates (► **Figure 1**), while the European Central Bank (ECB), whose rates were already close to zero, left them unchanged. These two institutions then revived a «non-standard» measure by significantly increasing their asset purchases on the financial markets to ensure financial stability[1] (► **Box**).

This policy has led to an unprecedented increase in the balance sheets of the US and European central banks. The Fed has increased the size of its balance sheet by 90% since the end of February 2020, to $3,740 billion (► **Figure 2**). In comparison, the Fed's balance sheet

1 By way of illustration, the European Central Bank defines financial stability as «a condition in which the financial system – which comprises financial intermediaries, mar-kets and market infrastructures – is capable of withstanding shocks and the unravelling of financial imbalances». Ensuring financial stability therefore consists in mitigat-ing «the prospect of disruptions in the financial intermediation process that are severe enough to adversely impact real economic activity».

► 1. Key rates of the US Federal Reserve and the European Central Bank

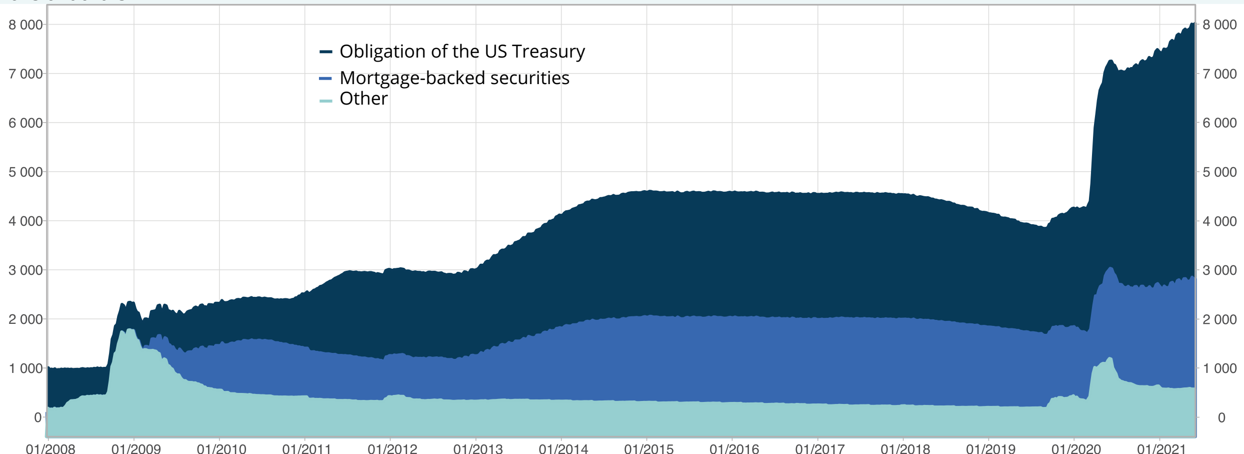
in %



How to read it: since mid-March 2020, the Fed has wanted the US interbank rate to remain below 0.25%. Since mid-March 2016, the ECB has conducted its bank refinancing operations at a fixed rate of 0% (main refinancing rate).
Source: Fed, BCE

► 2. U.S. Federal Reserve Balance Sheet Assets

in billions of dollars



How to read it: the Fed's assets amounted to nearly $7.9 trillion on 26 May 2021.
Source: Fed

Reminder of monetary policy decisions since March 2020

Since the beginning of the health crisis, central banks have used the mechanisms at their disposal to ensure financial stability and prevent an even greater deterioration in the economic situation. On 3 March 2020, the US Federal Reserve (Fed) announced a drop of 50 basis points in its base interest rate[1] (from 1.75% to 1.25%, ► Figure 1) followed on 15 March by a further 100-basis-point cut (from 1.25% to 0.25%): the base interest rate has therefore returned to a similar level to that reached during the 2008 financial crisis, which had been maintained until 2015. In parallel with these key rate cuts, unconventional policies were also implemented, with an initial announcement of at least $700 billion in asset purchases (US Treasury bonds and mortgage-backed securities). These purchases have continued at levels that support «smooth market functioning and effective transmission of monetary policy»[2].

Starting in December 2020, the Fed set the level of these purchases at $120 billion per month. On 16 June 2021, the Fed decided to leave its monetary policy unchanged, including the overall amounts of asset purchases. After the publication of more optimistic macroeconomic projections in terms of growth and inflation, a growing number of members of the Fed's Board of Governors are anticipating a rate hike in 2023.

For its part, the ECB did not cut its base interest rate, which was already at a very low level (deposit facility rate[3] of –0.5%, main refinancing rate[4] of 0% and marginal lending facility rate[5] of 0.25%), and the ECB's response was therefore based on other types of measures. On 12 March 2020, it announced an increase in long-term loans to banks, a temporary cut in bank financing rates over the very long term, and the ramping up of its Asset Purchase Programme (APP).

In addition, a €750 billion Pandemic Emergency Purchase Programme (PEPP) was launched, covering both private debt securities and sovereign bonds on the secondary market. This programme was subsequently reinforced twice (on 4 June 2020 and 10 December 2020), amounting to a total budget of €1,850 billion through to the end of March 2022. As this budget is intended to be spent in a flexible manner in order to ensure favourable financing conditions, its use is not defined in advance. It may not be fully used by the end of the programme if it is not required, but this budget can be adjusted if necessary. In total, from March 2020 to March 2021, net purchases of sovereign bonds under the PEPP plan, amounting to almost €900 billion (95% of the total purchases under the PEPP programme), were allocated in the following manner: 24.5% for Germany, 17.6% for France, 17.4% for Italy and 11.6% for Spain.[6] On 10 June 2021, the ECB decided that its monetary policy would remain unchanged. ●

1 Specifically, the Fed has announced a range within which it wants the interbank rate (which banks use among themselves) to remain. If the interbank rate falls outside this range, the Fed will intervene via market operations. The base interest rate referred to here corresponds to the upper bound of this interval.
2 Statement by the *Federal Open Market Committee* of the US Federal Reserve on 23 March 2020.
3 The deposit facility rate is the rate of return on banks' deposits with the ECB. Reducing it gives banks an incentive to increase their lending to economic actors.
4 The main refinancing rate is the rate at which banks borrow from the ECB for one week against collateral. It is the ECB's main base interest rate.
5 The marginal lending facility rate is the rate at which banks borrow from the ECB at very short notice (24 hours).
6 Source: ECB, calculations: INSEE

now corresponds to 36% of US GDP in 2019. Meanwhile, the ECB's balance sheet increased by €2,800 billion between mid-March 2020 and the end of April 2021, amounting to an increase of 60% (► Figure 3). The ECB's total assets currently correspond to more than 60% of Eurozone GDP in 2019. The speed and magnitude of Fed and ECB balance-sheet growth since March 2020 illustrates the unprecedented nature of the period.

The measures taken have enabled enterprises to keep obtaining financing, despite the sharp decline in activity

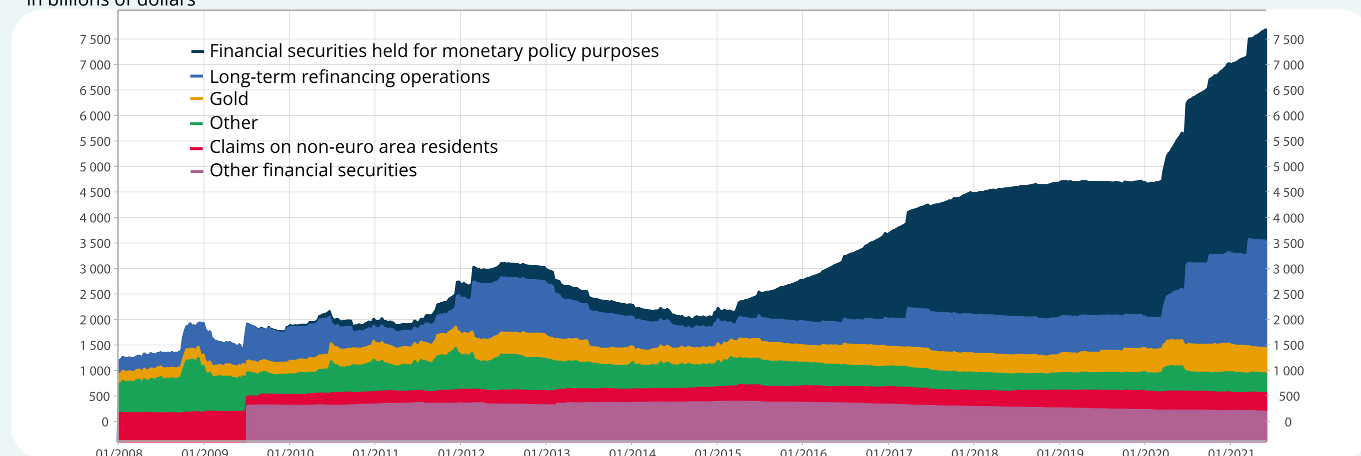
The reactions of the Fed and the ECB have enabled the maintenance of favourable bank lending conditions for economic agents. By way of illustration in the Eurozone, outstanding corporate loans[2] increased by 5.5% overall in 2020 (compared to 1.8% in 2018 and 1.6% in 2019). This increase – the largest in the last ten years – was concentrated in the first two quarters of the year (€264 billion in total). This contrasts with the corporate loan trends during the recessions of 2009 and 2012 in the Eurozone,[3] when corporate loans had declined.

This increase in outstanding corporate loans is due to both supply-and-demand-based factors. On the demand side, the cash-flow needs of enterprises suddenly became significant given the sharp decline in their revenues and the maintenance of some of their expenditure, notably rents and a proportion of wages. In Q2 2020, for example, the ECB Bank Lending Survey[4] revealed that 93% of French enterprises believed that the main factor driving borrowing was the need to cover their working capital requirement. On the supply side, banks – encouraged by the ECB but also by specific national measures (e.g. guaranteed loans) – were able to continue lending to enterprises, given that they still represented a solvent demand during a crisis whose origin was exogenous to the economic situation.

The sectoral allocation of lending also illustrates the novel nature of the 2020 crisis. In 2009, the decline in outstanding loans in the Eurozone appears to have been relatively balanced across sectors, although the greatest debt reduction occurred in industry (► Figure 4). The 2012 recession was marked by significant deleveraging by enterprises in the construction sector, which reflected

2 These are net outstanding loans: new loans are added to old loans which are still outstanding, from which repaid loans are deducted.
3 Eurozone GDP decreased by 4.4% in 2009 and by 0.9% in 2012.
4 Bank Lending Survey

► 3. Balance sheet assets of the European Central Bank – Eurosystem
in billions of dollars



Note: long-term financing operations correspond to loans taken out by banks from the ECB with a maturity of more than three months.
How to read it: on 10 May 2021, the total value of all the ECB's assets amounted to almost €7.6 trillion.
Source: BCE

the real estate crisis in Spain in particular. In 2020, all sectors increased their debt significantly, especially the service sectors impacted by the crisis. In this way, debt increased by 21% in the accommodation and food services sector in 2020, and by 12% in the transport and communications sector, while debt in the manufacturing industry and in real estate and business-support services increased by nearly 6%.

Steps taken by central banks have also facilitated government borrowing

Governments have borrowed heavily to finance economic and income-support schemes, but also to make up for lost revenue. As a result, the government debt-to-GDP ratio increased sharply between the end of 2019 and the end of 2020 in the main Eurozone countries (► **Figure 5**). and in the United States. However, the debt service of European countries, which represents the interest paid by states, has remained very moderate, thanks to low interest rates.

Since the end of 2020, European sovereign rates have risen slightly (► **Figure 6**). The French 10-year rate has been slightly above 0% since mid-May 2021, after dropping to a low of –0.45% in December 2020. A similar profile also applies to the German, Italian and Spanish rates. In the United States, the rise in sovereign rates began earlier – in the summer of 2020 – and appears to be stronger: in the summer of 2020, the US rate dropped to a low of 0.5%, but has risen steadily since then to exceed 1.6% at the end of May 2021.

This recent rise in sovereign rates reflects a recovery in growth and inflation prospects. Higher growth encourages investors to hold higher-yielding assets than bonds. If the economy picks up, corporate profits and the attendant expected returns are likely to increase. This will prompt investors to sell their bonds in order to buy shares. As regards inflation, its role in the evolution of sovereign rates stems from the fact that investors are interested in real returns, i.e. minus inflation, rather than nominal returns.[5] Therefore, if investors anticipate higher inflation, they will tend to demand higher returns in order to preserve their expected real returns.

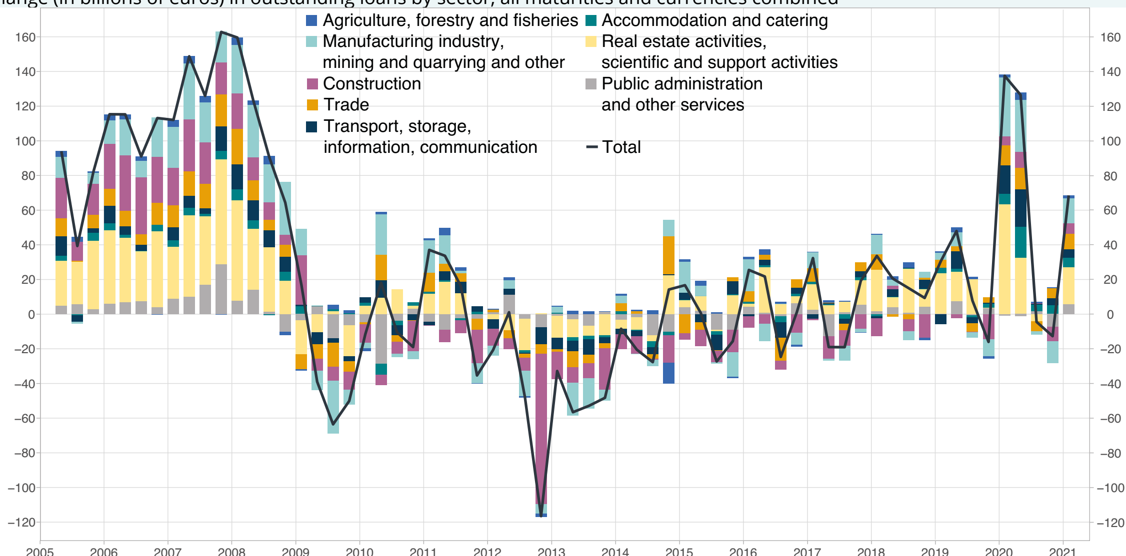
Several signals point toward an upturn in inflation expectations, after reaching a low in 2020, particularly in the United States

Several signals suggest that economic agents expect inflation to rise in 2021: this is reflected by the bond yields observed on the financial markets, consumer confidence surveys and forecasters' opinions.

5 In other words, if they receive 5% interest on their capital but at all prices simultaneously rise by 10%, then the real return on their investment will be –5%.

► 4. Loans to non-financial institutions in the Eurozone

quarterly change (in billions of euros) in outstanding loans by sector, all maturities and currencies combined



How to read it: outstanding loans to non-financial institutions in the Eurozone increased by almost €140 billion in Q1 2020.
Source: BCE, INSEE calculations

Several types of bonds are traded on the bond markets, including some whose interest rate depends on the observed rate of inflation. In this way, by distinguishing between the interest rate observed on the market for standard bonds and the interest rate for inflation-indexed bonds, we obtain the «break-even inflation rate», which is a measure of inflation expectations.[6] On the French bond market, the break-even inflation rate fell sharply at the height of the health crisis, reflecting expectations that were close to zero, before rising gradually, particularly since the beginning of 2021 (▶ figure 7), and pushing the break-even point close to 1.3% at the end of May 2021.

In consumer confidence surveys between May and August 2020 (University of Michigan surveys), US households expected inflation to be close to 3% in 2021. Since January 2021, expectations for the following year have again been above 3%. However, the balances of opinion show that European households were expecting prices to rise at the height of the crisis in the spring of 2020, but they do not seem to reflect high expectations in 2021.

Finally, the ECB conducts a survey of around 100 institutions in order to gather their economic forecasts at different forecasting horizons. Between Q1 and Q2 2021, forecasters' inflation expectations for 2021 were revised upwards; at the beginning of the year they were close to 1%, but then rebounded to 1.6% at the beginning of Q2.

The conduct of monetary policy in response to rising inflation in 2021

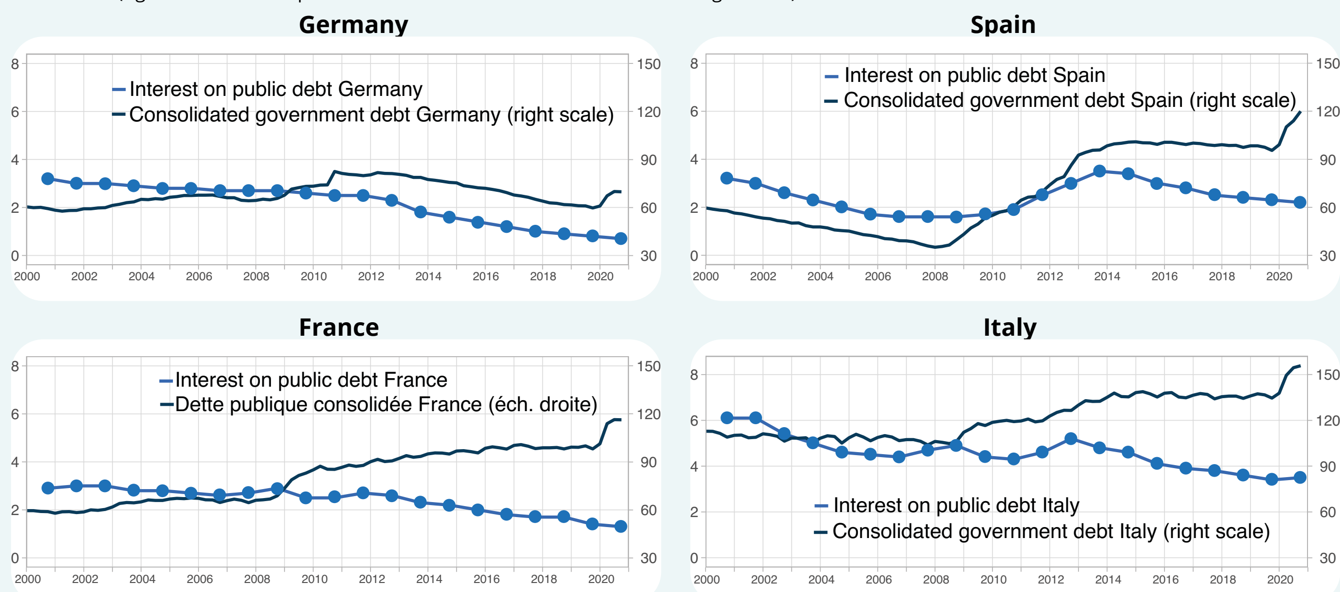
Since the spring of 2021, and in line with the expectations mentioned above, inflation has been rising on both sides of the Atlantic (▶ Figure 8). US inflation in May stood at 4.9% year on year, with core inflation (excluding energy) at 3.8% year on year. In the Eurozone, inflation was also more dynamic, rising to 2.0% year on year in May, with core inflation standing at 0.9%.

Several factors explain this rise in inflation, some of which appear to be temporary: firstly, a base effect, linked to the fact that prices in 2021 are compared with the particularly low level recorded in 2020 at the height

6 In fact, the break-even inflation rate is not an accurate measure of expectations, and may include other generally small effects such as the liquidity premium. Break-even inflation = nominal yield - inflation-linked yield. Assuming that the inflation rate corresponds to break-even inflation, the expected real yield on an inflation-linked bond is equal to that of a standard bond.

▶ 5. Government debt and debt-servicing burden

in % of GDP (right-hand scale for public debt and left-hand scale for debt-servicing burden)



How to read it: French public debt amounted to 116% of GDP in Q4 2020.
Source: Eurostat

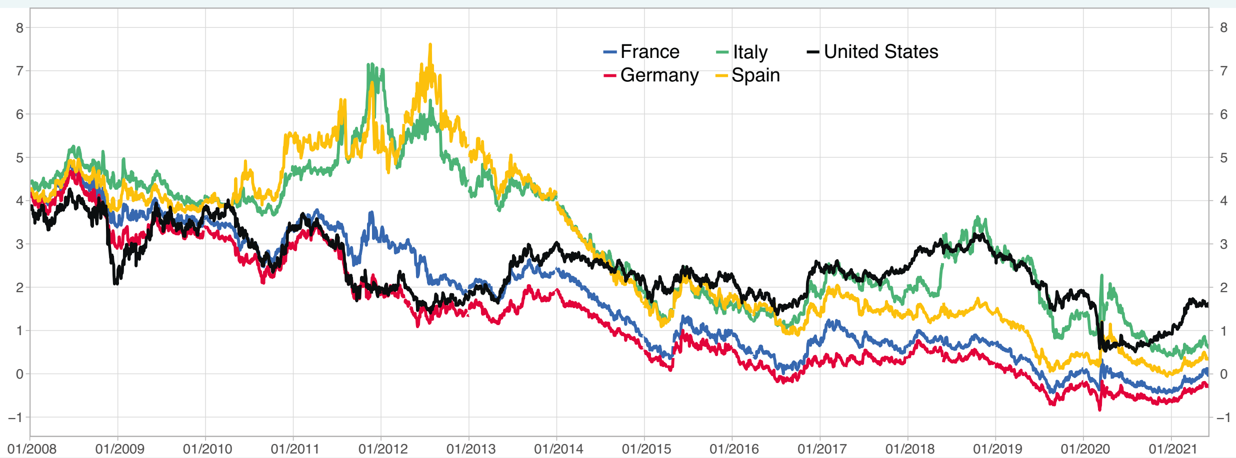
of the health crisis (see the Focus in the Inflation Sheet); secondly, the context of rising energy and commodity prices, linked to the global recovery, and thirdly, supply problems in certain sectors (shortage of semi-conductors, and higher container prices). Other factors probably come into play as well, such as the effects of massive fiscal stimuli in the United States, for example.

These inflation developments, like those affecting growth, play a key role in the conduct of monetary policy. In this regard, the interpretation of the Fed's mandate, combining price stability and full employment, changed in 2020. With regard to price stability, since September 2020, the 2% inflation target has been considered as a long-term target.[7] This means that if inflation has been

7 Until September 2020, the Fed defined its inflation target as symmetrically around 2%, meaning that inflation could be either slightly above or slightly below 2%.

► 6. US and European 10-year sovereign rates

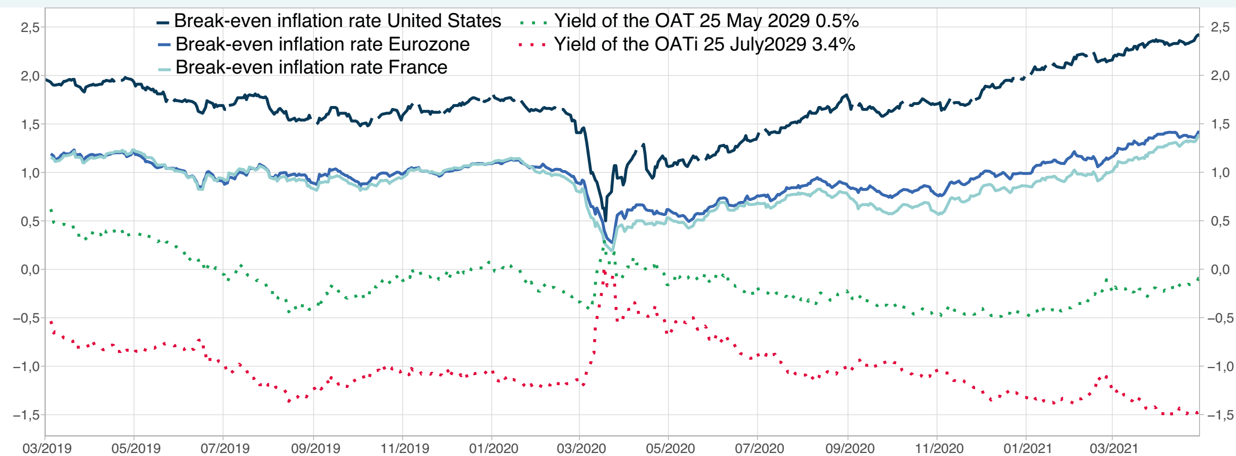
in %



How to read it: Interpretation: on 24 May 2021, the French government could borrow at 0.04% on the financial markets for repayment in 10 years.
Source: DataInsight

► 7. Bond yields and break-even inflation

in %



Note : Agence France Trésor has created two types of inflation-indexed OATs (fungible Treasury bonds): OATi indexed on French inflation and OAT€i indexed on Eurozone inflation. Subtracting the nominal yield of a standard OAT from the yield of the inflation-indexed OAT gives the break-even inflation rate for France and the Eurozone, which is a measure of the inflation expectations of financial markets. These indexed bonds also exist In the United States, and the same calculation is therefore carried out.
Source : Agence France Trésor, Fed

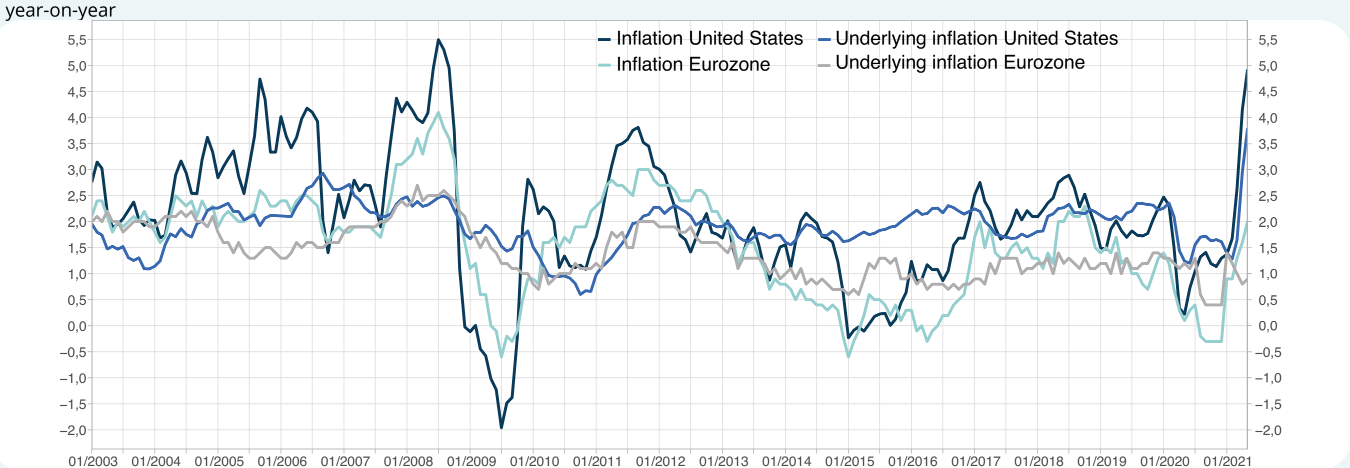
below 2% for a while, the institution can authorise an inflation rate of above 2% to ensure a long-term average of 2%. Full employment, however, is now ranked as its primary objective, with a «broad and inclusive» dimension. Therefore, the Fed's maintenance of its current monetary policy (low rates and asset purchases) could mean that, given its new guidelines, the higher inflation of 2021 would have offset that of 2020 to some extent, in a context in which the employment rate remains below its maximum level (unemployment of 5.8% in May 2021 compared with 3.5% in February 2020).

For the ECB, the issue is less important because inflation is lower, and the economic recovery has been less vigorous in the Eurozone than in the United States. Historically, the mandate given to the ECB by European Union Member States makes price stability the institution's primary objective (no quantitative target, even if the Board of Governors specified compliance with an inflation rate of «below 2%» in 1998). Like the Fed, the ECB is also conducting a strategic review, which is due to be completed in the autumn of 2021. This could include various issues related to monetary policy: price stability, climate change, employment, digitalisation, etc. The institution nevertheless states that the debate on the reduction of asset purchases is «premature» since these programmes are scheduled to last until March 2022. ●

Hadrien Leclerc

► 8. . Inflation and core inflation in the US and the Eurozone

year-on-year



Source: Eurostat, Bureau of Labor Statistics