

EUROFI

Monetary Scoreboard

SEPTEMBER 2022

**Jacques de Larosière and Didier Cahen
with the support of Elias Krief**

Inside

- Continuously very accommodating monetary policies in OECD countries since 2000
- Significant impacts in terms of indebtedness and wealth inequalities
- Negative economic and financial stability consequences
- The return of inflation: state of play and challenges ahead
- Central banks are far behind the curve

Eurofi
Monetary Scoreboard

•

Prepared by
Jacques de Larosière and Didier Cahen
with the support of Elias Krief

•

September 2022

Content

1. THE MONETARY BASE OF OECD ECONOMIES HAS BEEN MULTIPLIED BY 10 SINCE 2000, MAINLY AS A RESULT OF THE 2% INFLATION TARGET WHICH HAS BECOME THE ABSOLUTE GUIDE TO MONETARY POLICY UNTIL THE BEGINNING OF 2021

1.1 Central banks' balance sheets between 2000 and 2022: facts and figures	6
1.2 Central banks reacted swiftly and forcefully during the Lehman brothers, EU sovereign debt and covid-19 crises.....	8
1.3 Very accommodative monetary policies have allowed financial markets to continue functioning and being liquid in the EU, and also prevented the tightening of financing conditions for states, firms and households.....	9
1.4 Lasting easy monetary policies have contributed to the downward path of interest rates.....	10
1.5 The 2% inflation target has led the ECB's and the Fed's monetary policies to be asymmetric over the past 20 years.....	11
1.5.1 <i>Once the economic situation improved after the sovereign crisis, the ECB's monetary policy has not been tightened nor normalized</i>	
1.5.2 <i>Central banks were overly involved: the asymmetry of the Fed's and the ECB's monetary stances over the past 20 years can be illustrated by the trajectory discrepancy of their real short term interest rate</i>	
1.5.3 <i>Until July 2022, the ECB continued its QE policy while inflation was rising sharply, climbing to its highest levels since the beginning of the monetary union</i>	
1.6 The exchange rate: an implicit but unmentionable objective of the ECB monetary policy until 2021	14

2. SUCH PROLONGED MONETARY POLICIES EASING HAS STEADILY BEEN CONTRIBUTING TO THE INDEBTEDNESS OF ECONOMIES

2.1 Central banks have not acted to control – let alone rein in – credit growth during the past decades.....	15
2.2 Lasting persistent low interest rates contributed to the over-indebtedness of advanced economies.....	17
2.2.1 <i>Loose credit conditions have entailed a huge public debt overhang</i>	
2.2.2 <i>The corporate sector entered the covid-19 crisis with high levels of debt</i>	
2.3 Central banks have, de facto, become the agents of fiscal policies.....	20

3. PERSISTENT ULTRA-LOOSE MONETARY POLICIES HAVE LED TO NEGATIVE ECONOMIC AND FINANCIAL STABILITY CONSEQUENCES

3.1 Lasting zero interest rates damaged productive investment and growth in Europe.....	23
3.1.1 Signs of the liquidity trap: preference for liquidity prevails over productive investment	
3.1.2 'Too low for too long' policies have fueled the survival of weak firms, increasing a misallocation of capital	
3.1.3 Lasting low interest rates incentivize companies to take on cheap debt to buy-back their shares rather than invest in long-term projects	
3.2 Persistent low rates have been exacerbating financial vulnerabilities.....	27
3.2.1 Interest rates no longer play their discriminating role, thus leading to mispricing of risks	
3.2.2 High leverage has massively increased market valuations: the development of asset bubbles	
3.2.3 The weakening profitability of the banking and insurance system in the EU compared to the US one	

4. THE RETURN OF INFLATION: STATE OF PLAY AND CHALLENGES AHEAD

4.1 High inflation is expected to last for longer.....	32
4.1.1 Even prior the war in Ukraine, inflation was already an issue	
4.1.2 The war in Ukraine has triggered a major global commodity market shock, pushing inflation to higher levels in OECD economies	
4.1.3 The current inflation spike is driven by structural factors	
4.1.4 The indexation of wage to prices is a key determinant of the course of inflation	
4.2 Normalisation process of monetary policies as of end - July 2022: state of play.....	43
4.3 Despite the reduction in monetary accommodation and the rise of bond yields, monetary and financial conditions remain very expansionary.....	47

Monetary policy has moved into uncharted territory and faced basic questions and trade-offs. The objective of this scoreboard is to analyse the evolution of monetary policy and central banks' decisions over the last two decades through the extensive use of data¹. Indeed, central banks' balance sheets have only rarely reached similar heights relative to GDP, except during wars. By presenting key numbers and charts, this document opens the debate on monetary policy and the need to change course.

During the Global Financial Crisis (GFC), the EU sovereign debt and Covid crises, central banks played a crucial role and intervened on an unprecedented scale to keep financial markets liquid and stabilise the financial system. In addition, in Europe, the ECB's measures have avoided a financial fragmentation in the dynamics of bonds prices, particularly for sovereign bonds. These swift and decisive actions have helped to prevent potential economic collapses.

However, the 2% inflation target has trapped monetary policy in a systematic and asymmetric accommodative stance during the past two decades. Lasting accommodative monetary policies have pushed global debt to an all-time high of 360% of the world GDP in June 2021 and has driven the monetary base of OECD economies to be multiplied by 10 since 2000. Persistent low interest rates have been fostering liquidity hoarding at the expense of productive investment in Europe in particular. The price paid in terms of over-leverage, decline in corporate dynamism, productivity growth, important assets bubbles and instability, has been high. Through its monumental programme of government bond purchases, the ECB has become a *de facto* agent of fiscal policies, buying most government bond issuances in 2020-21. In turn, this huge leverage has weakened the financial system stability: the search-for-yield behaviour has fueled swelling bubbles, along with eroding the profitability of the EU banking and life insurance sectors.

Persistent very accommodative monetary policies have also been accompanied by a significant increase in wealth inequality.

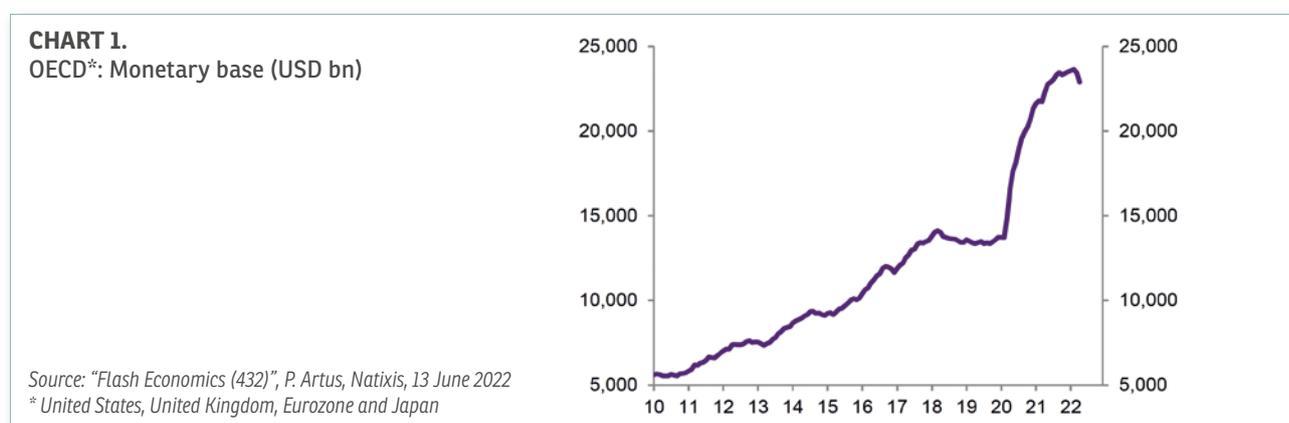
Inflation is back and continues to surge. Since the second quarter of 2021, inflation has been increasing to levels not seen in decades fueling concerns about the rising cost of living for households. Year-on-year inflation in the OECD area climbed to 10.3% in the year to June 2022; this represents the sharpest price increase since June 1988. High inflation should last longer than expected, challenging the very accommodative monetary stance in advanced economies. First signs of normalisation emerge but central banks are behind the inflation curve: indeed, monetary policies are still expansionary in the main advanced economies with policy rates deeply negative in real terms.

1. The monetary base of OECD economies has been multiplied by 10 since 2000, mainly as a result of the 2% inflation target which has become the absolute guide to monetary policy until the beginning of 2021

Monetary base has grown significantly in OECD economies as a result of the non-standard monetary policies conducted in response to the 2008 and Covid-19 crises, as well as of the 2% target which has become the absolute guide to monetary policy. Indeed, these monetary policies have stimulated activity at the first signs of slowing growth, whereas they have been more reluctant to tighten when overheating appeared.

1.1 Central Banks' Balance sheets between 2000 and 2022: facts and figures

The chart below (*Chart 1*) highlights the exceptional and significant increase of the monetary base in OECD economies². Indeed, it accounted for less than USD 2 500 bn in 2000, and increased to USD 25 000 bn in 2020, *i.e.* a more than tenfold rise³. We can see that the rise in the monetary base has been much stronger in response to the Covid crisis than to the Global Financial Crisis in 2008. The monetary base of OECD economies more than doubled from 2009 to 2015 (multiplied by 2.67 in a 7-year period), but it was approximately multiplied by 1.96 over March 2020 to December 2021.

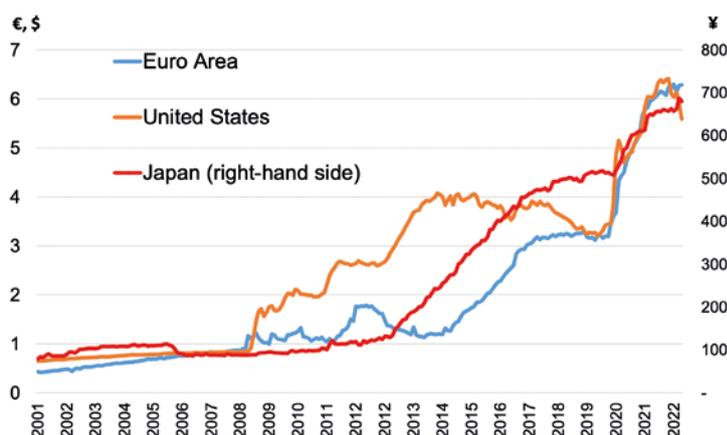


1. All charts and statistics in this report are based on data released as of 5 August 2022

2. United States, United Kingdom, Japan and eurozone

3. P. Artus & M-P. Virard "La dernière chance du capitalisme", Odile Jacob, May 2021

CHART 2.
Monetary Base of Major Central Banks,
Trillion of National Currency



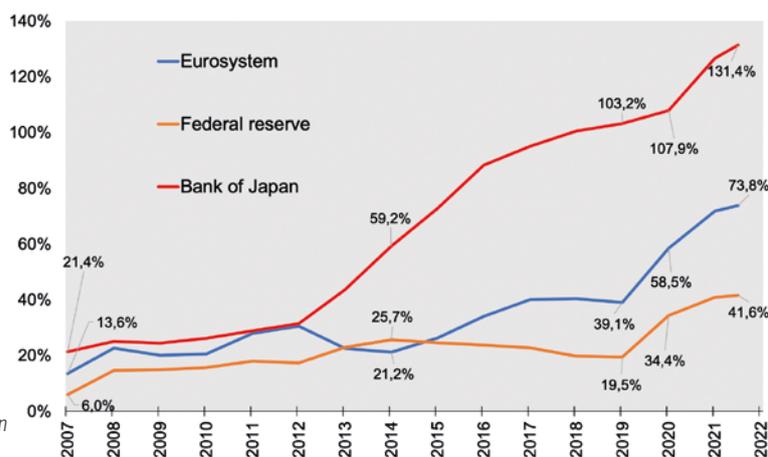
Sources: Federal Reserve, ECB, Bank of Japan
Last data from May 2022

Between the beginning of 2008 and end-2021, the monetary base of the US Federal Reserve (Fed) has been multiplied by 8, and by 7 in the euro area (see Chart 2).

Since 2008, the quantitative easing measures taken by the Fed, the European Central Bank (ECB) and the Bank of Japan (BOJ) have been the main contributors to this global expansion.

Between January 2008 and April 2022, the balance sheets of the Eurosystem and the Fed increased by EUR 7.4 tn and USD 8.1 tn respectively, a cumulative increase of 556% for the Eurosystem and 913% for the Fed (see Table 1).

CHART 3.
Central Banks' Total Assets Relative to GDP, %



Source: Federal Reserve, Bank of Japan
Notes: Last data are from 31 May 2022; the ratio is calculated on the basis of the 2019 nominal GDP for all the data since 2019

TABLE 1.
Magnitude of Balance Sheets' expansion between 31 May 2022 and...

	Eurosystem		Federal Reserve	
	Cumulated growth	Change in trillions euros	Cumulated growth	Change in trillions dollars
1st January 2008	559%	7,5	910%	8,0
1st January 2015	332%	6,8	99%	4,4
1st January 2020	89%	4,1	114%	4,7
1 January 2021	26%	1,8	21%	1,6
1 January 2022	3%	0,2	2%	0,1

Source: Federal Reserve
Lecture: Between January 2020 and May 2022, the Eurosystem' total assets have increased by €4.1 tm – a 89% growth

In the US, the Fed's balance sheet increased by USD 7.8 tn to reach USD 8.75 tn between January 2008 and late December 2021, which corresponds to 40.9% of US GDP.

Over this 13-year period, the ECB's balance sheet increased from 13.6% of the eurozone's GDP, to 71.8% (see Chart 3). That is a EUR 7.2 tn rise to top EUR 8.7 tn as of May 2022.

The Bank of Japan, that pioneered this QE instrument since the early 2000s, has seen its balance sheet surge from 21.4% of Japanese GDP in 2008, to 126.2% in December 2021 (see Chart 3).

This continuous increase in central banks' total assets from 2014 to early 2020 also reflects the asymmetry of monetary policies (further described in section 1.4). This has led the financial system into over financialisation.

Indeed, between 2015 and early March 2020, the aggregate balance sheet of the ECB, the Fed and the Bank of Japan increased by a cumulated 40%. In the euro area, it increased by USD 2.66 tn, from 21.2% of GDP in 2015 to 39.4% in early March 2020. In Japan, the balance sheet expanded from 59.2% of GDP in 2015 to 107.9% in early March 2020. Over the same period, the Fed's balance sheet has decreased slightly – as the US Central Bank did not reinvest the maturing securities purchased between 2009 and 2015 – but remained at around 20% of GDP as of early March 2020.

Since the start of 2022, Central Banks' balance sheets have grown at a relatively moderate pace (see Table 1), following the gradual unwinding of highly accommodative monetary stances, including the exit of asset purchases program by major central banks (see last section).

The ECB started to slow down the pace of asset purchases in March 2022, pushing its balance sheet's size to reach 73.8% of GDP in May 2022, compared to 71.8% in December 2021.

The Fed stopped net asset purchases in March 2022, bringing the size of its balance sheet to stand at 41.6% of GDP in May 2022, a level slightly higher than in December 2021 (40.9%). Since 1 June 2022, the Fed has started to reduce the size of its balance sheet (see last section for further details).

The Bank of Japan continued its asset purchase policy, leading its balance sheet to grow by 4% between January and March 2022 and reach 131.4% of GDP.

As Jacques de Larosière points out in his latest book⁴ (see chapter V), “when [the ECB] buys – through money creation – the equivalent of $\frac{3}{4}$ of the national economy, we get problematic results:

- A certain form of “nationalisation” of the economy by the issuing institution,
- A “fiscalization” of the role of the central bank insofar as it becomes an essential part of the financing of the treasuries,
- The substitution of a public body for market forces and, by the same token, a decisive influence on the rate curve (such a subordinate position of the Central Bank in relation to the public authorities was generally only encountered in times of war when national defense governments set rates)”.

1.2 Central banks reacted swiftly and forcefully during the Lehman Brothers, EU sovereign debt and Covid-19 crises

The Fed's purchases from 2008 to 2015 in reaction to the Global Financial Crisis (GFC)

Between 2008 and 2015, the Federal Reserve's balance sheet expanded from **USD 0.9 tn to USD 4.5 tn** (corresponding to nearly 21% of US GDP as of January 2015).

This increase results from the massive purchase programme of US Treasuries and Mortgage-Backed Securities (MBS) that was conducted by the Fed in three phases. The first wave of QE occurred between November 2008 and March 2010, during which the Fed accumulated a total of USD 1.75 tn of securities, or twice as much as its total assets' value prior to the crisis. In October 2010, the FOMC announced the second round of QE, containing US Treasuries purchases worth USD 600 bn and ending in June 2010. Finally, the third round of QE began in 2012 and ended in 2015, targeting a monthly purchase of MBS (USD 40 bn) and longer-term Treasuries (USD 45 bn). Over USD 1.7 tn of assets were acquired during this period.

The ECB's purchases from 2011 to 2015 to counter the impacts of the GFC and EU sovereign debt crisis

Between 2008 and 2013, the Eurosystem's balance sheet grew from € 1.2tn to € 3.03tn, corresponding to 30.6% of euro area GDP as of January 2013.

Unlike the Fed, the ECB's emergency action has been less sizeable in terms of balance sheet expansion in the aftermath of the Great Financial Crisis in 2008. However, as the crisis extended with the sovereign debt crisis in the euro area (2010-13), the Eurosystem's balance sheet has significantly expanded in the following years.

By December 2011, the Eurosystem had purchased government bonds under the Securities Markets Programme (SMP) with a total settlement amount of € 211.4 billion. Accounting for 47% of the outstanding, Italian debt was the largest holding, followed by Spain (21%), Portugal (10%), Ireland and Greece. The Eurosystem's balance sheet expanded in an unprecedented way, overall, more than doubling in size between 2008 and mid-2012, before starting to recede in the second half of 2012. The provision of central bank refinancing which had decreased substantially to around €90 billion at the end of December 2012, largely remained in a € 90-130 billion range throughout 2013.

Following the Global Financial and EU sovereign debt crises, the ECB monetary policy remained strongly accommodative. As the HICP growth stood below the 2% target and fell to 0.4% in 2014, the ECB decided to embark in a massive asset purchase programme. Launched in January 2015, it aimed at purchasing public and private securities at a monthly pace of € 60 bn, as part of the Asset Purchase Programme (APP). The share of each country security in the portfolio was based

4. J. (de) Larosière, “Putting an end to the reign of financial illusion: for real growth”, Odile Jacob, September 2022

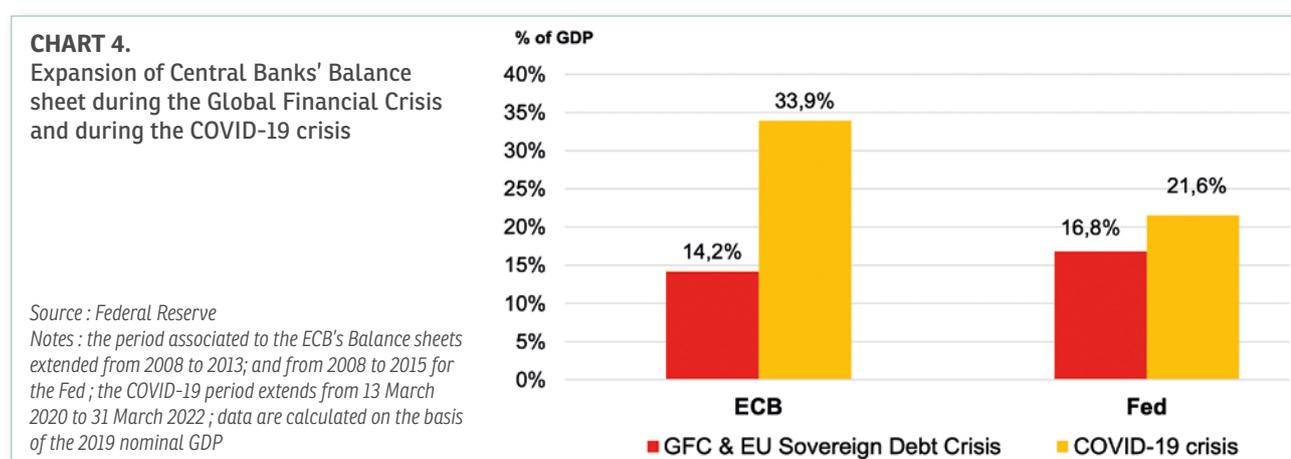
on the respective National Central Banks' contribution to the ECB's capital. Though, the maximum holding limit of a single issuer's outstanding securities was limited to 33%.

From January 2015 to early March 2020, a total of € 2.66 tn of public and private securities were purchased by the Eurosystem, corresponding to nearly 20% of the eurozone's 2019 GDP. This brought the balance sheet's value to € 4.7 tn (i.e. 39.3% of GDP).

Central banks' responses to the Covid crisis

When the pandemic struck in March 2020, most Central Banks in advanced economies (AEs) were already providing very accommodative financing conditions and their key financing rate could not be lowered further, as it was the case for the ECB and the BOJ. The Fed immediately reduced its main rate from 1.625 percent to the bottom range of 0.15–0.25 percent. Accordingly, the three Central Banks deployed massive emergency purchase programmes. Between early-March 2020 and end-2021, the ECB's total assets grew by 82% while the Fed's balance sheet rose by 103% (see Table 1).

Between March 2020 and December 2021, the size of the Eurosystem's balance sheet as a share of the eurozone's GDP expanded by more than twice as much as it did in the five years of the GFC and EU sovereign debt crisis [2008–2013] (see Chart 4). As for the US, the total rise of the Fed's balance sheet amounted to 20.7% of GDP in less than two years, between March 2020 and December 2021. It amounted to 16.8% of GDP between 2008 and 2015.



Considering the **ECB's action**, the Governing Council decided on March 2020 to launch a Pandemic Emergency Purchase Programme (PEPP) of up to € 750 bn until the end of 2020, on top of the € 120 bn in extra purchases as part of the existing APP. Since then, the PEPP's envelope has been gradually increased: by € 600 bn in June 2020 and by € 500 bn in December 2020; totalling € 1.85 tn to be disbursed before March 2022.

Regarding the **Fed's action**, it committed in March 2020 to purchase at least USD 500 bn in US Treasury securities and USD 200 bn in government-guaranteed MBS over "the coming months", before announcing unlimited government bond-buying a month later. Indeed, it made the purchases open-ended, saying it would buy securities "in the amounts needed to support smooth market functioning and effective transmission of monetary policy to broader financial conditions".

Between mid-March and early December 2020, the Fed's portfolio of securities held outright grew from USD 3.9 tn to USD 6.6 tn. Until November 2021, the Fed has spent USD 120 bn every month to purchase public and private bonds. Among them, USD 80 bn were aimed at buying Treasury debt and USD 40 bn allocated to buy MBS.

In such a context, the Fed's balance sheet increased **from USD 4.2 tn to USD 8.7 tn** from March 2020 to December 2021. Over the same period, the size of the Eurosystem's balance sheet reached a historical high of **€ 8.5 tn** in December 2021, an increase of € 3.2 tn compared to March 2020. The Bank of Japan's balance sheet has grown from **JP¥ 588 tn in March 2020 to JP¥ 729 tn in mid-July 2021**⁵.

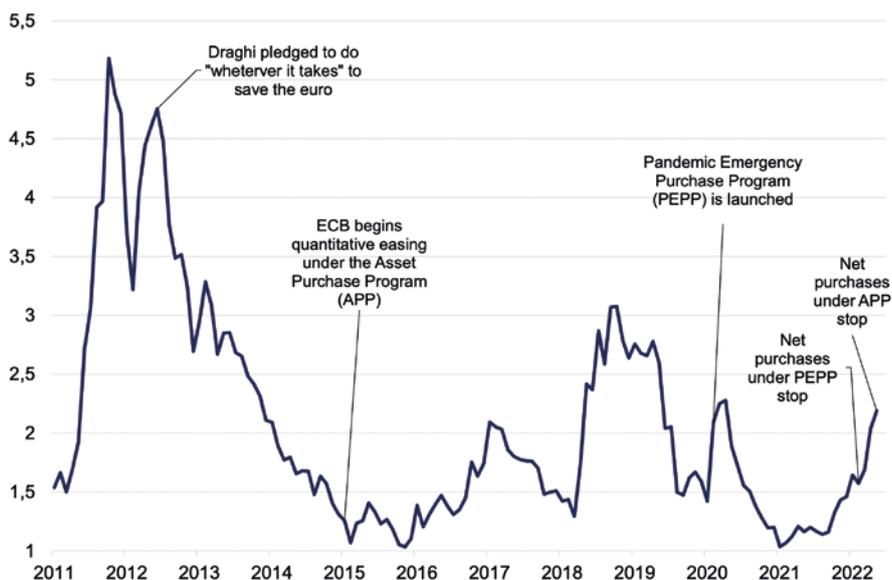
1.3 Very accommodative monetary policies have allowed financial markets to continue functioning and being liquid in the EU, and also prevented the tightening of financing conditions for states, firms and households

During the European sovereign debt crisis (2011–2012), the Italy–Germany spread reached a considerable level – up to 450 basis point in the first quarter of 2012. This led to a significant reaction from the ECB. Indeed, the Eurosystem's balance sheet expanded in an unprecedented way, more than doubling in size between 2008 and mid-2012. Notably, the European Financial Stability Facility (EFSF)⁶ delivered in June 2010 a € 750 bn envelope coupled with Mario Draghi's "whatever it takes" speech in July 2012, contributing to control the spread and pave the way out of the crisis.

5. According to the Bank of Japan database

6. Temporary crisis resolution mechanism created by the euro area Member States in June 2010 to provide financial assistance

CHART 5.
Italy-German Ten-Year Spread,
percentage points



Source: OECD
Monthly data, as of June 2022

Sustained ultra-accommodating policies since 2015 have avoided a financial fragmentation within the euro area (with the maintenance of homogeneous financing conditions).

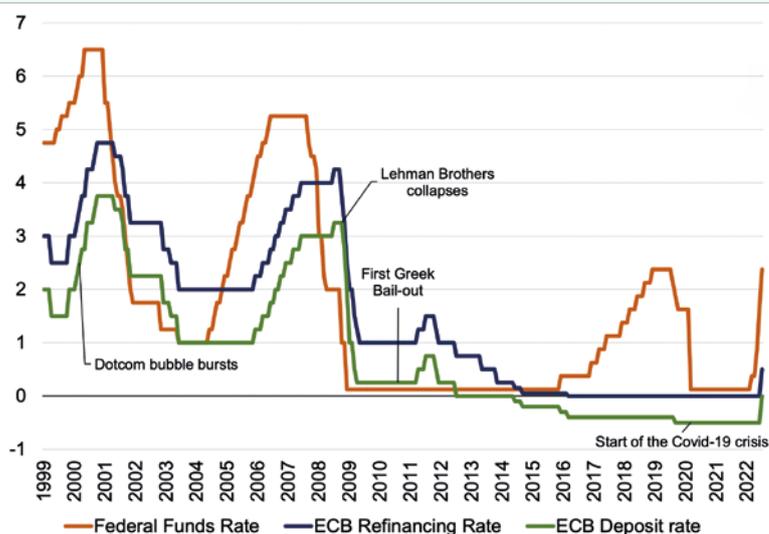
Chart 5 also illustrates the narrowing of euro area bond yields spreads between core and peripheral countries, since the EU sovereign debt crisis. For instance, the Italy-Germany spread in 2010-2011 was significant. In contrast, since August 2020, the latter has not outreached the 2 pp.

However, loosened monetary policy has not restored capital mobility from the richer countries with excess savings to the poorer countries in the euro area⁷.

1.4 Lasting easy monetary policies have contributed to the downward path of interest rates

The continuation of very accommodative monetary policies has led to the downward path of interest rates. Notably, the ECB deposit facility – one of the short-term interest rates of the ECB – remained negative between 2014 and 2022 (see Chart 6).

CHART 6.
Key Nominal Short-term Interest Rates
for the US and the Euro Area

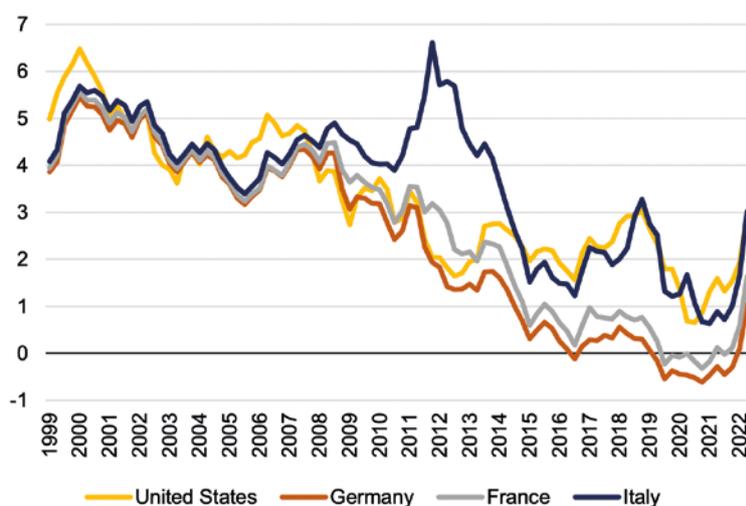


Source: BIS, ECB
Latest data from July 2022

The following chart (Chart 7) displays the downward trend in interest rates in some main advanced economies over the last 20 years. The German 10-year interest rate was the first to become negative in the end of 2016, while the French 10-year interest rate was close to zero. From the end of 2019 to the end of 2021, both were negative. Since the start of 2022, French and German long-term government bond yields have returned above zero (see last section).

7. See Eurofi, Macroeconomic Scoreboard, September 2022

CHART 7.
10-Year Nominal Interest Rates of Selected
Advanced Economies, quarterly data, %



Source: OECD
Latest data from Q2-2022

Empirical evidence suggests that natural interest rate has been on a downward trend for the past few decades. It may well be for secular reasons (ageing demographics, globalisation...) but zero or negative nominal interest rates are not a natural phenomenon. They are in large part the result of heavy central bank purchases.

Expansionary monetary policies partly influence risk-free rates but compress the interest rate risk premium. Without the central bank intervention, risk-free rates might not be significantly higher because they depend in part on growth potential, which has been noticeably low for the past few years. However, the massive liquidity and quantitative easing programmes implemented by the AEs' central banks (e.g. the ECB, the Fed, the BoJ) have been blurring the reading of long-term interest rates which no longer play their discriminating role and lead to a mispricing of risk (see section 3.2.1).

As a result, central banks have controlled the yield curve, usurping traditional functions of markets.

1.5 The 2% inflation target has led the ECB's and the Fed's monetary policies to be asymmetric over the past 20 years

Over the past 20 years, monetary policies have been asymmetric and have broadly remained accommodative to achieve the 2% inflation target. This overwhelming objective has driven monetary policies since then. The massive increase in central banks' total assets (Charts 1 and 2) and the expansion of the monetary base (Chart 3) illustrate this asymmetry.

The reality is that overall monetary policy has become disconnected from the economic cycle: it has been highly expansionary over the past two decades. Central banks have not tightened monetary conditions when the economic situation improved. It has led the financial system into over financialisation.

An inflation target is supposed to protect the system from excessive price increases or deflation, but it is not to seek an artificial price level higher than the one resulting from market forces. The problem with the 2% target is that the equilibrium, until the COVID-19 crisis, at the time was actually achieved, for structural reasons, with an inflation rate of about 1%. This was the order of magnitude that avoided both deflation and excessive inflation.

But instead of letting inflation evolve around 1%, the Central Banks wanted, at all costs, to increase inflation from 1% to 2%. This erroneous and doctrinal vision led the Central Banks to massively and unnecessarily inflate money creation. The pretext was: "we have not yet reached the sacrosanct 2% target" (despite the fact that this 2% figure was artificial and that even if it had been reached, it would not have guaranteed prosperity). In fact, the danger of deflation was exaggerated.

According to J. de Larosière⁸, "an illustration of this asymmetric approach was the injection of liquidity by the Fed to prevent a feared, but mistaken, deflationary trend in 2002. This overreaction produced a massive demand bubble. If, as political correctness would have it, there was no desire to raise interest rates in the face of this widespread indebtedness, it would at least have been desirable to implement a macroprudential policy adapted to the different countries and circumstances. Some countries that are particularly prone to inflation would have tightened regulatory constraints (e.g., by raising the minimal capital contribution required to obtain a mortgage). But these reactions to the scale of indebtedness did not occur. The lessons were not learned, and subsequent episodes of crisis were not avoided as the warning signs of excessive indebtedness continues to appear..."

1.5.1 Once the economic situation improved after the sovereign crisis, the ECB's monetary policy has not been tightened nor normalised

The Global Financial Crisis and the EU sovereign debt crisis legitimately called for substantial bond-buying programmes. As soon as late 2013, GDP growth returned on a reasonable sustained path. The Fed started to raise its interest rate in

8. See J. (de) Larosière, "Putting an end to the reign of financial illusion: for real growth", Odile Jacob, September 2022

December 2015. For instance, in 2017, euro area growth was about 2.6% when the US's growth was about 2.3%. The Fed's funds rate reached 2.4% in early 2019, while the ECB's refinancing rate was still at 0% since February 2016. Considering the strong recovery, the Federal Reserve decided to reduce the size of its balance sheet in 2018 and early 2019.

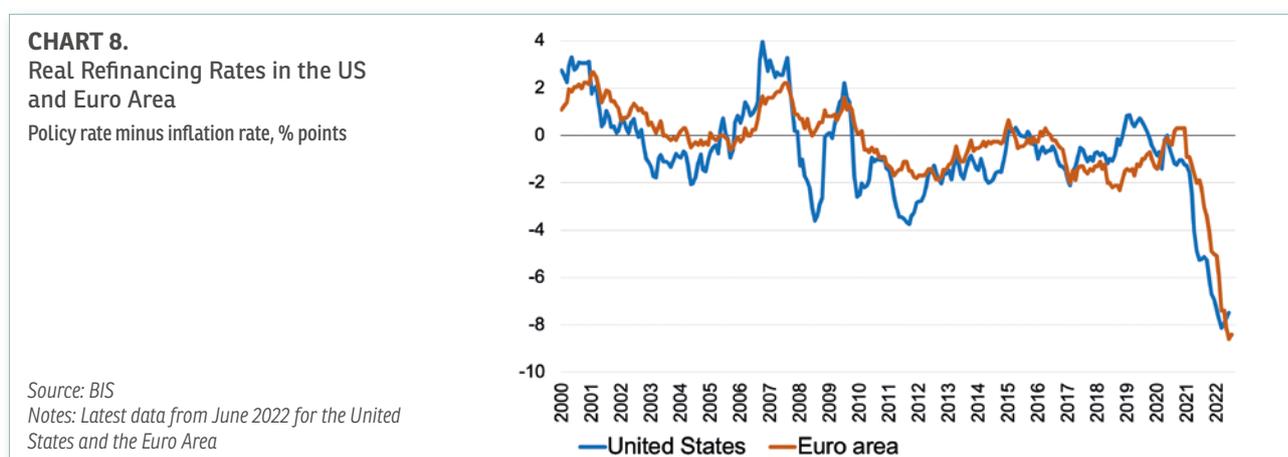
It was not the case for the ECB, which has not put an end to its purchases despite the economic recovery. Hence, between October 2014 and December 2018, the Eurosystem conducted net purchases of securities which brought the ECB's balance sheet from € 2.2 tn in 2014 up to € 4.4 tn in 2018.

This purchasing trend has kept the same pace it usually had in time of crisis, meanwhile growth across euro area Member States averaged 1.9% between 2014 and 2019. In 2017-2018, the ECB kept its main refinancing rates at zero, despite significant economic improvements. Indeed, the HICP had risen at or above 2% between May and October 2018.

If monetary policy over the past 15 years had been geared to a more realistic inflation target of around 1% instead of 2% and had taken into account the increasing financial vulnerabilities linked to the very accommodative stance (see section 3), the world would have avoided this unnecessary expansionist monetary stance as well as deflation.

1.5.2 Central banks were overly involved: the asymmetry of the Fed's and the ECB's monetary stances over the past 20 years can be illustrated by the trajectory discrepancy of their real short term interest rate

As showed in Chart 8, the real short-term interest rate since 2010 has mainly evolved in the negative territory both in the euro area and the US. Monetary policy has become disconnected from the economic cycle: it has been accommodative over the two past decades. As interest rates were close to zero or even negative in real terms, central banks have also used QE programmes during, as well as after, crises.



The ECB has not tightened monetary conditions when the economic situation improved thus limiting the ability to act decisively at the next turning point.

For instance, the real refinancing rate in the euro area remained negative through 2019 despite the economic improvement, whereas the recovery in the United States translated to a slight normalisation. While HICP growth peaked and then stood above 2% between April and October 2018, the ECB kept its main rates unchanged at 0% for the refinancing rate and -0.4% for the deposit facility rate.

In September 2019 the ECB decided to resume the asset purchase programme at a monthly pace of € 20 bn. It also lowered its deposit rate from -0.4% to -0.5% in response to the decrease of the HICP inflation by 0.3 percentage points from a month earlier, but still averaging 1.3% in the previous six months and while economic conditions had not reached worrying trends.

In other words, the leaning-against-the-wind mantra has been abandoned for 20 years. Before the 2008 crisis real interest rates were low but positive. Since then, the ECB has maintained negative rates despite the economic recovery.

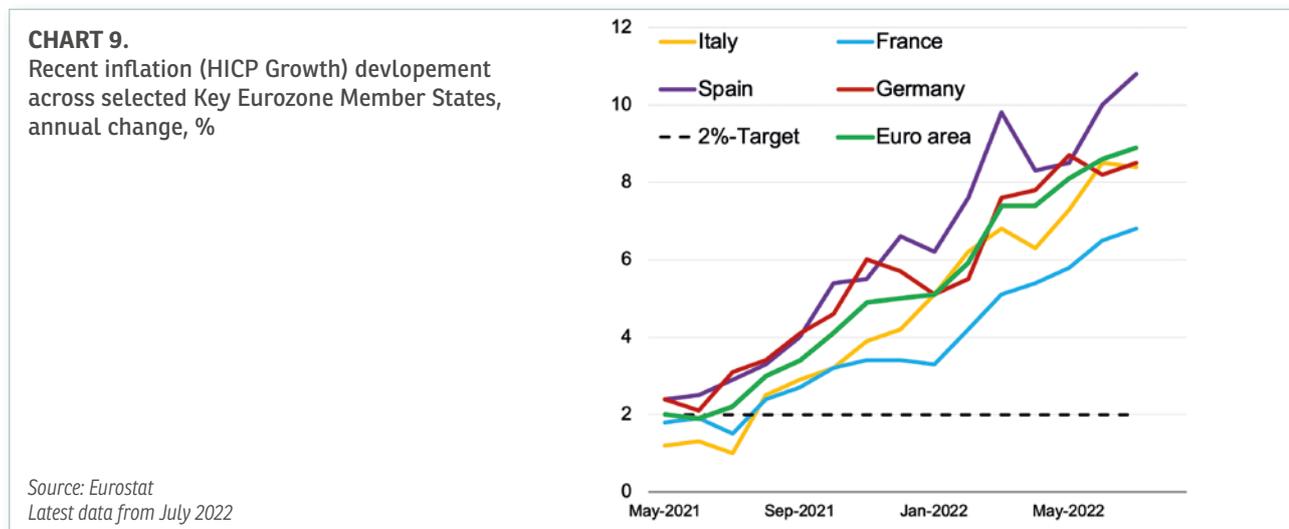
Changes in interest rates cannot affect the structural reasons which explain the downward trend in inflation (ageing of our societies, opening of international trade to imports from countries with very low wage rates, changes in labour market behaviours, productivity gains resulting from new technologies...).

J. de Larosière underlines in his recent book⁹ that “this fixation of central bankers on the 2% inflation target led to intensive money creation and later, as we see today, to the awakening of high inflation. Thus, the broad monetary aggregate – M3 – for the OECD has risen from a base of 100 in 2015 to 160 in 2021. And M0 (central bank money: banknotes in circulation, bank reserves at the Central Bank) has literally exploded: from a base 100 in 1970, central bank money has, in effect, jumped in 2021 to 1 600 in the US and 700 the euro area (see section 2.1 for further details).

9. See Chapter V

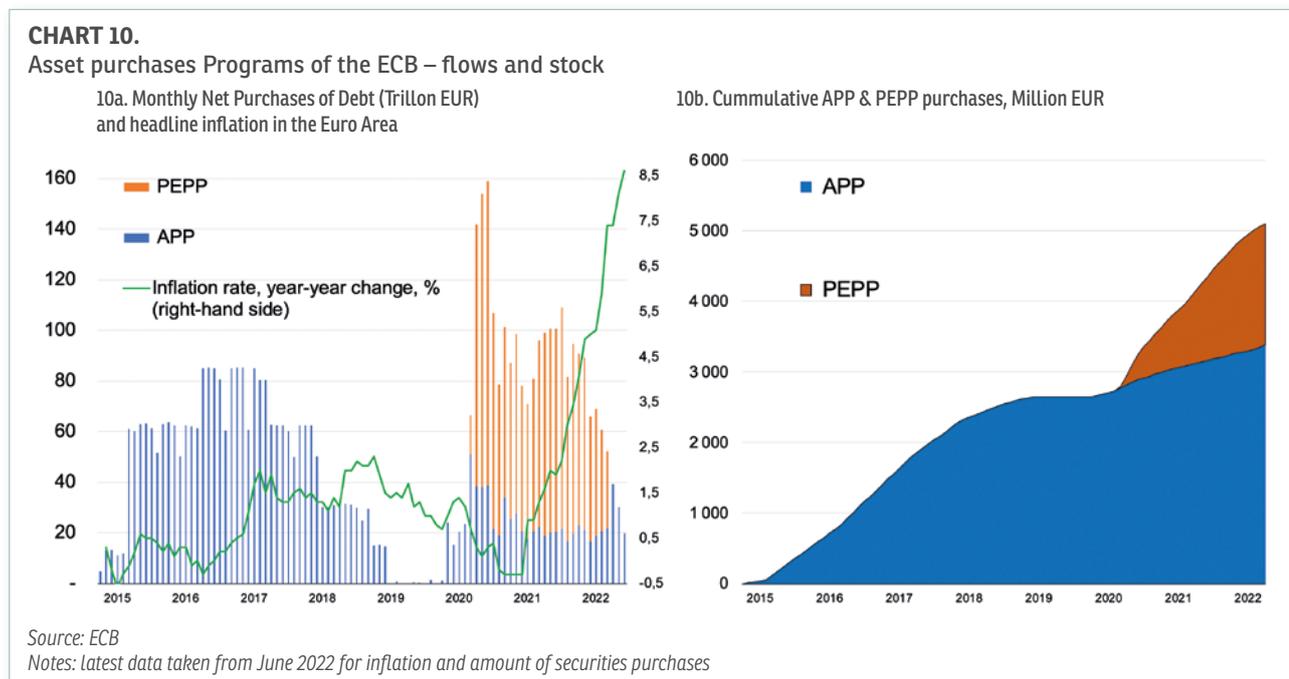
1.5.3 Until July 2022, the ECB continued its QE policy while inflation was rising sharply, climbing to its highest levels since the beginning of the monetary union

While inflation has consistently exceeded 2% in the Eurozone since July 2021 and has risen to record levels since then (see Chart 9), the ECB did not stop its securities purchase policy until July 2022 and minimize the risk of inflation.



After peaking at EUR 160 bn in June 2020, net monthly purchases of securities by the ECB averaged EUR 91.3 bn between October 2020 and November 2021 (see Chart 10). The pace of purchase was then reduced to EUR 50-70 bn per month between December 2022 and March 2022.

Following the end of the net purchased under the PEPP in March 2022, the Eurosystem continued buying securities as part of the APP. In April 2022, a total of EUR 40 bn public and private securities were purchased under this program, while the headline inflation (HICP) was more than three times higher than ECB's 2%-target. Monthly net purchases then declined to EUR 30.2 bn in May, and EUR 19.7 bn in June, before being discontinued on 1 July 2022 (see last section).



So, despite accelerating inflation, including core inflation since the third quarter 2021, the ECB stuck to an extremely expansionary stance until July 2022. This was based on models which yield a forecast that inflation will return to below 2% whatever the circumstances due to the credibility of its policy. As explained by D. Gros and F. Shamsfakhr, "With its own forecasts always ending with inflation below target, the ECB acquired a dovish bias. The models used by the ECB imply that shocks in energy prices drive headline inflation up to 8%, at the end of the forecast horizon inflation would return automatically anyway (i.e., without any policy change to slightly below 2%)¹⁰.

10. D. Gros & F. Shamsfakhr, "Too little too late: ECB's normalization path was model- rather than data-driven", Suerf policy brief, July 2022

The models used by the ECB are not data driven and able to adapt the realities and uncertainties. They imply in particular that any wage pressure would be neutralised because the models assume explicitly that the ECB inflation target of 1,9%, and that this will be reached because national agents assume it will be reached. Wages demand have significantly increased across all of the euro area, including double-digit increases in minimum wages in several countries. This could have been anticipated: How to imagine that European workers would accept a loss of purchasing power of 7-10% without demanding any compensation?

In a speech delivered in November 2021, M. King¹¹ emphasised that the models used by central banks are based on questionable assumptions that are not necessarily those of the markets and have become the determining factors of expectations. This type of models only works when nothing happens...".

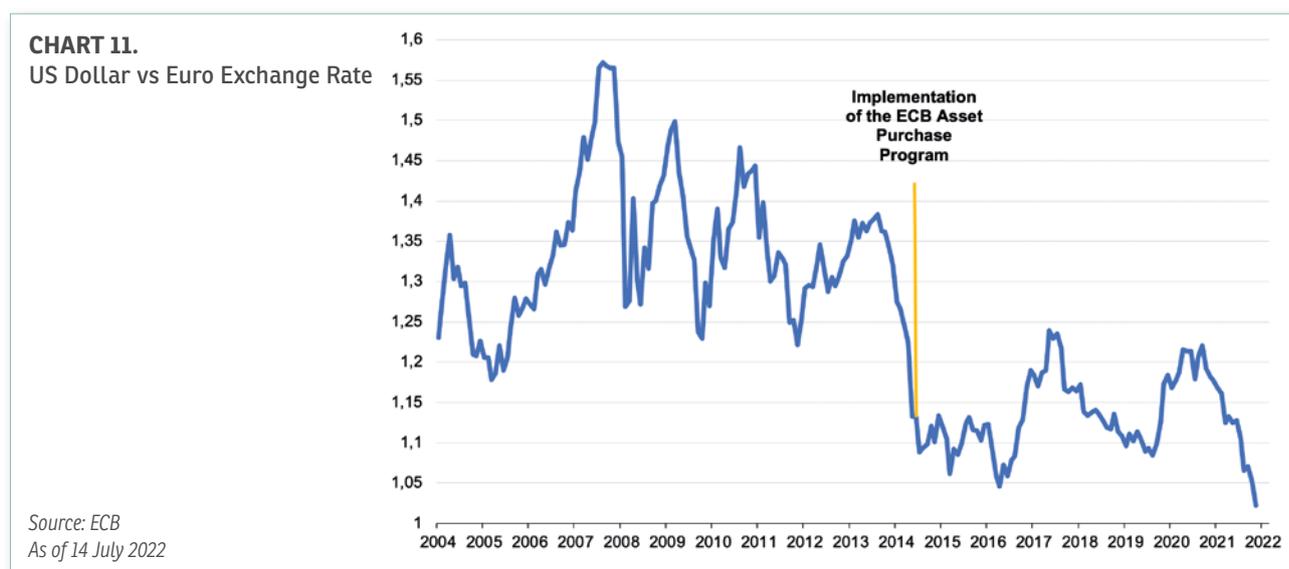
1.6 The exchange rate: an implicit but unmentionable objective of the ECB monetary policy until 2021

For the euro area, the exchange rate serves as a crucial transmission channel not only for conventional, but also for unconventional monetary policy.

Although 60% of euro zone trade is intra-zone, industry-relying European economies heavily depend on exports outside the euro zone. Exchange rates thus remained an implicit but important variable of monetary policy.

The depreciation of the dollar against the euro over 2010-2014 can be put in parallel with the implementation of the US QE policy. In 2015, there was a considerably sharper depreciation in the value of the euro against the US dollar (-13.7% between end-2014 and end-2015).

Chart 11 might suggest that the launch of the ECB QE policy, which started in 2015, also aimed at stabilising the euro/dollar exchange rate and moderate the appreciation of the euro to avoid any additional competitiveness loss for EU non-financial companies.



While the Fed began raising rates in March 2022 and reducing the size of its balance sheet in June 2022, the ECB continued its asset purchase program until June 2022 (see last section). This divergence has contributed to the depreciation of the euro against the dollar. Between January and mid-July 2022, the exchange rate fell continuously: the euro lost 9.5% against the dollar and reached its lowest level since 2002. This depreciation of the euro currency renders dollars-denominated commodities more expensive for net-importing European firms, that tend to be passed to final consumer prices and so increase the weight of imported inflation.

Is it possible that negative rates could become an instrument used by central banks to depreciate their currencies, or to prevent them from rising? Could we have (or, have we already had) an undisclosed "currency war" that could exacerbate the economic costs of ongoing "trade wars"?

According to William White¹², "It does seem hard to justify unprecedented monetary easing solely in terms of what have been, in many cases, only decimal point deviations of inflation from targets. And, if central banks of advanced economies have effectively changed the objective of monetary policy, what might be the eventual implications for inflation and the survival of the current, dollar based, international financial system? At the moment, however, policymakers seem to have little appetite to discuss such fundamental issues."

11. M. King, "Monetary policy in a world of radical uncertainty", International Monetary research Institute, 23 November 2021

12. W. White, "It is worse than Reverse. The full case against ultra-low and negative interest rates", Institute for New Economic Thinking, March 2021

2. Such prolonged monetary policies easing has steadily been contributing to the indebtedness of economies

Central banks have not acted to control credit growth and hence have been contributing to the over indebtedness of economies. The expansion of credit has not attracted their attention over the past two decades.

Both public and private sectors entered the Covid crisis with high levels of debt because of persistent loose credit conditions. The system has been swamped with liquidity through the highly accommodative monetary stance of the two past decades. This has pushed global debt to 350% of the world GDP in September 2021 and have disincentivised many countries to undertake structural reforms including the control of their public deficits and indebtedness. In such a context, National Central Banks own a growing and significant share of the national government debts and have de facto become the agents of fiscal policies.

2.1 Central banks have not acted to control – let alone rein in – credit growth during the past decades

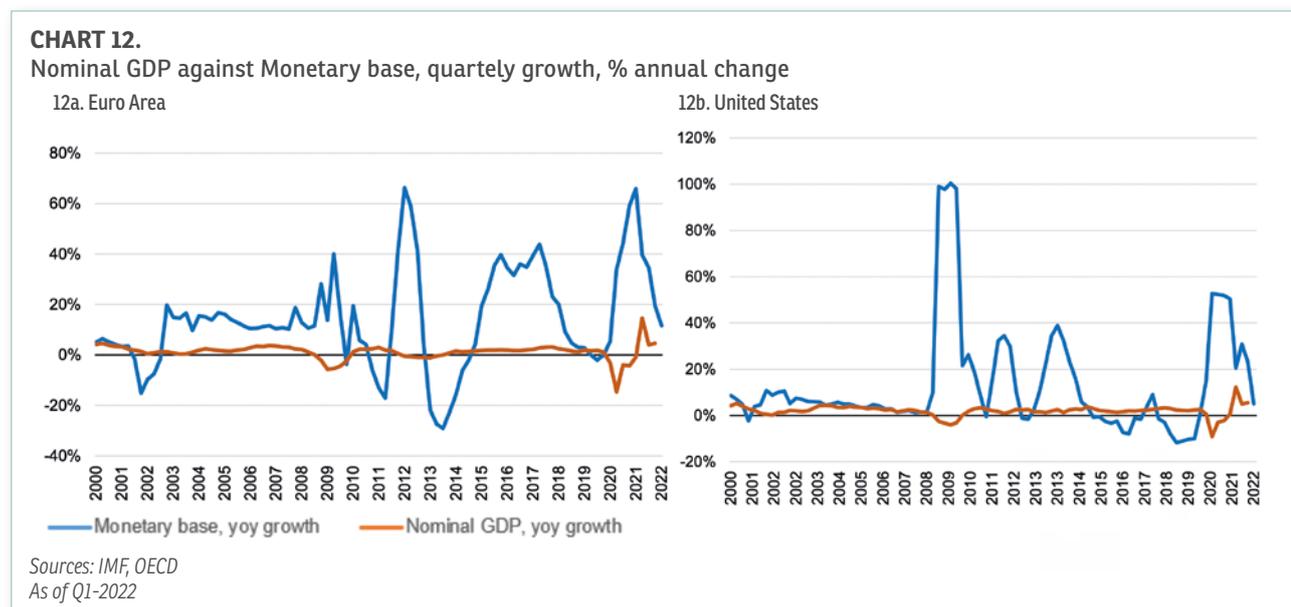
M0 (*i.e.* bank notes in circulation and bank reserves held at the central bank) and money supply (M3) have grown extremely fast since 2008 in advanced economies. Both aggregates grew much faster than GDP growth for AEs.

Following the Covid-19 crisis, the growth of money supply mainly driven by central banks asset purchases has accelerated. The quantity of excess money (*i.e.* the gap between the growth of money supply and real GDP growth) has also significantly increased.

Monetary policy and its impact on the increase in money supply has not been passed on to the real economy, notably in the euro area.

M0 grew extremely fast between 2008 and 2019: 13.5% a year in advanced countries, while their GDP grew 2% on average, in real terms. Given an annual inflation around 1.5%, the average nominal growth of GDP in AEs has been in the order of 3.5%. Therefore, during those 10 years, the money base grew almost 4 times quicker than the nominal GDP¹³.

Chart 12 underlines that between December 2007 and January 2020, M0 in the euro area increased by 13.6% per year on average¹⁴, which is 5.4 times faster than nominal GDP growth (averaging 2.5%). During the same period, M0 increased at a yearly pace of 14.3% on average in the US, corresponding to 4 times its nominal GDP.



Money supply growth has been high over the past decade although lower than the rise of M0 and stronger than GDP growth in advanced economies

For the euro area, the M3¹⁵ aggregate grew at a yearly pace of 3.9% between December 2007 and January 2020 despite a 13.6% annual growth rate of the monetary base. In the US, it grew by 6.1%¹⁶ per year on average despite a 14.3% average quarterly growth of M0 over the same period.

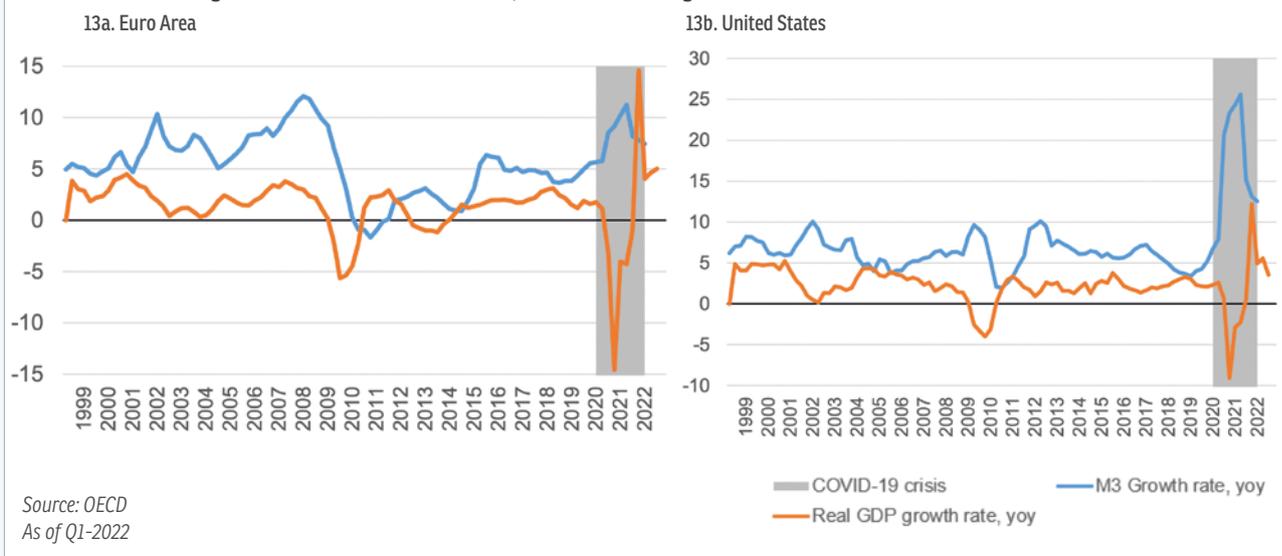
13. According to Jacques de Larosière in its speech at BNP Paribas – 15 April 2021

14. Quarterly data

15. M3 is a broad measure of the quantity of money in circulation, that includes highly liquid assets as cash and deposits accounts but also less liquid components as institutional money market funds, and short-term repurchase agreements

16. Quarterly data for the US and the euro area

CHART 13.
M3 Growth Rate Against Real GDP Growth Rate, % annual change



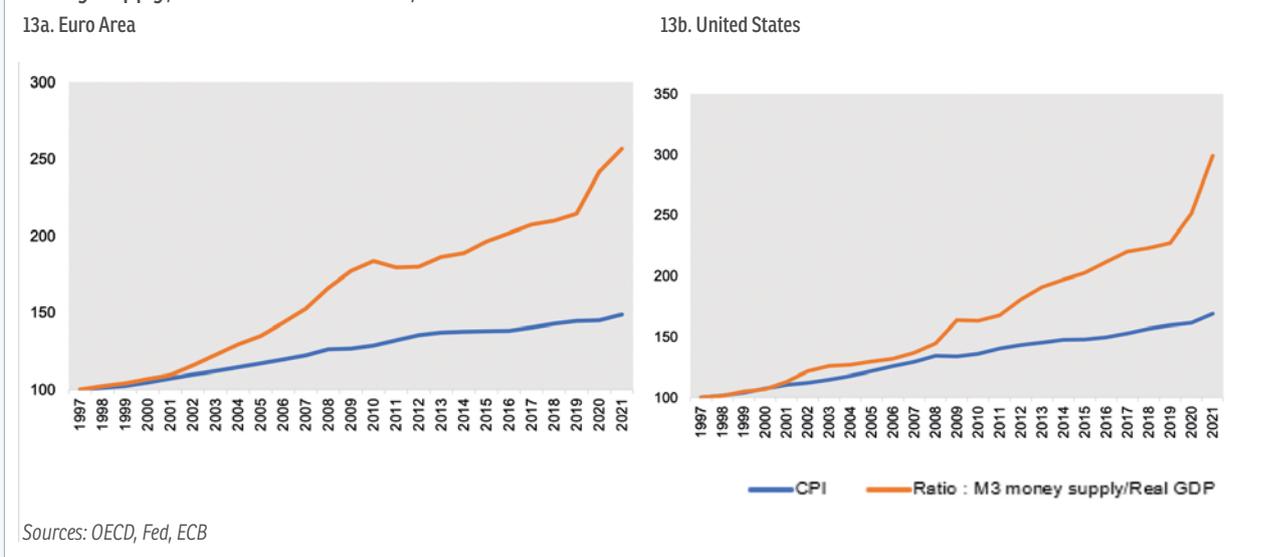
The gap between the growths of M0 and M3 would be attributable to the reduction of the money multiplier¹⁷. According to some economists¹⁸, this might be due to the Basel III regulatory framework and notably the implementation of the Liquidity Coverage Ratio (LCR). They add that central banks might have responded to these regulatory constraints by further easing their monetary policies.

Although it has been moderate compared to the one of the monetary base over the past decade, the growth of M3 has continuously exceeded real GDP growth both in the US and in the eurozone (see Chart 13). This gap produces an excess quantity of money in the economies relative to their effective economic growth.

This excess money has not led to higher prices of goods and services until 2020 (see Chart 14). It fueled the rise in real estate and financial asset prices (see section 3.1.1) and contribute to explain the increase in liquid savings held by individual savers in EU countries until 2020 (see section 3.2.2).

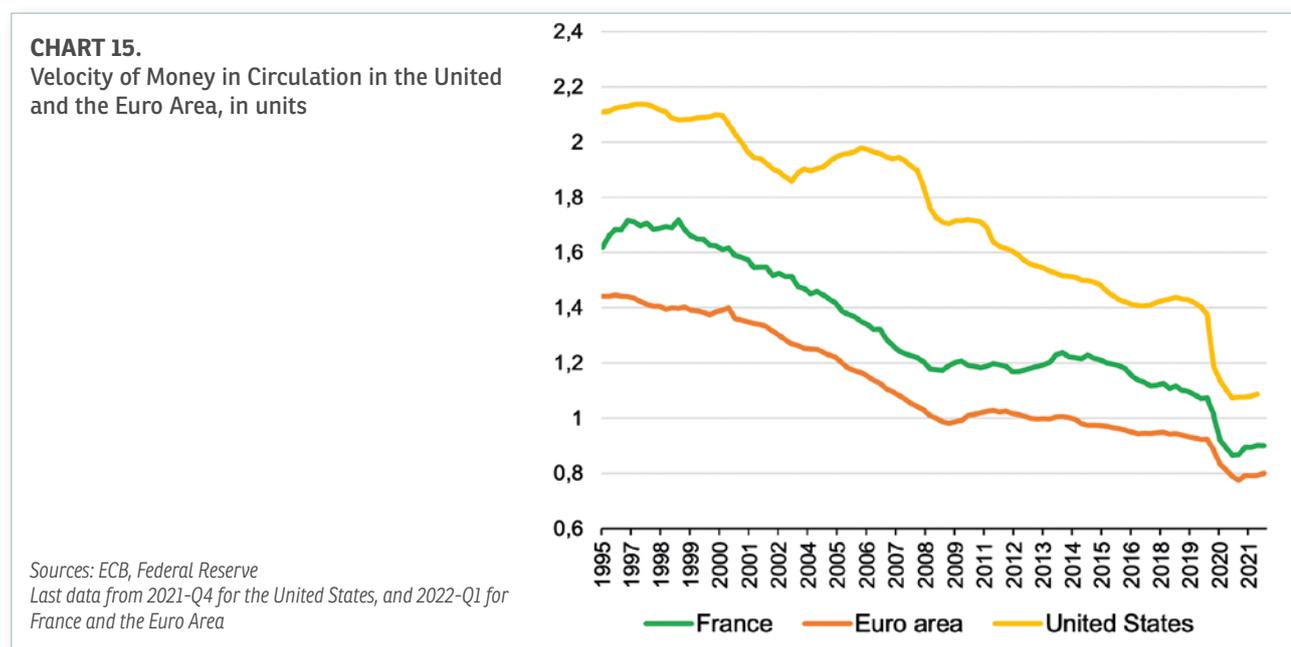
Indeed, despite the unprecedented increases in money supply over the past decade, the respective inflation targets of central banks have not been reached until the beginning of 2021. The following charts display the disconnection between the monetary expansion and the weak increase in prices of goods and services.

CHART 14.
Money supply, real GDP and inflation, 1997=100



17. Money (or credit) multiplier usually defines how much of the monetary base is channeled into the broader money supply aggregate
18. L. Quignon, "Basel III, the money multiplier and monetary policy", BNP Paribas Economic Research (December 2013)

One way to understand the differing paths of evolution in money supply and growth is to look at the velocity of money¹⁹. Money creation has not been seeping into the real economy because its transactional power and velocity have weakened. Hence, the equation of the quantity theory of money does not seem to be functioning. Between 1999 and 2020, the velocity of money in the euro area has been divided by two (see Chart 15).



Following the Covid-19 crisis, the growth of money supply has significantly accelerated, mainly driven by central banks asset purchases and the increase of excess money

In the US, the M3 growth rate peaked to 26.9% in February 2021 compared to a year earlier – a record-high since 1943 – before gradually falling back to levels close to 12% between June 2021 and January 2022. But this is still twice as much as the pre-pandemic average. The figure declined to 9.9% in March 2022, when the Fed ended its asset purchase program (see last section), and stood at 8% in April.

In the euro area, annual growth in M3 stock has been more subdued, peaking at 11.6% in February 2021, to fluctuate around 8-7% between May and December 2021. The annual growth of M3 has declined towards 6% since January 2022, although it remains far higher than its pre-pandemic trend of 4.5% (2014-2019).

Between February 2020 and April 2022, the quantity of money supply increased by a total of 40.5% in the US and 20% in the euro area. Between January 2013 and December 2019, the figure rose by a total of 46.2% in the US and 33.3% in the euro area.

Accordingly, this has increased the amount of “excess money” and may thus raise the prospect that inflation has become a monetary phenomenon (see last section). According to Steve Hanke²⁰, while 25% of the increase has been absorbed by real GDP growth in the US, the remaining 75% are likely to show up in the form of inflation of goods and services.

Another key factor behind the current rise in inflation lies in the dynamic of the velocity of money. After collapsing during the COVID crisis following the sharp increase in the quantity of money and the fall in GDP (see Chart 13), the velocity of money stabilised in late 2020 in the eurozone and the United States (see Chart 15). Since June 2021, it has started to increase slightly in the two regions, indicating that such excess money has been used by households and firms to purchase goods and services, resulting in a bustling economy with strong economic activity, and so associated with a high degree of inflation.

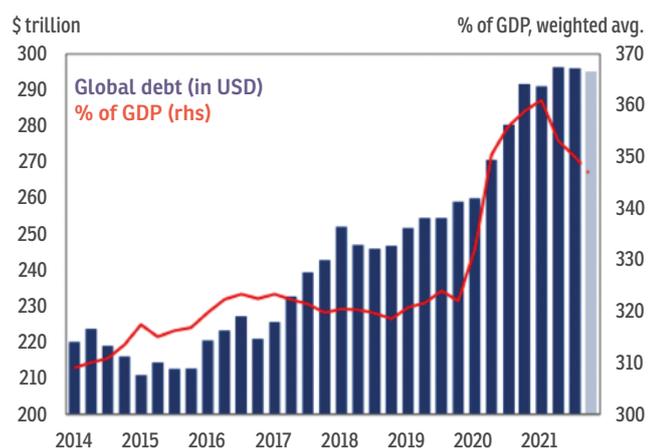
2.2 Lasting persistent low interest rates contributed to the over-indebtedness of advanced economies

The continuation of very low interest rates has allowed global debt to records in peace time, even before the Covid crisis. Public deficits have been booming and the public debt-to-GDP ratio rose from 100% to 120% in advanced countries within five years (2015-2020). Private debt has also ballooned.

According to statistics issued by the IIF (see Chart 16), global debt reached a record high of 360% of GDP at the end of June 2021, up from 320% in 2019 and 200% in 2011.

19. The number of times a currency unit moves from one hand to another, over a quarter, for instance
20. Interview given to Kitco News (January 2022)

CHART 16.
Global debt



Source: Institute of International Finance
Notes: as of Q3-2021

Global debt soared to a new record high of USD 305 trillion in March 2022.

Financial crises are always the result of excessive debt. The more debt increases, the more borrowers – some of whom are overexposed – sink into debt, and the more likely and severe future crises become. Some of the indebted states (especially those in the developing world) will not be able to meet the costs of their commitments²¹. This means that our financial system – over exposed – is vulnerable

According to the IMF²², the situation is increasingly grave for economies in or near debt distress, including 30% of emerging market (see Chart 17) countries and 60% of low-income nations.

Reducing debt is an urgent necessity, especially in emerging and developing economies with liabilities denominated in foreign exchange (FX) that are more vulnerable to tightening global financial conditions and where borrowing costs are surging. Already, sovereign FX bond yields have reached more than 10% in around a third of emerging economies, close to the highs last seen after the Global Financial Crisis. Emerging economies with a greater reliance on domestic borrowing, such as in Asia, have been more insulated. But a broadening of inflation pressures, combined with the attendant need to tighten domestic monetary policy faster could change the calculation”.

CHART 17.
Percent of Emerging Market economies issuers with sovereign yields above 10%, 3-week average



Source: Bloomberg via the IMF

2.2.1 Loose credit conditions have entailed a huge public debt overhang

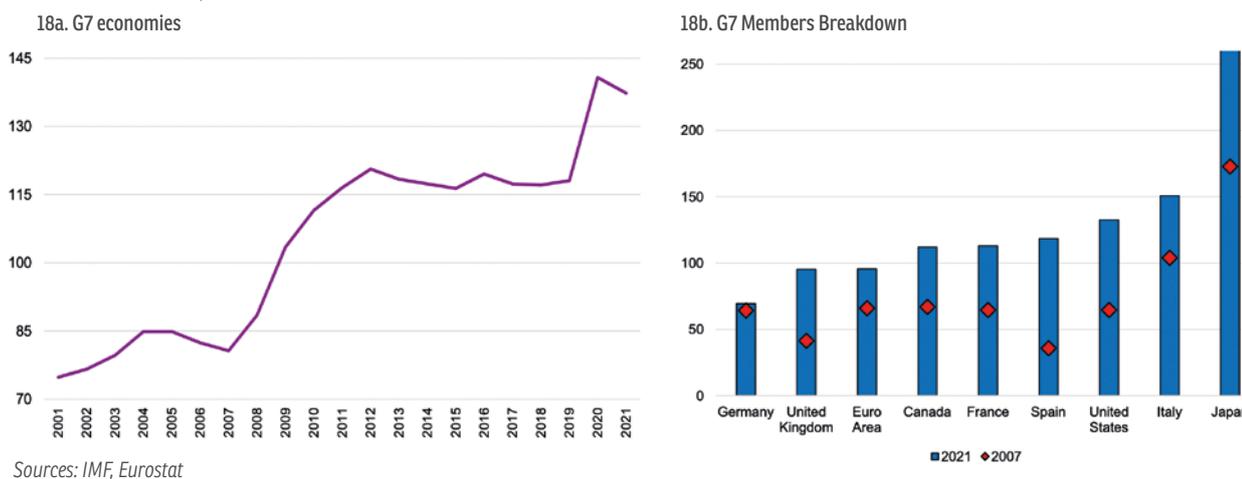
Over the past two decades, the level of public debt of G7 economies has risen continuously, from 74.8% of GDP in 2001 to 118% in 2019. With the Covid crisis, G7 economies’ public debt jumped to 140.7% of total GDP in 2020.

Between 2007 and 2021, six countries of the G7 saw their public-debt-to GDP ratio increasing by more than 50 pp. Only Germany experienced a change not exceeding 10 percentage points during this period (see Chart 18.b). In 2021, public debt-to-GDP ratios have fallen marginally to 137.3% in advanced economies (see chart 16.a), although they remained 20.2 percentage points higher than in 2019 (118%).

21. W. Rhodes and J. Lipsky, “Act now to prevent a new sovereign debt crisis in the developing world”, 23 March 2022

22. K. Georgieva, Facing a Darkening Economic Outlook: How the G20 Can Respond, 13 July 2022

CHART 18.
Gross Public Debt, as % of Nominal GDP



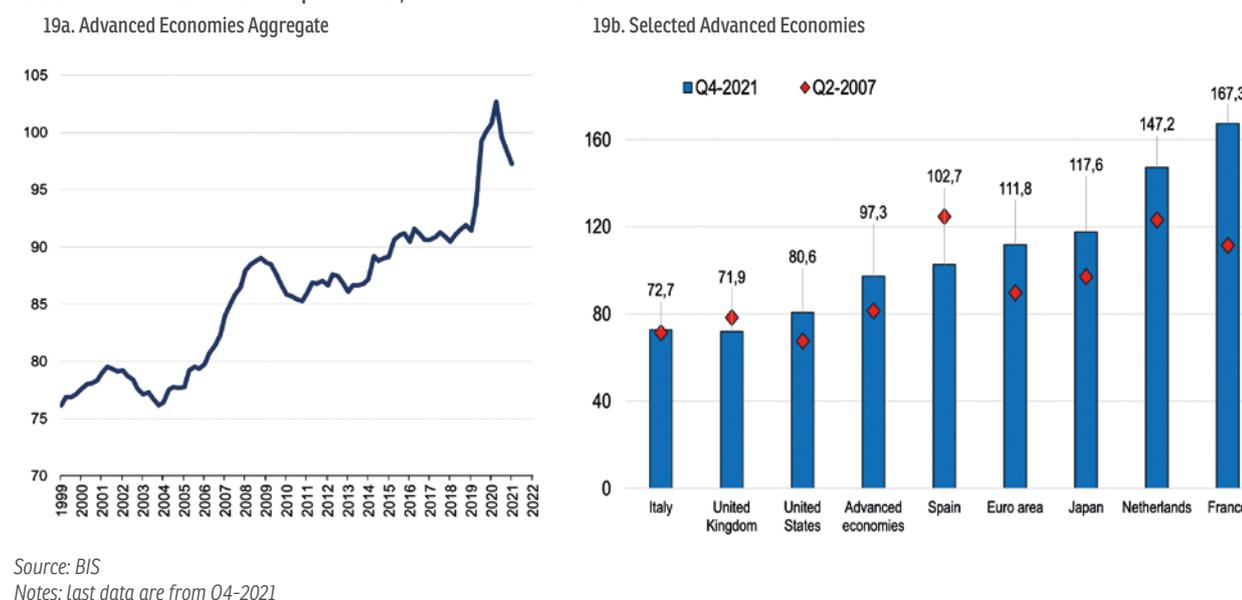
2.2.2 The corporate sector entered the COVID-19 crisis with high levels of debt

In such a monetary context, the amount of debt of non-financial corporations in advanced economies (loans + bonds) amounted to USD 43.8 tn in the fourth quarter of 2019, compared to USD 20.17 tn in 1999, according to the BIS (see Chart 17). Expressed as percentage of total GDP, the figure reached 91.2% in Q4 2019, compared to 76.3% in 1999 (see Chart 17.a). As of December 2021, the debt of non-financial corporations increased to USD 48.7 tn, corresponding to 97.3% of GDP.

International debt issued by non-financial corporates (NFCs) has expanded significantly over the past 30 years. Indeed, outstanding amounts grew from around USD 0.5 trillion in 1990 to USD 7.7 trillion at end-2020, according to the BIS²³.

The international debt securities of NFCs have expanded since the Great Financial Crisis, rising from 3.9% to 6.8% of GDP in advanced economies (AEs) between 2009 and 2020, according to the BIS. Since the pandemic's outbreak, overall debt issuance by NFCs from AEs and hard-hit EME sectors has surged, while average credit spreads have been wider than over the preceding year.

CHART 19.
Credit to Non-Financial Corporations, % of nominal GDP



The global outstanding stock of non-financial corporate bonds at the end of 2019 reached an all-time high of USD 13.5 tn. Notably, for every year since 2010, around 20% of the total amount of all bond issues has been non-investment grade, testifying of a long-lasting issue in overall bond quality²⁴.

23. BIS Quarterly Review, June 2021

24. Celik.S, Demirtas.G, Isaksson .M, Corporate bond market trend, emerging risks and monetary policy - OECD capital market series, 2020

The decline in the quality of the corporate bond market also affected global investment-grade bonds: while in the 2000-2007 period, BBB rated bonds constituted on average 38.9% of global investment-grade issuance²⁵, they averaged 44.1% in the 2008-2018 period and reached 53.8% in 2018. This shift in BBB share occurred at the expense of bond issues with AA and AAA ratings: the average annual share of AA rated bonds moved from 16.7% to 13.7% between 2000-2007 and 2008-2018 periods and that of AAA rated bonds declined from 5.4% to 2.3%.

Accordingly, “this prolonged decline in bond quality points to the risk that a future downturn may result in higher default rates than in previous credit cycles”, the OECD warned in February 2020.

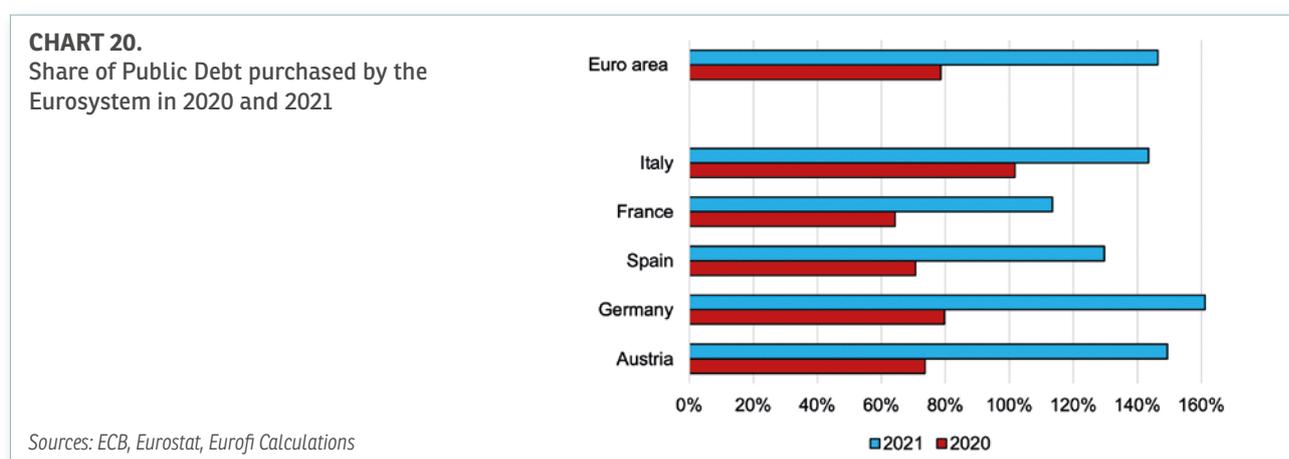
Hence, the corporate sector entered the Covid crisis with high levels of debt and it necessarily borrowed more to navigate the crisis, raising concerns for a significant number of borrowers.

As explained by J. de Larosière in Chapter 1 of his latest book²⁶; “Low interest rate policy has played an important role for a long time in this deterioration of credit quality. Indeed, an environment of persistent very low interest rates leads financial actors to seek yields and therefore to take more risks. This may concern credit risks (operators agree to lend to companies that are already over-indebted) and liquidity risk (the duration of loans is extended and the level of cash down payments required is lowered”.

2.3 Central banks have, de facto, become the agents of fiscal policies

National Central Banks own a growing and significant share of their country general government debt.

The Eurosystem has had a leading role in public debt monetisation during the COVID-19 crisis, as it has been purchasing the majority to meet the financing needs of governments (*see Chart 20*). The scale of these interventions translated into a considerable advantage for borrowing governments (*i.e.* “fiscal dominance”).



Of the EUR 1 081.1 bn of gross public debt issued by the 19 eurozone members in 2020²⁷, the Eurosystem (ECB + National Central Banks) purchased EUR 848.7bn, *i.e.* 78.5% of the total amount issued²⁸. The share of debt issuance purchased by the Eurosystem in 2020 reached 79.6% in Germany, 64% in France, 70.7% in Spain.

The Eurosystem repurchased the totality of the debt issued in 2020 by the Italian, Greek, Irish, Dutch and Portuguese governments (*see Table 2*).

In 2021, governments issued EUR 400 bn less debt than the previous year: Eurozone-wide, € 623 bn of debt was issued in 2021, compared to € 1 081 bn in 2020. The amount of purchases of government securities by the Eurosystem was almost € 60 billion higher than in 2020: in 2021, the Eurosystem bought back € 913 billion of government securities, compared to € 848 billion euros in 2020. Hence, 146.2% of the eurozone government debt issued in 2021 was bought by the Eurosystem.

In other words, in addition to having absorbed all the new issues in 2021, the Eurosystem has also repurchased back part of the rolled-over debt that matured in 2021.

According to Eurofi calculations more than the totality of the public debt issued in 2021 by the French, German, Spanish and Italian governments would have also been acquired last year by the Eurosystem (*see Table 3*). The amount of purchases reached 90% in Italy.²⁹

Approximately 70% of the Eurosystem’s purchases under the PEPP were sovereign bonds issued by France, Germany, Italy and Spain in 2021 compared to 60% in 2020.

25. This concerns corporate bonds issued by non-financial companies from 114 countries

26. See footnote n°5

27. This figure can differ significantly whether we consider the consolidated eurozone government debt as a unique entity or the sum of the 19 eurozone government debts: the first method suggests that eurozone governments issued EUR 854.4 bn of new public debt in 2020, while the second method gives EUR 1 081 bn

28. Assuming that the annual change of gross public debt in nominal value corresponds to the volume of debt issuances

29. When the Eurosystem buys more than the newly issued debt, *i.e.* more than 100%, it means that the figure includes principal repayments of maturing securities purchased previously

TABLE 2.
Share of Eurosystem's purchases in public debt issuance in 2020

	Public Debt Change between 2019 and 2020, bn EUR	Purchase of Public debt by the Eurosystem in 2020, bn EUR	Share of total Eurosystem Purchases in Public debt issuance in 2020
Greece	10,0	16,3	162,5%
Ireland	13,9	15,1	108,9%
Netherlands	40,2	39,6	98,5%
Italy	162,7	165,6	101,8%
Portugal	20,5	19,5	95,3%
Germany	267,4	213,0	79,7%
Austria	35,5	26,2	73,7%
Spain	157,0	111,0	70,7%
Belgium	48,1	33,8	70,4%
France	272,4	175,2	64,3%
Finland	21,3	13,2	61,9%
Euro area	1 081,1	848,7	78,5%

Sources: Eurostat, ECB, Eurofi Calculations

TABLE 3.
Share of Eurosystem's purchases in public debt issuance in 2021

	Public Debt Change between 2020 and 2021, bn EUR	Purchase of Public debt by the Eurosystem in 2021, bn EUR	Share of total Eurosystem Purchases in Public debt issuance in 2021
Greece	12,3	18,6	152,0%
Ireland	18,0	16,7	93,2%
Netherlands	13,3	54,1	406,3%
Italy	105,2	150,9	143,5%
Portugal	-	23,4	-
Germany	161,7	260,6	161,2%
Austria	18,1	27,0	149,4%
Spain	81,5	105,6	129,7%
Belgium	33,4	33,1	99,1%
France	164,9	187,1	113,4%
Finland	2,2	19,6	879,5%
Euro area	623,6	913,0	146,4%

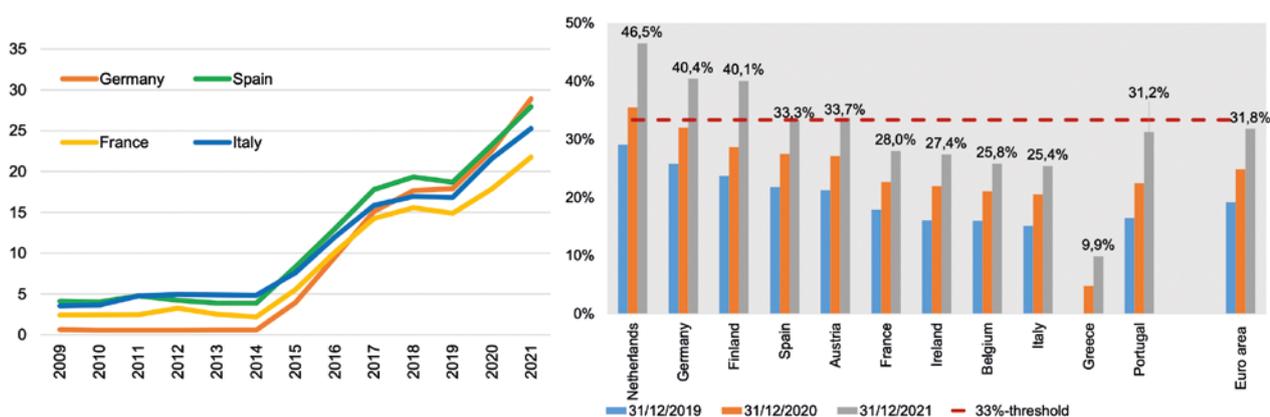
Sources: Eurostat, ECB, Eurofi Calculations

Chart 21 and Table 4 illustrate the growing share of government debt held by the country's central bank. The latter has been increasing continuously since 2014. Between January 2015 and December 2019, the share of public debt held by the Eurosystem grew to 19.6% at the euro area level, from 4.4% in December 2015. As of December 2021, following the Covid-19 crisis, the figure rose to 31.8%.

At the end of 2021, the Eurosystem held 28% of the French public debt and 25.4% of the Italian debt. Holdings of Dutch, Spanish, German and Finnish government debts exceeded the 33% threshold, initially set under the APP but suspended under the PEPP.

CHART 21.
Share of Government Debt held by the Central Banks, %

21a. Share of public debt held by the National Central Banks, % 21b. Share of public debt held by the Eurosystem, %



Sources: ECB, Eurostat, Eurofi Calculations

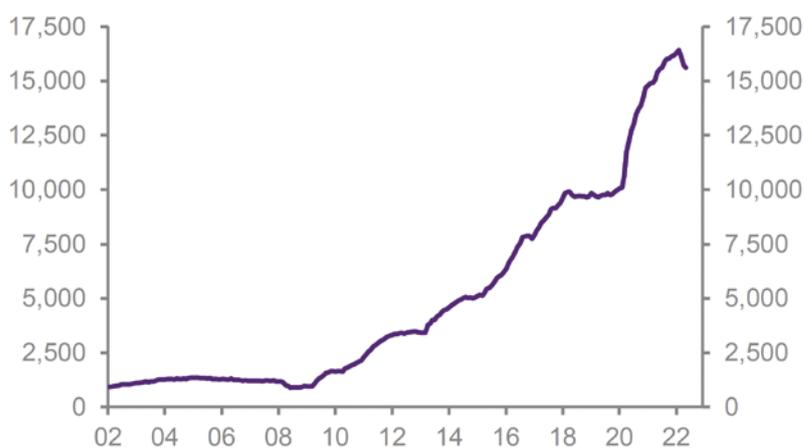
TABLE 4.
Share of Government Debt
Held by the Eurosystem

	31/12/2015	31/12/2019	31/12/2020	31/12/2021	Change between 12/2019 and 12/2021, pp
Netherlands	5,7%	29,1%	35,5%	46,5%	17,4
Germany	5,3%	25,8%	32,0%	40,4%	14,7
Finland	6,0%	23,7%	28,7%	40,1%	16,3
Spain	5,3%	21,8%	27,5%	33,3%	11,5
Austria	4,3%	21,2%	27,1%	33,7%	12,5
France	4,4%	17,9%	22,7%	28,0%	10,1
Ireland	3,8%	16,0%	22,0%	27,4%	11,3
Belgium	3,6%	16,0%	21,1%	25,8%	9,8
Italy	3,5%	15,1%	20,6%	25,4%	10,3
Greece	0,0%	0,0%	4,8%	9,9%	9,9
Portugal	4,8%	16,5%	22,4%	31,2%	14,8
Euro area	4,4%	19,2%	25,4%	31,8%	12,6

Sources: Eurostat, ECB,
Eurofi Calculations

The intensification of the link between sovereign states and central banks.

CHART 22.
Outstanding public-sector debt held by
central banks across OECD* countries
(USD bn)



Sources: Natixis Economics Research (P. Artus
"Monetary policy: How to transition from fiscal
dominance to inflation targeting?" (4 July 2022)
* United States, United Kingdom, Eurozone and Japan

The above chart (Chart 22) illustrates the intensification of the link between sovereign states and central banks. Advanced economies have seen their central banks endorsing stronger responsibilities, strengthening the sovereign-central bank loop.

Ultra-low rates and other monetary interventions have lowered government debt service ratios. This has encouraged governments to believe that the economic situation is under control, and that governments can also continue with "business and usual".

It should have been clear that systematic buying of public bonds should not open the way for governments to finance vast stimulus plans without necessary conditions. Increasing the efficiency of public spending and giving priority to public investment instead of current redistribution should also have been considered.

The "fiscal dominance" that has been presently taking place carries two big dangers. First, it puts in question the independence of central banks. Then, it has been a major disincentive for governments to replace unproductive expenditures by productive public spending and engage in the structural reforms that are notably indispensable to meet the fundamental challenges of the ecological transformation of our world, challenges that cannot be faced by printing more and more money.

In fact, lasting zero or even negative interest rates have been a disincentive for many Member States in the EU to undertake structural reforms which could lift potential growth. Indeed, with interest rates at ultra-low levels, governments are under no pressure to reduce their debts. Negative real interest rates encourage them to borrow more. And if government borrowing becomes a free lunch there is a clear disincentive to fiscal discipline. Furthermore, the rules of the Stability and Growth Pact have not been respected by most EU large economies since their implementation (e.g. Italy, Spain, France, Belgium).

In other words, the reassurance of low rates, given political imperatives, encourages governments to increase debt further. But thinking that monetary creation can solve the problems arising from excessive debt is an illusion³⁰. The end of the pandemic is now likely to reveal that we have a debt overhang problem that only governments, not central banks can deal with.

30. See the Eurofi note, "Addressing the dangers of the monetary policy deadlock" (September 2020)

3. Persistent ultra-loose monetary policies have led to negative economic and financial stability consequences

Lasting monetary policies have led to the downward path of interest rates, damaging productive investment and growth as the preference for liquidity prevails over investment notably in Europe. Such policies have fueled a misallocation of capital, encouraging zombie-firms proliferation and an increase in share buybacks. Persistent low rates have exacerbated financial vulnerabilities, leading to mispricing of risks, asset bubbles and a weak profitability of the EU banking and life insurance sectors. They have also been accompanied by a significant increase in wealth inequality.

3.1 Lasting zero interest rates damaged productive investment and growth in Europe

Abundant liquidity and low interest rates have not resulted in higher productive investment but in liquidity hoarding. Interest rates that remain at zero for an indefinite period discourage investors from investing in risky projects, who instead move into yielding and speculative assets. Household and non-financial corporations' savings have shifted to liquid and non-risky assets, as investments no longer yield any return, in Europe in particular.

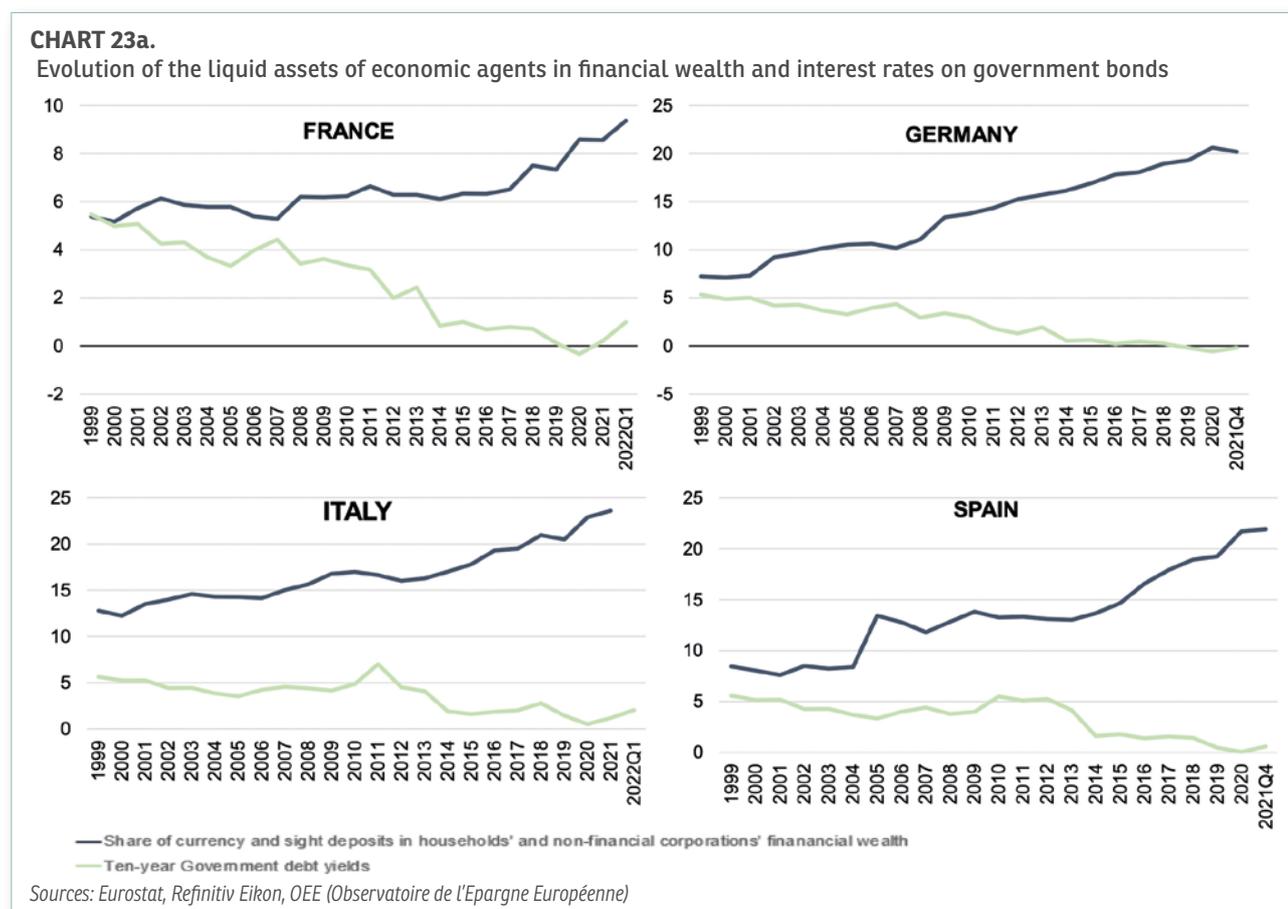
Furthermore, low or negative interest rates induce a fatalistic mindset that lowers – and not raises – propensity to invest. Under what John Maynard Keynes³¹ called the 'liquidity trap', investors play safe by placing savings in very short-term instruments rather than deploying them over longer term, where low interest rates bring them inadequate returns for higher risks.

As stated by the BIS³², "no well-functioning economy should operate with real interest rates that remain negative for too long: capital is misallocated and growth impaired".

3.1.1 Signs of the liquidity trap: preference for liquidity prevails over productive investment

Loose monetary policies coupled with expected low returns on earnings drive a preference for liquidity.

Chart 23 indicate that, since 2008, a significant increase occurred in the purely liquid part (currency and sight deposits) of portfolios of households and non-financial corporations across euro area countries. Once the investor's risk is no longer rewarded, investors turn away from more risky long-term projects.



31. Keynes was in favour of low interest rates, but he specified not too low interest rates. Indeed, when they are too low, they deter savers from investing in long-term bonds and encourage them to either keep their savings in liquid forms, which they are doing, or in assets remunerated only because they are risky. On the other hand, entrepreneurs, discouraged by the prospect of no growth emanating from zero interest rates for a long time, are turning away from productive investment in favour of things like share buybacks and speculative opportunities

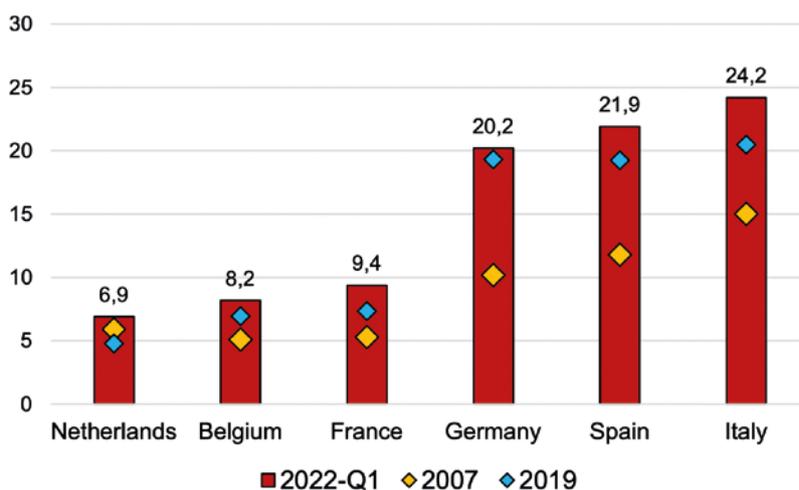
32. BIS, Annual economic report – June 2021

Indeed, the liquid share of financial assets held by households and non-financial corporations increased from 10.2% in 2007 to 19.4% in 2019 in Germany and from 5.3% in 2007 to 7.4% in 2019 in France. The increase was also important in Spain and Italy over the same period (respectively +7.7 percentage points and +5.9 percentage points). Following the Covid-19 crisis, the figure reached 20.6% in Germany as of June 2021, 8.4% in France, 23.1% in Spain and 23.5% in Italy.

Moreover, it should be noted that the flight to liquidity effect measured by this liquidity ratio is underestimated for the recent period. Indeed, after the Covid-19-krach, strong valuation effects on stock markets significantly impacted the denominator (total financial wealth) but not the numerator (liquid assets).

CHART 23b.

Share of financial liquid assets held by households and non-financial corporations, % of financial wealth



Sources: Eurostat, Refinitiv Eikon, OEE (Observatoire de l'Épargne Européenne). All data from 2022-Q1, except for Germany and Italy which date from 2021-Q4

As noted by G. Naacke and L. Gabaut³³, “the Covid crisis has certainly had the effect of restricting household consumption, which has translated into a significant increase in their savings; but they have mostly remained passive vis-à-vis this “forced saving”. They have kept a large portion in their current accounts. Moreover, uncertainty about the duration of the crisis accentuates the willingness to build up precautionary savings. The persistence of low interest rates also explains this flight to liquidity phenomenon, as traditional risk-free savings vehicles no longer yield any return”.

In the context of high inflation, holdings of liquid assets have been rising further across key eurozone economies. Between 2021-Q2 and 2022-Q1, the share of liquid assets held by households and NFCs increased by 1 pp in France, and 1.2 pp in Italy, notably, to account for respectively 9.4% of financial wealth in France and 24.2% in Italy. Similar developments have been observed in Spain, where it increased by 0.3 pp between 2021-Q2 and 2021-Q1. The figure has fallen slightly in Germany, to 21.9% as of 2021-Q4, from 21.6% as of 2022-Q2.

The long-running low-interest rate policies tended to undermine productive investments.

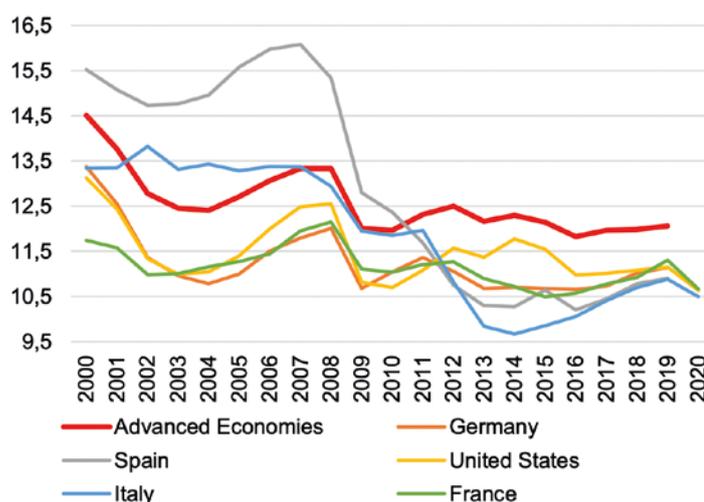
Productive investment has declined despite rock-bottom interest rates over the past two decades, raising the possibility that low rates even discourage risky investment.

Lasting low interest rates do not foster by themselves, more productive investment. Chart 23 underlines that in advanced countries the level of gross non-residential investment in tangible assets has declined significantly over the past two decades, from 14.4% of GDP in 2000 to 11.5% in 2019. 60% of this decline occurred between 2008 and 2019.

The rise in intangible investment over the same period was less than the decline in tangible non-residential investment. Indeed, non-residential intangible investments that include patent, brand, trademark, copyright or software, have stagnated or increased slightly over the past two decades, reflecting the digitalisation of advanced economies. In AEs, it has increased from 4.3% of GDP in 2000 to 5% in 2019. But this dynamic did not compensate for the decline of total non-residential investment, that went from 19% of GDP in 2000 to 16.5% in 2019.

33. G. Naacke & L. Gabaut, “La baisse du taux d’épargne n’est pas pour demain”, Revue Banque, January 2022.

CHART 24.
Non-Residential Tangible Investments in selected
Advanced economies, % of GDP



Sources: OECD, IMF Staff Calculations

Notes: Advanced economies = Australia, Canada, France, Germany, Italy, Japan, Korea, Spain, United Kingdom, United States; the series include government and corporate investment

As a major contributor to GDP, non-residential investment in tangible assets results from expenditures on tangible capital such as infrastructures, commercial real estate, tools, machinery, and factories.

This gradual decline is broad-based across major advanced economies. In the US, it fell by 2.03 percentage points since 2000, to reach 11.1% of GDP in 2019. In Germany, it fell by 2.2 percentage points since 2000, to 11.13% of GDP in 2019. Italy and Spain are among the large euro area countries that have experienced the most important decline, with investment dropping by respectively 2.6 percentage points and 4.6 percentage points since 2000, to reach 10.7% of GDP and 10.9% of GDP in 2019. French non-residential tangible investment has registered one of the lowest changes in the past two decades (-0.4 percentage points). In countries for which data is available (United States, France, Italy) this trend is again observed in 2020, it even accelerated.

An article in the Financial Times³⁴ citing World Bank data indicated that “France and the US have invested nearly two percentage points of GDP less this century than they did in the 1970s and 1980s; Germany and Italy about 4.5 points less; the UK and Japan 6 and 10 percentage points less respectively. These are enormous numbers”.

A note issued by Natixis³⁵ analysed the net corporate investment rate (*i.e.* excluding capital depreciation and in real terms, to avoid biases due to the measurement of quality effects) in OECD countries since the subprime crisis. The evolution of this ratio (*see Chart 25*) highlights the shortfall in net corporate investment since the GFC, which corresponds to a slowdown in net capital accumulation. This note also underlines that net corporate investment compared to nominal GDP has been decreasing in both the US and the eurozone, over the last twenty years or more although over the same period corporate profitability has risen in the two areas³⁶. Moreover, in the eurozone, net corporate investment has consistently been lagging behind the US one.

The study concludes that “the increase in corporate gross investment has not offset the increase in capital depreciation”. When looking at net corporate investments, the shortfall is clear in OECD countries, according to the same Natixis paper.

CHART 25.
Net corporate investment (as % of nominal GDP)



Sources: Natixis, with Refinitiv, BEA and Eurostat data

34. M. Sadbu, “The investment drought of the past two decades is catching up with us”, Financial Times, 20 July 2022

35. P. Artus, “Since the subprime crisis, OECD countries have suffered from a shortfall in corporate investment”, Flash Economics, Natixis, 25 January 2022

36. The rise in earnings has been used to increase shareholder remuneration in the United States and to make acquisitions and increase cash reserves everywhere (United States, eurozone, Germany and France), according to P.Artus (P. Artus, “What have companies done instead of investing”, Natixis Economic Research (April 2022))

3.1.2 “Too low for too long” policies have fueled the survival of weak firms, increasing a misallocation of capital

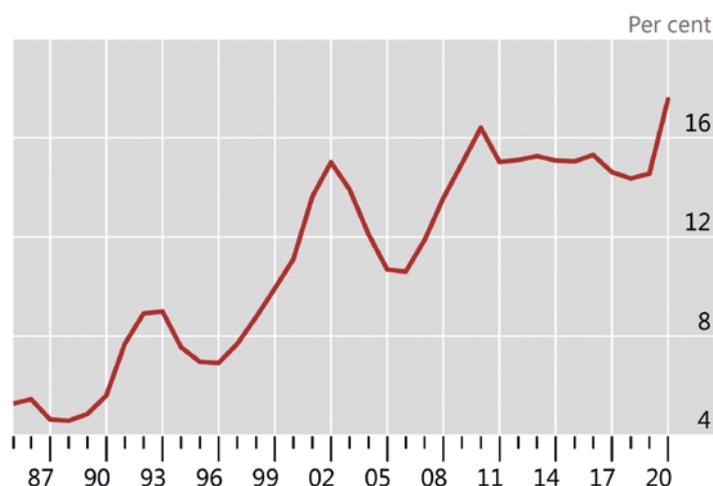
The lack of success from monetary policies at reviving economic growth can also be entailed to capital and subvention allocation choices. Favourable borrowing conditions ensure the survival of non-productive firms – firms whose profitability is so low that they would not be viable if interest rates were higher.

Over the past decade, loose monetary policy has impeded the process of creative destruction, by ensuring the survival of zombie firms that should have gone bankrupt. This dynamic has further damaged aggregate productivity growth, and so perpetuated the disinflationary pressures that prevailed over the period prior to the Covid-19 crisis. Acharya et al. (2020)³⁷ have detailed the process: in sectors where zombie firms prevail, prices decline (so do profits). However, increased competition for factors inputs raises costs and further decreases profits for all. This reduces investment, particularly for health firms, and decreases the growth in future productivity. The level of productivity in the sector also falls arithmetically since it includes low productivity zombies. In short, zombie firms increase disinflationary pressures in the short-run, since excess capacity is maintained; but they also lower the level and the growth of productivity. Put otherwise, zombification encourages (through lower inflation) further monetary stimulus even as it raises the probability of future inflation.

Chart 26 illustrates the fact the share of zombie firms in OECD economies has grown from 1% in 1900 to 15% in 2017. According to the CSGF Working Group³⁸, the share of public firms classified as zombies spiked in 2020. This report underlines that “one risk is that – as seen in previous cycles – the share does not completely reverse, leaving a subset of less productive firms that hold back the growth of more productive and dynamic firms. Another risk is that debt overhang problems may weaken investment and lead to a decline in the economy’s productive capacity”.

Thus, productivity is hampered by zombie firms, which will dedicate their time and treasuries to reimburse their debt rather than invest in productive initiatives, impeding the reallocation of resources necessary for innovation and growth.

CHART 26.
Share of zombie firms in listed Non-Financial Companies across advanced economies, %



Sources: CGFS Working Group calculations, Datastream Worldscope

Notes: Across 14 advanced economies, zombie firms defined as firms with both an interest coverage ratio of less than 1 and a Tobin's q below the median firm in the sector over two years. To be declassified as a zombie firm, an ICR larger than one or a Tobin's q above the sector median over two years is required. Zombie share is the ratio of zombie firms to all firms.

The expansion of zombie firms would have contributed to the trend decline in potential growth in OECD countries: when the share of zombie firms in an economy increases by 1%, total factor productivity growth falls by about 0.3 percentage points³⁹.

According to W. White, the sharp reduction in corporate default rates in recent years also attests the growing zombification of many economies. Since the pandemic, the drawing down of bank lines and heavy recourse to bond market has likely made this problem worse. Insolvencies have in fact declined further in many countries.

3.1.3 Lasting low interest rates incentivize companies to take on cheap debt to buy-back their shares rather than invest in long-term projects

Developments with respect to share buybacks cannot be decoupled from monetary policy (see Chart 27). The 2021 OECD report⁴⁰ stresses that “this link is particularly important in the current low interest environment, which greatly affects the relative cost of debt and equity. Low interest rates may drive increases in corporate debt issuance to finance share buybacks, rather than invest in future projects. Expansionary monetary policy initiatives such as the ones undertaken in many OECD countries after the 2008 crisis and the Covid pandemic may directly affect the development in payout policy and adjustments in the companies’ capital structures”.

37. V. Acharya, M. Crosignani, T. Eisert & C. Eufinger, “Zombie credit and dis-inflation: evidence from Europe”, National Bureau of Economic Research, May 2020

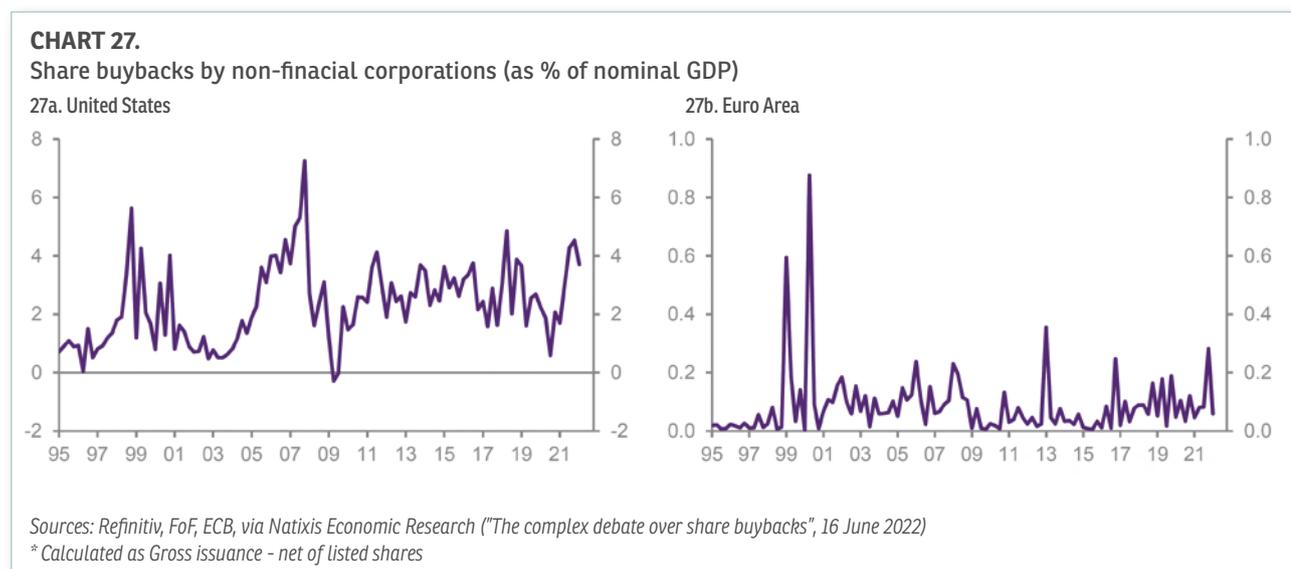
38. Malikamas et al, “Private sector debt and financial stability”, CGFS Paper (May 2022)

39. H. Baudchon & G. Derrien, “Le choc de la Covid et la crainte d’une zombification accélérée”, BNP Paribas Economic Research (March 2021)

40. “Trends in the corporate sector and capitals markets pre-covid 19”, OECD - July 2021

According to the OECD, of the total value of share buybacks in 2018, approximately 83% was attributable to US corporations. A significant proportion of US share buybacks comes from the financial sector, whose profitability has been impacted by lasting low interest rates.

In 2019, the total share buybacks in OECD countries amounted to USD 599 bn, over twice the amount of new equity issuance. The amount spent on share buybacks has exceeded the amount of equity every year from 2016 to 2019⁴¹.



In 2018 US companies' shares repurchase accounted for roughly USD 1.1 tn, more than twice the 2010 amount.

As of November 2021, the volume of share buybacks amounted to USD 1 000 bn in the US, approaching its 2018 record. In the second quarter of 2021, the top 20 companies by buyback volumes in the S&P accounted for more than half of all the completed buybacks. The top five companies (Apple, Alphabet, Oracle, Meta and Microsoft) accounted for 30%⁴².

Over the first quarter of 2022, a record USD 319 bn of share buybacks have been authorised, according to Goldman Sachs. There were USD 267 bn in share buybacks at the same point in 2021. Recently listed companies, which traditionally spend cash to fuel growth rather than return excess to shareholders, have joined the trend, underlined the Financial Times on the issue.

As reported by a recent study from Natixis⁴³, share buybacks are significant and worrisome in the United States because they are financed by debt and by cash flows resulting from the skewing of income distribution⁴⁴. It also underlines that share buybacks have coincided with a decline in capital accumulation (see Charts 22 & 23) and a rise in share prices (see Chart 28). This suggests that these share buybacks have not led to the transfer of savings into financing more efficient corporate investments, and so that the Schumpeterian reallocation of capital to more efficient companies did not actually materialise. "They have been used to buy existing shares at the expense of employee remuneration" concludes this Natixis paper.

3.2 Persistent low rates have been exacerbating financial vulnerabilities

3.2.1 Interest rates no longer play their discriminating role, thus leading to a mispricing of risks

In a market-based economy, financial markets should discriminate against signatures according to their quality and not be dominated by the setting up of interest rates by central banks. But with their large-scale central bank purchases, as we have seen in section 1.3, central banks in OECD countries have been controlling the prices of a growing number of assets: not only short-term interest rates but those with QE which leads to monitor the yield curve. Indeed, with control over long term interest rates through government bond purchases, sovereign risks premia do not reflect market forces nor provide savers with appropriate information about the economic and financial developments. In other words, sovereign bond prices have been turned from market prices into administrated prices.

How can free markets assess value in these conditions? Let us not underestimate the importance of this loss of benchmarks as zero interest rates blur risk premia. This reduction of risk premia is a phenomenon already observed prior to the 2007-08 crisis.

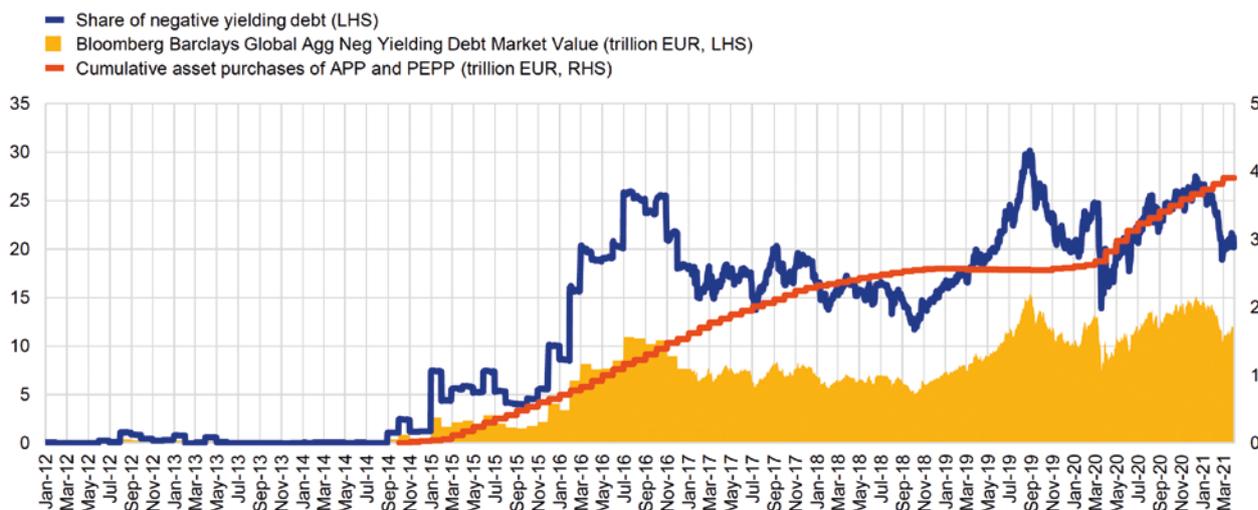
41. Idem

42. R. Armstrong, "The Fed: nothing between the lines; Also, buybacks and stablecoins", Financial Times (November 2021)

43. P. Artus, "The complex debate over share buybacks", Natixis Economic Research (June 2022)

44. P. Artus, "What to make of share buybacks?" (January 2022) & "The Complex debate of share buybacks" (June 2022), Natixis Economic Research

CHART 28.
Negative-Yielding Debt in the Euro Area



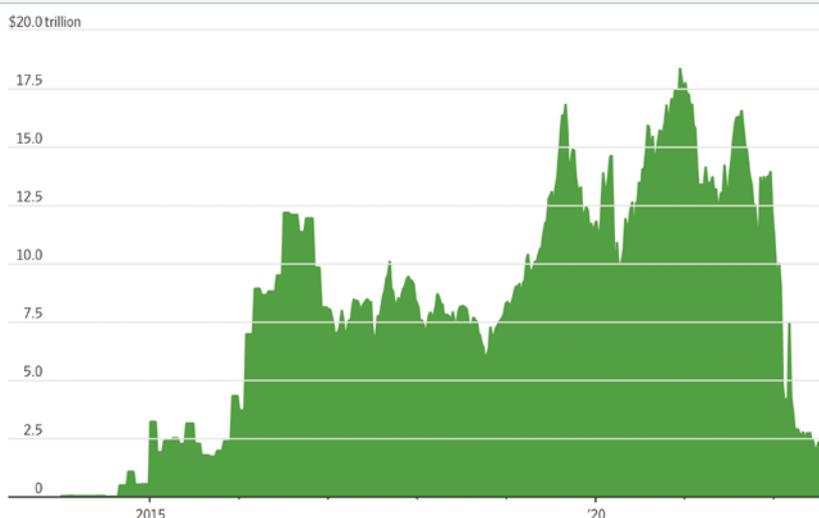
Source : Banque de France (A. Penalver et al, "Why can sovereign and corporate borrowers in some countries borrow at negative rates?," Blog Banque de France (April 2021))
Last data from March 2021

Chart 28 exhibits that as of March 2021, roughly 20% of bond yield returns in Europe were negative, and around 60% were below 1%. As an example, the Greek 5-year bond yield turned negative for the first time in May 2021. Such a proportion of ultra-low remunerative assets has brought financial markets to shift away from economic fundamentals. This has pushed investors into riskier segments in search of income, compelling them to lend to lower-quality companies and countries.

However, the total stock of negative-yielding debt stood at USD 2.4 tn in mid-July 2022, according to a Bloomberg Barclays index⁴⁵, an 87% plunge from the USD 18.4 tn peak reached in December 2020 (see Chart 29). Less than three years ago, as much as 40% of global government debt offered negative yields. As of April 2022, that share has fallen below 10%, according to The Economist⁴⁶.

This recent development reflects the upwards adjustment of bond yields in the light of higher inflation and the process of monetary tightening at works in the US, and in the euro area, with a delay (see last section). Japan, where the central bank has so far resisted the global shift towards tighter monetary policy, is the largest source of world's remaining-yielding debt, accounted for 84% of the world's negative-yielding bonds as of July 2022.

CHART 29.
Amount of Global Negative Yielding Bonds, \$ tr



Source: Wall Street Journal/Bloomberg
As of July 2022

45. C. McCabe, "Investors Wave Goodbye to Negative-Yielding Debt as Central Banks Fight Inflation", Wall Street Journal, July 2022

46. The Economist, "A requiem for negative government-bond yields", 23 April 2022)

Despite their recent rise, government borrowing costs remain at low levels across advanced economies. In the OECD area, nearly 70% of fixed-rate government bonds issued in 2021 were for a yield of less than 1%. This ratio was 80% in 2020 and 37% in 2019, according to OECD data⁴⁷.

3.2.2 High leverage has massively increased market valuations and thus spurred the development of asset bubbles

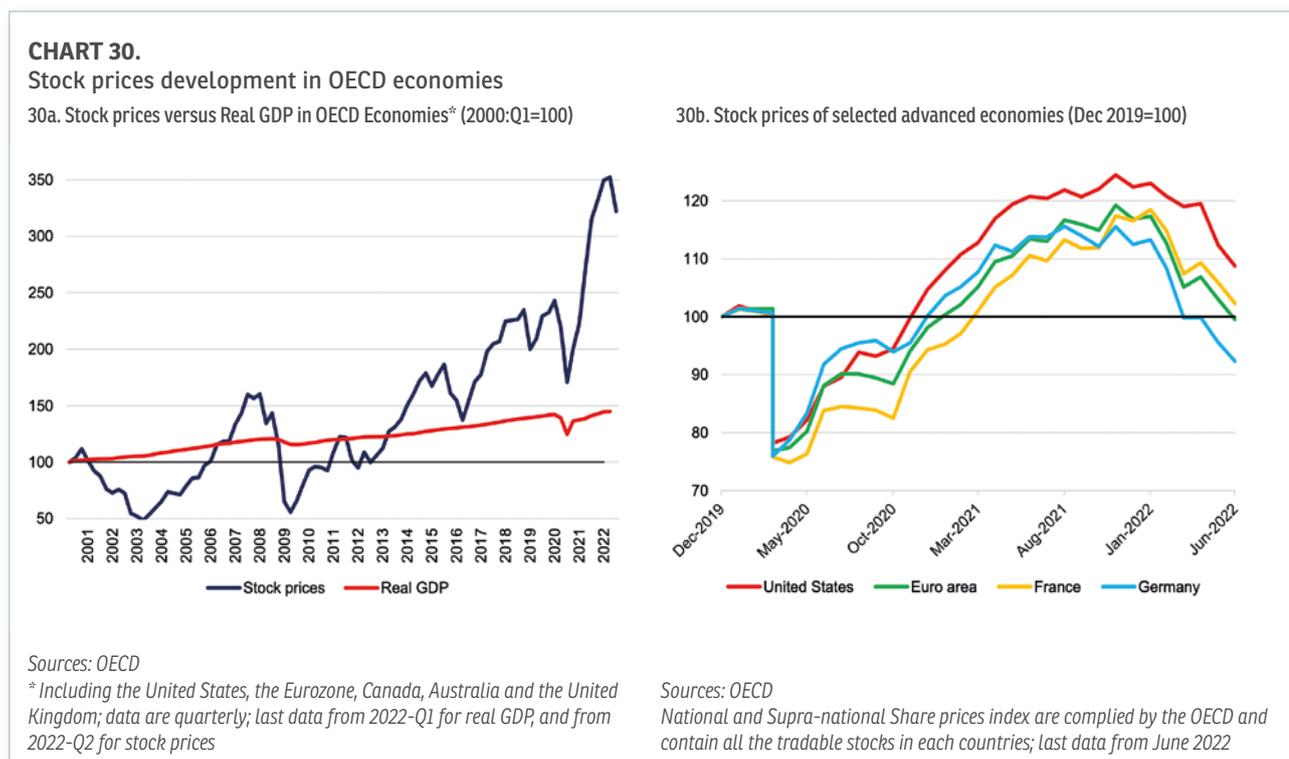
Money supply growth has been abundant over the last 20 years, without success in generating a proportional economic growth. This massive wave of money supply failed at achieving the 2% inflation target until 2020 but was transferred to financial and real estate's prices. High leverage has massively increased market valuations, which poses great financial stability dangers notably if inflation and higher interest rates re-establish themselves.

The abandon of a leaning-against-the-wind stance has nourished financial imbalances. The disconnection between financial and housing asset prices on the one side and the economic fundamentals on the other side is leading to market bubbles. Indeed, lasting low interest rates open the floodgates of credit to both governments and the private sector, encourage search-for-yield behaviour and represent a source of financial instability with the resulting asset bubbles.

This can be illustrated by stock and real estate assets inflation, and lately by the Bitcoin price volatility.

Stock markets have been mainly governed by central bank monetary expansion during the past years

Chart 30 highlights the widening gap between stock prices and real GDP growth in OECD economies, indicating a clear disconnection between financial markets and fundamentals. Between early 2013 and early 2020, the cumulated growth of stock prices has been multiplied by 2.07, against 1.16 for real GDP. Their disconnection from the economy was also illustrated by the rise of 16.26%⁴⁸ of the S&P500 and 43.6% of the Nasdaq in 2020, while the world experienced a 4.2% recession that year.



This charts also underscores that, given the permanent loose monetary policies during the past decade, share price declines caused by negative shocks (cf. Lehman Brothers' bankruptcy and Covid-19 crisis) were immediately followed by an upturn in prices.

The steep rise in house prices due to the overwhelming influence of central banks "liquidity"

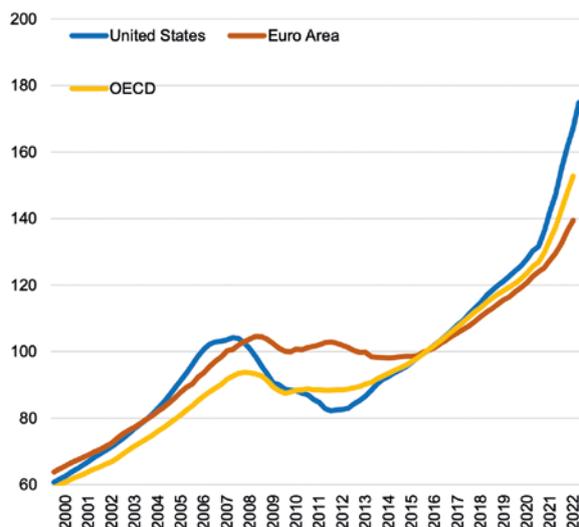
The associated chart (Chart 31) displays the steep rise in house prices, both in the United States and the euro area, which has been stimulated by the abundance of money supply growth during the past years. Between 2015 and 2019, house prices rose by roughly 23% in OECD economies (see Chart 31.a). They increased by 25% in the United States and 19% in the euro area. Following the Covid-19 crisis and central banks' actions that pushed interest rates to further low levels, home prices were 52.7% higher than their 2015 level as of December 2021 in OECD economies, up to 39.4% up in the euro area and to 66.8% for the US.

47. "Sovereign Borrowing Outlook for OECD Countries" (May 2022)

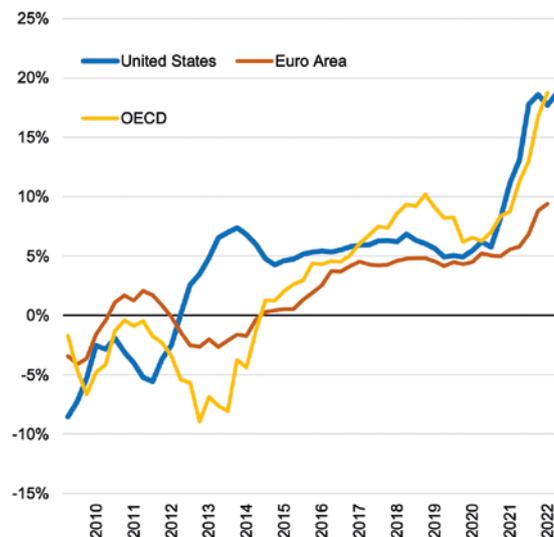
48. Excluding dividends for S&P500 and Nasdaq

CHART 31.
House Prices development

31a. Residential House Prices, Q2-2015=100



31b. Residential House Prices, Year-on-Year Growth, %

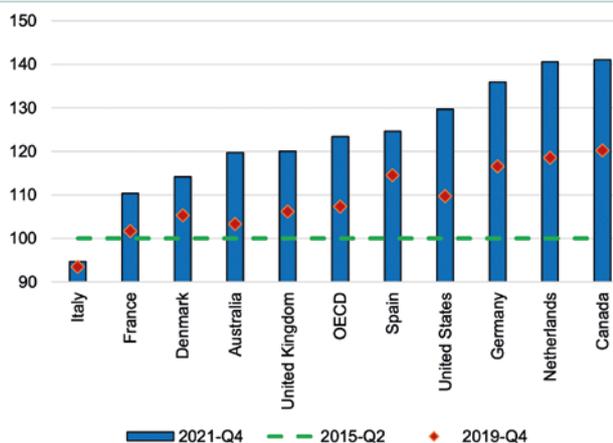


Source: OECD

Last data are from 2021-Q4 for the Euro Area and the OECD, and from 2022-Q1 for the United States

The surge in house prices illustrates the implied difficulty for households to access housing, in particular for the youth. A measure of the affordability of homes for households is the price-to-income ratio (see Chart 30). Its increase indicates that home prices are rising faster than their disposable income. Between 2015 and 2019, the ratio increased by 7% in OECD economies. Following the COVID-19 crisis, it has increased to 20.5% as of June 2021. Already up by 9% in 2019 compared to 2015, the ratio was 26.3% greater than in 2015 in the United States, as of September 2021. Although there is no available indicator for the euro area, the development is similar in some Member States. Over the past four years to 2019, Germany and the Netherlands have experienced the largest increase in the price-to-income ratio, jumping by 19.4 percentage points and 22 pp respectively. Two years later as of December 2021, these numbers have increase by an additional 17 pp in Germany and 18 pp in the Netherlands.

CHART 32.
Price-to-income Ratio (Q2-2015=100)



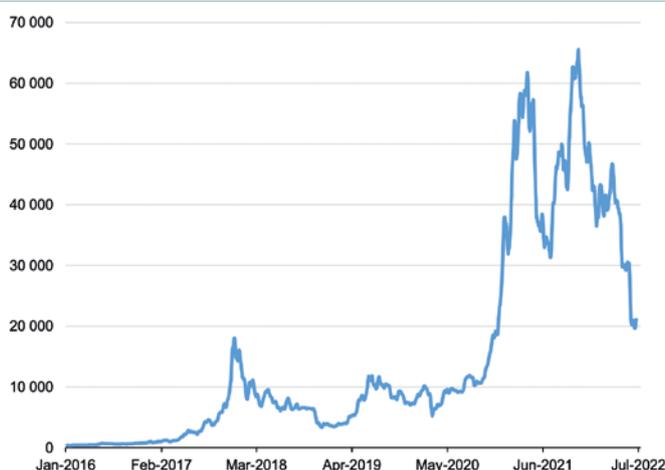
Source: OECD

Systematically loose monetary policy has contributed to the building of the enormous credit bubble that nearly broke down the financial system in 2008. All financial indicators were flashing. But the CPI was low, and central banks were not worrying. Such bubbles are indeed the present manifestation of inflation in an environment of technological price disinflation.

Cryptocurrency development

The search-for-yield attitude also spreads across cryptocurrencies where excess money supply has brought volatility. The Bitcoin, whose price index soared by more than 4 000% between 2016 and January 2022, is a staggering example. After reaching USD 60 000 in the first months of 2020, the price of Bitcoin has fallen by 50% in only few weeks (see Chart 33).

CHART 33.
Price of Bitcoin, USD



Source: Yahoo Finance
Last data from 10 July 2022

Consequently, monetary policy is widening wealth inequalities between (i) asset and non-asset owners and (ii) across generations.

Low interest rates, asset purchases and other accommodative unconventional monetary policy instruments have tended to increase asset prices (particularly housing, equity, as well as government and corporate bonds) and thereby have especially benefited the wealthiest segment of society.

Ultra-accommodative monetary policy also has cross-generation distributional consequences. Since elderly people tend to have higher savings (accumulated from their families and during their active time), they are able to sell their assets whenever appropriate for them and maintain their consumption level. Thus, they really benefit from upward price changes. Conversely, younger households are usually the ones that will buy these assets at a rather high price for their accommodation or to save for retirement. This absorbs a higher share of their revenues at the time when they start their activity.

More generally, these income inequalities have a lasting effect because they tend to be transmitted across generations: wealthiest older or retired people can far more easily help their offsprings to buy accommodation in residential places, also giving more chances to their grandchildren to go in the best schools and universities.

A report issued by the McKinsey Global Institute⁴⁹, notes that globally, net worth has tripled since 2000; but the increase mainly reflects valuation gains in real assets – especially real estate – rather than investment in productive assets that drive our economies. Rising asset prices and two decades of relatively low interest rates have helped expand the world’s “balance sheet” to high levels, far outpacing underlying economic growth and raising questions over whether this can endure.

Moreover, “asset values are now nearly 50% higher than the long-run average relative to income”, the report continues. “Not only is the sustainability of the expanded balance sheet in question; so too is its desirability, given some of the drivers and potential consequences of the expansion. For example, is it healthy for the economy that high house prices rather than investment in productive assets are the engine of growth, and that wealth is mostly built from price increases on existing wealth?” it says.

The central finding of McKinsey’s work is that, at the level of the global economy, the historical link between net worth and output (GDP) growth is no longer true. Economic growth has been modest over the past 20 years, while valuations have surged. The pace of valuations – which has traditionally kept pace with GDP – is now 50% higher than the historical relationship.

McKinsey has calculated that 77% of the net worth growth from 2000 to 2020 comes from rising asset prices and valuations (with thus only 23% from real resource creation). It is generally observed that those who have benefited the most from the rise in stock prices are in the top 10% of the population.

According to Jacques de Larosière, “the fact that our financial system has favoured to such an extent the holders of assets with a high and growing stock market value sheds a harsh and problematic light on the social consequences of monetary management as it has been conducted for the last twenty years. Similarly, the explosion of real estate prices prevents young people from settling in urban centers and leads to costly social inequalities, especially in terms of productivity. The excessive concentration of wealth in the hands of a few has never been a source of global growth...”

This assessment and its consequences lead us to question the “benefits” of the tripling of net worth described by McKinsey. A system that results in increased financial valuations for the richest 10% while leaving wage income stagnant does not seem likely to increase employment in the productive sectors. This system poses a major political and social problem: the rich become exponentially richer than the wage earners living from their work...⁵⁰

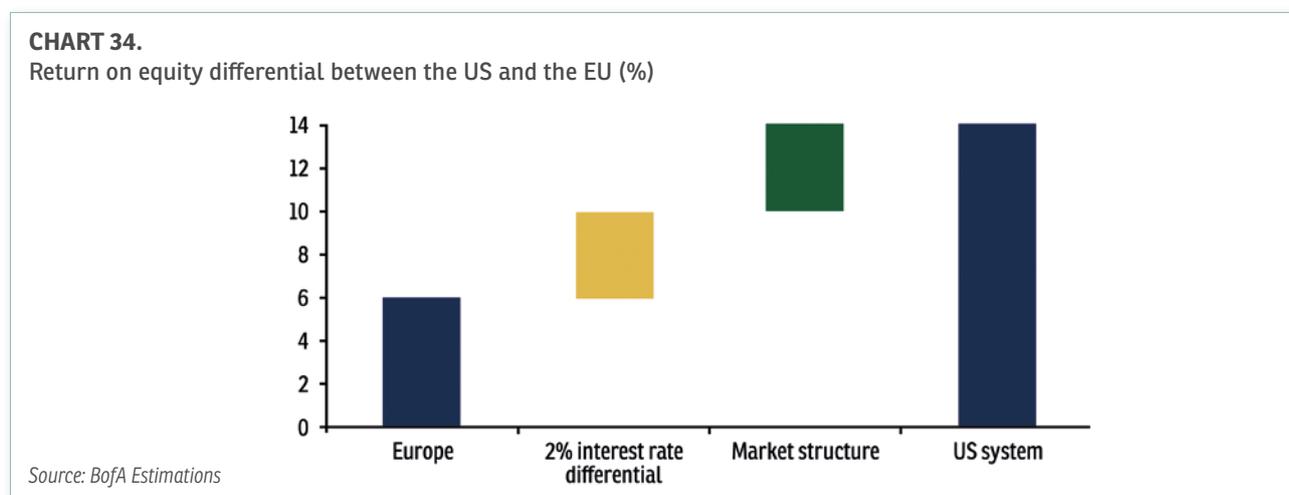
49. McKinsey Global Institute, “The rise and rise of the global balance sheet”, November 2021

50. See J. de Larosière, “Putting an end to the reign of financial illusion: for real growth”, Chapter V, Odile Jacob, September 2022

3.2.3 The weakening profitability of the banking and insurance system in the EU compared to the US one

The lasting ultra-low interest rates policy weakens the profitability of the EU banking sector⁵¹.

A report from Bank of America Securities⁵² highlights the drivers of the yawning profitability gap between EU banks at a 6% ROE in 2019 and US banks at 14%. About half is the difference in market structure. The other half is simply the 200 bp gap in interest rates.



Lasting zero-interest rates also pose a problem for insurance companies and pension funds. Faced with long-term commitments, safe bond assets no longer yield much. This is a source of weakness that insurance companies must manage by increasing their equity, diversifying their investments into less liquid and more riskier assets. For customers, low rates mean higher non-life insurance prices, lower guarantees and fewer long-term saving.

4. The return of inflation: state of play and challenges ahead

Inflation is back and continues to surge. Year-on-year inflation in the OECD area climbed to 10.3% in the year to May 2022, compared with 9.6% in May. This represents the sharpest price increase since June 1988.

Since the second quarter of 2021, corresponding to the start of global economic re-opening after the pandemic, inflation has been increasing to levels not seen in decades fueling concern about the rising cost of living for households. Inflation has thus once again become the primary concern of Europeans, who are feeling a sharp decline in their purchasing power. Indeed, inflation is lowering real revenues and has a much greater impact on the poorest. In addition, inflation is also reducing the earning of companies with negative consequences not only on consumption, but also on investment. This uptrend is global, although it varies across regions, with numerous and complex roots.

At first, higher inflation was seen as transitory, reflecting increased relative prices for a small number of pandemic-affected items. But it proved persistent, broadening over time and the war in Ukraine added to the inflationary pressures

Formerly attempting to “look through” what they considered to be “transitory” higher inflation, many Central Banks across Advanced Economies responded slowly. Since March 2022, signs of normalisation have emerged to varying degrees across countries, but nominal policy rates remain well below inflation.

As a result, real ex post policy rates – *i.e.* adjusted for inflation – actually fell further into negative territories in most countries, rendering monetary policies even more expansionary.

4.1 High inflation is expected to last for longer

We are experiencing another episode of inflation since March 2021, breaking with the trend of slow prices growth that prevailed during the decade prior to the Covid-19 crisis. Since February 2022, inflation has increased further following the start of the war in Ukraine.

The causes are many and complex, driven by a mix of cyclical and structural factors. Soaring energy prices – which extended to a wide range of commodities as food and raw materials have been a key driver in the inflationary shock. Global supply-chain disruptions exacerbated pressures on prices. But other sources of pressure exist too; the acceleration of present inflation may also be the result of the substantial excess of broad money growth over the past years. This “monetary phenomenon” is turning out to be persistent.

51. See the Eurofi note, Banking fragmentation issues, September 2021

52. Bank of America Securities Global Research “Fit for an island continent”, February 2020

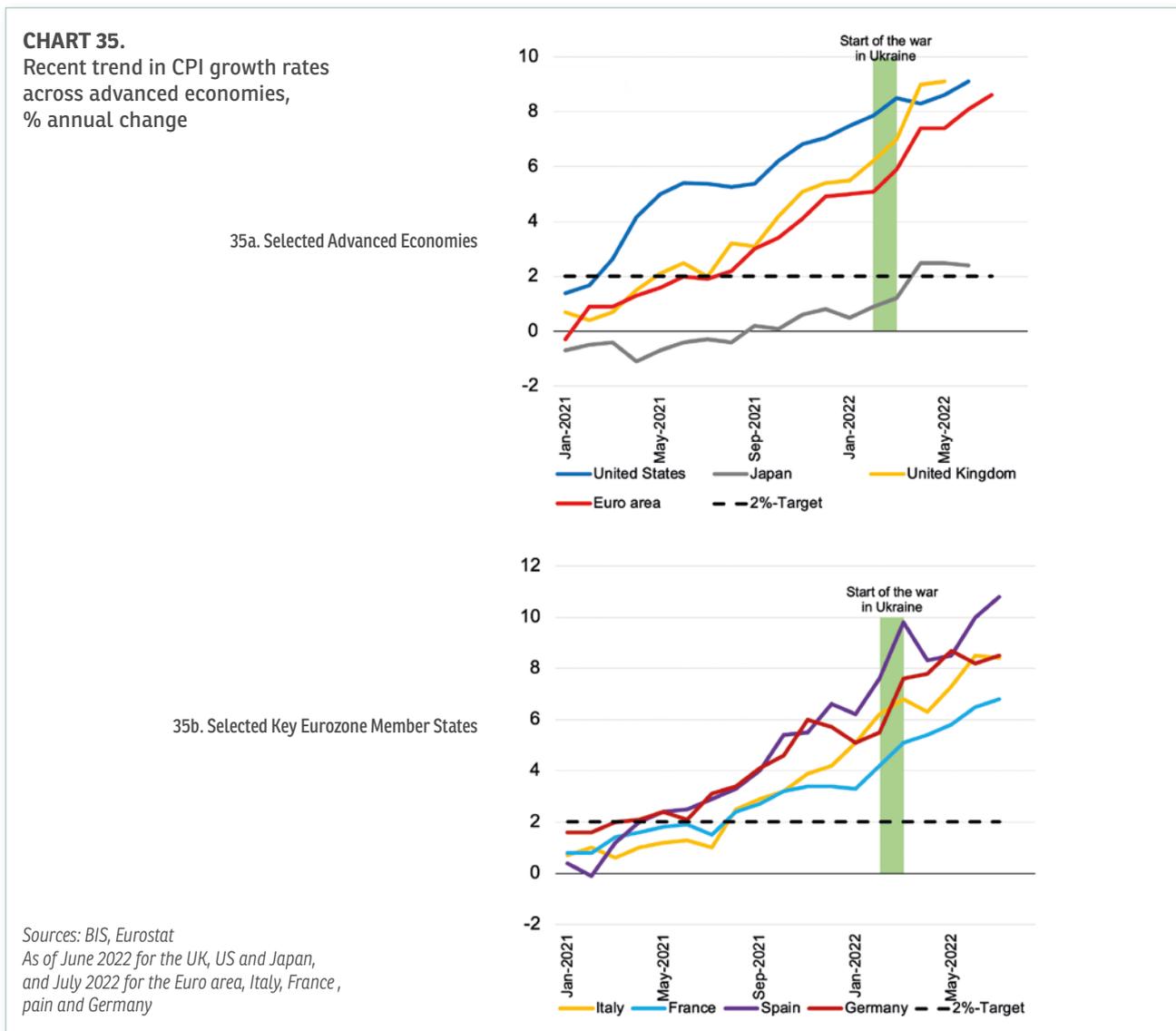
Recently, second rounds have started to materialise, as firms are passing higher input prices to final consumer prices, while workers are demanding higher wages to offset the loss of real income. These factors suggest that inflation will remain at high levels rather than decline rapidly over the next few months.

4.1.1 Even prior the war in Ukraine, inflation was already an issue

Since March 2021, consumer price index inflation (CPI) has been running above 2% in many advanced economies, and still rising by more than expected ever since. At the OECD level, inflation increased from 2.4% in March 2021, to 4% in June 2021 and 7.8% in February 2022.

In the euro area, the HICP growth rate exceeded 2% for the first time in July 2021. Since November 2021, the headline inflation has been greater than 2% in all eurozone Member States and kept rising until February 2022 (see Charts 35 below).

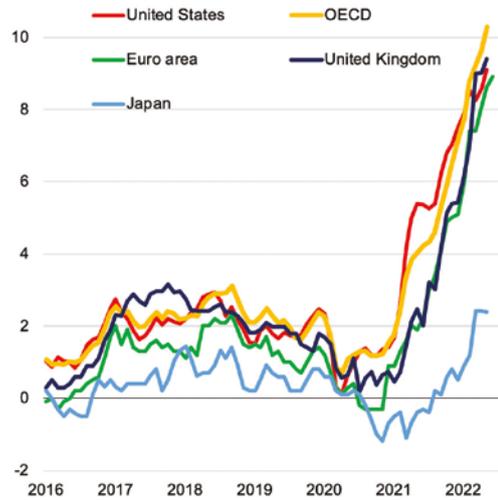
In the United States, inflation has been exceeding 2% annually since March 2021, and increased to 7.9% until February 2022.



4.1.2 The war in Ukraine has triggered a major global commodity market shock, pushing inflation to higher levels in OECD economies

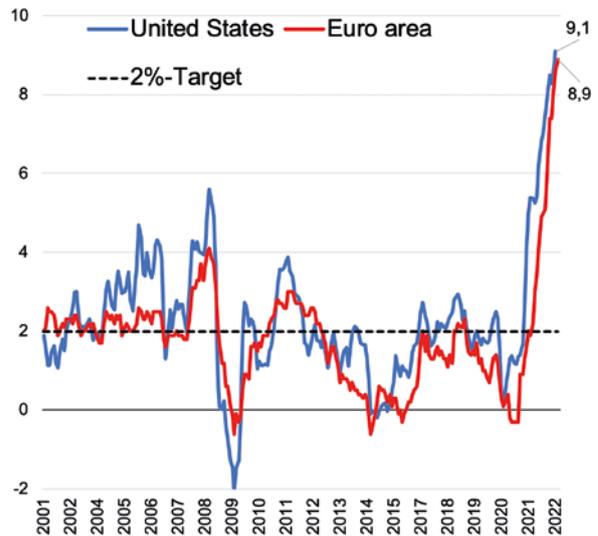
In June 2022, consumer price index in OECD economies rose by 10.3% compared to a year earlier, the highest level since 1988 (see Chart 36). About one-third of OECD countries recorded double-digit inflation. In the US, inflation hits fastest annual pace since November 1981, rising by 9.1% in June 2022 compared to a year ago. It reached 8.9% in the euro area in July, the highest level recorded since the creation of the monetary union in 1999. In the UK, inflation reached 9.4% in June 2022, a level not recorded since 1982. It has also significantly accelerated in Japan to 2.4% in June 2022, a level low by international standards but uncommon in a country that has battled deflation for decades.

CHART 36.
Consumer Price Index Growth in key advanced economies, % annual change



Sources: OECD, Eurostat
Latest data from June 2022 for the OECD, Japan, the United Kingdom, the United States, and from July 2022 for the Euro Area

CHART 37.
Consumer Price Index Growth in the United States and the Euro Area, % annual change

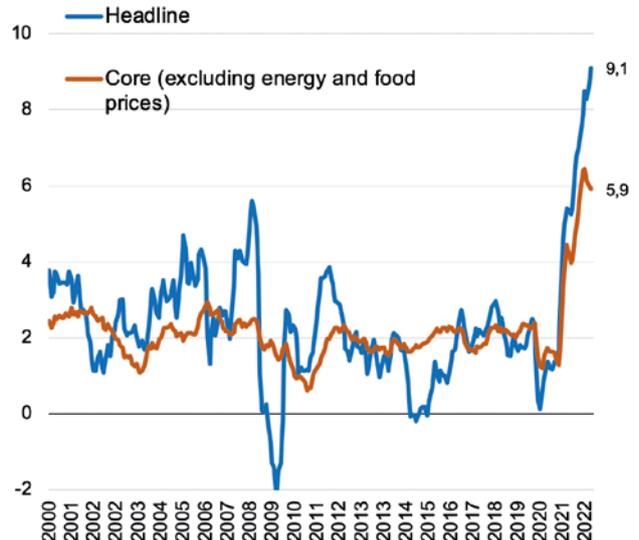


Sources: BLS, Eurostat
As of June 2022

Inflation in the United States: hitting a 41-year record-high

The **annual headline inflation** in the US has been exceeding 2% since March 2021, to gradually reach 9.1% in May June 2022, a 41-year-high record. **Core inflation** (which excludes energy and food prices) has accelerated continuously since February 2021, to reach 5.9% in June 2022, a level not seen since June 1982.

CHART 38.
Headline and Core Inflation in the United States, Year-on-year, % change

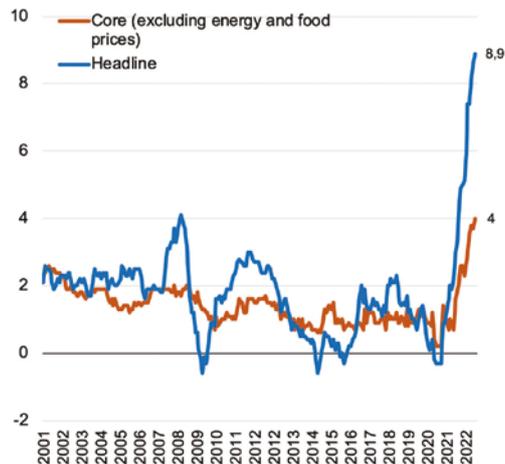


Source: US Bureau of Labor Statistics
Latest data from June 2022

Inflation in the euro area: more than four times the ECB target

In the euro area, the **Harmonized Index Consumer Prices (HICP)** growth rate has been surpassing the ECB's 2% target since May 2021 and has kept rising towards 5.1% in January 2022, a record-high since the creation of the Monetary Union. It has then jumped to 8.9% in June July 2022 (see Chart 39). But price rises are becoming more widespread across sectors. Accordingly, measures of underlying inflation have been rising further: in the euro area, the core index rose by 4% annually in July, from 3.5% in April and 2.9% in March. As of April 2022, 75% of the items in the core inflation basket recorded inflation rates above 2%. As of April 2022, 75% of those items were concerned by a strong inflation rates. On the eve of the pandemic, less than 20% of items in the core inflation basket were rising at this pace in average.

CHART 39.
Headline and Core Inflation in the Euro Area,
Year-on-year, % change



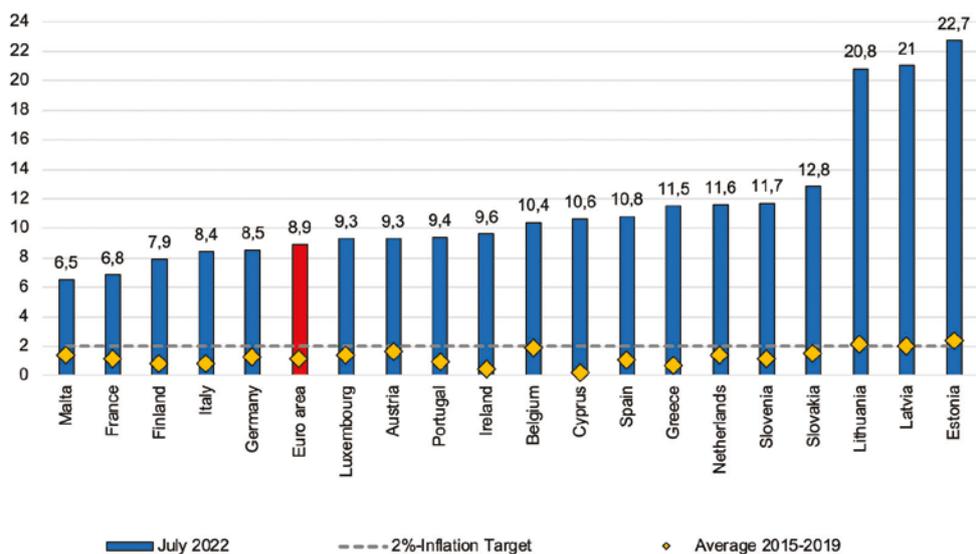
Source: Eurostat
Latest data from July 2022

There are large and unprecedented differences across eurozone Member States. In Estonia, for example, inflation stood at 22.7% in July, while the figure stood at less than 7% in Malta and France (see Chart 40).

Among the major eurozone economies, the Netherlands (11.6%), Belgium (10.4%), Germany (8.5%), Italy (8.4%) and Spain (10.8%) have registered – as of July 2022 – an inflation rate figure greater than 8%. France (6.8%) then presents a more contained dynamic of prices compared to their other key EU Member States due to the magnitude of energy-related measures taken by governments to offset the rise in energy prices⁵³.

With Spain, the Netherlands and Belgium, seven six other member Member States in the euro area registered double-digit inflation levels over the same period. These include the three Baltic countries – Estonia (22.7%), Lithuania (20.8%), Latvia (21%) – as well as – and Slovakia (12.8%), Greece (11.5%) and, Slovenia (11.7%).

CHART 40.
Headline Inflation
Across Eurozone
Member States
as of July 2022,
% annual change

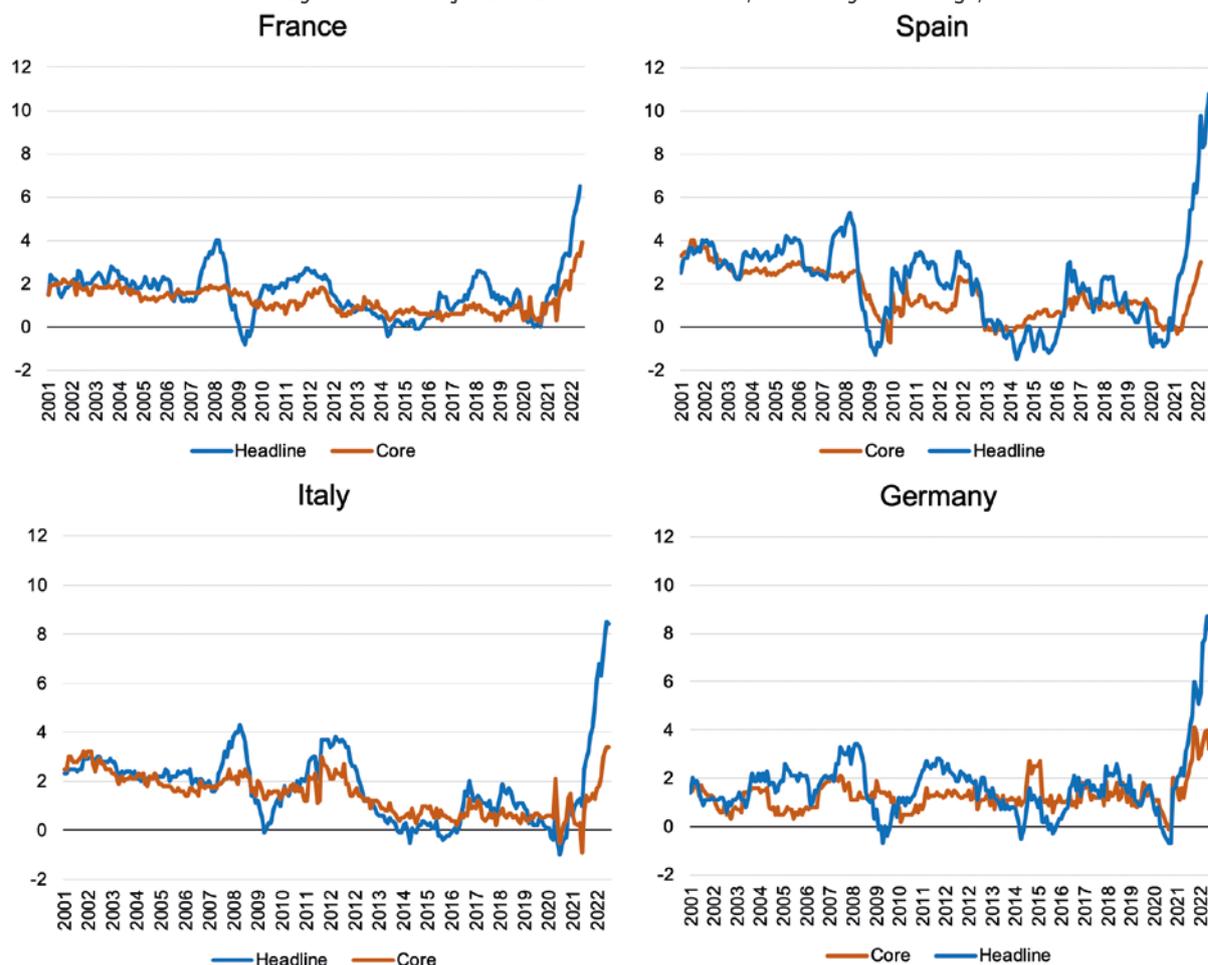


Source: Eurostat

53. Since the last quarter of 2021, the Government set up a cap on electricity and gas prices, as part of its "tariff-shield" scheme, which has been costing whose cost as EUR 47.9 bn until May 2022 is estimated to EUR 47.9 bn

CHART 41.

Headline and Core Inflation Dynamics in Major Eurozone Member States, Year-on-year change, %



Source: Eurostat, latest data from July 2022

4.1.3 The current inflation spike is driven by structural factors

Since it has been exceeding the 2% target, policymakers have mainly described the inflationary upsurge as the result of a mix of special factors that would ease in the near-term. Headline consumer price inflation has spiked around the world, in 2021, pushed up by **higher commodity prices, supply side disruptions** and **stronger consumer demand** as economies reopened.

The Russian invasion of Ukraine has intensified some of these pre-existing price pressures, putting more upward pressure on energy prices, raising the energy input costs of other products and creating additional distortions of supply chains. At the same time, China's zero-Covid policy continues to weigh on the global outlook, lowering domestic growth and disrupting global supply chains.

But the inflation problem may also be explained by monetary causes. Indeed, the **excessive monetary growth of the previous years** may have exacerbated supply chain issues by inflating overall spending and demand, reflecting a policy failure and not just "the teething problems of an economy recovering from the pandemic slump"⁵⁴.

More recently, second round effects have started to materialize in reaction to high inflation: as firms are passing higher input costs to their final prices, and workers are bargaining **higher wages** to make up for the loss of purchasing power. In the meantime, **government actions** implemented to offset the loss of households' purchasing power (tax cuts, subsidies, energy-price caps) are feeding the inflationary environment, while the **euro currency depreciation** is exacerbating "imported" inflation. These second-round effects suggest that inflation will actually continue to accelerate rather than moderate, pick up rather than fall over the coming months ahead.

The surge in energy price: a persistent driver of inflation

Energy prices are often mentioned to be a prominent driver. Indeed, the upswing in inflation primarily reflects a sharp rise in prices for fuel, gas and electricity. In January 2022, energy inflation accounted for more than two-third of headline

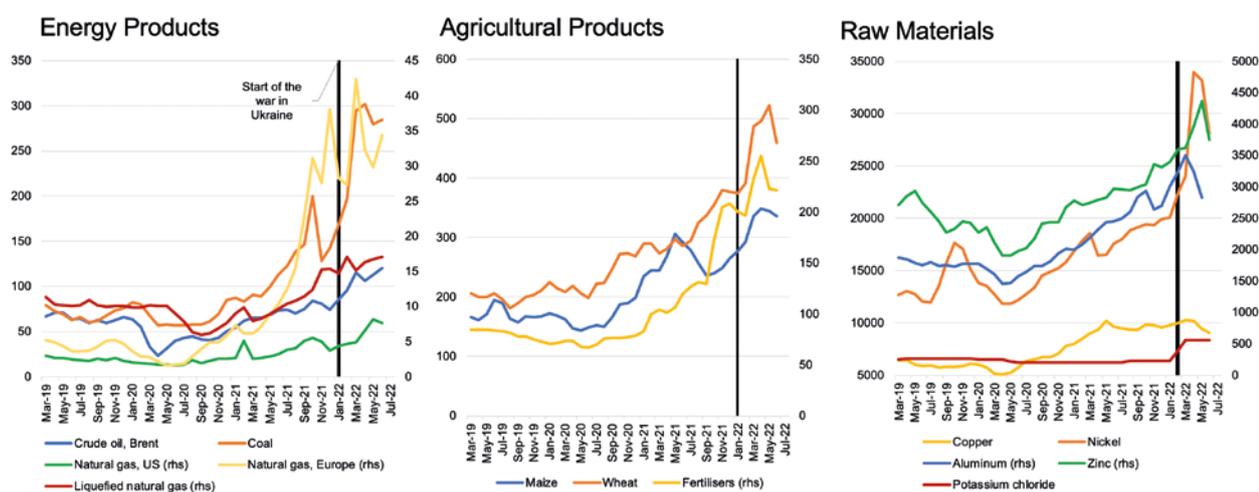
54. P. Krugman, "The year of Inflation Infamy", the New-York Times, 16 December 2021

inflation in the euro area. Energy prices in the 19 countries that share the euro rose by 28.6 % in January compared to a year earlier. According to the ECB, natural gas prices hit record highs in the region last year, driving wholesale electricity prices to EUR 196 per megawatt hour in November – nearly quadrupling the average pre-pandemic levels.

The Russian invasion of Ukraine has added to the pre-existing price pressures, both directly and indirectly. As far as the direct effects on price dynamics are concerned, the war is first of all putting more upward pressure on energy prices. Oil and gas prices have reached exceptionally high levels and could rise even further. Because Russia is a major supplier of oil, gas, and metals, and together with Ukraine, of wheat and corn, the current and anticipated decline in the supply of these commodities has already sharply driven their prices up. Russia and Ukraine have in recent years accounted for about one quarter of global exports of wheat. Since the start of the war, exports from Ukraine have been halted due to closures of all Ukrainian ports on the Black Sea, which account for about 90% of Ukraine’s wheat exports, according to the World Bank.

This has also driven up inflation indirectly by raising the energy input costs of other products. Indeed, the prices of several other commodities are being affected as well: Nickel, palladium, noble gases, fertilisers and food products, (in particular grain), have become, at least in the meantime, notably more expensive.

CHART 42.
Selected Commodities Price Data, Nominal USD



Source: World Bank

Notes: all commodities are denominated in dollar, except for fertilisers which are indexed by the World Bank (2010=100) based on their nominal US dollars prices; Crude oil (Brent) and Coal are expressed as \$/bbl; Natural Gas (Europa & US) and liquefied natural gas prices are expressed in \$/mmbtu; all food and metals prices are expressed in \$/mt
Last data from June 2022

According to the World Bank⁵⁵, total changes in nominal prices during the 23-months period spreading from April 2020 to March 2022, resulted in the largest increase in energy prices since the 1973 oil price spike. The recent price surge for food and fertilisers was the third-largest (after 1974 and 2008).

The spike in energy prices should be more painful in Europe than in the United States, for two reasons. The first would be that energy accounts for a greater share of the household’s consumption basket in Europe (10.9%) compared to in the US (7%). Accordingly, any increase in energy prices will lead to a greater contribution of this component to the eurozone inflation. The second reason would be that Europe is more exposed than the US to energy imports disruptions from Russia. Indeed, Russia is the EU’s largest supplier of oil, coal and gas: 27%, 47% and 41% of imports, respectively, according to Eurostat data. This exposure could add 1 to 1.5 percentage points to euro area inflation rate, according to Blackrock⁵⁶.

Within metals products, Russia accounted for one-quarter of global palladium exports in 2020. According to the OECD, this material is important for many green energy technologies. Its catalytic properties make palladium a central input for the production of emission-control systems in vehicles, with car manufacturers using it to remove toxic emissions from exhaust fumes. Global exports of nickel are also highly impacted as Russia together with Ukraine account for one-third of the world export market. Nickel is notably used in the production of batteries powering electric vehicles.

55. Commodity Markets Outlook April 2022 (worldbank.org)

56. Blackrock Institutes, “Taking stock of the energy shock”, Macro and market perspectives - March 2022

The green transition should structurally drive inflation to higher figures. Previously, when oil prices were going up, shale oil producers quickly increased their levels of production, which put downward pressure on prices. That is not happening to the same degree now. I. Schnabel's insight⁵⁷ was that "this can probably be explained by the fact that, owing to the green transition, there is less incentive to invest in shale oil facilities. [...] If that is true, we are perhaps going to see stronger upward trends in oil prices in the future". She added that as the shift in the energy mix towards cheaper and less carbon-intensive fuels will take time, a rising carbon price, higher tax rates across a range of fossil fuels, and relatively inelastic energy demand may lead to continuous upward pressure on consumer prices in the transition period.

The green transition and the increasing use of electricity should also lead to a rise in energy prices because the cost of producing renewable energy is higher than the cost of producing thermal energy, amortised capital is replaced by new unamortised capital which leads to an increase of the cost of capital and due to electricity storage costs. In addition, the equipment needed for the energy transition (wind turbines, hydrolysers, electric batteries, electricity grids) uses important quantities of metal whose prices are bound to rise sharply: copper and nickel, cobalt and lithium. All these factors should drive companies to increase their selling prices.

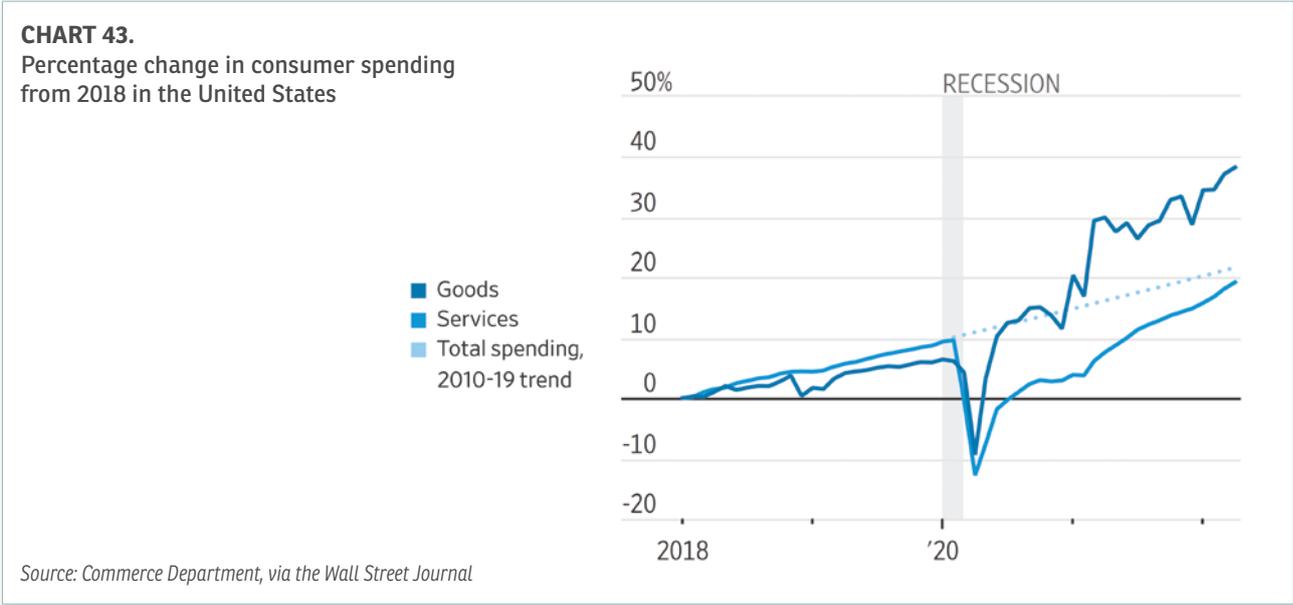
Lasting supply chain bottlenecks and supply and demand imbalances have continued to contribute to elevated levels of inflation

Bottlenecks started as supply disruptions due to the Covid shock in 2020. Supply chain bottlenecks – disrupted chains of international production, weakening of globalisation, equipment inefficiencies at ports and loading stations – cause delays and higher costs for manufacturers, pushing up the price of many consumer goods. They have now morphed into something more persistent.

Moreover, the shift in consumer spending patterns on the aggregate demand side has increased the prices of goods at the expense of services (see Chart 43). By spring 2021, goods accounted for 42% of household spending in America, up from 36% before the pandemic, while services accounted for 58%, down from 64%. Other 22 OECD countries experienced this shift as well, albeit less salient than in the US: on average, they spent about 5% more on goods in 2021, than pre-pandemic trends would have suggested, compared with 10% in America.

With many people staying at home during lockdowns to shelter from the pandemic and unable to spend on travel, restaurants and entertainment away from home, orders for deliverable goods or durables purchased online have increased massively. Resulting from a highly internationalised production process, durable goods cannot be delivered in time because of multiple shortages of intermediate goods and commodities and supply chain disruptions. Induced bottlenecks have increased the price of inputs, crippled manufacturing industries as automobile and so impeded producers to serve strong demand.

The war in Ukraine is distorting various supply chains, as both Russia and Ukraine produce a number of goods needed in retail trade and at upstream stages of production. Shortages of key materials and longer delivery times have led to production stoppages in many plants, especially in industrial-based economies, such as Germany. Also, the worsening of the course of the Covid pandemic recently observed in China and the severity of the containment measures adopted by the Chinese authorities are influencing both maritime transport and manufacturing production. The extension of the Chinese "zero-COVID" strategy contributes to more shortages of microchips and other electronical components globally, necessary to the industrial production.



57. I. Schnabel, Interview with Le Monde, published on 22 December 2021

Demand continues to outpace constrained supply in certain sectors. But the robust growth in aggregate demand driven by excessive monetary and fiscal stimulus has also been a primary source of inflation.

Effects of the current abundance of money creation on inflation in a context of low growth

The current period of high inflation has been coinciding with a substantial increase in the quantity of money emanating from aggressive central banks' interventions since March 2020. In all of the US, the eurozone, the UK, Australia and Canada, the annual growth rate of broadly-defined money is in double digits, far ahead of the average in the last 25 years (see part 3).

This coincidence may be reviving the monetarist view, considering "inflation [as] always and everywhere a monetary phenomenon" in the sense that it is and can be produced only by a more rapid increase in the quantity of money than in output.

Over the past two years, massive purchases of government securities by Central Banks provided the main source of M3 growth in major advanced economies. Faced with a collapse in economic activity, governments launched huge fiscal packages, including transfers to households and companies, particularly through job retention schemes, business subsidies and social benefits, as well as tax deferrals. Issuance of government securities hence served to finance direct transfers to households and non-financial corporations, thus increasing their deposits.

In the euro area, the deposits of these two categories of agents, which accounted for 70% of the increase in M3 in 2020, thus rose by EUR 1 125 bn, compared with an average annual increase of EUR 407 billion from 2015 to 2019, which equates to additional deposits of around EUR 700 bn, according to the Banque de France⁵⁸.

The surge has been sharper in the US. The Treasury Department issued USD 4.6 tn of government securities in 2020. This amount increased further after the inauguration of Joe Biden as the President of the US. In January 2021, he agreed on a USD 1.9 tn plan, which included USD 350 bn in aid for state and local governments, USD 300 a week in extra unemployment benefits, USD 1 400 relief checks, an addition to USD 600 passed by Congress in December. For 2020, US households received around USD 1 133 bn in additional net transfers (direct cheques, unemployment benefits, food stamps, tax reductions).

When the global economy reopened in 2021, households were then able to draw on the large excess savings accumulated during the pandemic to increase their consumption. In the first quarter of 2022, total spending by consumers was nearly 5% above its prepandemic trend in the US.

In a recent paper⁵⁹, M. King noted that money has disappeared from modern models of inflation and explained that it would be a mistake to pretend that money has nothing to do with inflation and to believe that monetary stimulus is an appropriate response to all economic problems.

This view is supported by T. Congdon⁶⁰, who blamed "the present New Keynesian hegemony in central bank research, [which] focuses on the balance between aggregate demand and supply. With interest rates so low that they cannot go much lower, these Keynesian categories do not help in the calibration of monetary policy".

When monetary policy is too tight, it slows aggregate demand. When monetary policy is too loose, it damages aggregate supply. The amount of "excess money" resulting from a mix of highly expansionary fiscal and monetary policies may have led inflation to be a monetary phenomenon. If this is true, the inertia of central banks in withdrawing extraordinary policy would be the proximate cause of surging prices.

According to K. Warsh⁶¹, "inflation is a choice, for which the Fed is chiefly responsible. The risk of inflation spiral arises when policy makers first dismiss the problem and then cast blame elsewhere. Inflation becomes embedded in the price formation process when the central bank acts belatedly or with insufficient conviction. To date, the Fed has acted as an enabler".

While inflation has been mostly visible in the prices of financial assets and real estate over the past decade, it is now shifting towards the prices of goods and services. And the excess quantity of money – the amount of money that exceeds the real needs of economic agents – may have had a major role in this dynamic. In other words, the continuous rise in money growth seen during the previous decade may have paved the way for a future surge in prices, either on financial and real estate's ones, or in goods and services. "Common sense suggests that when too much money is chasing too few goods the result is inflation".

This view is notably shouldered by Steve H. Hanke and John Greenwood⁶², saying that "the magnitude of price increase is a function of the amount of excess broad money that has been created during the past 18 months". And the worse is yet to come, alert the authors: given the typical two-year lag in effect between accelerations in the rate of monetary growth and the emergence of higher inflation, some countries with huge amount of excess money are likely to see increases in their overall price levels over the next 2-3 years. Considering the United States, the quantity of broad money supply (M3) increased by 41% between February 2020 and May 2022 in the United States resulting in an excess quantity of money to be 30% above its pre-pandemic level. As of July 2022, Hanke expected⁶³ this excess of money to further boost inflation, which "cannot be

58. A. Penalver et al, "The increase in the money supply during the Covid crisis: analysis and implications", Banque de France Bulletin no. 239 (February 2022)

59. Mervin King, "Monetary policy is a world of radical uncertainty", Institute of International Monetary research annual Public lecture (November 2021)

60. Tim Congdon, "Let's revive the seventies habit of targeting the money supply" Financial Times (March 2021)

61. K. Warsh, "The Fed is the main culprit", Wall Street Journal (December 2021)

62. J. Greenwood and S. H. Hanke, "On monetary growth and inflation in leading economies, 2021-2022: relative prices and the overall price level", Studies in Applied Economics (November 2021)

63. S. Hanke, "Hot 6-7% Inflation To Run Through The End Of 2023?", Interview conducted by Wealthion (June 2022)

lower than” 7% in December 2023 in the United States. And, even if the Fed managed “to reduce the annual growth rate of broad money by 5%, the excess quantity of money will take a couple of year to fully drain out of the tub”, he warned.

Two other additional factors are likely to worsen inflationary pressures: accommodative fiscal policy, as well as the depreciation of the euro currency.

- **The energy-related measures taken by governments to offset the loss of households purchasing power.**

Purchasing power in the euro zone is now being stimulated by public transfer payments, and therefore by fiscal deficits in many EU Member states. All measures to stimulate purchasing power – such as tax cuts, fiscal transfers or the freezing of energy prices – are inflationary, because they stimulate demand for goods and services at a time when the supply of goods and services is declining.

- **The depreciation of the euro currency – mainly driven by the divergence between the Fed the ECB’s monetary policy – has contributed to the sharp rise in import prices** (this point will be detailed in the next section).

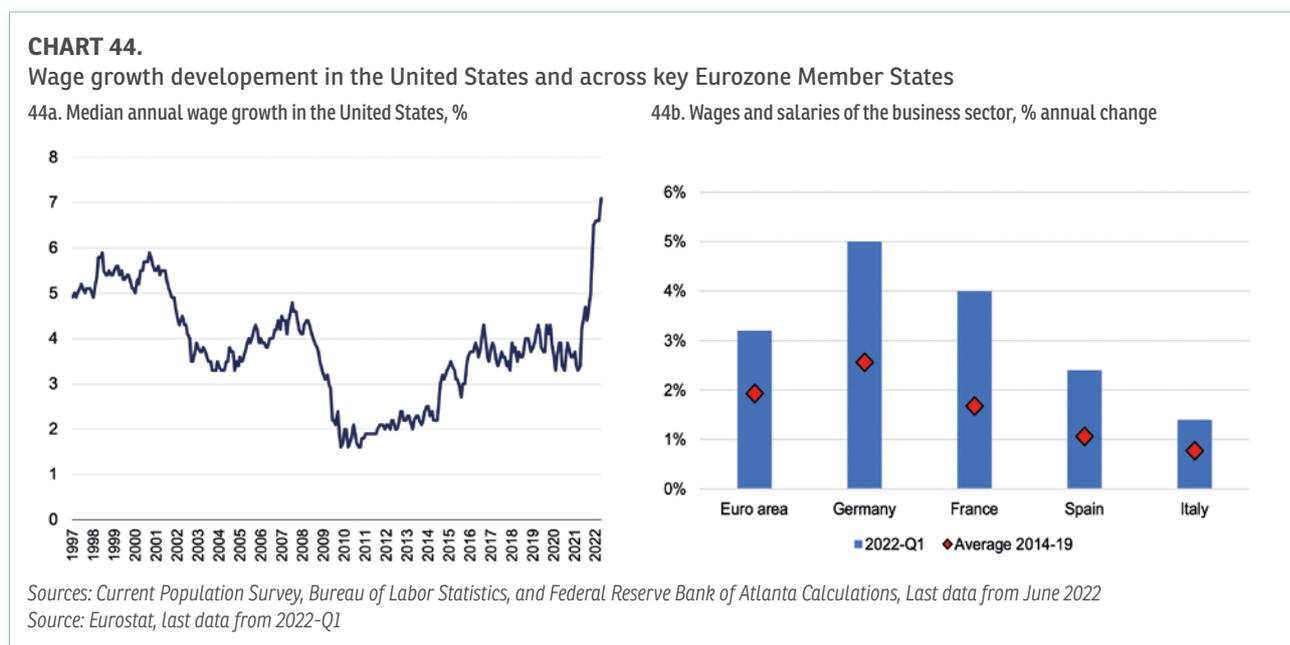
4.1.4 The indexation of wage to prices is a key determinant of the course of inflation

A key concern for the future path of inflation lies in the labour market tightness in several major advanced economies (AEs) and the prospects of rising wages. It is rational to believe that wage-earners will react to higher prices. J. de Larosière and D. Marsh⁶⁴ explained that “[i]f wages react like this, enterprises will feel free to increase their prices accordingly. Having been price-takers in a hyper-competitive environment, they become price-makers with a tendency to maximise profits. In theory, if inflation abates, price adjustments and indexation should disappear. But experience shows that it takes a long time to get rid of indexation, because it becomes a habit and even a social right”.

Wages have increased significantly in the US, and started to pick up in Europe since the start of 2022

In the first quarter of 2022, nominal wages and salaries of US workers in the private sector have risen by 6.7% compared with the same quarter of the previous year, a record-high number in a decade, according to the Bureau of Labour Statistics. An alternative measure of wages dynamic provided by the Fed of Atlanta indicates that private wages have risen by 7.1% in June 2022, compared to a year ago (see Chart 44.a).

In the euro area, hourly wages rose by 3.2% in 2022-Q1 compared to a year earlier according to Eurostat, a level much more elevated than the average yearly growth of 1.9% recorded between 2014 and 2019 (see Chart 44.b). Compared to a year earlier, wages have risen by 5% in Germany, and 4% in France notably.



In response to high inflation, employees are demanding higher compensations to stabilise their real purchasing power, that is being deteriorated by soaring prices.

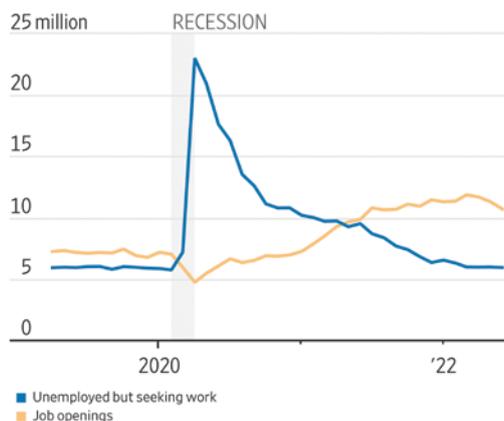
This situation is exacerbated in the context of labour shortages, a problem that many firms have reported across major advanced economies. When the crisis hit in March 2020, many workers lost their job but never returned to the labour market since. The persistence of staff shortages contributed to widen the gap between jobs opening and jobs seekers. As of March 2022, there was nearly two job openings for every unemployed worker in the US, the most since 1950, when data were first collected (see Chart 45.a).

64. J. de Larosière & D. Marsh, “ECB should follow Fed and tighten policy”, OMFIF, 7 December 2021

In Europe, the labour market has continued to improve, with unemployment remaining at its historical low of 6.8% in April. Many firms are reporting staff shortages across Member States, and the vacancy rate⁶⁵ increased to reach 2.9% in 2022-Q1 in the euro area according to Eurostat, the highest since data were first collected in 2006 (see Chart 45.b). Job vacancies across many sectors show that there is robust demand for labour.

CHART 45.
Labour Market Tightness across advanced economies

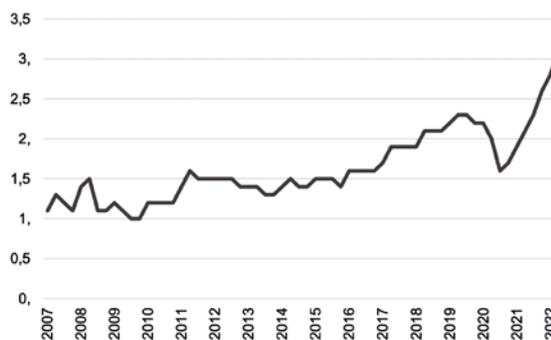
45a. Job openings versus job seekers in the United States, millions person



Sources: Labor Department via the Wall Street Journal

45b. Job vacancy rate in the Eurozone

Proportion of vacant positions as a share of total jobs (filled and unfilled), %



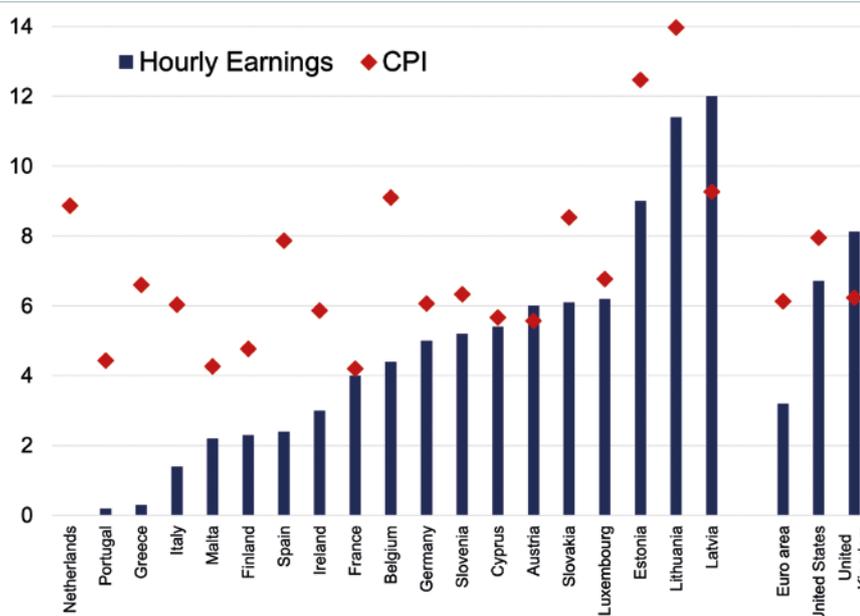
Source: Eurostat, as of 2022-Q1

Such mismatch between labour demand and supply should enhance employees' bargaining power when demanding wages increases sufficiently high enough to account for rising living costs.

However, wages have so far risen by less than prices, both in the US and the euro area, pushing real compensation growth to fall into negative territories.

As of 2022-Q1, the annual hourly wage growth adjusted for CPI was -1.2% in the US and -2.9% in the eurozone (see Chart 46). The pain is being felt across the region: real wages fell by 1.1% in Germany, and by 0.2% in France. Spain, Italy and the Netherlands suffered the most, with their real wage's growth falling by respectively 5.5%, 4.7% and 8.9% as of 2022-Q1 (see Chart 47).

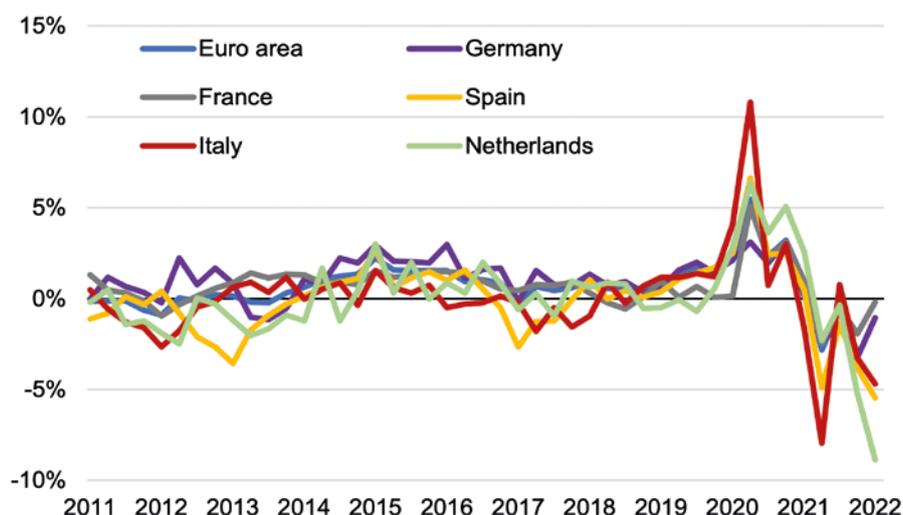
CHART 46.
Nominal Hourly Earnings versus CPI annual growth (%) in selected countries, as of 2022-Q1



Sources: OECD, Eurostat

65. A job vacancy is defined as a paid post that is newly created, unoccupied, or about to become vacant. The job vacancy rate hence measures the proportion of total posts that are vacant, according to Eurostat (see <https://ec.europa.eu/eurostat/web/labour-market/job-vacancies>)

CHART 47.
Nominal Hourly wages and salaries adjusted for CPI across key Eurozone Member states, annual % change



Sources: OECD, Eurostat
Latest data from 2022-Q1

A key reason behind the sluggish pace of wages growth is that wages are imperfectly indexed to prices. According to the ECB⁶⁶, only around 3% of private sector employees in the euro area have their wages and minimum wages automatically indexed to inflation. It also underlines that, since the Great Financial Crisis, indexation regimes with a formal role for inflation in wage setting have become less prevalent.

Worldwide, institutional changes, such as the decline of workers' unionisation, also hint at an environment less conducive to wage-price spirals than in the past, according to a study from the BIS⁶⁷. At the OECD level, union membership – the share of employees affiliated to a trade union – had fallen from 38 % in 1973, to 16% in 2019.

Still, recent developments in minimum wage and wage negotiations across the EU Member States should be a cause for concern.

A significant increase of wages seems unavoidable

With the current surge in inflation having resulted in a sharp and unanticipated decline in real wages, attempts to recoup these losses can be expected in wage bargains. Also, as highlighted above, Companies' major hiring difficulties have strengthened the bargaining power of employees and unions. Wage growth has started to pick up in the euro area, with area-wide negotiated wages rising by 2.8% over the year to the first quarter of 2022, according to the OECD.

In the face of higher inflation, employees and trade unions are demanding major wage increases across the eurozone countries. In **Germany**, the trade union of the iron and steel industry (IG Metall), for example, is pushing for a wage increase of 8.2% for the country's 85,000 steelworkers. From October 1, the gross minimum wage will be raised to EUR 12 per hour, from EUR 10. **France's** minimum wage has risen three times since October 2021 for a total increase of 5.9%, but unions including the leftwing CGT, which represents over 700 000 workers, want it to go up by another 20% to EUR 2,000 per month⁶⁸. FNV, the largest **Dutch** union, which has almost 1 million members, has requested the government to increase the minimum wage from EUR 10 to EUR 14 per hour and is pushing all companies to increase pay by EUR 100 per month for all workers to offset the rising cost of living. In Spain, a survey conducted by the Central Bank suggests that half of collective bargaining deals for 2023 contains "indexation clauses"⁶⁹.

As underlined by A. Carstens⁷⁰, "When inflation starts affecting the "cost of living" in a broad sense, it is more likely to take centre stage in price- and wage-setting decisions. This could trigger a dangerous wage-price spiral".

Despite mounting evidences that workers are starting to bargain higher wages across European countries, the ECB expects compensation per employee to grow by 4.2% in 2022 and 4.3% in 2023⁷¹, i.e. the same as in 2021. These forecasts suggest that wages would therefore not react to the acceleration of inflation, which means that the burden of the inflationary shock will be entirely borne by wage earners. Given the context, these assumptions already seem questionable.

66. G. Koester and H. Grapow, "The prevalence of private sector wage indexation in the euro area and its potential role for the impact of inflation on wages", ECB Economic Bulletin (October 2021)

67. F. Boissay et al, "Are major advanced economies on the verge of a wage-price spiral?" BIS Bulletin No 53 (May 2022)

68. From EUR 1645, as of May 2022

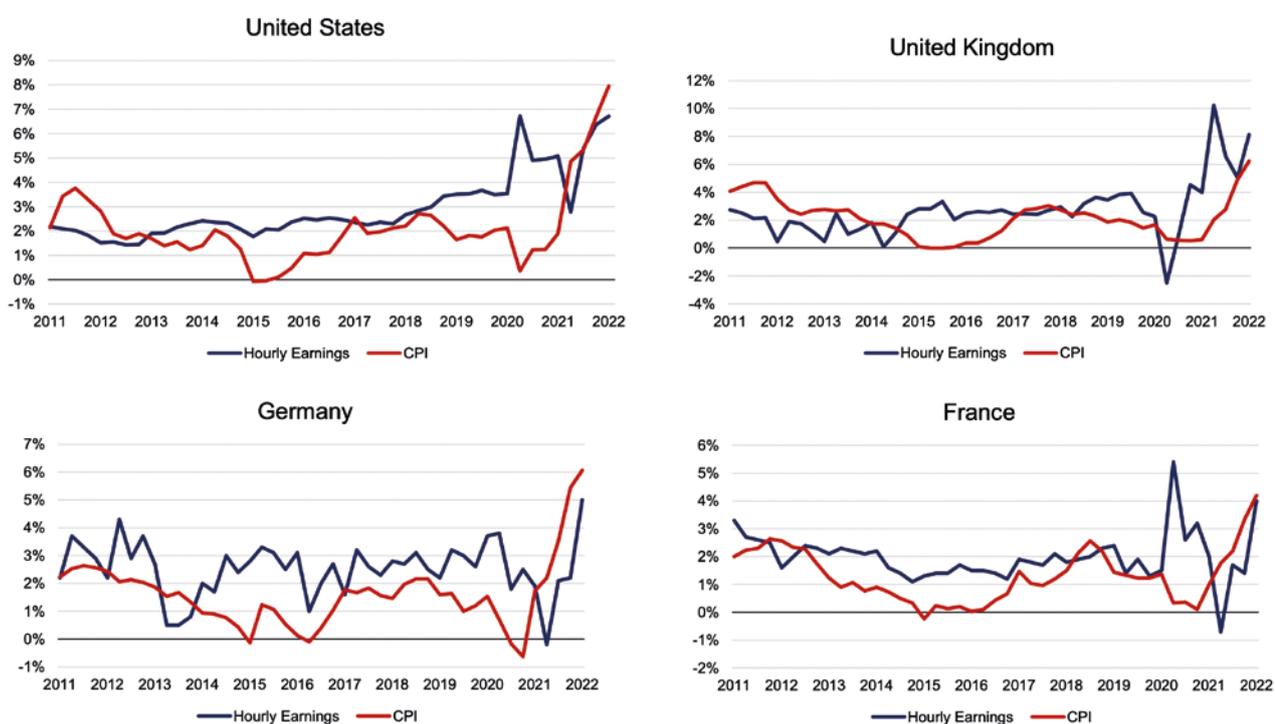
69. P. Hernández de Cos, "The case for an incomes agreement in Spain?", Speech (April 2022)

70. A. Carstens, "The return of inflation", Speech International Center for Monetary and Banking Studies (April 2022)

71. See "Eurosysteem staff macroeconomic projections for the euro area", (June 2022)

CHART 48.

Nominal Hourly Earnings versus CPI annual growth (%) in selected advanced countries, quarterly data



Sources: OECD, Eurostat
Last data 2022-Q1

4.2 Normalisation process as of end-July 2022: state of play

To varying degrees the Federal Reserve, the European Central Bank and the Bank of England are exiting their ultra-expansive monetary policies.

Globally, 75 central banks – or about three-quarters of the central banks tracked by the IMF⁷² – have raised interest rates between July 2021 and July 2022. However, neither the ECB nor the Bank of Japan, were part of this group under this period. Monetary policies and financial conditions remain clearly expansionary so far. Indeed, real interest rates remain deeply negative in advanced economies.

Central banks have been slow to respond to rising inflation. Initially, many attempted to “look through” what they considered to be “transitory” higher inflation: while inflation already exceeded 2% in April 2021 in several advanced economies, Central Banks only began to exit their monetary stimulus at the end of the year, first by ending net asset purchases and, in most cases, by raising official rates.

The Bank of England was the first among the G7 countries to raise its key rates, in December 2021. Later in March 2022, the Federal Reserve followed by lifting the Fed Funds rate, after ending its asset purchase program. Since June 2022, it has started to reduce the size of its balance sheet. The European Central Bank, for its part, has raised its rates later than the Fed and the BoE. The Bank of Japan remains an exception, maintaining its highly accommodative stance.

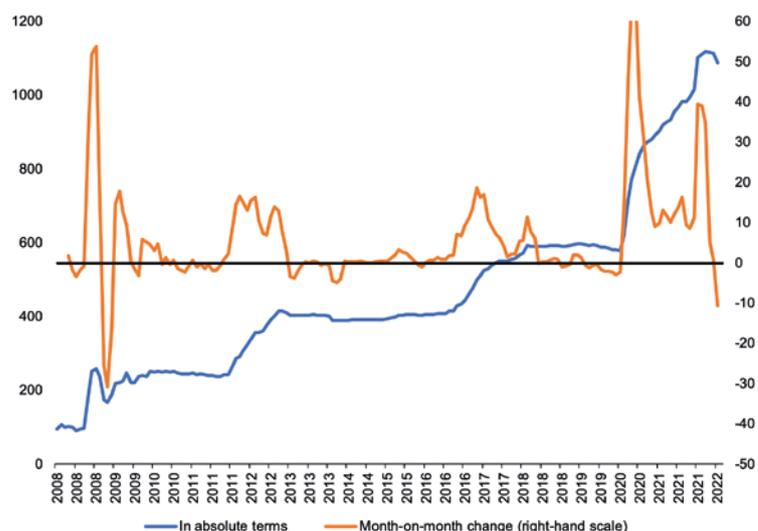
The Bank of England raised its policy rate for the fourth time in May, since the start of the pandemic, and projects to sell UK governments bonds

The BoE has been the first major Central Bank among G7 economies to start raising rates since the pandemic began. In December 2021, it lifted the Bank Rate, from 0.1% to 0.25%. Since then, it has been raised three times, each time by 25 basis points, to reach 1.25% in June 2022. The action comes while the twelve-month headline CPI inflation rose to 7% in March, around 1 percentage point higher than expected in the February Report and reached 9% in April 2022. According to the BoE’s forecasts of May 2022, CPI inflation is expected to peak at 10% in 2022 Q4.

Given the magnitude of the inflationary shock, most members of the Committee judged “that some degree of further tightening in monetary policy may still be appropriate in the coming months”. As the Bank Rate is now being increased to 1.25%, the Committee will consider beginning the process of selling UK government bonds held in the Asset Purchase Facility. In February 2022, the Bank already voted unanimously not to reinvest any of the £875 bn of government bonds; half of it (£440 bn) was bought during the pandemic.

72. K. Georgieva, “Facing a Darkening Economic Outlook: How the G20 Can Respond”, Speech IMF (July 2022)

CHART 49.
Bank of England's total assets bn GBP



Source: Bank of England
Last data from June 2022

The Federal Reserve cumulatively raised the federal Funds rate to 1.65%, from the bottom range between March and June, and started shrinking its balance sheet since June.

In November 2021, Jay Powell stopped considering inflation as a “transitory” phenomenon. This view, shared by many FOMC Members, justified the pursuit of a loosening monetary policy: between December 2020 and November 2021, the Fed continued to purchase US Treasuries and Mortgage-Backed Securities at a monthly pace of USD 120 bn, and left the federal funds rate unchanged at their bottom range.

From **December 2021**, the Fed gradually reduced the pace of net asset purchases, which fully ended in March 2022.

In March 2022, the Committee raised the federal funds rate by 25 basis points, for the first time since 2019, and officially ended the purchases of public and private securities.

In May 2022, the Fed Funds rate was increased again by 50 basis points. In addition to rate hike, Powell announced it would start shrinking the Fed’s balance sheet, a process known as “Quantitative Tightening” in June 2022.

At its **June meeting**, the Fed raised the federal funds rate by 75 basis points, lifting the federal funds rate target range to 1.5-1.75%. It also raised the median projection for the appropriate level of the federal funds to 3.4% at the end of 2022, 1.5 percentage points higher than projected in March.

In July 2022, the FOMC Members decided unanimously to raise the target range for the federal funds rate to 2,25% to 2,5%, *i.e.*, an increase of 75 basis points. At this meeting, Chair Powell signaled that “ongoing increases will be appropriate”, although “it will likely become appropriate to slow the pace of increases while we assess how our cumulative policy adjustments are affecting the economy and inflation”. According to the latest projections of the FOMC Members, the federal funds rate should be close to 3-3.5% by the end of 2022.

As announced in May, the Fed officially started to reduce the size of its balance sheet since 1 June 2022, under the Quantitative Tightening. As a result of its asset purchase program schemes put in place to ease monetary conditions during the pandemic, the Fed holds USD 5.8 tn worth of US Treasuries, a quarter of the government debt. It also holds USD 2.7 tn worth of mortgage-backed securities.

According to the policy statement released in May 2022⁷³, the Fed’s balance sheet reduction is being conducted in two steps. From June to September, the Fed allows up to USD 30 bn in Treasuries bonds and USD 17.5 bn in mortgage-backed securities (MBS) to mature every month without investing the principal payment. Beginning in September, the Fed plans to raise this cap to USD 95 bn per month (USD 60 bn in Treasuries and USD 35 bn in MBS).

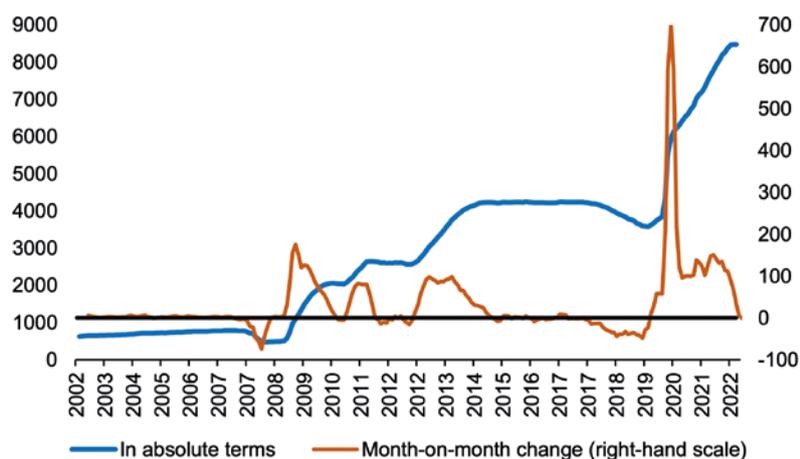
According Caixa Bank⁷⁴, the pace of the reduction is much more aggressive than during the previous tightening cycles: in 2017, the Fed set a monthly cap of USD 50 bn, although in practice the initial pace was closer to USD 10 bn.

Accordingly, the balance sheet is projected to shrink faster this time. The Fed already conducted such an operation by the past: between February 2017 and September 2019, when close to USD 613 bn of private and public securities were sold or not reinvested in 2017. The Fed’s balance-sheet should then drop by more than USD 1 tn over the next year given the pace indicated by Chair Powell. The Central Bank is shrinking its holding passively.

73. “Plans for Reducing the Size of the Federal Reserve’s Balance Sheet”, Federal Reserve issues (04 May 2022)

74. A. Montilla, R. Gili, “On the reduction of the central banks’ balance sheets” Caixa Bank Monthly Report No.468 (June 2022)

CHART 50.
Federal Reserve securities holding,
bn USD



Source: Federal Reserve
Last data from June 2022

The European Central Bank pursued its asset purchase program until 1 July 2022 and raised its key policy rate by 50 bps thereafter.

In December 2021, the ECB Governing Council was still considering that “monetary accommodation [was] needed for inflation to stabilise at the 2% inflation target over the medium-term”. This stance justified the pursuit of the bond-buying programs and the unchanged level of key interest rates. Between December 2021 and March 2022, net monthly purchases under the pandemic-scheme PEPP and the APP averaged EUR 60 bn, while the deposit facility rate was still negative, at -0.5%, since September 2019.

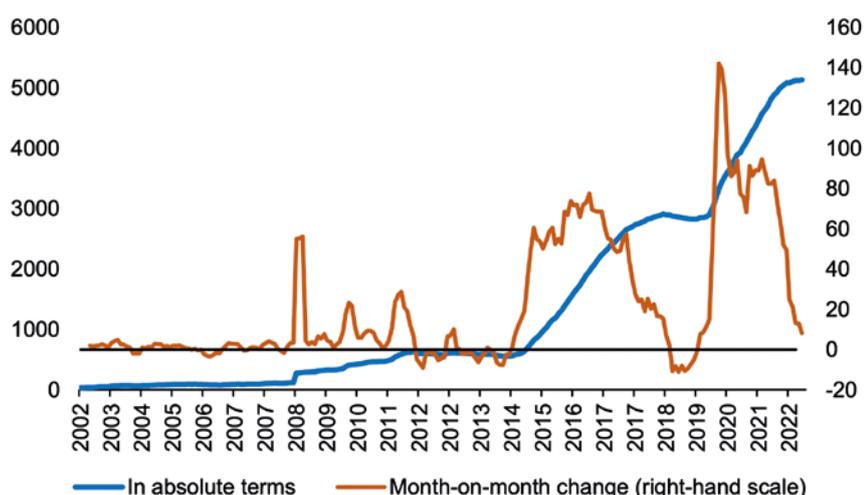
At the end of March 2022, the Governing Council discontinued net purchases under the PEPP, although it plans to reinvest the principal payments from maturing securities purchased under the programme “until at least the end of 2024”. According to C. Lagarde, the reinvestment package totals EUR 1.7 tn. In the meantime, it continued purchasing governments and private securities under the initial APP, at a monthly net purchase pace of EUR 40 bn in April, EUR 30 bn in May and EUR 20 bn in June.

In June 2022, it decided to end net asset purchases under the APP by 1 July 2022, but intends to continue reinvesting, in full, the principal payments from maturing securities purchased under the APP “for an extended period of time”.

In July 2022, the Governing Council decided to raise the three key ECB interest rates by 50 basis points, – the first hike since July 2011 – to exit its negative interest rate policy in place since 2014. According to the statement⁷⁵, “further normalisation of interest rates will be appropriate”.

It also approved the establishment of the Transmission Protection Instrument (TPI), a new tool designed to support the effective transmission of monetary policy across all euro area countries. Indeed, it “can be activated to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across the euro area”⁷⁶.

CHART 51.
European Central Bank securities
holding, bn EUR



Source: ECB
Last data from June 2022

75. “Monetary policy decisions”, ECB (21 July 2022)

76. TPI purchases would be focused on public sector securities (marketable debt securities issued by central and regional governments as well as agencies, as defined by the ECB) with a remaining maturity of between one and ten years. Purchases of private sector securities could be considered, if appropriate

Signs of monetary policy normalisation also take place at a more advanced stage in other developed and emerging market economies (see Chart 52).

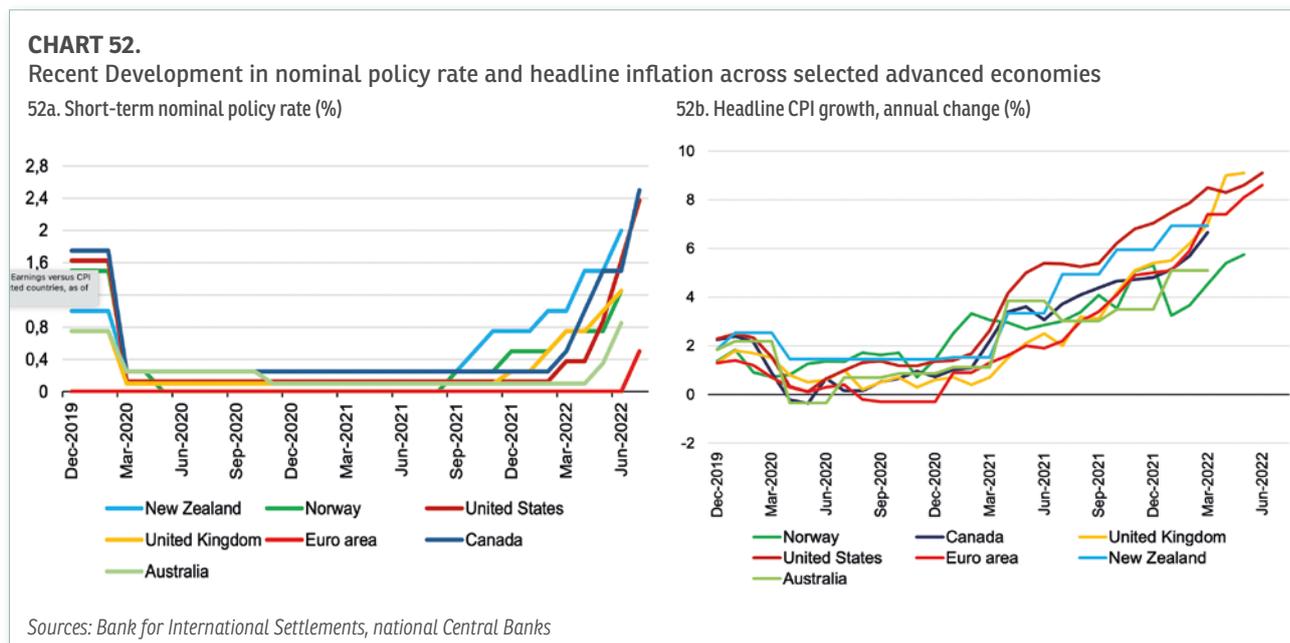
In December 2021, the Committee of **the Norway's Central Bank** has unanimously decided to raise the policy rate from 0.25% to 0.5%. Another 25-basis point-hike was decided in March, bringing the policy rate to 0.75%. In June, it has been raised further by 50 basis points, to 1.25%, as "prospects for a more prolonged period of high inflation suggest a faster rise in the policy rate than projected earlier" according to the Governor Ida Wolden Bache. At its June meeting the Committee underlined the "need for a sharper tightening of monetary policy" and expected a rise in the policy rate to around 3% in the period to summer 2023.

The action follows the path of **the New Zealand Central Bank**, that raised its policy rate at every meeting since October 2021, after ending QE in July 2021. At 2% in June 2022, its policy rate was one of the highest across Advanced Economies, behind the Bank of Canada. It also started selling USD 5 bn of its government bond holding from July 2022.

As the first central bank to announce a withdrawal of its monetary stimulus in July 2021, **the Bank of Canada** officially ended its QE programme in October 2021 and stopped reinvesting maturing bonds in April. It also raised its key policy by 50 bps at each of the three meetings that have taken place since then, bringing it to 1.5% in June 2022. In July 2022, the Bank lifted it by another 100 bps, the biggest rate hike since 1998, bringing the policy rate to 2.5%. "An increase of this magnitude at one meeting is very unusual", said BoC Governor Tiff Macklem in the opening statement. "It reflects very unusual economic circumstances: inflation is nearly 8% – a level not seen in nearly 40 years".

In November 2021, **the Reserve Bank of Australia** exited the Yield Curve control tool implemented in March 2020 to keep the 3-year rate at 0.1% but continued to purchase government securities at a weekly pace of USD 4 bn until February 2022. In May 2022, it increased the cash rate, the benchmark interest rate, for the first time since the pandemic began, from 0.1% to 0.35%, and allowed bond holdings to runoff. In July, it further raised its policy rate to 1.35%.

In Sweden, the **Sveriges Riksbank**, which conducted a negative-interest rate policy between 2015 and end-2019, raised its policy rate by 25 basis points in April, and projected to reduced its balance sheet. "To counteract the high inflation becoming entrenched in price setting and wage formation", the Executive Committee raised the policy rate by an additional 50 basis points in June 2022, to 0.75%, and signaled that the policy rate will be raised further and that it will be close to 2% at the start of next year. It also decided that its asset holdings shall shrink faster than was decided in April.



As for Emerging Market Economies, Central Banks have been reacting rapidly and more aggressively in effort to tame double-digit inflation levels (see Chart 53).

In December 2021 **the Czech National Bank** lifted its main interest rate by 100 basis points to 3.75%, as the headline inflation rate hit a 13-year high of 6.0% in November. The move follows a 175 basis points rate hike a month earlier, the highest increase since 1997. Additional increases have followed – especially since the start of the war in Ukraine that pushed the annual inflation rate to reach 14.2% – bringing the policy rate to 6% in June, its highest level since 1999. In the meantime, **the National Bank of Poland** raised its policy rate for the eighth consecutive time, up by 75 bp to 5.25% in May, amid soaring inflation which reached 13.7% during the same month. **Hungary's central bank** raised its base rate by 50 basis points to 5.9% at its May meeting. It was the twelfth consecutive rate hike in attempt to tame inflation, that stood at 9.5% in April. In late-June, it raised its policy rate by another 185 bp to 7.75%, in an effort to stop the freefall of the forint (its domestic currency).

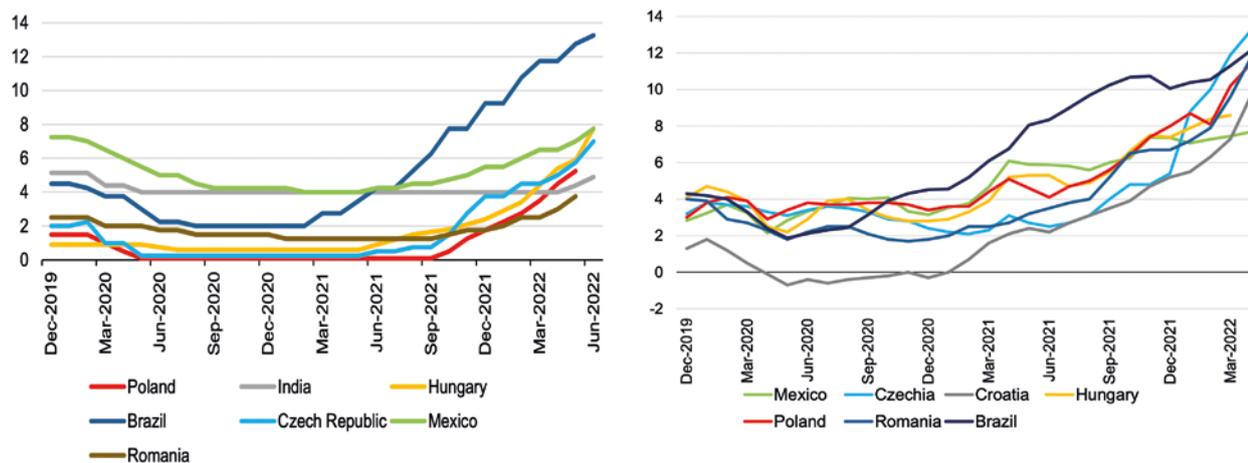
Among other EMEs outside of Europe, **the Central Bank of Brazil** gradually increased its policy rate, from 2.75% to 13.25% between March 2021 and June 2022. The Bank considers “appropriate to advance the process of monetary tightening significantly into the restrictive territory”, while inflation has been running above 5% on annual basis since February, and above 10% since October 2021. Similar moves have been observed from **the Mexico’s Central Bank**, which hiked its policy rate to 7.75% in June while annual inflation was hitting 8% during the same month. **The Central Bank of India** started raising its key rate for the first time since 2019, by 40 bp to 4.4% in May. In June, it has been lifted by an additional 50 bp, to 4.9%.

CHART 53.

Recent Development in nominal policy rate and inflation across selected emerging markets economies

53a. Short-term nominal policy rate (%)

53b. Headline CPI growth, annual change (%)

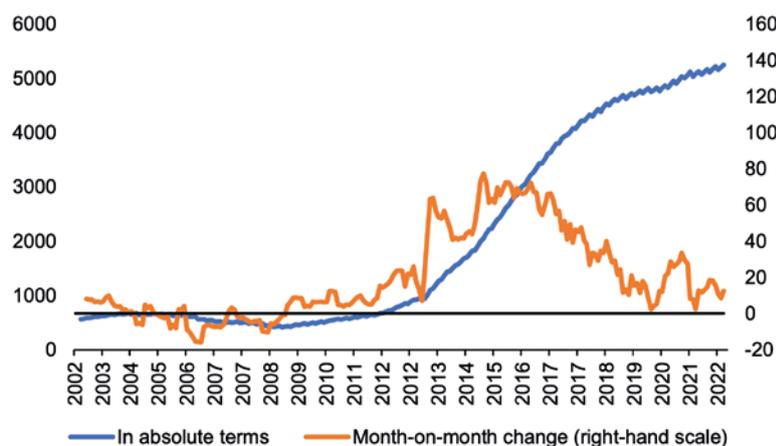


Sources: Bank for International Settlements, National Central Banks

Against the backdrop of the global reduction in monetary accommodation, only the Bank of Japan has kept its monetary policy “patiently accommodative”, and does not intend to remove it so far. While the CPI increased by 2.5% annually in April, it pursued its Yield Curve Control Policy, in place since 2016. The instrument consists of purchasing public debt at an unlimited scale to limit the 10-year government bond interest rate exceeding 0.25%.

CHART 54.

Bank of Japan asset holding, Trn Yen



Source: BOJs
Latest data from May 2022

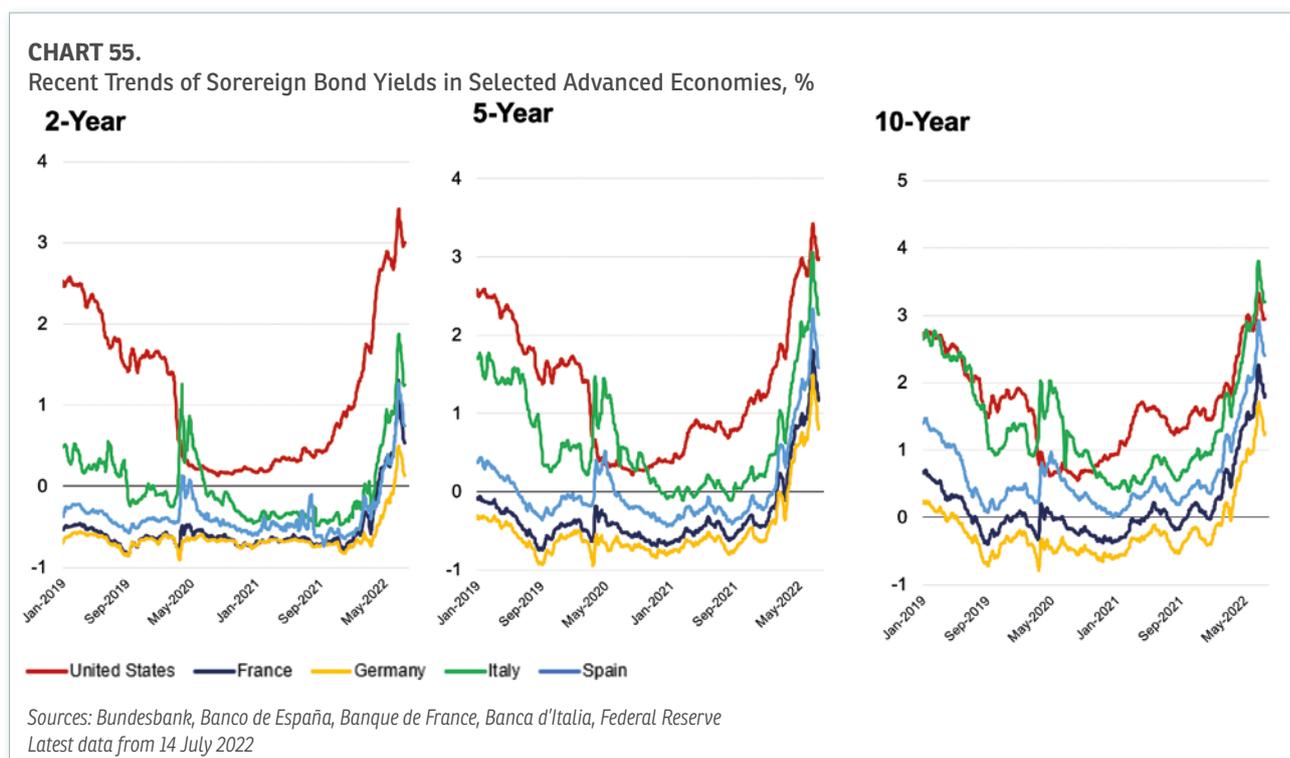
4.3 Despite the reduction in monetary accommodation and the rise of bond yields, monetary and financial conditions remain expansionary

The intensification of inflationary pressure, the end of asset purchase programs from Central Banks and the market expectations of rate increases by Central Banks have led to a sharp rise in sovereign bond yields since January 2022. However, as inflation has outpaced nominal interest rates so far, interest rates remain deeply negative in real terms. This indicates that monetary policies are still very accommodative and cannot effectively curb rising prices.

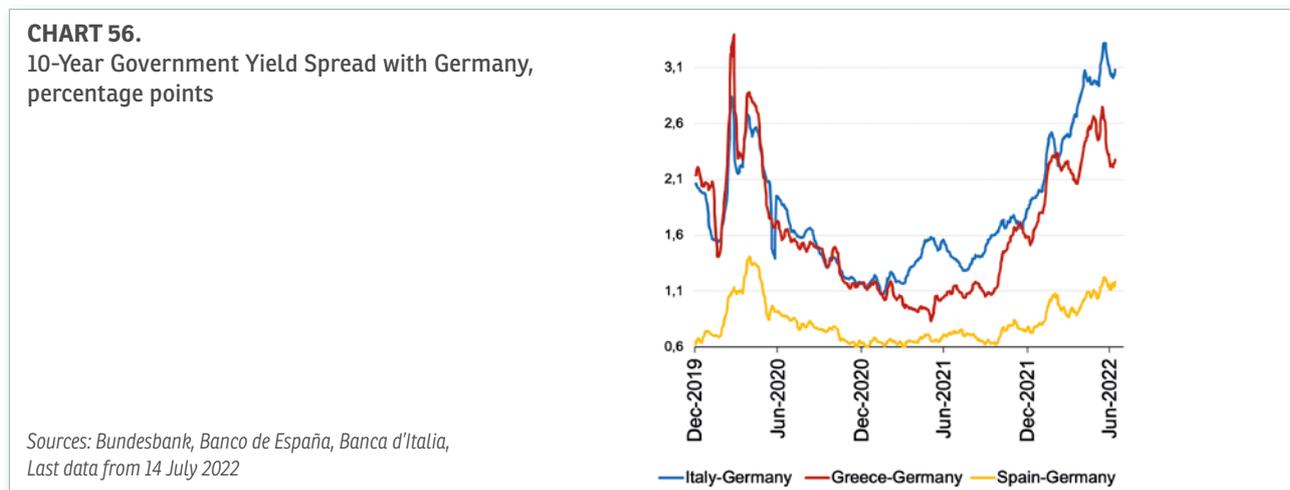
Government bond yields have increased in most countries since the start of 2022

From January to early-June 2022, the yield on 10-year nominal government bonds in the United States has more than doubled to 3.3%, its highest since 2011. It then returned to 3% as of July 2022. The 10-year German Bund yield, which was negative until December 2021, peaked at 1.6% in mid-June 2022 before falling to 1.41% by early-July. In France, it rose to 2.25% as of June 2022, from 0% in January. As of mid-July 2022, it was trending around 1.8%.

The rise in sovereign bond yields has been much faster across EU Southern Member States. The Italian 10-year government yield soared by 300 basis points since January 2022, approaching 4% in June 2022. It then fell back to 3.3% by July 2022, its highest level since 2018. In Greece, long-term interest rate rose by 350 basis points over this period, to reach 4.2% in mid-June 2022, before falling back to 3.5% by mid-July.



Accordingly, sovereign bond yields spreads between core and peripheral EU Member States have widened significantly, elevating bond market fragmentation risks in the currency union (see Chart 56). The gap in the 10-year government-bond yield between Italy and Germany, a measure of risk premium in the area, almost tripled in less than 2 years, from 1.1 percentage points in February 2021 to 3 pp as of early-July 2022. The rate differential between Greece and Germany has also significantly widened, reaching 2.75 pp as of mid-June, from less than 1 pp in March 2021. It has then fallen to 2.25 pp as of early-mid 2022.



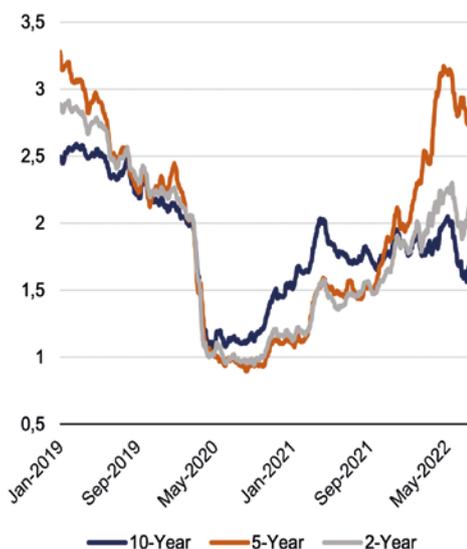
The rise in government bond yield is uneven between the United States and Europe, reflecting the divergence of the Fed and ECB's monetary policies

The ECB remains behind the FED in its tightening cycle.

The ensuing yield differential coupled with the safe heaven role of the US dollar is reflected in a significant depreciation of the euro against the US dollar. Between early January and early-July 2022, the euro currency fell by 9.8% against the US dollar, to reach its lowest level since 2017.

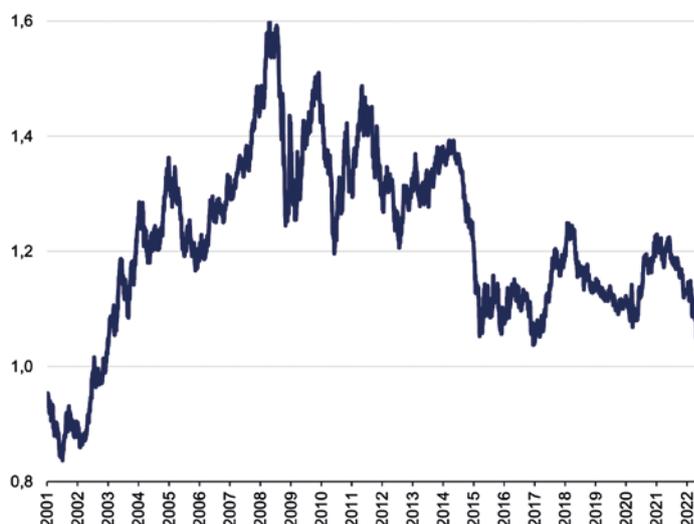
The depreciation of the euro currency renders dollars-denominated commodities more expensive for net-importing European firms, which tends to be passed on to final consumer prices and so increase imported inflation.

CHART 57.
US-Germany Bond Yield Spread, selected maturities (pp)



Sources: Bundesbank, Federal Reserve
Last data from 14 July 2022

CHART 58.
US Dollar vs Euro Exchange Rate



Sources: Bundesbank, Federal Reserve
Last data from 14 July 2022

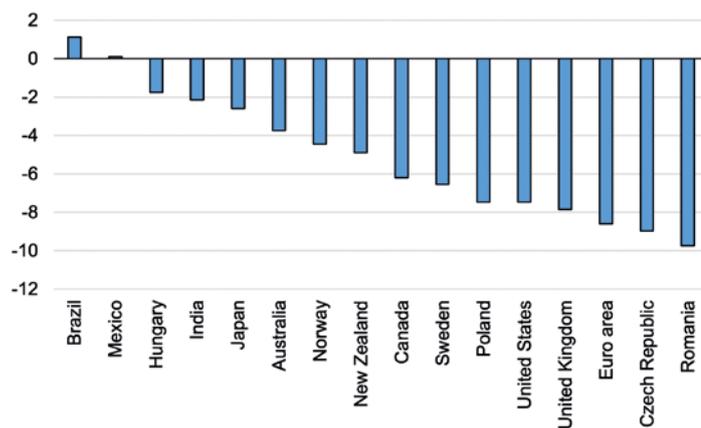
However, the rise in inflation has outpaced nominal yields increases, translating into further declines in real interest rates to negative territories

As of the end of May 2022, real policy rates – *i.e.*, adjusted for observed inflation – are negative in all advanced economies (see Charts 59). Real long-term interest rates also fell further into negative territories and stood from 1 to 6 percentage points below their historical range over the past three decades (see Chart 60).

J.P. Rathbone and V. Romei noted⁷⁷ that “the surge in inflation is leaving the world’s leading economies with their lowest real interest rates in decades, as central banks delay any abrupt tightening of the extra-loose monetary policy used to help weather the coronavirus crisis”.

77. John Paul Rathbone and Valentina. Romei, “Inflation surge fuels negative real interest rates for leading economies”, the Financial Times, 9 November, 2021

CHART 59.
Real policy rates in selected AEs and EMEs
as of May 2022, percentage points
Nominal Policy rate inflation rate



Sources: OECD, Eurostat
All data are calculated on the basis of the May 2022's inflation level, except for the Euro Area and the United States which from June 2022

Real interest rates reflect the real cost of borrowing and real return on savings. The combination of accelerating inflation in the US, eurozone and UK, and their central banks' decision to remain patient when it comes to rate increases, effectively raises monetary stimulus.

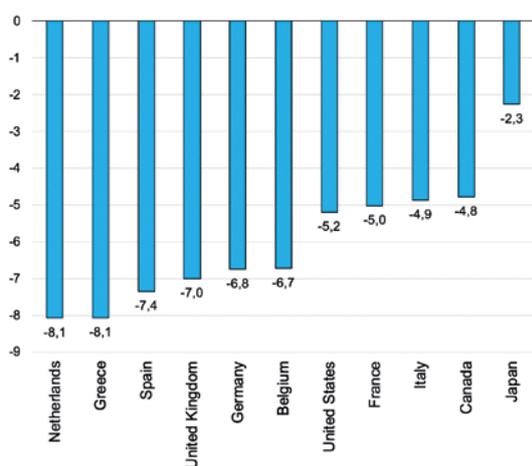
Real interest rates are deeply negative in developed economies and keep financing conditions very accommodative. K.-M. Yi and J. Zhang⁷⁸ have shown that the last time real rates were as negative as today was in the 1970s, when rising energy prices pushed up inflation. Real interest rates have also slumped in the wake of the 2008 financial crisis.

Easy monetary policies become even more accommodative because of rising headline inflation in both the US and EU countries, which has caused negative real interest rates (especially in Europe) to fall still further. This raises the risk of a self-perpetuating process that will eventually feed into wages.

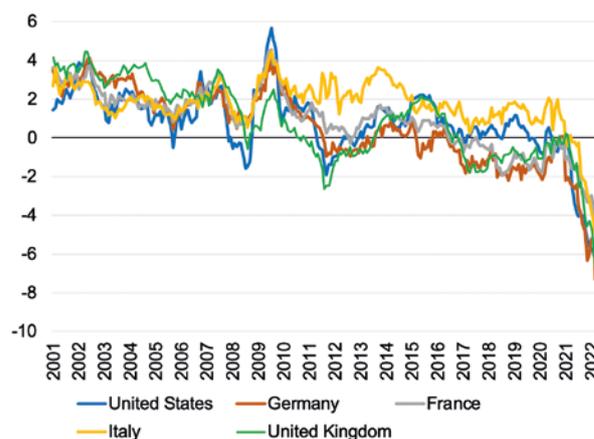
Negative interest rates are a source of financial instability, of misallocation of capital and less growth. In its Financial stability review (2021), the ECB stated that these lasting highly favourable monetary conditions has also led to a build-up of longer-term risks. Rising inflation and falling real interest rates have prompted investors to take greater risks in their search for yield, which has left parts of the property, debt and crypto asset markets "increasingly susceptible to corrections", it warned.

CHART 60.
Nominal Long-term government bond yields adjusted for CPI, percentage points

60a. Real 10-Government Bond-Yields as of May 2022, percentage points



60b. Real 10-Government Bond-Yields, percentage points



Sources: OECD, Eurostat
All data are calculated on the basis of the May 2022's inflation level, except for the Euro Area Member states and the United States which from June 2022

This low real interest rate environment has existed for more than 20 years in Europe in particular: it has not only favoured indebtedness, but also degraded its quality. It has contributed to the decline of productive investment due to zero or even negative returns, in favour of liquid investments, which are certainly non-interest-bearing, but risk-free. It has also contributed to the rise in asset valuations for the benefit of privileged social categories. So the only possible answer in the current very high and persistent rise of inflation is to do everything to reduce inflation and raise interest rates, which is the condition to restart growth.

78. K.-M. Yi & J. Zhang, "Understanding global trends in long -run real interest rates", Federal Reserve bank of Chicago, March 2017

Conclusion

•

Central banks are still far behind the curve and need to move more quickly

During the Lehmann Brothers, EU sovereign debt and Covid crises, central banks and fiscal policies played a crucial role and intervened on an unprecedented scale to keep financial markets liquid and stabilize the financial system.

Meanwhile central banks have been overly involved during the past years. No well-functioning economy should operate with real interest rates that remain negative for too long: risk is mispriced, capital is then misallocated and growth impaired.

Can we ignore the financial vulnerabilities created by zero interest rates, the inexorable rise in global debt and the “search for yield” when productive investment has performed poorly over the past 15 years? Does the resumption of activity in Europe require the extremely accommodative stance of monetary policy? Can we stop inflation in Europe with increasingly negative real interest rates? Is the priority mission of central banks to protect States from fiscal difficulties by financing their deficits rather than to protect the purchasing power of citizens by fighting inflation?

B. Bernanke, in 2004 (just before he succeeded Greenspan) said: “Monetary policy cannot offset the recessionary and inflationary effects of rising oil prices at the same time. It has to choose”. So, the question is: how do you choose?

Option one: Let inflation rise to protect GDP growth? This option should only be considered if growth was strongly down, unemployment was rising dangerously, and the economy was moving further and further away from full capacity in a low inflation environment. This is not the current environment in the US and the euro area.

Second option: Tightening monetary policy: this is advisable if inflation has become a serious risk in itself. This is the case today. Inflation in the Eurozone reaches an annual rate of 8.9% in July 2022 (compared to 8.6% in June), while real interest rates become more negative due to ECB policy and high inflation.

The continuation of very negative real interest rates in the euro area would intensify already negative consequences for financial stability, growth and employment. As this Eurofi monetary scoreboard demonstrates, pushing too hard and too long on the monetary pedal has severe negative consequences: the lasting excessively accommodative monetary policy enhances incentives to borrow more and increase financial leverage, disincentives governments to undertake structural reforms since borrowing “no longer costs anything”. Persistent low or negative interest rates induce a fatalistic mindset that lowers, not raises, propensity to invest. Under what J.M. Keynes called the “liquidity trap”, investors play safe by placing savings in very short-term instruments rather than deploying them longer term when low interest rates bring them inadequate returns for higher risks.

The social significance of persistent very accommodative monetary policies should not be underplayed. Do they help reduce societal inequalities? In fact, the opposite is true; they tend to make societal disequilibria worse because the beneficiaries have been those who have the income and capital to profit from inflated financial and asset markets. Not poor people.

Thinking that monetary creation can notably solve the problems arising from excessive debt is an illusion. Yet this is what has been too often tried by pursuing lax fiscal, monetary and political policies that will inevitably pose systemic risks to financial stability and therefore to future growth. Actually, the huge monetary and fiscal stances of the last decades have not led to investment or higher growth. In other words, supply-side obstacles cannot be resolved by throwing money at problems.

Policy makers need to rebuild safety margins. As already stated on year ago by the BIS in its Annual Economic Report (June 2021), “an economy that operates with thin safety margins is vulnerable to both unexpected events and future recessions which inevitably come. These margins have been narrowing over time. Rebuilding them means re-normalising policy”.

Inflation has risen sharply in recent months and should be more persistent than thought which would endanger the economic rebound: indeed, inflation is lowering notably real incomes and % of rising inflation, which has caused negative real rates to fall still further.

Central banks are still far behind the curve and need to move more quickly. If central banks fail to act now, the economic rebound could be running into severe problems. Inflation is eroding real incomes and should prompt destabilizing wage demands from income-pressed workers.

For more than 10 years central banks have been comparing inflation rates (CPI or core) with nominal interest rates to calculate real interest rates. The real fed funds, for instance, was calculated as the current fed funds rate minus 4 quarter core PCE inflation. As B. Nelson, chief economist of the Bank Policy Institute explains in a note issued on 29 July, by this measure, monetary policy is more stimulative now than it ever was over the period plotted (1992-2012) by a wide margin.

It would now be incorrect to abandon such an approach and focus on monetary neutrality by comparing nominal interest rates with central bank expectations set at 2%. There is no agreed measure to calculate inflation expectations but, in any case, keeping the 2% of inflation expectations would be obviously inadequate. All this leaves the Fed and the ECB not in a neutral approach but in a very stimulative one.

The question many people ultimately ask is “Isn't inflation the miracle cure for debt?” The higher the inflation, the lower the debt burden in real terms. This is what happened after the great conflicts of the 20th century, to the detriment of creditors. Why not consider a similar solution today, when the capacity of central banks to finance public debt has become massive?

Faced with this question, two remarks are in order:

- 1) This reasoning is based on unlimited inflation: one must be prepared to suffer very high double-digit inflation to neutralize a debt that is out of all proportion to that of the past. Such a solution is not without risk:
 - Social risks and the development of populism; even if salaries can be protected from inflation by indexation, the same cannot be said for income from financial investments. Thus, an important category of the population (“the middle classes”) will see the ineluctable decrease of their income.
 - The investment horizon is blurred and altered for entrepreneurs in an uncertain inflationary context.
 - The exchange rate falls with the development of inflation, which increases the cost of imports (“imported inflation”).
- 2) The recessionary effect of inflation should not be underestimated: consumption tends to decrease with the sustained rise in prices and the loss of purchasing power; the margins of companies in strong competition are reduced, investment is sluggish because of the fall in real rates and the lack of clarity on the outlook and stagflation is taking hold...

Another question that we have been hearing regularly for months is the following: “If inflation and its recessionary effects on growth are rising, is this the right time to tighten monetary policy? The risk is that we will have more recessionary effects”.

The answer, in our views, is this:

- Interest rates in real terms are dangerously low, at -7% – the easing of monetary policy that results from high inflation creates massive distortions: investment (essential for growth) cannot be restored with such a severe “taxation” of savings. Yet investment is the key to reducing the output gap between potential and actual growth.

Zombie companies (left alive because of interest rate subsidies) are reducing global productivity. Real estate prices will continue to inflate with very low interest rates making mortgages so cheap. Stock buybacks will continue to grow (\$267 billion in annual buybacks at the end of Q1 2021 and now \$319 billion at the end of Q1 2022).

So, the right question seems to be “if we let inflation rise even higher and allow very accommodative monetary policy, what do we gain?”

Not more long-term growth: because of the “liquidity trap” (savings are kept liquid since long-term projects do not pay off) and because high inflation reduces purchasing power and therefore demand. The consequences of this “liquidity trap” are devastating: the preference of retail investors – especially in Europe – for liquidity assets and diverts long-term productive investment. Households with modest incomes will prefer liquid assets, while richest agents will search for yields by investing in speculative assets.

What we would get is more “inflation”, the kind that results from supply-side bottlenecks, war and commodity price shocks, and which is met with a sharp increase -post covid- in demand. This inflation, if allowed to run unchecked, could be dangerous and feed (through wage indexation) the “spiral” of the past. Indeed, it is difficult to imagine that in such an inflationary environment, wages will not significantly increase in nominal terms.

So the only possible answer is to do everything to reduce inflation and raise interest rates. This would be a signal of central bank independence on both states and markets, but also be the first step to a more productive post-pandemic period of higher growth and productive investment. Raising rates would have a much smaller effect than letting inflation flourish. **As long as interest rates in real terms remain negative, the nominal increases implemented can only generate extremely weak recessionary effects. In addition, if a recession occurs central banks would have the necessary margin to cut rates, whereas if they do nothing or almost nothing monetary policy will be powerless to deal with a recession.**

Central banks should pursue without compromise their primary objective of monetary stability, especially without taking governments' funding costs into consideration as well as the kind of addiction and dominance of markets that is hard to give up, markets regularly challenging central banks with instability and the threat of correction as an – even modest – tightening in monetary conditions approaches in the end acting as inhibitors.

Normally, central banks policies should tighten when inflation threatens, and overheating is apparent. Instead, we see the opposite: a significant de facto loosening. The climbing of inflation from 2% to 8% in Europe with still no significant upward adjustment in nominal interest rates results in a huge further monetary stimulus.

The European Central Bank is raising rates more moderately and later than the Fed. Indeed, although average inflation over 12 months in Europe is now in the same range as in the US, there is a strong reluctance on the part of the ECB to raise its rates. This is because “fragmentation” (the probability of a rise in spreads in the event of a rise in key rates) weighs heavily on the ECB's decision.

The fear of the reappearance of spreads in Europe should not dominate the decision-making process. Indeed, sooner or later, structural spreads – based on the past accumulation of fiscal and structural deficiencies – in Europe will appear on the markets. The ECB is certainly concerned with moderating “excessive” market rate differentials between European countries. But does it have an obligation to erase forever all traces of interest rate differences in the appreciation of the markets? If so, the central bank would have to buy securities issued by highly indebted countries without limit. If this were to be proposed, it would be difficult to reconcile with the Maastricht Treaty, as some member states – known for their fiscal discipline – place greater emphasis on the objective of monetary stability (believing that the ECB should not monetize public debt). Moreover, such an open-ended decision would discourage member states from undertaking structural reforms.

Monetary policy can erase spread differentials in the euro area but cannot relaunch capital flows from the North to the South. Indeed, since the EU sovereign debt crisis, Member States with excess savings (Germany and the Netherlands in particular) no longer finance investment projects in lower per-capita GDP countries (Spain, Italy, Portugal, Greece). This is notably due to the interest rate differential between the US and Europe (the risk is better remunerated in the US than in Europe), the limited financial flows between the eurozone countries and the insufficient number of investment projects. These limited cross-border capital flows in the euro area reflect the persistent doubts of investors in Northern Europe about the solvency of states and companies in other countries, as well as the lack of a genuine Banking Union and integrated financial markets.

If the idea is to give checks to all economic actors or freeze energy prices in order to abolish all the effects of inflation, we would be condemned to an endless spiral of high inflation, due to the monetary creation thus produced, and low growth. Indeed, from a certain stage of public indebtedness, the recipe of stimulating demand by increasing public spending and deficits works with increasing difficulty, as the credit rating of the stimulating country deteriorates and the fiscal multiplier weakens.

If fiscal policies were to remain expansionary, central banks would have to tighten monetary policies even further to curb inflation and reduce inflationary expectations exacerbated by this fiscal stimulus. In this respect, the issue of revising the Stability and Growth Pact appears central and urgent.

Fostering a sustainable path to stronger growth is essential, notably in the current indebtedness environment. Raising long term potential growth requires structural reforms, an appropriate remuneration of risky investments and sustainable fiscal policies designed to deliver a flexible and competitive economy. Lost competitiveness due to postponed reforms in many EU countries, has led to the deterioration of the potential growth which cannot be improved by cyclical policies. Monetary policy cannot do everything; and more productive investment does not require more redistribution by budgets: only domestic structural – supply side oriented – reforms can resolve structural issues and foster productivity and growth. The Next Generation EU package, if well implemented, should be useful in this respect.

In over-indebted countries, governments must take corrective actions to ensure a path of primary fiscal balances and reduce unproductive and inefficient public spending. We do not need more redistributive expenses. We must rein them in and allow adequate space for public investment. The revision of the Stability and Growth Pact is of paramount importance in this respect. Postponing discussions on the revision of the Pact delays the solution, exacerbates tensions within the market (due to the lack of benchmarks) and only complicates the resolution of problems that are likely to become even more acute.

Only productivity enhancing, and productive investment can create sustainable increases in productivity, neither negative real interest rates, nor QE.

•

Ultimately, the paradox of the euro is that a single currency and national economic policies coexist without a strong cement of coordination. Ultra-accommodating and asymmetric monetary policy has been used to overcome the contradictions of this paradox, but the price of this permanent rescue is costly. It is essential to ensure convergence of fiscal and structural policies. An intelligent revision of the Stability and Growth Pact should help to resolve these contradictions and thus make the euro sustainable.

5 August 2022

**Jacques de Larosière and Didier Cahen
with the support of Elias Krief**

europi

www.europi.net

