

CEPREMAP / DBNOMICS

## Macroeconomic Outlook – November 2023

## DBnomics

- Most data presented in the forthcoming slides are extracted from DBnomics (<https://db.nomics.world/>), an open-sourced databank created at CEPREMAP, and will be updated every Thursday at 6:00pm
- The project has been financed by generous grants from Banque de France, AFD, DG Trésor, France Stratégie and OECD
- The executive director of the DBnomics project is Christophe Benz
- The slides have been designed by Daniel Cohen and are updated by Jocelyn Maillard and François Langot at CEPREMAP
- Links to the DBnomics data are available in the Appendix
- All materials presented here can be freely used with proper acknowledgment
- Questions and comments about the presentation can be addressed at [jocelyn.maillard@cepremap.org](mailto:jocelyn.maillard@cepremap.org)

## Executive summary

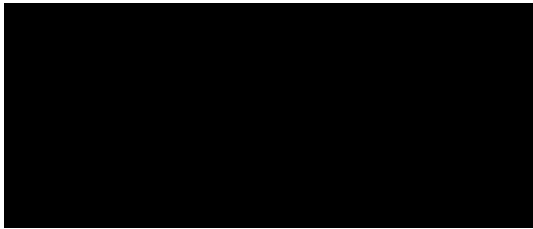
- Markets and policymakers are following in parallel headline inflation, financial market and labor market trends.
- In response to inflationary pressures, monetary policy has been tightened up to levels unheard of for the last 20 years. Both the Fed and the ECB have recently paused the hikes. However, the Fed signaled that a last 25-bps increase is probable for the last meeting of the year on December 13<sup>th</sup>.
- Headline inflation dropped below 3% in Europe in October although core inflation remains at high levels. In the US, headline inflation is plateauing above 3% and the return to the 2% inflation target may be complex as the Fed must deal with labor-market overheating and financial-market issues.
- Most raw-material prices have come back to their pre-war levels. However, oil prices have surged again since June as Saudi Arabia and Russia have cut their supply.
- Sovereign yields are at a high level in the Euro Area as the uncertainty about inflation remains. However, the spreads between core countries and the periphery have been decreasing (except for Italy). Indeed, macroeconomic results have overcome expectations in countries as Spain or Greece while Germany's growth has been particularly low for the past year.
- After being lower than the USD, the EUR started appreciated in November 2022. However, high GDP growth and higher sovereign yields have led investors to favor the USD since the beginning of the summer, causing a new appreciation of the USD.

# Table of Contents

I	GROWTH AND INFLATION IN SELECTED G20 COUNTRIES	2
A	<a href="#">The growth slowdown</a>	3
B	<a href="#">The seeds of inflation</a>	8
C	<a href="#">Inflation unbound</a>	14
II	MONETARY POLICY	18
A	<a href="#">In the US</a>	19
B	<a href="#">In the Euro Area</a>	24
III	IMPACT ON YIELDS AND SPREADS	29
IV	IMPACT ON STOCK MARKETS	33
V	APPENDIX	39



# I Growth and inflation in selected G20 countries



## **A The growth slowdown**

## Growth in advanced economies

Growth was higher than expected in the US during the third quarter of 2023. The OECD has moderately revised downward its growth projections for 2023 and 2024 for European countries, and upwards for the US.

### Yearly GDP growth rate (YoY % change)

Yearly GDP growth rate %					
Country	2020	2021	2022	2023(P)	2024(P)
<b>Euro Area</b>	(6.1) <sup>1</sup>	5.4	3.5	0.8	1.4
<i>Germany</i>	(3.7)	2.6	1.8	(0.1)	1.1
<i>France</i>	(7.9)	6.8	2.6	0.7	1.3
<i>Italy</i>	(9.0)	7.0	3.7	0.7	0.8
<b>UK</b>	(11.0)	7.6	4.0	(0.3)	1.0
<b>USA</b>	(2.8)	5.9	2.1	1.6	1.1
<b>Japan</b>	(4.3)	2.1	1.1	1.3	1.0

### Quarterly GDP growth rate (% change over the previous period)

Quarterly GDP growth rate %									
Country	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2	23Q3
<b>Euro Area</b>	2.1	0.5	0.7	0.8	0.3	(0.0)	0.0	0.2	-
<i>France</i>	3.0	0.6	(0.1)	0.4	0.3	0.1	0.0	0.5	-
<i>Germany</i>	0.7	0.0	1.0	(0.1)	0.4	(0.4)	(0.1)	0.0	-
<i>Italy</i>	2.8	0.8	0.1	1.4	0.3	(0.2)	0.6	(0.4)	-
<b>UK</b>	1.7	1.5	0.5	0.1	(0.1)	0.1	0.3	0.2	-
<b>USA</b>	0.8	1.7	(0.5)	(0.1)	0.7	0.6	0.6	0.5	1.2
<b>Japan</b>	(0.4)	1.1	(0.6)	1.3	(0.3)	0.1	0.8	1.2	-

Forecast from OECD Economic Outlook, September 2023

## Growth in emerging countries

Economic growth strongly decreased in the second quarter in China, readjusting to the previous high growth. The OECD has lifted 2023 and 2024 growth for Brazil and Mexico, but they have revised downwards the growth for the main emerging Asian countries.

### Yearly GDP growth rate (YoY % change)

Yearly GDP growth rate %					
Country	2020	2021	2022	2023(P)	2024(P)
China	2.2	8.4	3.0	5.2	4.5
S. Africa	(6.3)	4.9	2.0	0.1	1.8
Brazil	(3.3)	5.0	2.9	0.9	1.5
India	(5.8)	9.1	6.8	5.9	6.3
Mexico	(8.0)	4.7	3.1	1.8	1.6
Indonesia	(2.1)	3.7	5.3	5.0	5.1

### Quarterly GDP growth rate (% change over the previous period)

Quarterly GDP growth rate %									
Country	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4	23Q1	23Q2
China	1.3	0.7	1.6	1.0	(1.9)	3.2	0.5	2.2	0.8
S. Africa	1.3	(1.9)	1.4	1.5	(0.8)	1.8	(1.1)	0.4	0.6
Brazil	(0.2)	0.4	1.1	0.9	1.0	0.4	0.1	1.8	0.9
India	(7.5)	9.3	2.0	0.5	0.9	2.0	1.1	2.1	1.9
Mexico	0.7	(0.6)	1.4	1.4	1.0	1.2	0.6	0.8	0.8
Indonesia	0.3	0.0	3.2	1.0	0.9	0.8	2.3	0.8	0.8

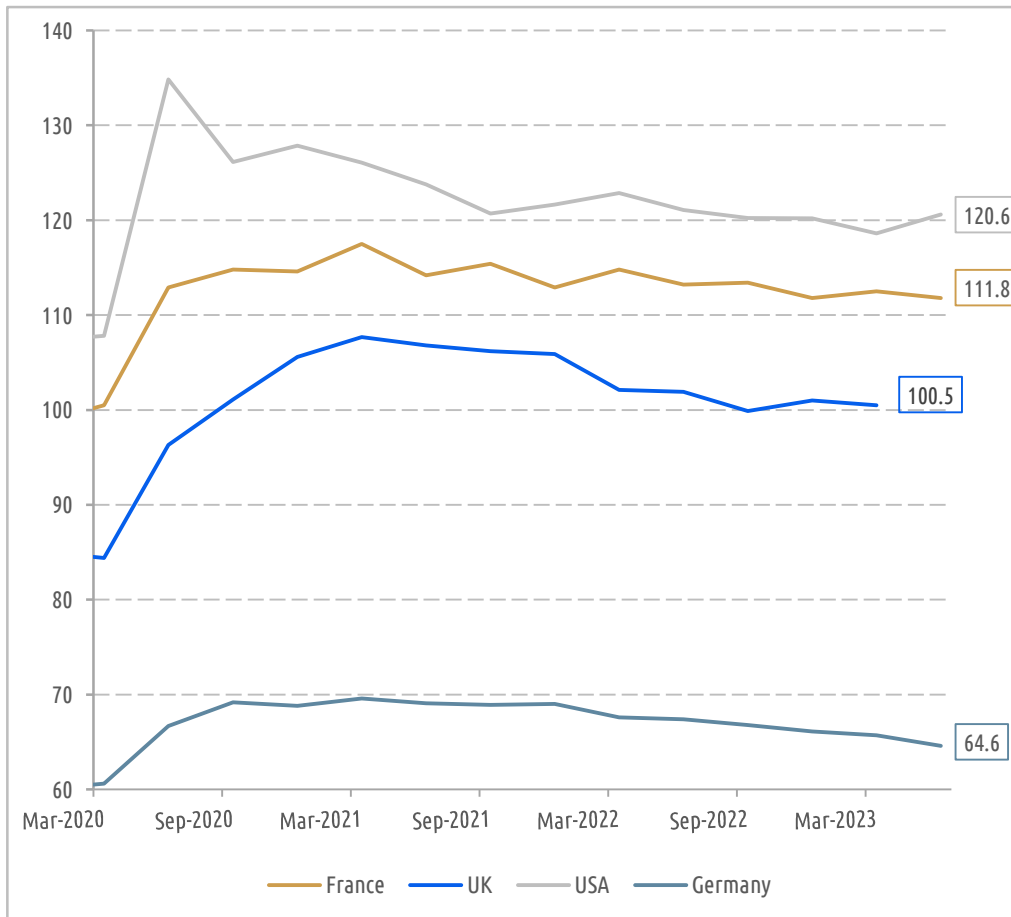
Forecast from OECD Economic Outlook September 2023



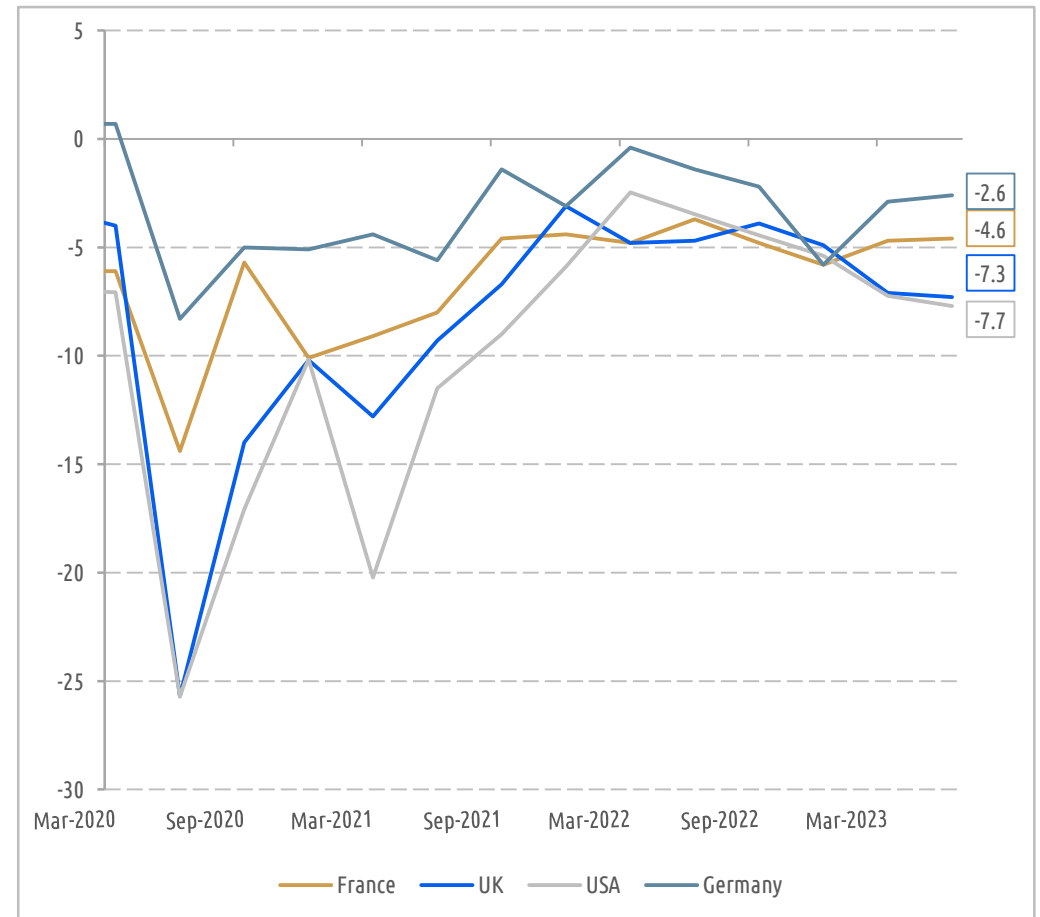
# Government debts have reached a new plateau in the G4 countries<sup>1</sup>

Inflation acted as a moderating factor on the evolution on debt ratios. Deficits decreased in France and Germany in the first two quarters of 2023 while they have been increasing in the UK and the US.

General Government debt (% of GDP) – Since 2020



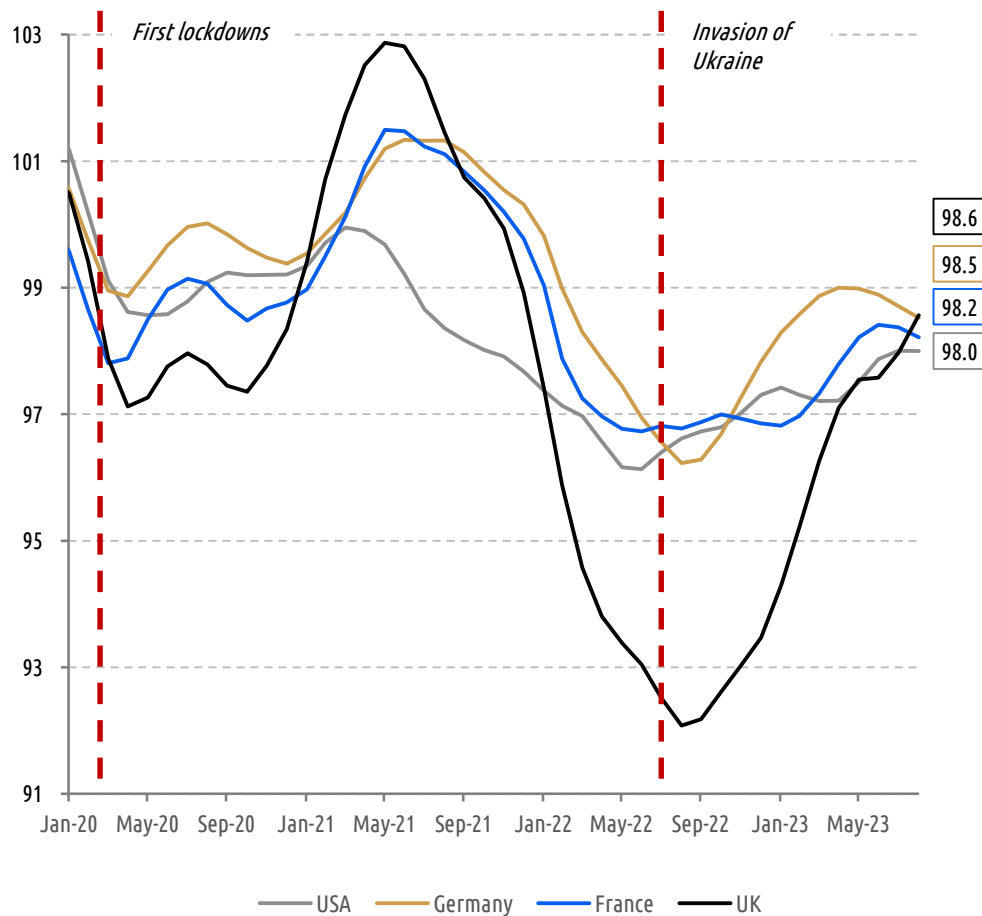
General Government deficit (% of GDP) – Since 2020



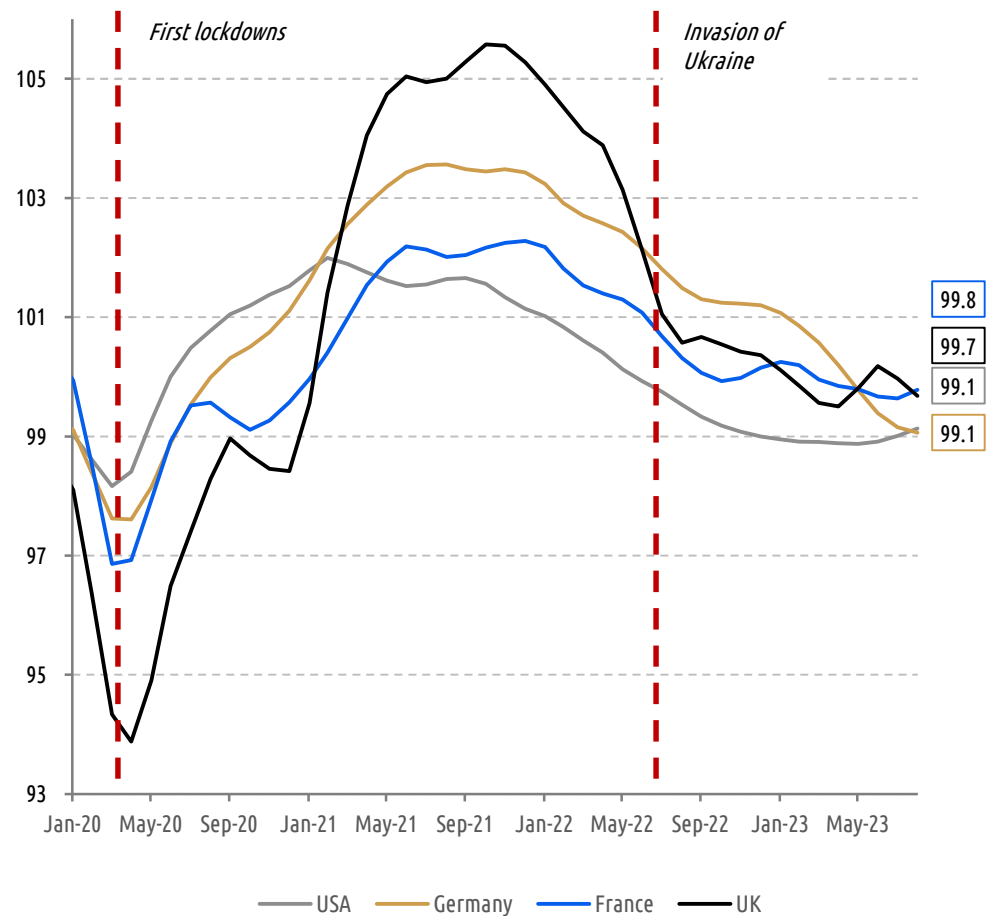
# Consumer confidence is on an upward path for the main European countries but remaining at rather low levels.

Business confidence, however, has been on a decreasing path for the last year.

Consumer confidence indicator – Since Jan. 2020



Business confidence indicator – Since Jan. 2020



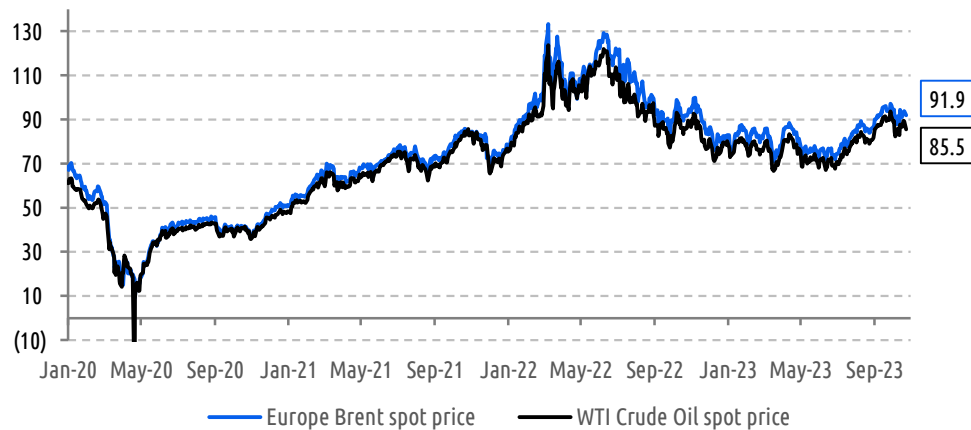


## **B The seeds of inflation**

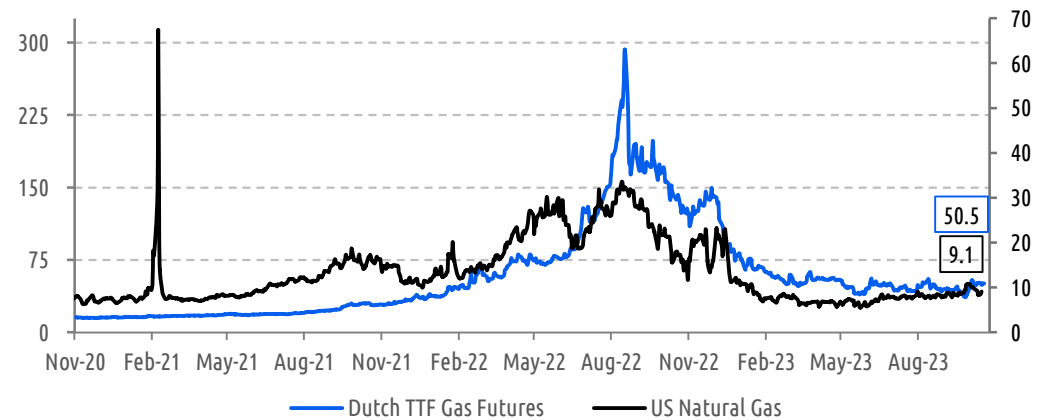
# Russian invasion added inflationary pressure. Yet, prices of raw materials have mostly returned to their pre-war range.

Natural-gas-price difference between the US and Europe has decreased but a one to five discrepancy remains between the two markets. Wheat and copper prices are slowly decreasing, almost reaching their pre-COVID levels. However, oil prices have been increasing again since June as OPEC+ has cut production.

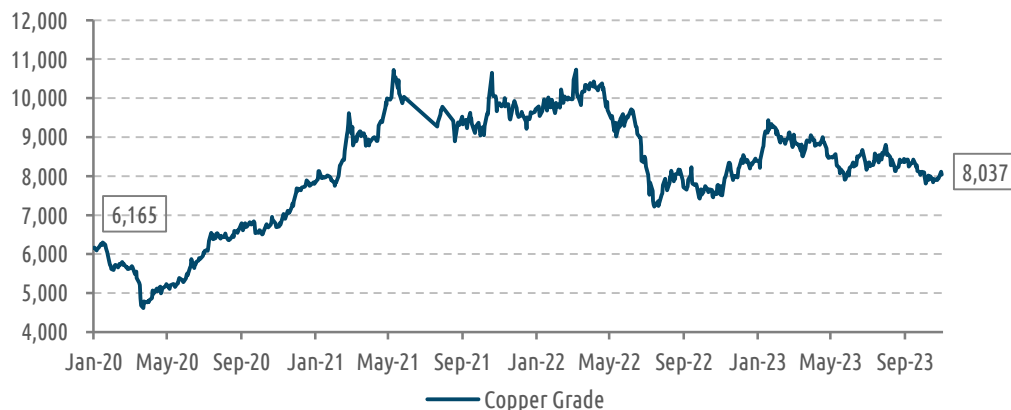
Oil prices in historical perspective (USD per barrel)



EU (left scale) and US (right scale) natural gas prices<sup>1</sup> (€/MWh)



Copper prices in historical perspective (USD/tonne)



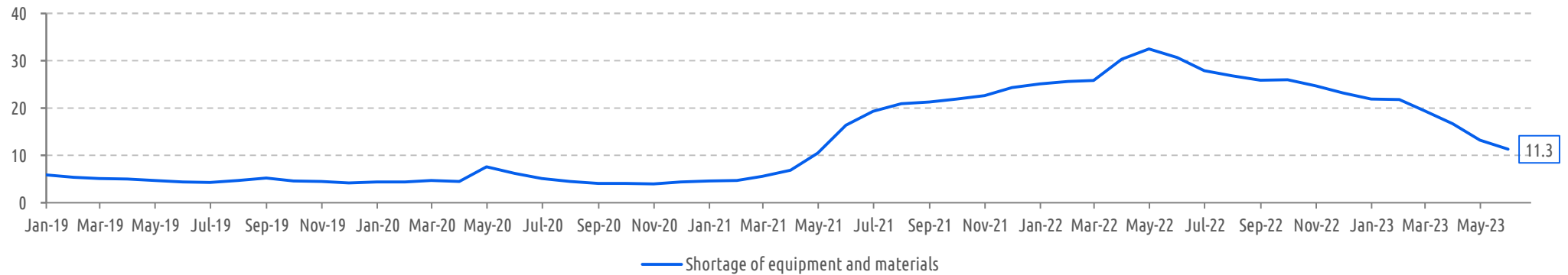
CBOT Wheat (USD/Bushel)



# Supply chain disruptions are easing up significantly

Transportation costs have returned to their pre-crisis level.

**% of EU business reporting shortages of materials and equipment in the construction industry as a limiting production factor**



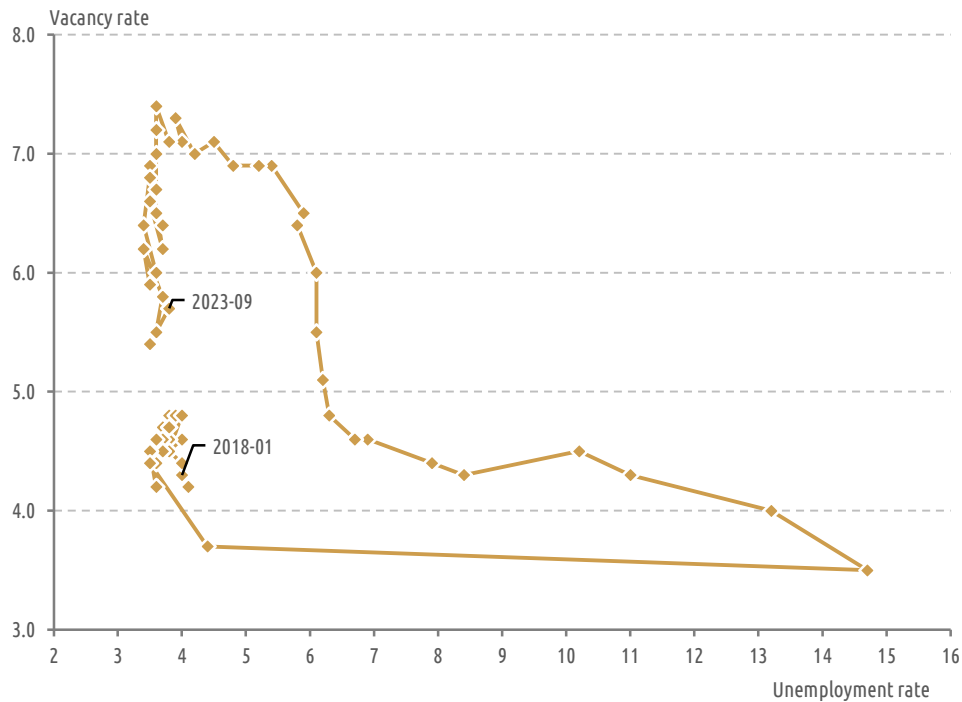
**Shipping Container Index (based on spot rate for 40 feet containers)**



# Labor markets remain tight... (1/2)

The unemployment rate, both in the US and the EZ, remain at very low levels. In the US, after falling for a few months, the vacancy/unemployment ratio seems to be stabilizing above pre-covid levels.

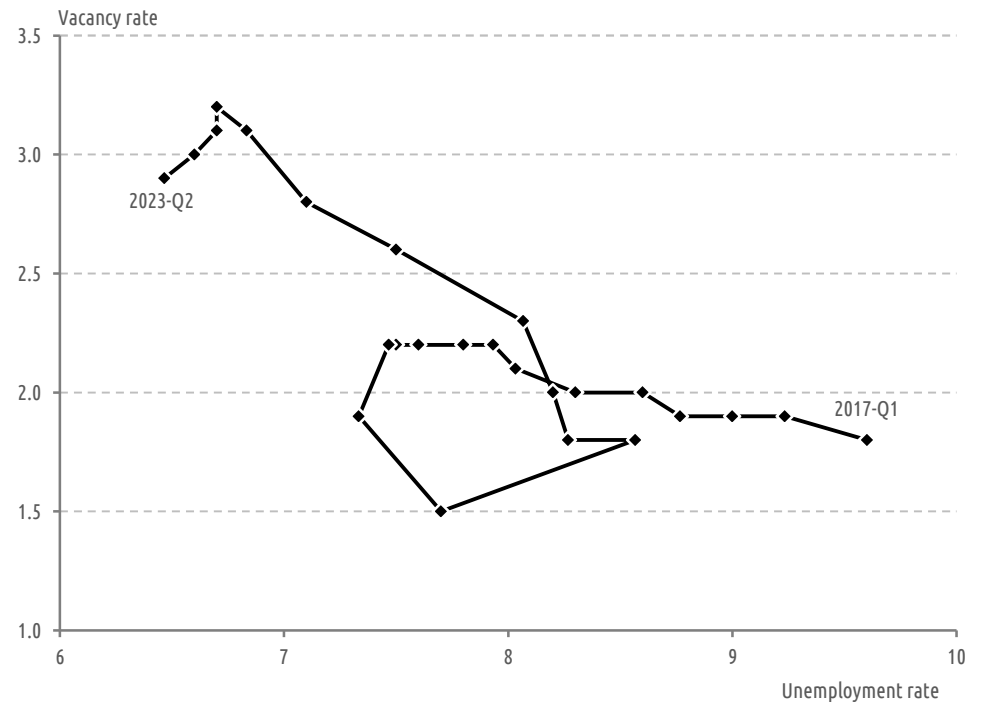
**Beveridge curve - USA, Monthly**



**Unemployment rate (% of labor force) - Monthly**

Civilian unemployment rate – Total – USA - Seasonally adjusted												
Indicator	10-22	11-22	12-22	01-23	02-23	03-23	04-23	05-23	06-23	07-23	08-23	09-23
Rate	3.7	3.6	3.5	3.4	3.6	3.5	3.4	3.7	3.6	3.5	3.8	3.8

**Beveridge curve – Euro Area, Quarterly**



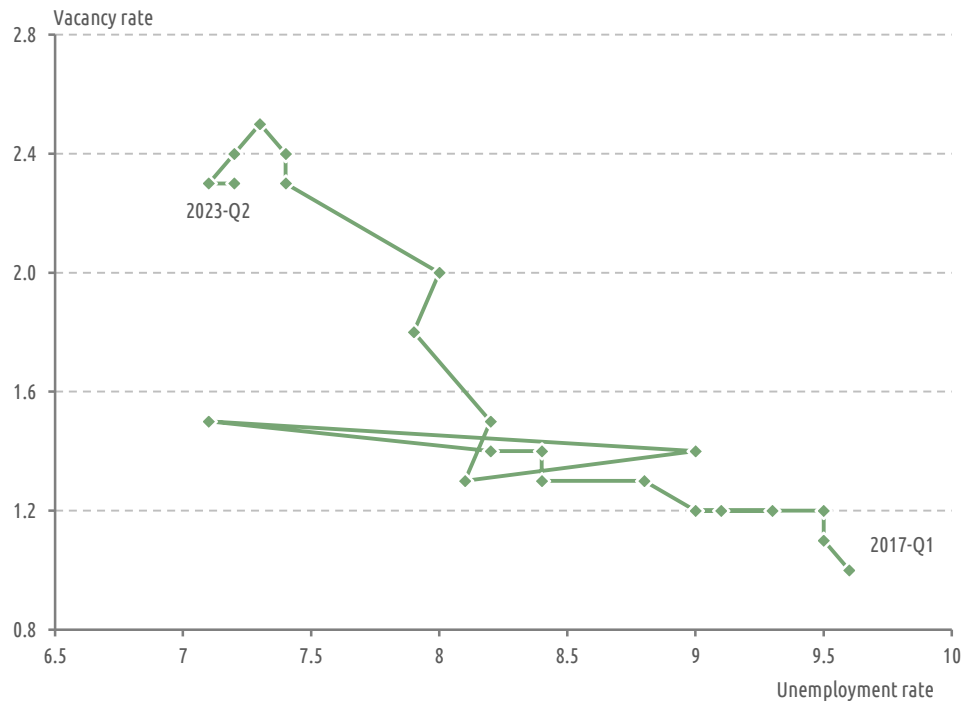
**Unemployment rate (% of labor force) - Monthly**

Unemployment according to ILO definition - Total – Euro area – Seasonally adjusted												
Indicator	09-22	10-22	11-22	12-22	01-23	02-23	03-23	04-23	05-23	06-23	07-23	08-23
Rate	6.7	6.7	6.7	6.7	6.7	6.6	6.5	6.5	6.5	6.4	6.5	6.4

# Labor markets remain tight... (2/2)

The vacancy/unemployment ratio still at record high levels in France.

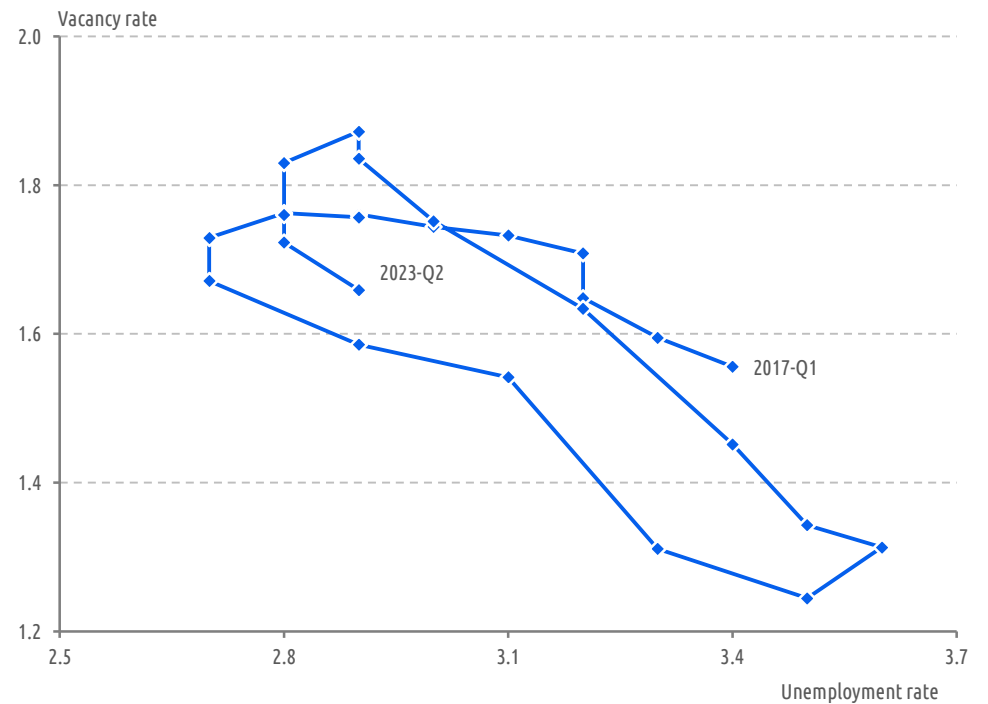
**Beveridge curve - France, Quarterly**



**Unemployment rate (% of labor force) – Monthly (Eurostat)**

Unemployment rate – Total – France- Seasonally adjusted												
Indicator	09-22	10-22	11-22	12-22	01-23	02-23	03-23	04-23	05-23	06-23	07-23	08-23
Rate	7.1	7.2	7.2	7.2	7.1	7.1	7.1	7.3	7.3	7.3	7.4	7.3

**Beveridge curve - Germany, Quarterly**



**Unemployment rate (% of labor force) - Monthly**

Unemployment according to ILO definition - Total – Germany – Seasonally adjusted												
Indicator	09-22	10-22	11-22	12-22	01-23	02-23	03-23	04-23	05-23	06-23	07-23	08-23
Rate	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.9	3.0	3.0	3.0	3.0

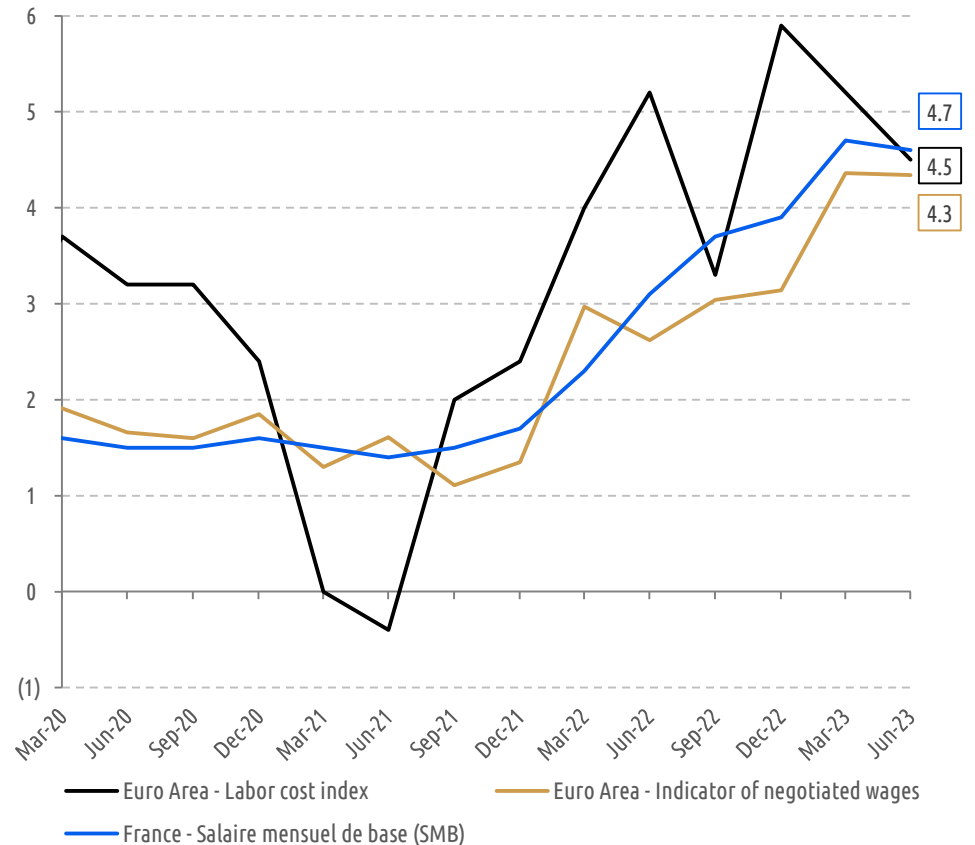
# The verdict on wage inflation in 2023, both in the US and the EZ, is still open

Although wage inflation is lower in the Euro Area, it may not have reached its peak yet, leaving open the question of the extend of monetary tightening.

**Wage growth tracker (nominal wage growth of individuals) – US (Monthly)**



**Indicator of negotiated wages in the Euro Area (Quarterly)**







## **C Inflation unbound**

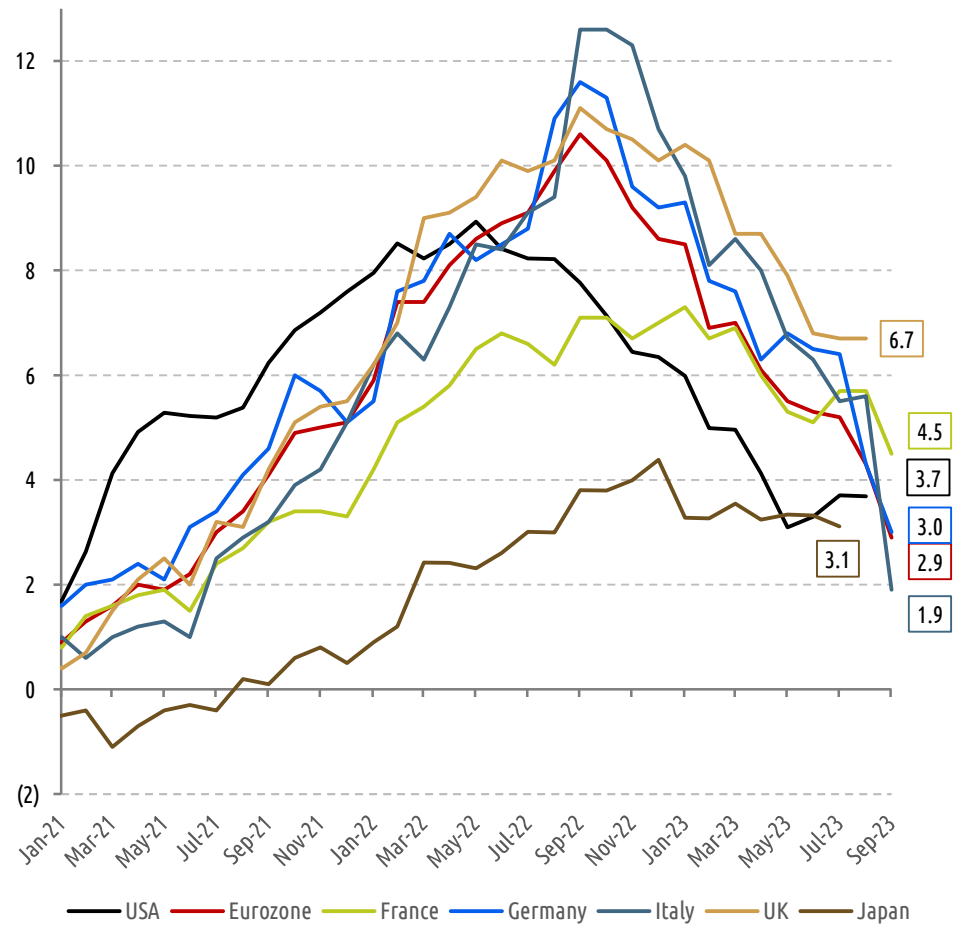
# Inflation is coming down from its peak both in Europe and the US

Headline inflation dropped in September in the Euro Area (but it is still above 4% for France). Inflation seems to be plateauing above 3% in the US. It remains very high in the UK. Core inflation remains at high levels for all countries.

CPI and core inflation in advanced economies (YoY % change)

Monthly Year-on-Year inflation rates (%) – 2022/2023												
Country	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
<b>US</b>	7.1	6.4	6.3	6.0	5.0	5.0	4.1	3.1	3.3	3.7	3.7	-
<i>US core</i>	6.0	5.7	5.5	5.5	5.6	5.5	5.3	4.9	4.7	4.4	4.1	-
<b>Euro Area*</b>	10.1	9.2	8.6	8.5	6.9	7.0	6.1	5.5	5.3	5.2	4.3	2.9
<i>Euro Area core*</i>	5.0	5.2	5.3	5.6	5.7	5.6	5.3	5.5	5.5	5.3	4.5	4.2
<b>France*</b>	7.1	6.7	7.0	7.3	6.7	6.9	6.0	5.3	5.1	5.7	5.7	4.5
<i>France core*</i>	4.2	4.2	4.2	4.6	4.6	4.7	4.4	4.4	4.3	4.0	3.6	3.5
<b>France INSEE</b>	6.2	5.9	6.0	6.3	5.7	5.9	5.1	4.5	4.3	4.9	4.9	4.0
<i>France core INSEE</i>	5.3	5.3	5.6	6.1	6.2	6.3	5.8	5.7	5.0	4.6	4.6	4.6
<b>Germany*</b>	11.3	9.6	9.2	9.3	7.8	7.6	6.3	6.8	6.5	6.4	4.3	3.0
<i>Germany core*</i>	5.1	5.4	5.1	5.4	5.9	5.6	5.1	6.1	6.2	6.3	4.8	4.2
<b>Italy*</b>	12.6	12.3	10.7	9.8	8.1	8.6	8.0	6.7	6.3	5.5	5.6	1.9
<i>Italy core*</i>	4.7	4.8	5.2	5.5	5.3	5.3	5.1	4.9	4.7	4.0	4.1	3.9
<b>UK</b>	10.7	10.5	10.1	10.4	10.1	8.7	8.7	7.9	6.8	6.7	6.7	-
<i>UK core</i>	6.3	6.3	5.8	6.2	6.2	6.8	7.1	6.9	6.9	6.2	6.1	-
<b>Japan</b>	3.8	4.0	4.4	3.3	3.3	3.5	3.2	3.3	3.3	3.1	-	-
<i>Japan core</i>	2.8	3.0	3.2	3.4	3.7	4.1	4.2	4.3	4.3	4.3	-	-

CPI Inflation (YoY % change) – since January 2021



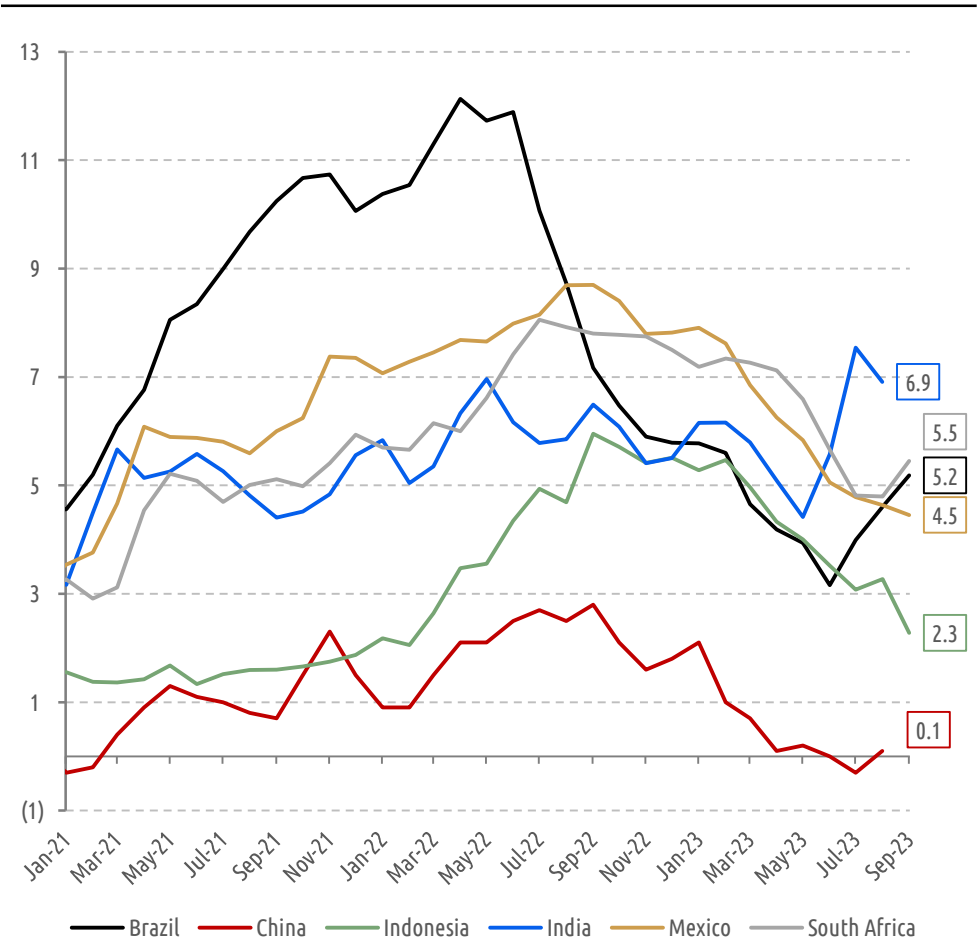
# Inflation in emerging economies is slowly cooling but remains at high levels

China remains an extraordinary exception with extremely low inflation levels

CPI inflation in advanced economies (YoY % change)

Monthly Year-on-Year inflation rates (%) – 2022/2023												
Country	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
<b>China</b>	2.1	1.6	1.8	2.1	1.0	0.7	0.1	0.2	0.0	(0.3)	0.1	-
<b>India</b>	6.1	5.4	5.5	6.2	6.2	5.8	5.1	4.4	5.6	7.5	6.9	-
<b>South Africa</b>	7.8	7.7	7.5	7.2	7.3	7.3	7.1	6.6	5.7	4.8	4.8	5.5
<b>Brazil</b>	6.5	5.9	5.8	5.8	5.6	4.7	4.2	3.9	3.2	4.0	4.6	5.2
<b>Mexico</b>	8.4	7.8	7.8	7.9	7.6	6.8	6.3	5.8	5.1	4.8	4.6	4.5
<b>Indonesia</b>	5.7	5.4	5.5	5.3	5.5	5.0	4.3	4.0	3.5	3.1	3.3	2.3

CPI Inflation (YoY % change) – since January 2021



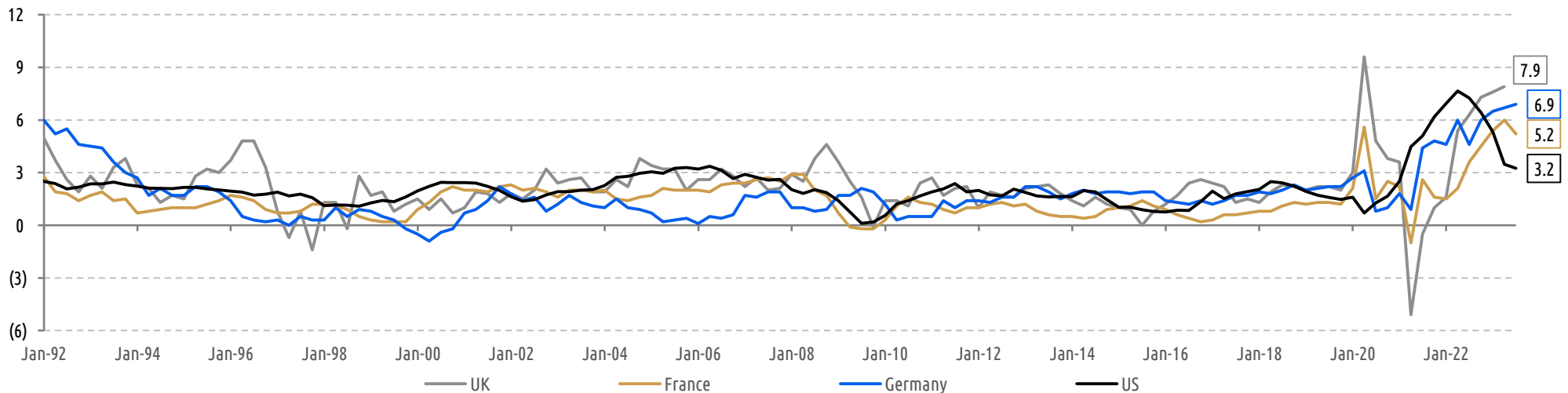
# Implied GDP deflators appear to be converging towards headline inflation in G4 countries

GDP deflators are at high levels in Europe while it is decreasing in the US.

## Quarterly implied GDP deflator

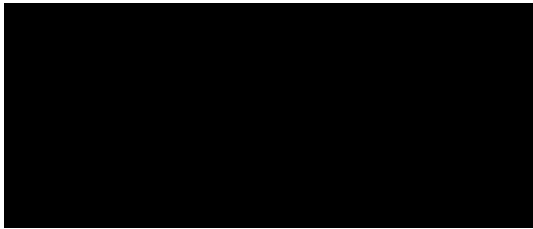
Implied GDP deflator (YoY % change) – Since Q1-2021								
Country	Q4-21	Q1-22	Q2-22	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23
USA	6.2	6.9	7.7	7.3	6.4	5.3	3.5	3.2
Germany	4.8	4.6	6.0	4.6	6.0	6.5	6.7	6.9
France	1.6	1.5	2.1	3.6	4.5	5.4	6.0	5.2
UK	1.0	1.6	5.4	6.3	7.3	7.6	7.9	-

## Quarterly implied GDP deflator – Since Q1-1992





## II Monetary policy



## **A In the US**

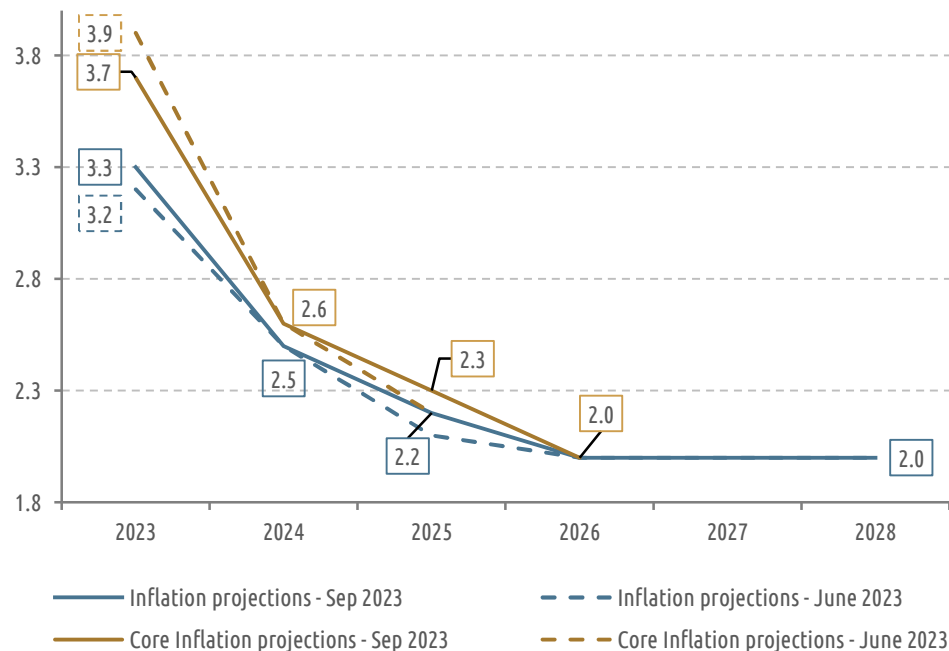
# Monetary policy decisions from the Fed (1/2)

The Fed decided to maintain interest rates at their levels in November despite the plateauing of inflation and a stronger-than-expected economic growth.

## Personal consumption expenditures (PCE) – Monthly (YoY % change)

Price indexes for Personal Consumption Expenditures							
Indicator	03-23	04-23	05-23	06-23	07-23	08-23	09-23
PCE inflation	4.4	4.4	4.0	3.2	3.4	3.4	3.4

## PCE Inflation Projections as of September 2023 (%)



## Key considerations

- The target range of the federal fund rates was maintained at 5.25%-5.50% on November 1<sup>st</sup>.
- The decision comes after a first pause in the hikes in September. Interest rates are at their highest levels since 2001.
- The Fed revised up GDP growth from 1% to 2.1%. The main concern is whether the labor market will cool down, decreasing pressures on prices.
- Next meeting will be on December 13<sup>th</sup>. The key issue is whether a new hike will occur.

## Federal Reserve economic projections as of 20th September 2023

Indicator	2023	2024	2025	Longer run
Change in real GDP	2.1	1.5	1.8	1.8
Unemployment rate	3.8	4.1	4.1	4.0
Inflation	3.3	2.5	2.2	2.0
Federal funds rate	5.6	5.1	3.9	2.5

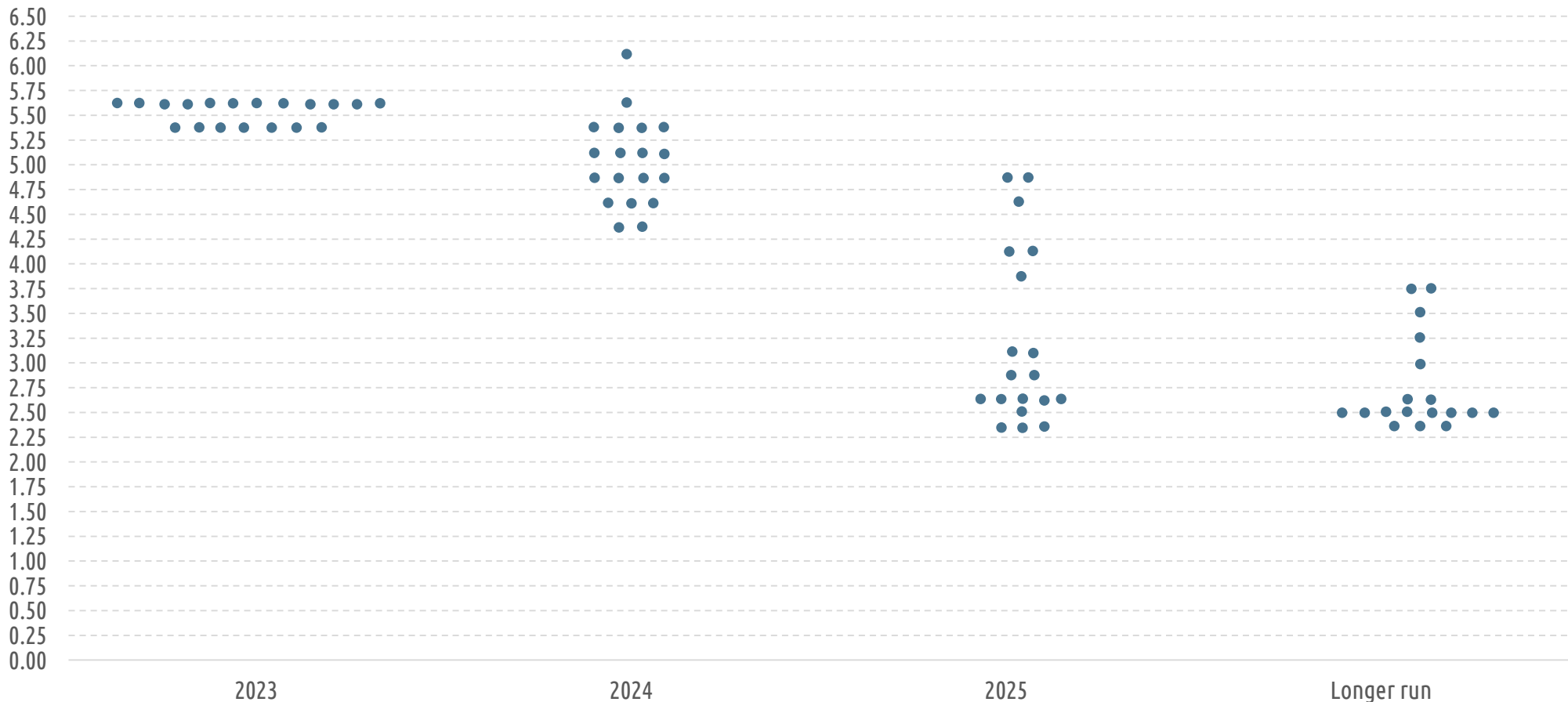
“Evidence of growth persistently above potential, or that tightness in the labor market is no longer easing, could put further progress on inflation at risk and could warrant further tightening of monetary policy.”

JEROME POWELL, PRESS CONFERENCE, NOVEMBER 1<sup>ST</sup>, 2023

# Monetary policy decisions from the Fed (2/2)

The Federal Reserve’s so-called dot plot shows the median year-end projection for the federal fund rates. The estimates remain close to the previous ones in June. They imply another 25-pp hike at next meeting in December.

FOMC participants’ assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate as of 20<sup>th</sup> September



Source: Fed as of 20/09/2023

Note: Each shaded circle indicates the value (rounded to the nearest 1/8 percentage point) of an individual participant’s judgment of the midpoint of the appropriate target range for the federal funds rate or the appropriate target level for the federal funds rate at the end of the specified calendar year or over the longer run. One participant did not submit longer-run projections for the federal funds rate.



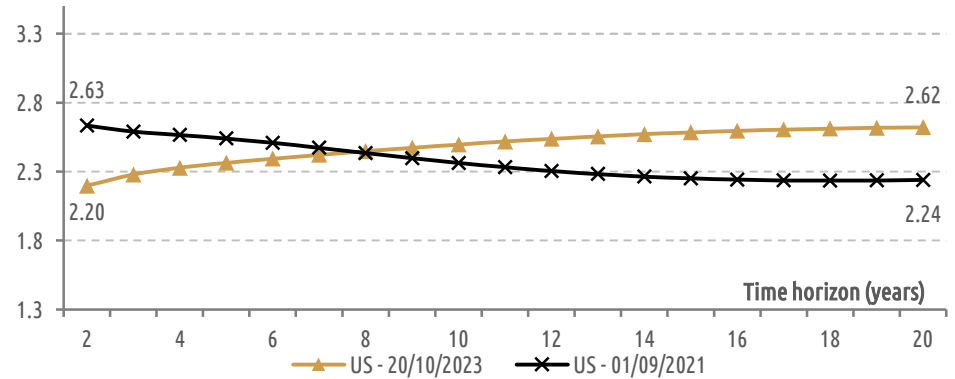
# Nominal long-term rates are at their highest level since the Great Recession

Real rate however are expected to stay around 2% in real terms

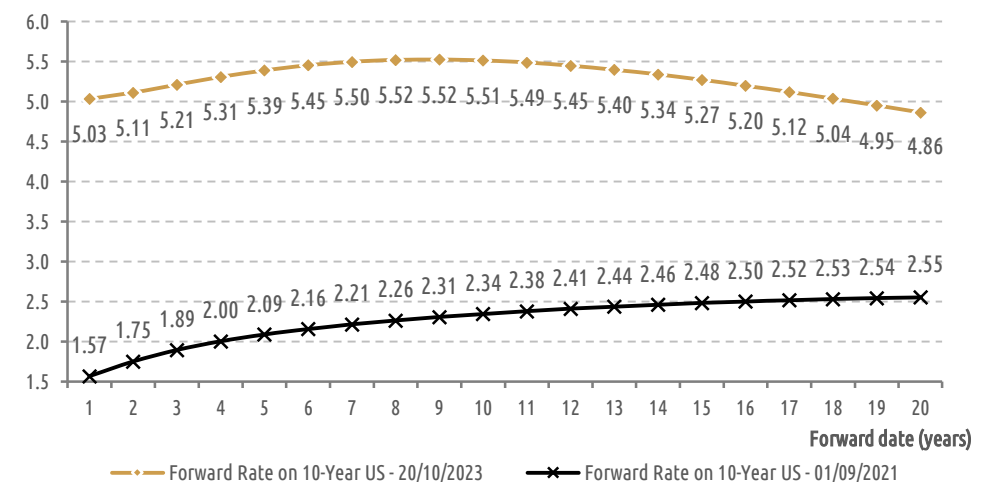
10-Y Nominal yield – US



Inflation Expectations – US (%)



Forward Rates on 10-Year U.S. Treasuries (%)



# The US yield curve has been inverted for more than a year

It has, however, come close to zero in the last couple of weeks

**U.S. 10Yr/2Yr Spread – Since Jan. 1978**



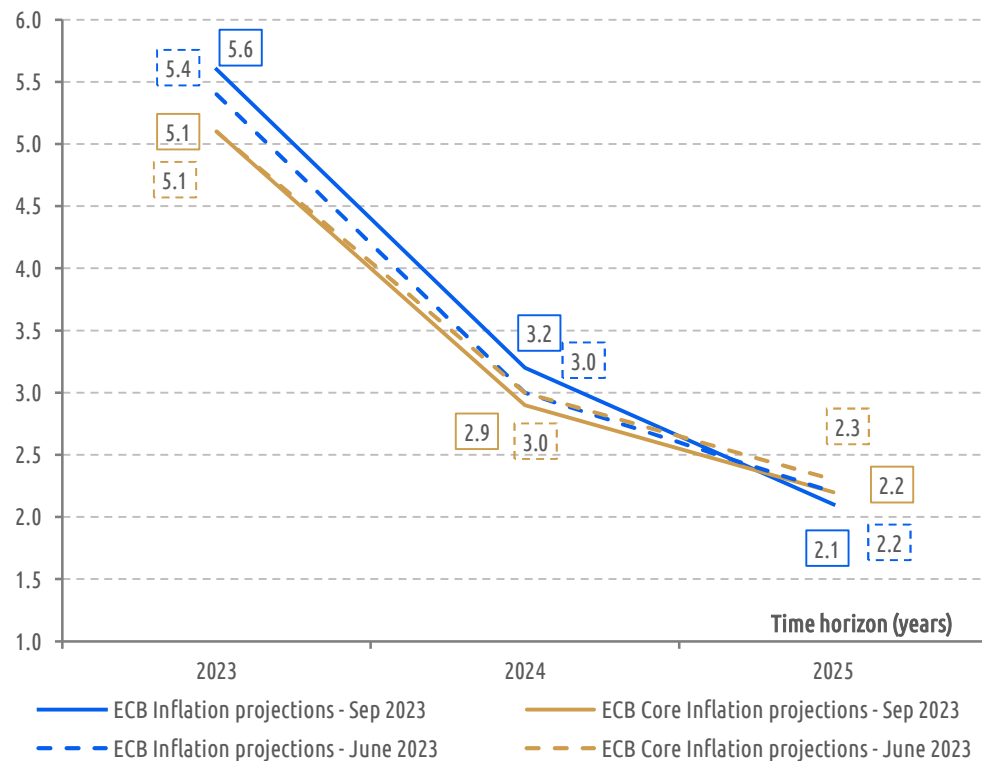


## **B In the Euro Area**

# The ECB decided to keep its interest rates unchanged in the November meeting

President Lagarde explained that considering the strong decrease of inflation in September, no new hike is required. The ECB is waiting to see the effects of current interest rate levels for reaching the 2% inflation target.

**Inflation expectations & projections as of September 2023 (%)**



## Key considerations

- **The Governing Council decided to maintain the three key ECB interest rates at their September value. This pause comes after continuous increases for more than 18 months.**
- Looking ahead, ECB staff have slightly revised their inflation projections up in September. Headline inflation is now expected to average 5.6% in 2023 while core inflation should reach 5.1%.
- The benchmark deposit rate is now set at 4%, coming from minus 0.5% a year and a half ago. It is the highest level since 2000.
- **The next meeting is set on December 14<sup>th</sup>. The ECB hinted that the interest rate will probably remain unchanged.**

ECB economic projections as of 14 September 2023			
Indicator	2023	2024	2025
Change in real GDP	0.7	1.0	1.5
Unemployment rate	6.5	6.7	6.7
Inflation	5.6	3.2	2.1

“Our past interest rate increases continue to be transmitted forcefully into financing conditions. This is increasingly dampening demand and thereby helps push down inflation.”

CHRISTINE LAGARDE, MONTERAY POLICY DECISION, OCTOBER 26<sup>TH</sup> 2023

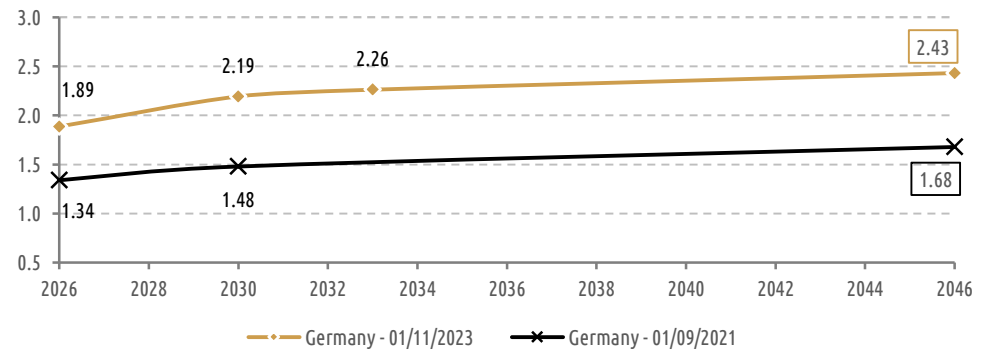
# In the Eurozone, the banking crisis had no lasting effect on long-term rates

Nominal rates keep increasing despite the decrease of inflation in September. Expected real rates, however, are near zero in the longer run.

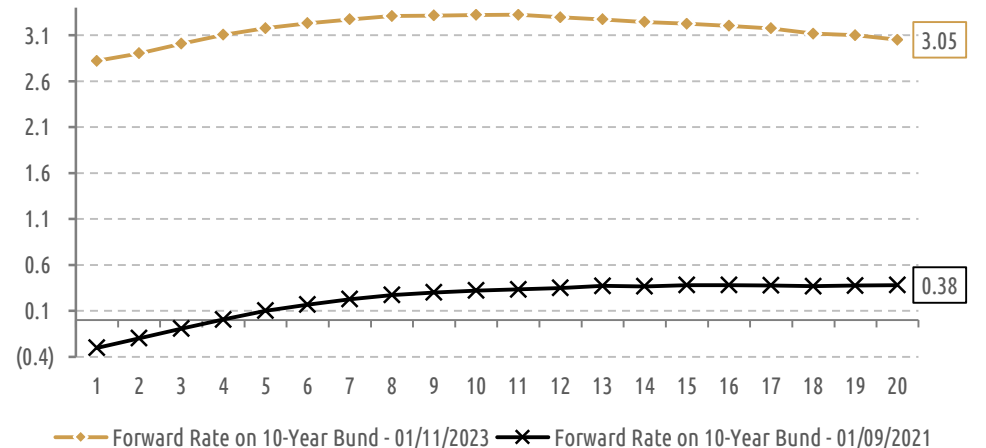
10-Y Nominal yield – German Bund



Inflation Expectations<sup>1</sup> - Germany (%)



Forward Rates on 10-Year German Bund (%)



# The German yield curve is inverted for the first time since 2008, reflecting risk of recession/sluggish growth

It is, however, coming closer to zero.

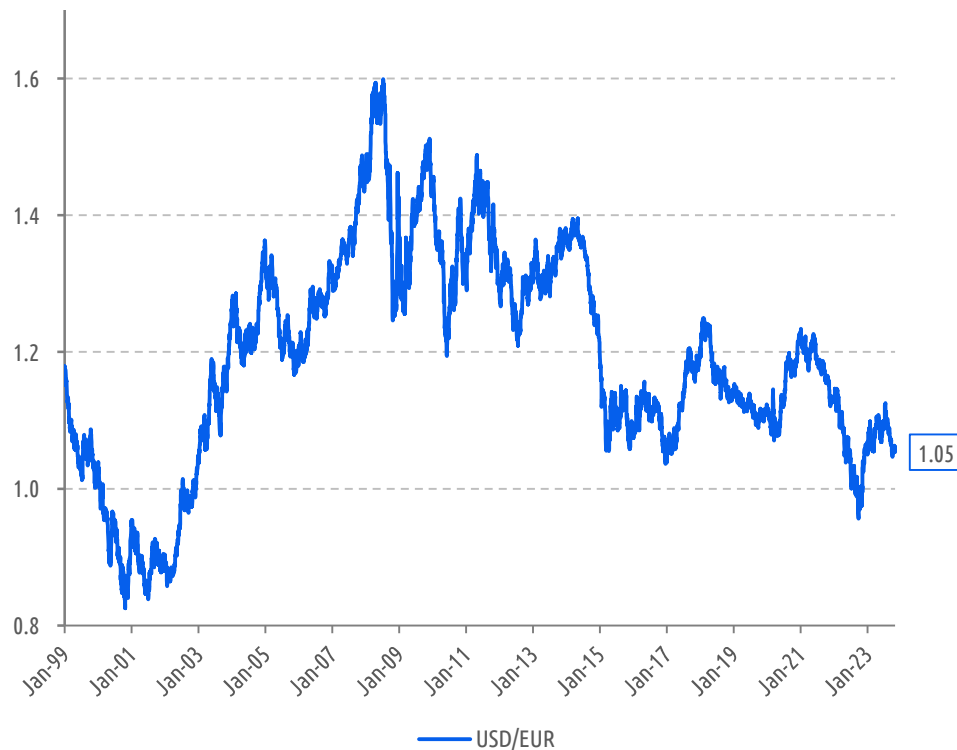
**Bund 2Yr/10Yr Spread – Since Jan 1998**



# After an appreciation since the end of 2022, the Euro has been weakening for the last three months

Current and expected growth differentials are causing investors to favor the US Dollar.

Nominal Foreign exchange rate in historical perspective – Since Jan. 1999



Nominal Foreign exchange rate in historical perspective – Since Jan. 2020



“The level of the euro matters significantly for imported inflation, [...]. A euro that is too weak would go against our price stability objective”

BANQUE DE FRANCE VILLEROY DE GALHAU, 06 MAY 2022



### **III Impact on yields and spreads**



# In Europe, sovereign yields are at high levels

They have even been increasing for more than a month.

Italian, Greek and French 10-Y yields – Since Jan. 2021



# Tensions on spreads have moderately eased off since their peak late 2022

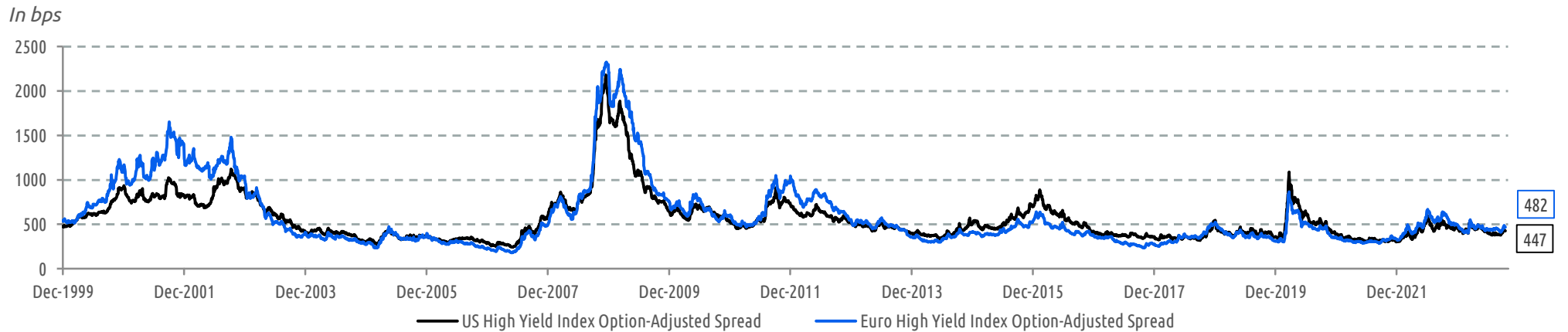
However, Italy's spreads have been increasing over the last couple of months notably due to fears over larger-than-expected public deficits.

Italian, Greek and French spreads over 10Y German bund – Since Jan. 2021

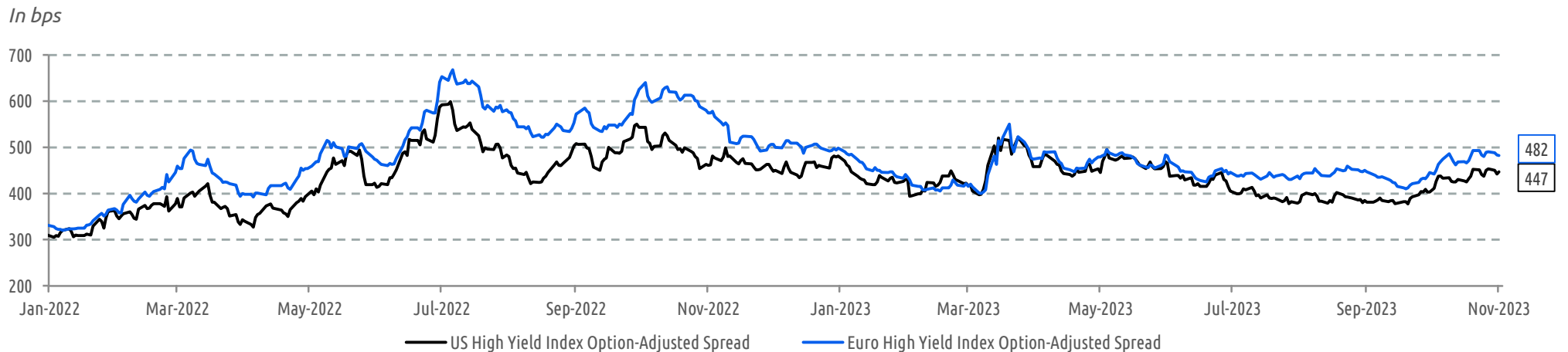


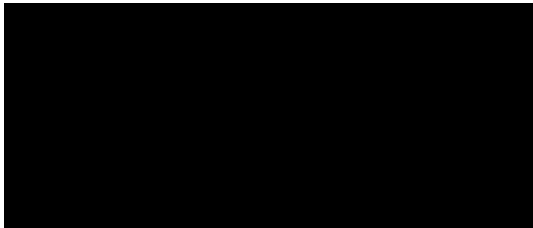
# High yield corporate bond spreads have slightly increased in the last couple of months both in the US and the Euro Area.

High yield corporate bond spreads – Since 2000



High yield corporate bond spreads – Since 2022



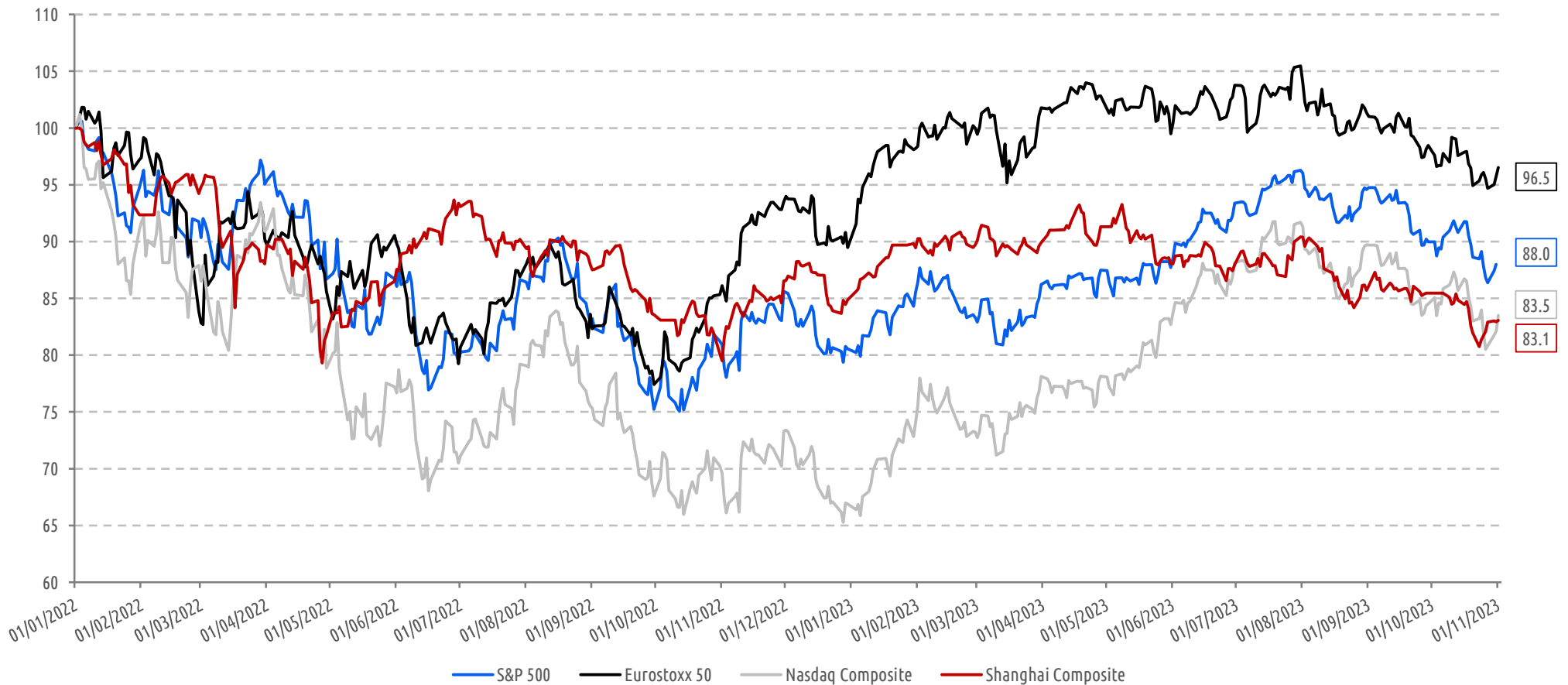


## **IV Impact on stock markets**

# Stock-market prices remain below pre-war levels

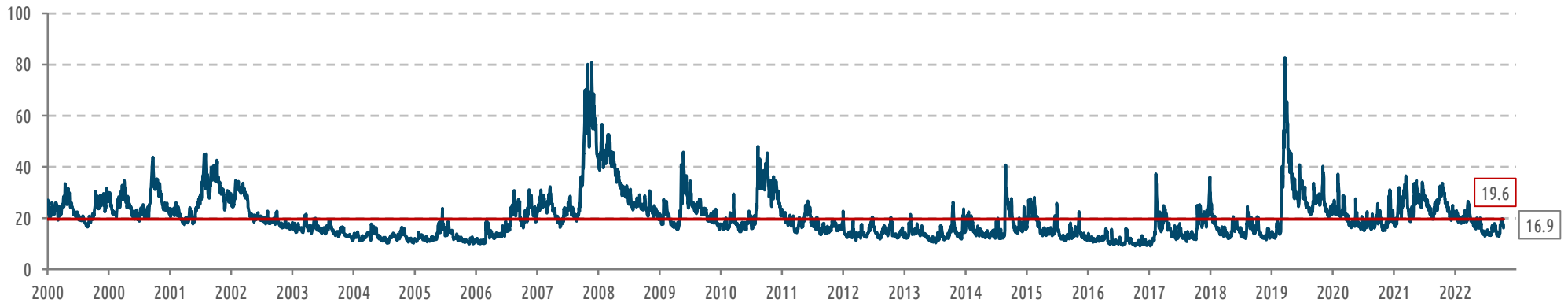
They have been going down since July, notably over fears about persisting high inflation and continuous rise of government yields.

Nasdaq Composite, S&P 500, Shanghai Composite and Eurostoxx 50 indices – Jan. 2022 = 100



# Volatility on US financial markets has fallen below its historical average level

VIX index – Since 2000



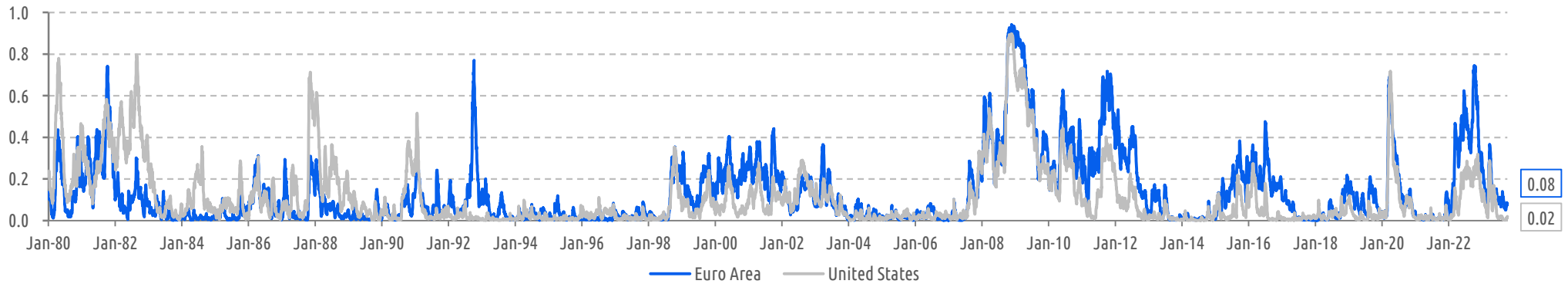
VIX index – Since 2022



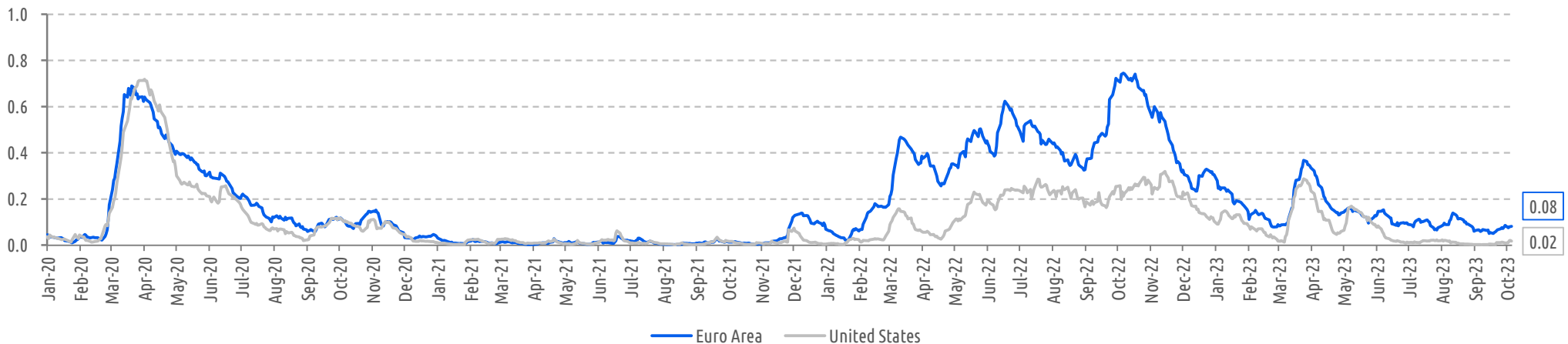
# Financial stress indicators returned to pre-war levels

The index, however, is higher in Europe than in the US.

**Composite Indicator of Systemic Stress (daily) – Since Jan. 1980**



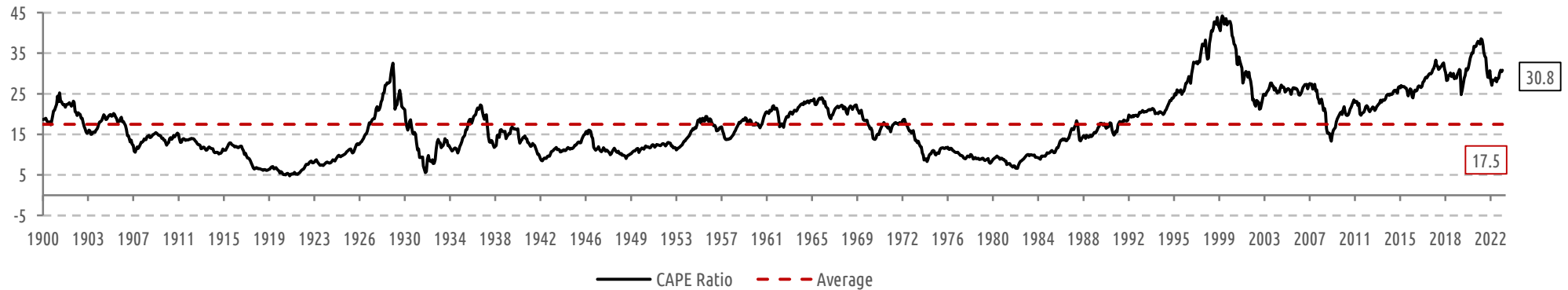
**Composite Indicator of Systemic Stress (daily) – Since Jan. 2020**



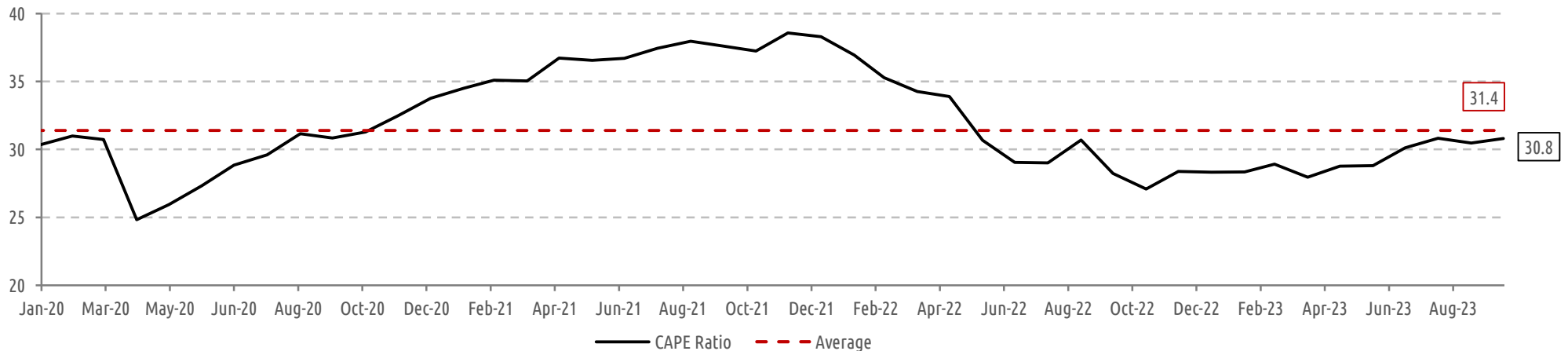
# US Shiller Cyclically Adjusted Price to Earnings ratio (CAPE ratio)<sup>1</sup>

Shiller CAPE ratio remains at record high level in historical perspective and back to its pre-crisis level.

Cyclically Adjusted Price Earnings ratio – Since 1900



Cyclically Adjusted Price Earnings ratio – Since 2020

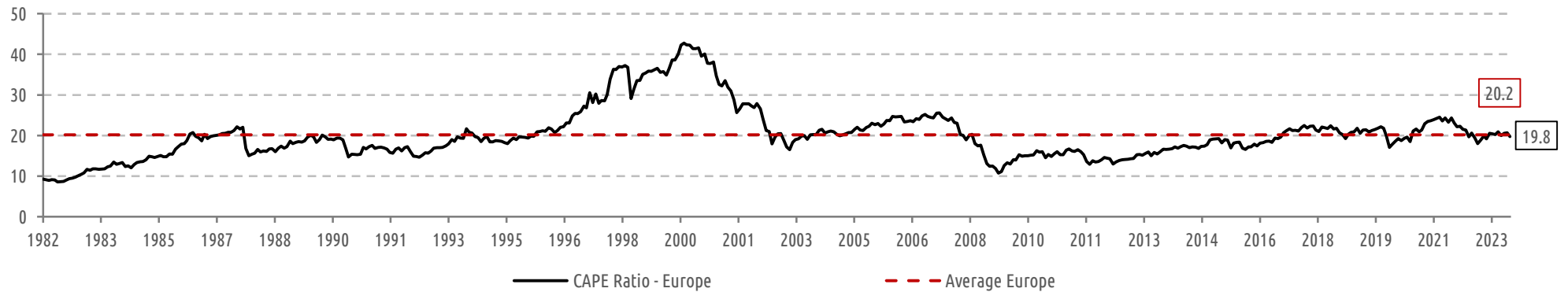




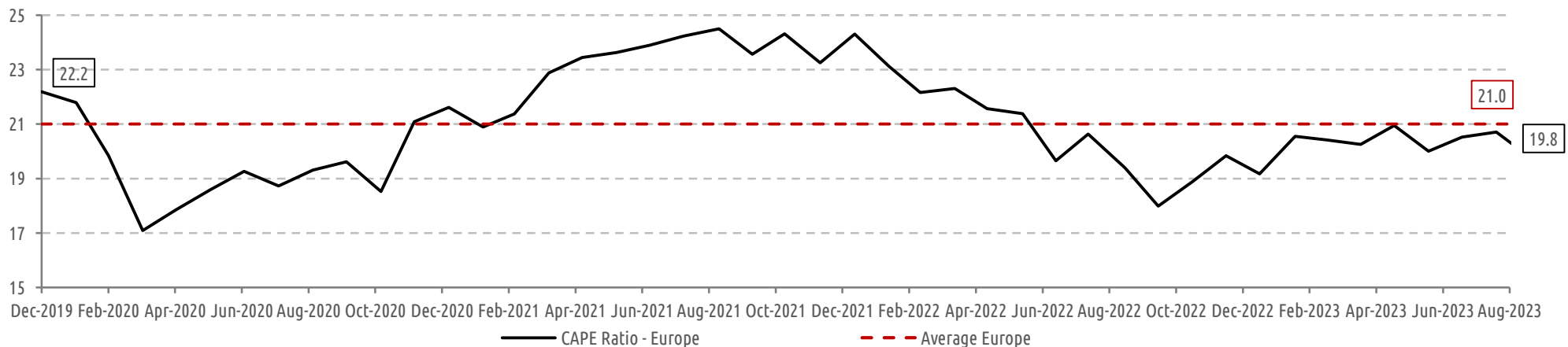
# Shiller CAPE ratio in Europe

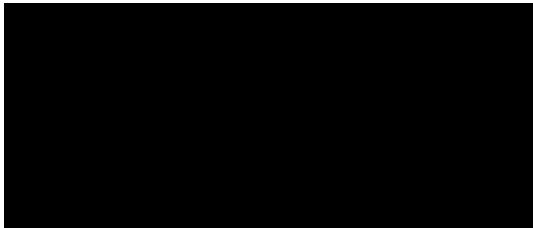
Shiller CAPE ratio is still close to its pre-Covid level and to its historical average in Europe.

Cyclically Adjusted Price Earnings ratio – Since 1982



Cyclically Adjusted Price Earnings ratio – Since 2020





## V Appendix

## Links to DBnomics data

Page #	Graph / Table	Web link
4	Quarterly GDP growth (% change over the previous period) – Germany	<a href="https://data.oecd.org/naexkp01/germany-gdp-growth">OECD/KEI/NAEXKP01.DEU.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Eurozone	<a href="https://data.oecd.org/naexkp01/eurozone-gdp-growth">OECD/KEI/NAEXKP01.EA19.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – France	<a href="https://data.oecd.org/naexkp01/france-gdp-growth">OECD/KEI/NAEXKP01.FRA.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – UK	<a href="https://data.oecd.org/naexkp01/uk-gdp-growth">OECD/KEI/NAEXKP01.GBR.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Italy	<a href="https://data.oecd.org/naexkp01/italy-gdp-growth">OECD/KEI/NAEXKP01.ITA.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Japan	<a href="https://data.oecd.org/naexkp01/japan-gdp-growth">OECD/KEI/NAEXKP01.JPN.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – US	<a href="https://data.oecd.org/naexkp01/usa-gdp-growth">OECD/KEI/NAEXKP01.USA.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – China	<a href="https://data.oecd.org/naexkp01/china-gdp-growth">OECD/DP LIVE/CHN.QGDP.TOT.PC_CHGPP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Brazil	<a href="https://data.oecd.org/naexkp01/brazil-gdp-growth">OECD/KEI/NAEXKP01.BRA.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Mexico	<a href="https://data.oecd.org/naexkp01/mexico-gdp-growth">OECD/KEI/NAEXKP01.MEX.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – South Africa	<a href="https://data.oecd.org/naexkp01/south-africa-gdp-growth">OECD/KEI/NAEXKP01.ZAF.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Indonesia	<a href="https://data.oecd.org/naexkp01/indonesia-gdp-growth">OECD/KEI/NAEXKP01.IDN.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – India	<a href="https://data.oecd.org/naexkp01/india-gdp-growth">OECD/KEI/NAEXKP01.IND.GP.Q</a>

## Links to DBnomics data

Page #	Graph / Table	Web link
6	General government debt - Germany	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;code=sdg_10.4.2.GD.S13.PC.GDP.DE">Eurostat/gov_10q_ggdebt/Q.GD.S13.PC_GDP.DE</a>
6	General government debt – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;code=sdg_10.4.2.GD.S13.PC_GDP.FR">Eurostat/gov_10q_ggdebt/Q.GD.S13.PC_GDP.FR</a>
6	General government debt – United Kingdom	<a href="https://www.ons.gov.uk/economy/banking-and-finance/financial-accounts/tables/edp1/yeqj/q">ONS/EDP1/YEQJ.Q</a>
6	General government deficit – United States	<a href="https://www.bea.gov/data/government/deficit-surplus">BEA/NIPA-T30100/AD01RC-Q</a>
6	General government deficit – Germany	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;code=sdg_10.4.2.GD.S13.PC_GDP_SCA.DE">Eurostat/teina205/Q.B9.S13.PC_GDP_SCA.DE</a>
6	General government deficit – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;code=sdg_10.4.2.GD.S13.PC_GDP_SCA.FR">Eurostat/teina205/Q.B9.S13.PC_GDP_SCA.FR</a>
6	General government deficit – United Kingdom	<a href="https://www.ons.gov.uk/economy/banking-and-finance/financial-accounts/tables/ukea/ct80/q">ONS/UKEA/CT80.Q</a>
7	Consumer confidence index – United States	<a href="https://www.oecd.org/consumer-confidence/CLI/CSCICP03.USA.M">OECD/MEI_CLI/CSCICP03.USA.M</a>
7	Consumer confidence index – Germany	<a href="https://www.oecd.org/consumer-confidence/CLI/CSCICP03.DEU.M">OECD/MEI_CLI/CSCICP03.DEU.M</a>
7	Consumer confidence index – France	<a href="https://www.oecd.org/consumer-confidence/CLI/CSCICP03.FRA.M">OECD/MEI_CLI/CSCICP03.FRA.M</a>
7	Consumer confidence index – United Kingdom	<a href="https://www.oecd.org/consumer-confidence/CLI/CSCICP03.GBR.M">OECD/MEI_CLI/CSCICP03.GBR.M</a>
7	Business confidence index – United States	<a href="https://www.oecd.org/business-confidence/CLI/BSCICP03.USA.M">OECD/MEI_CLI/BSCICP03.USA.M</a>
7	Business confidence index – Germany	<a href="https://www.oecd.org/business-confidence/CLI/BSCICP03.DEU.M">OECD/MEI_CLI/BSCICP03.DEU.M</a>
7	Business confidence index – France	<a href="https://www.oecd.org/business-confidence/CLI/BSCICP03.FRA.M">OECD/MEI_CLI/BSCICP03.FRA.M</a>
7	Business confidence index – United Kingdom	<a href="https://www.oecd.org/business-confidence/CLI/BSCICP03.GBR.M">OECD/MEI_CLI/BSCICP03.GBR.M</a>

## Links to DBnomics data

Page #	Graph / Table	Web link
9	Natural Gas (Dutch TTF) prices in historical perspective (€/MWh)	<a href="#">ICE/DUTCH TTF GAS FUTURES/D.5614690</a>
10	% of EU business reporting shortages of materials and equipment in the construction industry as a limiting production factor	<a href="#">EC/CONSTRUCTION/TOT.2.F5S.EU.M</a>
11	Beveridge curve – Euro Area (Q1-17 – Q2-22), Quarterly	<a href="#">OECD/MEI/EA20.LRHUTTTT.STSA.Q</a> <a href="#">Eurostat/jvs_q_nace2/Q.NSA.B-S.TOTAL.JOBRATE.EA19</a>
11	Beveridge curve – United States (Q1-17 – Q2-22), Monthly	<a href="#">BLS/ln/LNS14000000</a> <a href="#">BLS/jt/JTS0000000000000000JOR</a>
11	Unemployment according to ILO definition - Total – Euro area – Seasonally adjusted, Monthly	<a href="#">Eurostat/ei_lmhr_m/M.PC.ACT.SA.LM-UN-T-TOT.EA20</a>
12	Beveridge curve - France, Quarterly	<a href="#">Eurostat/jvs_q_nace2/Q.NSA.B-S.GE10.JOBRATE.FR</a> <a href="#">INSEE/CHOMAGE-TRIM-NATIONAL/T.CTTXC.TAUX.FR-D976.0.00-.POURCENT.CVS.FALSE</a>
12	Beveridge curve - Germany, Quarterly	<a href="#">Eurostat/jvs_q_nace2/Q.NSA.B-S.GE10.JOBRATE.DE</a> <a href="#">DESTATIS/81000BV001/DG.BV4SB.ERW089</a>
12	Unemployment according to ILO definition - Total – France – Seasonally adjusted, Monthly	<a href="#">Eurostat/une_rt_m/M.SA.TOTAL.PC.ACT.T.FR</a>
12	Unemployment according to ILO definition - Total – Germany – Seasonally adjusted, Monthly	<a href="#">Eurostat/une_rt_m/M.SA.TOTAL.PC.ACT.T.DE</a>
13	Wage growth tracker – France (Quarterly)	<a href="#">INSEE/ICT-2016/T.BDM_EUR.ICT.A21-BTN.INDICE.SSE.FE.SO.CVS-CJO.2016</a>

## Links to DBnomics data

Page #	Graph / Table	Web link
15	CPI Inflation (YoY % change) – United States	<a href="https://www.bls.gov/charts/cpi-inflation/cpi-usa-annual-percent-change.html">BLS/cu/CUSR0000SA0</a> <a href="https://www.bls.gov/charts/cpi-inflation/cpi-usa-annual-percent-change.html">BLS/cu/CUSR0000SA0L1E</a>
15	CPI Inflation (YoY % change) – Eurozone	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.CP00.EA">Eurostat/prc_hicp_manr/M.RCH.A.CP00.EA</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.EA">Eurostat/prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.EA</a>
15	CPI Inflation (YoY % change) – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.CP00.FR">Eurostat/prc_hicp_manr/M.RCH.A.CP00.FR</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.FR">Eurostat/prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.FR</a>
15	CPI Inflation (YoY % change) – France INSEE	<a href="https://www.insee.fr/fr/statistiques/1515151?geo=FRANCE&amp;ts=2015&amp;ds=IPC&amp;ds2=SO.SO.4035.GLISSEMENT.ANNUEL.ENSEMBLE.FE.POURCENT.BRUT.SO.FALSE">INSEE/IPC-2015/M.IPC.SO.SO.4035.GLISSEMENT.ANNUEL.ENSEMBLE.FE.POURCENT.BRUT.SO.FALSE</a> <a href="https://www.insee.fr/fr/statistiques/1515151?geo=FRANCE&amp;ts=2015&amp;ds=IPC&amp;ds2=SO.SO.4035.GLISSEMENT.ANNUEL.ENSEMBLE.FM.POURCENT.CVS-FISC.SO.FALSE">INSEE/IPC-2015/M.ISJ.SO.SO.4035.GLISSEMENT.ANNUEL.ENSEMBLE.FM.POURCENT.CVS-FISC.SO.FALSE</a>
15	CPI Inflation (YoY % change) – Germany	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.CP00.DE">Eurostat/prc_hicp_manr/M.RCH.A.CP00.DE</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.DE">Eurostat/prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.DE</a>
15	CPI Inflation (YoY % change) – Italy	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.CP00.IT">Eurostat/prc_hicp_manr/M.RCH.A.CP00.IT</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.IT">Eurostat/prc_hicp_manr/M.RCH.A.TOT.X.NRG.FOOD.IT</a>
15	CPI Inflation (YoY % change) – United Kingdom	<a href="https://www.ons.gov.uk/employment-and-labour-markets/employment-and-unemployment/tables/mm23/d7g7.m">ONS/MM23/D7G7.M</a> <a href="https://www.ons.gov.uk/employment-and-labour-markets/employment-and-unemployment/tables/mm23/dko8.m">ONS/MM23/DKO8.M</a>
15	CPI Inflation (YoY % change) – Japan	<a href="https://www.stat.go.jp/english/press/cpi/cpi001.htm">STATJP/CPIm/001</a> <a href="https://www.stat.go.jp/english/press/cpi/cpi001.htm">STATJP/CPIm/740</a>
16	CPI Inflation (YoY % change) – South Africa	<a href="https://www.oecd.org/kei/cpalTT01.ZAF.GY.M">OECD/KEI/CPALTT01.ZAF.GY.M</a>
16	CPI Inflation (YoY % change) - Brazil	<a href="https://www.oecd.org/kei/cpalTT01.BRA.GY.M">OECD/KEI/CPALTT01.BRA.GY.M</a>
16	CPI Inflation (YoY % change) – China	<a href="https://www.oecd.org/kei/cpalTT01.CHN.GY.M">OECD/KEI/CPALTT01.CHN.GY.M</a>
16	CPI Inflation (YoY % change) – Indonesia	<a href="https://www.oecd.org/kei/cpalTT01.IDN.GY.M">OECD/KEI/CPALTT01.IDN.GY.M</a>
16	CPI Inflation (YoY % change) – India	<a href="https://www.oecd.org/kei/cpalTT01.IND.GY.M">OECD/KEI/CPALTT01.IND.GY.M</a>
16	CPI Inflation (YoY % change) – Mexico	<a href="https://www.oecd.org/kei/cpalTT01.MEX.GY.M">OECD/KEI/CPALTT01.MEX.GY.M</a>

## Links to DBnomics data

Page #	Graph / Table	Web link
17	Quarterly implied GDP deflator – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;plugin=1&amp;code=namq_10_gdp/Q.PD_PCH_SM_NAC.SCA.B1GQ.DE">Eurostat/namq_10_gdp/Q.PD_PCH_SM_NAC.SCA.B1GQ.DE</a>
17	Quarterly implied GDP deflator – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;plugin=1&amp;code=namq_10_gdp/Q.PD_PCH_SM_NAC.SCA.B1GQ.FR">Eurostat/namq_10_gdp/Q.PD_PCH_SM_NAC.SCA.B1GQ.FR</a>
17	Quarterly implied GDP deflator - United Kingdom	<a href="https://www.ons.gov.uk/economy/inflationandcosts/quarterlyimpliedgdpdeflator">ONS/QNA/IHYU.Q</a>
17	Quarterly implied GDP deflator - United States	<a href="https://www.bea.gov/nipaweb/tables?nips=1&amp;table=NIPAT10109&amp;series=A191RD-Q&amp;unit=1">BEA/NIPA-BEA/NIPA-T10109/A191RD-Q/A191RD-Q</a>
20	Personal consumption expenditures (PCE)	<a href="https://www.bea.gov/nipaweb/tables?nips=1&amp;table=NIPAT20804&amp;series=DPCERG-M&amp;unit=1">BEA/NIPA-T20804/DPCERG-M</a>
23	10-Y Nominal yield – US	<a href="https://www.federalreserve.gov/releases/h15/riflfgcy10">FED/H15/RIFLGFCY10_N.B</a>
24	Yield curve – US	<a href="https://www.federalreserve.gov/releases/h15/riflfgcm03">FED/H15/RIFLGFCM03_N.B</a>
27	10-Y Nominal yield – German Bund	<a href="https://www.buba.de/BBK01/WT1010">BUBA/BBK01/WT1010</a>
27	Inflation Expectations - Germany	<a href="https://www.buba.de/BBSSY/D.KCP.EUR.A607.DE0001102523.A">BUBA/BBSSY/D.KCP.EUR.A607.DE0001102523.A</a>
27	Forward Rates on 10-Year German Bund	<a href="https://www.buba.de/BBSIS/D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A.Z.Z.A">BUBA/BBSIS/D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A.Z.Z.A</a>
27	Yield curve – Germany	<a href="https://www.buba.de/BBSSY/D.KCP.EUR.A607.DE0001102523.A">BUBA/BBSSY/D.KCP.EUR.A607.DE0001102523.A</a>

## Links to DBnomics data

Page #	Graph / Table	Web link
28	Nominal Foreign exchange rate in historical perspective	<a href="#">BUBA/BBEX3/D.USD.EUR.BB.AC.000</a>
30	Italian 10-Y yield	<a href="#">Eurostat/irt_lt_mcb_y_d/D.MCBY.IT</a>
30	Greek 10-Y yield	<a href="#">Eurostat/irt_lt_mcb_y_d/D.MCBY.EL</a>
30	French 10-Y yield	<a href="#">Eurostat/irt_lt_mcb_y_d/D.MCBY.FR</a>
30	German 10-Y yield	<a href="#">Eurostat/irt_lt_mcb_y_d/D.MCBY.DE</a>
36	Composite Indicator of Systemic Stress (daily) – Euro Area	<a href="#">ECB/CISS/D.U2.Z0Z.4F.EC.SS_CIN.IDX</a>
36	Composite Indicator of Systemic Stress (daily) – United States	<a href="#">ECB/CISS/D.US.Z0Z.4F.EC.SS_CIN.IDX</a>