

CEPREMAP / DBNOMICS

# Macroeconomic Outlook - April 2023

## DBnomics

- All data presented in the forthcoming slides are extracted from DBnomics (<https://db.nomics.world/>), an open-sourced databank created at CEPREMAP, and will be automatically updated every Friday at 2:00pm
- 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 comments on the slides have been written by Daniel Cohen and Armand Dubois at CEPREMAP
- Links to the DBnomics data are available in the Appendix
- All materials presented here can be freely used with proper acknowledgment

## Executive summary

- In response to inflationary pressures, monetary policy has been tightened up to levels unheard of for the last 20 years, the question being up to which point in 2023. Financial stress arising from the bankruptcy of Silicon Valley Bank has put into question the extent to which monetary tightening should continue.
- Markets are now following in parallel financial stress and inflation trends.
- The sheer threat of a recession has reduced the price of energy, potentially cooling down inflationary pressures. The OPEC+ decision, to curtail production has lifted up prices.
- The discrepancy between the tightening pace in the US and in the Euro Area has led, in 2022, to an appreciation of the USD against the EUR. The expectation that US inflation may peak before the EZ could reverse this trend this year.

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# I Growth and inflation in selected G20 countries



## **A The growth slowdown**

# Growth in advanced economies

2022 European growth has proved to be more resilient than expected. 2023 is expected to deliver sluggish growth in advanced economies particularly in the Euro Area, but not a major recession.

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

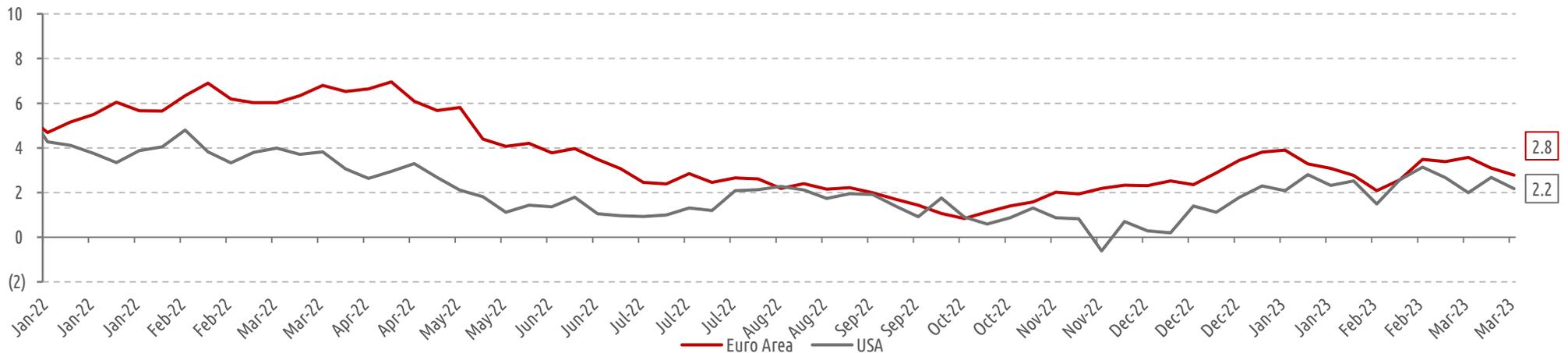
Yearly GDP growth rate %					
Country	2020	2021	2022(P)	2023(P)	2024(P)
<b>Euro Area</b>	(6.3) <sup>1</sup>	5.3	3.3	0.5	1.4
<i>Germany</i>	(3.7)	2.6	1.8	(0.1)	1.1
<i>France</i>	(7.9)	6.8	2.6	0.7	1.3
<i>Italy</i>	(9.0)	7.0	3.7	0.7	0.8
<b>UK</b>	(11.0)	7.6	4.0	(0.3)	1.0
<b>USA</b>	(2.8)	5.9	2.1	1.6	1.1
<b>Canada</b>	(5.1)	5.0	3.4	1.5	1.5
<b>Japan</b>	(4.3)	2.1	1.1	1.3	1.0

Forecast from IMF World Economic Outlook, April 2023

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

Quarterly GDP growth rate %									
Country	20Q4	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4
<b>Euro Area</b>	(0.3)	(0.0)	2.0	2.3	0.6	0.6	0.9	0.4	(0.0)
<i>France</i>	(0.9)	0.1	1.1	3.3	0.6	(0.2)	0.5	0.2	0.1
<i>Germany</i>	0.6	(1.5)	1.9	0.8	(0.0)	0.8	0.1	0.5	(0.4)
<i>Italy</i>	(0.7)	0.5	2.4	2.9	0.9	0.1	1.0	0.4	(0.1)
<b>UK</b>	1.2	(1.1)	6.5	1.7	1.5	0.5	0.1	(0.1)	0.1
<b>USA</b>	1.0	1.5	1.7	0.7	1.7	(0.4)	(0.1)	0.8	0.6
<b>Canada</b>	2.1	1.3	(0.6)	1.4	1.7	0.6	0.9	0.6	0.0
<b>Japan</b>	1.9	(0.2)	0.3	(0.4)	1.1	(0.5)	1.2	(0.3)	0.0

**Weekly growth tracker in Advanced Economies (YoY % change) – Since Jan. 2022**



# Growth in emerging countries

The end of China's zero-covid policy is expected to boost growth in 2023.

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

Yearly GDP growth rate %					
Country	2020	2021	2022(P)	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

Forecast from OECD Economic Outlook, Interim Report March 2023

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

Quarterly GDP growth rate %									
Country	20Q4	21Q1	21Q2	21Q3	21Q4	22Q1	22Q2	22Q3	22Q4
China	2.4	0.8	1.4	0.4	1.3	1.6	(2.7)	3.9	nan
S. Africa	2.7	0.8	1.4	(1.8)	1.4	1.6	(0.8)	1.8	(1.3)
Brazil	3.4	1.0	(0.3)	0.3	1.1	1.3	0.9	0.3	(0.2)
India	6.3	1.4	(7.6)	9.4	1.9	0.8	1.0	1.7	0.7
Mexico	4.3	0.4	0.7	(1.1)	1.2	1.2	1.1	0.9	0.5
Indonesia	2.4	1.0	0.2	0.1	3.3	1.1	0.9	0.7	2.2

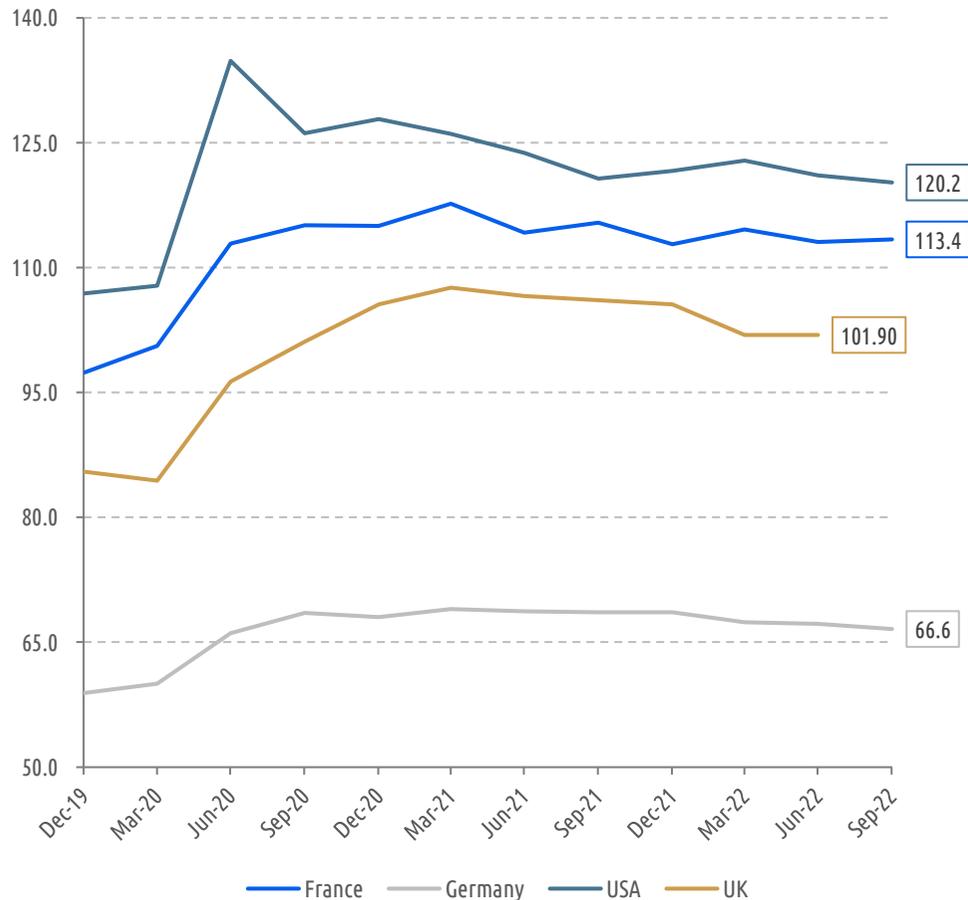
**Weekly growth tracker in Emerging Economies (YoY % change) – Since Jan. 2022**



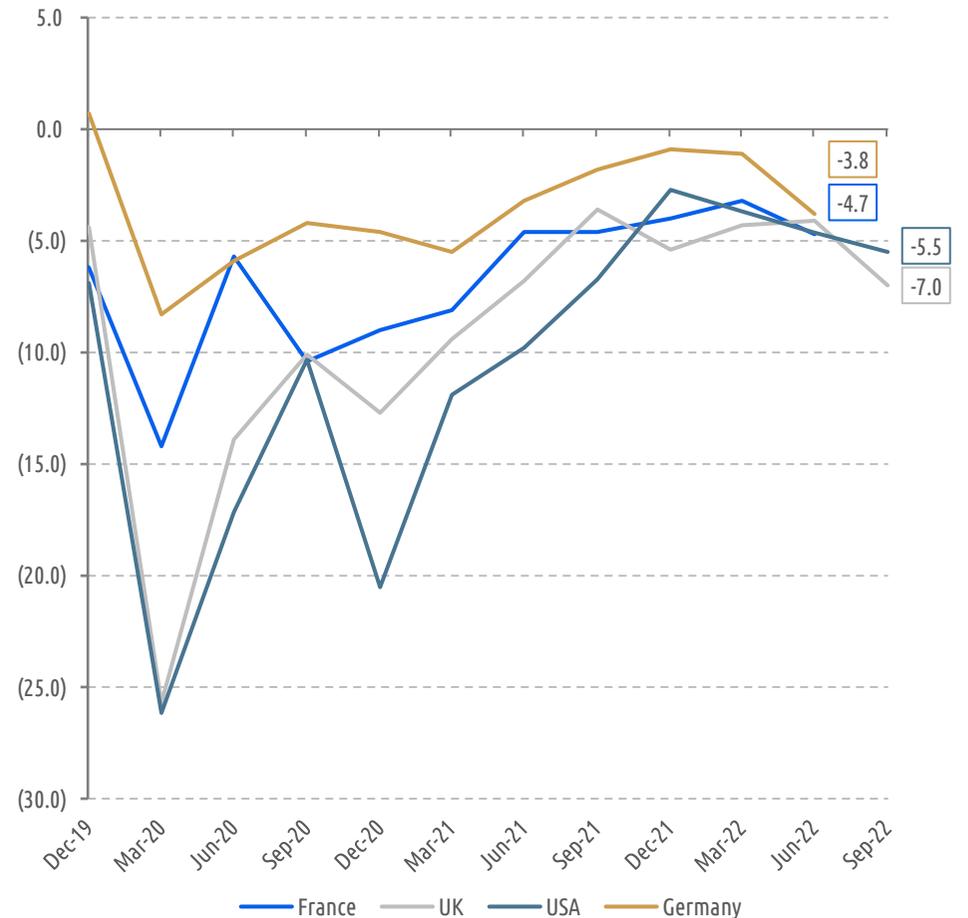
# Government debts have reached a new plateau in the G4 countries<sup>1</sup>

Fiscal accounts were deteriorated by Covid-19 policy responses with inflation a moderating factor on the evolution of debt

General Government debt (% of GDP) – Since 2020



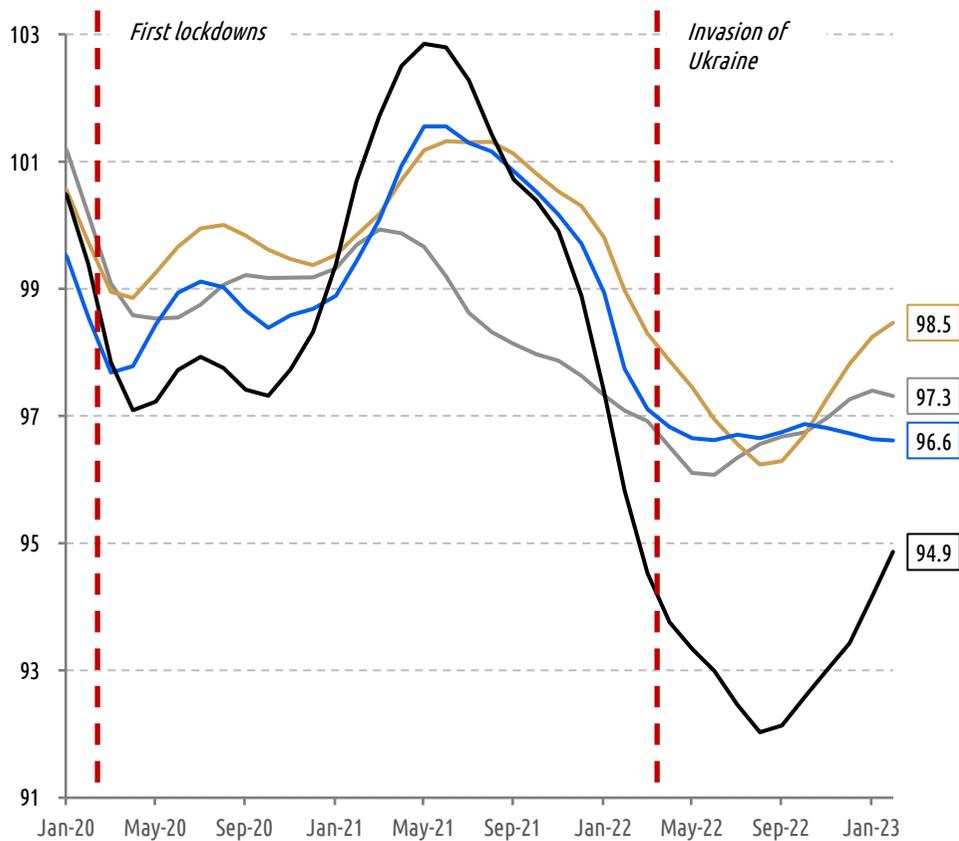
General Government deficit (% of GDP) – Since 2020



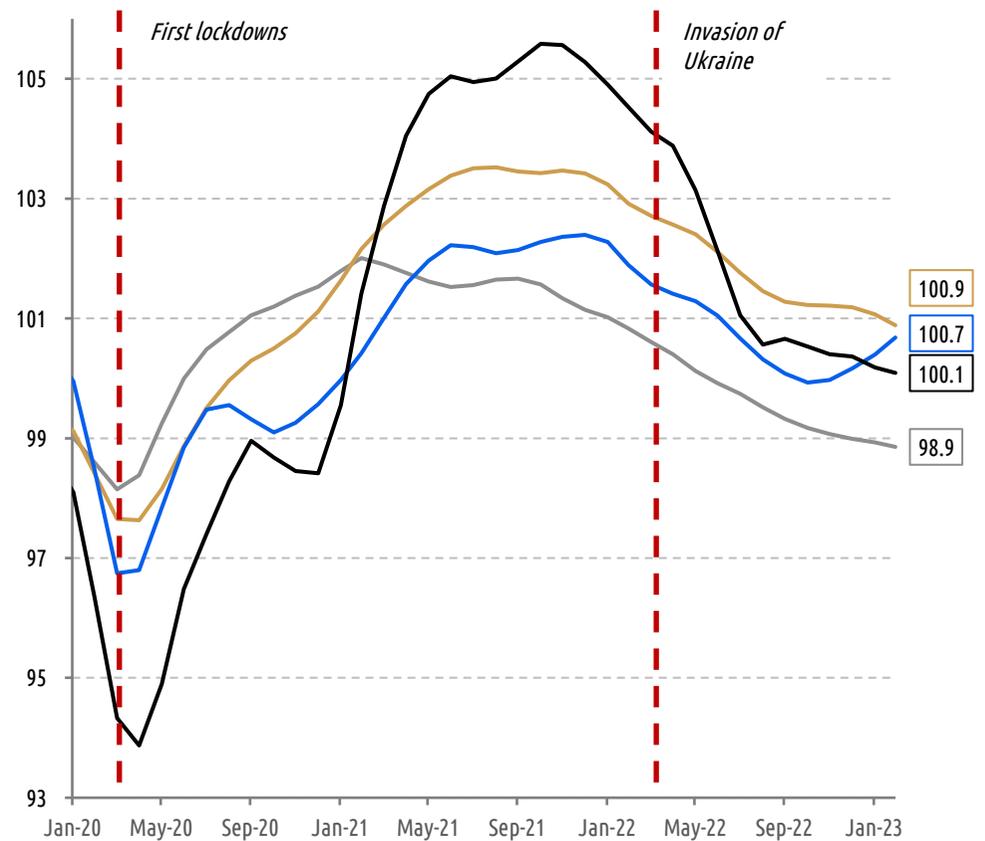
# Consumer confidence indicators may have bottomed down in the G4 countries<sup>1</sup>

Business confidence, however, while below post-Covid peaks, remains at pre-crisis level

Consumer confidence indicator – Since Jan. 2020



Business confidence indicator – Since Jan. 2020



— USA — Germany — France — UK

— USA — Germany — France — UK



## **B The seeds of inflation**

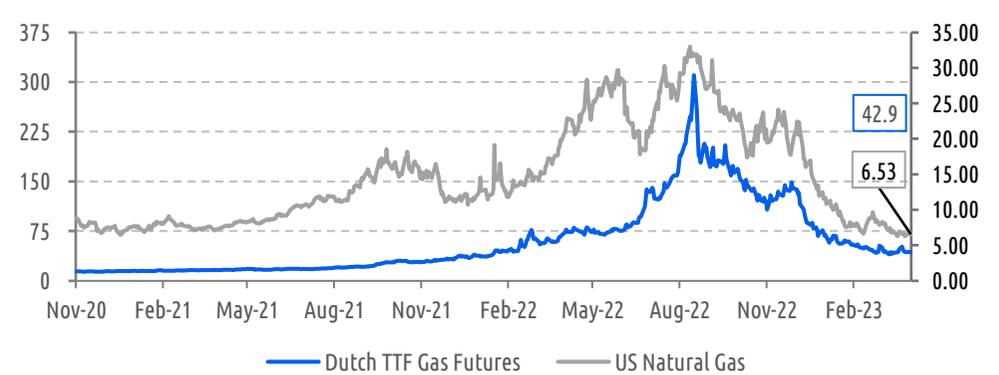
# Energy prices have sharply increased over the last 2 years - (1/2)

Post Covid recovery has raised commodity prices, even prior to the Ukrainian invasion

**Oil prices in historical perspective (USD per barrel)**



**EU (left scale) and US (right scale) natural gas prices<sup>1</sup> (€/MWh) – May 23**



**Copper prices in historical perspective (USD/tonne)**



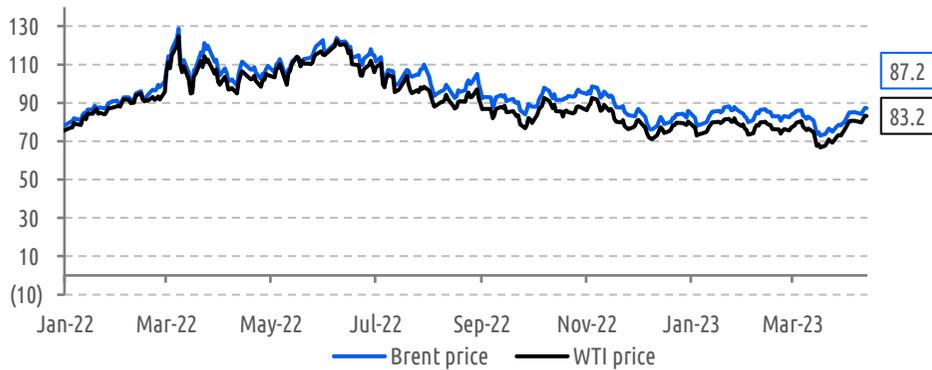
**CBOT Wheat (USD/Bushel)**



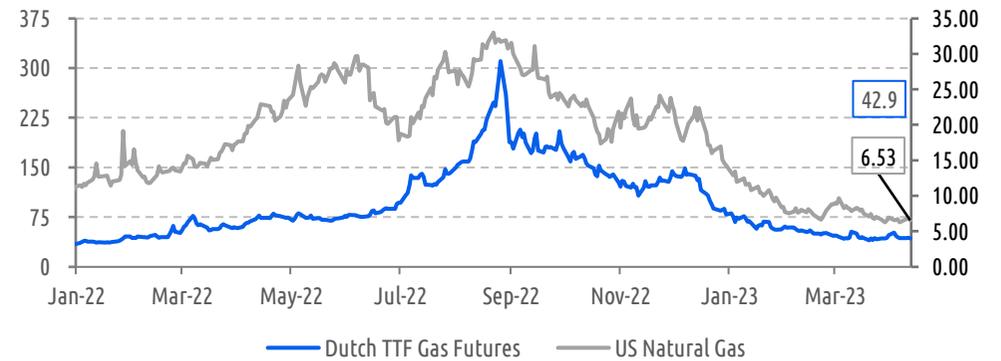
# But have already peaked - (2/2)

OPEC+ decided to cut oil production by 3.66 million barrels per day (up to 3.7% of global demand) lifting up prices by more than \$5 per barrel.

Oil prices in historical perspective (USD per barrel)



EU (left scale) and US (right scale) natural gas prices<sup>1</sup> (€/MWh) – May 23



Copper prices in historical perspective (USD/tonne)



CBOT Wheat (USD/Bushel)



# Supply chain disruptions are easing up significantly

Transportation costs returned to their pre-crisis level

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



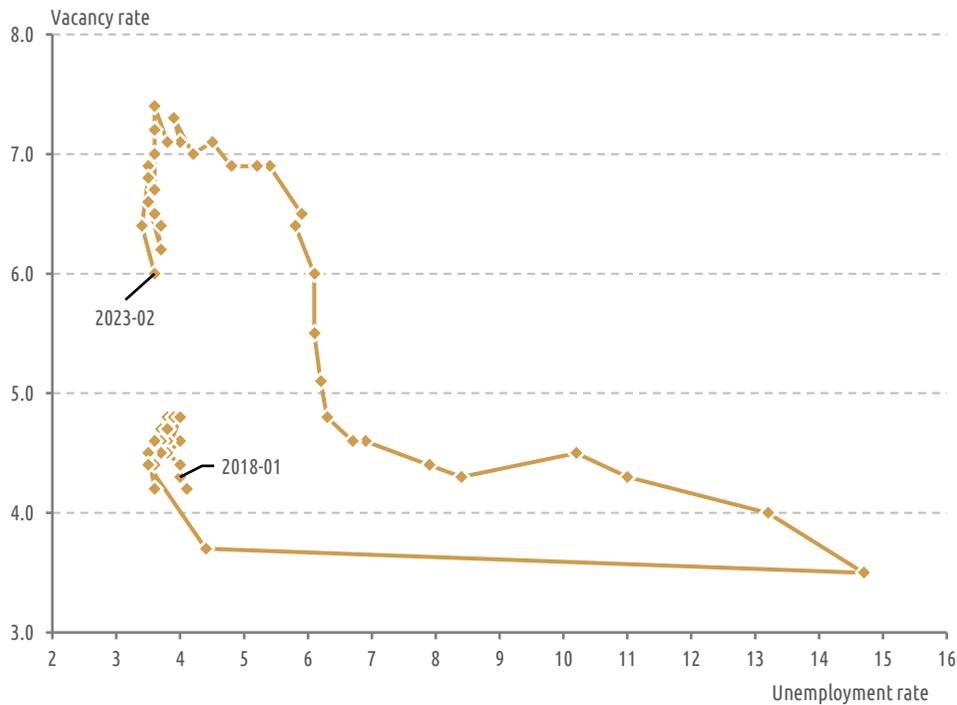
**Shipping Container Index (based on spot rate for 40 feet containers)**



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

The US vacancy/unemployment ratio, however, fell abruptly in February, signaling a loosening of labor market tensions.

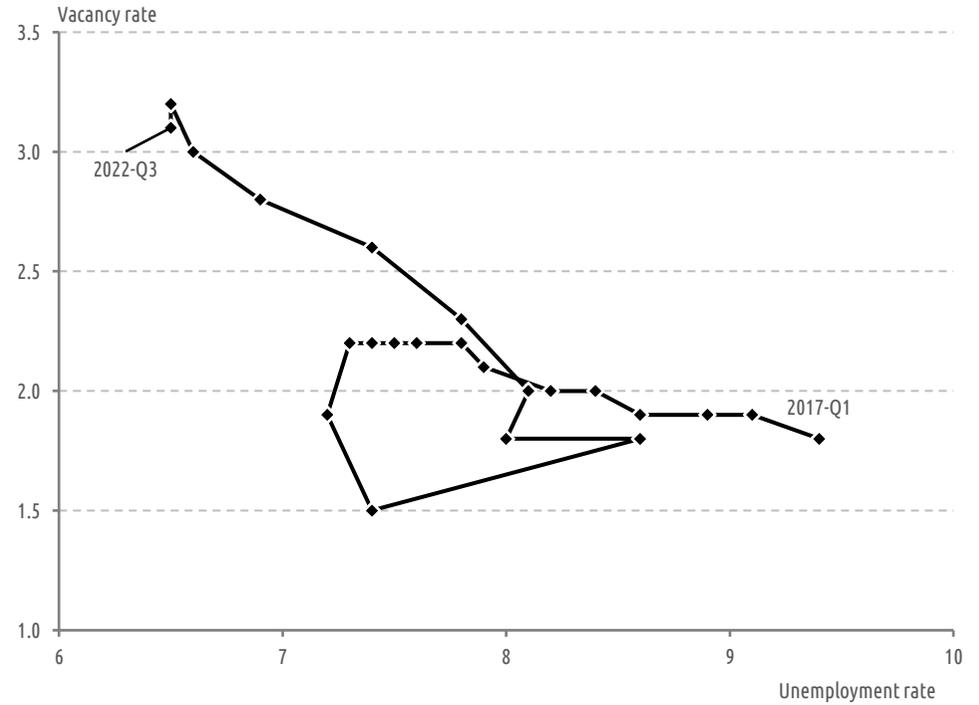
**Beveridge curve - USA (01-2018 – 02-2023), Monthly**



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

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

**Beveridge curve – Euro Area (Q1-17 – Q3-22), Quarterly**



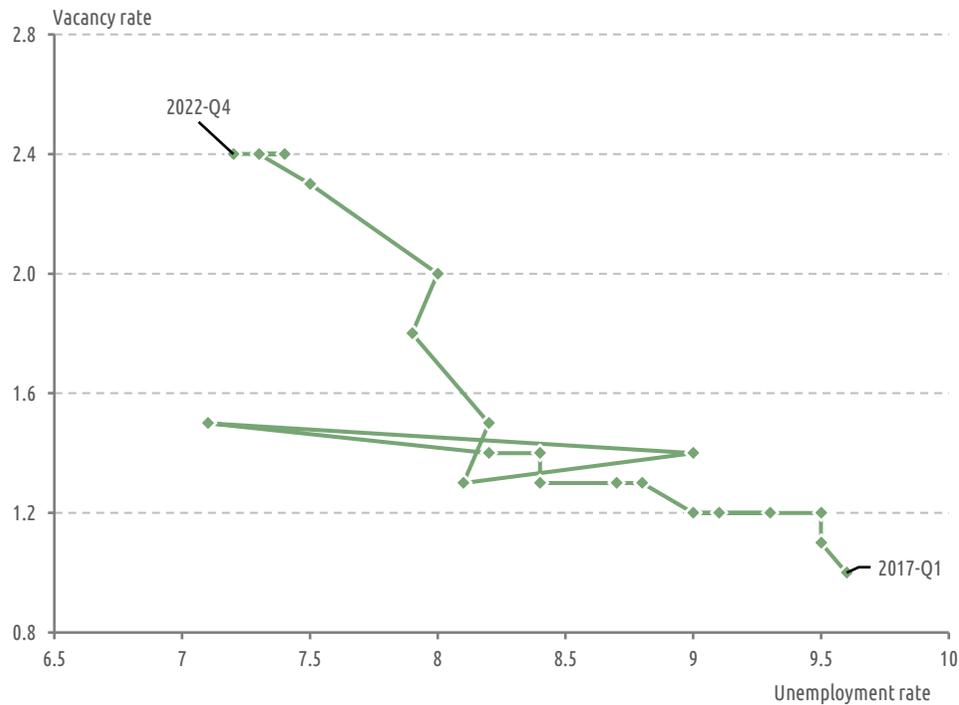
**Unemployment rate (% of labor force) - Monthly**

Unemployment according to ILO definition - Total – Euro area – Seasonally adjusted												
Indicator	03-22	04-22	05-22	06-22	07-22	08-22	09-22	10-22	11-22	12-22	01-23	02-23
Rate	6.8	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.6	6.6

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

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

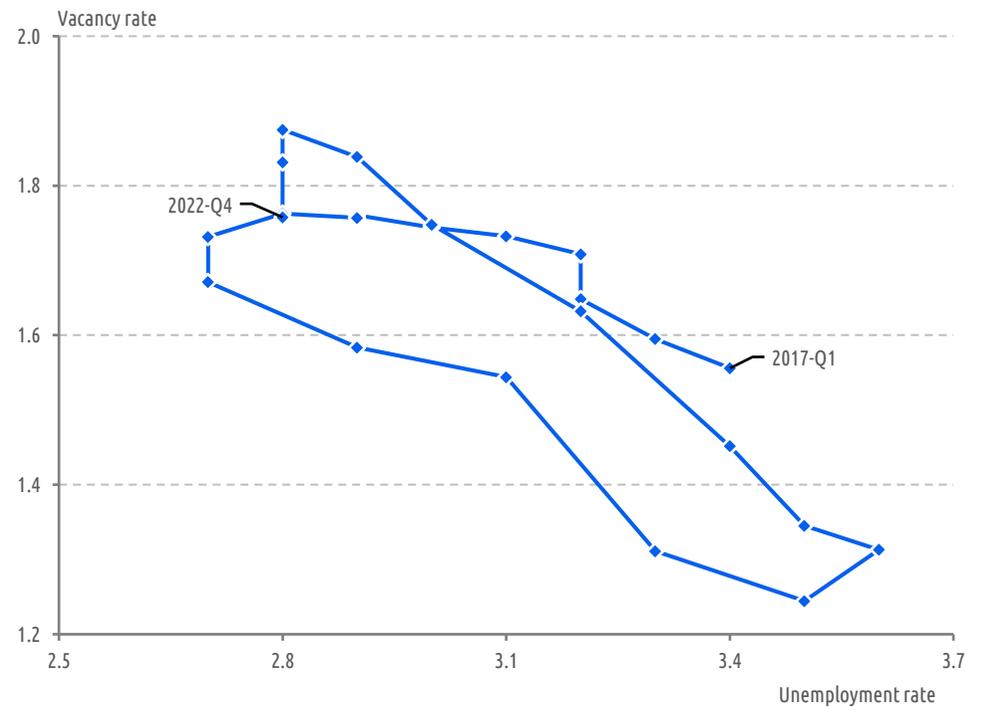
**Beveridge curve - France (Q1-17 – Q4-22), Quarterly**



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

Unemployment rate – Total – France- Seasonally adjusted												
Indicator	03-22	04-22	05-22	06-22	07-22	08-22	09-22	10-22	11-22	12-22	01-23	02-23
Rate	7.4	7.5	7.5	7.5	7.3	7.2	7.1	7.2	7.2	7.2	7.1	7.0

**Beveridge curve - Germany (Q1-17 – Q4-22), Quarterly**



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

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

# Labor costs, however, seem (moderately) constrained

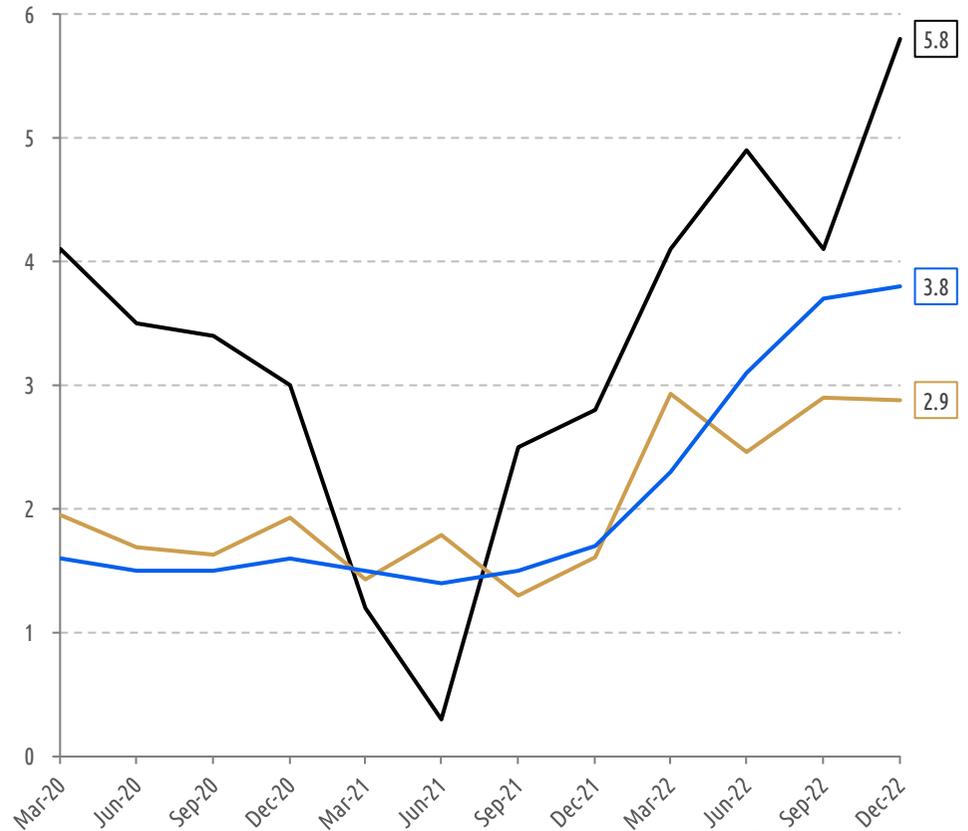
The verdict on EZ wage inflation still open

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



— 3-months moving average - Weighted overall

Indicator of negotiated wages<sup>1</sup> in the Euro Area (Quarterly)



— Euro Area - Labor cost index  
 — Euro Area - Indicator of negotiated wages  
 — France - Salaire mensuel de base (SMB)



## **C Inflation unbound**

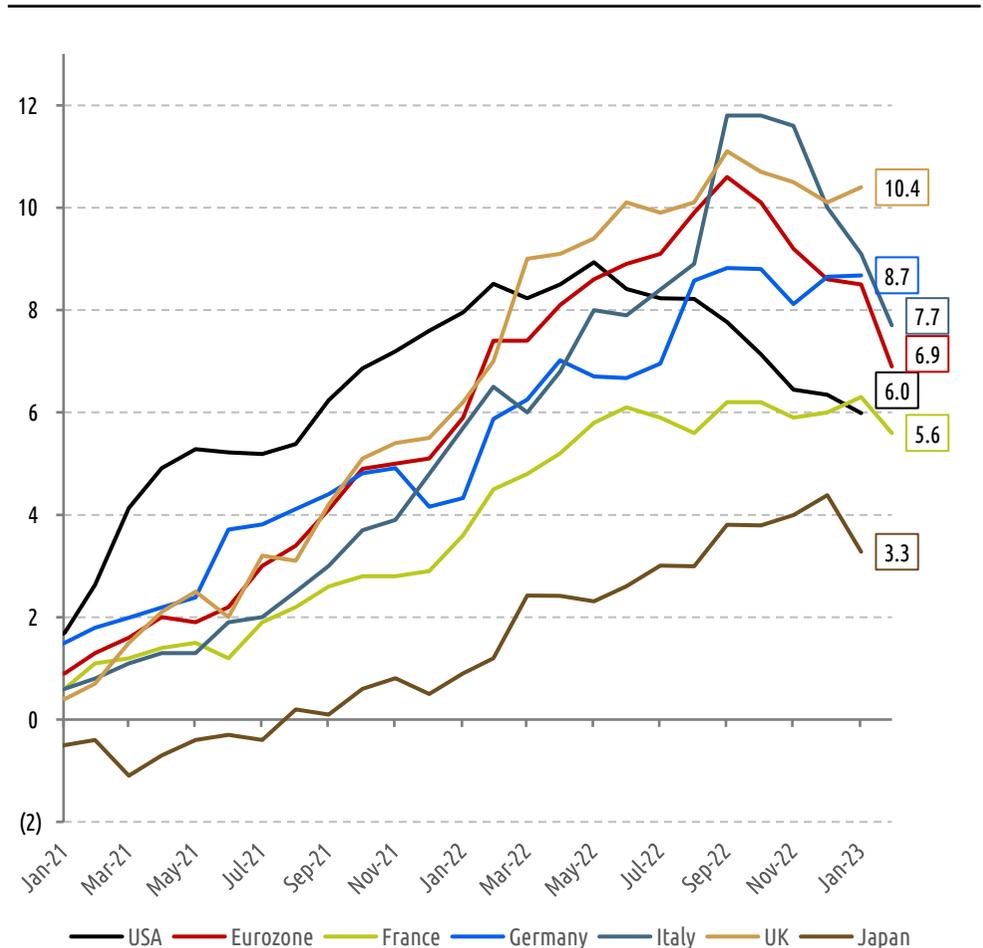
# Inflation is slowly getting down

The latest headline US number eased to its lowest level in nearly two years in March (5.0%) on the back of stubborn core inflation (5.6%). In Europe, inflation is also cooling down to 6.9%. UK inflation unexpectedly rebounded in February to 10.4%.

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

Monthly Year-on-Year inflation rates (%) – 2022/2023												
Country	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>US</b>	8.2	8.5	8.9	8.4	8.2	8.2	7.8	7.1	6.5	6.4	6.0	5.0
<i>US core</i>	6.1	6.0	5.9	5.9	6.3	6.6	6.3	6.0	5.7	5.5	5.5	5.6
<b>Euro Area</b>	7.4	8.1	8.6	8.9	9.1	9.9	10.6	10.1	9.2	8.6	8.5	6.9
<i>Euro Area core</i>	3.5	3.8	3.7	4.0	4.3	4.8	5.0	5.0	5.2	5.3	5.6	5.7
<b>France</b>	4.8	5.2	5.8	6.1	5.9	5.6	6.2	6.2	5.9	6.0	6.3	5.6
<i>France core</i>	3.3	3.7	3.7	4.3	4.7	4.5	5.0	5.3	5.3	5.6	6.1	-
<b>Germany</b>	6.2	7.0	6.7	6.7	7.0	8.6	8.8	8.8	8.1	8.7	8.7	-
<i>Germany core</i>	3.4	3.7	3.3	3.5	3.7	4.6	4.8	5.0	5.2	5.6	5.7	-
<b>Italy</b>	6.0	6.8	8.0	7.9	8.4	8.9	11.8	11.8	11.6	10.0	9.1	7.7
<i>Italy core</i>	2.4	3.2	3.8	4.1	4.4	5.0	5.3	5.6	5.8	6.0	6.3	6.4
<b>UK</b>	9.0	9.1	9.4	10.1	9.9	10.1	11.1	10.7	10.5	10.1	10.4	-
<i>UK core</i>	6.2	5.9	5.8	6.2	6.3	6.5	6.5	6.3	6.3	5.8	6.2	-
<b>Canada</b>	5.1	5.7	6.7	6.8	7.7	8.1	7.6	7.0	6.9	6.9	6.8	6.3
<i>Canada core</i>	3.5	3.9	4.7	4.6	5.2	5.3	5.5	5.3	5.4	5.3	5.4	5.3
<b>Japan</b>	2.4	2.4	2.3	2.6	3.0	3.0	3.8	3.8	4.0	4.4	3.3	-
<i>Japan core</i>	0.8	0.8	0.9	1.2	1.6	1.8	2.5	2.8	3.0	3.2	3.4	-

CPI Inflation (YoY % change) – since January 2021



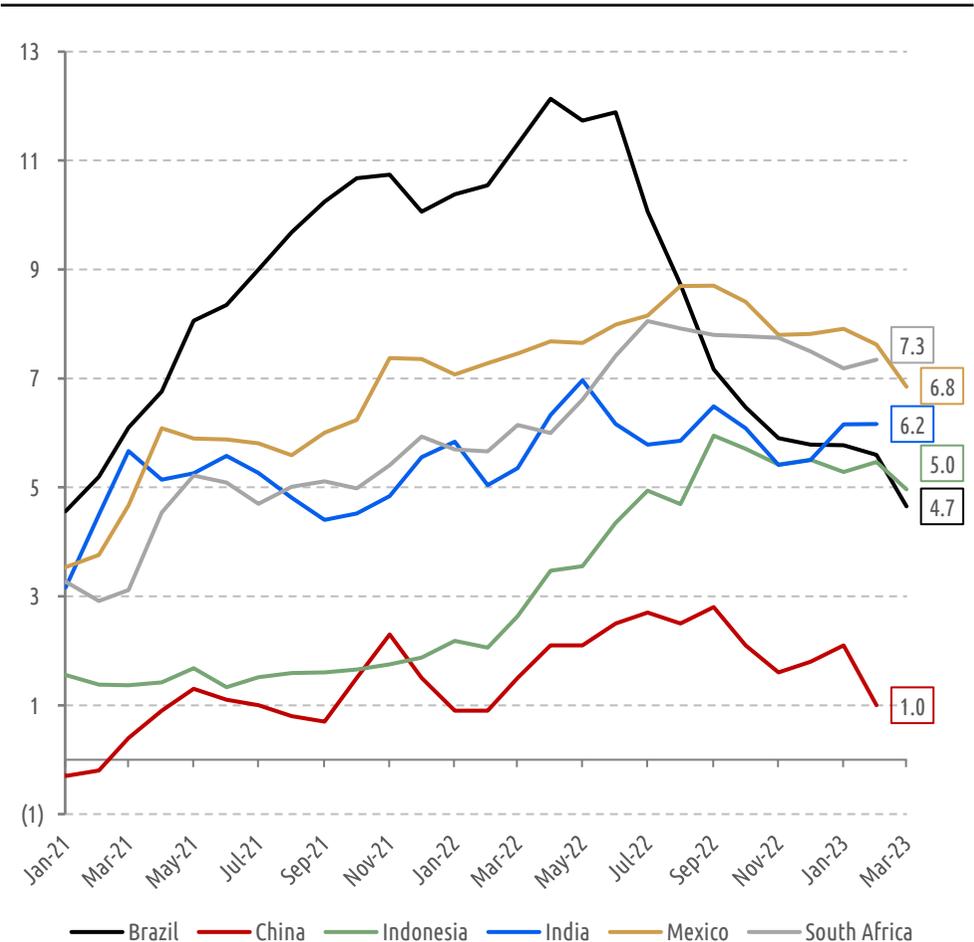
# Inflation in emerging economies

In most emerging countries, inflation also a critical problem, but starting to cool down. China an extraordinary exception.

CPI inflation in advanced economies (YoY % change)

Monthly Year-on-Year inflation rates (%) – 2022/2023												
Country	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
<b>China</b>	2.1	2.1	2.5	2.7	2.5	2.8	2.1	1.6	1.8	2.1	1.0	–
<b>India</b>	6.3	7.0	6.2	5.8	5.9	6.5	6.1	5.4	5.5	6.2	6.2	–
<b>South Africa</b>	6.0	6.6	7.4	8.1	7.9	7.8	7.8	7.7	7.5	7.2	7.3	–
<b>Brazil</b>	12.1	11.7	11.9	10.1	8.7	7.2	6.5	5.9	5.8	5.8	5.6	4.7
<b>Mexico</b>	7.7	7.7	8.0	8.2	8.7	8.7	8.4	7.8	7.8	7.9	7.6	6.8
<b>Indonesia</b>	3.5	3.6	4.3	4.9	4.7	6.0	5.7	5.4	5.5	5.3	5.5	5.0

CPI Inflation (YoY % change) – since January 2021



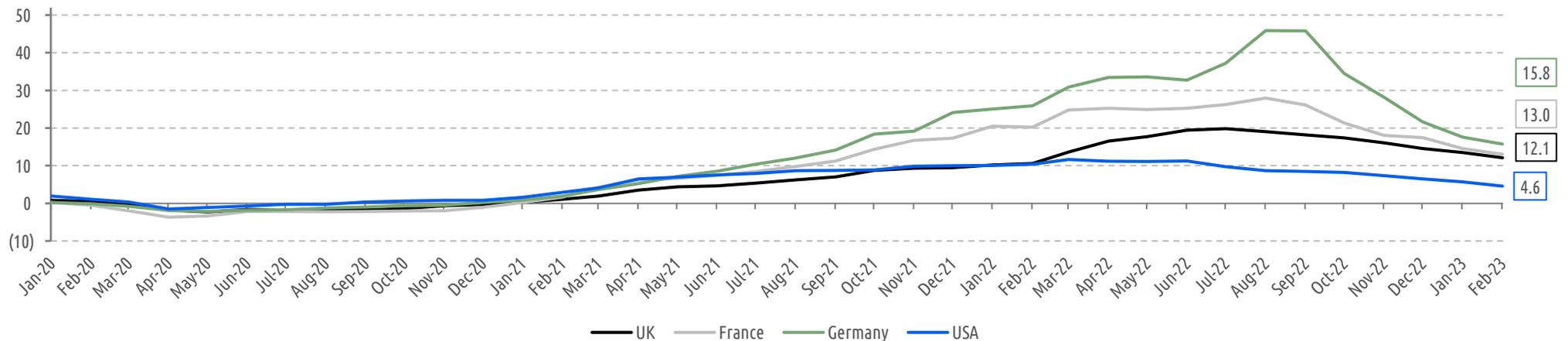
# Producer price index for the G4 countries<sup>1</sup>

Producer price inflation are still way above consumer inflation in Europe, the difference with the US originating from import of liquefied gas

Producer price index for industrial products in France, Germany, the UK and the US (YoY % change) – Since Feb. 2022

Producer price index for industrial products in France, Germany, the UK and the US (YoY % change) – Since Feb. 2022												
Country	03-22	04-22	05-22	06-22	07-22	08-22	09-22	10-22	11-22	12-22	01-23	02-23
USA	11.7	11.2	11.1	11.2	9.7	8.7	8.5	8.2	7.3	6.5	5.7	4.6
Germany	30.9	33.5	33.6	32.7	37.2	45.8	45.8	34.5	28.2	21.6	17.6	15.8
France	24.8	25.2	25.0	25.3	26.2	27.9	26.1	21.3	18.0	17.4	14.5	13.0
UK	13.7	16.6	17.7	19.4	19.9	19.0	18.2	17.4	16.0	14.5	13.5	12.1

Producer price index for industrial products in France, Germany, the UK and the US (YoY % change) – Since Jan. 2020



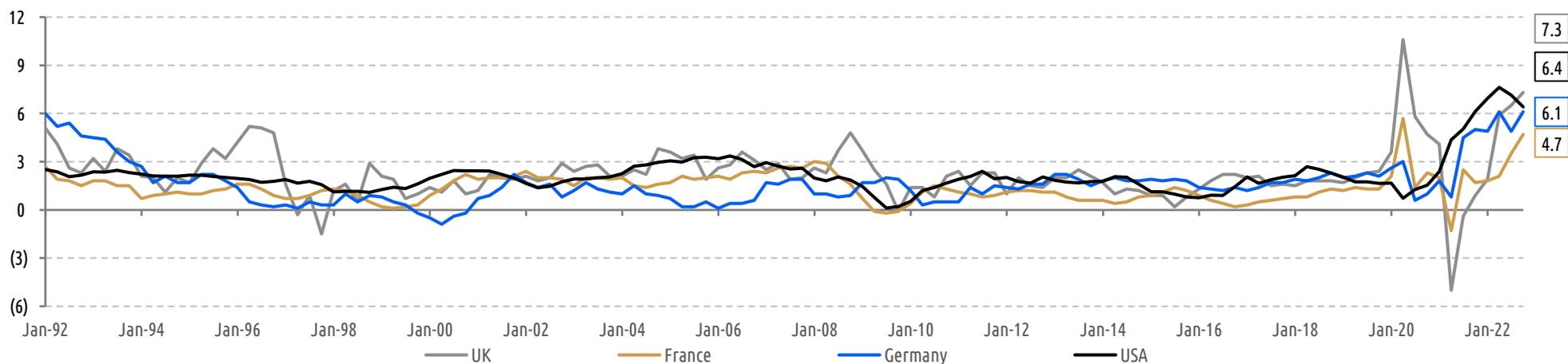
# Implied GDP deflator in G4 countries<sup>1</sup>

Implied GDP deflators have also sharply increased although to a lesser extent than headline inflation.

Quarterly implied GDP deflator – Since Q1-2021

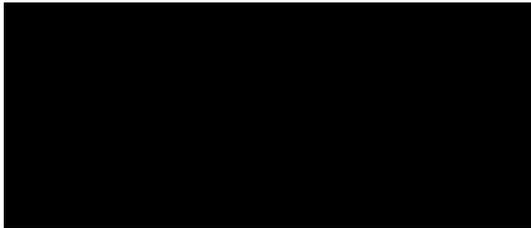
Implied GDP deflator (YoY % change) – Since Q1-2021								
Country	Q1-21	Q2-21	Q3-21	Q4-21	Q1-22	Q2-22	Q3-22	Q4-22
USA	2.4	4.4	5.0	6.1	6.9	7.6	7.1	6.4
Germany	1.8	0.8	4.5	5.0	4.9	6.1	4.9	6.1
France	2.0	(1.3)	2.5	1.7	1.8	2.1	3.5	4.7
UK	4.1	(5.0)	(0.4)	0.9	1.9	5.9	6.5	7.3

Quarterly implied GDP deflator – Since Q1-1992





## II Monetary policy



## **A In the US**

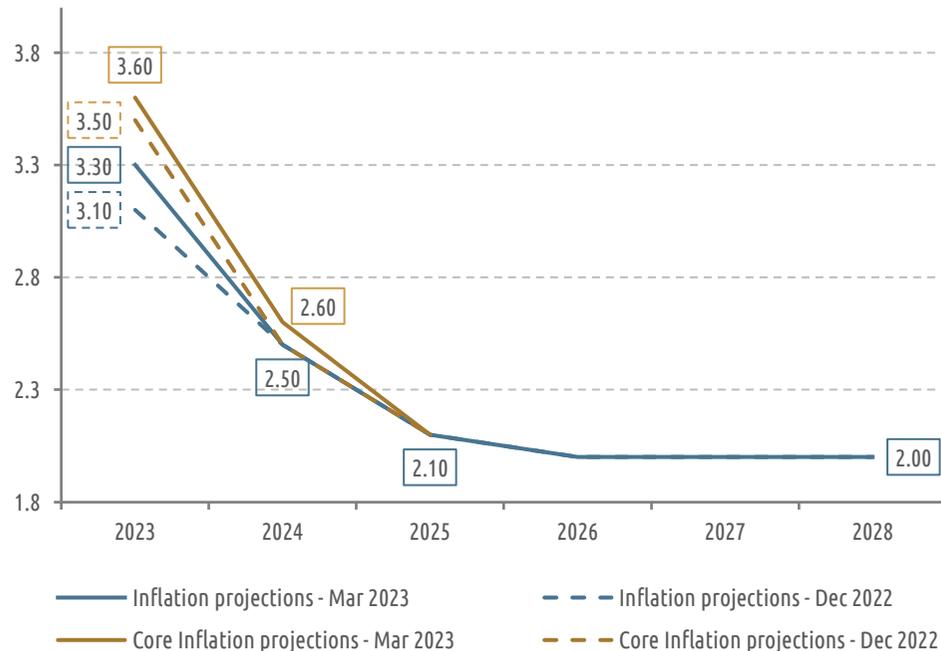
# Monetary Policy Decisions from the Fed (1/2)

The latest 25-bps rate increase was paired with signals that the Fed will soon end its monetary policy tightening.

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

Price indexes for Personal Consumption Expenditures							
Indicator	08-22	09-22	10-22	11-22	12-22	01-23	02-23
PCE inflation	6.3	6.3	6.1	5.7	5.3	5.3	5.0

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



## Key considerations

- The target range of the federal fund rates was lifted from 4.50%-4.75% to 4.75%-5.00% on March 22<sup>nd</sup>
- As expected by the market, this increase comes after a 25-bps hike in February which marked a shift from the Fed’s 2022 aggressive monetary tightening
- Despite strong economic indicators, the Fed remained careful about how the fallout of SVB would hit the US economy. The targeted federal funds rate for 2023 wasn’t revised up (5.1%-5.2%).
- Next meeting will be on May 3<sup>rd</sup>

## Federal Reserve economic projections as of 22 March 2023

Indicator	2023	2024	2025	Longer run
Change in real GDP	0.4	1.2	1.9	1.8
Unemployment rate	4.5	4.6	4.6	4.0
Inflation	3.3	2.5	2.1	2.0
Federal funds rate	5.1	4.3	3.1	2.5

“We no longer state that we anticipate that ‘ongoing rate increases’ will be appropriate to quell inflation. Instead, we now anticipate ‘some additional policy firming’ may be appropriate”

JEROME POWELL, MONETARY POLICY MEETING, 22<sup>ND</sup> MARCH 2023



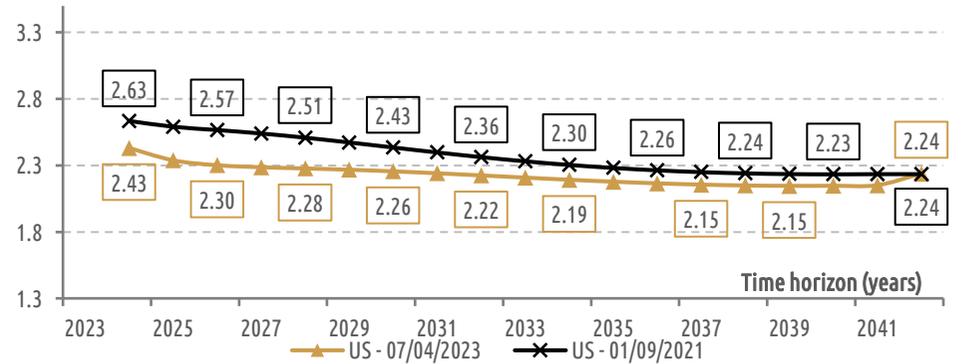
# Long-term rates fell after the banking crisis

And the loosening of labor market tensions also contributed to downward pressures on long-term yields.

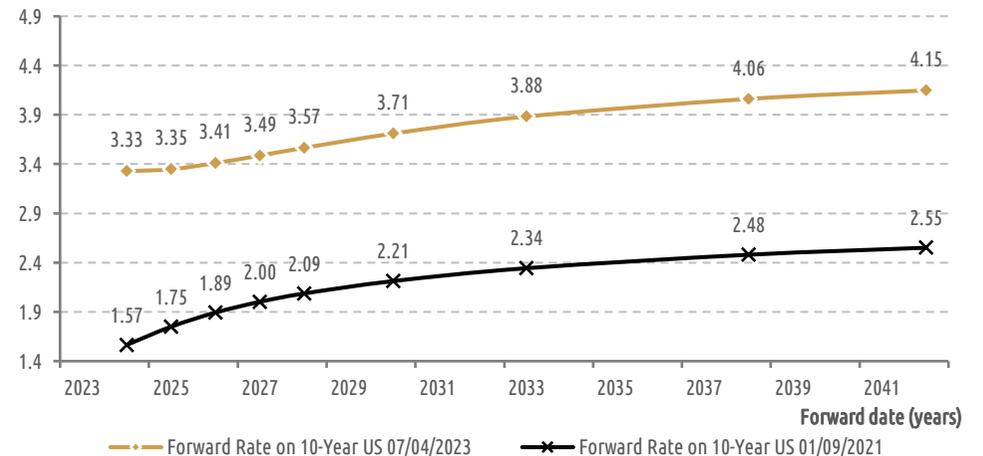
10-Y Nominal yield – US



Inflation Expectations – US (%)



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



# The US yield curve is inverted, usually a harbinger of recession

The SVB collapse, however, has reduced the spread by half

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



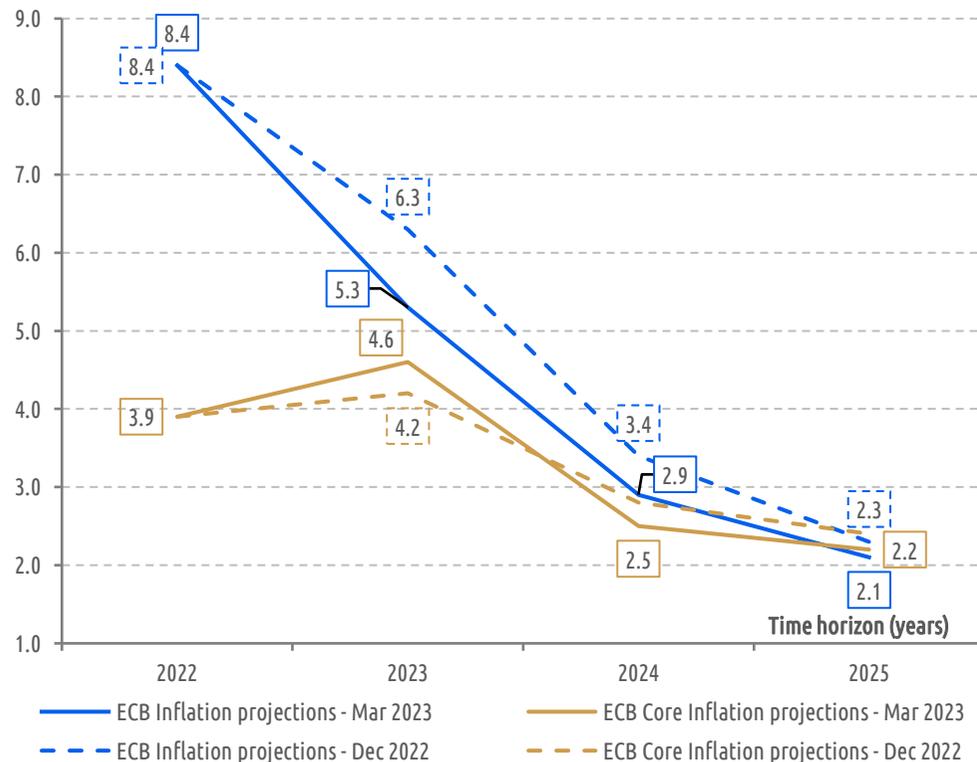


## **B In the Euro Area**

# The ECB has raised its interest rates by 50 bps in March as planned in last February meeting

President Lagarde signaled that market unrest would direct next steps. New forecasts point to lower inflation than forecasted in December, on the back, however, of rising core inflation.

CPI and core inflation expectations & projections as of July 2022 (%)



## Key considerations

- **The Governing Council decided to raise the three key ECB interest rates by 50 basis points, following a 50-bps increase in December and two 75-bps hikes in October and September**
- Looking ahead, ECB staff have significantly revised in December their inflation projections down and inflation is now expected to average 8.4% in 2022, 5.3% in 2023 (vs 6.3% in Dec), 2.9% in 2024 (vs 3.4%) and 2.1% in 2025 (vs 2.4%)
- The interest rate on the main refinancing operations has been lifted-up to 3.50%. The benchmark deposit rate is set at 3.00%, its highest level since the 2008 global financial crisis
- **The next meeting is set on May 04<sup>th</sup>**

ECB economic projections as of 16 March 2023				
Indicator	2022	2023	2024	2025
Change in real GDP	3.6	1.0	1.6	1.6
Unemployment rate	6.7	6.6	6.6	6.6
Inflation	8.4	5.3	2.9	2.1

“We are monitoring current market tensions closely and stand ready to respond as necessary to preserve price stability and financial stability in the euro area”

CHRISTINE LAGARDE, MONTERAY POLICY DECISION, 16 MARCH

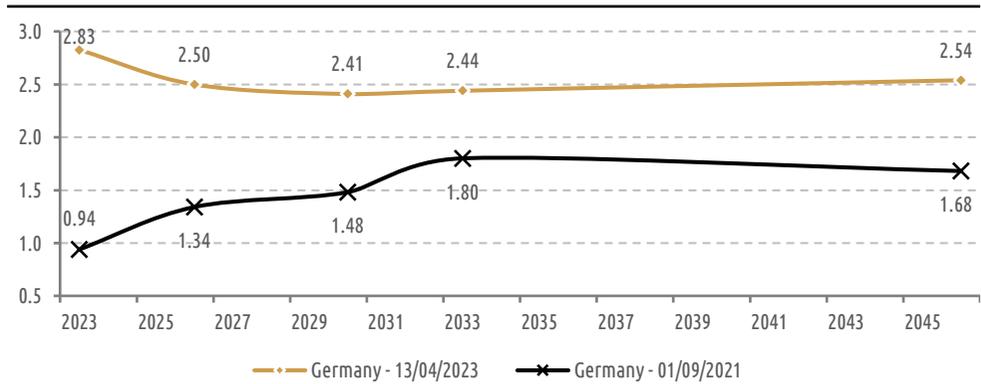
# In the Eurozone, the banking crisis as well as recent inflation news pushed down long-term rates

Expected real rates, however, near zero in the longer run

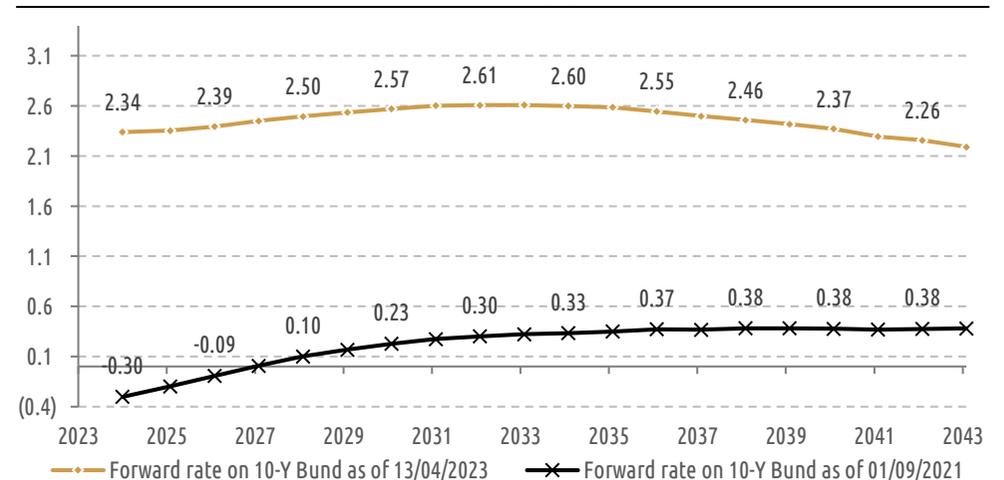
10-Y Nominal yield – German Bund



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



Forward Rates on 10-Year German Bund (%)



# The German yield curve is getting inverted for the first time since 2008, reflecting risk of recession/sluggish growth in 2023

The banking crisis also brought the spread down

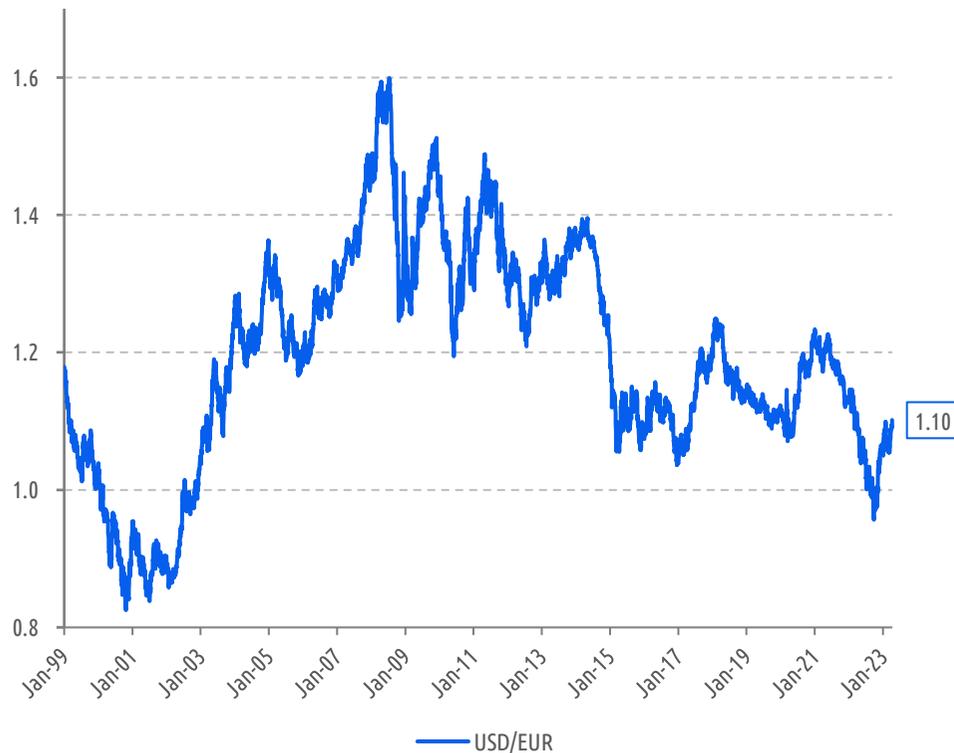
**Bund 2Yr/10Yr Spread – Since Jan 1998**



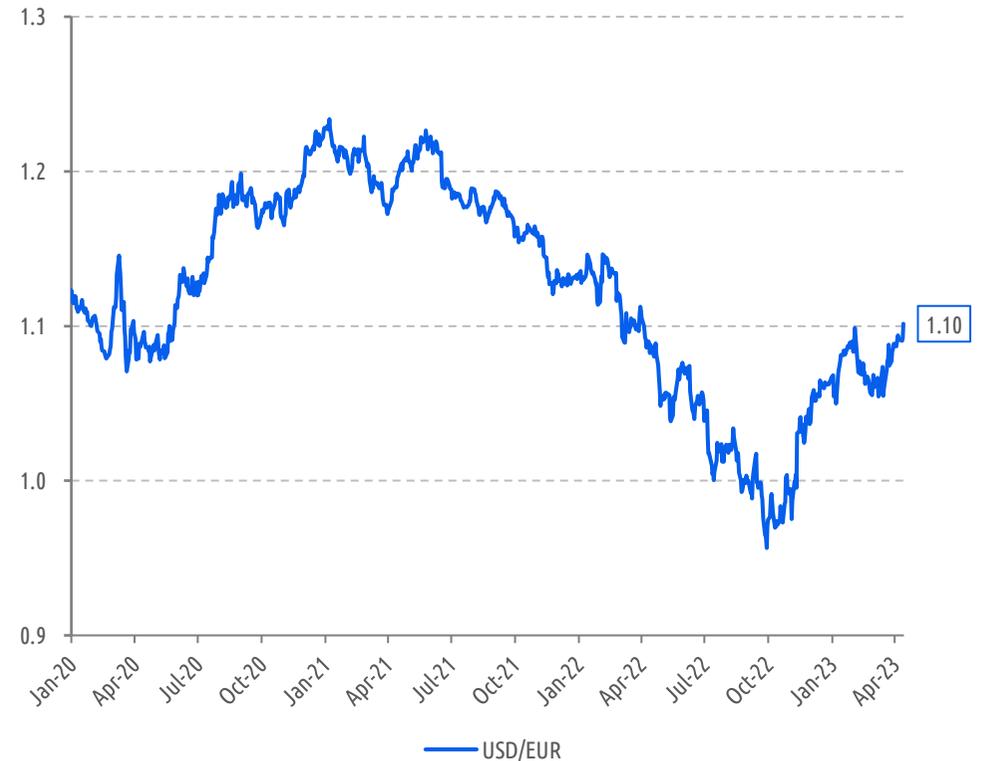
# After 18 months of a weakening euro, the trend has reversed since October 2022

US inflation data in March and recent jobs reports reflecting a loosening labor market have pushed up the euro against the 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



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

# In Europe, sovereign yields are reaching high levels

Upward in response to the ECB hawkish message and downward following US inflation news

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



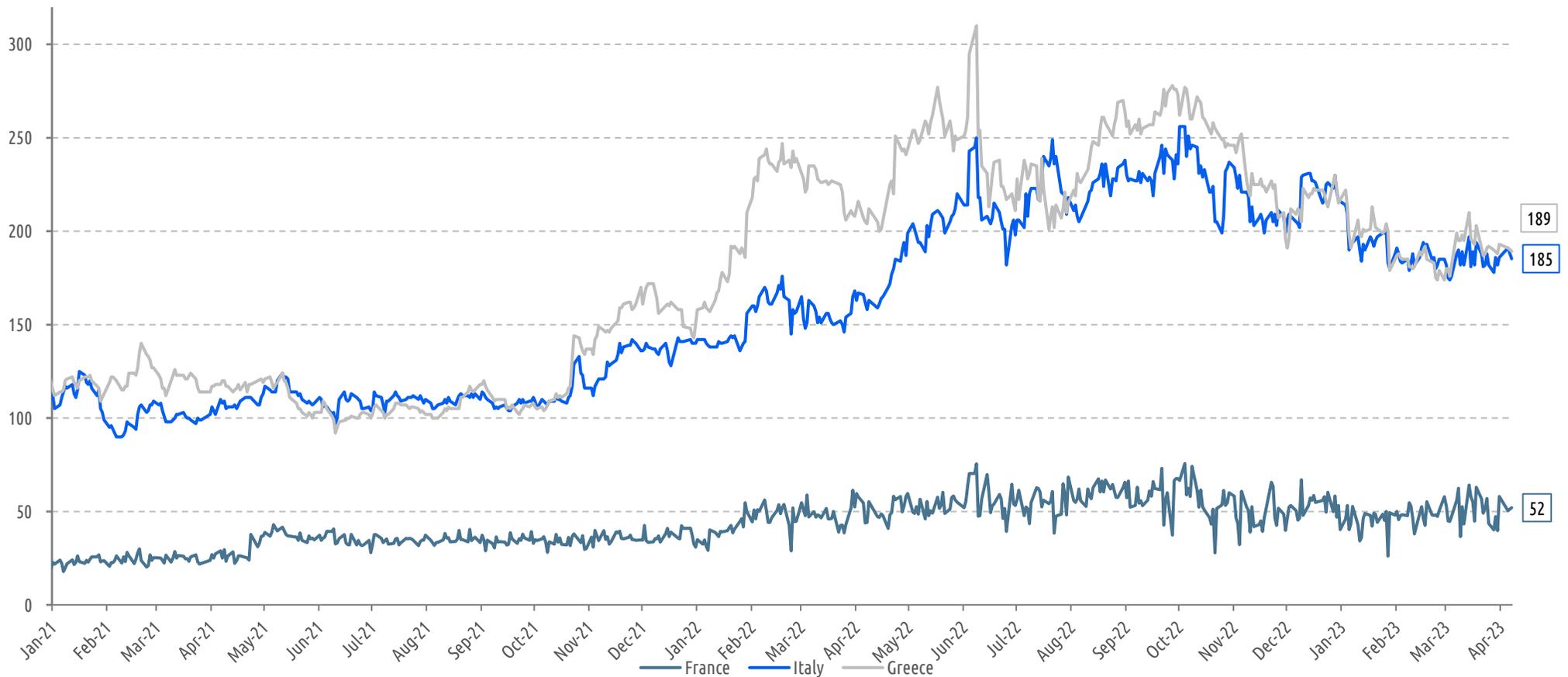
Sources: Banque de France as of 13/04/2023, Eurostat as of 13/04/2023

# Tensions on spreads have slightly eased off

In spite of new financial uncertainties

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

In bps

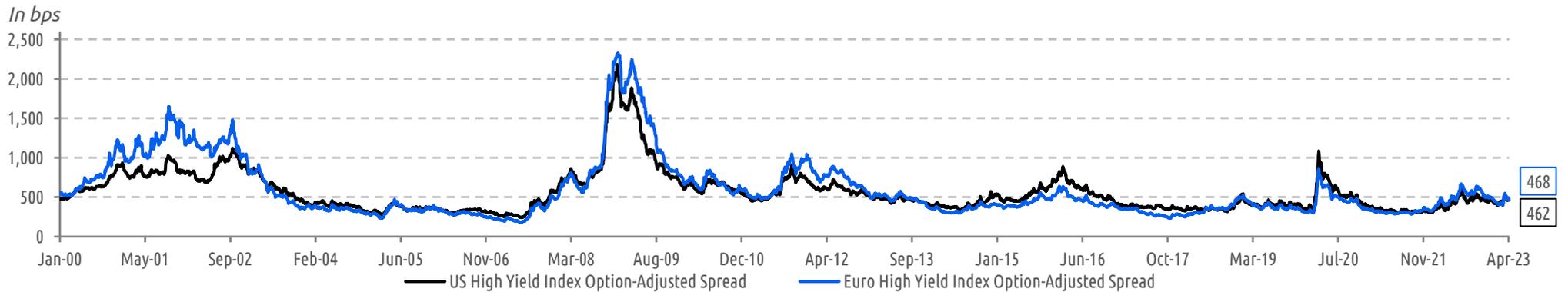


Sources: Banque de France as of 13/04/2023, Bundesbank as of 13/04/2023, Eurostat as of 13/04/2023, Internal calculations

# High yield corporate bond spreads rose in the wake of SVB bankruptcy

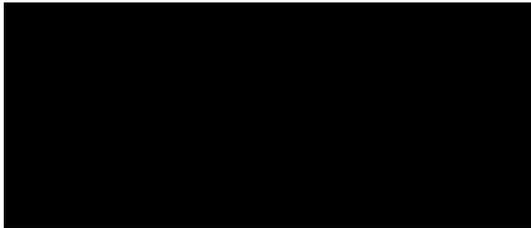
Both Europe and US corporate sector took the hit

High yield corporate bond spreads – Since 2000



High yield corporate bond spreads – Since 2022



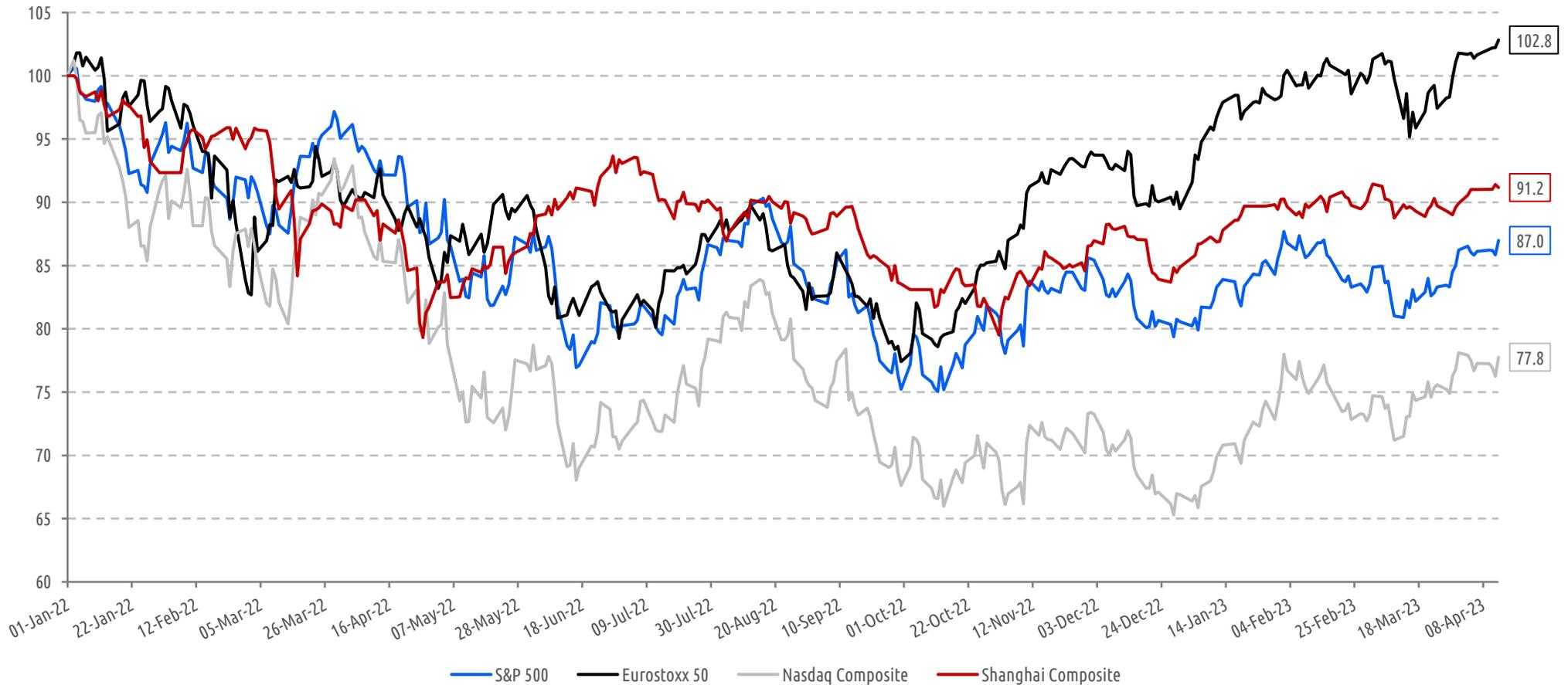


## **IV Impact on stock markets**

# Stock market prices have kept recovering despite banking sector turmoil

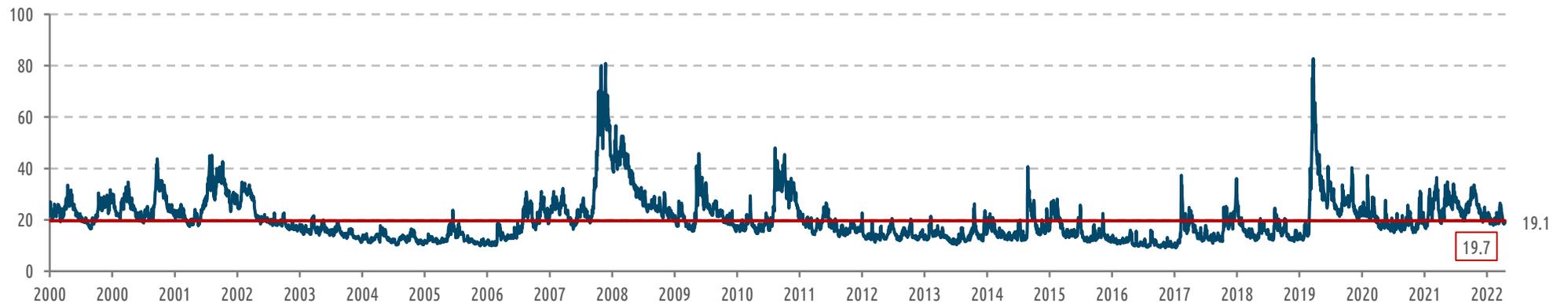
And keeping the momentum after weak economic data - job reports and latest inflation news - from the US

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



# Volatility on US financial markets has returned to its historical average level

VIX index – Since 2000



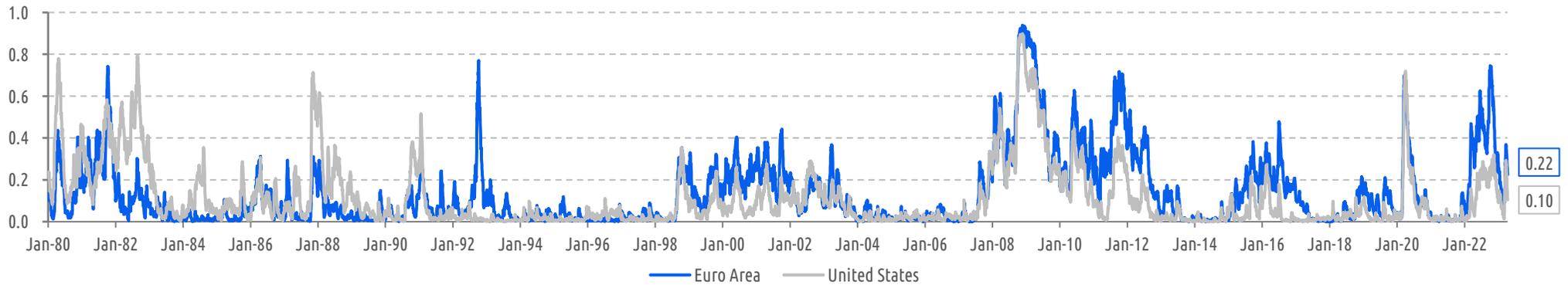
VIX index – Since 2022



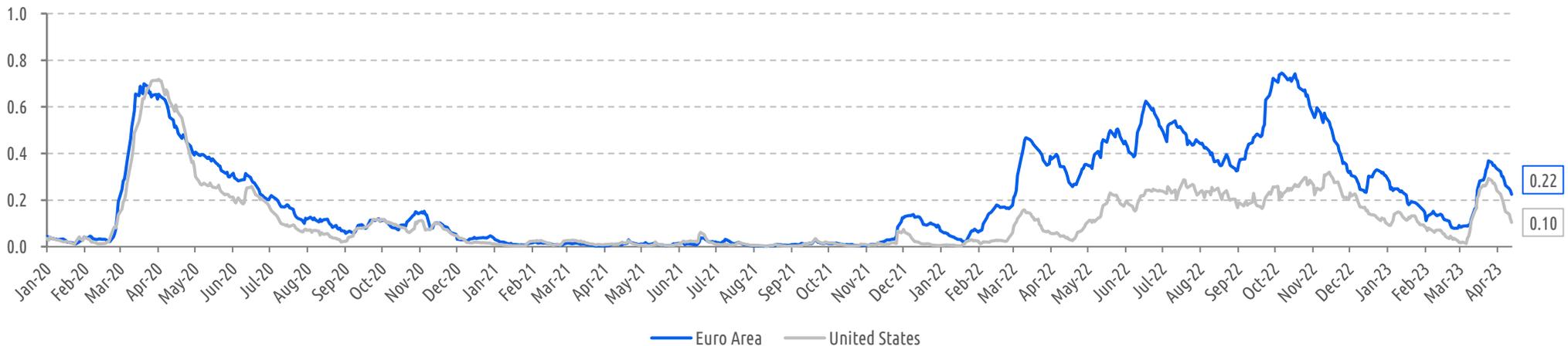
# Financial stress indicators have stepped up following the banking crisis

But started falling right after.

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



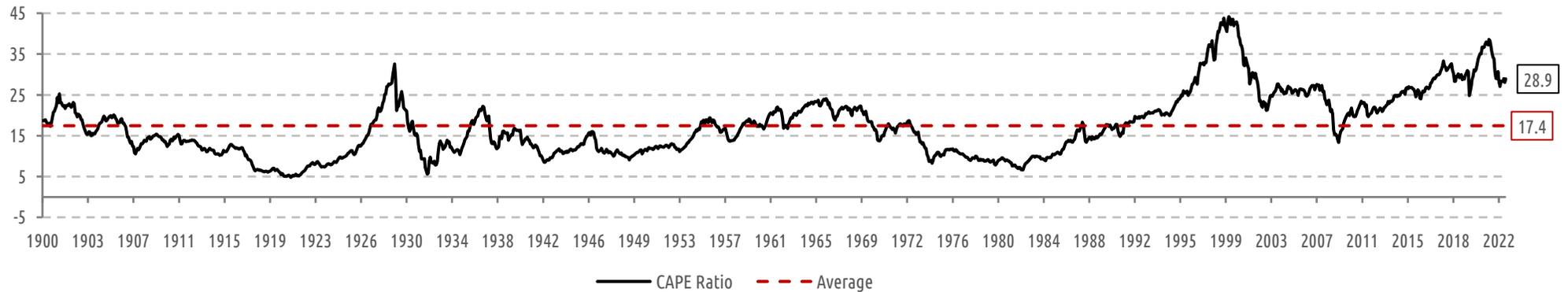
**Composite Indicator of Systemic Stress (daily) – Since Jan. 2020**



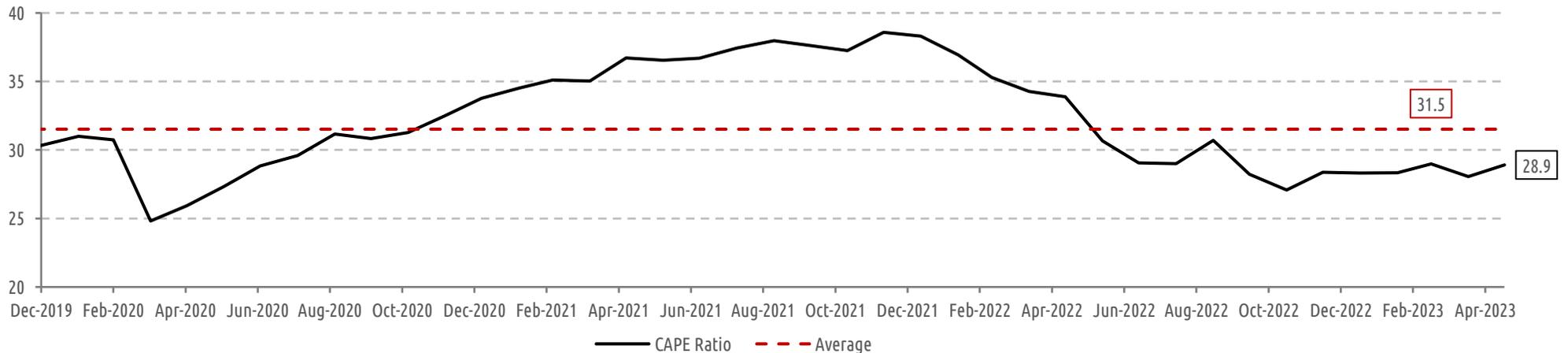
# US Shiller Cyclically Adjusted Price to Earnings ratio (CAPE ratio)<sup>1</sup>

Shiller CAPE ratio remains at record high level in historical perspective and still slightly below pre-crisis level

Cyclically Adjusted Price Earnings ratio – Since 1900



Cyclically Adjusted Price Earnings ratio – Since 2020



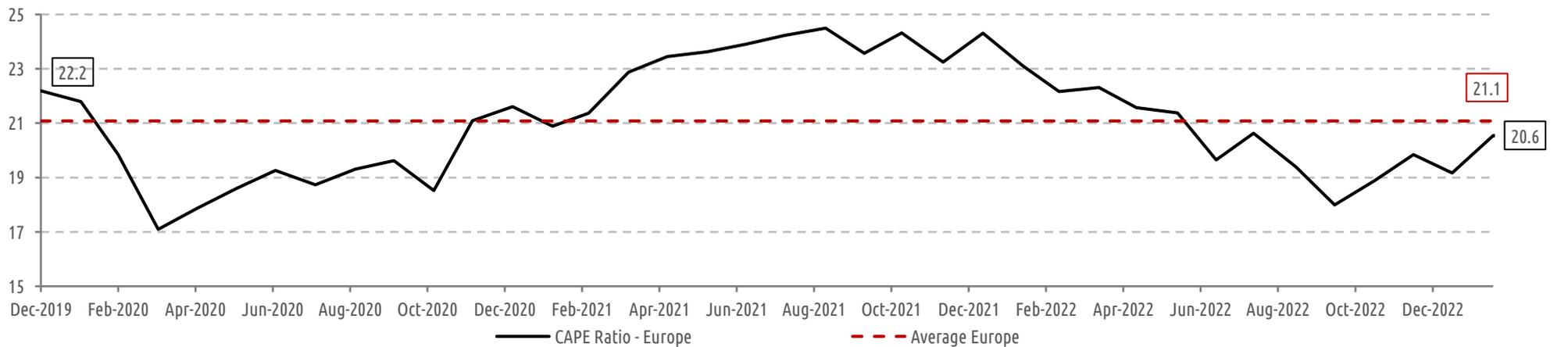
# Shiller CAPE ratio in Europe

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

Cyclically Adjusted Price Earnings ratio – Since 1982



Cyclically Adjusted Price Earnings ratio – Since 2020





## V Appendix

## Links to DBnomics data

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4	Quarterly GDP growth (% change over the previous period) – Canada	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-canada">OECD/KEI/NAEXKP01.CAN.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Germany	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-germany">OECD/KEI/NAEXKP01.DEU.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Eurozone	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-eurozone">OECD/KEI/NAEXKP01.EA19.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – France	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-france">OECD/KEI/NAEXKP01.FRA.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – UK	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-uk">OECD/KEI/NAEXKP01.GBR.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Italy	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-italy">OECD/KEI/NAEXKP01.ITA.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – Japan	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-japan">OECD/KEI/NAEXKP01.JPN.GP.Q</a>
4	Quarterly GDP growth (% change over the previous period) – US	<a href="https://data.oecd.org/gdp/quarterly-gdp-growth-us">OECD/KEI/NAEXKP01.USA.GP.Q</a>
4	Yearly GDP growth rate (YoY % change) – Canada	<a href="https://data.imf.org/2023-04/CAN.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/CAN.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – Germany	<a href="https://data.imf.org/2023-04/DEU.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/DEU.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – France	<a href="https://data.imf.org/2023-04/FRA.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/FRA.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – UK	<a href="https://data.imf.org/2023-04/GBR.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/GBR.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – Italy	<a href="https://data.imf.org/2023-04/ITA.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/ITA.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – Japan	<a href="https://data.imf.org/2023-04/JPN.NGDP_RPCH.pcent_change">IMF/WEO:2023-04/JPN.NGDP_RPCH.pcent_change</a>

## Links to DBnomics data

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4	Yearly GDP growth rate (YoY % change) – US	<a href="https://www.imf.org/en/Data/2023/04/USA/NGDP_RPCH.pcent_change">IMF/WEO:2023-04/USA.NGDP_RPCH.pcent_change</a>
4	Yearly GDP growth rate (YoY % change) – Eurozone	<a href="https://www.imf.org/en/Data/2023/04/163/NGDP_RPCH.pcent_change">IMF/WEOAGG:2023-04/163.NGDP_RPCH.pcent_change</a>
4	OECD Weekly growth tracker – Eurozone	<a href="https://www.oecd.org/gdp/growth/W.Eurozone.tracker_yoy">OECD/GDP_GROWTH/W.Eurozone.tracker_yoy</a>
4	OECD Weekly growth tracker – United States	<a href="https://www.oecd.org/gdp/growth/W.USA.tracker_yoy">OECD/GDP_GROWTH/W.USA.tracker_yoy</a>
5	Quarterly GDP growth (% change over the previous period) – China	<a href="https://www.oecd.org/dp/live/chn.qgdp.tot.pc_chgpp.q">OECD/DP_LIVE/CHN.QGDP.TOT.PC_CHGPP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Brazil	<a href="https://www.oecd.org/kei/naexkp01.bra.gp.q">OECD/KEI/NAEXKP01.BRA.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Mexico	<a href="https://www.oecd.org/kei/naexkp01.mex.gp.q">OECD/KEI/NAEXKP01.MEX.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – South Africa	<a href="https://www.oecd.org/kei/naexkp01.zaf.gp.q">OECD/KEI/NAEXKP01.ZAF.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – Indonesia	<a href="https://www.oecd.org/kei/naexkp01.idn.gp.q">OECD/KEI/NAEXKP01.IDN.GP.Q</a>
5	Quarterly GDP growth (% change over the previous period) – India	<a href="https://www.oecd.org/kei/naexkp01.ind.gp.q">OECD/KEI/NAEXKP01.IND.GP.Q</a>
5	Yearly GDP growth rate (YoY % change) – Brazil	<a href="https://www.imf.org/en/Data/2023/04/BRA/NGDP_RPCH.pcent_change">IMF/WEO:2023-04/BRA.NGDP_RPCH.pcent_change</a>
5	Yearly GDP growth rate (YoY % change) – Mexico	<a href="https://www.imf.org/en/Data/2023/04/MEX/NGDP_RPCH.pcent_change">IMF/WEO:2023-04/MEX.NGDP_RPCH.pcent_change</a>
5	Yearly GDP growth rate (YoY % change) – South Africa	<a href="https://www.imf.org/en/Data/2023/04/ZAF/NGDP_RPCH.pcent_change">IMF/WEO:2023-04/ZAF.NGDP_RPCH.pcent_change</a>
5	Yearly GDP growth rate (YoY % change) – Indonesia	<a href="https://www.imf.org/en/Data/2023/04/IDN/NGDP_RPCH.pcent_change">IMF/WEO:2023-04/IDN.NGDP_RPCH.pcent_change</a>

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5	Yearly GDP growth rate (YoY % change) – India	<a href="https://www.imf.org/en/Topics/assessments/growth-forecasting/IMF-WEO-2023-04-IND-NGDP-RPCH-pcent-change">IMF/WEO:2023-04/IND.NGDP_RPCH.pcent_change</a>
5	Yearly GDP growth rate (YoY % change) – China	<a href="https://www.imf.org/en/Topics/assessments/growth-forecasting/IMF-WEO-2023-04-CHN-NGDP-RPCH-pcent-change">IMF/WEO:2023-04/CHN.NGDP_RPCH.pcent_change</a>
5	OECD Weekly growth tracker – Brazil	<a href="https://www.oecd.org/gdp/growth/W.BRA.tracker_yoy">OECD/GDP_GROWTH/W.BRA.tracker_yoy</a>
5	OECD Weekly growth tracker – Mexico	<a href="https://www.oecd.org/gdp/growth/W.MEX.tracker_yoy">OECD/GDP_GROWTH/W.MEX.tracker_yoy</a>
5	OECD Weekly growth tracker – South Africa	<a href="https://www.oecd.org/gdp/growth/W.ZAF.tracker_yoy">OECD/GDP_GROWTH/W.ZAF.tracker_yoy</a>
5	OECD Weekly growth tracker – Indonesia	<a href="https://www.oecd.org/gdp/growth/W.IDN.tracker_yoy">OECD/GDP_GROWTH/W.IDN.tracker_yoy</a>
5	OECD Weekly growth tracker – India	<a href="https://www.oecd.org/gdp/growth/W.IND.tracker_yoy">OECD/GDP_GROWTH/W.IND.tracker_yoy</a>
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_10.4.1.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_10.4.1.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/governmentandbusinessdebt/centralgovernmentdebt/ONS/EDP2/YEQJ.Q">ONS/EDP2/YEQJ.Q</a>
6	General government debt – Italy	<a href="https://ec.europa.eu/eurostat/tgm/table.do?tab=table&amp;init=1&amp;language=en&amp;code=sdg_10.4.1.GD.S13.GD.IT">Eurostat/gov_10dd_edpt1/A.PC_GDP.S13.GD.IT</a>
6	General government debt – United States	<a href="https://www.oecd.org/dp/live/USA.GGDEBT.TOT.PC_GDP.A">OECD/DP_LIVE/USA.GGDEBT.TOT.PC_GDP.A</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.Q.B9.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.Q.B9.S13.PC_GDP_SCA.FR">Eurostat/teina205/Q.B9.S13.PC_GDP_SCA.FR</a>

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6	General government deficit – Italy	<a href="https://data.oecd.org/govt-debt/italy-general-government-deficit">OECD/DP_LIVE/ITA.GGNLEND.TOT.PC_GDP.A</a>
6	General government deficit – United States	<a href="https://www.bea.gov/data/government/deficit">BEA/NIPA-T30100/AD01RC-Q</a>
7	Consumer confidence index – United States	<a href="https://data.oecd.org/consumer-confidence/consumer-confidence-index-us">OECD/MEI_CLI/CSCICP03.USA.M</a>
7	Consumer confidence index – Germany	<a href="https://data.oecd.org/consumer-confidence/consumer-confidence-index-germany">OECD/MEI_CLI/CSCICP03.DEU.M</a>
7	Consumer confidence index – France	<a href="https://data.oecd.org/consumer-confidence/consumer-confidence-index-france">OECD/MEI_CLI/CSCICP03.FRA.M</a>
7	Consumer confidence index – United Kingdom	<a href="https://data.oecd.org/consumer-confidence/consumer-confidence-index-uk">OECD/MEI_CLI/CSCICP03.GBR.M</a>
7	Business confidence index – United States	<a href="https://data.oecd.org/business-confidence/business-confidence-index-us">OECD/MEI_CLI/BSCICP03.USA.M</a>
7	Business confidence index – Germany	<a href="https://data.oecd.org/business-confidence/business-confidence-index-germany">OECD/MEI_CLI/BSCICP03.DEU.M</a>
7	Business confidence index – France	<a href="https://data.oecd.org/business-confidence/business-confidence-index-france">OECD/MEI_CLI/BSCICP03.FRA.M</a>
7	Business confidence index – United Kingdom	<a href="https://data.oecd.org/business-confidence/business-confidence-index-uk">OECD/MEI_CLI/BSCICP03.GBR.M</a>
9/10	Natural Gas (Dutch TTF) prices in historical perspective (€/MWh)	<a href="https://www.ice.com/markets/energy/natural-gas/dutch-ttf-gas-futures">ICE/DUTCH_TTF_GAS_FUTURES/D.5477499</a>
12	% of EU business reporting shortages of materials and equipment in the construction industry as a limiting production factor	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=ec.construction.tot.2.f55.eu.m">EC/CONSTRUCTION/TOT.2.F55.EU.M</a>
13	Beveridge curve – Euro Area (Q1-17 – Q2-22), Quarterly	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=eurostat/une_rt_q/Q.NSA.Y20-64.PC_POP.T.EA19">Eurostat/une_rt_q/Q.NSA.Y20-64.PC_POP.T.EA19</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=eurostat/jvs_q_nace2/Q.NSA.B-S.TOTAL.JOBRATE.EA19">Eurostat/jvs_q_nace2/Q.NSA.B-S.TOTAL.JOBRATE.EA19</a>

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12	Civilian unemployment rate – Total – USA - Seasonally adjusted	<a href="https://www.bls.gov/ltn/lns14000000">BLS/ltn/LNS14000000</a>
12	Unemployment according to ILO definition - Total – Euro area – Seasonally adjusted	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/ei_lmhr_m/M.PC_ACT.SA.LM-UN-T-TOT.EA20</a>
13	Beveridge curve - France (Q1-17 – Q2-22), Quarterly	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/jvs_q_nace2/Q.NSA.B-S.GE10.JOBRATE.FR</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">INSEE/CHOMAGE-TRIM-NATIONAL/T.CTTXC.TAUX.FR-D976.0.00- .POURCENT.CVS.FALSE</a>
13	Unemployment according to ILO definition - Total – France – Seasonally adjusted	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/une_rt_m/M.SA.TOTAL.PC_ACT.T.FR</a>
13	Unemployment according to ILO definition - Total – Germany – Seasonally adjusted	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/une_rt_m/M.SA.TOTAL.PC_ACT.T.DE</a>
14	Wage growth tracker – France (Quarterly)	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">INSEE/ICT-2016/T.BDM_EUR.ICT.A21-BTN.INDICE.SSE.FE.SO.CVS-CJO.2016</a>
16	CPI Inflation (YoY % change) – United States	<a href="https://www.bls.gov/cu/CUSR0000SA0">BLS/cu/CUSR0000SA0</a> <a href="https://www.bls.gov/cu/CUSR0000SA0L1E">BLS/cu/CUSR0000SA0L1E</a>
16	CPI Inflation (YoY % change) – Eurozone	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/prc_hicp_manr/M.RCH_A.CP00.EA</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">Eurostat/prc_hicp_manr/M.RCH_A.TOT_X_NRG_FOOD.EA</a>
16	CPI Inflation (YoY % change) – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">INSEE/IPC- 2015/M.IPC.SO.SO.4035.GLISSEMENT_ANNUEL.ENSEMBLE.FE.POURCENT.BRUT.S O.FALSE</a>
16	CPI Inflation (YoY % change) – Germany	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">DESTATIS/61111BM001/DG.PREIS1</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">DESTATIS/61111BM006/DG.CC13-63E.PREIS1</a>
16	CPI Inflation (YoY % change) – United Kingdom	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">ONS/MM23/D7G7.M</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">ONS/MM23/DK08.M</a>
16	CPI Inflation (YoY % change) – Japan	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">STATJP/CPIIm/001</a> <a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">STATJP/CPIIm/740</a>
17	CPI Inflation (YoY % change) - Brazil	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">OECD/KEI/CPALTT01.BRA.GY.M</a>
17	CPI Inflation (YoY % change) – China	<a href="https://ec.europa.eu/eurostat/tgm/table.do?code=unem_12&amp;lang=en">OECD/KEI/CPALTT01.CHN.GY.M</a>

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17	CPI Inflation (YoY % change) – India	<a href="https://data.oecd.org/kei/cpaltt01.ind.gy.m">OECD/KEI/CPALTT01.IND.GY.M</a>
17	CPI Inflation (YoY % change) – Mexico	<a href="https://data.oecd.org/kei/cpaltt01.mex.gy.m">OECD/KEI/CPALTT01.MEX.GY.M</a>
17	CPI Inflation (YoY % change) – South Africa	<a href="https://data.oecd.org/kei/cpaltt01.zaf.gy.m">OECD/KEI/CPALTT01.ZAF.GY.M</a>
18	Quarterly implied GDP deflator – Germany	<a href="https://ec.europa.eu/eurostat/tgm/table.do?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>
18	Quarterly implied GDP deflator – France	<a href="https://ec.europa.eu/eurostat/tgm/table.do?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>
18	Quarterly implied GDP deflator - United Kingdom	<a href="https://www.ons.gov.uk/qna/ihyu.q">ONS/QNA/IHYU.Q</a>
18	Quarterly implied GDP deflator - United States	<a href="https://www.bea.gov/nipa-t10109/a191rd-q">BEA/NIPA-T10109/A191RD-Q</a>
19	Producer price index for industrial products - United Kingdom	<a href="https://www.ons.gov.uk/mm22/gb7s.m">ONS/MM22/GB7S.M</a>
19	Producer price index for industrial products – France	<a href="https://www.insee.fr/fr/statistiques/1511000?geo=FRANCE&amp;ts=2015-01-01&amp;ds=INDICE.FE.SO.BRUT.2015.SO">INSEE/IPPI-2015/M.BDM_EUR.ENS_IPP.SO.NA_A10-BE.INDICE.FE.SO.BRUT.2015.SO</a>
19	Producer price index for industrial products – Germany	<a href="https://www.destatis.de/EN/statistics-by-country/germany/61241BM001/DG.PRE001.html">DESTATIS/61241BM001/DG.PRE001</a>
19	Producer price index for industrial products - United States	<a href="https://www.bls.gov/wpd/wpufd4">BLS/wp/WPUFD4</a>
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25	10-Y Nominal yield – US	<a href="https://www.fedreserve.org/h15/riflgfcy10_n.b">FED/H15/RIFLGFCY10_N.B</a>

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