## CEPREMAP / DBNOMICS

Macroeconomic Outlook – March 2024



## **DBnomics**

- Most data presented in the forthcoming slides are extracted from DBnomics
   (<a href="https://db.nomics.world/">https://db.nomics.world/</a>), 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 <a href="jocelyn.maillard@cepremap.org">jocelyn.maillard@cepremap.org</a>



## **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. However, both the Fed and the ECB have recently paused the hikes. We seem to be at the peak of the tightening cycle. Notably, the Fed Board members expect three 25-bps cuts in 2024. Nevertheless, the Fed and the ECB indicated that cuts should not occur during the first quarter of 2024.
- Headline inflation dropped below 3% in Europe. In the US, headline inflation remains slightly above 3%. Core inflation has slightly decreased but remains high in both areas. The return to the 2% inflation target may be more complex in the US as the Fed must deal with labor-market overheating.
- Most raw-material prices have come back to their pre-war levels. Natural-gas price difference between Europe and the US remains high. Tensions in the Red sea led to a massive rise of transportation costs for containers since the beginning of the year, potentially leading to a new rise of inflation.
- GDP growth beat market expectations in the third and fourth quarters in the US. However, it was negative in the main countries of the Euro Area as private consumption dropped. The OECD now forecasts a below-one-percent growth for the Euro Area versus a 2.1% growth for the US for 2024. This downward revision for the Euro Area is notably a consequence of high energy costs and trade slowdown.
- Sovereign yields remain at a high level in the Euro Area. They have however decreased over the last few months with the fall of inflation. The spreads between core countries and the periphery have also been declining as macroeconomic results have overcome expectations in countries as Spain or Greece.



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Growth and inflation in selected G20 countries





A The growth slowdown



## Economic growth rates are diverging in advanced economies

Growth was higher than expected in the US during the third and fourth quarters of 2023 while it was particularly low for the other high-income countries. The OECD have severely revised downward their growth projections for 2024 for European countries and revised upwards those for the US.

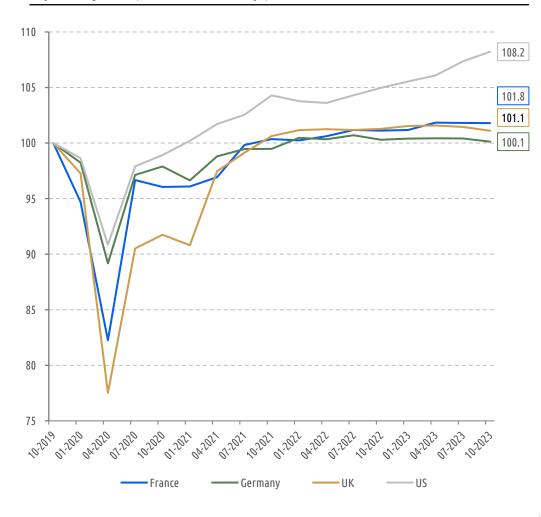
### Yearly GDP growth rate (YoY % change)

|           | Yearly GDP growth rate % |      |      |         |         |         |  |  |
|-----------|--------------------------|------|------|---------|---------|---------|--|--|
| Country   | 2020                     | 2021 | 2022 | 2023(E) | 2024(P) | 2025(P) |  |  |
| Euro Area | (6.1) <sup>1</sup>       | 5.9  | 3.5  | 0.8     | 0.6     | 1.3     |  |  |
| Germany   | (3.8)                    | 3.2  | 1.8  | (0.3)   | 0.3     | 1.1     |  |  |
| France    | (7.5)                    | 6.4  | 3.9  | 0.7     | 0.6     | 1.2     |  |  |
| Italy     | (9.0)                    | 8.3  | 3.7  | 0.7     | 0.7     | 1.2     |  |  |
| UK        | (10.4)                   | 8.7  | 4.4  | (0.3)   | 0.7     | 1.2     |  |  |
| USA       | (2.2)                    | 5.8  | 1.9  | 2.5     | 2.1     | 1.7     |  |  |
| Japan     | (4.2)                    | 2.2  | 1.1  | 1.3     | 1.0     | 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  | 23Q4  |
| Еиго Агеа | 2.1                         | 0.5  | 0.7   | 0.8   | 0.5   | (0.0) | 0.0  | 0.1   | (0.1) | 0.0   |
| France    | 3.0                         | 0.5  | (0.1) | 0.4   | 0.6   | (0.0) | 0.0  | 0.6   | (0.0) | 0.1   |
| Germany   | 0.7                         | 0.0  | 1.0   | (0.1) | 0.4   | (0.4) | 0.1  | 0.0   | (0.0) | (0.3) |
| Italy     | 2.8                         | 0.8  | 0.1   | 1.4   | 0.3   | (0.0) | 0.5  | (0.2) | 0.2   | 0.2   |
| UK        | 1.7                         | 1.5  | 0.5   | 0.1   | (0.1) | 0.1   | 0.2  | 0.0   | (0.1) | (0.3) |
| USA       | 0.8                         | 1.7  | (0.5) | (0.1) | 0.7   | 0.6   | 0.6  | 0.5   | 1.2   | 0.8   |
| Japan     | (0.4)                       | 1.1  | (0.6) | 1.1   | (0.1) | 0.4   | 1.0  | 1.0   | (8.0) | 0.1   |

### Quarterly GDP (base 100 in 2019-Q4)



Sources: OECD, OECD Economic Outlook February 2024
Note: (1) Negative number

## Growth remains at high levels in emerging Asian countries

India, Indonesia and China have overperformed the other developing countries in 2023. South Africa has had a particularly low growth. The OECD have lifted their 2024 growth projections for Brazil and Mexico, but they have revised downwards South-African growth.

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

| Yearly GDP growth rate %                    |       |     |     |     |     |     |  |  |
|---|-------|-----|-----|-----|-----|-----|--|--|
| Country 2020 2021 2022 2023(E) 2024(P) 2025 |       |     |     |     |     |     |  |  |
| China                                       | 2.2   | 8.4 | 3.0 | 5.2 | 4.7 | 4.2 |  |  |
| S. Africa                                   | (6.3) | 4.9 | 2.0 | 0.1 | 1.0 | 1.2 |  |  |
| Brazil                                      | (3.3) | 5.0 | 2.9 | 0.9 | 1.8 | 2.0 |  |  |
| India                                       | (5.8) | 9.1 | 6.8 | 5.9 | 6.2 | 6.5 |  |  |
| Mexico                                      | (8.0) | 4.7 | 3.1 | 1.8 | 2.5 | 2.0 |  |  |
| Indonesia                                   | (2.1) | 3.7 | 5.3 | 5.0 | 5.1 | 5.2 |  |  |

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

|           | Quarterly GDP growth rate % |      |       |      |       |      |      |       |      |
|-----------|-----------------------------|------|-------|------|-------|------|------|-------|------|
| Country   | 21Q4                        | 22Q1 | 22Q2  | 22Q3 | 22Q4  | 23Q1 | 23Q2 | 23Q3  | 23Q4 |
| China     | 1.7                         | 0.8  | (2.3) | 3.7  | 0.6   | 2.1  | 0.6  | 1.5   | 1.0  |
| S. Africa | 1.4                         | 1.5  | (0.8) | 1.8  | (1.1) | 0.3  | 0.7  | (0.2) | 0.1  |
| Brazil    | 1.0                         | 1.0  | 1.3   | 1.1  | (0.2) | 1.3  | 0.8  | 0.0   | 0.0  |
| India     | 2.0                         | 0.5  | 0.9   | 2.0  | 1.2   | 2.2  | 2.1  | 1.9   | 2.1  |
| Mexico    | 1.1                         | 1.6  | 1.0   | 1.2  | 1.0   | 0.5  | 0.8  | 1.1   | 0.1  |
| Indonesia | 3.2                         | 1.0  | 0.9   | 0.8  | 1.3   | 1.2  | 1.2  | 1.2   | 1.2  |

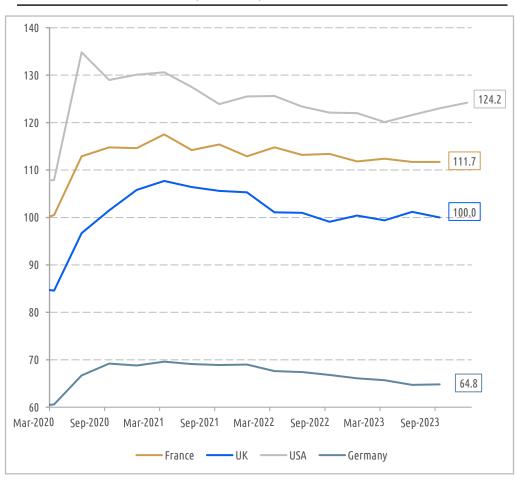
### Quarterly GDP (base 100 in 2019-Q4)



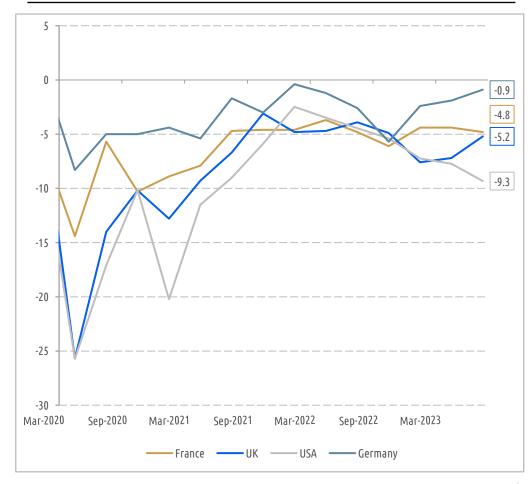
## Government debts have reached a new plateau in G4 countries<sup>1</sup>

Inflation acted as a moderating factor on the evolution on debt ratios. However, deficits are largely diverging from 0.9% in Germany to 9.3% in the US. The latter number is causing a new increase of debt-to-GPD ratio in the US despite their strong GDP growth.

### General Government debt (% of GDP) - Since 2020



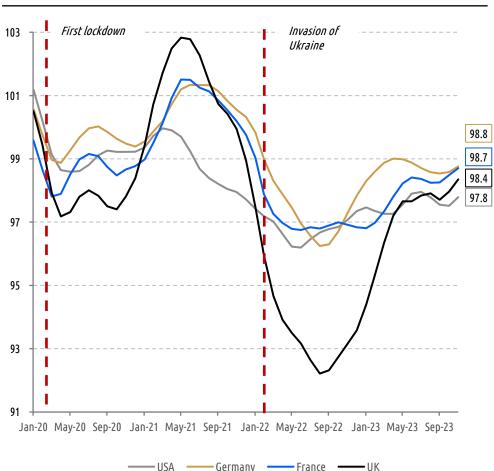
### General Government deficit (% of GDP) - Since 2020



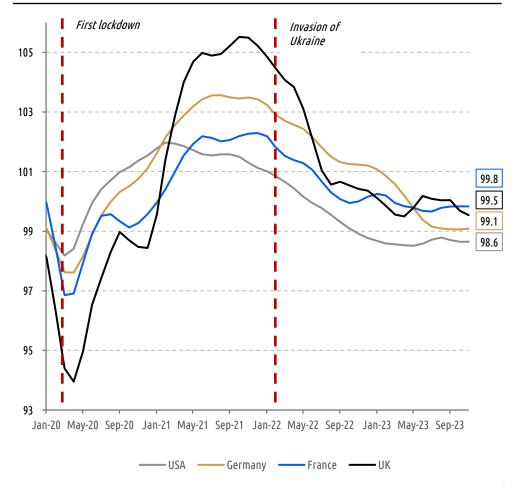
# Consumer and business confidences remain slightly below their pre-covid levels.

France is the only country with an increase in both indicators in November and December.





### **Business confidence indicator – Since Jan. 2020**



7

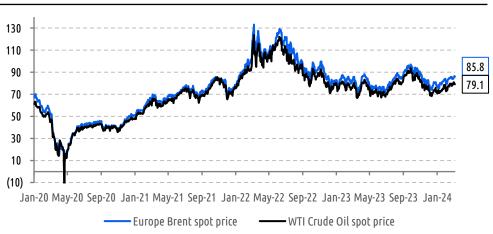


B The seeds of inflation

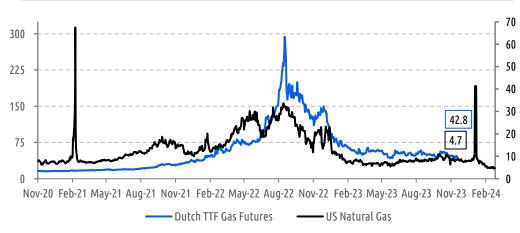
# Russian invasion added inflationary pressure. Yet, prices of raw materials have mostly returned to their pre-war range.

Natural-gas prices surged in the US at the beginning of the year as freezing temperatures disrupted operations. But prices are now at a one-to-eight difference between the US and Europe. Copper prices have been rather stable while wheat prices have strongly decreased to reach their pre-COVID level.

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



## EU (left scale) and US (right scale) natural gas prices $^1$ ( $\epsilon/MWh$ )



### Copper prices in historical perspective (USD/ton)



### **CBOT Wheat** (USD/Bushel)





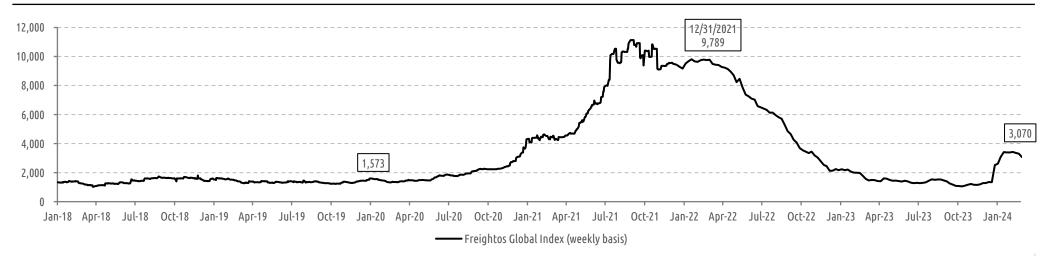
# New supply-chain disruptions are appearing in 2024

While transportation costs had returned to their pre-crisis level, they have more than doubled since the beginning of the year because of geopolitical tensions in the Red Sea.

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



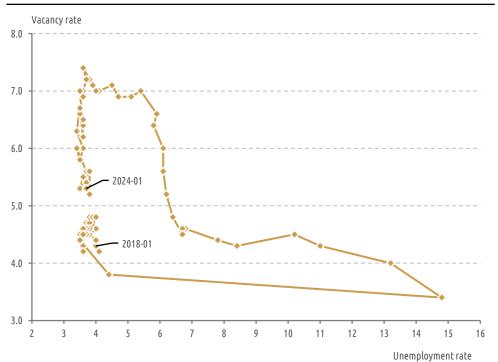
### Shipping Container Index (based on spot rate for 40 feet containers)



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

The unemployment rate, both in the US and the EZ, remain at very low levels. In the US, the vacancy/unemployment ratio is falling, getting closer to its pre-covid level.

### Beveridge curve - USA, Monthly



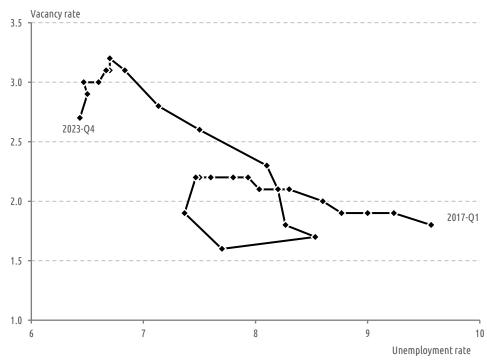
## Unemployment rate (% of labor force) - Monthly

Civilian unemployment rate – Total – USA - Seasonally adjusted

Indicator | 03-23 | 04-23 | 05-23 | 06-23 | 07-23 | 08-23 | 09-23 | 10-23 | 11-23 | 12-23 | 01-24 | 02-24

Rate | 3.5 | 3.4 | 3.7 | 3.6 | 3.5 | 3.8 | 3.8 | 3.8 | 3.7 | 3.7 | 3.7 | 3.9

#### Beveridge curve – Euro Area, Quarterly



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

 Unemployment according to ILO definition - Total - Euro area - Seasonally adjusted

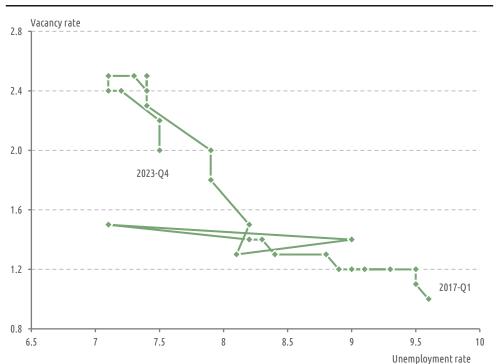
 Indicator
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 03-23
 04-23
 05-23
 06-23
 07-23
 08-23
 09-23
 10-23
 11-23
 12-23
 01-24

 Rate
 6.6
 6.5
 6.5
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## Labor markets remain tight... (2/2)

The vacancy/unemployment ratio remains at record high levels in France and Germany. However, vacancies have started to decrease in both countries.

### Beveridge curve - France, Quarterly

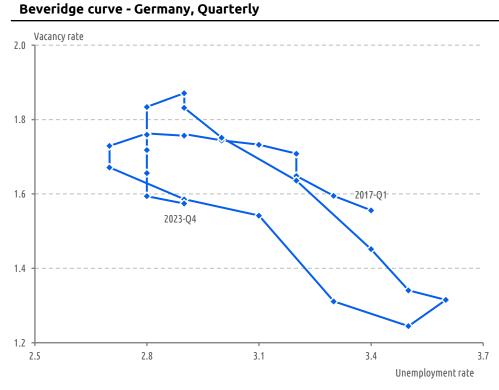


### Unemployment rate (% of labor force) – Monthly (Eurostat)

 Unemployment rate – Total – France- Seasonally adjusted

 Indicator | 02-23 | 03-23 | 04-23 | 05-23 | 06-23 | 07-23 | 08-23 | 09-23 | 10-23 | 11-23 | 12-23 | 01-24

Rate 7.1 7.1 7.3 7.4 7.4 7.4 7.4 7.4 7.5 7.5 7.6 7.5



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

 Unemployment according to ILO definition - Total - Germany - Seasonally adjusted

 Indicator
 02-23
 03-23
 04-23
 05-23
 06-23
 07-23
 08-23
 09-23
 10-23
 11-23
 12-23
 01-24

 Rate
 2.9
 2.9
 2.9
 3.0
 3.0
 3.0
 3.1
 3.1
 3.1
 3.1
 3.1
 3.1

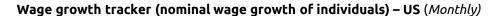


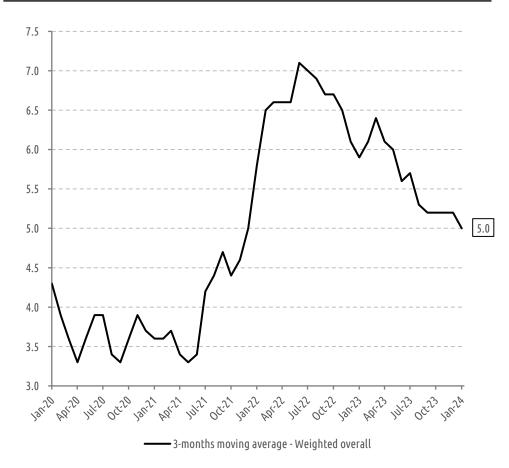
Sources: Destatis, Eurostat

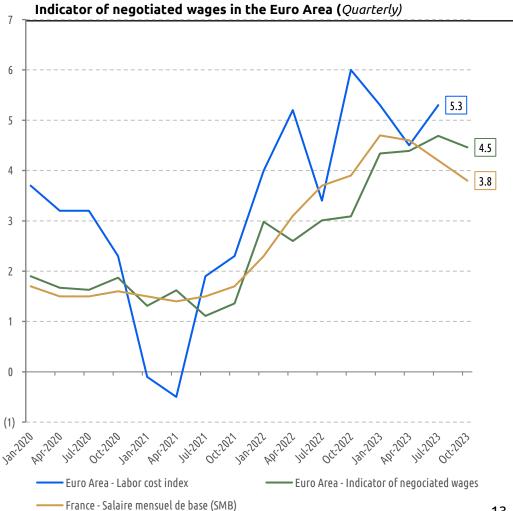
Note: Vacancy rate is the ratio of job openings to total jobs

# Wage inflation has been slowly cooling down in the US

It is plateauing in the Euro Area. However, wage inflation remains higher than price inflation both in the US and the Euro Area.









C Inflation unbound

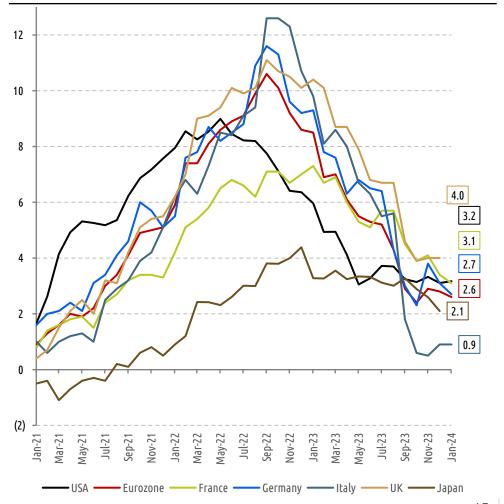
## Inflation is coming down from its peak both in Europe and the US

After the huge drop in October, headline inflation stabilizes slightly below 3% in the Euro Area. It slightly decreased from 3.4% to 3.1% in France. Inflation remains above 3% in the US. Core inflation is slowly decreasing but remains at rather high levels in most countries.

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

| CPI and core inria | CPI and core inflacion in advanced economies (YOY % change) |         |        |        |        |        |                |       |     |     |     |
|--------------------|---|---------|--------|--------|--------|--------|----------------|-------|-----|-----|-----|
| Mon                | thly Y  | ear-on- | Үеаг і | inflat | ion ra | tes (% | s) <b>–</b> 20 | 23/20 | 24  |     |     |
| Country            | Арг   | May     | Jun    | Jul    | Aug    | Sep    | Oct            | Nov   | Dec | Jan | Feb |
| US                 | 4.9   | 4.1     | 3.1    | 3.3    | 3.7    | 3.7    | 3.2            | 3.1   | 3.3 | 3.1 | 3.2 |
| US core            | 5.5   | 5.3     | 4.9    | 4.7    | 4.4    | 4.1    | 4.0            | 4.0   | 3.9 | 3.9 | 3.8 |
| Euro Area*         | 7.0   | 6.1     | 5.5    | 5.3    | 5.2    | 4.3    | 2.9            | 2.4   | 2.9 | 2.8 | 2.6 |
| Euro Area core*    | 5.6   | 5.3     | 5.5    | 5.5    | 5.3    | 4.5    | 4.2            | 3.6   | 3.4 | 3.3 | 3.1 |
| France*            | 6.9   | 6.0     | 5.3    | 5.1    | 5.7    | 5.7    | 4.5            | 3.9   | 4.1 | 3.4 | 3.1 |
| France core*       | 4.7   | 4.4     | 4.4    | 4.3    | 4.0    | 3.6    | 3.5            | 2.9   | 2.9 | 2.7 | 2.4 |
| France INSEE       | 5.9   | 5.1     | 4.5    | 4.3    | 4.9    | 4.9    | 4.0            | 3.5   | 3.7 | 3.1 | 2.9 |
| France core INSEE  | 6.3   | 5.8     | 5.7    | 5.0    | 4.6    | 4.6    | 4.2            | 3.6   | 3.4 | 3.0 | 3.0 |
| Germany*           | 7.6   | 6.3     | 6.8    | 6.5    | 6.4    | 4.3    | 3.0            | 2.3   | 3.8 | 3.1 | 2.7 |
| Germany core*      | 5.6   | 5.1     | 6.1    | 6.2    | 6.3    | 4.8    | 4.2            | 3.5   | 3.4 | 3.4 | 3.5 |
| Italy*             | 8.6   | 8.0     | 6.7    | 6.3    | 5.5    | 5.6    | 1.8            | 0.6   | 0.5 | 0.9 | 0.9 |
| Italy core*        | 5.3   | 5.1     | 4.9    | 4.7    | 4.0    | 4.1    | 3.8            | 3.3   | 3.0 | 2.8 | 2.6 |
| UK                 | 8.7   | 8.7     | 7.9    | 6.8    | 6.7    | 6.7    | 4.6            | 3.9   | 4.0 | 4.0 | -   |
| UK core            | 6.8   | 7.1     | 6.9    | 6.9    | 6.2    | 6.1    | 5.7            | 5.1   | 5.1 | 5.1 | -   |
| Japan              | 3.5   | 3.2     | 3.3    | 3.3    | 3.1    | 3.0    | 3.3            | 2.9   | 2.6 | 2.1 | -   |
| Japan core         | 4.1   | 4.2     | 4.3    | 4.3    | 4.3    | 4.3    | 4.0            | 3.8   | 3.7 | 3.5 | -   |

CPI Inflation (YoY % change) – since March 2021



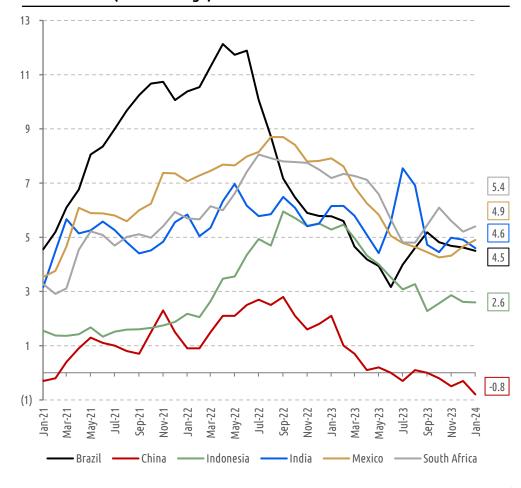
## Inflation in emerging economies is slowly cooling but remains at high levels

China remains an extraordinary exception, it has been in deflation for the last four months due to low domestic consumption and private investment.

#### CPI inflation in emerging economies (YoY % change)

| CPI Inriat      | CPI Inriation in emerging economies (YOY % change) |        |        |       |        |       |       |       |       |       |       |       |
|-----------------|--|--------|--------|-------|--------|-------|-------|-------|-------|-------|-------|-------|
|                 | Mon  | thly Y | 'еаг-о | n-Yea | r infl | ation | rates | (%) – | 2023/ | 2024  |       |       |
| Country         | Feb  | Маг    | Арг    | May   | Jun    | Jul   | Aug   | Sep   | Oct   | Nov   | Dec   | Jan   |
| China           | 1.0  | 0.7    | 0.1    | 0.2   | 0.0    | (0.3) | 0.1   | 0.0   | (0.2) | (0.5) | (0.3) | (0.8) |
| India           | 6.2  | 5.8    | 5.1    | 4.4   | 5.6    | 7.5   | 6.9   | 4.7   | 4.5   | 5.0   | 4.9   | 4.6   |
| South<br>Africa | 7.3  | 7.3    | 7.1    | 6.6   | 5.7    | 4.8   | 4.8   | 5.5   | 6.1   | 5.6   | 5.2   | 5.4   |
| Brazil          | 5.6  | 4.7    | 4.2    | 3.9   | 3.2    | 4.0   | 4.6   | 5.2   | 4.8   | 4.7   | 4.6   | 4.5   |
| Mexico          | 7.6  | 6.8    | 6.3    | 5.8   | 5.1    | 4.8   | 4.6   | 4.5   | 4.3   | 4.3   | 4.7   | 4.9   |
| Indonesia       | 5.5  | 5.0    | 4.3    | 4.0   | 3.5    | 3.1   | 3.3   | 2.3   | 2.6   | 2.9   | 2.6   | 2.6   |

### CPI Inflation (YoY % change) - since March 2021





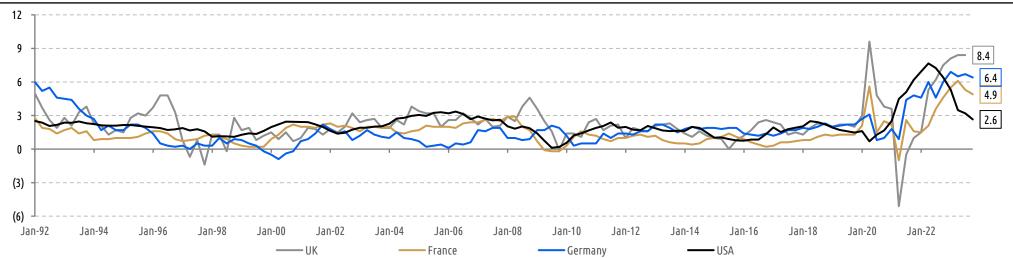
# Implied GDP deflators remain at high levels in Europe

In the US, however, it is lower than headline inflation levels.

### Quarterly implied GDP deflator

| Implied GDP deflator (YoY % change) – Since Q1-2021 |       |       |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Country   | Q1-22 | Q2-22 | Q3-22 | Q4-22 | Q1-23 | Q2-23 | Q3-23 | Q4-23 |
| USA   | 6.9   | 7.7   | 7.3   | 6.4   | 5.3   | 3.5   | 3.2   | 2.6   |
| Germany   | 4.6   | 6.0   | 4.6   | 6.0   | 6.9   | 6.5   | 6.7   | 6.4   |
| France  | 1.5   | 2.1   | 3.6   | 4.6   | 5.5   | 6.1   | 5.3   | 4.9   |
| ик  | 1.5   | 5.3   | 6.2   | 7.5   | 8.1   | 8.4   | 8.4   | -     |

## **Quarterly implied GDP deflator –** Since Q1-1992





II Monetary policy



A In the US



MACROECONOMIC OUTLOOK - MARCH 2024 A IN THE US

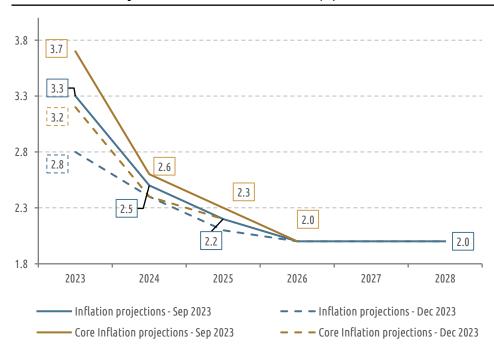
## Monetary policy decisions from the Fed (1/2)

The Fed decided to maintain interest rates at their levels in January as they consider that inflation remains at a too high level while labor market is slowly cooling. President Powell explained that they expect to cut rates at some point in 2024 but are willing to maintain them at their high level for as long as necessary.

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

| Price indexes for Personal Consumption Expenditures |       |       |       |       |       |       |       |
|---|-------|-------|-------|-------|-------|-------|-------|
| Indicator   | 07-23 | 08-23 | 09-23 | 10-23 | 11-23 | 12-23 | 01-24 |
| PCE inflation                                       | 3.3   | 3.3   | 3.4   | 3.0   | 2.7   | 2.6   | 2.4   |

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



#### **Key considerations**

- The target range of the federal fund rates was maintained at 5.25%-5.50% on January 31st.
- The decision comes after already three pauses in September, November and December. Interest rates are at their highest levels since 2001.
- In December, the Fed revised up GDP growth expectation for 2023 from 2.1% to 2.6% and the inflation down from 3.3% to 2.8%.
- Next meeting will be on March 19<sup>th</sup>. The key issue is whether a first cut will occur.

| Federal Reserve economic projections as of 13th December 2023 |      |      |      |            |  |  |  |
|---|------|------|------|------------|--|--|--|
| Indicator   | 2023 | 2024 | 2025 | Longer run |  |  |  |
| Change in real GDP  | 2.6  | 1.4  | 1.8  | 1.8        |  |  |  |
| Unemployment rate   | 3.8  | 4.1  | 4.1  | 4.1        |  |  |  |
| Inflation   | 2.8  | 2.4  | 2.1  | 2.0        |  |  |  |
| Federal funds rate  | 5.4  | 4.6  | 3.6  | 2.5        |  |  |  |

"The Committee judges that the risks to achieving its employment and inflation goals are moving into better balance."

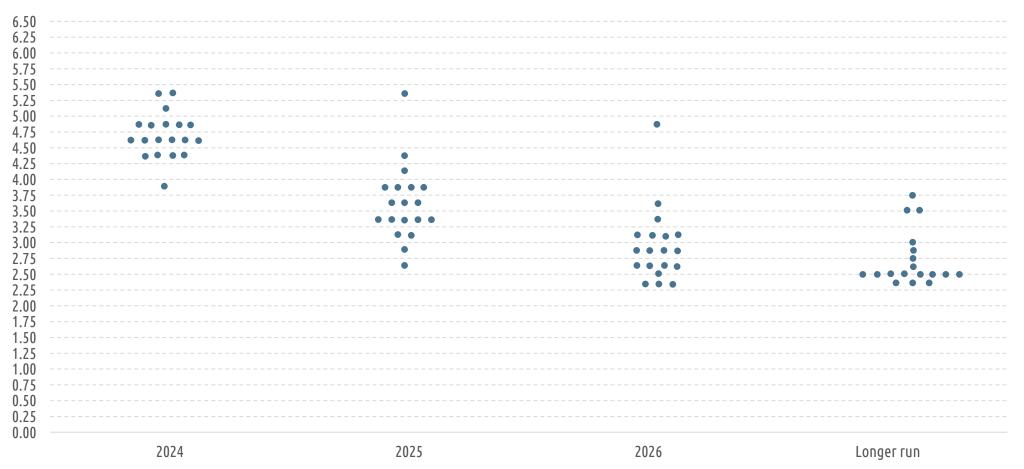
JEROME POWELL, PRESS CONFERENCE, JANUARY 31ST, 2024



## 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 in December are lower than the previous ones in September. It notably implies that Fed members consider that three 25-bps cuts will occur in 2024.

FOMC participants' assessments of appropriate monetary policy: Midpoint of target range or target level for the federal funds rate as of 13th December



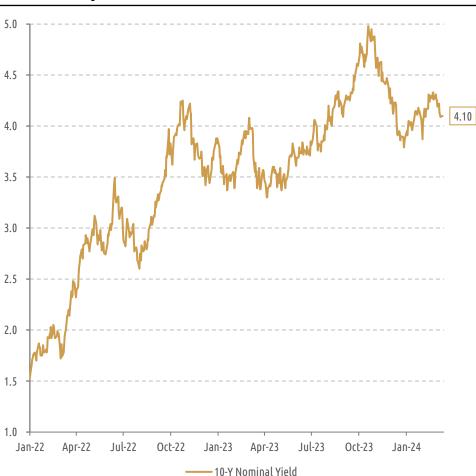


Source: Fed as of 13/12/2023

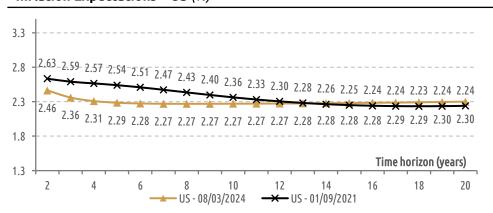
# Nominal long-term rates are at high levels but have been on a downward path for the last few months

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

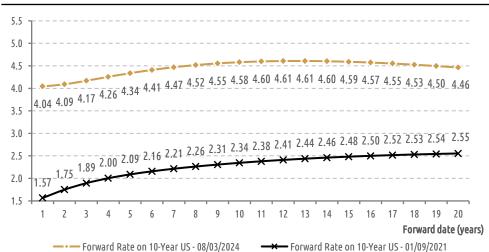
### 10-Y Nominal yield – US



### Inflation Expectations – US (%)



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





Source: Fed as of 13/03/2024, Internal calculations

Note: Inflation expectations are derived from US indexed bonds (TIPS) and US nominal bonds

# The US yield curve has been inverted for almost two years

## U.S. 10Yr/2Yr Spread - Since Jan. 1978





Source: Fed as of 13/03/2024



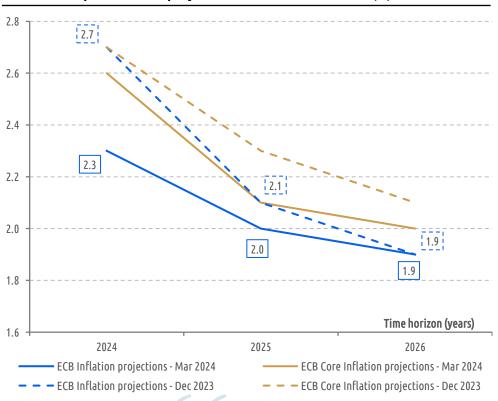
B In the Euro Area



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

President Lagarde explained that growth is low and that the economy is currently showing signs of weakness. However, the ECB expects growth to pick-up soon while inflation would further decrease in 2024, implying possible cuts later this year (probably in June).

### Inflation expectations & projections as of 7<sup>th</sup> March 2024 (%)



#### **Key considerations**

- The Governing Council decided to maintain the three key ECB interest rates at their current value, as in November, December and January, after continuous hikes for more than 18 months.
- Looking ahead, ECB staff have slightly revised their inflation projections down in March. Headline inflation is now expected to average 2.3% in 2024 while core inflation should reach 2.6%. However, they also revised their output growth projections for 2024 from 0.8% to 0.6%.
- The benchmark deposit rate is now set at 4%, coming from minus 0.5% a year and a half ago. It is its highest level since 2000.
- The next meeting is set on April 11<sup>th</sup> The ECB hinted that the interest rate will probably remain unchanged.

| ECB economic projections as of 7 March 2024 |      |      |      |  |  |  |
|---|------|------|------|--|--|--|
| Indicator                                   | 2024 | 2025 | 2026 |  |  |  |
| Change in real GDP                          | 0.6  | 1.5  | 1.6  |  |  |  |
| Unemployment rate                           | 6.7  | 6.6  | 6.6  |  |  |  |
| Inflation                                   | 2.6  | 2.0  | 1.9  |  |  |  |

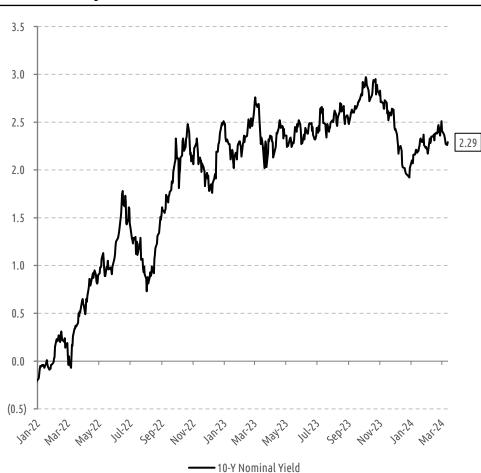
"There is a definite decline which is under way, and we are making good progress towards our inflation target.[...] We will know a little more in April, but we will know a lot more in June."



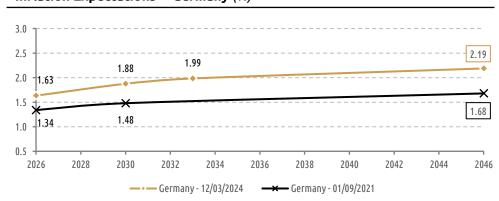
# In the Eurozone, nominal rates are going up again, after having decreased following the fall of inflation

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

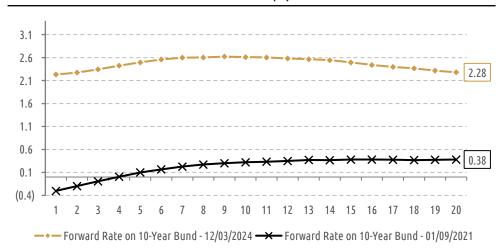
#### 10-Y Nominal yield - German Bund



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



### Forward Rates on 10-Year German Bund (%)





Source: Bundesbank as of 13/03/2024, Internal calculations

Note: Inflation expectations are derived from German indexed bonds and German nominal bonds

## The German yield curve has been inverted a year for the first time since 2008

This usually reflects a risk of recession or sluggish growth

### Bund 2Yr/10Yr Spread - Since Jan 1998

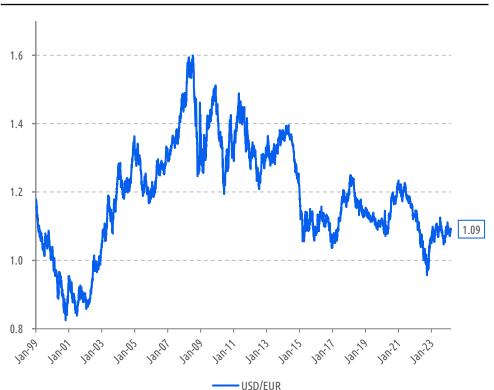




Source: Bundesbank as of 13/03/2024

# After an appreciation at the end of 2022, the Euro has been rather stable in 2023

### 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

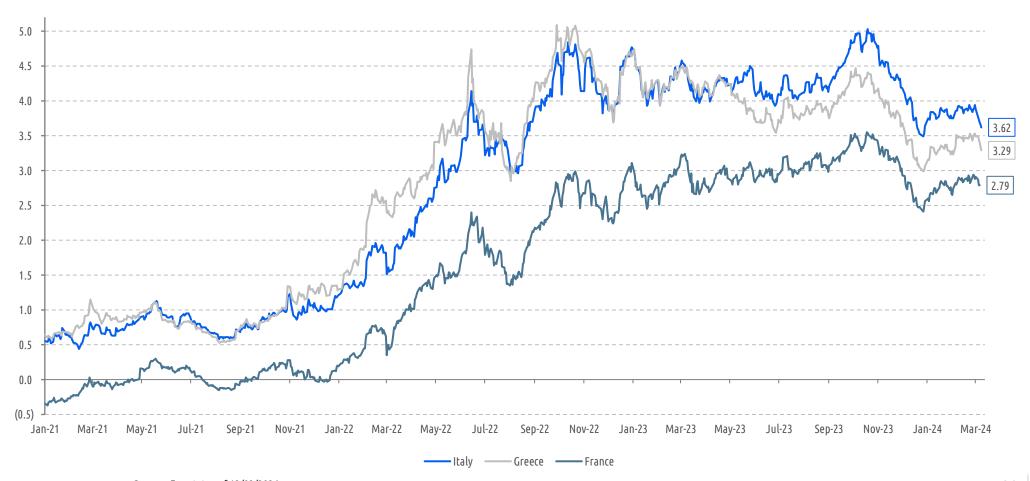


III Impact on yields and spreads

# In Europe, sovereign yields remain at particularly high levels

Despite their strong decrease during the second semester of 2023.

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



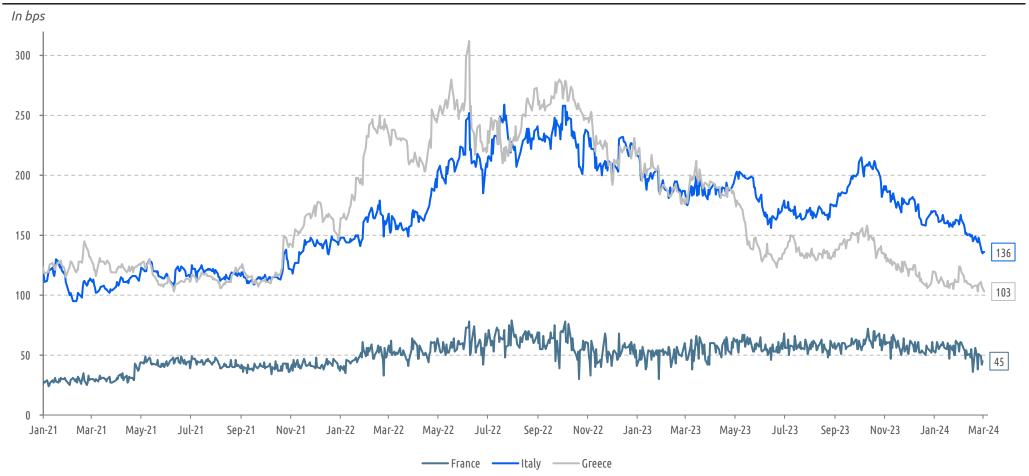


Sources: Eurostat as of 13/03/2024

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

Tensions are higher in Italy, 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 been decreasing in the last few months both in the US and the Euro Area.

They reached their lowest levels since the beginning of 2022.

## High yield corporate bond spreads – Since 2000



### High yield corporate bond spreads—Since 2022





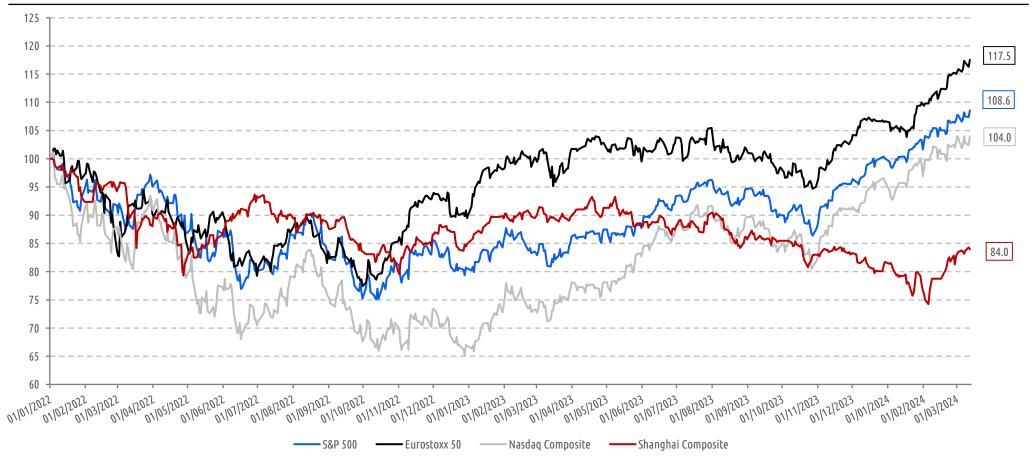


IV Impact on stock markets

# Stock-market indices strongly increased during the last few of months, except for the Shanghai Composite

The Shanghai composite strongly decreased in the last few months. Despite the recent increase, it remains 16% lower than its pre-war level

### 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

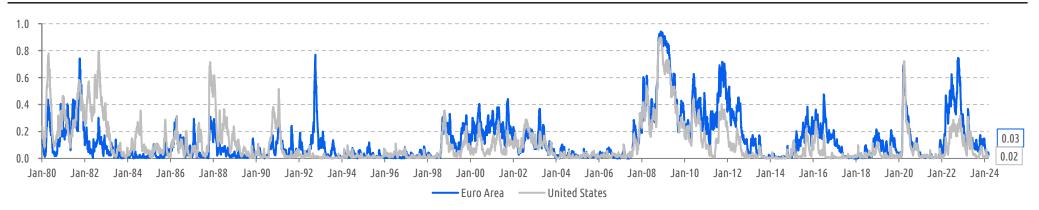
Aug-2022 Oct-2022 Nov-2022 Jan-2023 Feb-2023 Apr-2023 May-2023 Jul-2023 Aug-2023 Oct-2023 Nov-2023 Dec-2023 Feb-2024

Jan-2022 Feb-2022

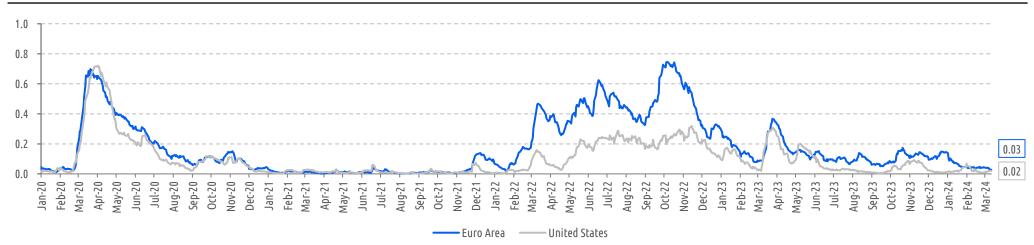
Apr-2022 May-2022 Jul-2022

# Financial stress indicators returned to pre-war levels

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



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





Source: ECB as of 13/03/2024

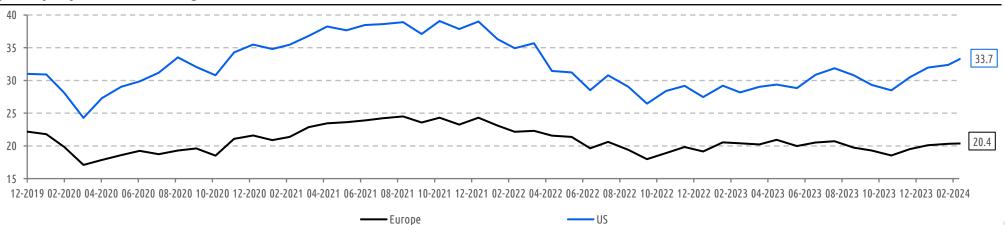
## Shiller CAPE ratio is higher in the US than in Europe

Shiller CAPE ratio is 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

| Page # | Graph / Table   | Web link                             |
|--------|---|--------------------------------------|
| 4      | Quarterly GDP growth (% change over the previous period) – Germany      | OECD/KEI/NAEXKP01.DEU.GP.Q           |
| 4      | Quarterly GDP growth (% change over the previous period) – Eurozone     | OECD/KEI/NAEXKP01.EA19.GP.Q          |
| 4      | Quarterly GDP growth (% change over the previous period) – France       | OECD/KEI/NAEXKP01.FRA.GP.Q           |
| 4      | Quarterly GDP growth (% change over the previous period) – UK           | OECD/KEI/NAEXKP01.GBR.GP.Q           |
| 4      | Quarterly GDP growth (% change over the previous period) – Italy        | OECD/KEI/NAEXKP01.ITA.GP.Q           |
| 4      | Quarterly GDP growth (% change over the previous period) – Japan        | OECD/KEI/NAEXKP01.JPN.GP.Q           |
| 4      | Quarterly GDP growth (% change over the previous period) – US           | OECD/KEI/NAEXKP01.USA.GP.Q           |
| 5      | Quarterly GDP growth (% change over the previous period) – China        | OECD/DP LIVE/CHN.QGDP.TOT.PC CHGPP.Q |
| 5      | Quarterly GDP growth (% change over the previous period) – Brazil       | OECD/KEI/NAEXKP01.BRA.GP.Q           |
| 5      | Quarterly GDP growth (% change over the previous period) – Mexico       | OECD/KEI/NAEXKP01.MEX.GP.Q           |
| 5      | Quarterly GDP growth (% change over the previous period) – South Africa | OECD/KEI/NAEXKP01.ZAF.GP.Q           |
| 5      | Quarterly GDP growth (% change over the previous period) – Indonesia    | OECD/KEI/NAEXKP01.IDN.GP.Q           |
| 5      | Quarterly GDP growth (% change over the previous period) – India        | OECD/KEI/NAEXKP01.IND.GP.Q           |



| Page # | Graph / Table                               | Web link                                   |
|--------|---|--|
| 6      | General government debt - Germany           | Eurostat/gov 10q ggdebt/Q.GD.S13.PC GDP.DE |
| 6      | General government debt – France            | Eurostat/gov 10q ggdebt/Q.GD.S13.PC GDP.FR |
| 6      | General government debt – United Kingdom    | ONS/EDP1/YEQJ.Q                            |
| 6      | General government deficit – United States  | BEA/NIPA-T30100/AD01RC-Q                   |
| 6      | General government deficit – Germany        | Eurostat/teina205/Q.B9.S13.PC_GDP_SCA.DE   |
| 6      | General government deficit – France         | Eurostat/teina205/Q.B9.S13.PC GDP SCA.FR   |
| 6      | General government deficit – United Kingdom | ONS/UKEA/CT8O.Q                            |
| 7      | Consumer confidence index – United States   | OECD/MEI_CLI/CSCICP03.USA.M                |
| 7      | Consumer confidence index – Germany         | OECD/MEI CLI/CSCICP03.DEU.M                |
| 7      | Consumer confidence index – France          | OECD/MEI CLI/CSCICP03.FRA.M                |
| 7      | Consumer confidence index – United Kingdom  | OECD/MEI CLI/CSCICP03.GBR.M                |
| 7      | Business confidence index – United States   | OECD/MEI CLI/BSCICP03.USA.M                |
| 7      | Business confidence index – Germany         | OECD/MEI CLI/BSCICP03.DEU.M                |
| 7      | Business confidence index – France          | OECD/MEI CLI/BSCICP03.FRA.M                |
| 7      | Business confidence index – United Kingdom  | OECD/MEI CLI/BSCICP03.GBR.M                |



| Page # | Graph / Table  | Web link  |
|--------|--|---|
| 9      | Natural Gas (Dutch TTF) prices in historical perspective (€/MWh)   | ICE/DUTCH TTF GAS FUTURES/D.5614690   |
| 10     | % of EU business reporting shortages of materials and equipment in the construction industry as a limiting production factor | EC/CONSTRUCTION/TOT.2.F5S.EU.M  |
| 11     | Beveridge curve – Euro Area (Q1-17 – Q2-22), Quarterly   | OECD/MEI/EA20.LRHUTTTT.STSA.Q<br>Eurostat/jvs q nace2/Q.NSA.B-S.TOTAL.JOBRATE.EA19  |
| 11     | Beveridge curve – United States (Q1-17 – Q2-22), Monthly   | <u>BLS/ln/LNS14000000</u><br>BLS/jt/JTS0000000000000JOR   |
| 11     | Unemployment according to ILO definition - Total – Euro area – Seasonally adjusted, Monthly                                  | Eurostat/ei lmhr m/M.PC ACT.SA.LM-UN-T-TOT.EA20   |
| 12     | Beveridge curve - France, Quarterly  | Eurostat/jvs_q_nace2/Q.NSA.B-S.GE10.JOBRATE.FR<br>INSEE/CHOMAGE-TRIM-NATIONAL/T.CTTXC.TAUX.FR-D976.0.00-<br>.POURCENT.CVS.FALSE |
| 12     | Beveridge curve - Germany, Quarterly   | Eurostat/jvs_q_nace2/Q.NSA.B-S.GE10.JOBRATE.DE<br>DESTATIS/81000BV001/DG.BV4SB.ERW089   |
| 12     | Unemployment according to ILO definition - Total – France – Seasonally adjusted, Monthly                                     | Eurostat/une rt m/M.SA.TOTAL.PC ACT.T.FR  |
| 12     | Unemployment according to ILO definition - Total – Germany – Seasonally adjusted, Monthly                                    | Eurostat/une rt m/M.SA.TOTAL.PC ACT.T.DE  |
| 13     | Wage growth tracker – France (Quarterly)   | INSEE/ICT-2016/T.BDM_EUR.ICT.A21-BTN.INDICE.SSE.FE.SO.CVS-CJO.2016  |



| Page # | Graph / Table                                 | Web link  |
|--------|---|---|
| 15     | CPI Inflation (YoY % change) – United States  | BLS/cu/CUSR0000SA0<br>BLS/cu/CUSR0000SA0L1E   |
| 15     | CPI Inflation (YoY % change) – Eurozone       | Eurostat/prc hicp manr/M.RCH A.CP00.EA  Eurostat/prc hicp manr/M.RCH A.TOT X NRG FOOD.EA  |
| 15     | CPI Inflation (YoY % change) – France         | Eurostat/prc_hicp_manr/M.RCH_A.CP00.FR<br>Eurostat/prc_hicp_manr/M.RCH_A.TOT_X_NRG_FOOD.FR  |
| 15     | CPI Inflation (YoY % change) – France INSEE   | INSEE/IPC- 2015/M.IPC.SO.SO.4035.GLISSEMENT ANNUEL.ENSEMBLE.FE.POURCENT.BRUT.SO.FALSE INSEE/IPC-2015/M.ISJ.SO.SO.4035.GLISSEMENT ANNUEL.ENSEMBLE.FM.POURCENT.CVS- FISC.SO.FALSE |
| 15     | CPI Inflation (YoY % change) – Germany        | Eurostat/prc hicp manr/M.RCH A.CP00.DE  Eurostat/prc hicp manr/M.RCH A.TOT X NRG FOOD.DE  |
| 15     | CPI Inflation (YoY % change) – Italy          | Eurostat/prc_hicp_manr/M.RCH_A.CP00.IT  Eurostat/prc_hicp_manr/M.RCH_A.TOT_X_NRG_FOOD.IT  |
| 15     | CPI Inflation (YoY % change) – United Kingdom | <u>ONS/MM23/D7G7.M</u><br><u>ONS/MM23/DKO8.M</u>  |
| 15     | CPI Inflation (YoY % change) – Japan          | STATJP/CPIm/001<br>STATJP/CPIm/740  |
| 16     | CPI Inflation (YoY % change) – South Africa   | OECD/KEI/CPALTT01.ZAF.GY.M  |
| 16     | CPI Inflation (YoY % change) - Brazil         | OECD/KEI/CPALTT01.BRA.GY.M  |
| 16     | CPI Inflation (YoY % change) – China          | OECD/KEI/CPALTT01.CHN.GY.M  |
| 16     | CPI Inflation (YoY % change) – Indonesia      | OECD/KEI/CPALTT01.IDN.GY.M  |
| 16     | CPI Inflation (YoY % change) – India          | OECD/KEI/CPALTT01.IND.GY.M  |
| 16     | CPI Inflation (YoY % change) – Mexico         | OECD/KEI/CPALTT01.MEX.GY.M  |



| Page # | Graph / Table                                   | Web link   |
|--------|---|--|
| 17     | Quarterly implied GDP deflator – France         | Eurostat/namq 10 gdp/Q.PD PCH SM NAC.SCA.B1GQ.DE           |
| 17     | Quarterly implied GDP deflator – France         | Eurostat/namq 10 gdp/Q.PD PCH SM NAC.SCA.B1GQ.FR           |
| 17     | Quarterly implied GDP deflator - United Kingdom | ONS/QNA/IHYU.Q   |
| 17     | Quarterly implied GDP deflator - United States  | BEA/NIPA-BEA/NIPA-T10109/A191RD-Q/A191RD-Q                 |
| 20     | Personal consumption expenditures (PCE)         | BEA/NIPA-T20804/DPCERG-M                                   |
| 23     | 10-Y Nominal yield – US                         | FED/H15/RIFLGFCY10 N.B                                     |
| 24     | Yield curve – US                                | FED/H15/RIFLGFCM03 N.B                                     |
| 27     | 10-Y Nominal yield – German Bund                | BUBA/BBK01/WT1010  |
| 27     | Inflation Expectations - Germany                | BUBA/BBSSY/D.KCP.EUR.A607.DE0001102523.A                   |
| 27     | Forward Rates on 10-Year German Bund            | BUBA/BBSIS/D.I.ZAR.ZI.EUR.S1311.B.A604.R10XX.R.A.A. Z. Z.A |
| 27     | Yield curve – Germany                           | BUBA/BBSSY/D.KCP.EUR.A607.DE0001102523.A                   |



| Page # | Graph / Table  | Web link                           |
|--------|--|------------------------------------|
| 28     | Nominal Foreign exchange rate in historical perspective        | BUBA/BBEX3/D.USD.EUR.BB.AC.000     |
| 30     | Italian10-Y yield  | Eurostat/irt lt mcby d/D.MCBY.IT   |
| 30     | Greek 10-Y yield   | Eurostat/irt lt mcby d/D.MCBY.EL   |
| 30     | French 10-Y yield  | Eurostat/irt_lt_mcby_d/D.MCBY.FR   |
| 30     | German 10-Y yield  | Eurostat/irt lt mcby d/D.MCBY.DE   |
| 36     | Composite Indicator of Systemic Stress (daily) – Euro Area     | ECB/CISS/D.U2.Z0Z.4F.EC.SS CIN.IDX |
| 36     | Composite Indicator of Systemic Stress (daily) – United States | ECB/CISS/D.US.Z0Z.4F.EC.SS CIN.IDX |

