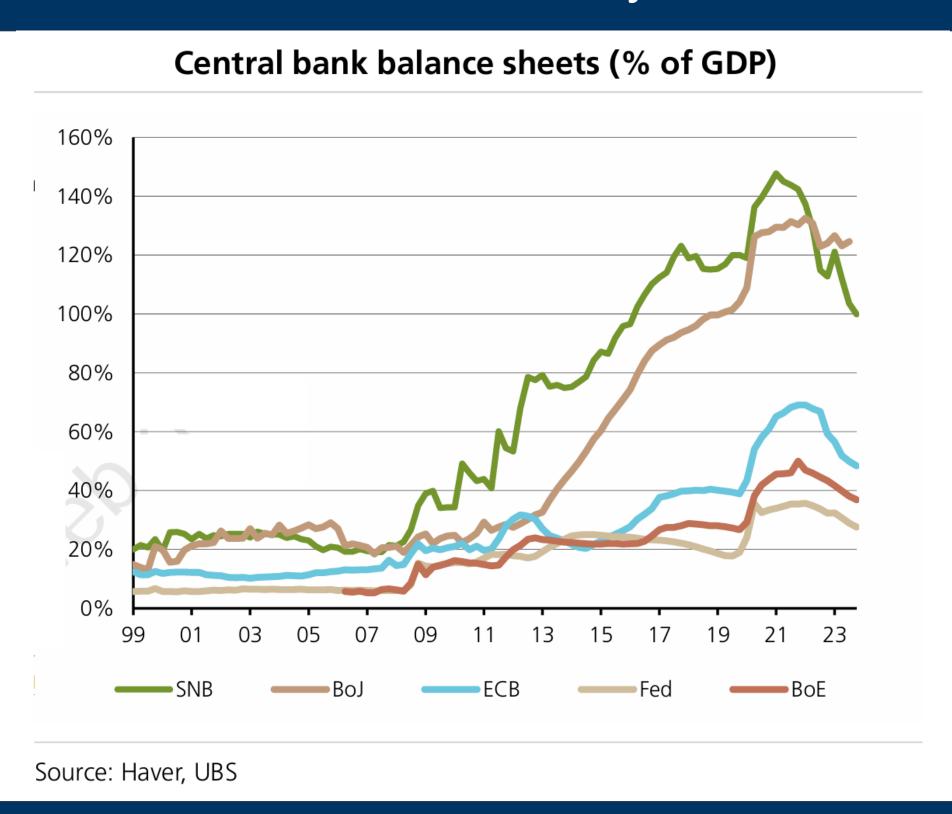
# Monetary Policy, Banking and Capital Markets: Global Outlook

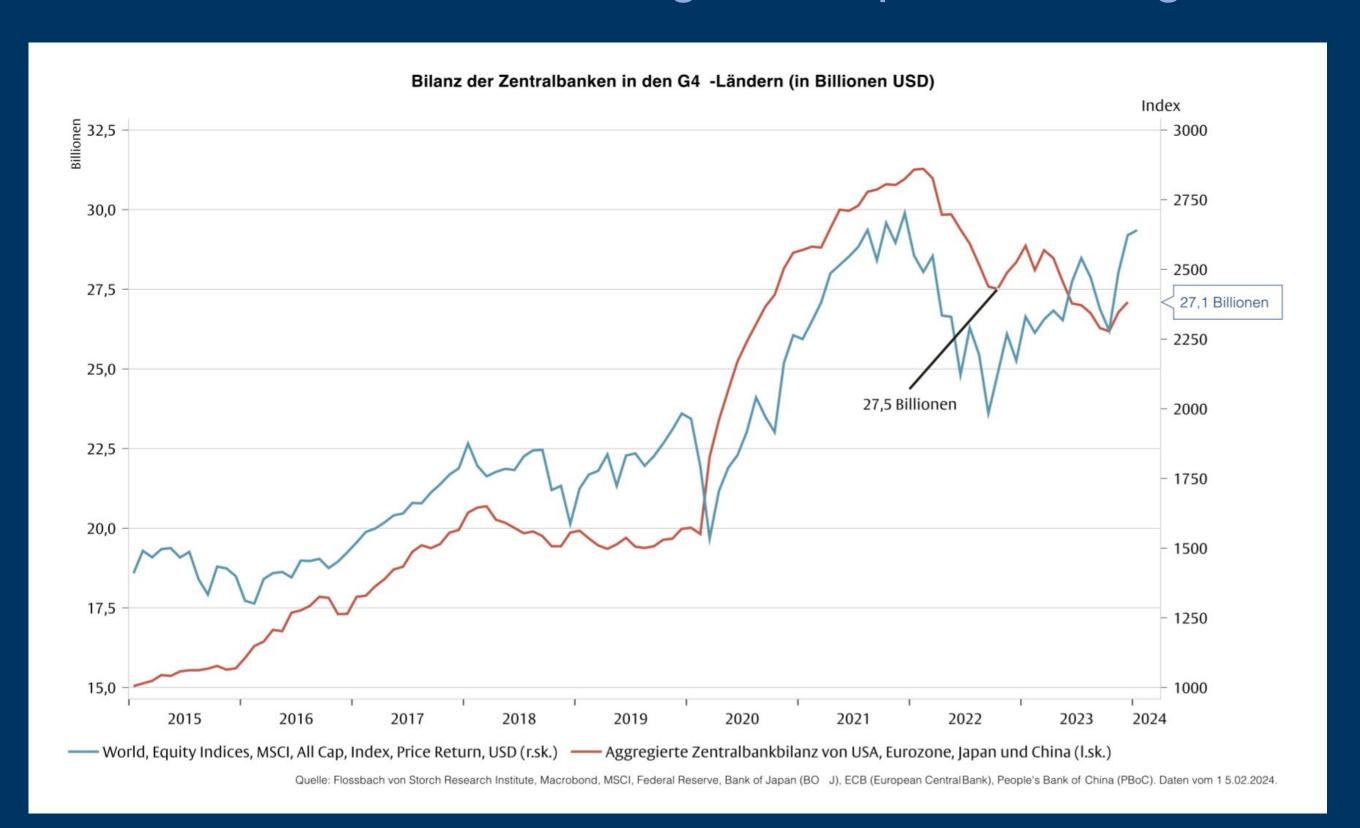
Axel A. Weber,
President Center for Financial Studies, Frankfurt Goethe University

Thursday, 24 May 2024, Asia Monetary Policy Forum 2024, Singapore

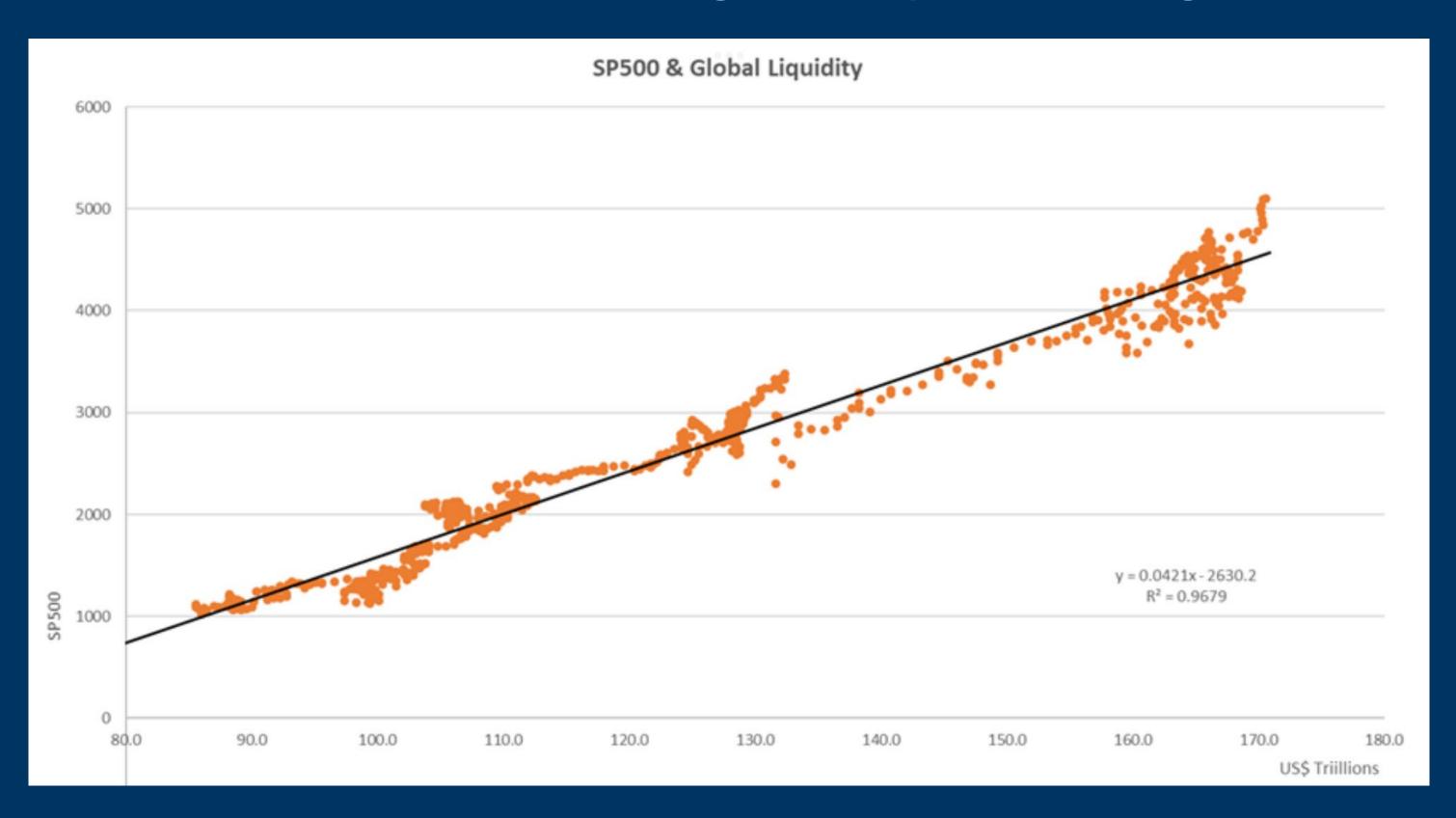
## PRELUDE & REMINDER: The Great Financial Crisis Lead To Globally Ultra-Loose Monetary Policy



## Booming Stock Markets Were Driven By Ultra-Loose Monetary Policy - Don't Mistake it as a Sign of Corporate Strength -



## Booming Stock Markets Were Driven By Ultra-Loose Monetary Policy - Don't Mistake it as a Sign of Corporate Strength -



### MONETARY POLICY AND INFLATION

How It All Went Wrong...

### MONETARY POLICY AND INFLATION

Systemetically Wrong Inflation Forecasts and Wishful Thinking: Camp Transitory

## Average Inflation Targeting by the FED and the ECB - A Clear Policy Mistake -

#### Average Inflation Targeting is an ill-designed Monetary Policy Framework

- Too late tightening of monetary policy by design: a policy mistake waiting to happen!
- Factually average inflation targeting amounts to price-level-targeting, but neither the Fed nor the ECB look at the level of prices, they focus inflation rates and their own problematic inflation forecasts.

#### Two great blind-spots dominated monetary policy making:

- The inflation rate focus meant a built-in recognition-lag for trend-breaks in the price level of at least 12 months or more. This allowed inflation to run hot.
- The inflation forecast focus added a built-in illusion that price increases would return to the inflation target with a lag, but this was complacency by design (2% long term inflation is a model assumption).

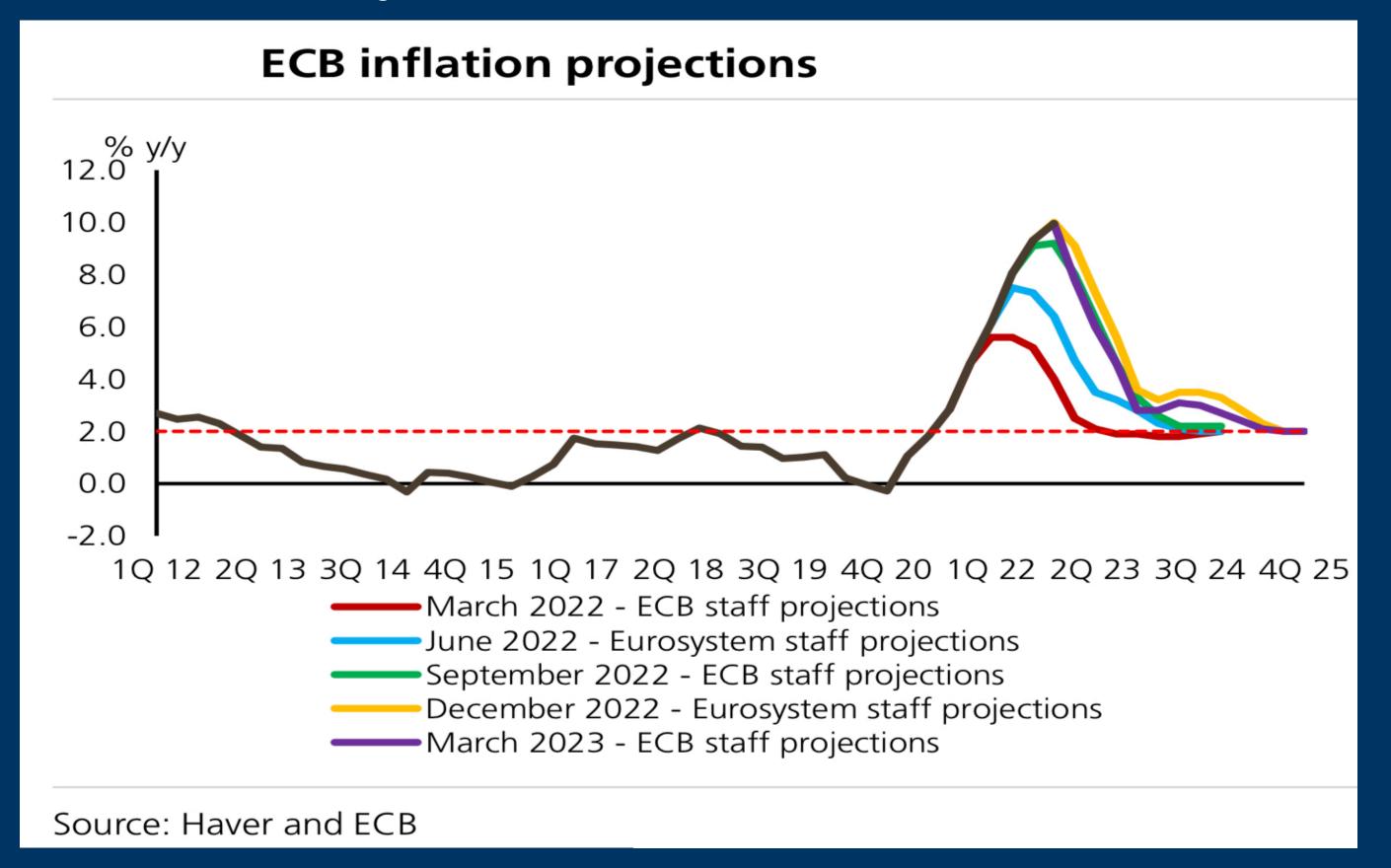
#### In addition, ill-advised policy conditionality added to monetary policy mistakes:

Forward guidance was built on the illusion that central banks new more about the economy than they did.

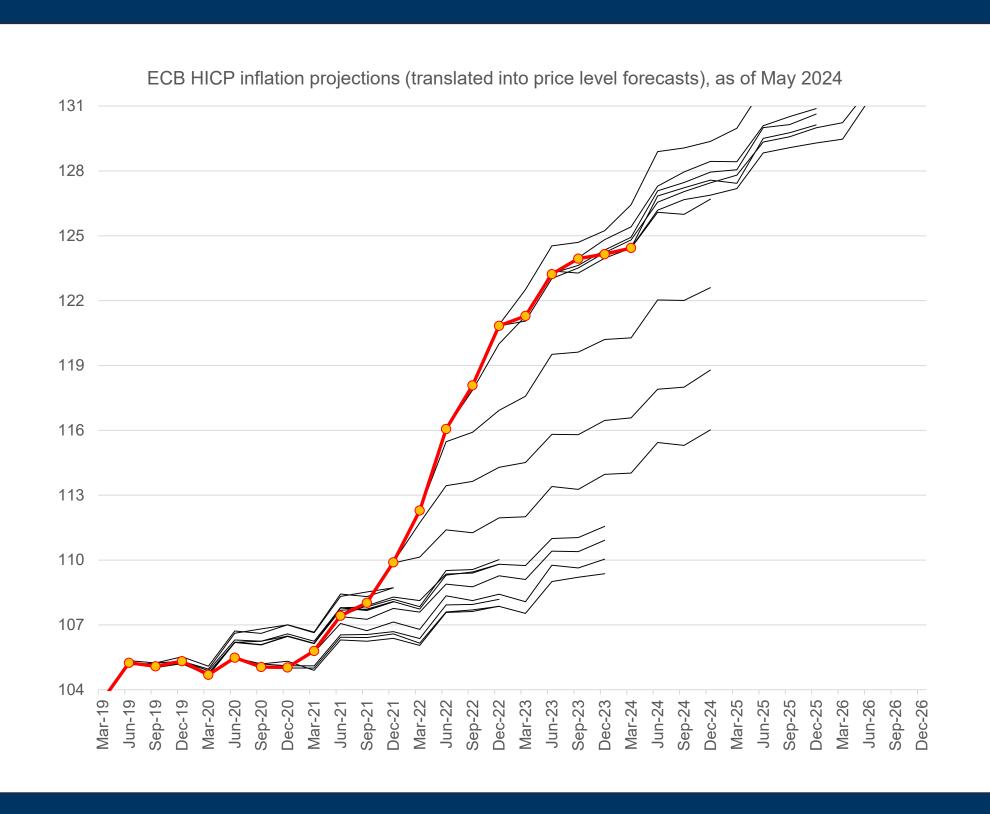
#### Pre-committing to a sequencing of balance sheet and interest rate policies was another mistake:

• The promise that balance sheet policies (tapering & ending asset purchases before hiking interest rate) led to central banks cornering themselves and waiting too long with rate hikes.

### ECB Inflation Projections For The Eurozone: Wishful Thinking

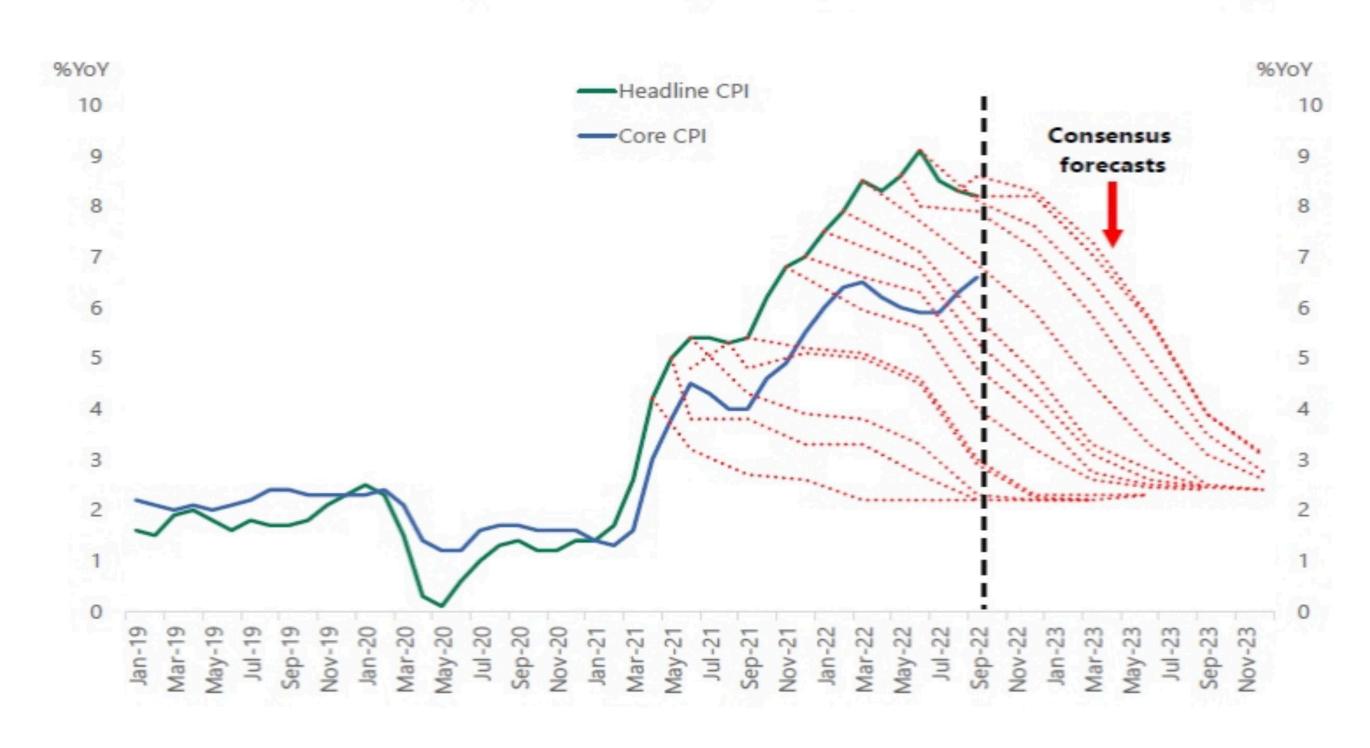


#### Inflation and Monetary Policy – The Judgement Error of the ECB



### US Inflation Forecasts: Wishful Thinking

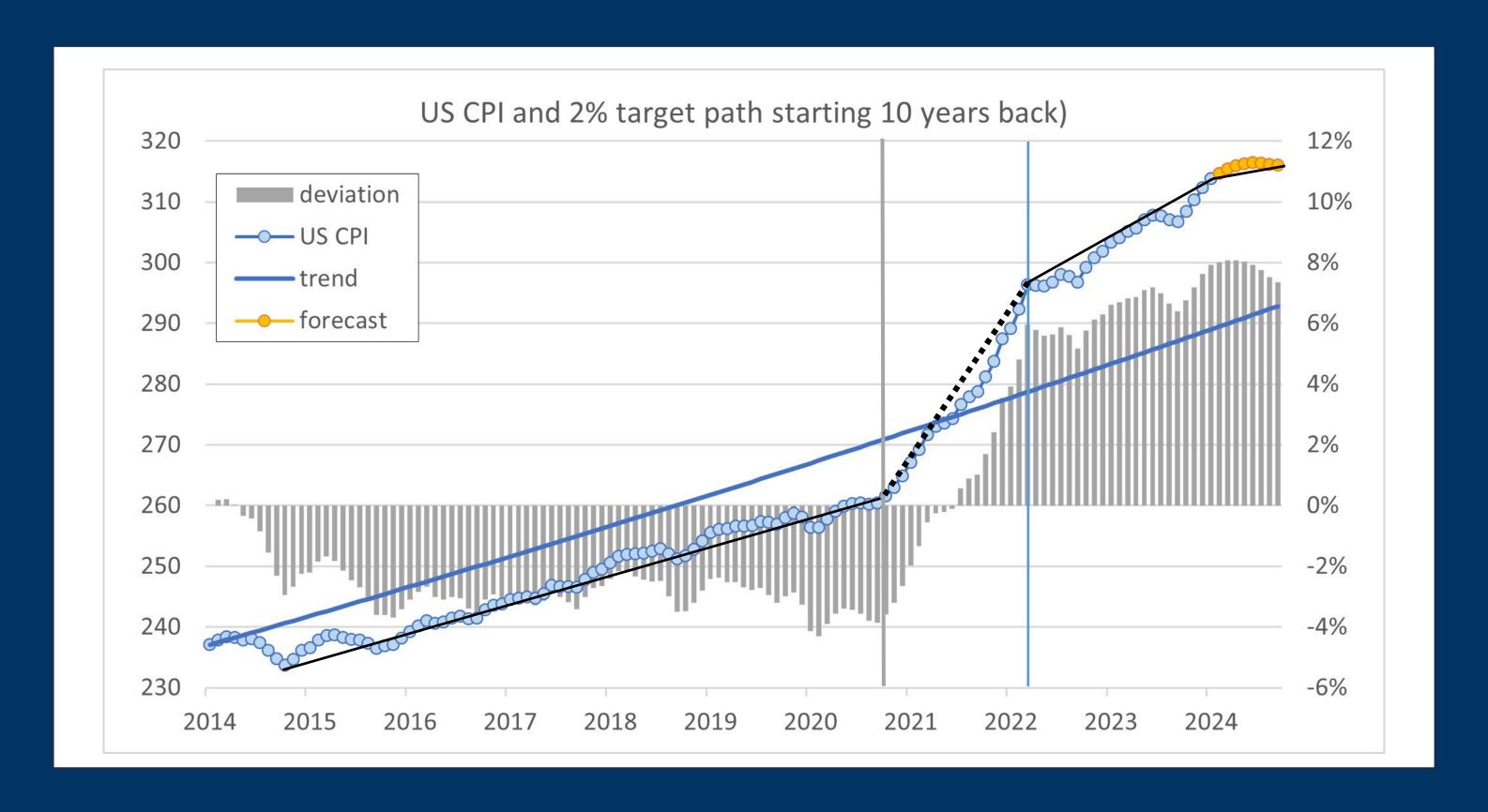
The consensus has been systematically wrong about inflation coming down



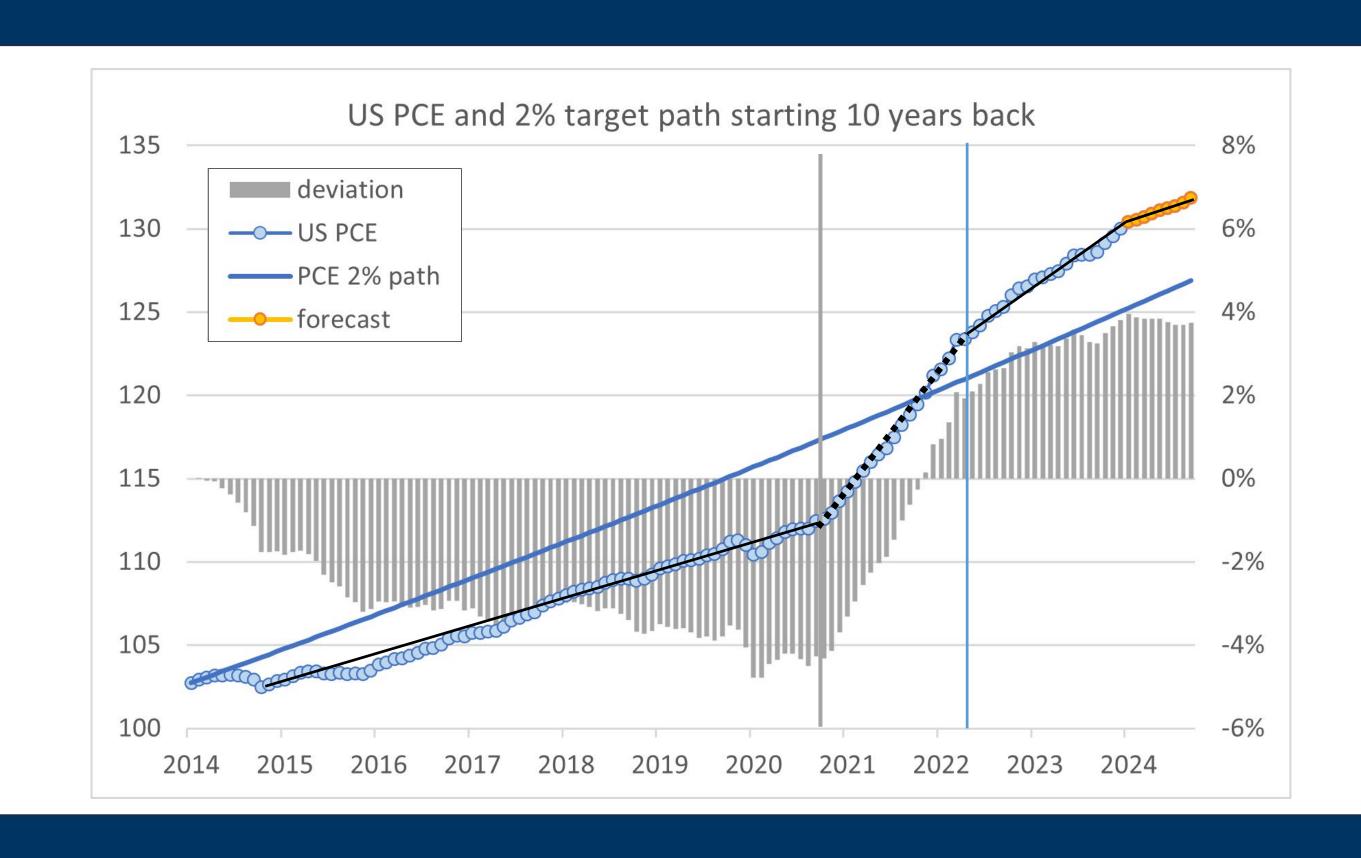
### MONETARY POLICY AND INFLATION

Late Recognition and Late Reaction Allowed Inflation To Get Out Of Controll

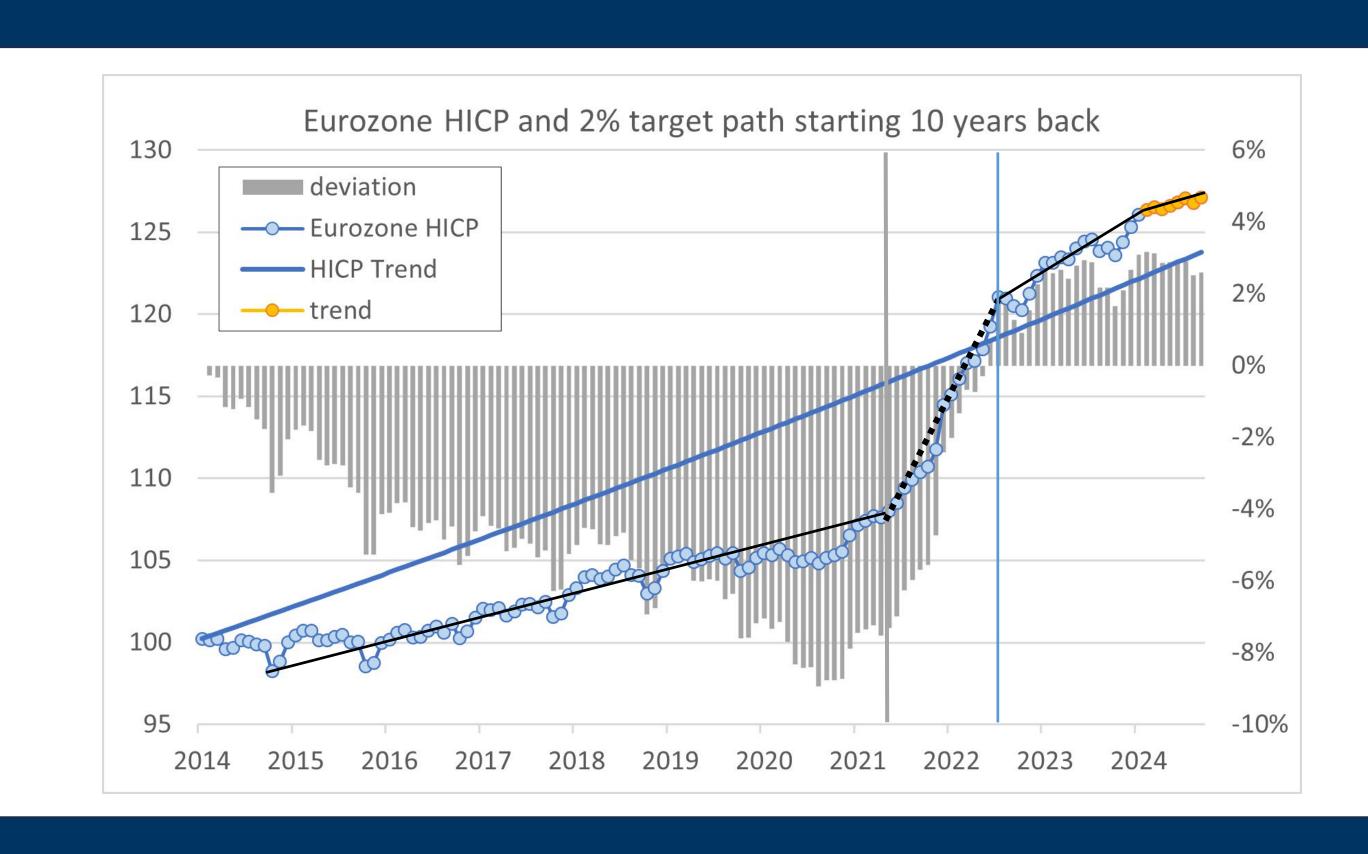
#### Inflation and Monetary Policy – The Judgement Error of the FED



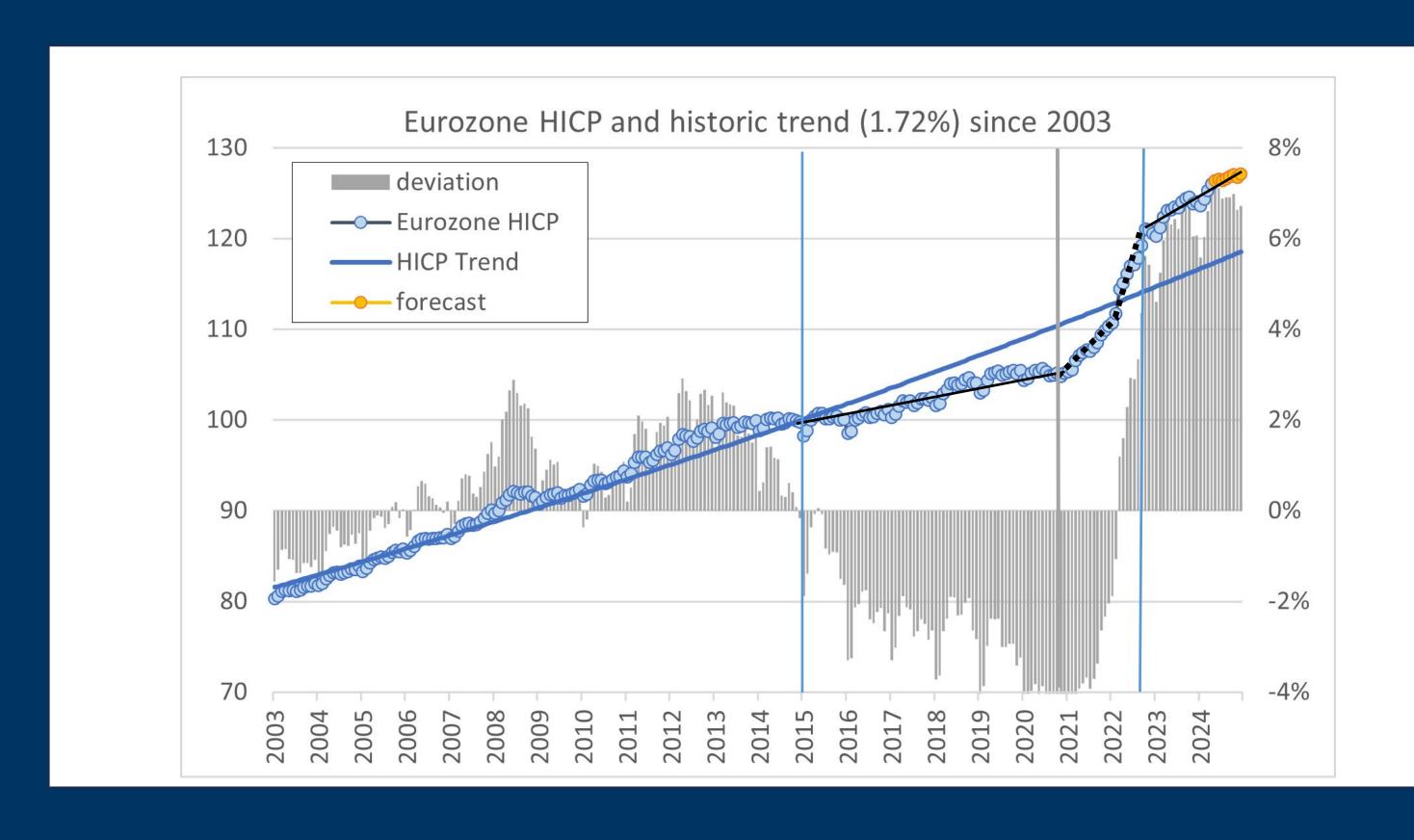
#### Inflation and Monetary Policy – The Judgement Error of the FED



#### Inflation and Monetary Policy – The Judgement Error of the ECB



### Inflation and Monetary Policy – The Judgement Error of the FED



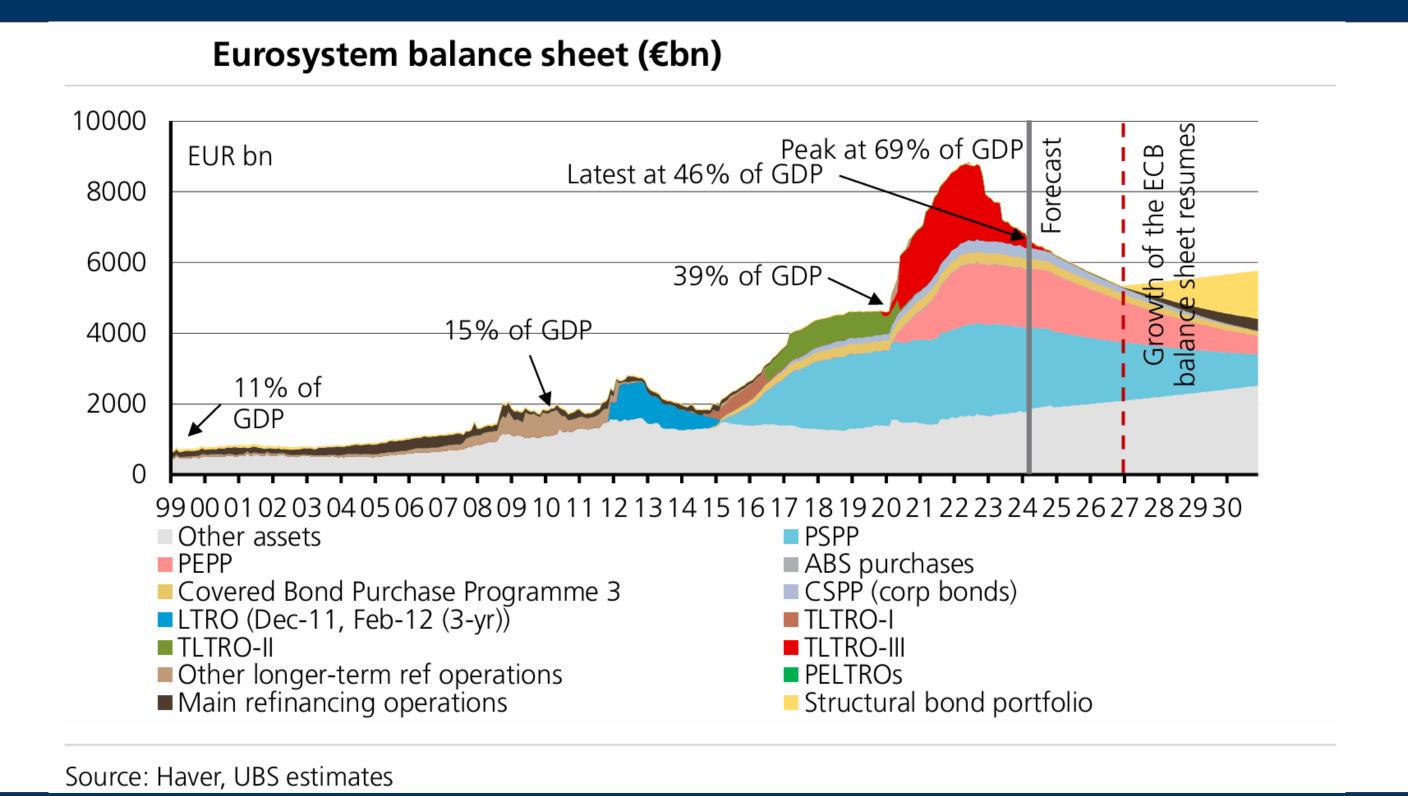
### MONETARY POLICY

How Central Banks Try To Fix It...

#### Balance Sheet Projections for major central banks – Headwinds Ahead

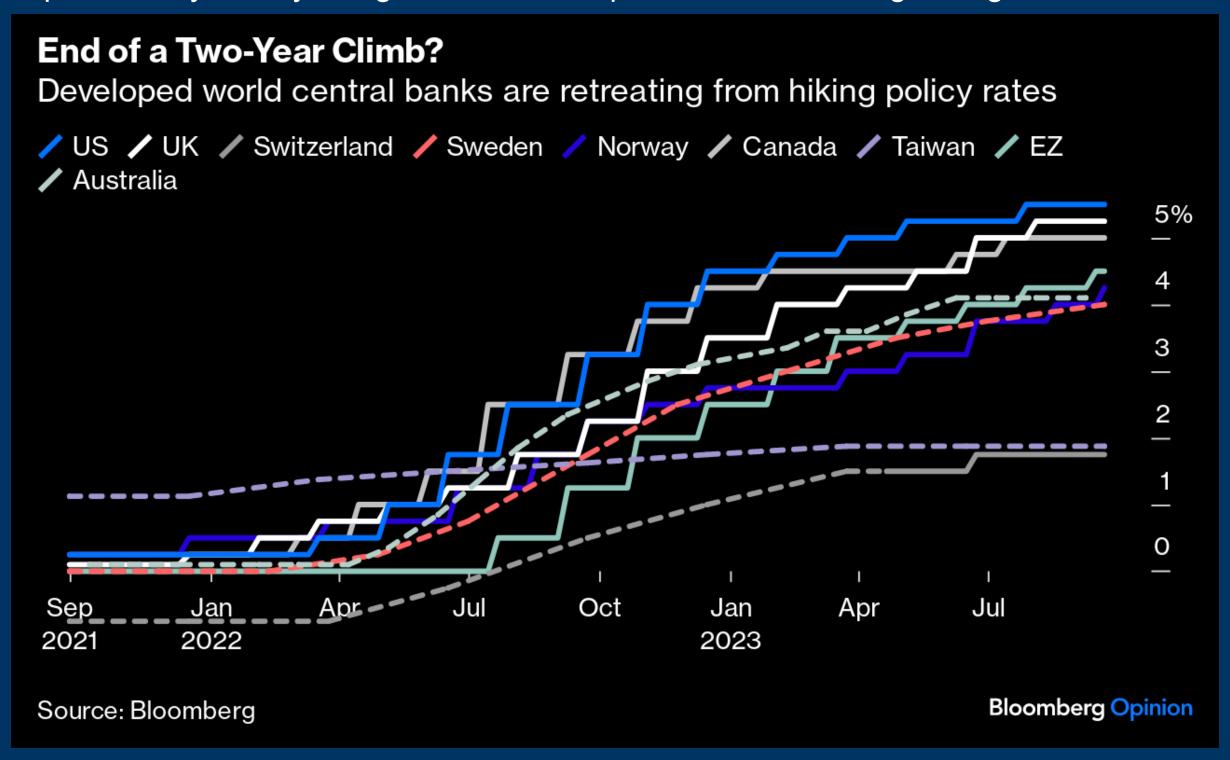


#### Balance Sheet Projections for the ECB – Headwinds Ahead



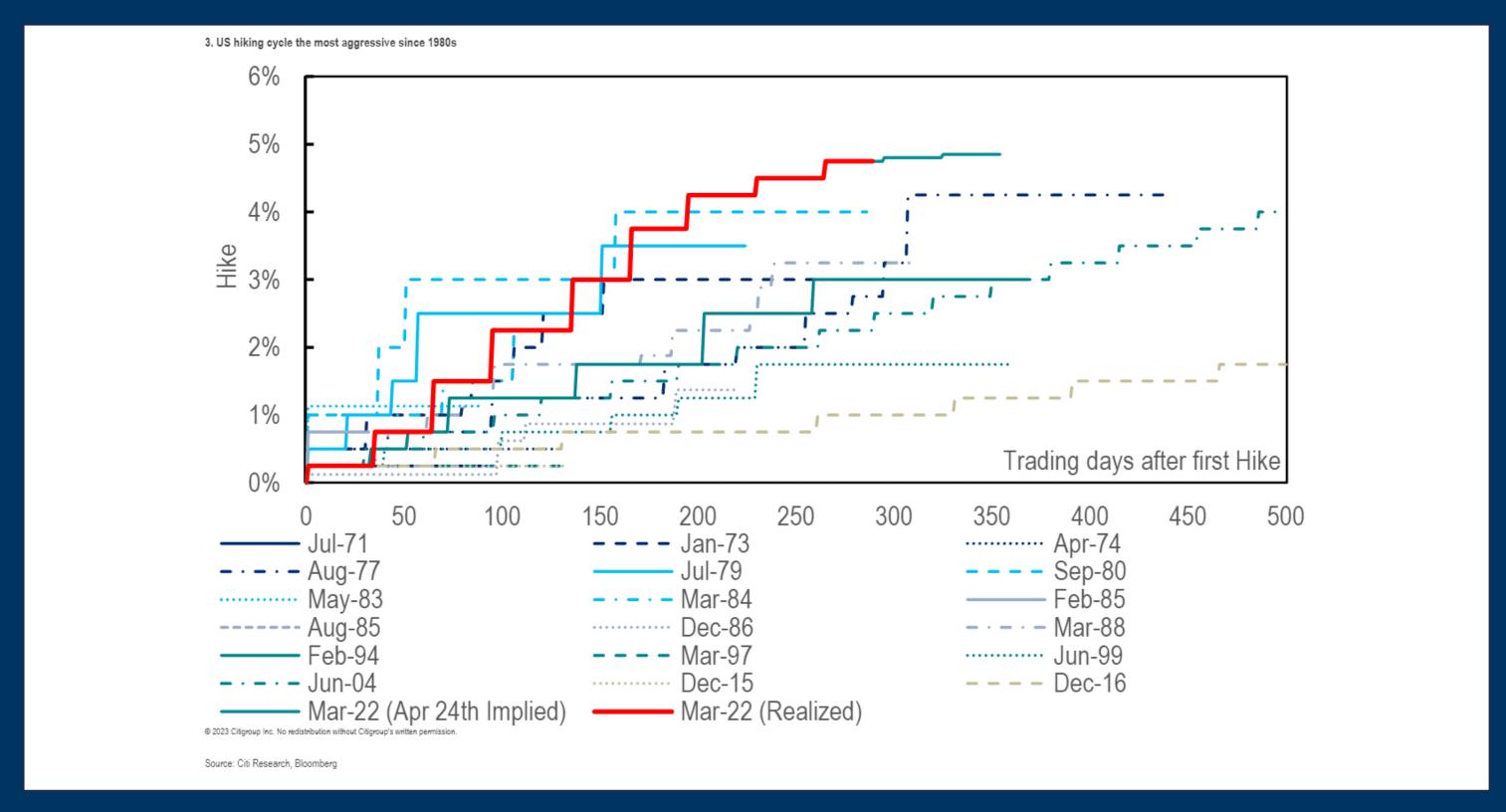
## We have seen the shortest, sharpest and globally most synchronized rate hike cycle in post-WW2-history

- Interest rates have peaked only half a year ago, most of the impact of central bank tightening is still ahead of us, not behind us -



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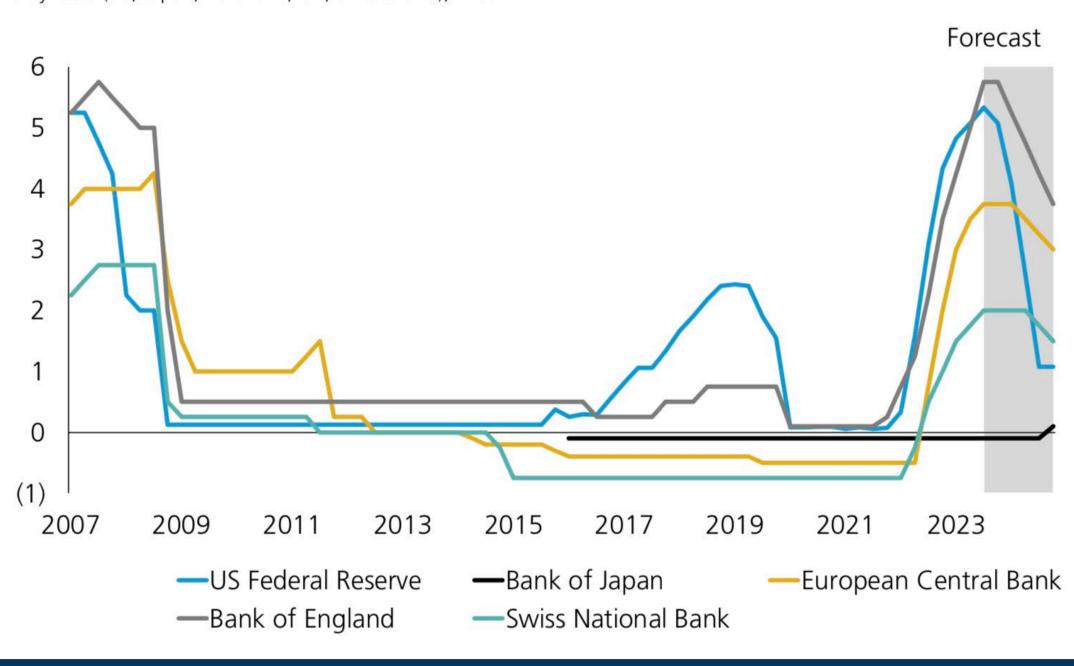
#### ECB hiking cycles (main refinancing operations or deposit facility rates in percent) 2005 — 2022 5 4.5 4 3.5 2.5 1.5 0.5 Months relative to the first rate hike Sources: ECB. Notes: On the x-axis, 0 denotes the month before the first rate hike. Rates refer to the main refinancing operations rate for 1999 and 2005, and to the deposit facility rate for 2022.

### MONETARY POLICY

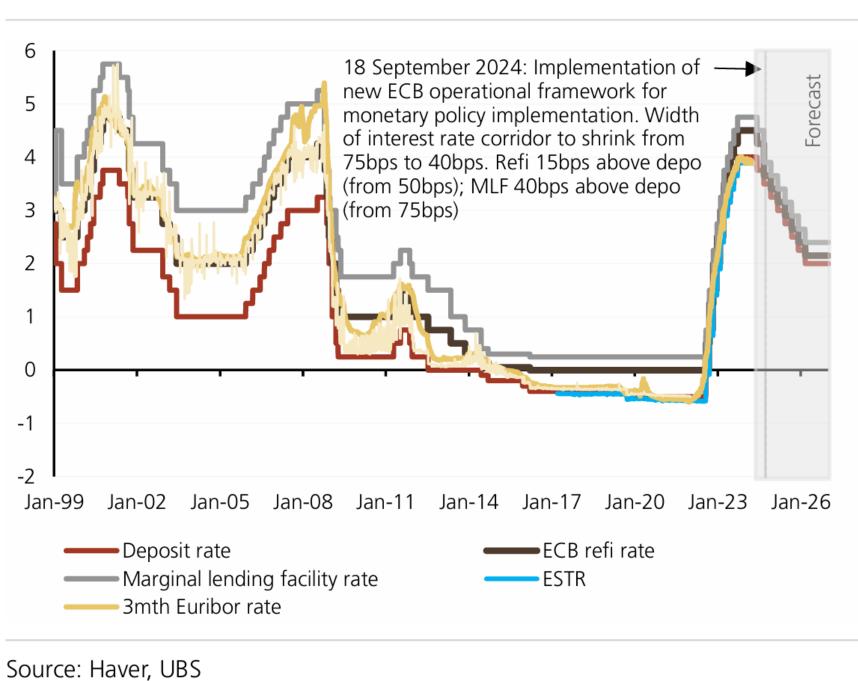
What The Market Expects Now...



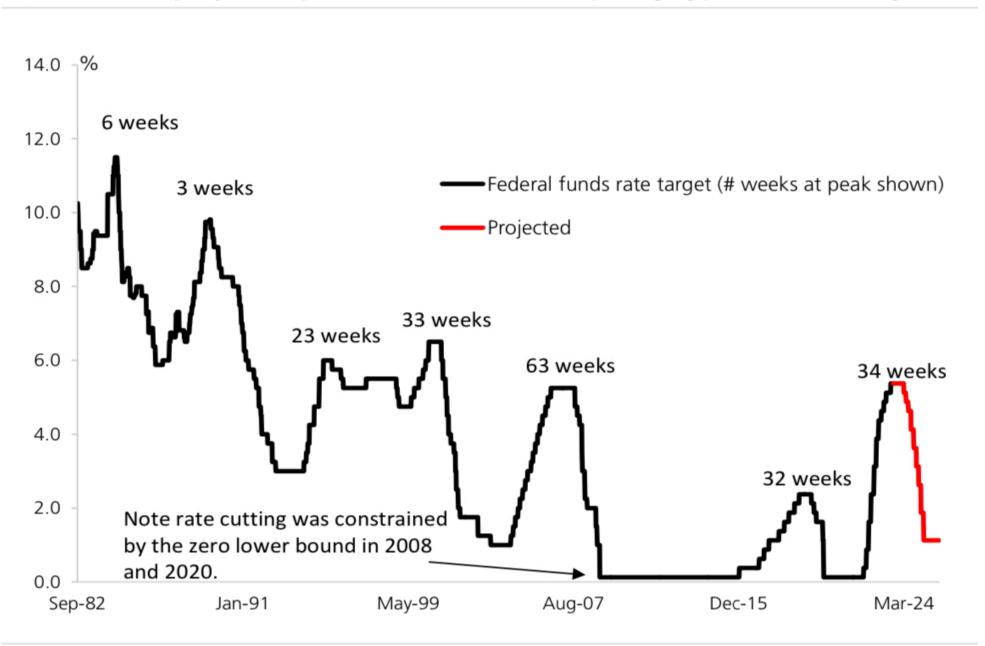
Policy rates (US, Japan, Eurozone, UK, Switzerland), in %









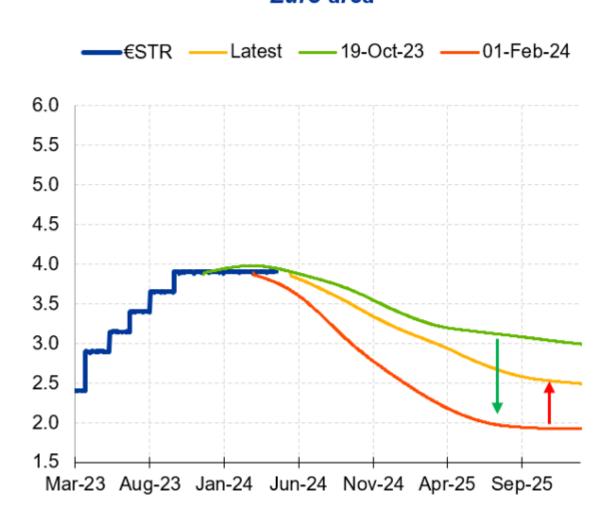


Source: Federal Reserve, Haver, UBS

#### **Expected future path of short-term interest rates at selected dates**

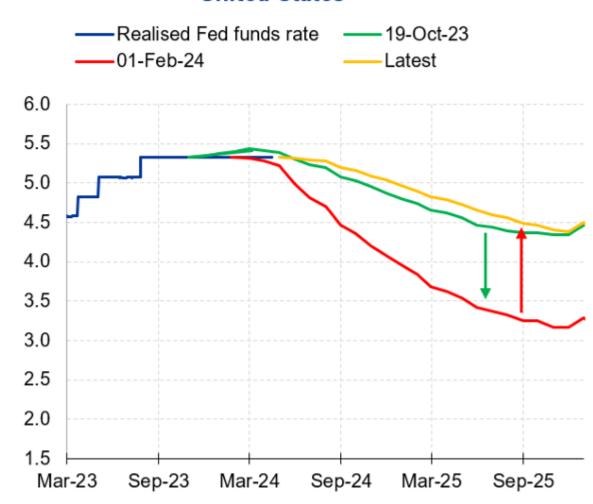
(% per annum)

#### Euro area

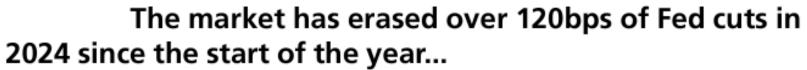


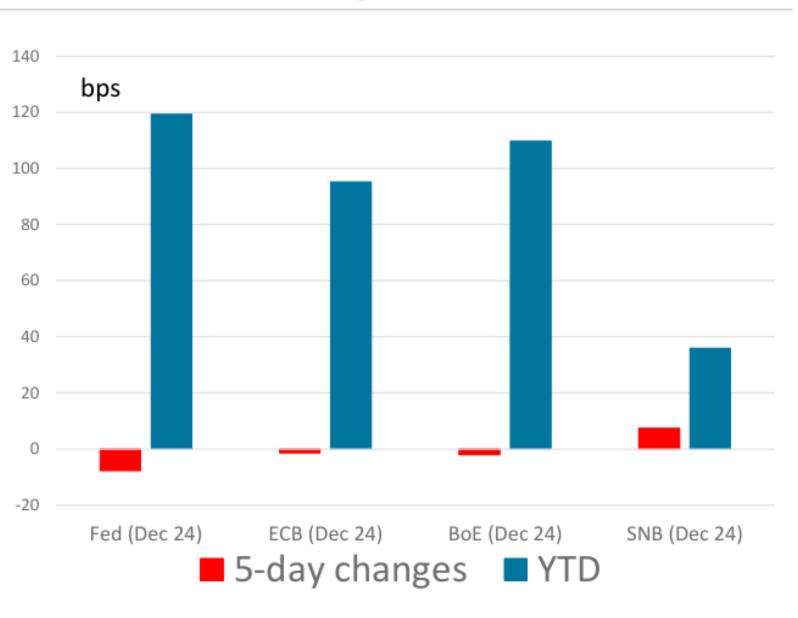
Source: Bloomberg and ECB calculations. Latest observation: 15 April 2024.

#### **United States**



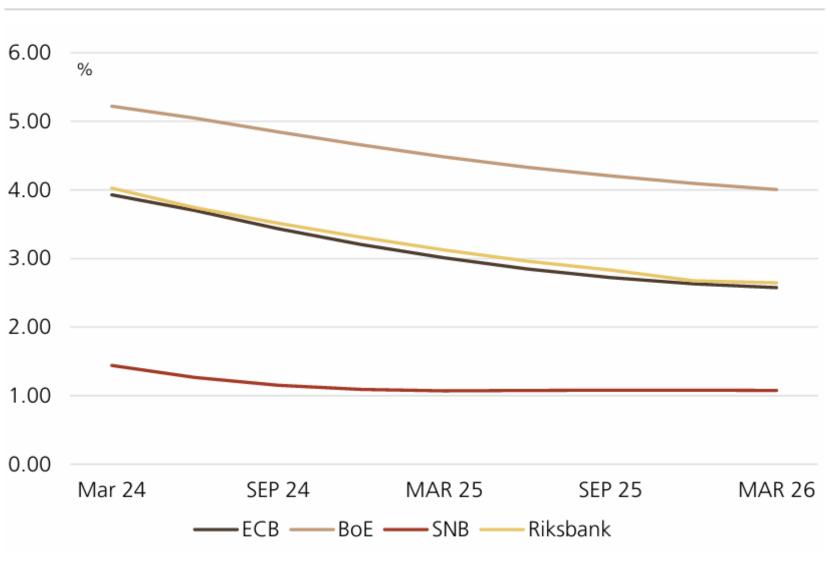
Source: Bloomberg and ECB calculations. Latest observation: 15 April 2024.



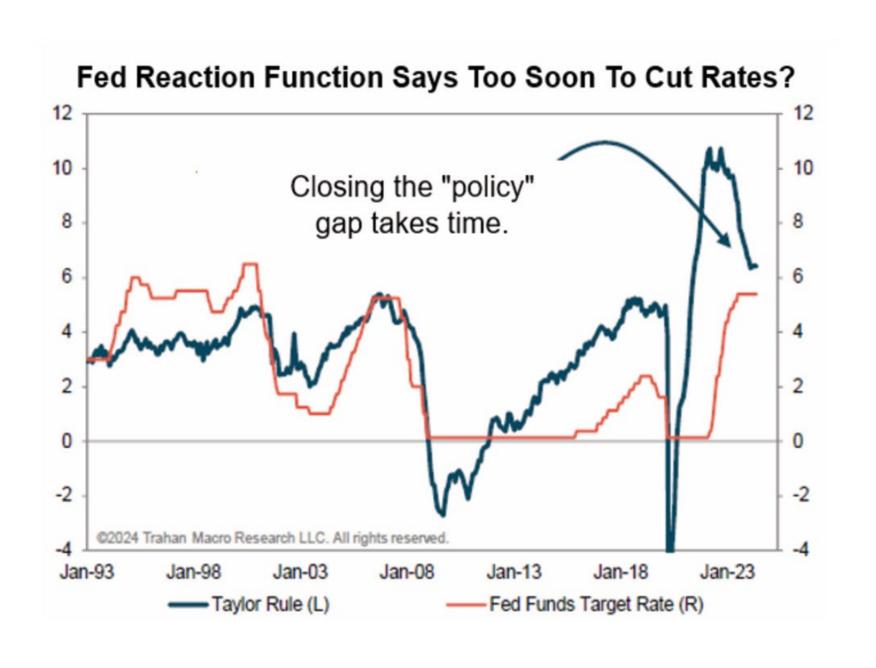


Source: Bloomberg and UBS.



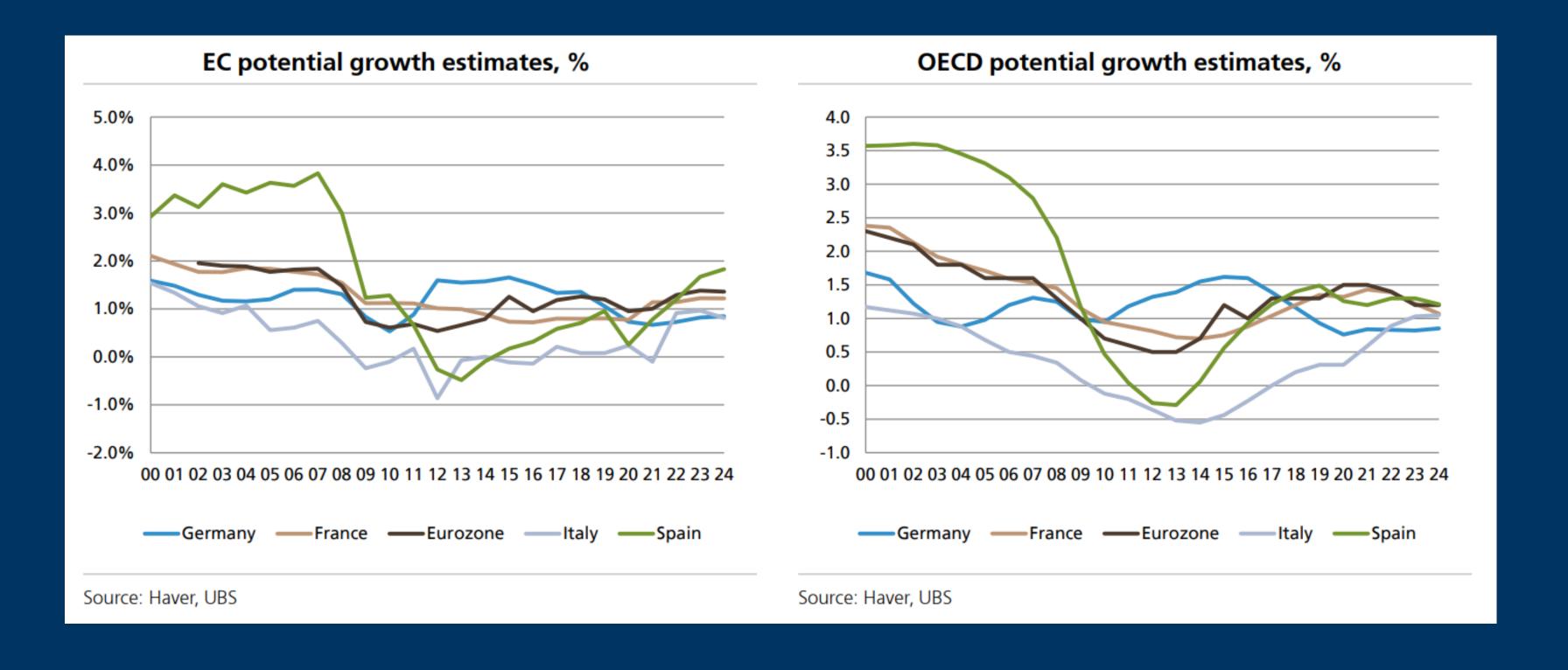


Source: Bloomberg, UBS. Note 1: Pricing derived from futures contracts. Note 2: Market pricing for BoE refers to 03 May.

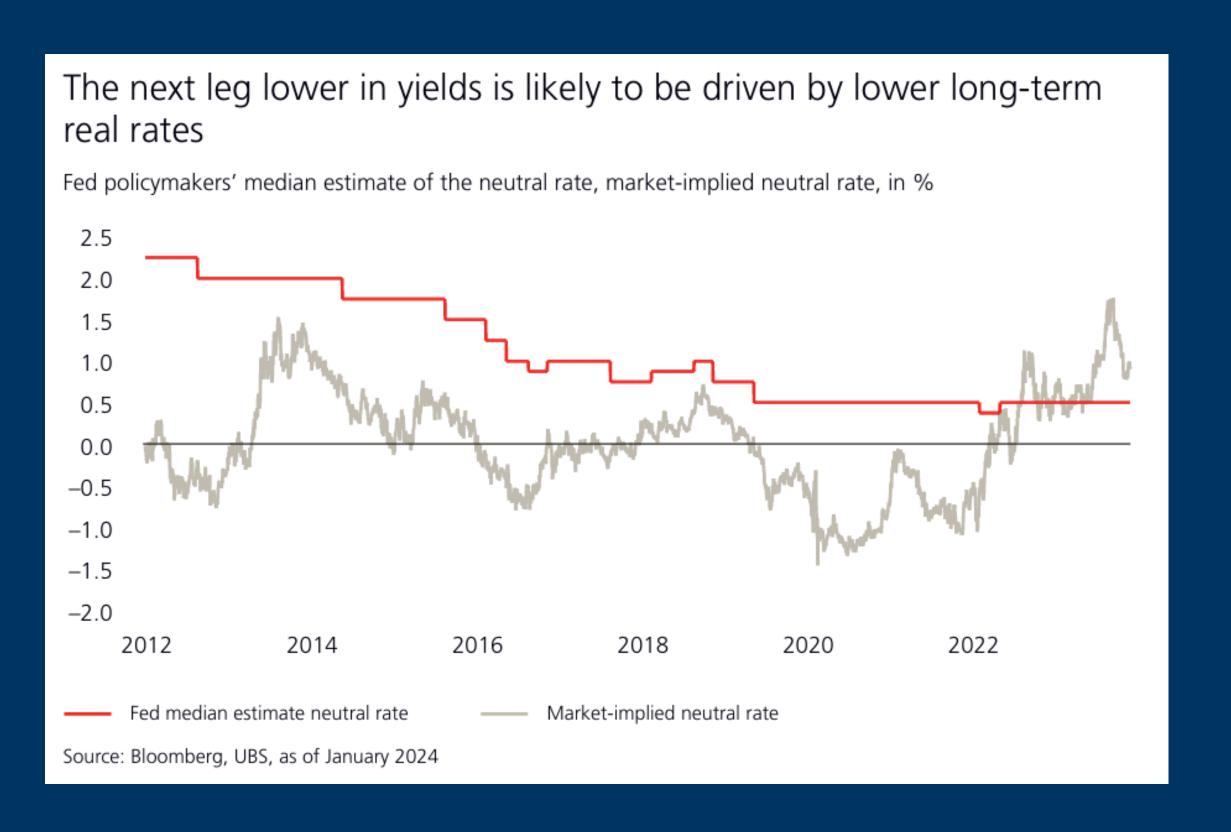


#### High Nominal Interest Rates are not Our Main Problem

#### - The Real Problem is the Downward Trend in Real Potential Growth -



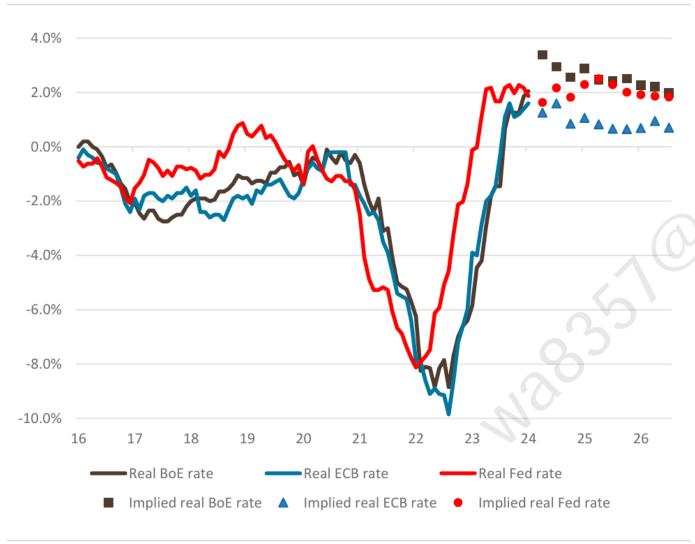
## High Nominal Interest Rates are not Our Main Problem - The Real Problem is the Downward Trend in Real Interest Rates -



### Too High Real Interest Rates Are Also Not A Problem

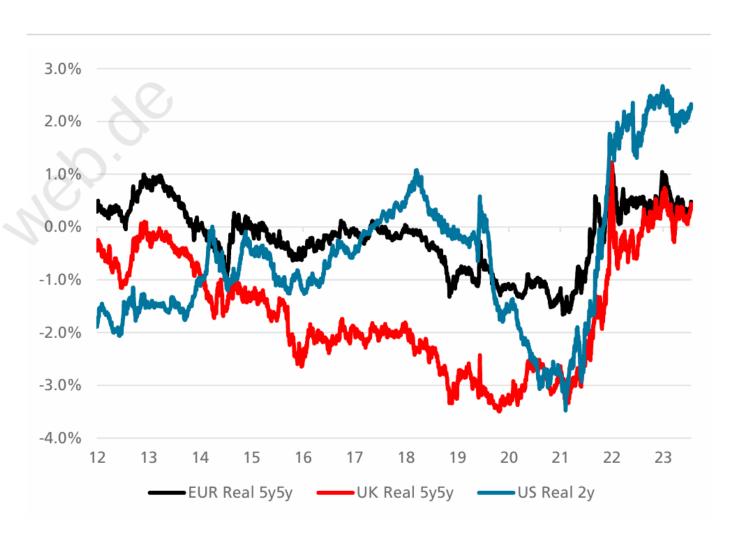
#### - As Long As They Are In Line With The Trend in Real Potential Growth -





#### Source: Bloomberg, Haver and UBS.

#### Real rates remain at historical high levels

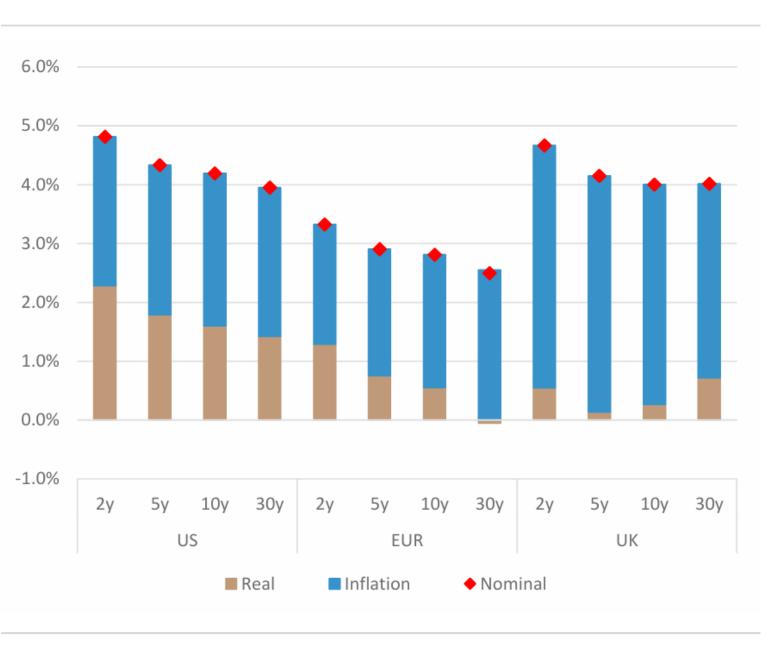


Source: Bloomberg and UBS

## Too High Real Interest Rates Are Also Not A Problem

#### - As Long As They Are In Line With The Trend in Real Potential Growth -

#### Real rates vs breakevens



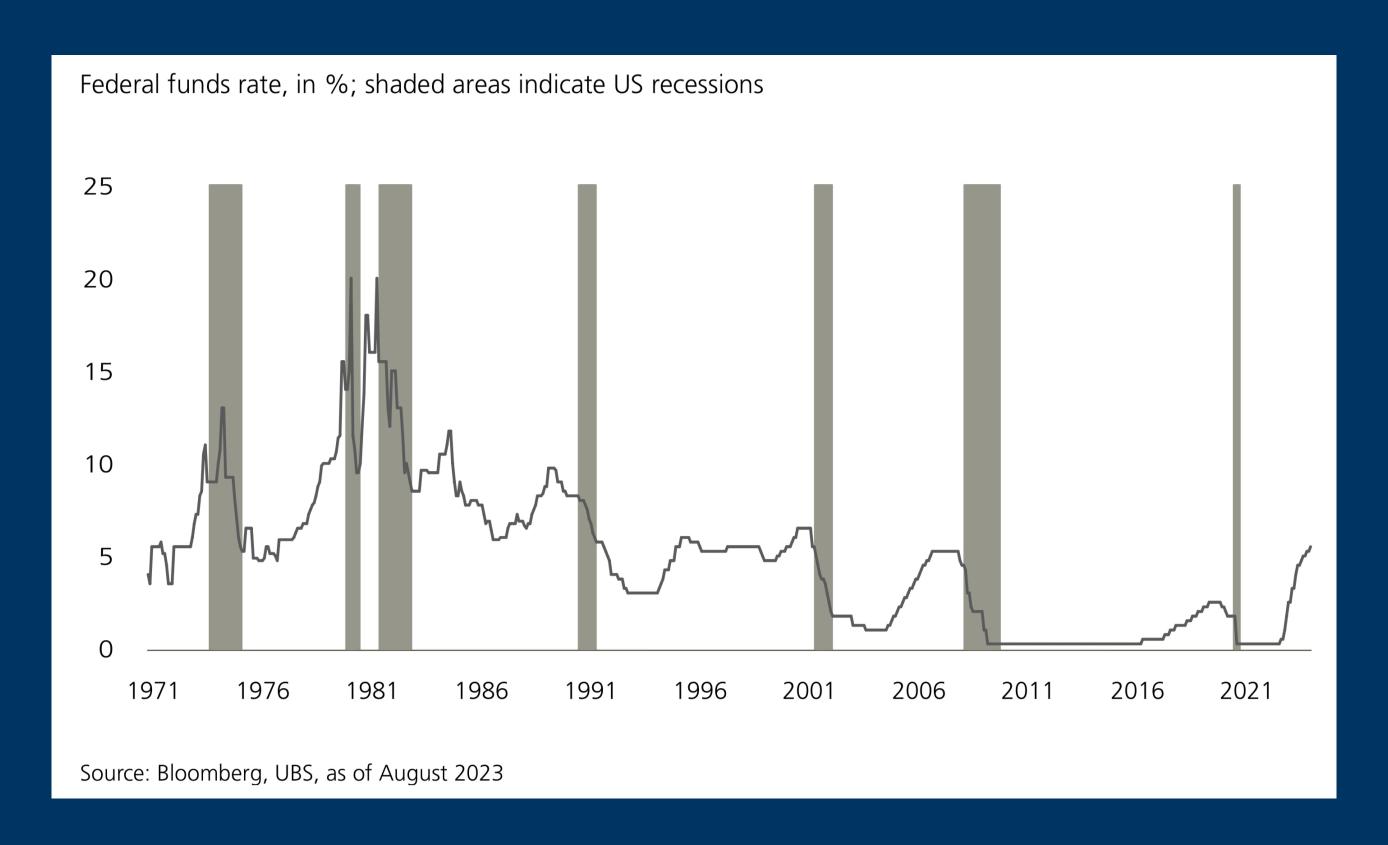
Source: Bloomberg and UBS

### MONETARY POLICY & INFLATION

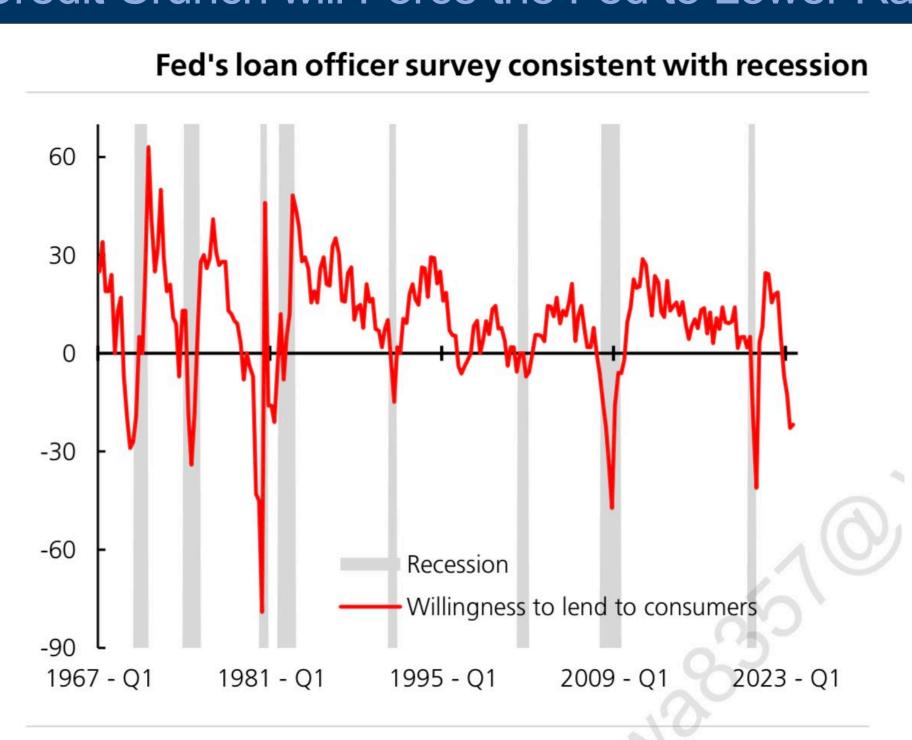
What Lies Ahead...& What Judgement is Needed

#### High Nominal Interest Rates Fall Quickly in Recessions

- A Hard Landing of the Business Cycle will Force the Fed to Lower Rates -



## High Nominal Interest Rates Fall Quickly if a Credit Crunch Occurs - A Credit Crunch will Force the Fed to Lower Rates -



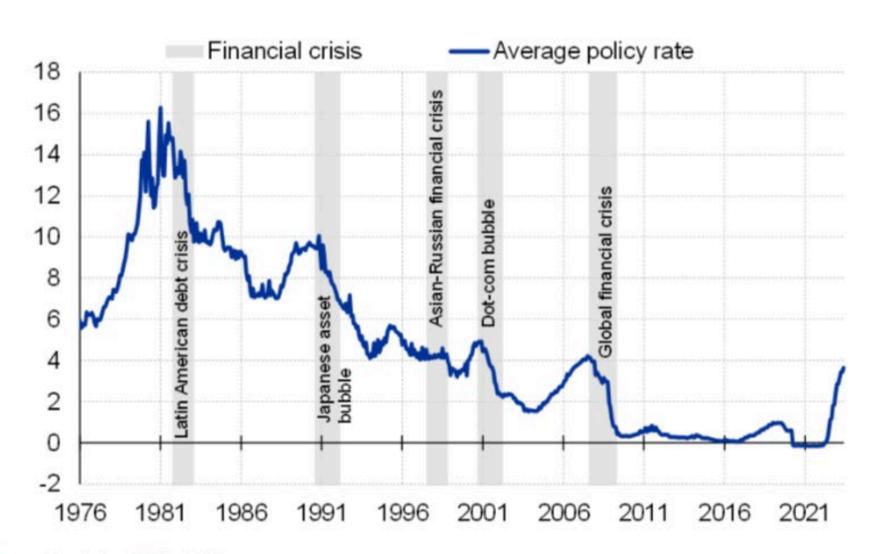
Source: Federal Reserve, Haver, UBS

## High Nominal Interest Rates Fall Quickly in Financial Crises

- Financial Stability Risks will Force the Fed Room to Lower Rates -

#### Average policy rate across advanced economies

(percent)



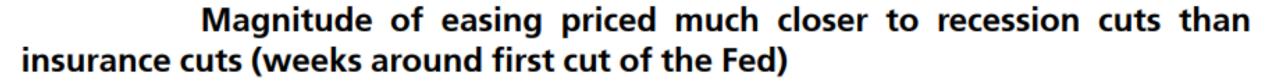
Sources: Bloomberg, OECD economic outlook and ECB calculations.

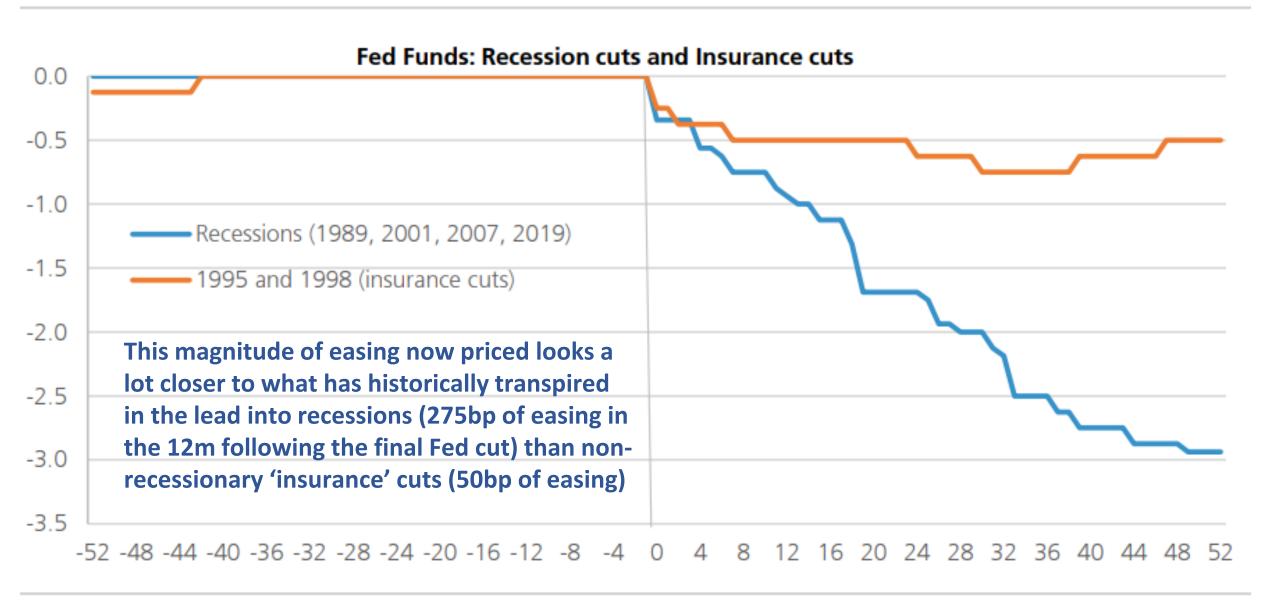
Notes: The average policy rate corresponds to the GDP-weighted average of individual overnight benchmark rates for each country. Sample consists of 10 advanced mari economies. For early data, overnight rates are extrapolated using adjusted short-term interest rate provided by the OECD. For the pre-euro period, EA yield is computed as 1 average of the rates of Germany, France, Italy and Spain.

Latest observation: 15 May 2023.

## High Nominal Interest Rates Fall Quickly in Recessions

- A Non-Recession Normalization of the Business Cycle will Lower Rates by Less -

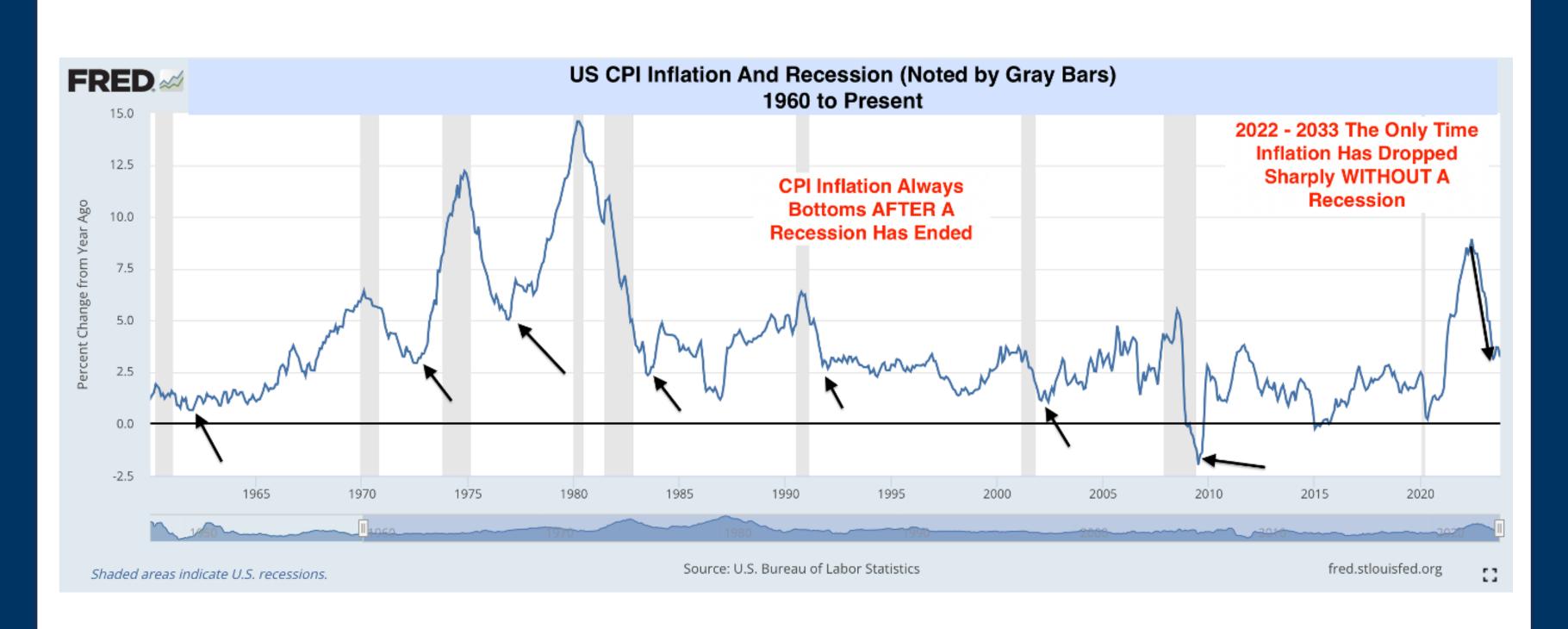




Source: Macrobond, UBS. Note: x axis is number of weeks.

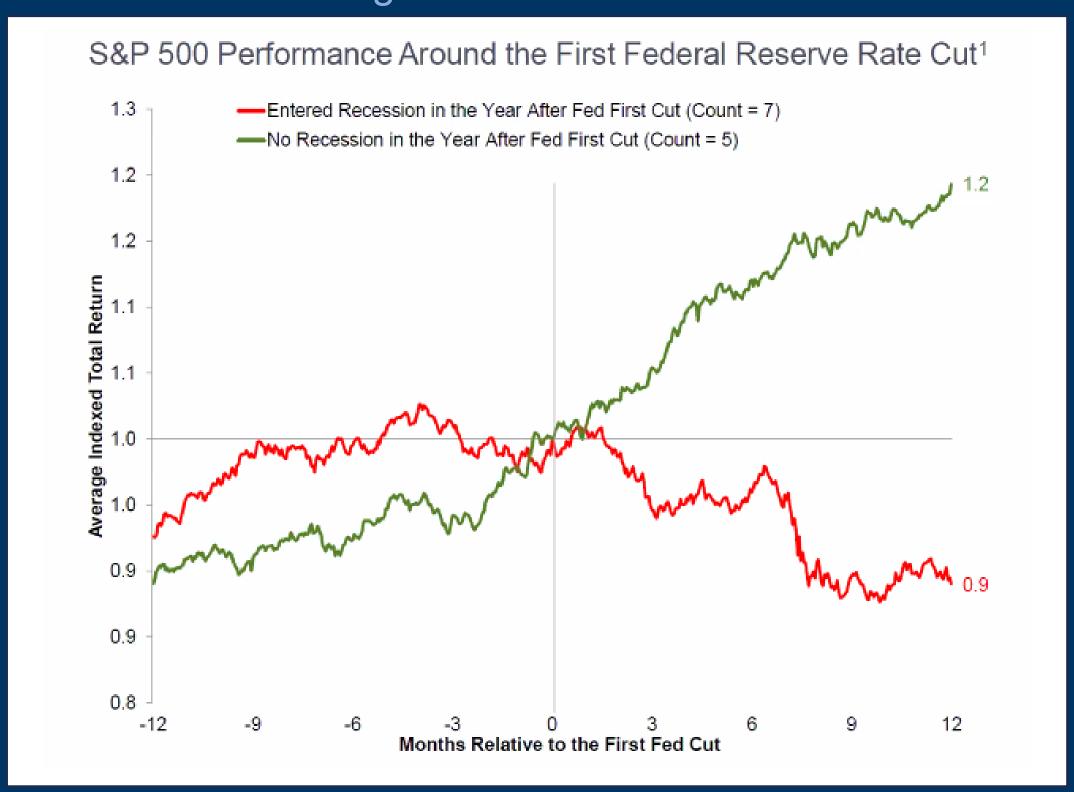
## High Nominal Interest Rates Fall Quickly in Recessions

- A Non-Recession Normalization of the Business Cycle would be exceptional -



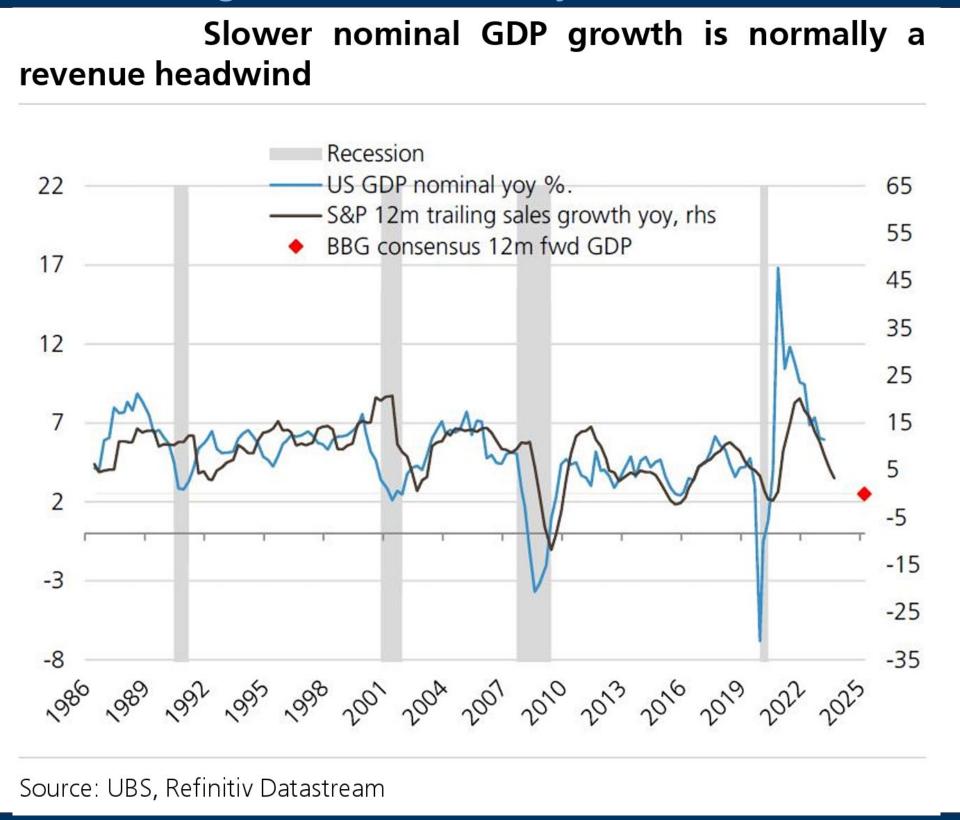
## Equity Markets Fall Quickly in Recessions

- Equity Markets Remain Robust During A Non-Recession Normalization of the Business Cycle -



## Equity Markets Fall Quickly in Recessions

- Equity Markets Decline During A Recessionary Normalization of the Business Cycle -

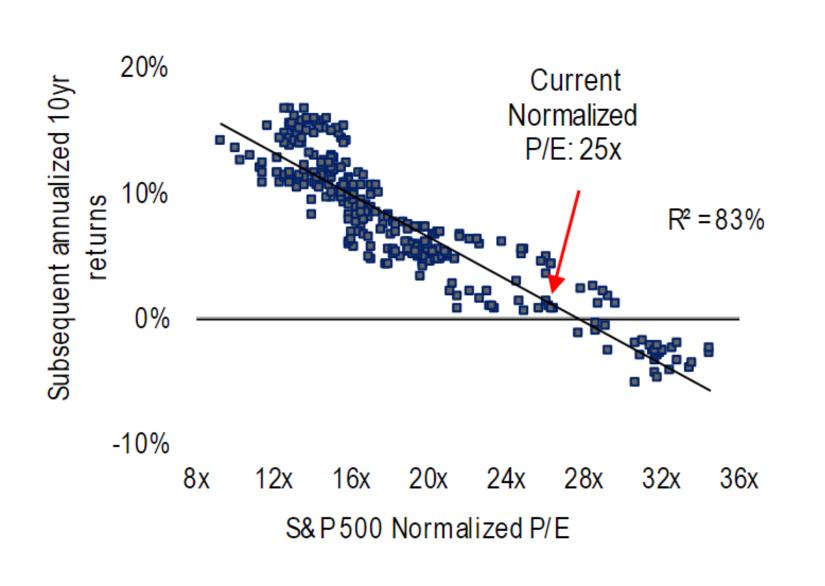


## Equity Markets Fall Quickly in Recessions

- Equity Markets Decline After Excessive Valuation Growth -

#### Valuations explained >80% of 10yr returns

S&P 500 normalized P/E vs. subsequent annualized returns (since 1987, as of 2/24)



**Source:** BofA US Equity & US Quant Strategy, Haver Analytics, FactSet

BofA GLOBAL RESEARCH

## High Interest Rates Matters For Financial Markets...

- Central banks may underestimate again the medium-term impact of quantitative tightening and sharply higher interest rates on financial markets, in particular on credit and housing markets (which are the most cyclical segments).
  - Interest rates at new highs make high-grade bonds more attractive, over-proportionally
    driving up the returns of riskier assets and driving down bond prices for lower yielding previously
    issued bonds, thereby causing mark-to-market losses.
  - To avoid these losses, banks are moving these assets from available-for-sale in the trading book to hold-to-maturity in the banking book.
  - Credit markets are now correcting, particularly in previous boom segments like commercial real
    estate or private credit (increasing exposures where leveraged.
  - If credit risks and defaults materialize, investors with low risk-bearing capacity face losses.

#### ... so look for pockets of weakness in banks and financial markets...

## What Risks Matters For Financial Markets...

Looking ahead, where is the next source of instability hitting the banking system or the financial system as a whole?

Nonbank Financial Intermediation (NFI) and Private Credit are New Types of Risks, which Regulators and Central Banks have Little Knowledge Of / Experience With

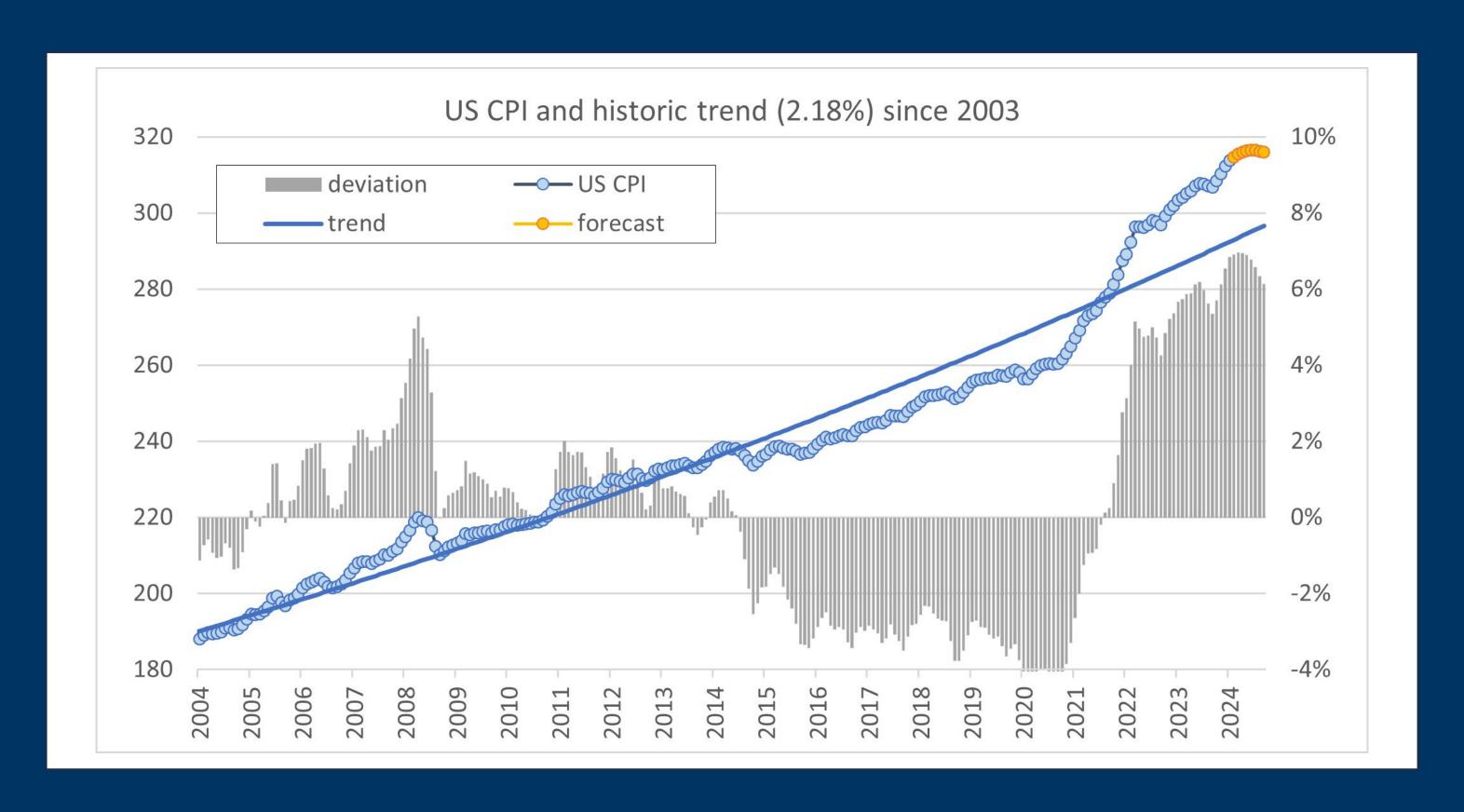
#### The risks in banking are allways and everywhere the same:

- High concentration risks and an undiversified business model
- High leverage and excessive risk taking
- Insufficient risk culture and inadequate risk management capabilities
- Insufficient liqiuidity buffers and inadequate capital buffers
- Sudden loss of confidence in financial institutions and contagion to similar institutions
- Lag of an effective regulatory framework
- Lag of supervisory scrutiny

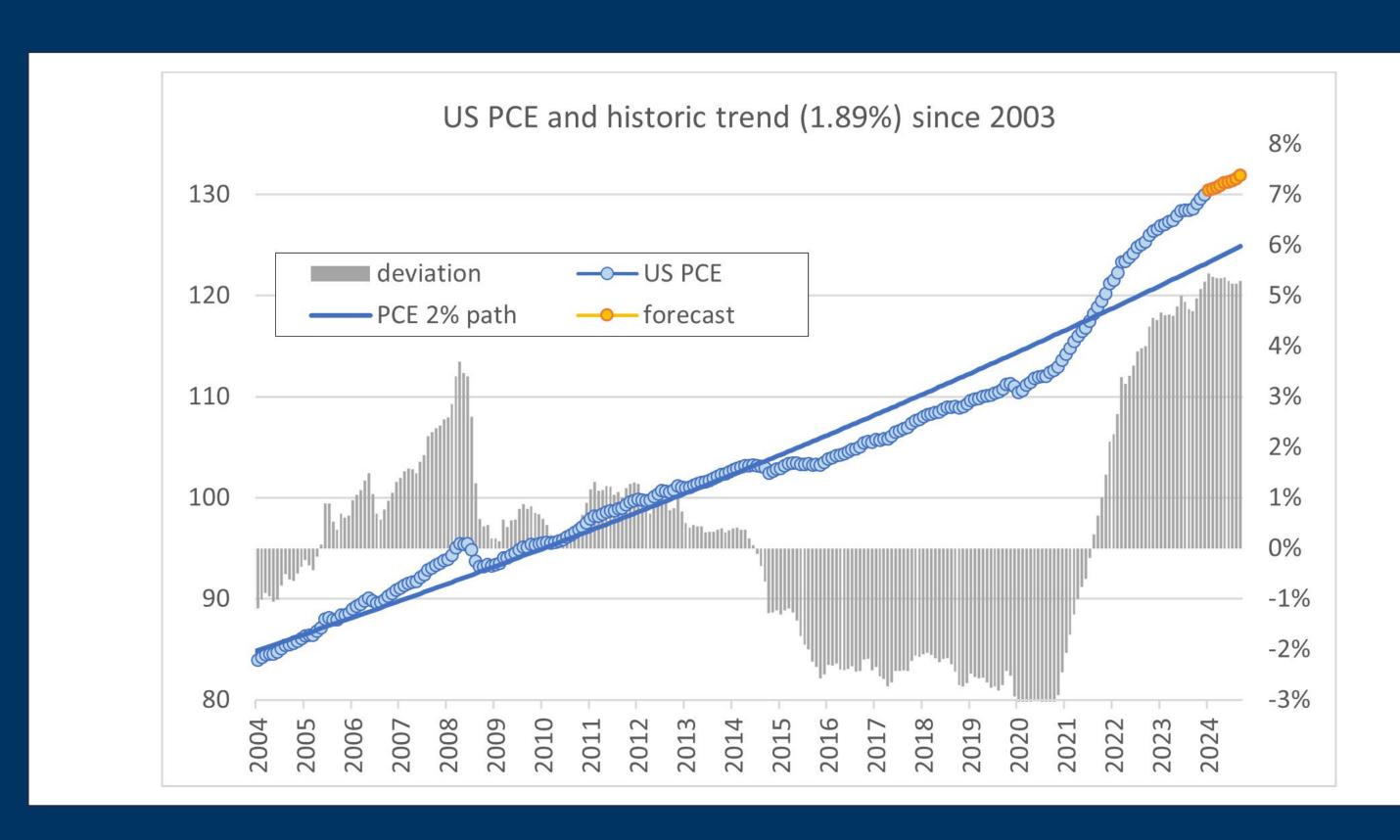
#### ... so look for pockets of weakness in banks and financial markets...

## End of Presentation

## Inflation and Monetary Policy – The Judgement Error of the FED

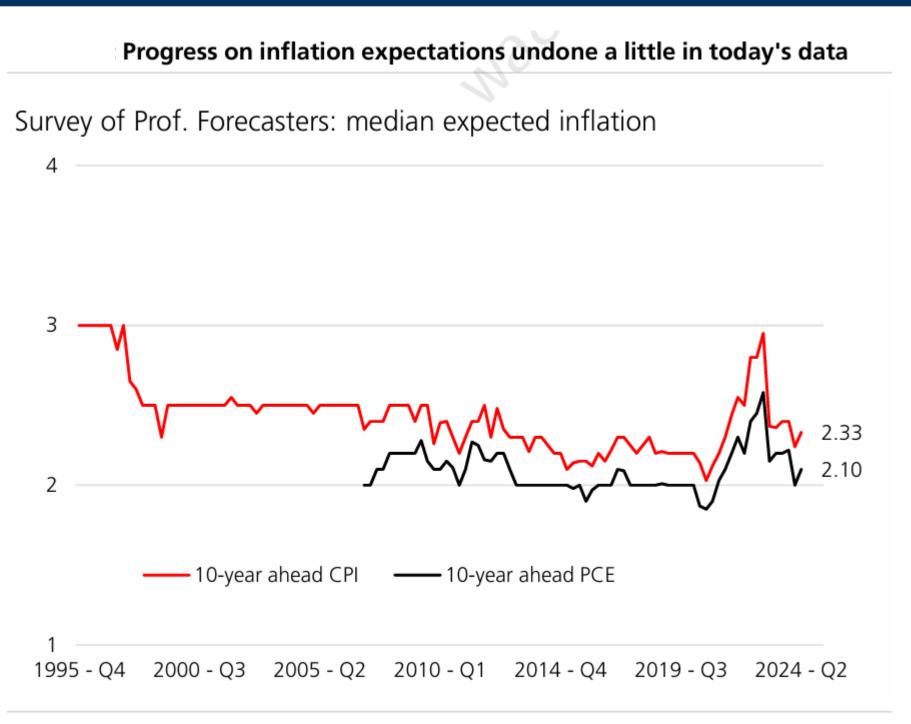


## Inflation and Monetary Policy – The Judgement Error of the FED



## Additional Slides – For Q&A

## Inflation Expectations in the USA: No Big Deal...



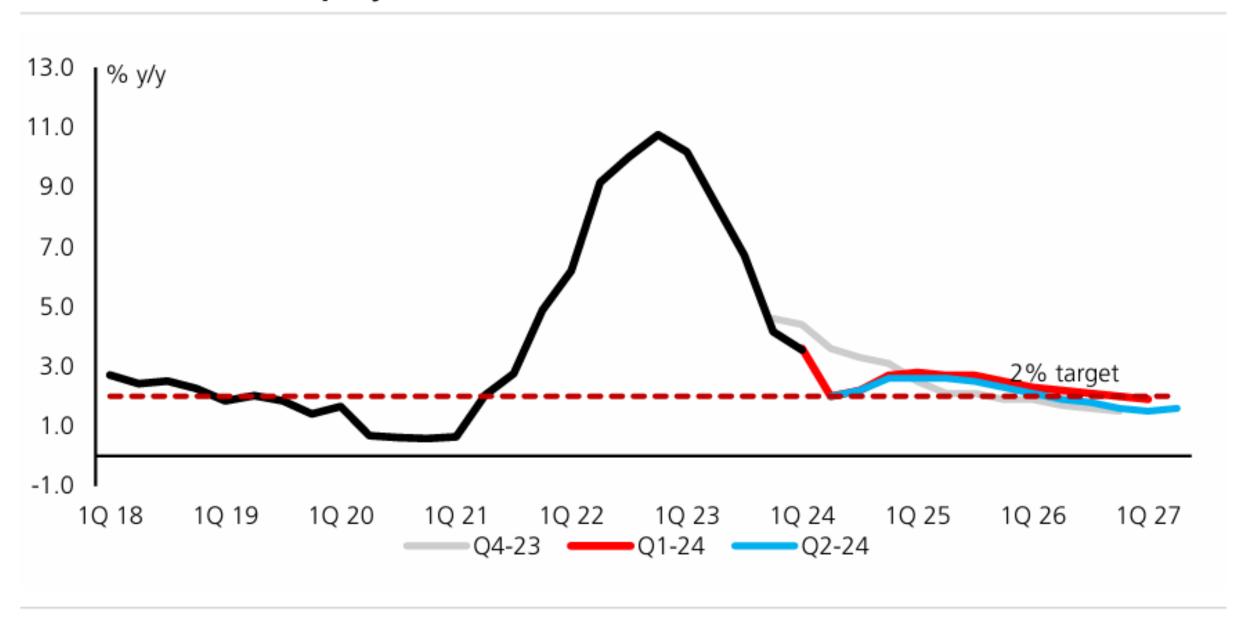
Source: FRB of Philadelphia, Haver, UBS

## MONETARY POLICY & INFLATION

The UK Is Different...

## **UK: Monetary Policy Outlook**





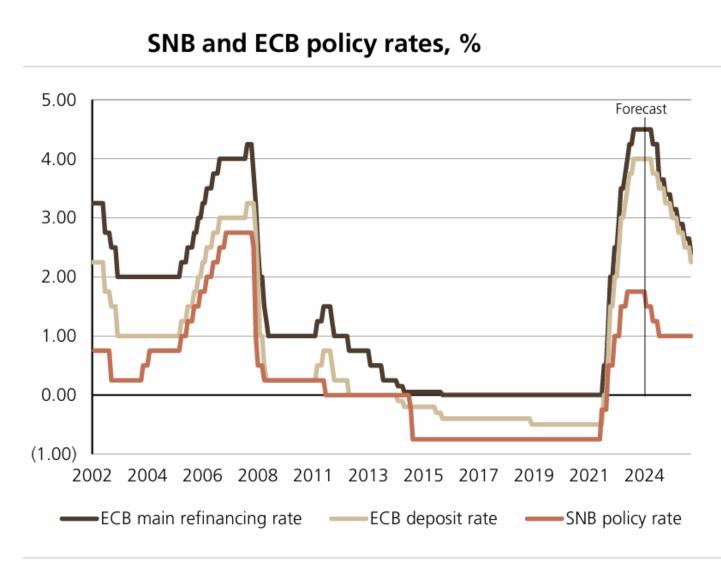
Source: Haver, BoE and UBS

## MONETARY POLICY & INFLATION

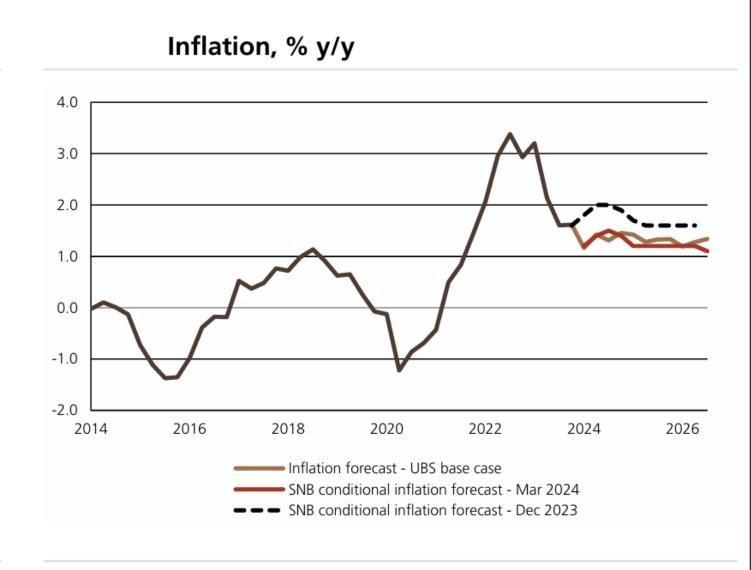
Switzerland Is Different...

## Fast and Steep Interest Rate Reductions are Wishful Thinking

Source: Haver, UBS

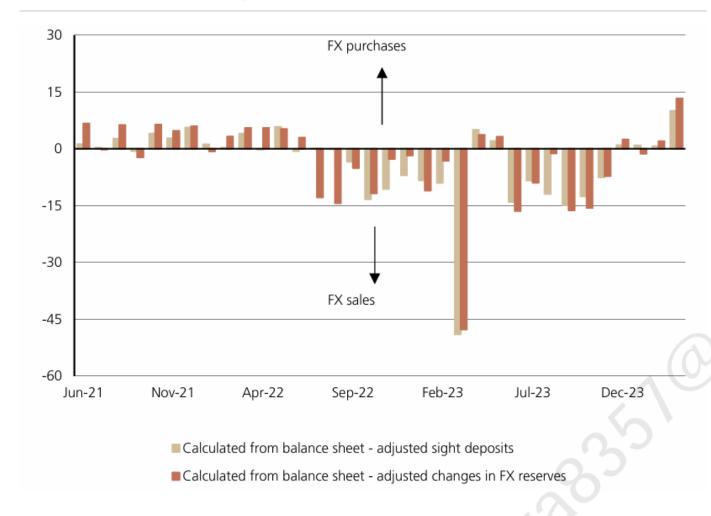






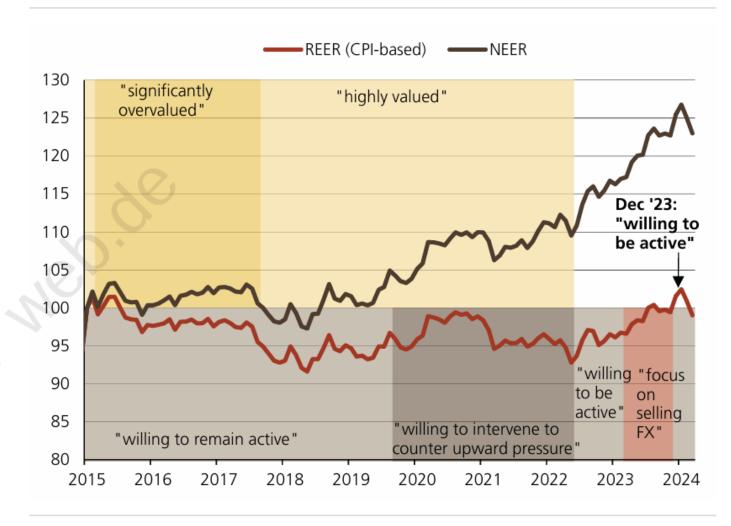
## SWITZERLAND: Central Bank Interventions are the Key Policy Instrument

## SNB FX interventions – monthly estimates from balance sheet data, CHFbn



Source: Haver, UBS. FX interventions are proxied by monthly balance sheet data. For details see the focus article in Switzerland quarterly: All you need to know.

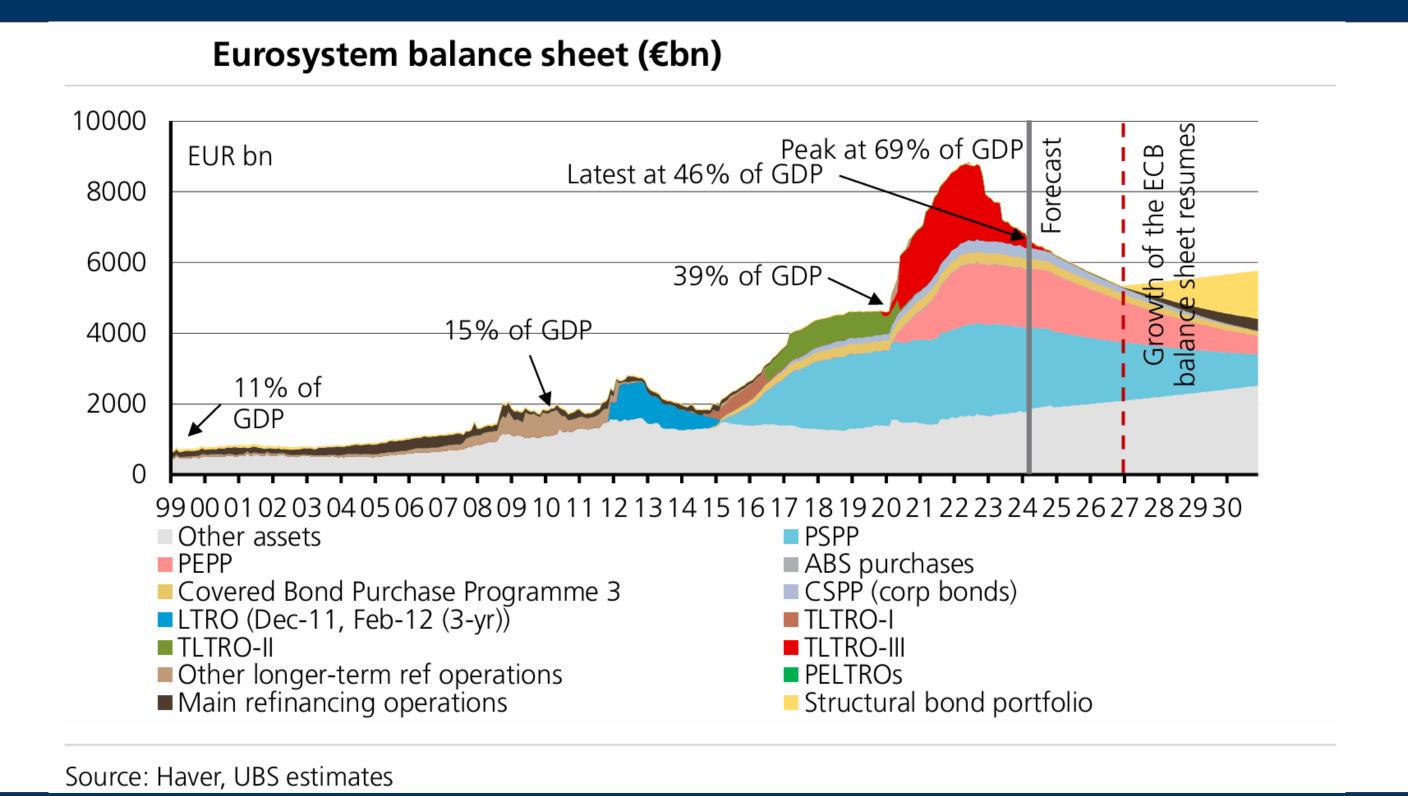
## Real and nominal effective exchange rate index (Jan 2015 = 100) vs. the SNB's FX intervention language



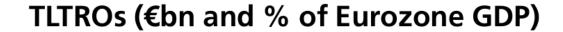
Source: Haver, SNB, UBS. Note: Upper areas display the SNB's statements about CHF valuation, lower areas reflect the statements on the SNB's FX intervention intentions.

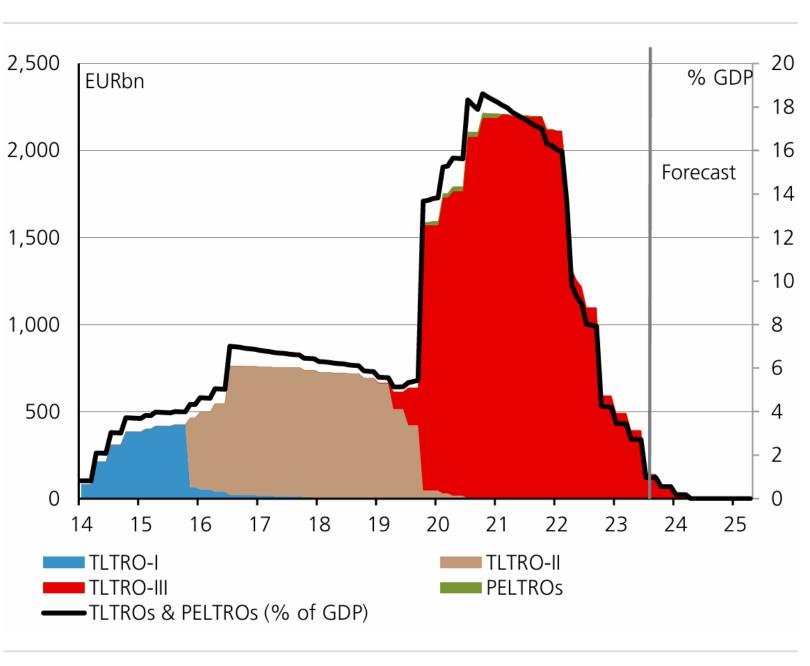
# MONETARY POLICY The ECB Balance Sheet Is Different...

## Balance Sheet Projections for the ECB – Headwinds Ahead



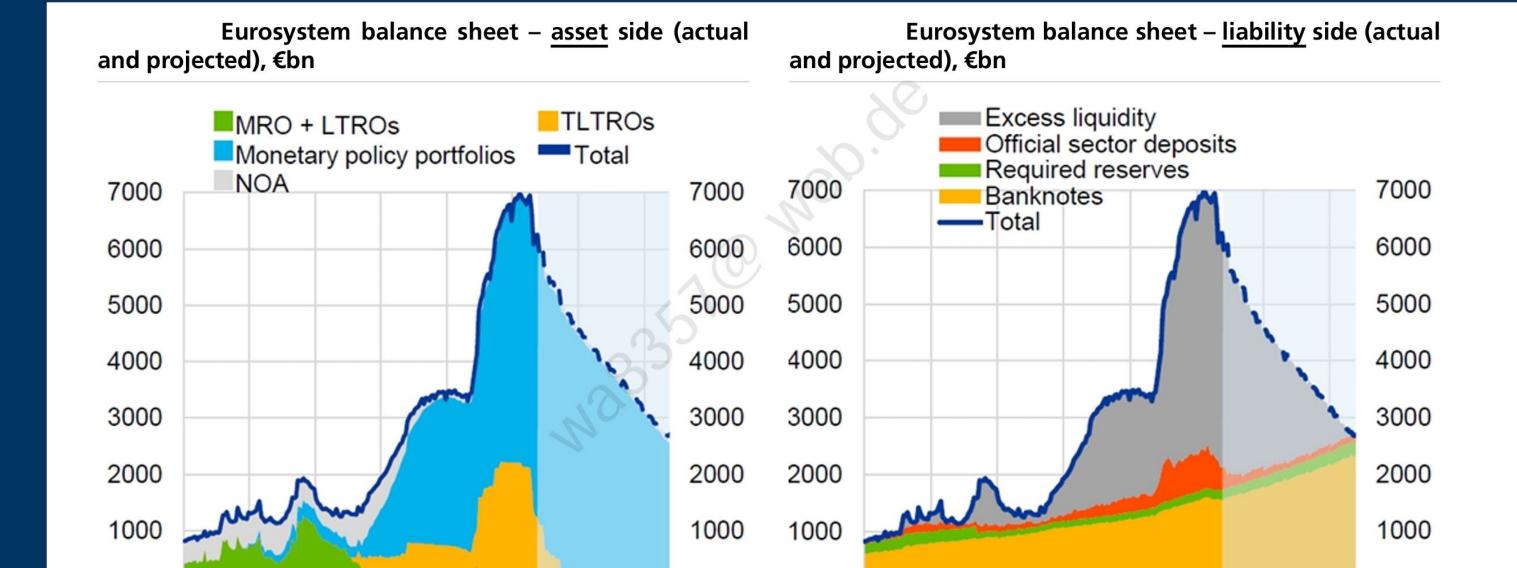
## Balance Sheet Projections for the ECB – Headwinds Ahead





Source: Haver, ECB, UBS estimates

#### Balance Sheet Projections for the ECB – Headwinds Ahead



0

2028

Source: ECB, <u>Isabel Schnabel</u>: <u>Back to normal</u>? <u>Balance sheet size and interest rate</u> <u>control</u>, 27 March 2023

2010 2013 2016 2019 2022 2025

Note: The future path of the monetary policy portfolio is based on the median expectations of analysts as reported in the ECB's March SMA survey. NOA stands for net other assets.

Source: ECB, <u>Isabel Schnabel</u>: <u>Back to normal</u>? <u>Balance sheet size and interest rate</u> <u>control</u>, 27 March 2023

2019

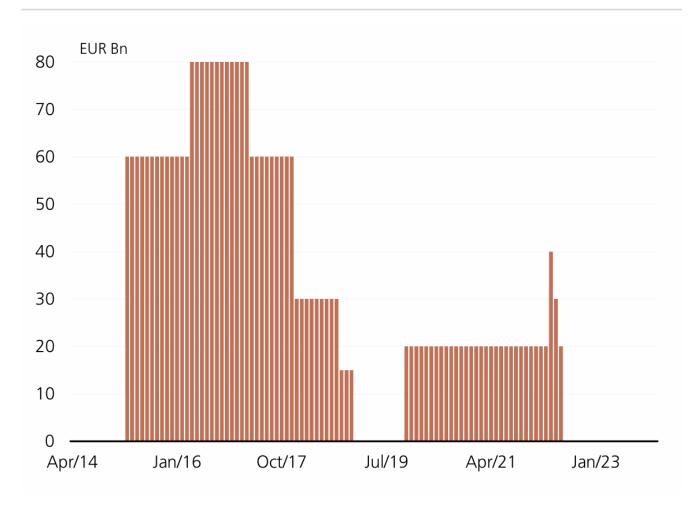
2022 2025

2016

0

## Balance Sheet of the ECB – Non-Orthodox Monetary Policy

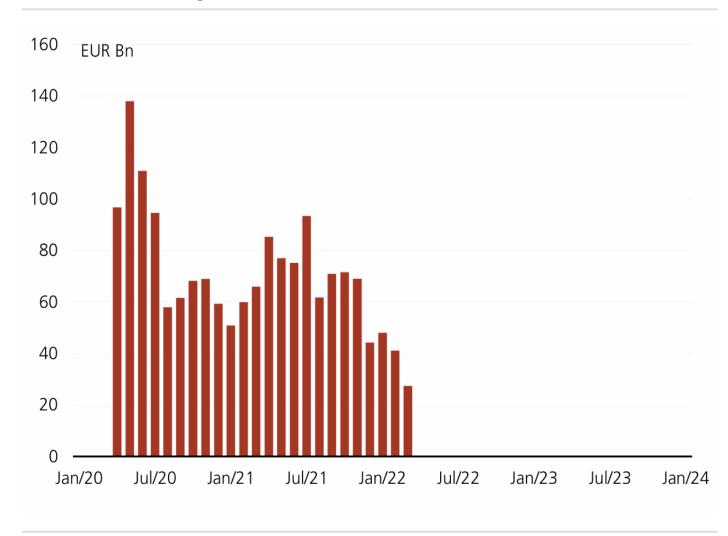
Monthly purchases under the APP (March 2015-June 2022)



Source: ECB, UBS

Note: The higher purchases in April and May 2022 follow the ECB's <u>announcement</u> from 15 March 2022 that APP purchases would amount to €40bn in April, €30bn in May and €20bn in June.

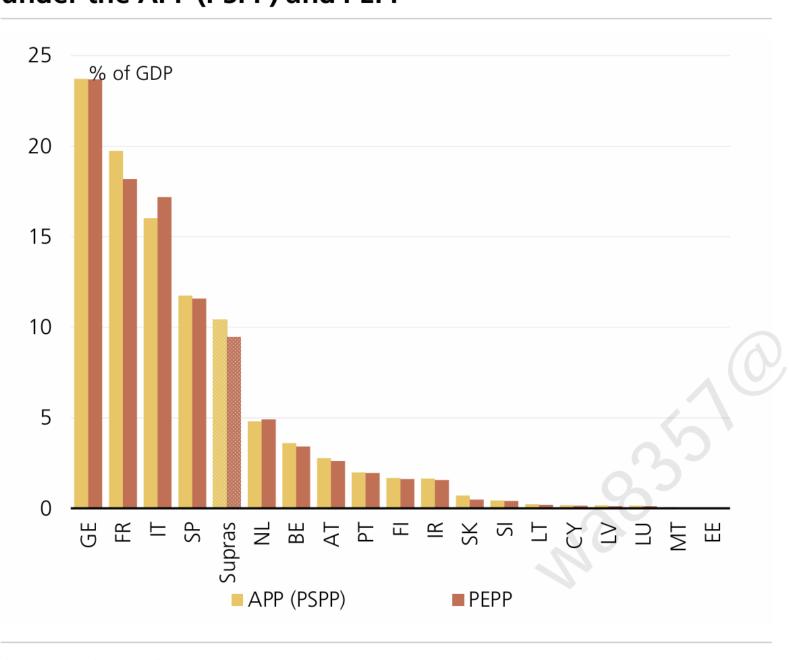
Monthly purchases under the PEPP from March 2020 to January 2024



Source: Haver, UBS

## Balance Sheet of the ECB – Non-Orthodox Monetary Policy

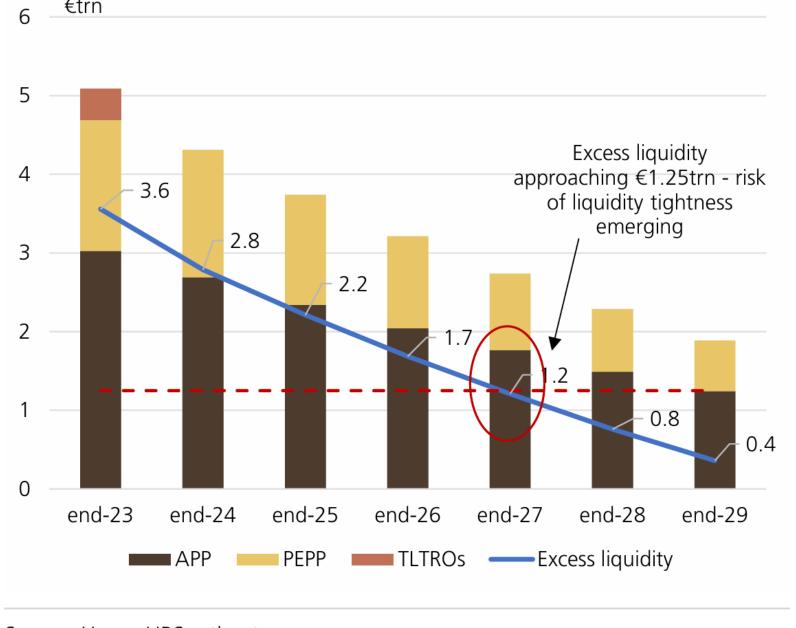




Source: ECB, UBS

## Balance Sheet of the ECB – Liquidity and the New Operating Proceedure

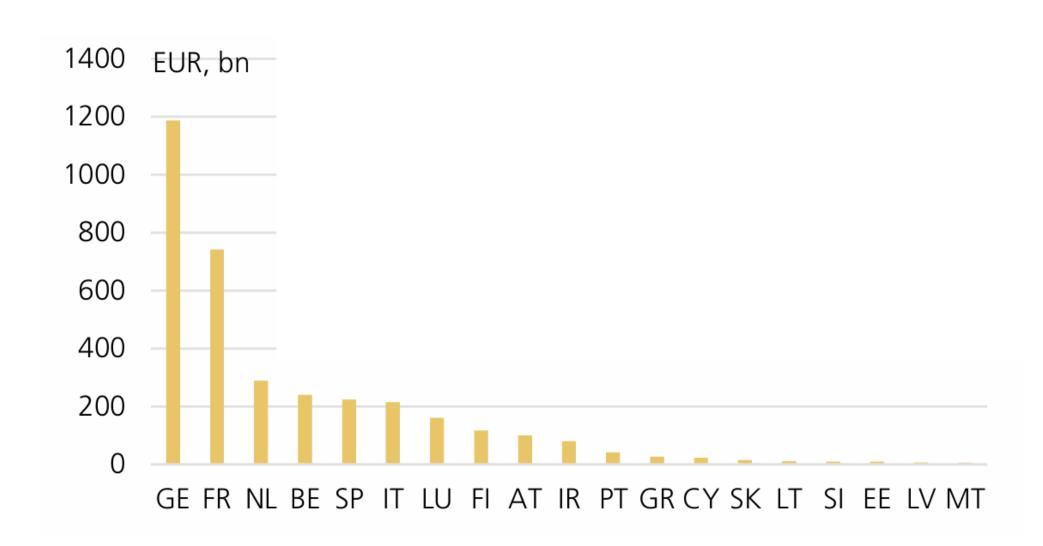




Source: Haver, UBS estimates

### Title

## **Excess liquidity is unevenly distributed across** the Eurozone

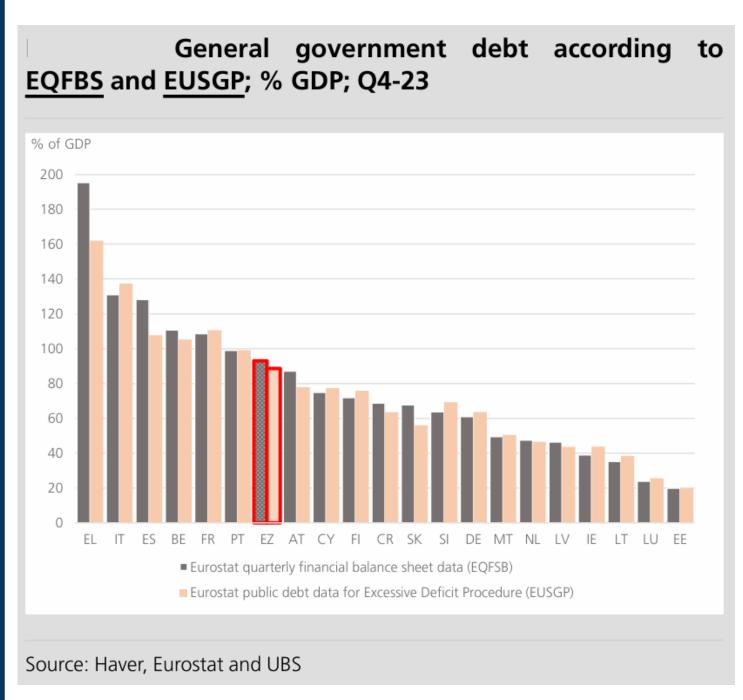


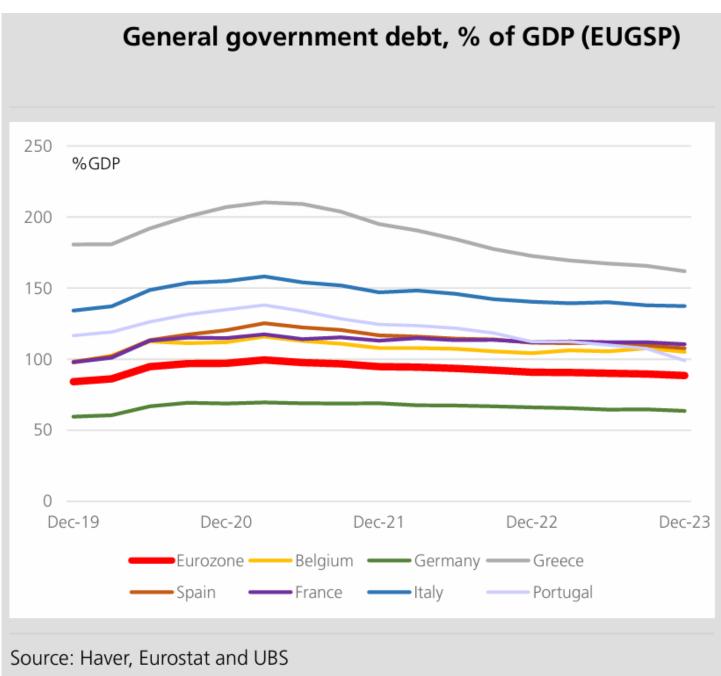
Source: Haver, UBS

## FISCAL POLICY

Debt Is The Bigger Problem...

## EUROZONE DEBT: Up, Up, ... And Away





# REAL ESTATE Housing Markets Are A Problem...

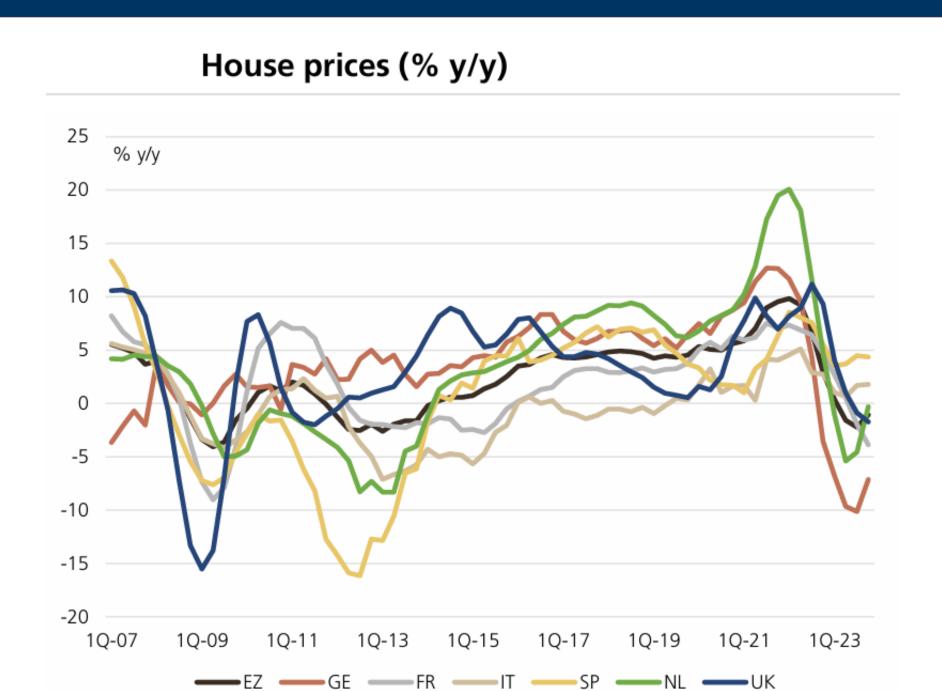
## A HEAT MAP: Hot Spots in The Global Housing Markets

#### **Country performance across various housing market metrics**

	House prices (% y/y)	Mortgage rates (%, new loans)	Mortgage rates (%, outstanding loans)	Share of floating rate mortgages (% of new mortgages, Jan- Feb 24 average)	House ownership with mortgage (% of total)	Household debt (% of GDP)	Mortgage debt (% of GDP)	Construction (% GDP)	Construction employment (% total employment)
Eurozone	-1.1	3.8	2.5	18.1	28.7	53.6	36.4	4.6	6.4
Germany	-7.1	3.9	2.0	12.6	23.8	52.1	38.5	4.0	5.8
France	-3.9	3.5	1.7	3.5	30.4	63.0	47.1	4.9	6.5
Italy	1.8	3.9	3.1	19.3	14.6	37.8	20.4	5.5	6.8
Spain	4.4	3.7	3.7	13.9	30.3	46.9	33.9	5.1	6.6
Greece	11.8	4.5	4.4	40.1	9.9	41.8	12.8	2.3	4.4
Portugal	7.8	3.9	4.7	28.8	36.3	55.2	37.8	4.4	7.1
Ireland	3.2	4.3	3.7	28.0	34.8	27.8	16.7	1.5	6.2
Belgium	3.3	3.7	2.1	6.5	42.8	58.6	40.2	4.9	6.0
Austria	-1.8	4.1	3.2	43.8	23.5	44.9	29.0	5.6	7.0
Slovakia	-1.1	4.1	2.1	5.7	25.0	44.0	31.8	6.0	7.8
Slovenia	6.8	3.9	3.6	3.4	17.4	24.2	13.1	7.2	7.9
Luxembourg	-14.5	4.2	3.0	43.0	43.2	68.9	55.2	4.2	10.1
Switzerland	1.6	2.4	n/a	30.0	38.2	127.1	107.7	4.7	6.8
Netherlands	-0.3	3.9	2.6	19.0	60.3	87.6	54.9	5.1	5.7
uk	-1.7	4.9	3.5	14.3	26.4	83.6	60.2	6.3	6.4
Finland	-4.4	4.2	4.1	96.0	39.4	63.1	38.7	5.7	7.4
Sweden	-2.9	4.7	4.1	89.2	50.1	83.4	64.7	8.5	6.8
Norway	-0.6	5.7	5.7	n/a	61.2	83.7	73.6	5.3	8.3
Denmark	2.5	4.9	3.7	48.1	47.2	92.1	75.4	5.5	6.5
Latvia	1.1	5.9	6.2	92.1	13.9	17.7	11.9	5.3	7.4
Lithuania	8.3	5.7	6.0	97.5	16.0	21.7	16.9	7.7	8.2
Estonia	5.8	5.8	6.1	96.1	26.4	37.3	29.7	7.6	7.6
Poland	13.0	7.6	7.7	12.7	12.9	23.6	14.1	7.3	7.2
Hungary	3.3	7.7	5.8	8.2	13.3	16.9	6.7	4.4	8.5
Czechia	-1.0	5.2	3.3	6.5	20.7	31.8	23.7	3.8	7.8

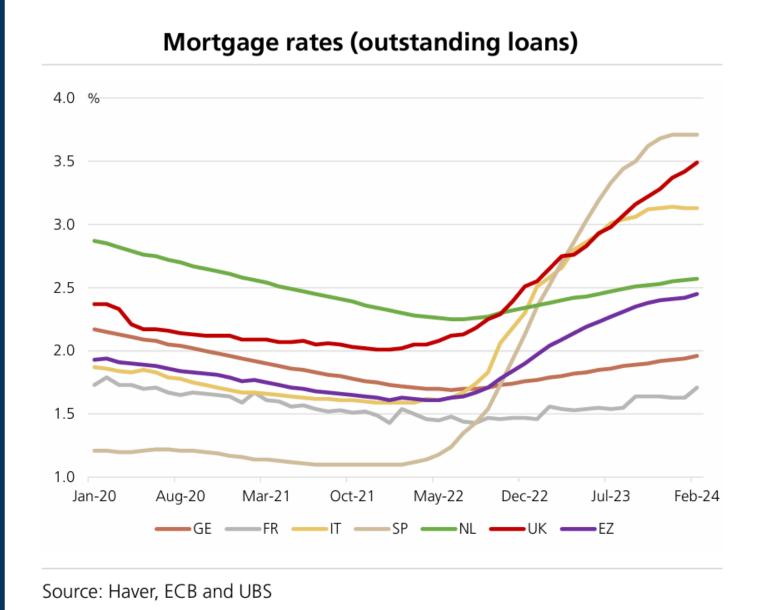
Source: Haver, ECB, Eurostat and UBS calculations \*Note: The colour code reflects the country ranking relative to other countries, not the absolute value of the variable.

## The Recent Decline In Eurozone Housing Markets

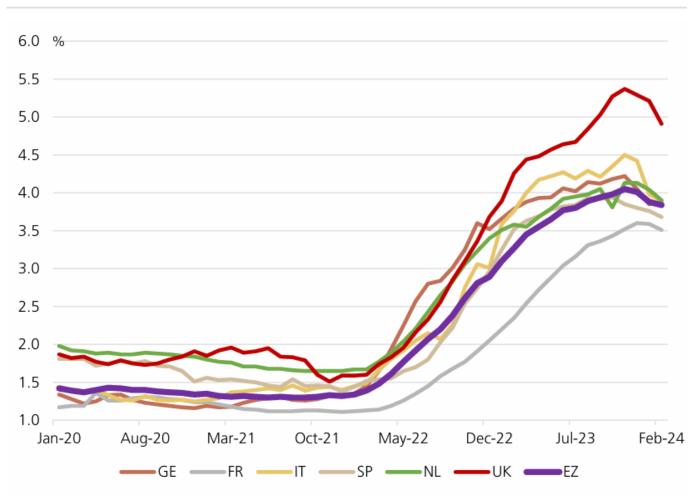


Source: Haver, UBS

## The Recent Increase In Mortgage Rates In Eurozone Housing Markets

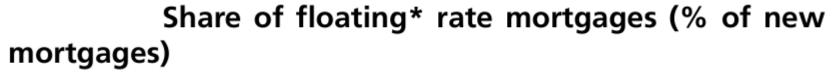


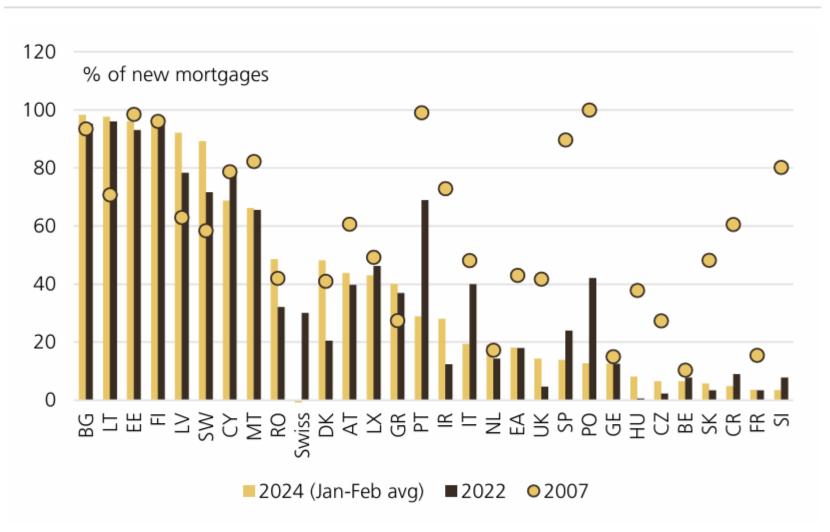
#### **Mortgage rates (new loans)**



Source: Haver, ECB and UBS

## Floating Rate Mortgages And Eurozone Housing Markets

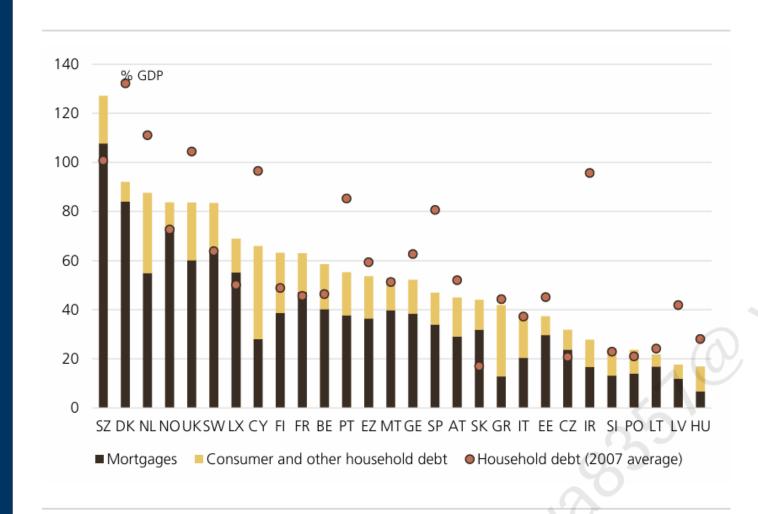




Source: ECB and UBS. Note: Floating rate mortgages here are defined as less than 1yr. \*UBS estimate for SZ; \*\*For CY 2008 data, for CR first data point is for 2021.

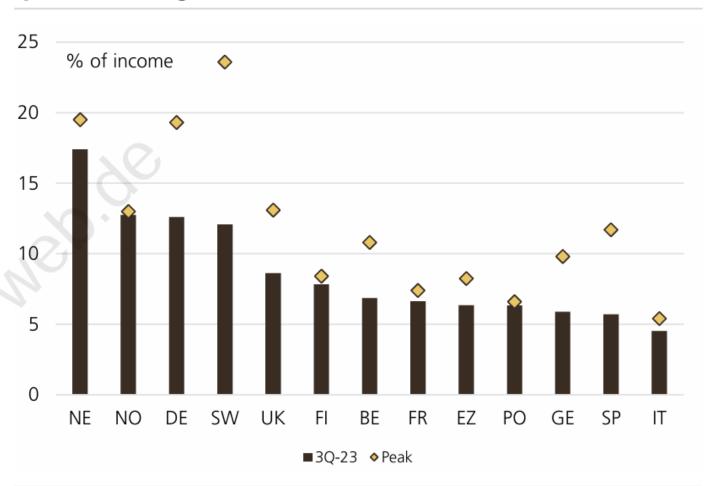
## Household Debt And Eurozone Housing Markets

#### Household debt (% of GDP, 4Q-23)



Source: Haver, UBS

## Household\* debt service ratio (% of income, 4-quarter average as of Q3-23)



Source: Haver, BIS. Note: The debt service ratio (DSR) is defined as ratio of interest payments plus amortization to gross disposable income. Includes non-profit institutions serving households (NPISH).

## Monetary Policy:

liquidity matters for banks & financial markets

## Liquidity matters for financial markets...

- Central banks underestimated the impact of quantitative easing on financial markets, in particular on credit and equity markets.
- They overestimated the transmission of ultra-loose monetary policy on output and on inflation.
- Massive liquidity injections by central banks globally and additional massive global fiscal and monetary stimulus during the pandemic drove equity markets to ever new highs (TINA)
- Global liquidity was primarily attracted to the deep and liquid US capital markets, benefitting
  US stock market indices like the S&P500 or the MSCI, also benefitting US banks and US firms
  more than their European or Asian peers.
  - Interest rates at the zero lower bound made high-grade bonds an unattractive investment (degrading the quality of investments).
  - Credit markets boomed, particularly in commercial real estate or new market segments like private credit (increasing leverage).
  - Search for yield led to favouring riskier investments over safer investments (increasing the riskiness of investments even for investors with low risk-bearing capacity).

#### ... its reversal therefore carries substantial risks for financial markets...

## Monetary Policy:

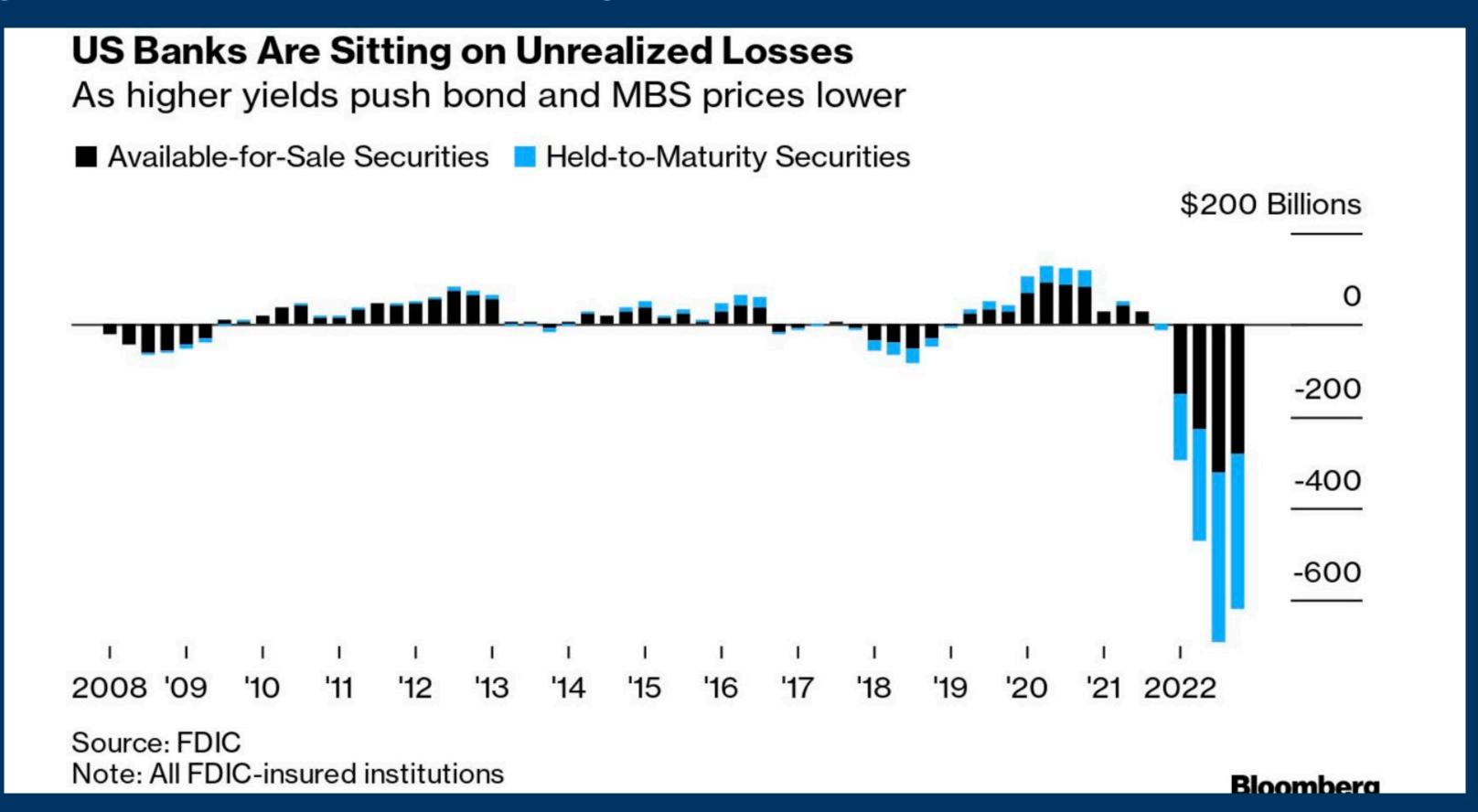
financial conditions matter for banks & markets

## High interest rates matters for financial markets...

- Central banks may underestimate again the medium-term impact of quantitative tightening and sharply higher interest rates on financial markets, in particular on credit and housing markets (which are the most cyclical segments).
  - Interest rates at new highs make high-grade bonds more attractive, over-proportionally
    driving up the returns of riskier assets and driving down bond prices for lower yielding previously
    issued bonds, thereby causing mark-to-market losses.
  - To avoid these losses, banks are moving these assets from available-for-sale in the trading book to hold-to-maturity in the banking book.
  - Credit markets are now correcting, particularly in previous boom segments like commercial real
    estate or private credit (increasing exposures where leveraged.
  - If credit risks and defaults materialize, investors with low risk-bearing capacity face losses.

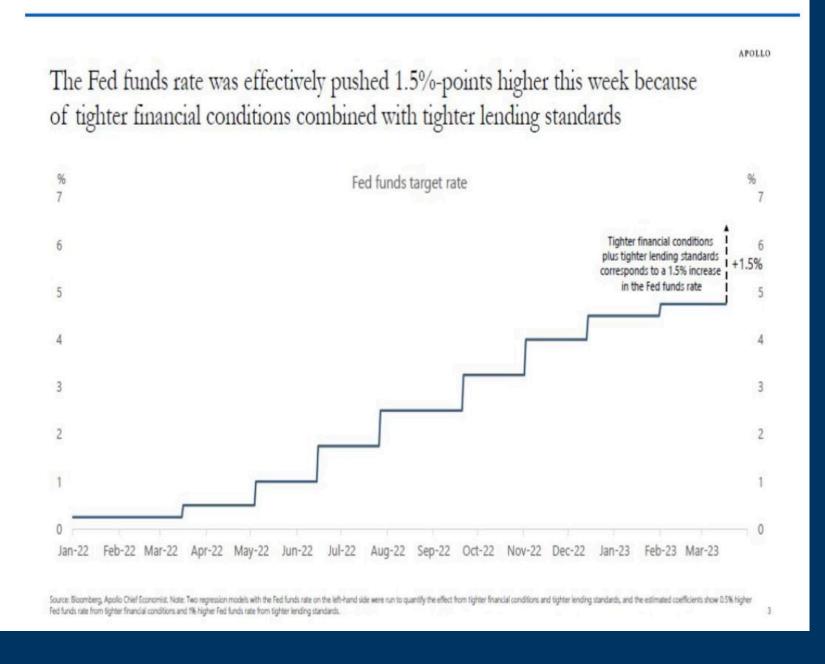
#### ... so look for pockets of weakness in banks and financial markets...

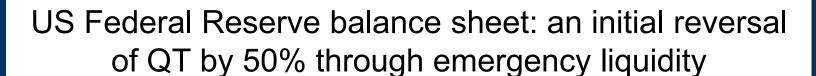
## Higher interest rates and falling bond prices matters for financial markets

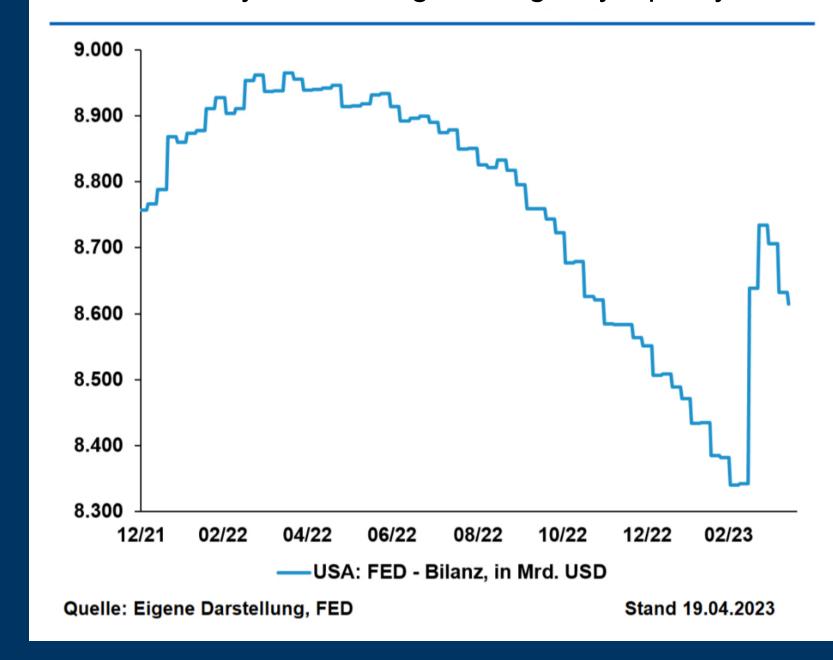


## US Banking Problems in March 2023: tighter financial conditions and new emergency liquidity as a result of banking stress

De facto tighter financial conditions through tighter lending standards and spread widening

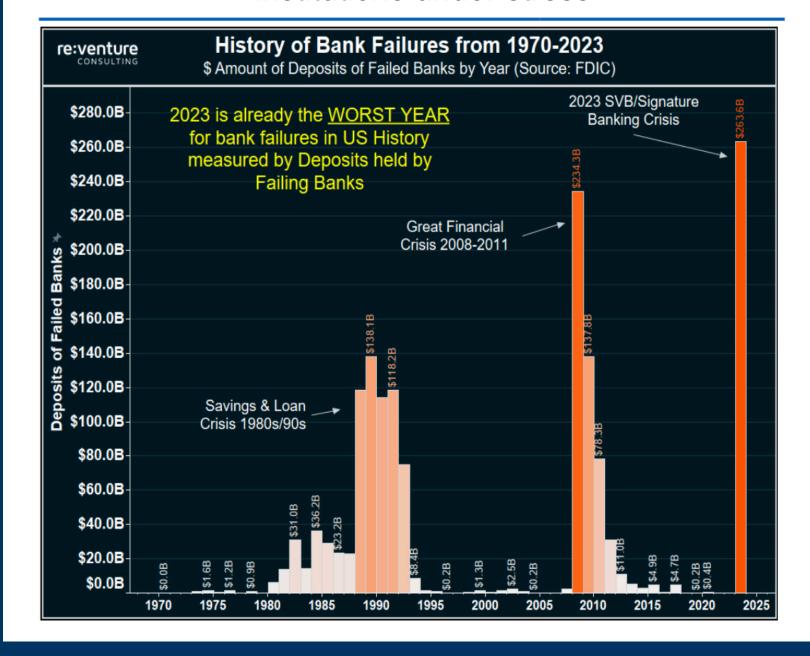




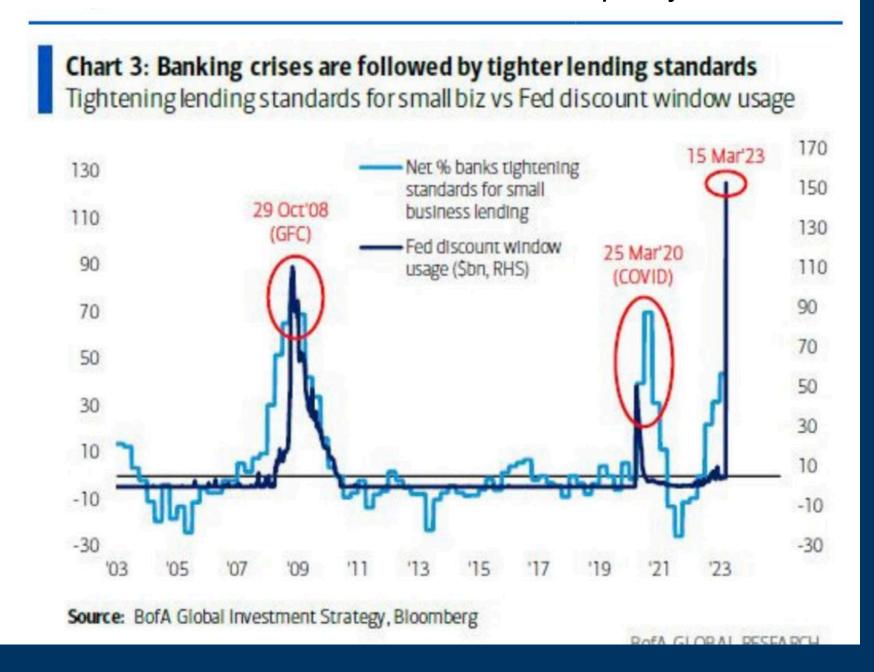


# US Banking Problems in March 2023: massive deposit runs and new emergency liquidity as a result of banking stress

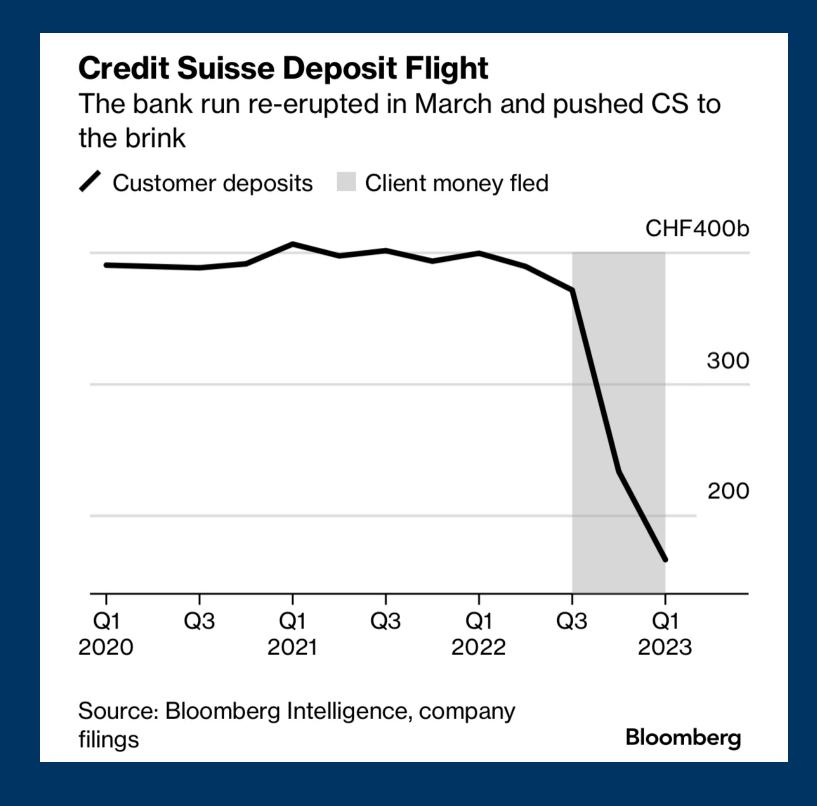
Massive exposure of deposits at risk in financial institutions under stress

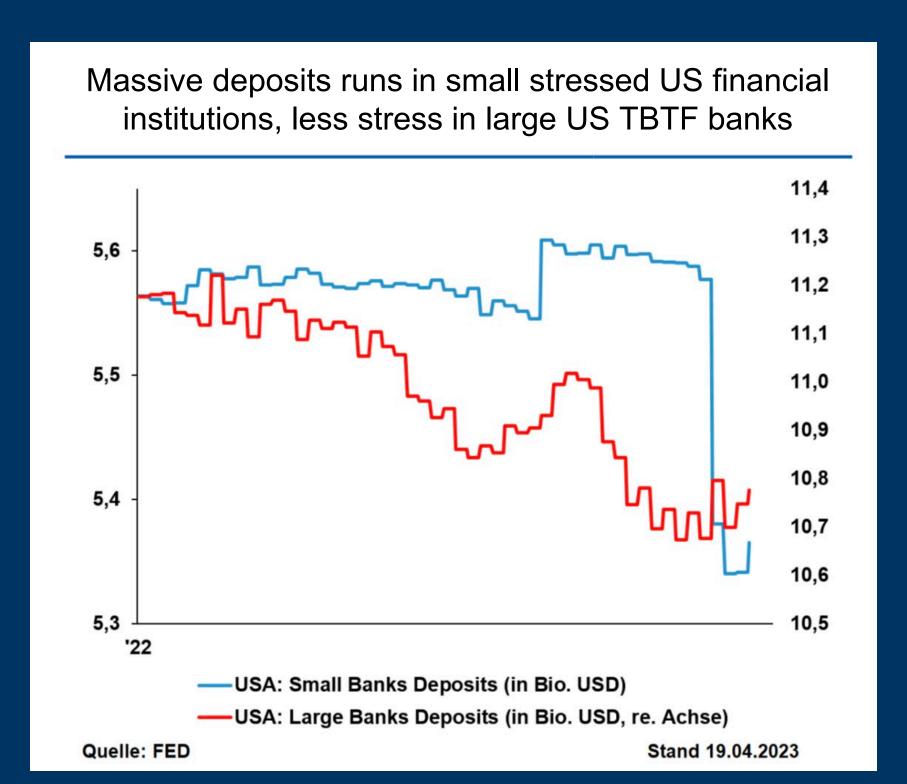


Banks tighten credit and lending standards for SMEs and borrow from the FED to avoid liquidity stress



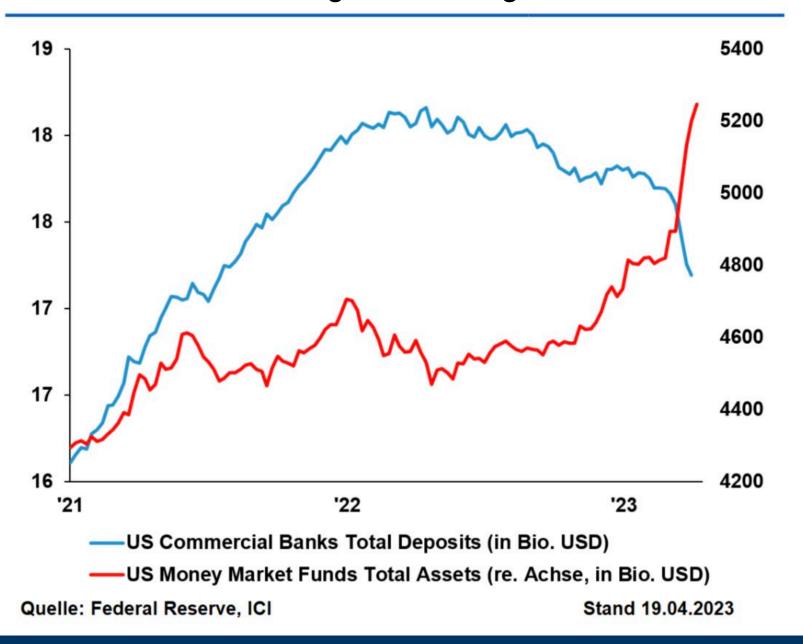
## US and Swiss Banking Problems in March 2023: massive deposit runs and new emergency measures as a result of banking stress



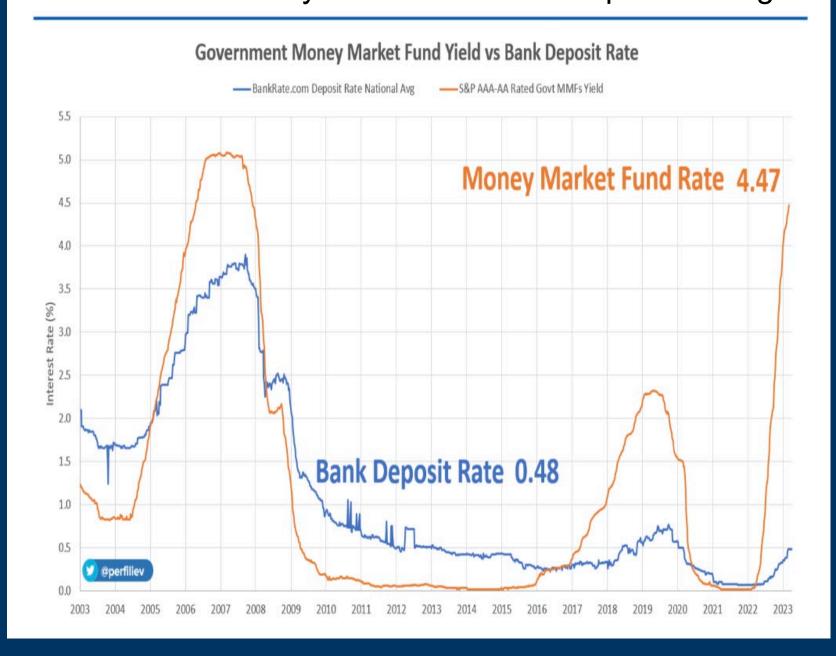


#### US Banking Problems in March 2023: Massive deposit runs and inflows into money market funds due to more attractive interest rate conditions

Massive deposits runs and shifts into money market funds during US banking stress



Massive deposits runs and shifts into money market funds are driven by lack of interest rate pass-through



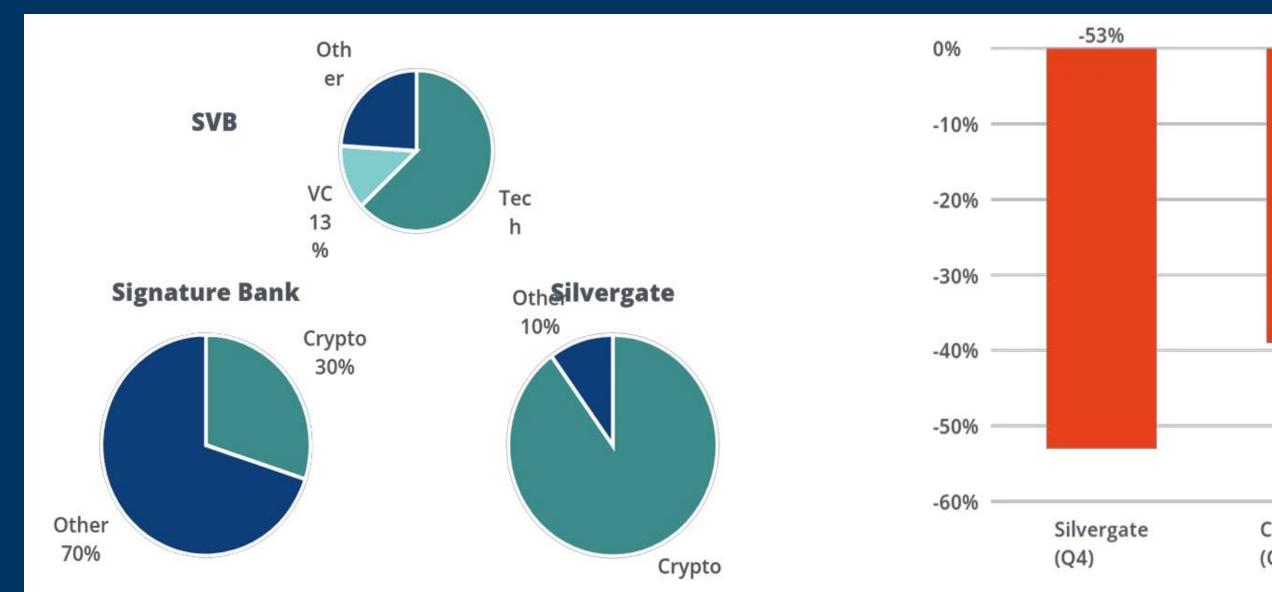
# Crisis banks showed weaknesses in deposit management and had strong concentration risks in individual customer segments

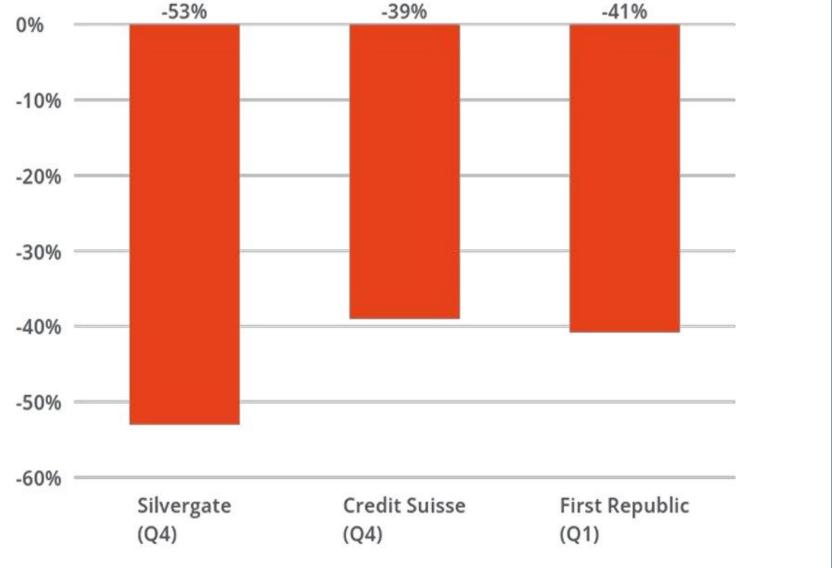
SVB was the house bank for VCs and startups – Other US crisis banks also relied on very narrow depositor segments

Deposit concentration by customer segment, 12/31/2022

...when trust evaporated, this led to strong outflows: Credit Suisse and FRB were also strongly affected because of their primary reliance on UHNWI.

Deposit outflows (% QoQ) in the quarter before the bacrupcy





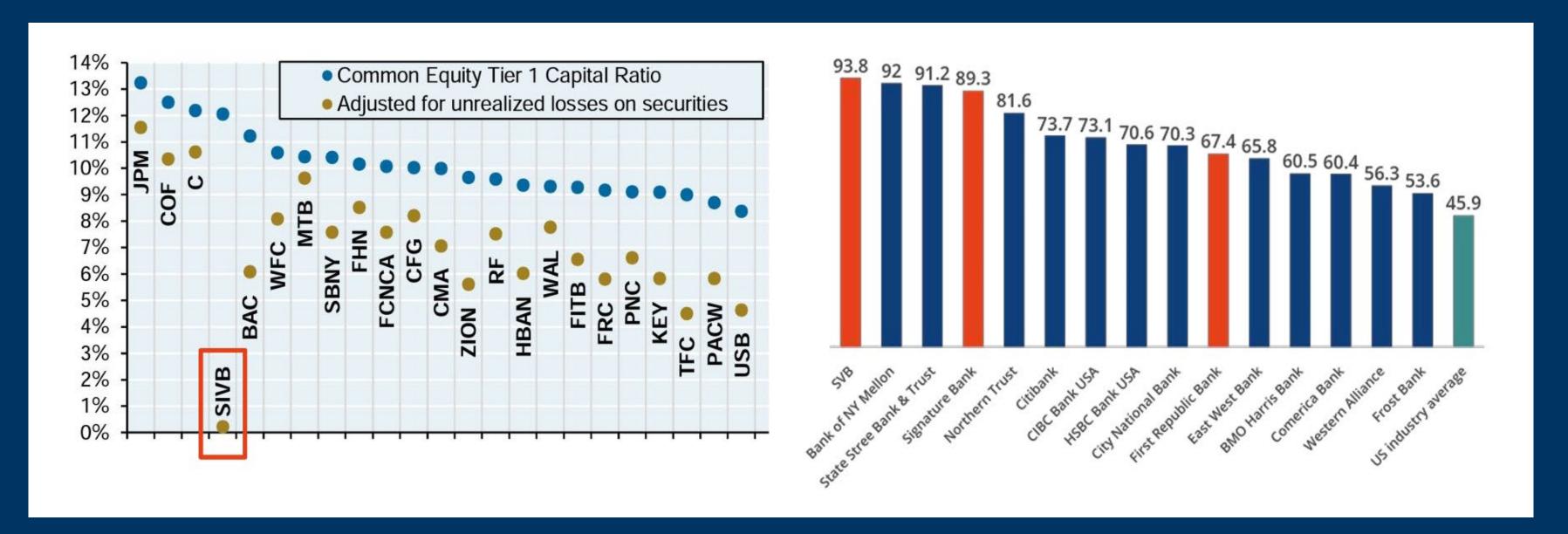
# Deficiencies in risk management further increased the vulnerability of crisis banks to deposit outflows

Silicon Valley Bank already had strong unrealized losses in the investment book in the year 2022

Impact of unrealized value adjustments on capital ratios selected US banks, December 2022

Crisis banks also accounted for a high proportion unsecured deposits

Top 15 US banks by share of unsecured deposits in their portfolio, December 2022



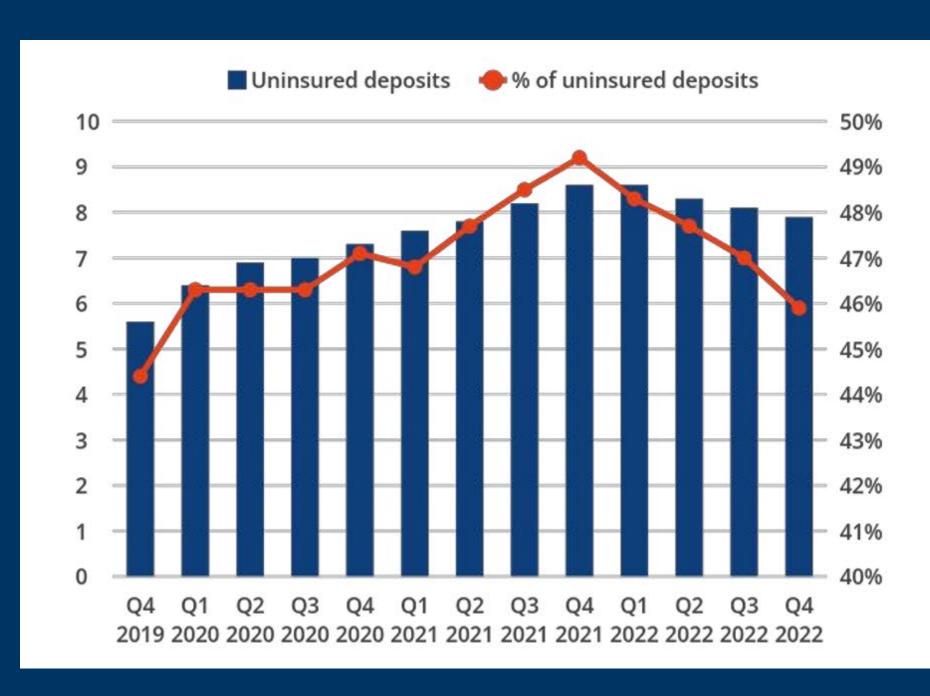
# US banks subsequently focused on insured deposits covered by the federal deposit insurance scheme (FDIC)

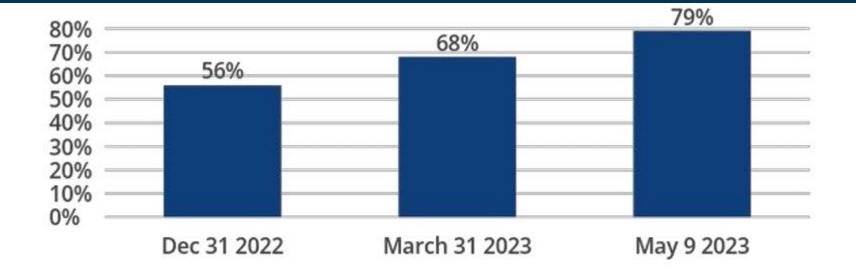
The share of uninsured deposits reached an all-time high before interest rates increased

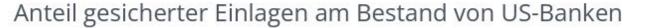
Unsecured deposits (\$ trillion) and % share held by US banks (Source: S&P, Fed.)

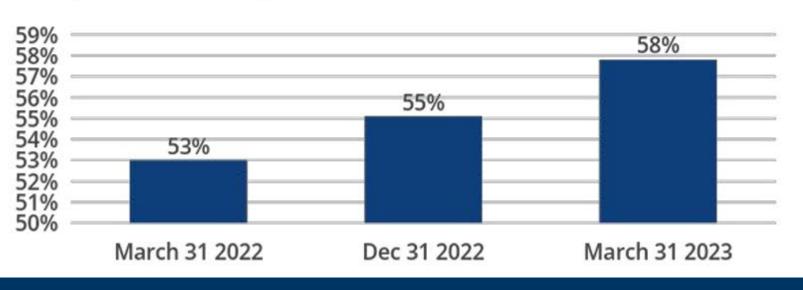
Banks are now trying to maintain their stability by strengthening their deposit books

Western Alliance, share of secured deposits in the portfolio









## What really matters for financial markets...

Looking ahead, where is the next source of instability hitting the banking system or the financial system as a whole?

#### The risks in banking are allways and everywhere the same:

- High concentration risks and an undiversified business model
- High leverage and excessive risk taking
- Insufficient risk culture and inadequate risk management capabilities
- Insufficient liquidity buffers and inadequate capital buffers
- Sudden loss of confidence in financial institutions and contagion to similar institutions
- Lag of an effective regulatory framework
- Lag of supervisory scrutiny

... so look for pockets of weakness in banks and financial markets...