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# Global Macro Outlook

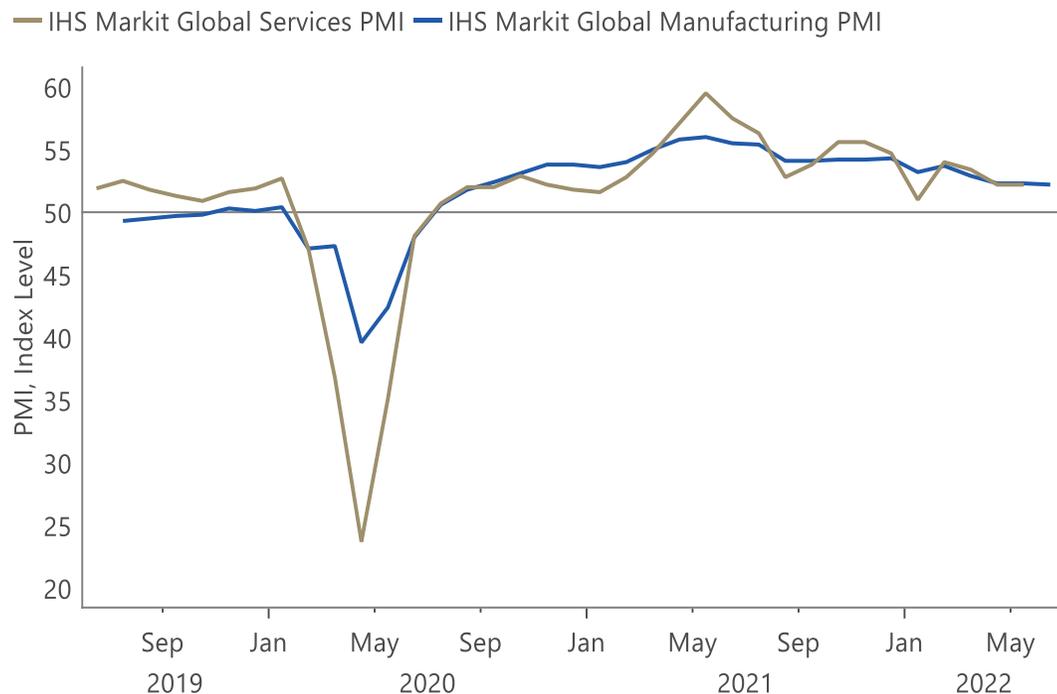
## Confronting the Bear

Global Economics and Investment Analysis Group  
BNY Mellon Investment Management

July 2022

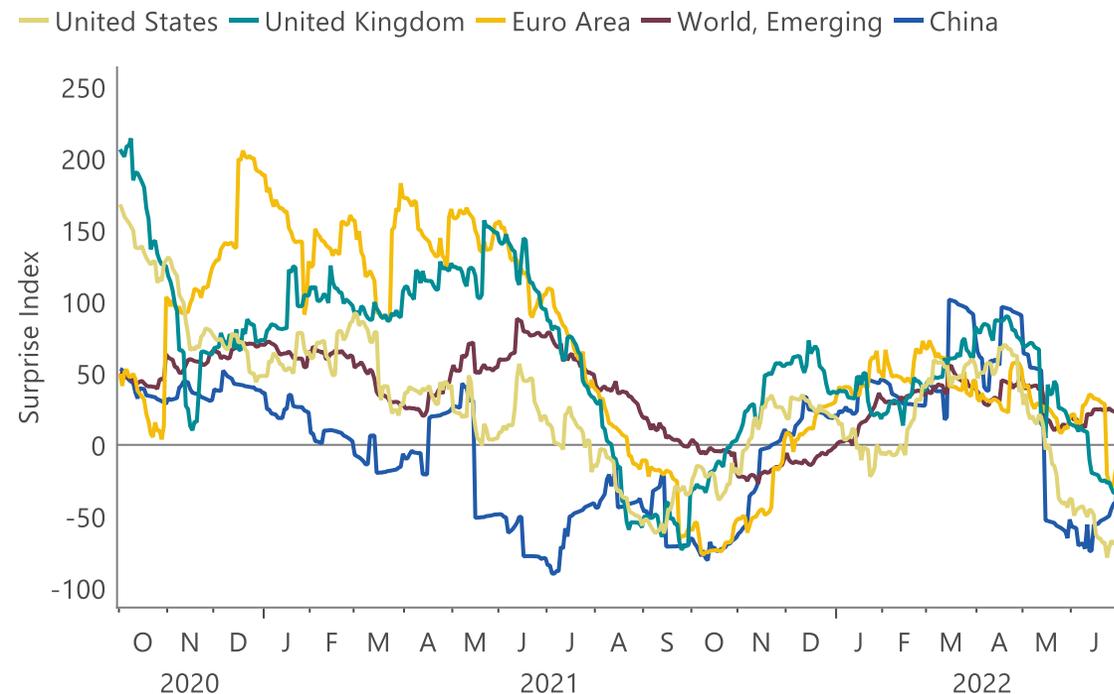
# World economic activity eased further in Q2 2022, surprising to the downside

## Global PMIs



Source: BNY Mellon IM, Macrobond, IHS Markit  
Data as of 7/6/2022

## Global Economic Surprise Index



Source: BNY Mellon IM, Macrobond, Citi  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

# While inflation remains elevated, adverse price surprises have peaked

## OECD inflation

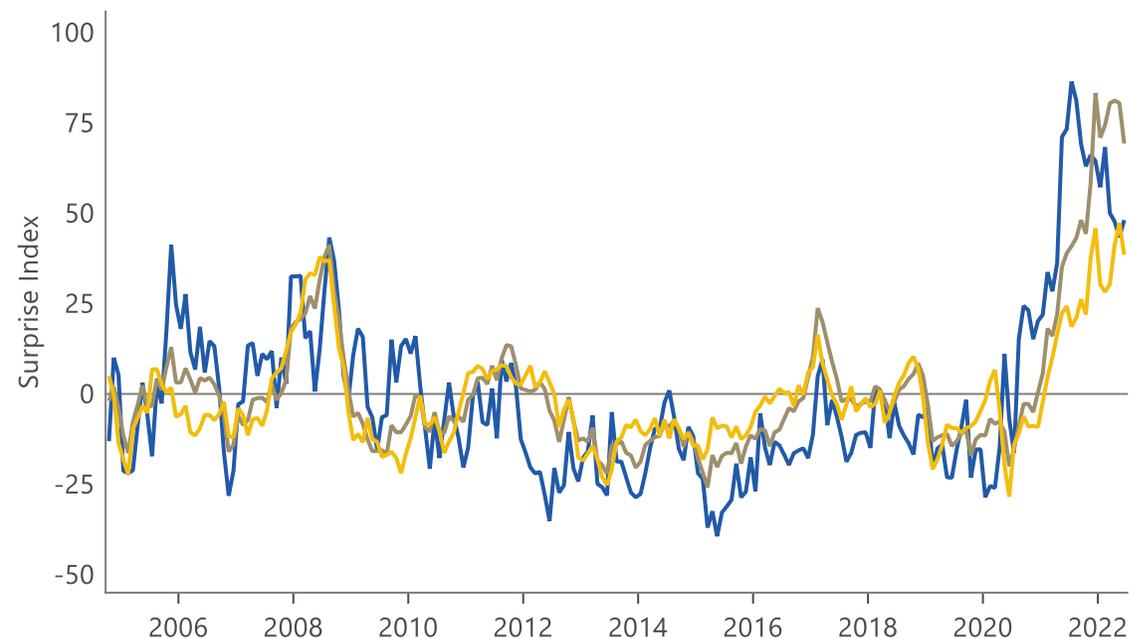
— OECD all items, core [c.o.p. 1 year] — OECD all items, total [c.o.p. 1 year]



Source: Macrobond, BNY Mellon Investment Management, OECD (Organisation for Economic Co-operation & Development)  
Data as of 7/6/2022

## Inflation Surprise Index

— EM — Global — U.S.



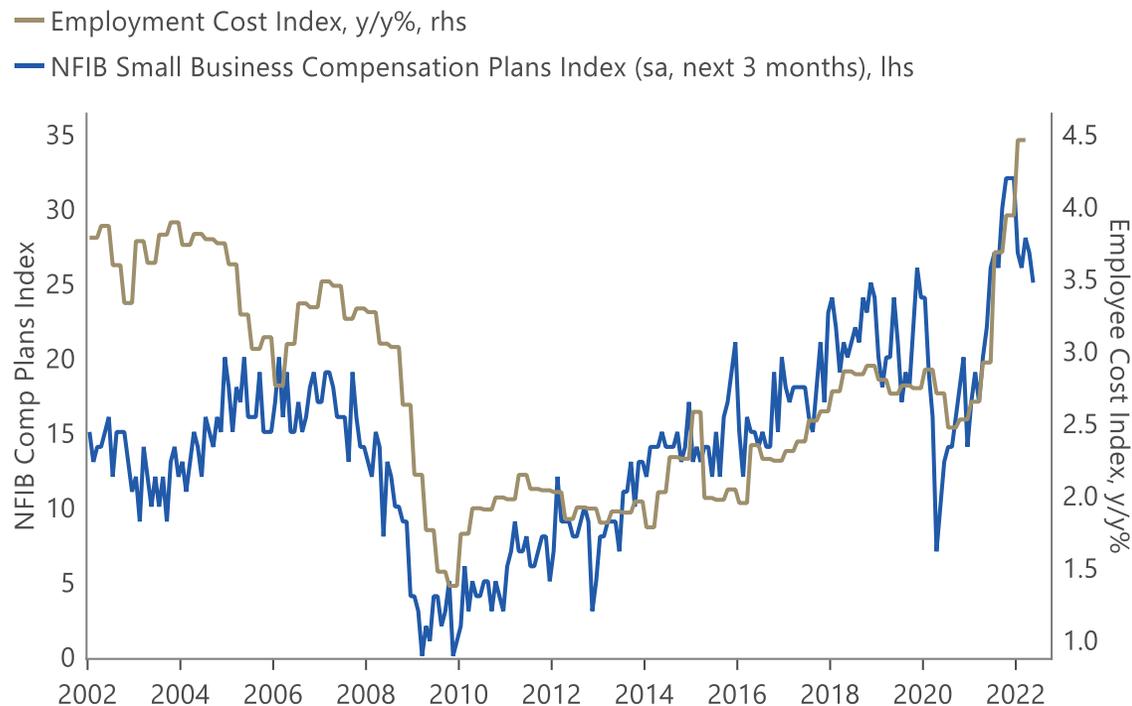
Source: Macrobond, BNY Mellon Investment Management, Bloomberg, Citigroup  
Data as of 7/6/2022

Latest data available for both charts as of July 6, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

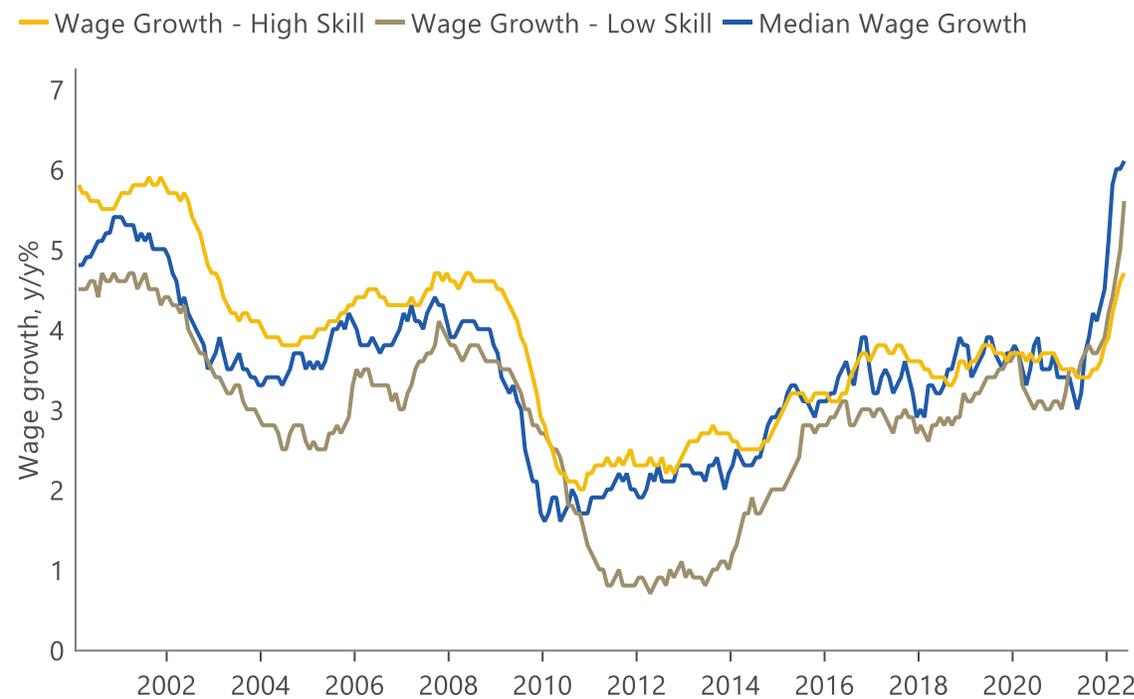
# Wage inflation remains high – way above the Fed’s comfort level

## U.S. Employee Cost Index & Compensation Plans



Source: BNY Mellon IM, Macrobond  
Data as of 7/6/2022

## Atlanta Fed Wage Growth Tracker



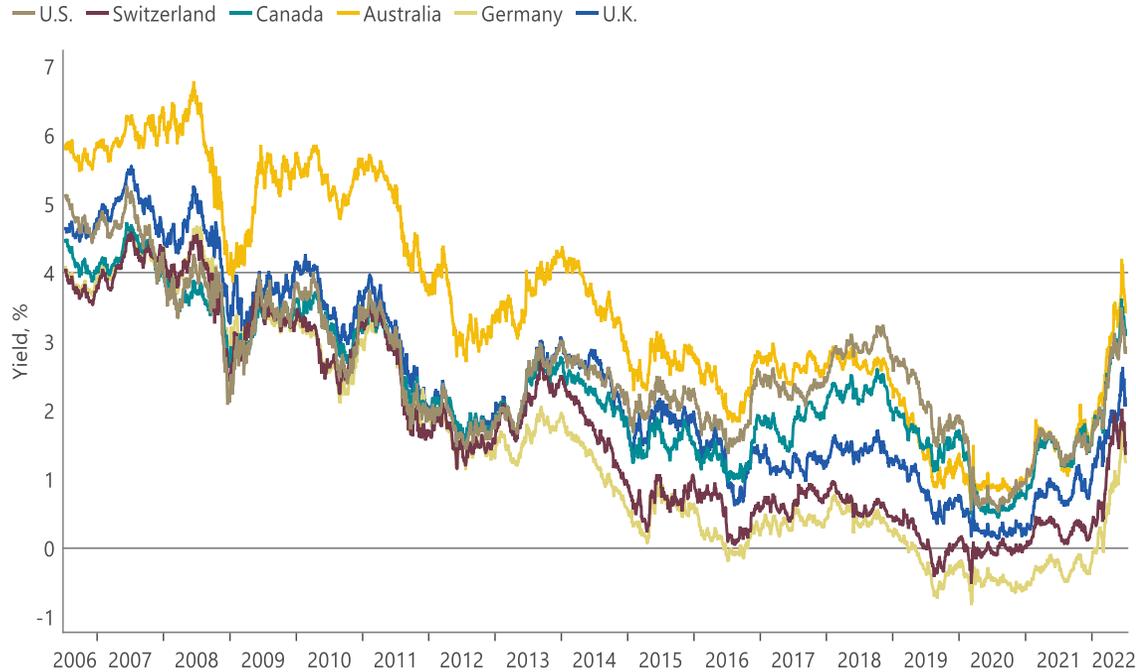
Source: BNY Mellon IM, Macrobond, Federal Reserve Bank of Atlanta  
Data as of 7/6/2022

Latest data available for both charts as of July 6, 2022. Source: Macrobond.

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# Record inflation has sharply raised market & policy rates, weighed on equities and...

## Government Benchmarks, 10 Year, Yield



Source: Macrobond, BNY Mellon Investment Management  
Data as of 7/7/2022

## MSCI Equity Indices - Forward Price-Earnings Ratios



Source: Macrobond, BNY Mellon Investment Management, Bloomberg  
Data as of 7/6/2022

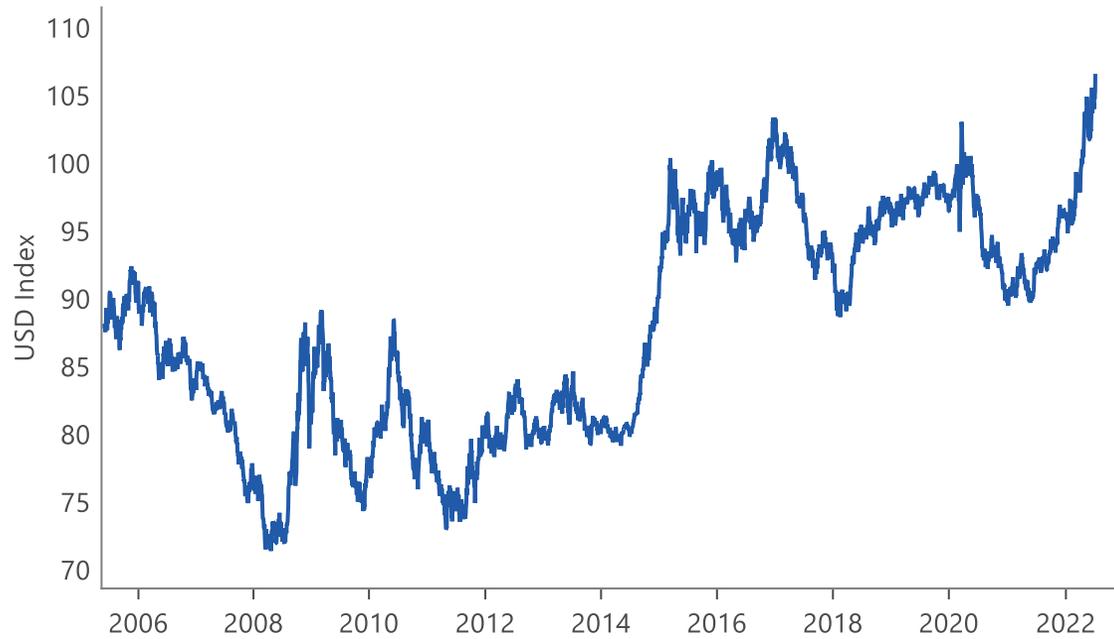
. Latest data for both charts available as of July 6, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# ...re-strengthened the USD, tightening financial conditions to pre-pandemic levels

## United States, Dollar Index, Close

— United States, FX Indices, ICE, U.S. Dollar Index, Close



Source: Macrobond, BNY Mellon Investment Management, Intercontinental Exchange (ICE)  
Data as of 7/6/2022

## Major Developed Markets Financial Conditions

— Euro area FCI — UK FCI — US FCI



Source: Macrobond, BNY Mellon Investment Management, Bloomberg  
Data as of 7/6/2022

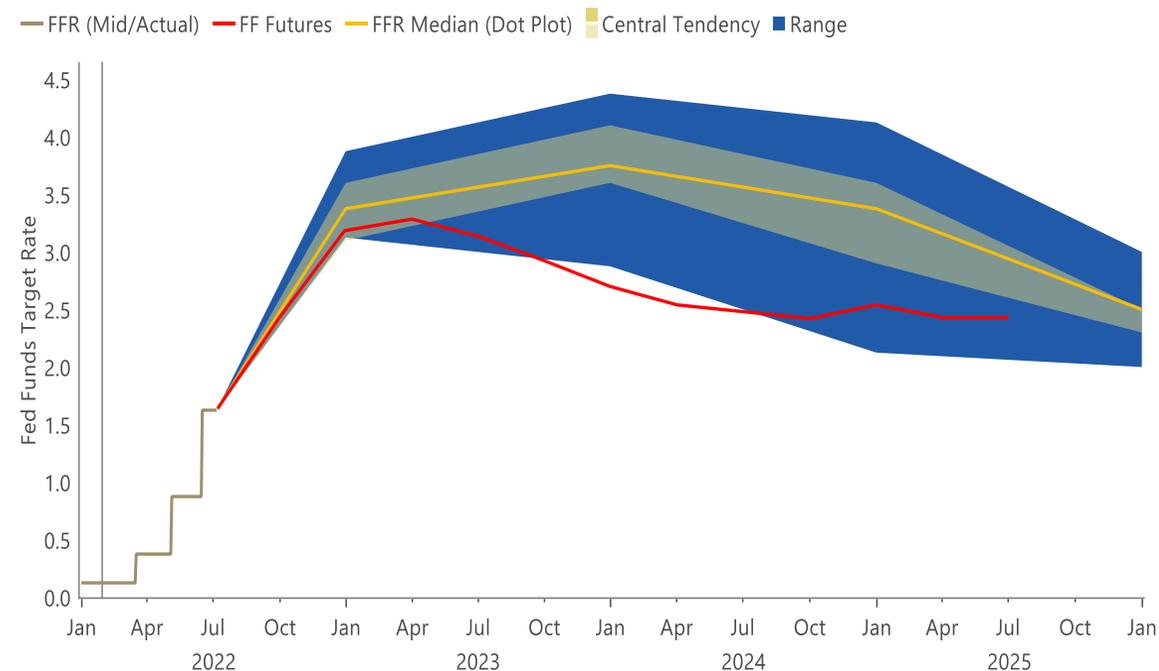
Latest data available for both charts as of July 6, 2022. FCI stands for Financial Conditions Index Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# As a result, recession risks increased & year-ahead policy expectations are flagging

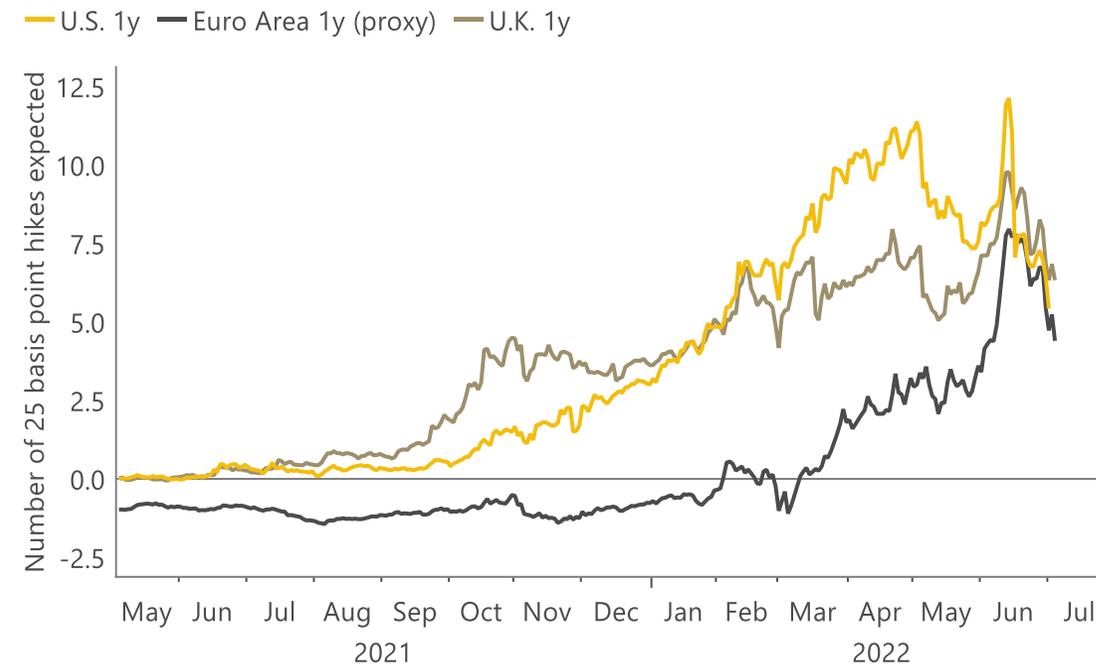
## Fed vs Market

Dot Plot as of June 2022 Meeting



Source: Macrobond, BNY Mellon Investment Management, CME Group, Federal Reserve  
Data as of 7/6/2022

## Number of (25 basis point) hikes priced in by the market

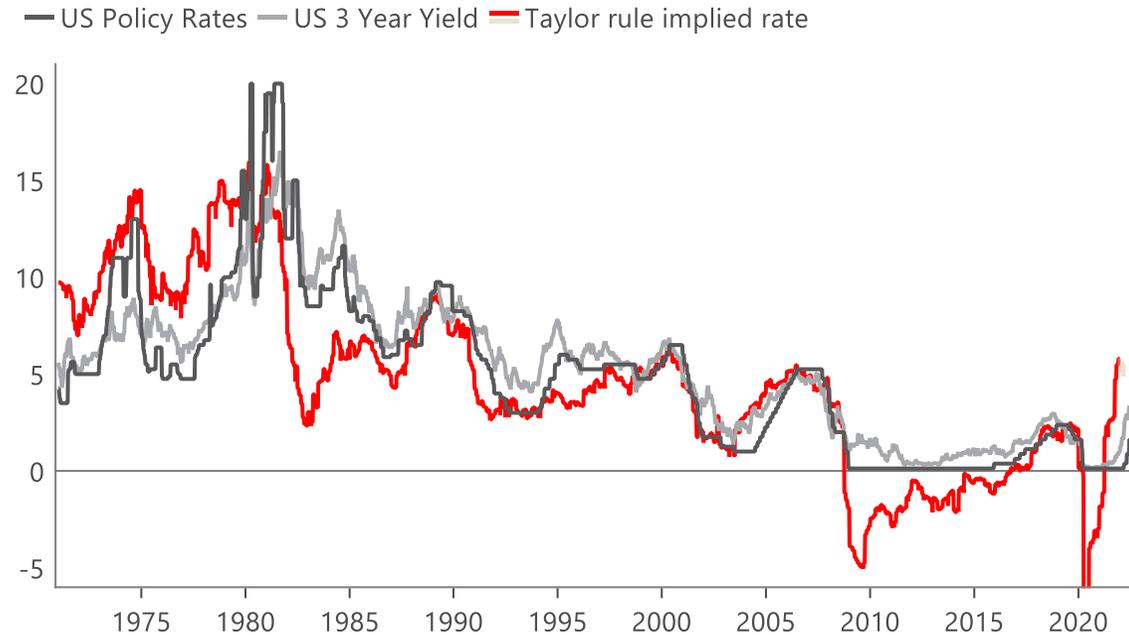


Source: Macrobond, BNY Mellon Investment Management, Federal Reserve, Federal Reserve Bank of New York, Bank of England, ECB (European Central Bank)  
Data as of 7/7/2022

Latest data available for both charts as of July 6, 2022. Source: Macrobond.

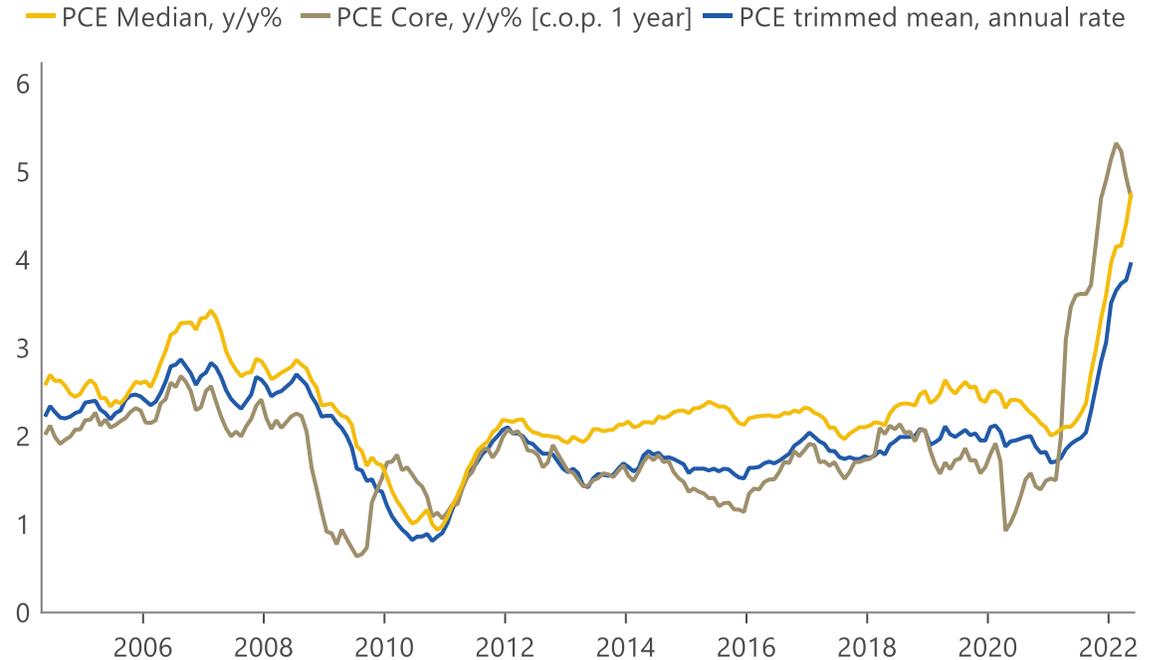
# The Fed seems to be prioritizing price-stability over recession risk

## Taylor rule dictates rapidly rising policy rates as Fed funds remain relatively low



Source: BNY Mellon Investment Management, Macrobond.  
Data as of 07/07/2022.

## U.S. PCE Core inflation -trimmed mean & median

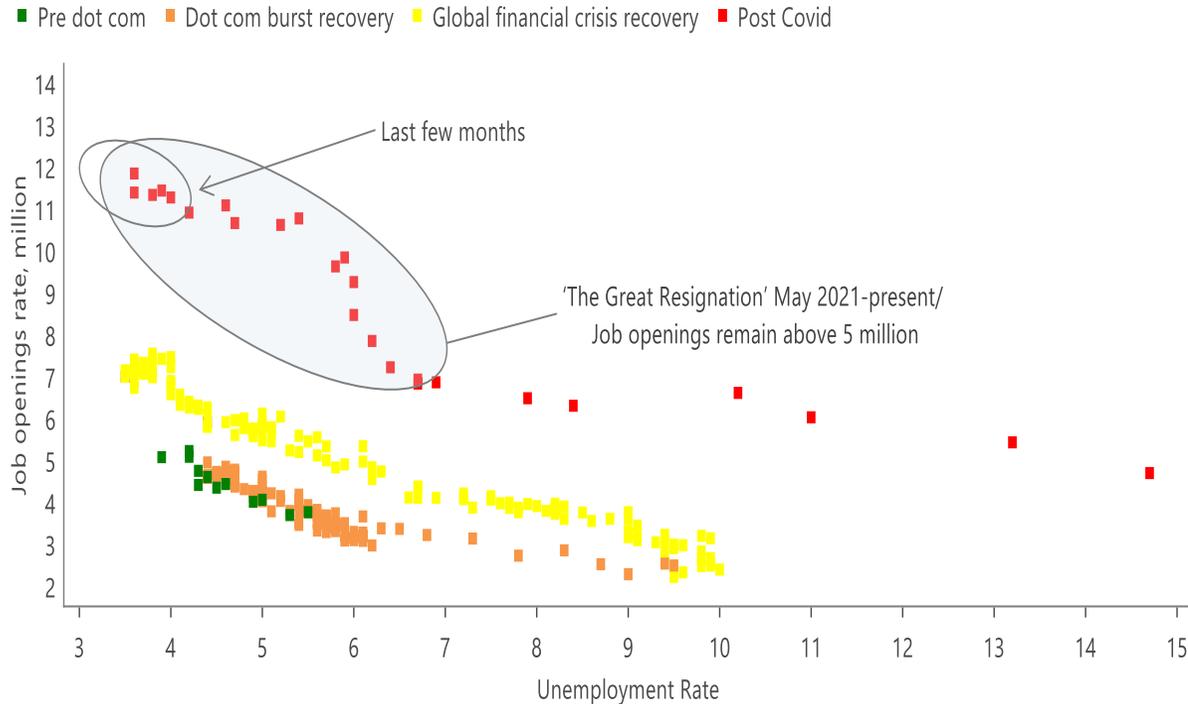


Source: Macrobond, BNY Mellon Investment Management  
Federal Reserve Bank of Dallas, U.S. Bureau of Economic Analysis (BEA), Federal Reserve Bank of San Francisco  
Data as of 7/6/2022

Unconventional monetary policies, such as the Federal Reserve’s quantitative easing (QE) program, have played a large role in shaping world economies since the 2007–10 financial crisis set off a global recession. Economists, however, have struggled to quantify the effects of these policies; traditional economic models used for research simply don’t capture them when key interest rates sit at or near zero. But researchers have proposed a tool, a **“shadow rate,”** that shows the Fed’s easing—and can be used in established economic models to measure the economic effects. The **Taylor Rule** is an interest rate forecasting model invented by economist John Taylor in 1992 and outlined in his 1993 study, “Discretion Versus Policy Rules in Practice.” It suggests how central banks should change interest rates to account for inflation and other economic conditions. NGDP stands for nominal GDP. Rates definitions can be found on definitions page. Latest data available as of July 6, 2022. Source: Macrobond.

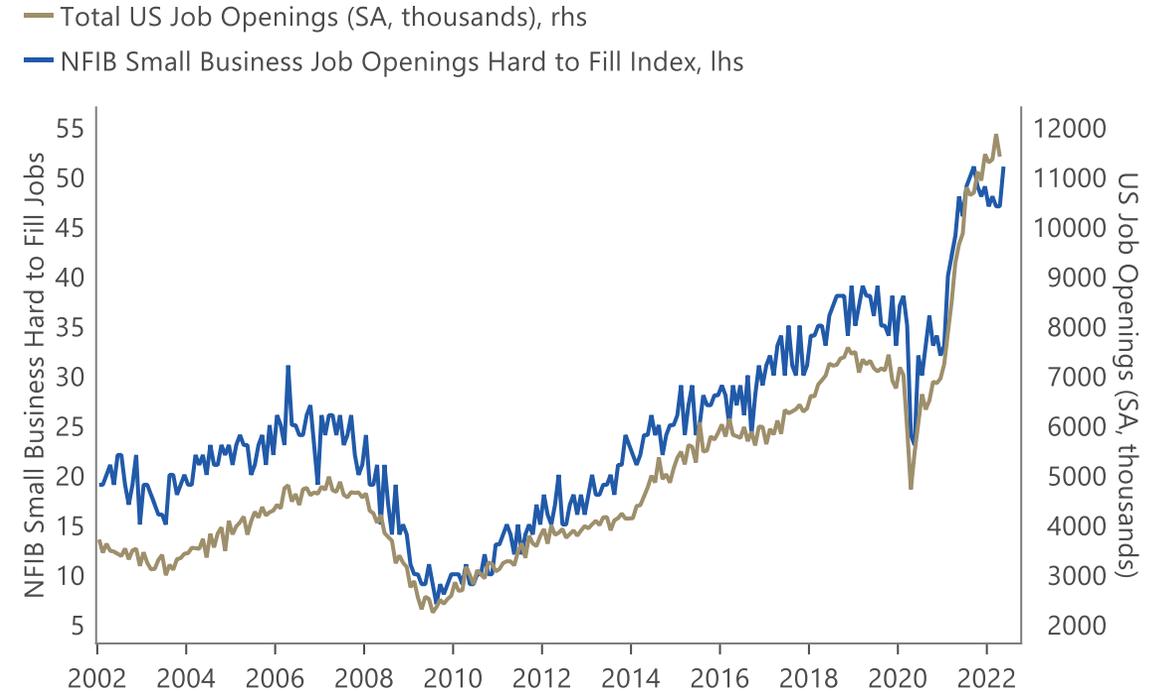
# The labour market is tight & mismatches persist – fuelling wage pressure

## US Beveridge Curve by recession



Source: Macrobond, BNY Mellon Investment Management, U.S. Bureau of Labor Statistics (BLS)  
Data as of 7/6/2022

## Jobs hard to fill vs. job openings



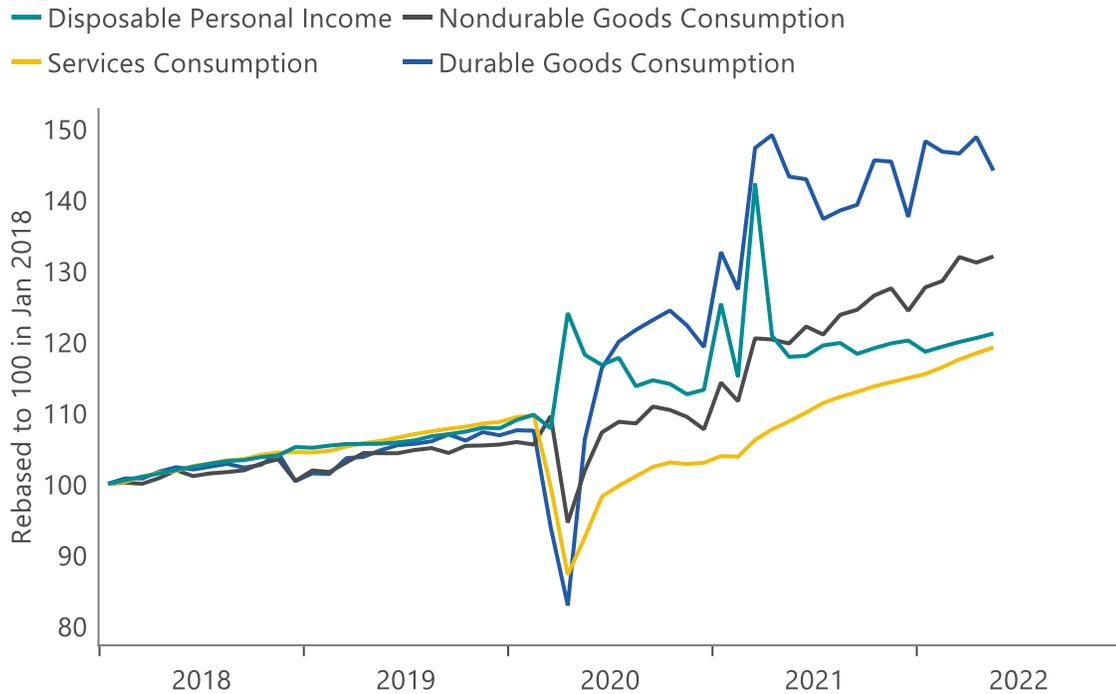
Source: Macrobond, BNY Mellon Investment Management, National Federation of Independent Business  
Data as of 7/6/2022

A Beveridge curve, or UV curve, is a graphical representation of the relationship between unemployment and the job vacancy rate, the number of unfilled jobs expressed as a proportion of the labor force. Latest data available as of July 6, 2022.

Source: Macrobond.

# Meanwhile, U.S. demand remains reasonably robust, though past its peak

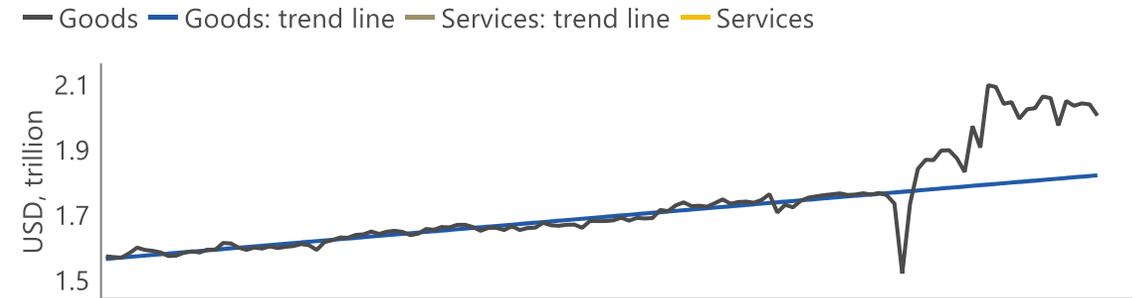
## U.S. Consumption rebased to 100 on 1/31/2018



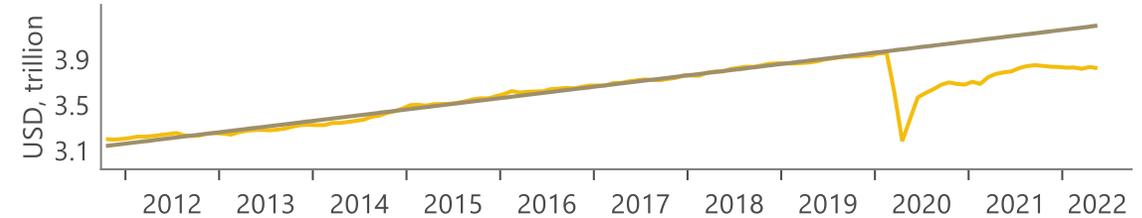
Source: Macrobond, BNY Mellon Investment Management, U.S. Bureau of Economic Analysis (BEA)  
Data as of 7/6/2022

## Real Personal Consumption Vs. Services, and Underlying Trends

### Goods



### Services



Source: Macrobond, BNY Mellon Investment Management, U.S. Bureau of Economic Analysis (BEA)  
Data as of 7/6/2022

Durables, also known as durable goods or consumer durables, are goods that do not need to be purchased very often and typically last for at least three years. Nondurable goods are any consumer goods in an economy that are either consumed in one use or used up over a short period of time. Disposable income, also known as disposable personal income (DPI), is the amount of money that an individual or household has available to spend or save after income taxes have been deducted. Latest data available as of July 6, 2022. Source: Macrobond.

# And supply disruption remains a key factor; some signs pressures are easing

## New York Fed Global Supply Chain Pressure Index vs Commodity Prices

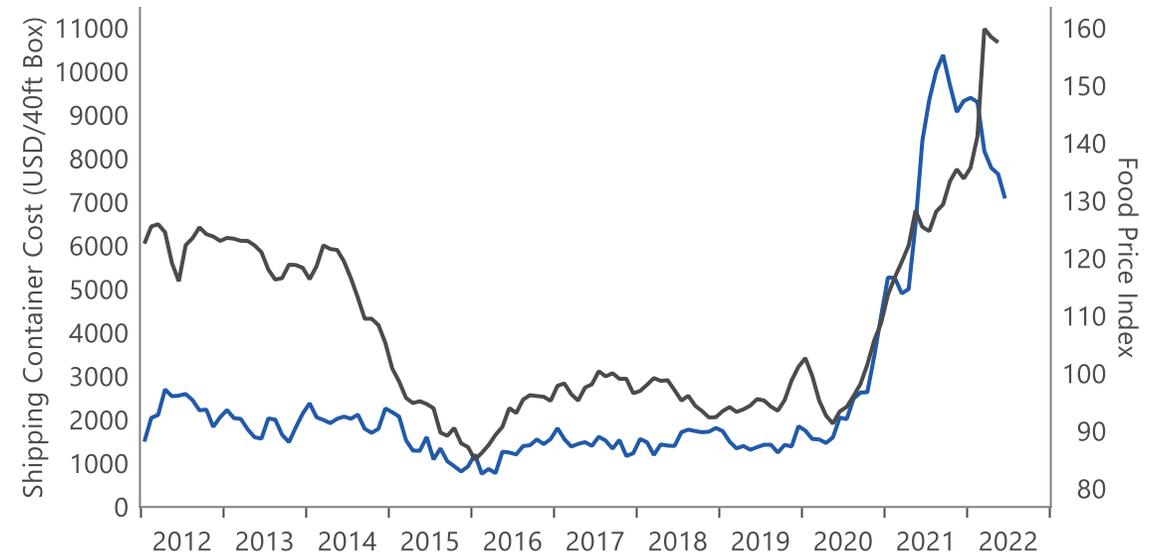
— Commodity Research Bureau All Commodities Index, lhs  
 — Global Supply Chain Pressure Index, rhs



Source: Macrobond, BNY Mellon Investment Management, New York Federal Reserve, Bureau of Labor Statistics  
 Data as of 7/6/2022

## Global Shipping & Food Cost

— World, Commodity Indices, FAO, Food Price Index, rhs  
 — WCI Composite Container Freight Benchmark Rate (USD) per 40 Foot Box, lhs

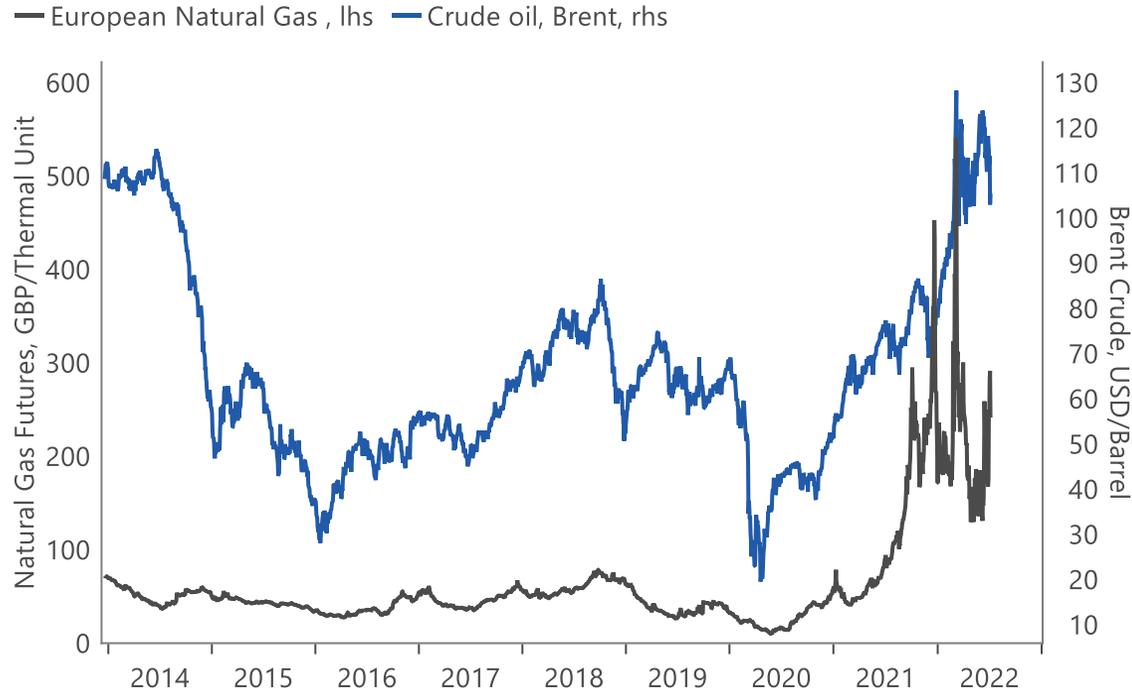


Source: Macrobond, BNY Mellon Investment Management, Bloomberg United Nations Food & Agriculture Organization (FAO)  
 Data as of 7/6/2022

The New York Fed's global supply chain pressure index integrates transportation cost data and manufacturing indicators to provide a gauge of global supply chain conditions. The CRB Spot Market Price Index is a measure of price movements of 22 sensitive basic commodities whose markets are presumed to be among the first to be influenced by changes in economic conditions. The FAO Food Price Index (FFPI) is a measure of the monthly change in international prices of a basket of food commodities. It consists of the average of five commodity group price indices weighted by the average export shares of each of the groups over 2014-2016. Latest data available as of July 6, 2022. Source: Macrobond.

# Europe's reliance on Russian supplies exposes it to a prolonged energy price shock

## Europe: Natural Gas & Brent Crude Cost

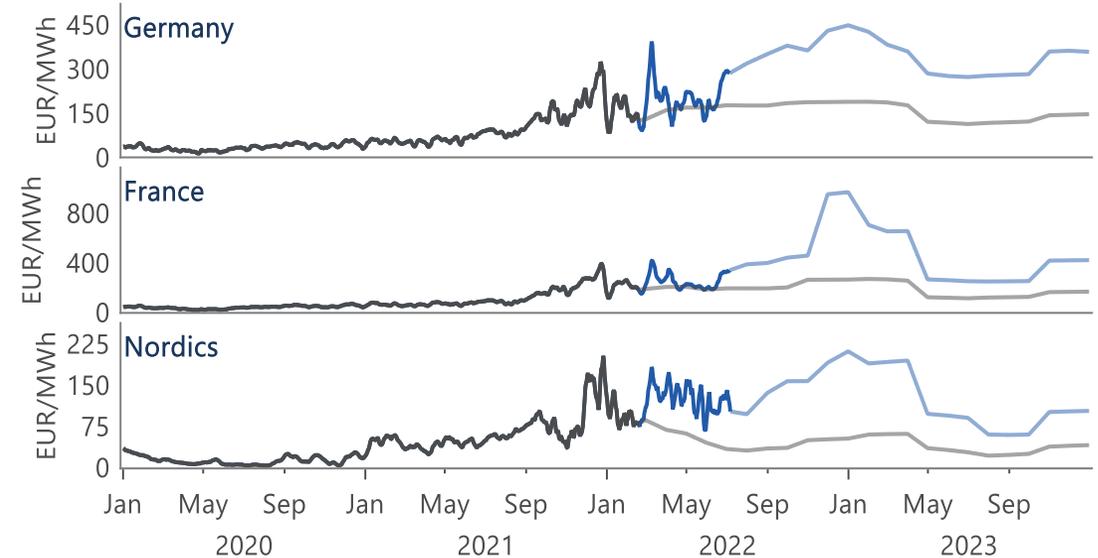


Source: Macrobond, BNY Mellon Investment Management, Bloomberg  
Data as of 7/6/2022

## Ukraine war causes electricity price surge across Europe

One-week moving average with futures curve faded

— 1 week before Russia's invasion of Ukraine — Today



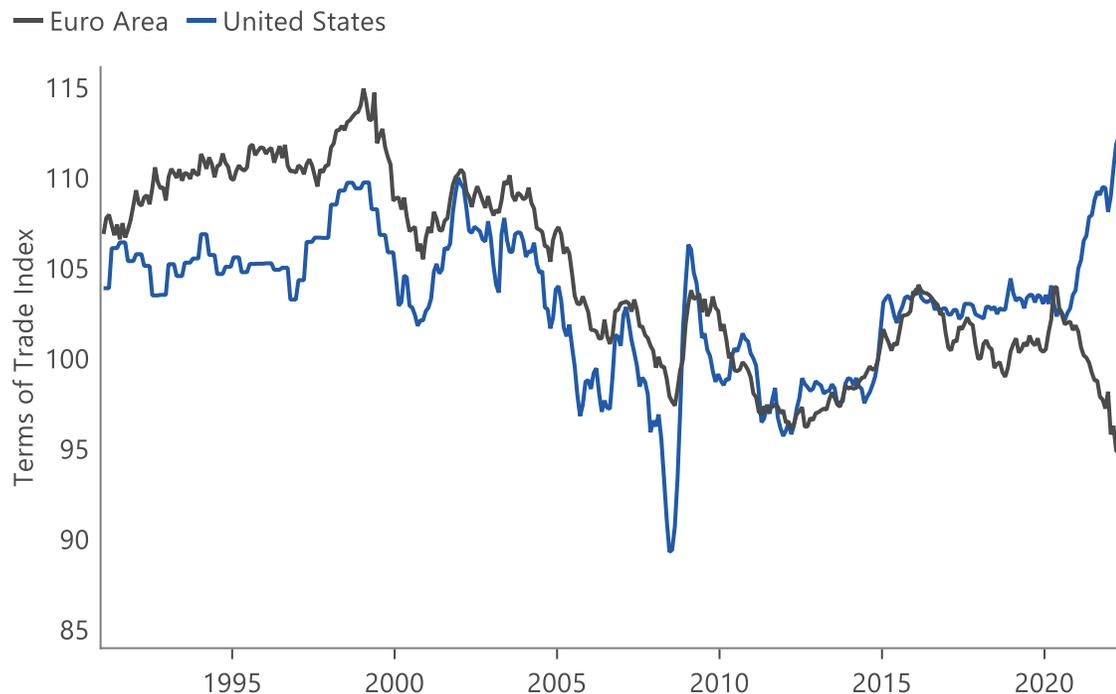
Source: Macrobond, BNY Mellon Investment Management, EEX (European Energy Exchange), Intercontinental Exchange (ICE), Nord Pool Spot  
Data as of 7/6/2022

Data as of July 6, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# Also grappling with a terms of trade shock & cost of living crisis

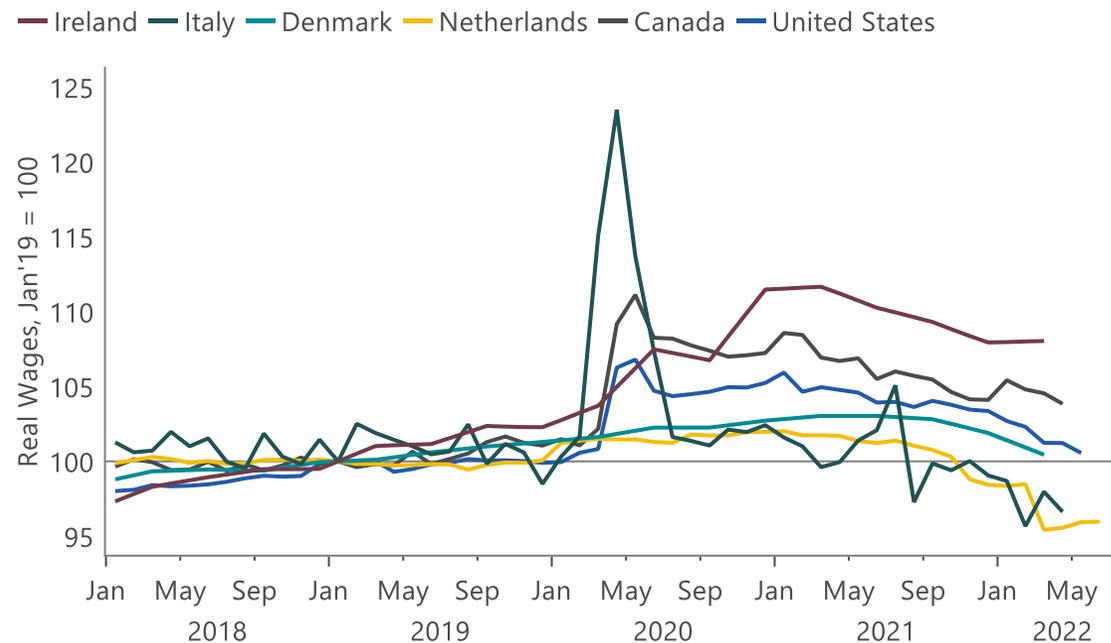
## US and Euro Area terms of trade



Source: Macrobond, BNY Mellon Investment Management, Netherlands Bureau for Economic Policy Analysis  
Data as of 7/6/2022

## Real wage growth stagnates amid rising inflation

National sources, rebased to 100 in Jan. 2019



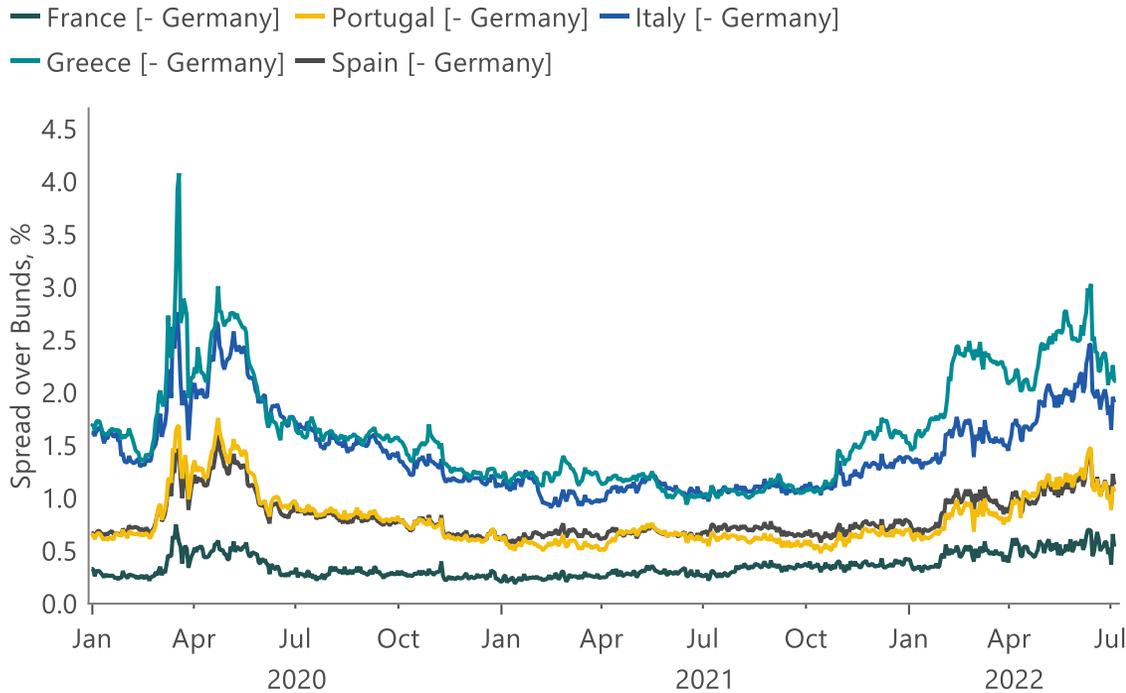
Source: Macrobond, BNY Mellon Investment Management, National Sources  
Data as of 7/7/2022

Data as of July 6, 2022. Source: Macrobond.

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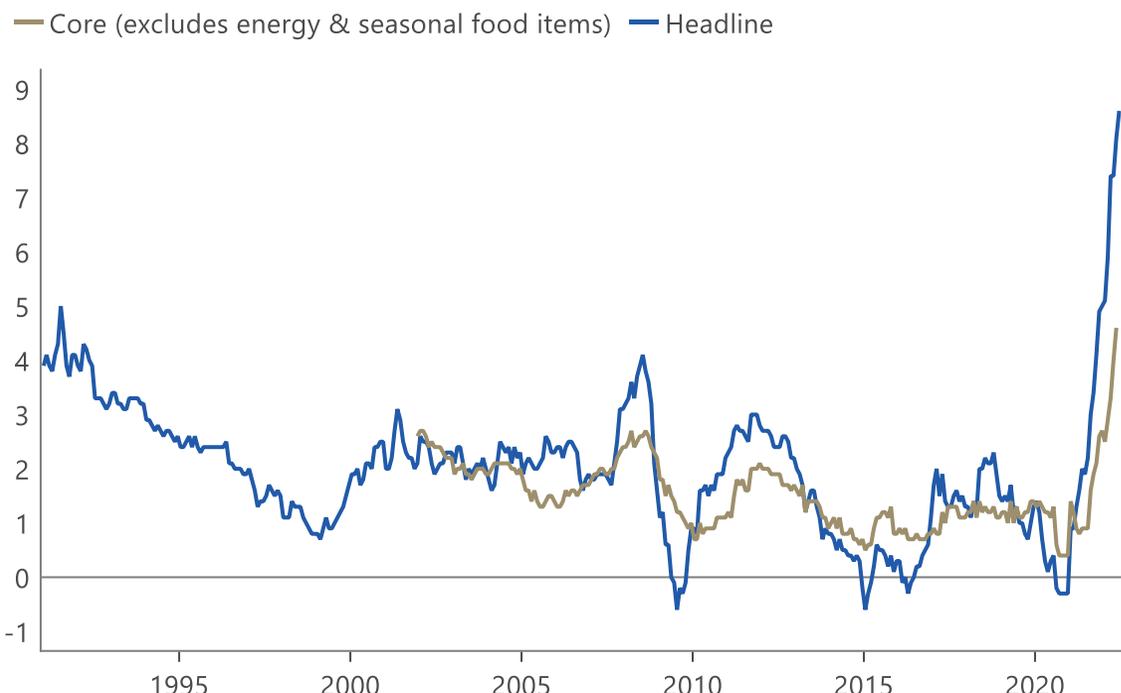
# Weakening growth, fragmentation risk & surging inflation places the ECB in a bind

## Euro area 10-year sovereign spreads to bunds



Source: Macrobond, BNY Mellon Investment Management, Macrobond Financial AB  
Data as of 7/6/2022

## Euro-Area Inflation: Headline & Core, y/y%



Source: Macrobond, BNY Mellon Investment Management, Eurostat  
Data as of 7/6/2022

ECB stands for European Central Bank. Data as of July 6, 2022. Source: Macrobond.

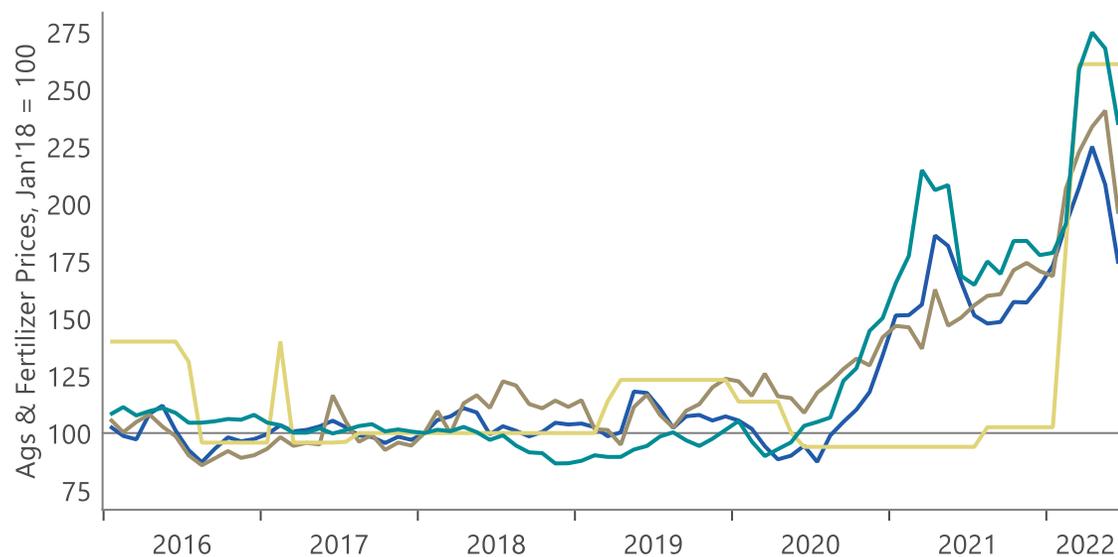
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# Ongoing Ukraine conflict has delayed, but not prevented, easing of commodity prices

## Black Sea Basin Agri Commodity & Fertilizer Prices

Rebased to 100 on Jan'18

— Sunflower Oil — Potash — Wheat — Corn

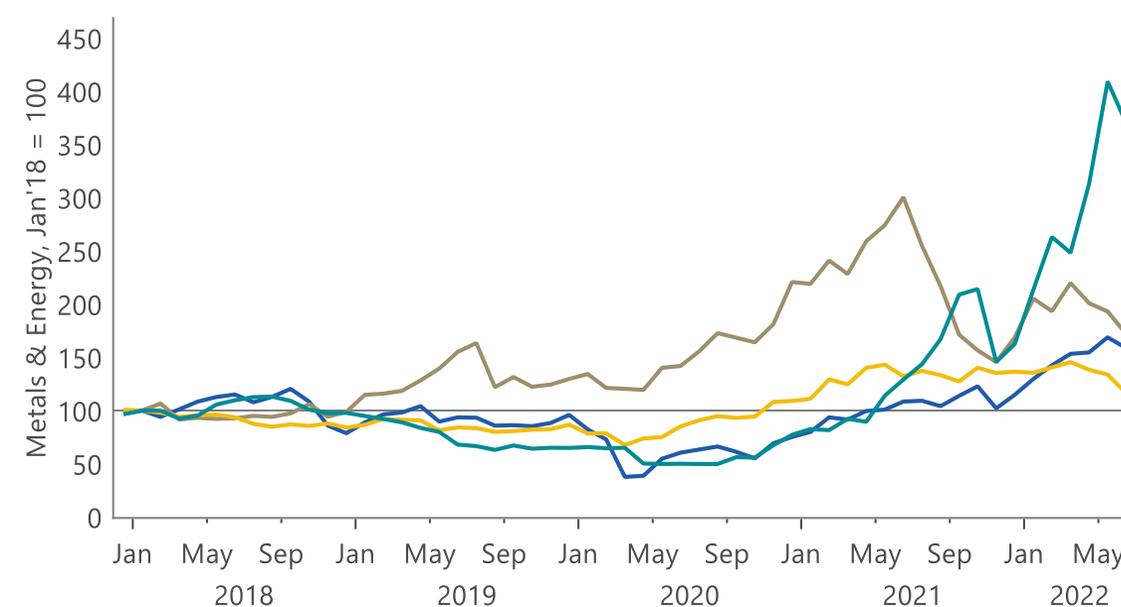


Source: Macrobond, BNY Mellon Investment Management, S&P Dow Jones Indices, World Bank, Hamburg Institute of International Economics (HWWI) Data as of 7/6/2022

## Industrials & Energy Commodity Prices

Rebased to 100 on Jan'18

— NewCastle Coal — Copper — Iron Ore (USD spot) — Brent (USD spot)



Source: Macrobond, BNY Mellon Investment Management, Bloomberg Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# Supply chain normalization will lower upstream & tradable goods price pressure

## New York Fed's Global Supply Chain Pressure Index Vs. U.S. & Chinese Producer Price Inflation

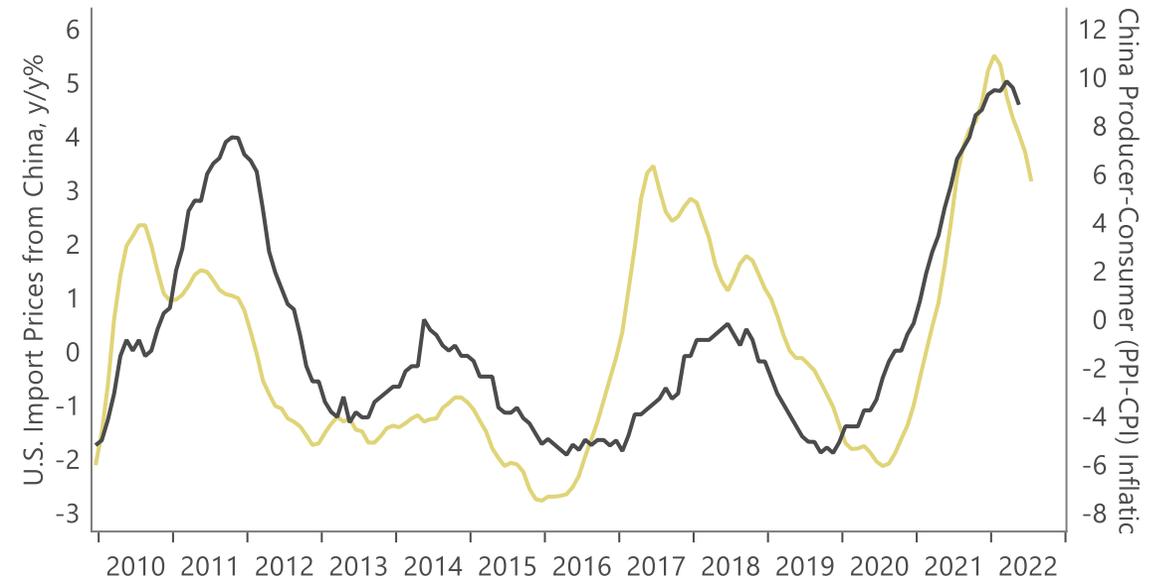
— Global Supply Chain Pressure Index, lhs  
— US PPI, rhs [c.o.p. 1 year, lead 4 obs]  
— China PPI, rhs



Source: Macrobond, BNY Mellon Investment Management, Federal Reserve Bank of New York, U.S. Bureau of Labor Statistics, China - National Bureau of Statistics  
 Data as of 7/6/2022

## U.S. Yearly Import Cost from China Vs. China's PPI - CPI Gap

— US import price from China, lhs  
— China PPI - CPI gap, lagged 2 obs, rhs



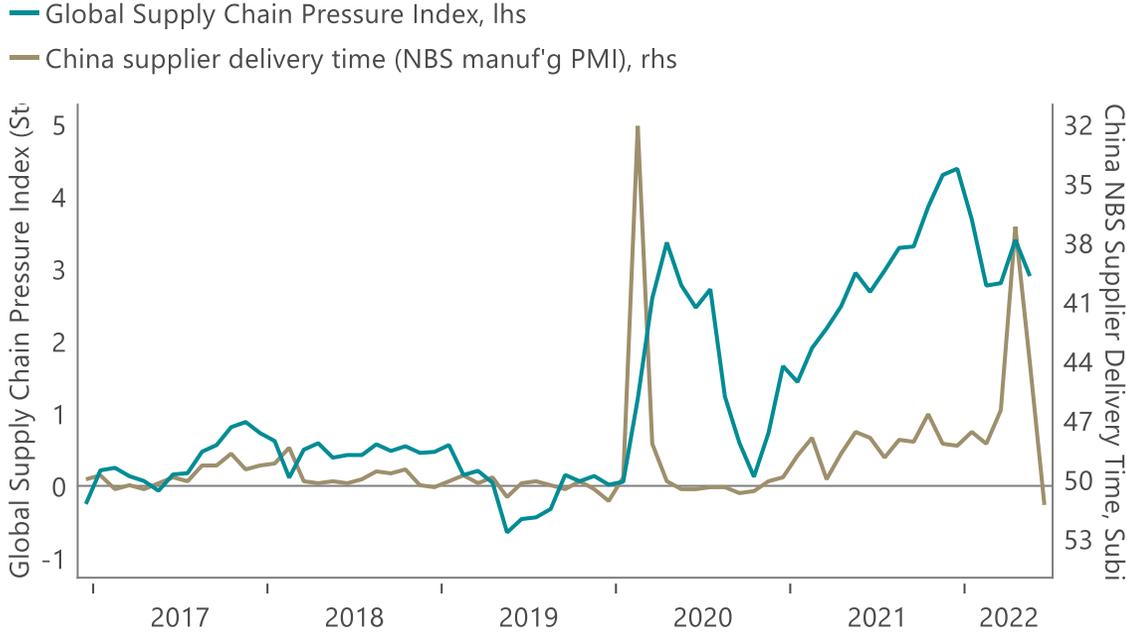
Source: Macrobond, BNY Mellon Investment Management, U.S. Bureau of Labor Statistics (BLS), China National Bureau of Statistics  
 Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

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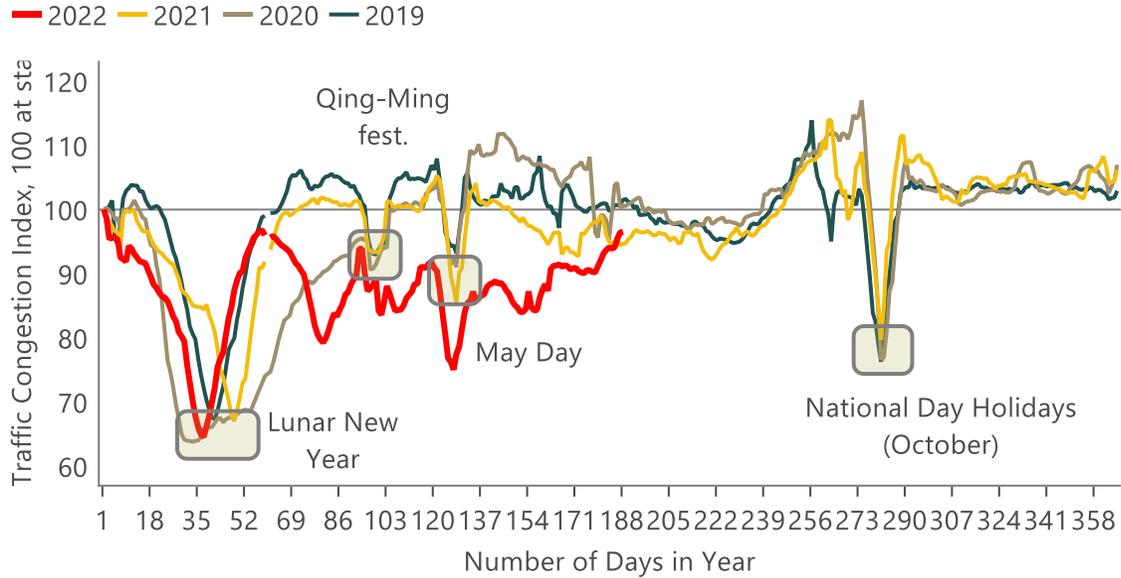
# China's easing lockdowns to help supply chains & activity, but Zero-covid still a risk

## New York Fed GSCPI vs China Delivery Times (NBS Manuf'g PMI)



Source: BNY Mellon IM, Macrobond, Federal Reserve Bank of New York, China-National Bureau of Statistics  
 Data as of 7/7/2022

## Traffic Congestion Index: Median of Shanghai, Shenzhen, Beijing, Guangzhou (sliced by year, 7D mov.avg.)



Source: BNY Mellon IM, Macrobond, China Ministry of Transport  
 Data as of 7/7/2022

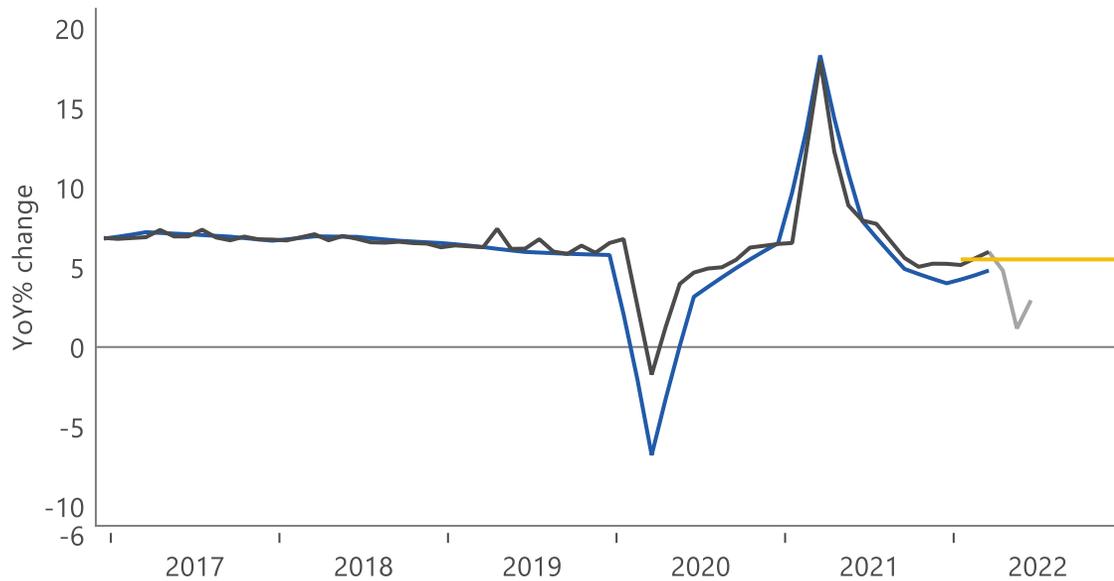
Latest data available as of July 6, 2022. Source: Macrobond.

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# After the Q2 slump, Chinese growth to pick-up sequentially but 5.5% target is too high

## China: GDP growth tracker --based on industrial output & retail sales

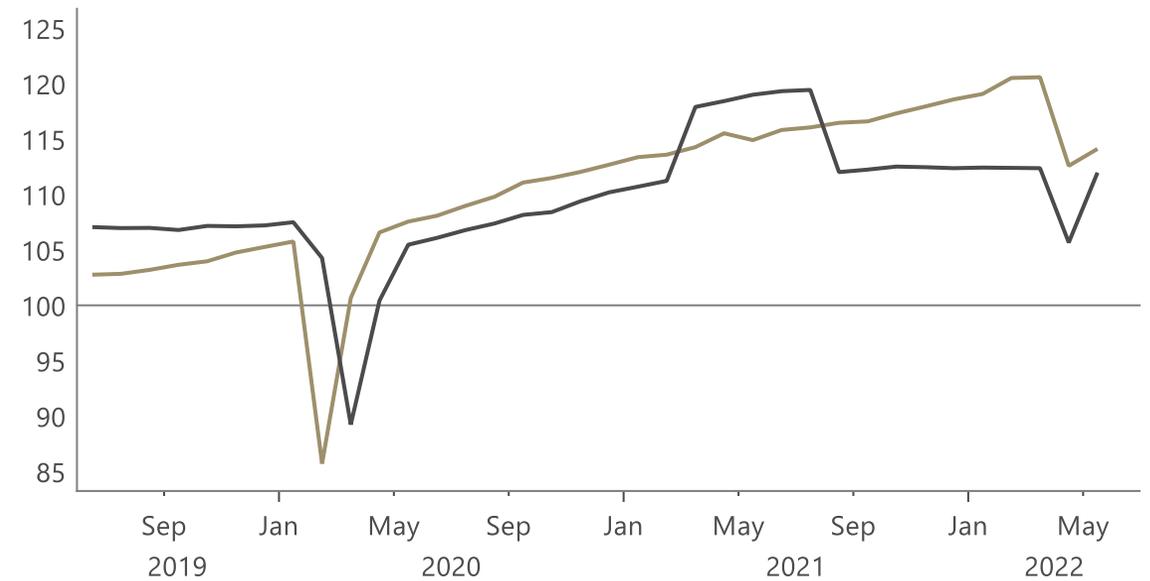
— Government GDP Growth target for 2022 — Estimated GDP growth — GDP growth



Source: Macrobond, BNY Mellon Investment Management, China National Bureau of Statistics (NBS)  
Data as of 7/6/2022

## China: Industrial Production & Retail Sales (seasonally adjusted, Nov'19=100)

— Retail Sales — Industrial Production

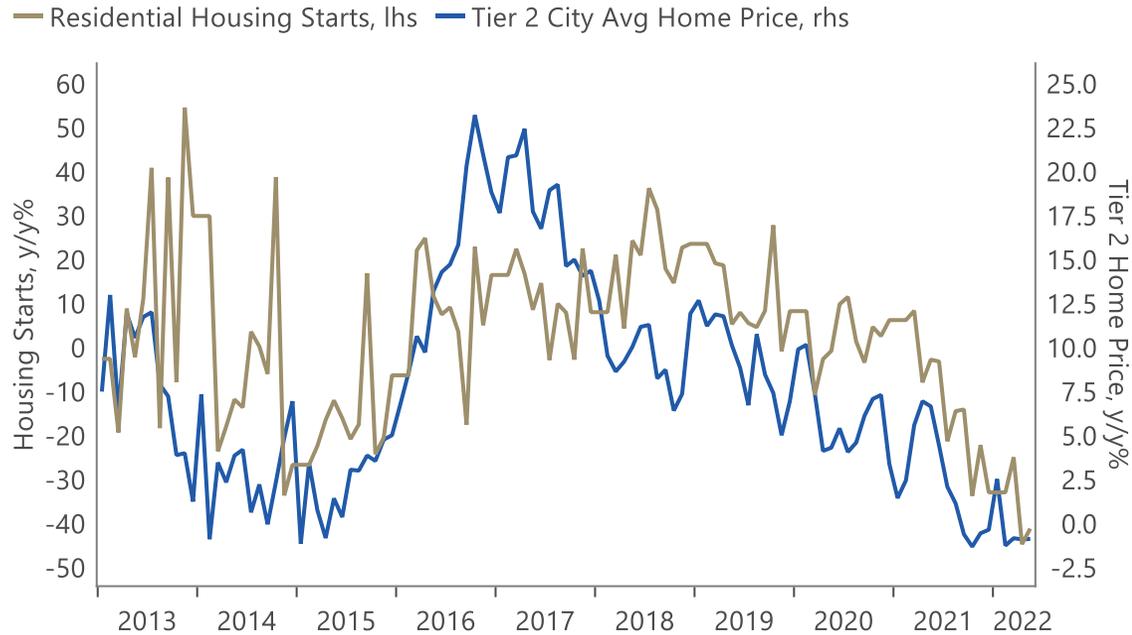


Source: Macrobond, BNY Mellon Investment Management, China National Bureau of Statistics (NBS)  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

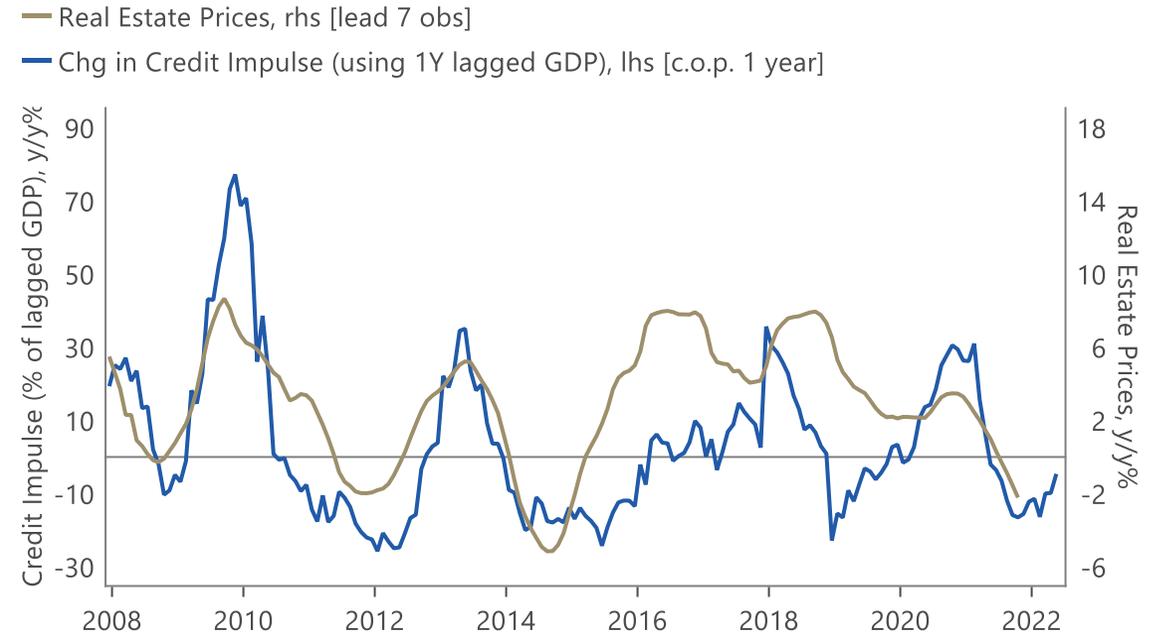
# Real estate still exerts a sizable drag on China growth; infra-credit will struggle to offset

## China: Residential Housing Starts & Tier-2 Home Prices, y/y%



Source: Macrobond, BNY Mellon Investment Management, SouFun-CREIS, China National Bureau of Statistics Data as of 7/6/2022

## China: Change in Credit Impulse & Change in Real Estate Prices (y/y%)



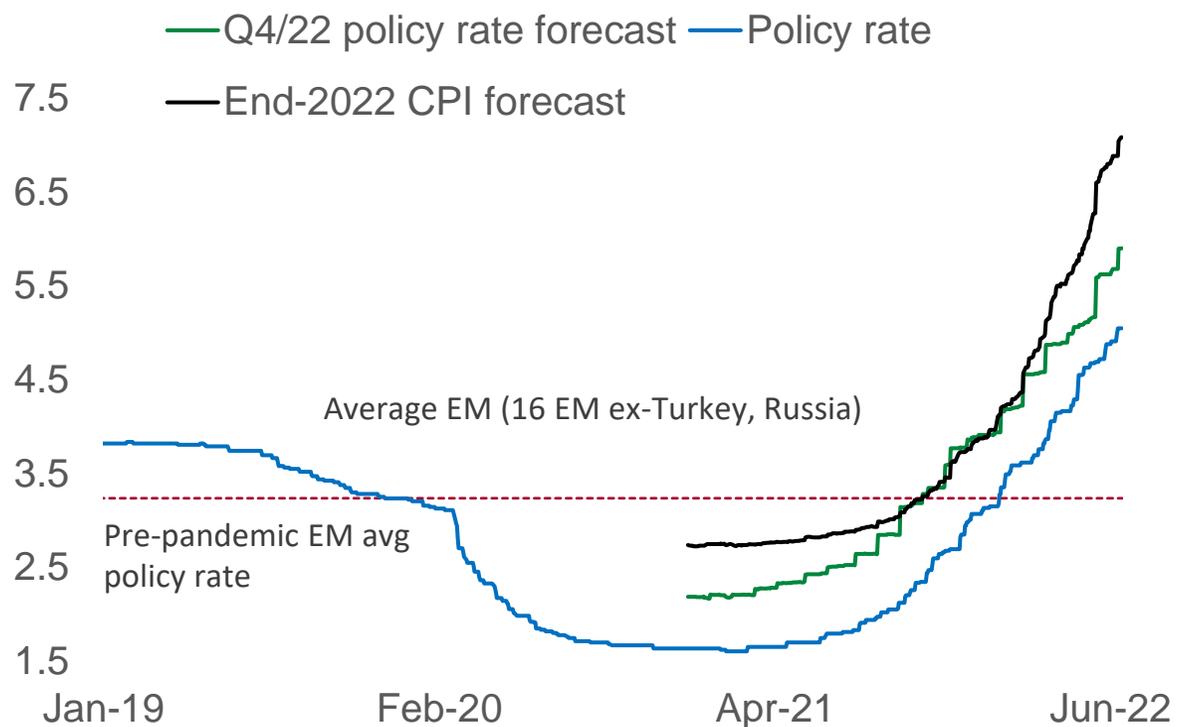
Source: Macrobond, BNY Mellon Investment Management, People's Bank of China (PBoC), China National E Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

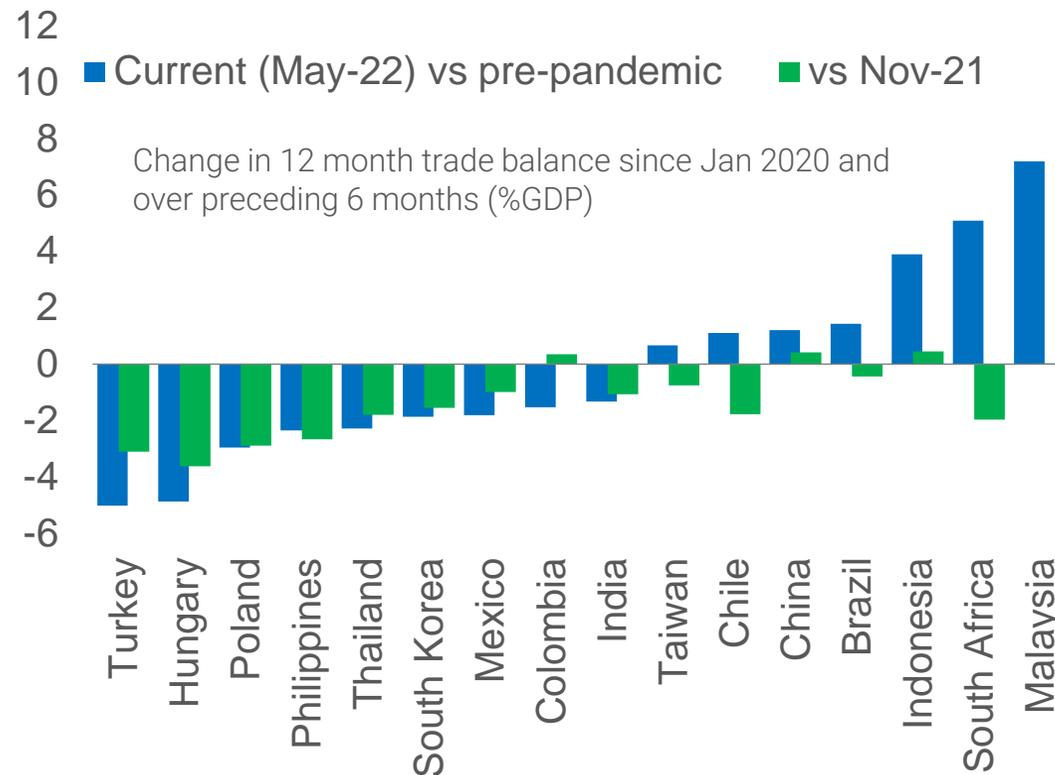
Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# Global drivers dominate EM sentiment; commodity exporters diverge from rest

## EM CPI and Policy Rate



## EM Trade Balance: commodity exporters win



Latest data available as of June 29, 2022. Source: Bloomberg and TS Lombard.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# Our scenarios

40%

PROBABILITY

## Scenario 1 – Best Case

SCENARIO

- Ukraine conflict becomes localized, or winds down
- Energy and food price spikes abate
- China manages zero-covid more efficiently and its 2H'22 recovery + east Asia re-opening normalizes supply chains quickly
- U.S. wages weaken modestly, but labor markets and consumption hold up
- Nominal spending remains robust as households dip into 'excess saving' pots to offset impact of higher living costs
- Monetary policy tightens gradually
- Market liquidity returns, risk assets shift higher into 2023

30%

PROBABILITY

## Scenario 2 – Real Recession in 2022

SCENARIO

- Conflicts broadens or intensifies
- Geo-political fragmentation implies prolonged energy and food price shocks
- China's zero-covid efforts splutter & rest of Asia is slow to normalize upstream production
- Retail price spikes persist, cost-of-living crisis pushes major economies into recession
- Core inflation comes off in early 2023
- Major central banks pivot to easing early next year
- Market liquidity and sentiment stay sluggish, risk assets take longer to rebound



# Vantage Point

30%

PROBABILITY

## Scenario 3 – Monetary Recession by 2023

SCENARIO

- Ukraine conflict & tight supply chains lurk in the background, but...
- U.S. demand remains in rude health
- Wage-price spiral worsens, inflation broadens and becomes persistent
- Fed forced into raising rates much higher, to more than 4%
- USD strengthens, equity markets sell off, and financial conditions tighten sharply
- Global growth takes a large hit, and which ultimately slows inflation
- But asset prices stay suppressed for longer, with a recovery only in 2024

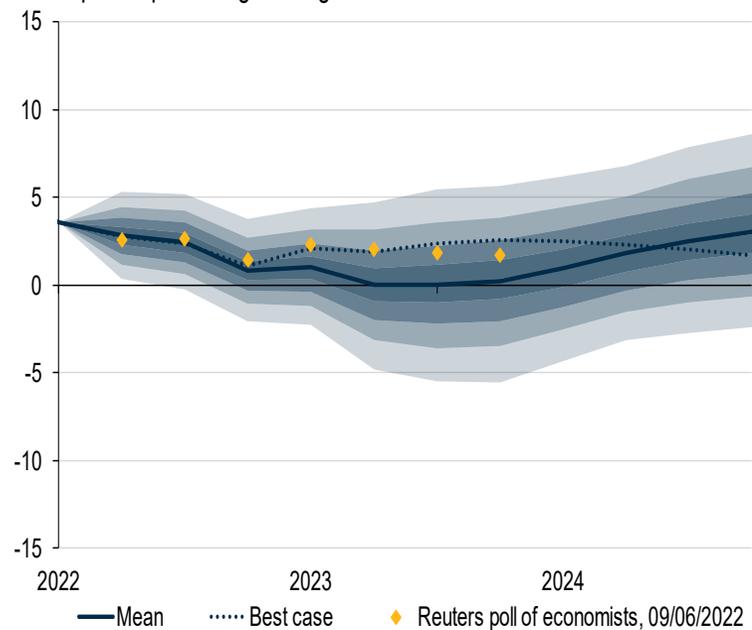
Source: BNY Mellon Global Economics and Investment Analysis (GEIA); for detailed information on each scenario, please see latest Vantage Point report for Q3 2022.

Projections or forecasts regarding future event, targets or expectation, are only current as of the date indicated. There is no assurance that such events or expectations will be achieved, and actual results may be significantly different.

# Growth forecasts – the slowdown is likely be greater than median expectations

## US GDP

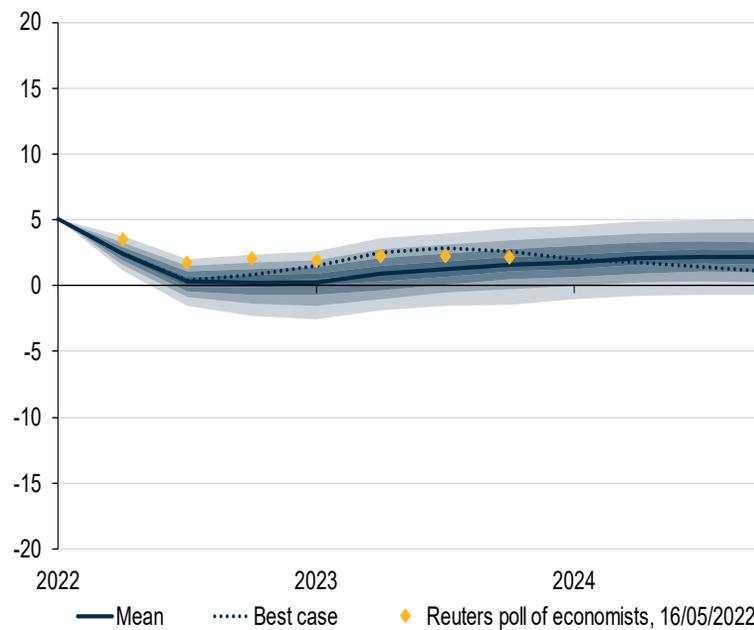
Four-quarter percentage changes



Source: Refinitiv Datastream / Fathom Consulting

## Euro area GDP

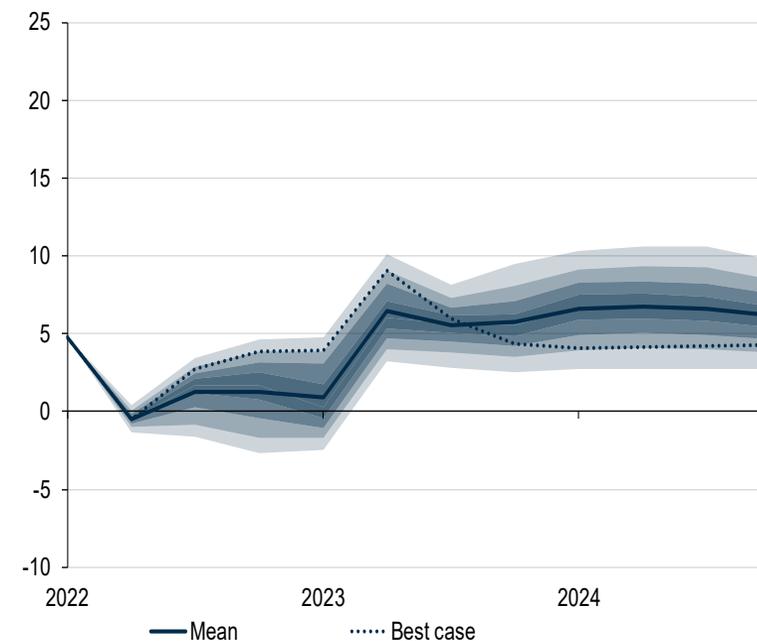
Four-quarter percentage changes



Source: Refinitiv Datastream / Fathom Consulting

## China GDP

Four-quarter percentage changes



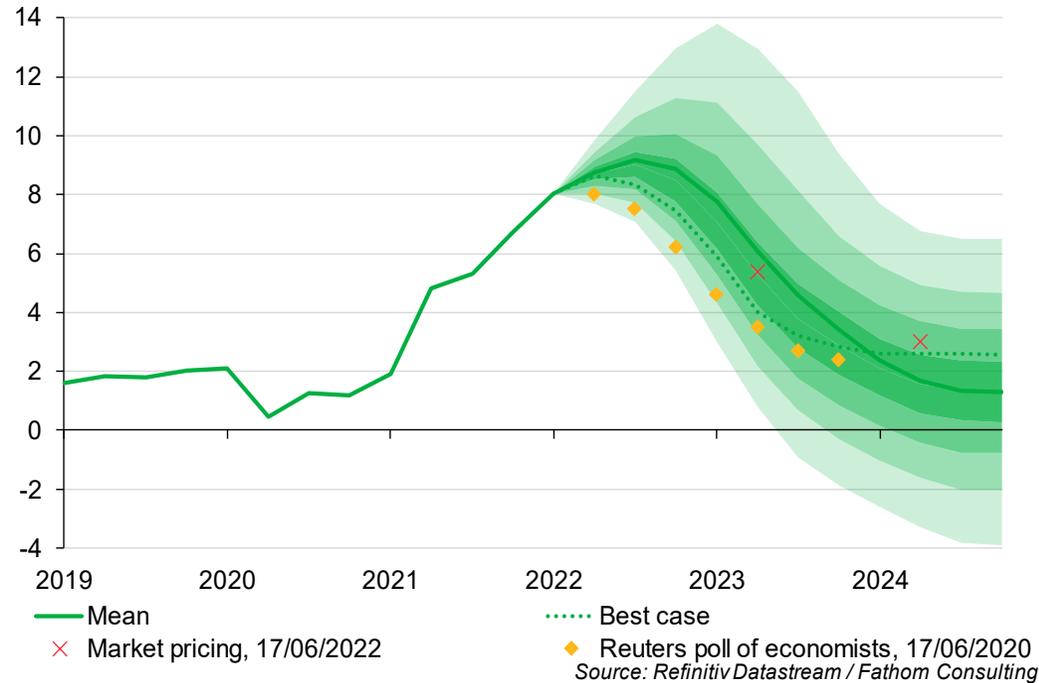
Source: Fathom Consulting

Forecasts begin in Q2 2022 and were calculated as of June 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the best case scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 80% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above, this shows the balance of risks lies to the downside. Source: Fathom Consulting and BNY Mellon Global Economics and Investment Analysis Team. Data as of 20 June 2022.

# Inflation Forecasts – US price growth will slow more gradually than expected

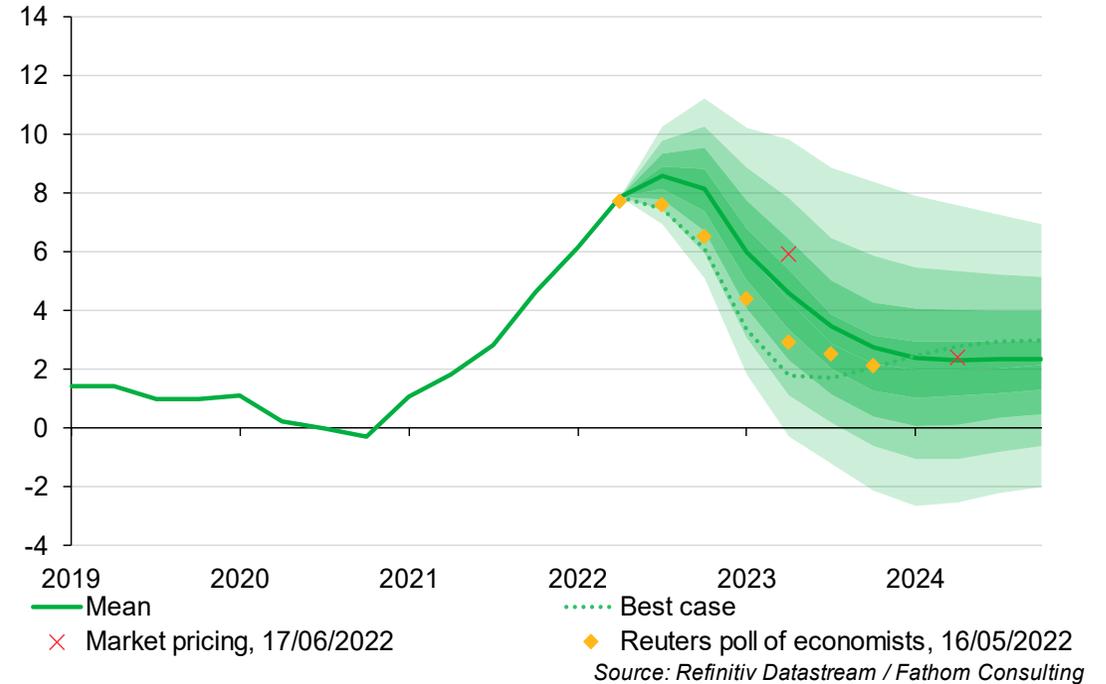
## US CPI

Four-quarter percentage changes



## Euro area CPI

Four-quarter percentage changes

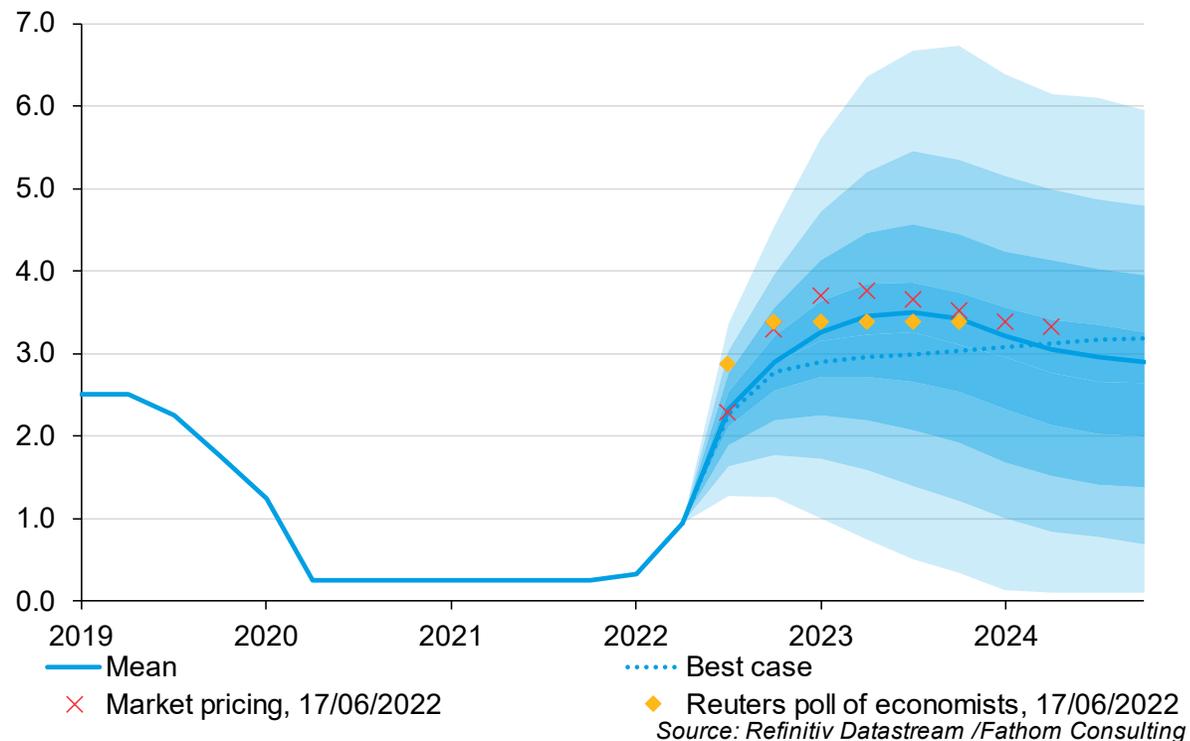


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# Monetary Policy Forecasts – policy will likely remain tight for some time

## US federal funds rate

Per cent



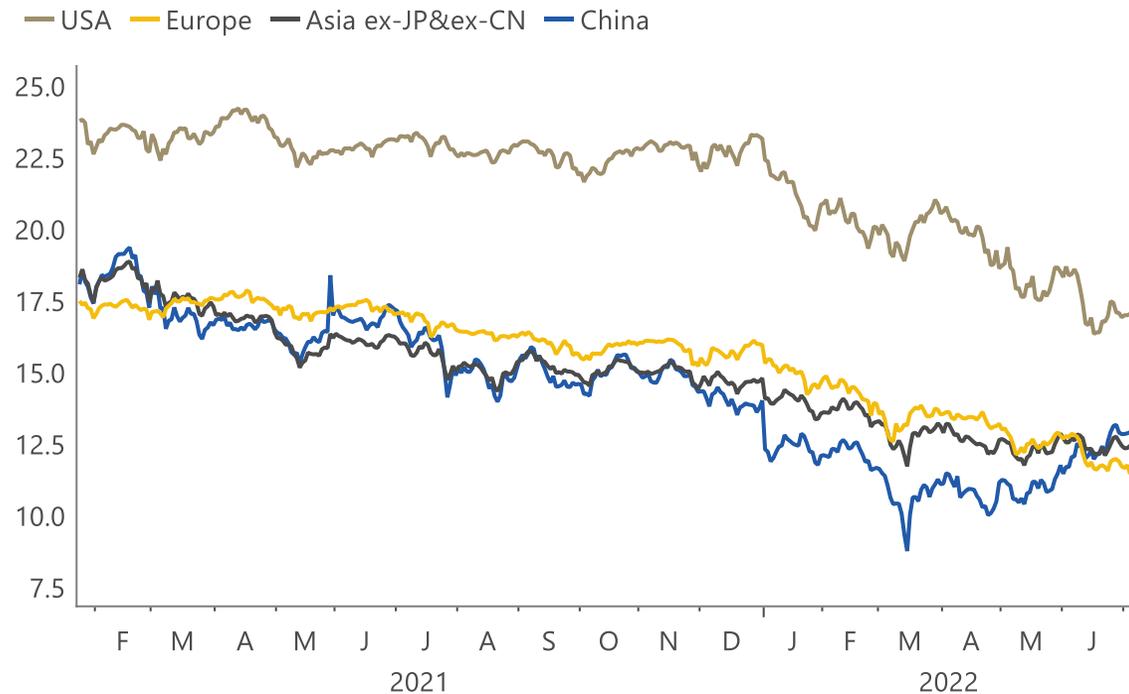
Forecasts begin in Q2 2022 and were calculated as of June 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the best case scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 80% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above, this shows the balance of risks lies to the downside. Source: Fathom Consulting and BNY Mellon Global Economics and Investment Analysis Team. Data as of 20 June 2022.



# Market pricing and performance

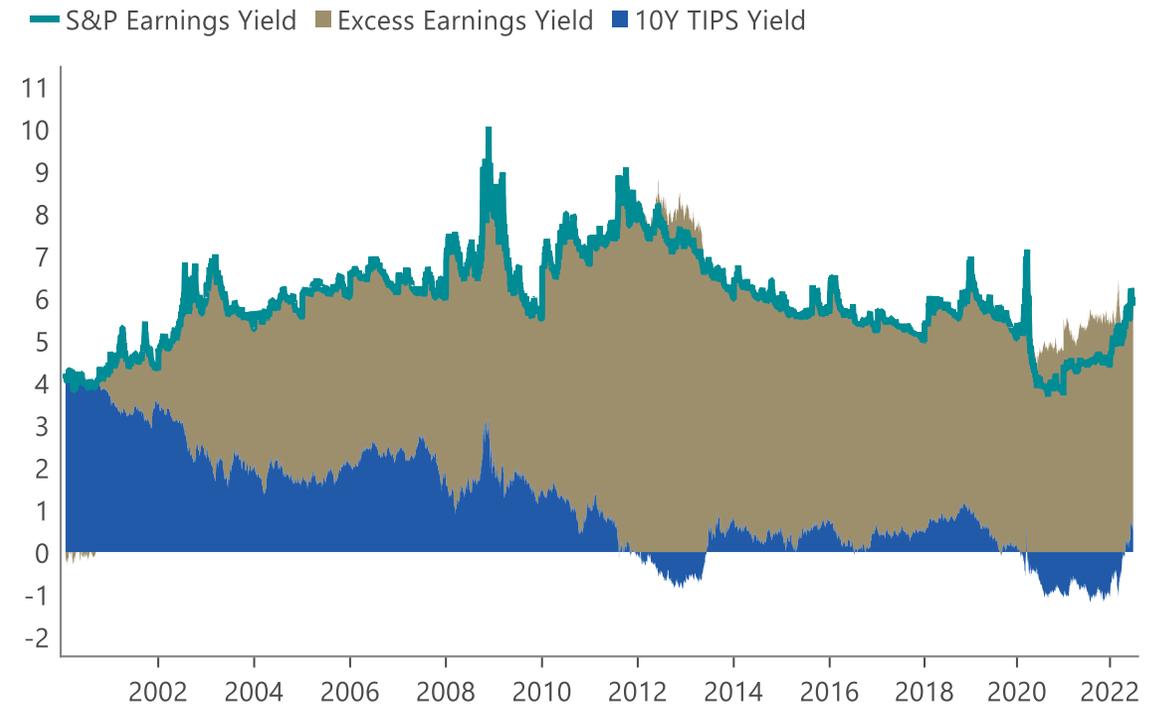
# Equity valuations under significant pressure as real yields push higher

## MSCI Equity Indices - Forward Price-Earnings Ratios



Source: Macrobond, BNY Mellon Investment Management, Bloomberg  
Data as of 7/6/2022

## Decomposition of S&P500 Earnings Yield



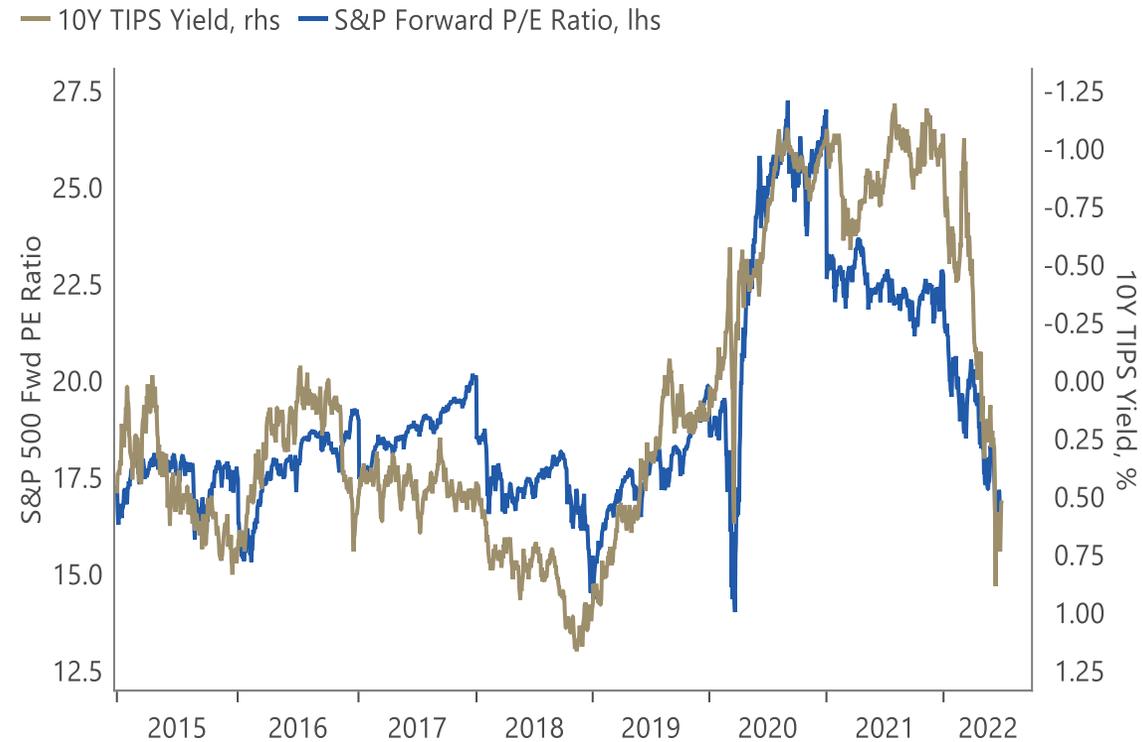
Source: Macrobond, BNY Mellon Investment Management, U.S. Department of Treasury  
Data as of 7/6/2022

PE: price to earnings ratio. Data as of July 6, 2022. Source: JP Morgan and Macrobond.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

# Also vulnerable to tighter Fed policy, and an overshoot in real yields

## S&P Forward P/E Ratio Vs. 10-Year Real Yield



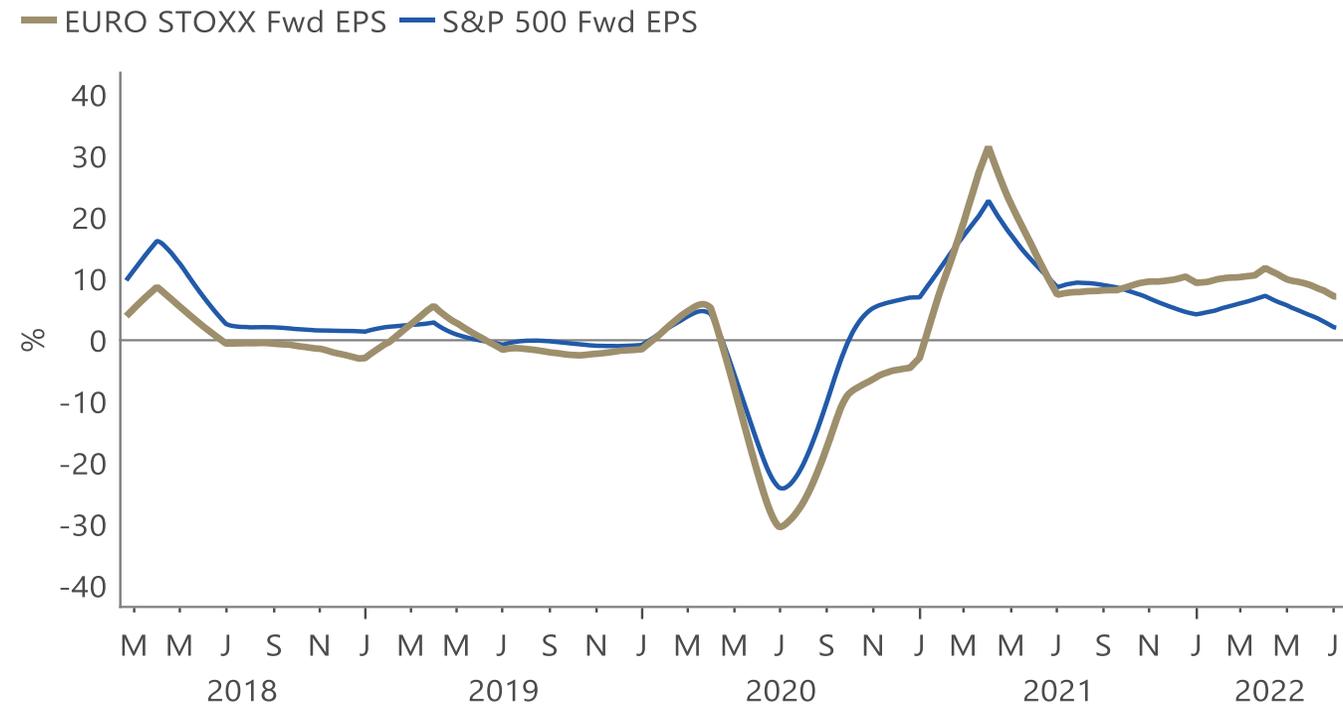
Source: Macrobond, BNY Mellon Investment Management, U.S. Department of Treasury  
Data as of 7/6/2022

PE: price to earnings ratio. Data as of July 6, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not indicative of the past or future performance of any BNY Mellon product.

# Earnings remain supportive but estimates are softening

## S&P500 & EURO STOXX Change in Quarterly Earnings (%)



Source: BNY Mellon IM, Macrobond, Bloomberg  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

# Breadth continued weakening steadily in the second quarter

% of stocks above 200-day moving average

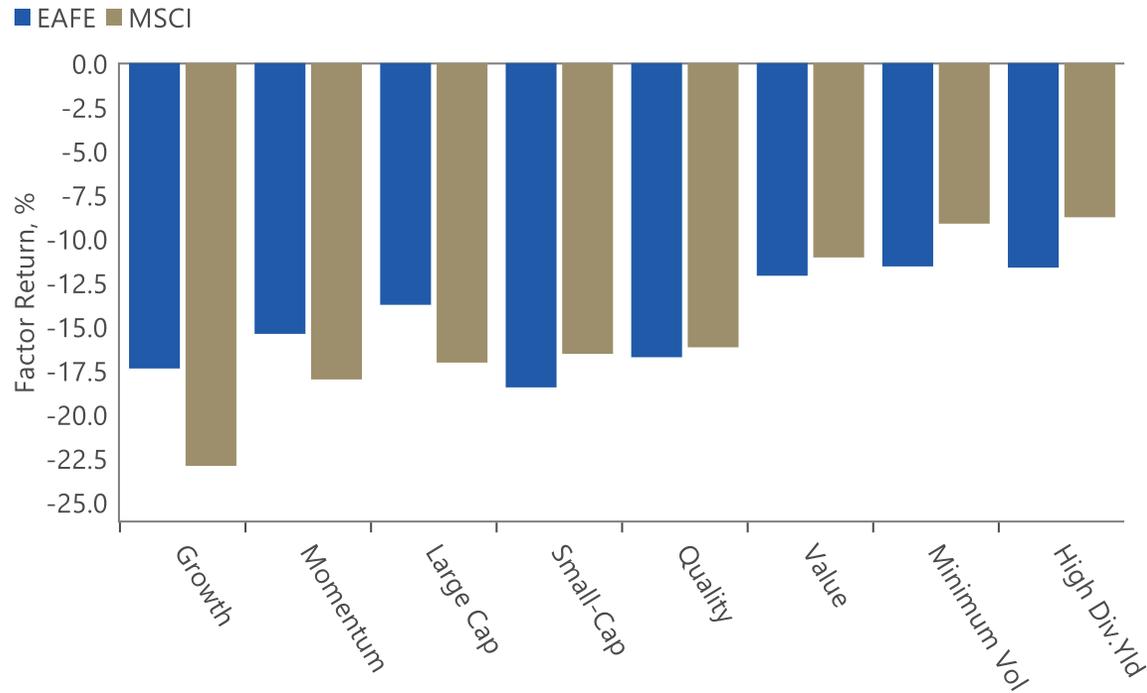


Source: Macrobond, BNY Mellon Investment Management,  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

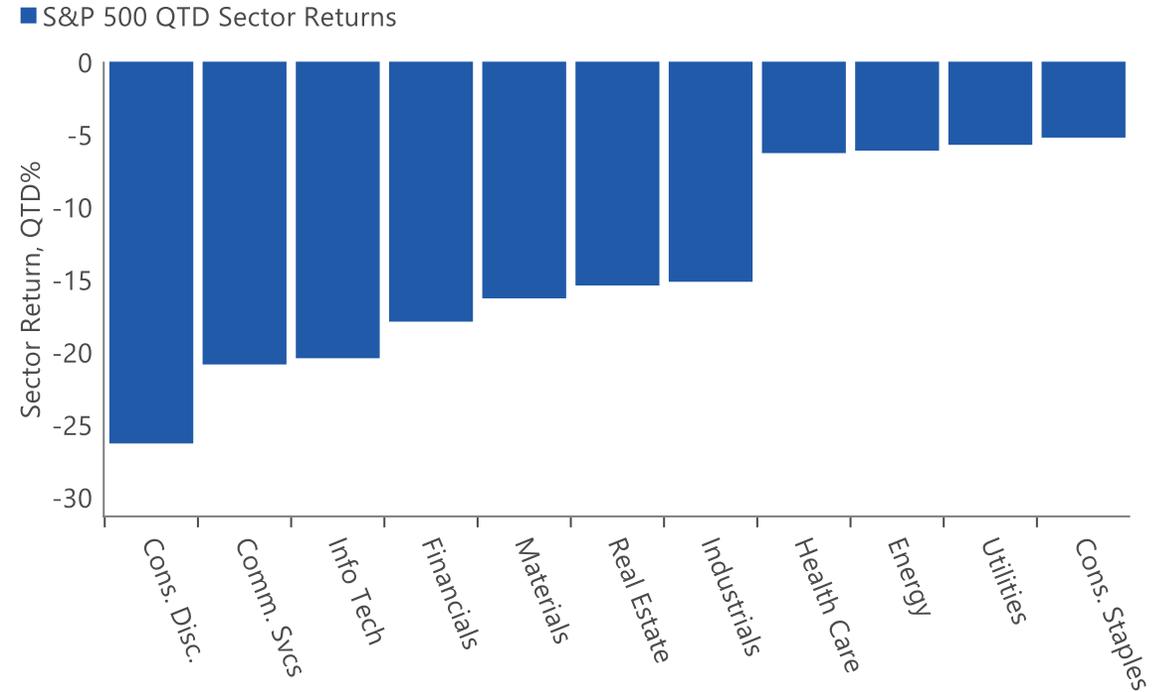
# High-dividend yield, low volatility factors and consumer staples, utilities led in Q2'22

## MSCI US Vs. EAFE: QTD Factor Returns (%)



Source: Macrobond, BNY Mellon Investment Management, MSCI  
Data as of 7/7/2022

## S&P 500 QTD Sector Returns (%)



Source: BNY Mellon, Macrobond, Bloomberg  
Data as of 7/7/2022

Latest data available as of July 7, 2022 for both charts. Source: Macrobond.

# Chinese equities have been a bright spot since May

## MSCI China vs. MSCI EM ex-China

### EM & Chinese Equities (rebased to 100, Jan'22)



Source: Macrobond, BNY Mellon Investment Management,  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

# Interest rate implied volatility increased on higher macro & policy uncertainty

## 1Y1Y Swaption Implied Volatility

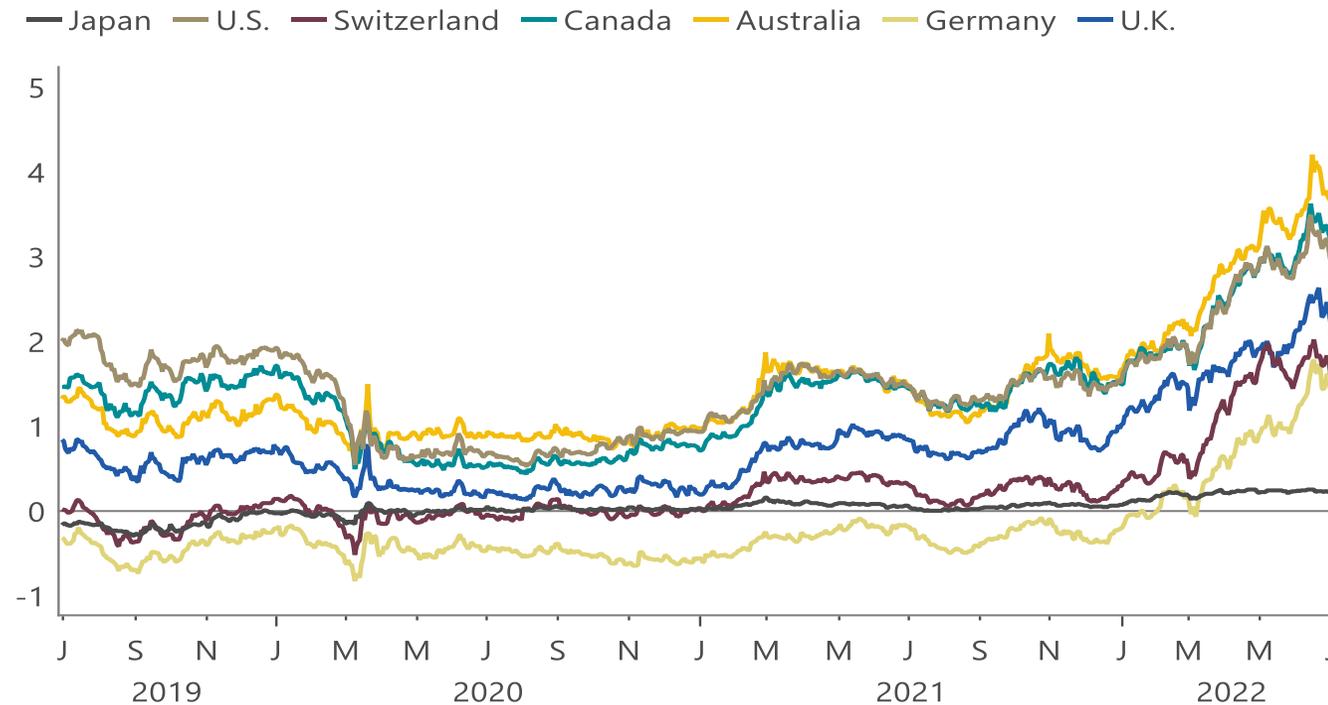


Source: Macrobond, BNY Mellon Investment Management,  
Data as of 7/6/2022

A swaption is an option granting its owner the right but not the obligation to enter into an underlying swap. Latest data available as of July 6, 2022. Source: Macrobond.

# Developed market sovereign yields continued to trend higher, except for Japan

## Government Benchmarks, 10 Year, Yield



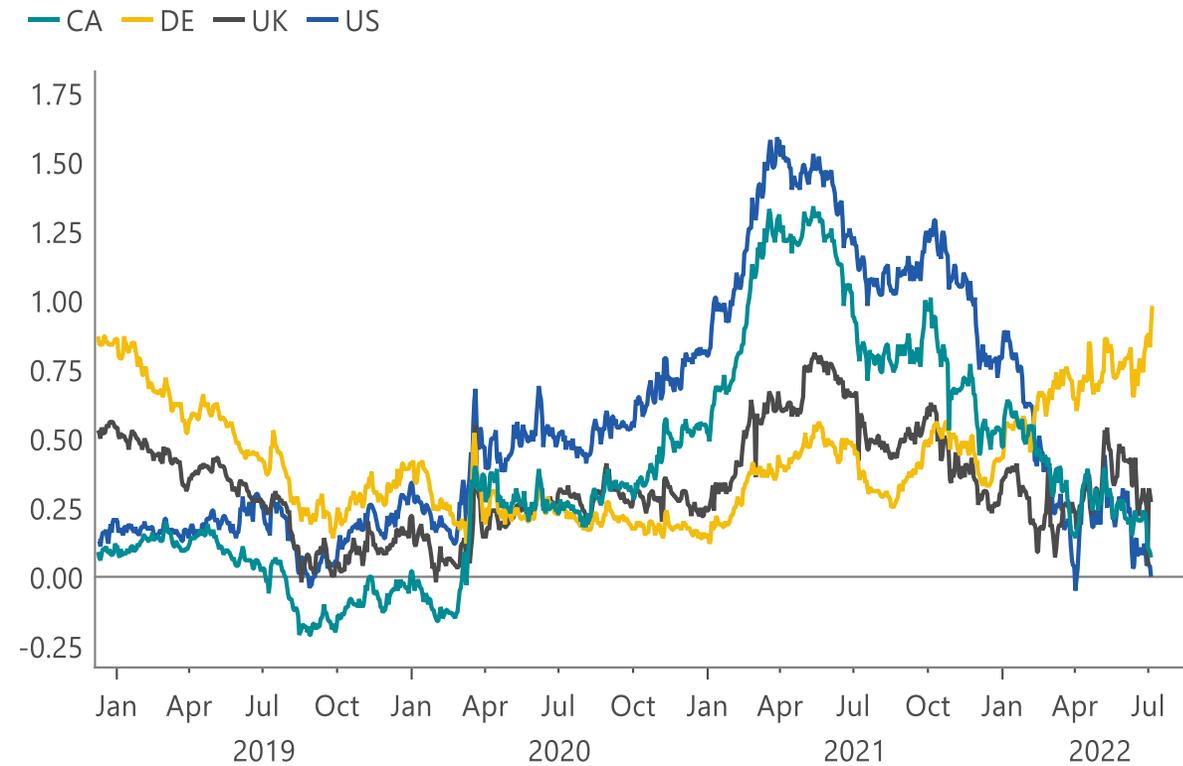
Source: Macrobond, BNY Mellon Investment Management  
Data as of 7/7/2022

Latest data available as of July 7, 2022. Source: Macrobond

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# But yield-curves re-flattened signaling tighter policy & rising recession risk

## Government Benchmarks, 10y - 2y Yield Spread



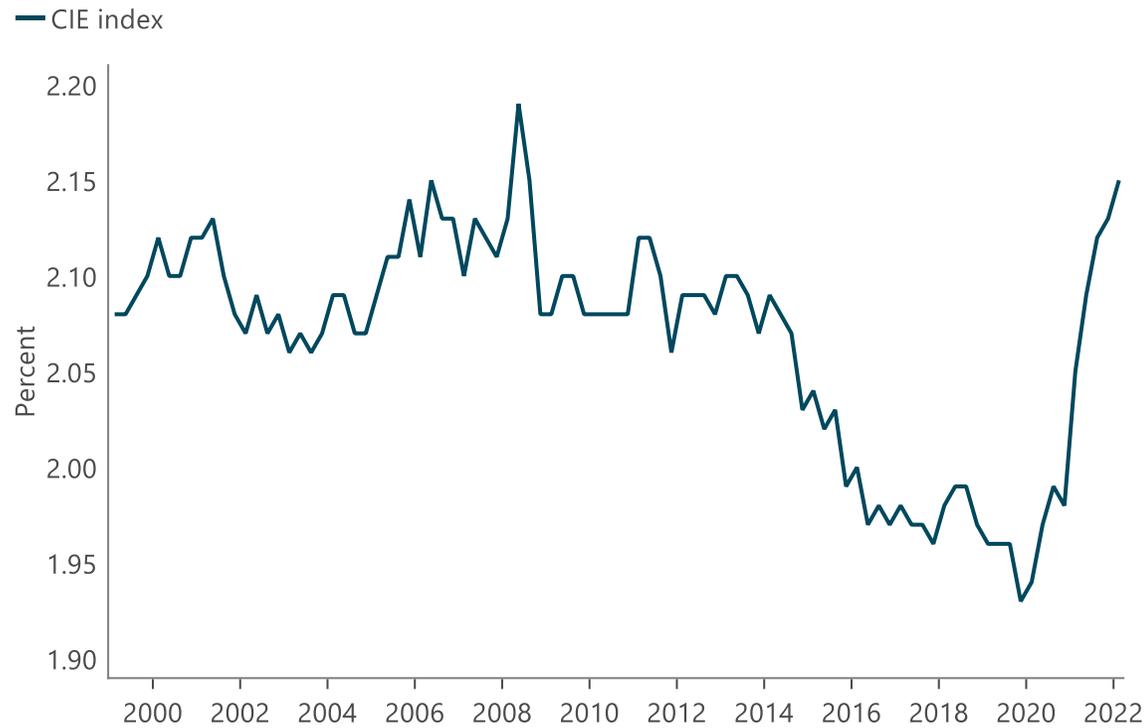
Source: Macrobond, BNY Mellon Investment Management, Bloomberg  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

# Inflation expectations are key for what may happen to real rates

Inflation expectations have increased to uncomfortable levels. Households appear willing to tolerate inflation between -1% and 3%. But when current inflation moves above 3%, expected inflation turns up

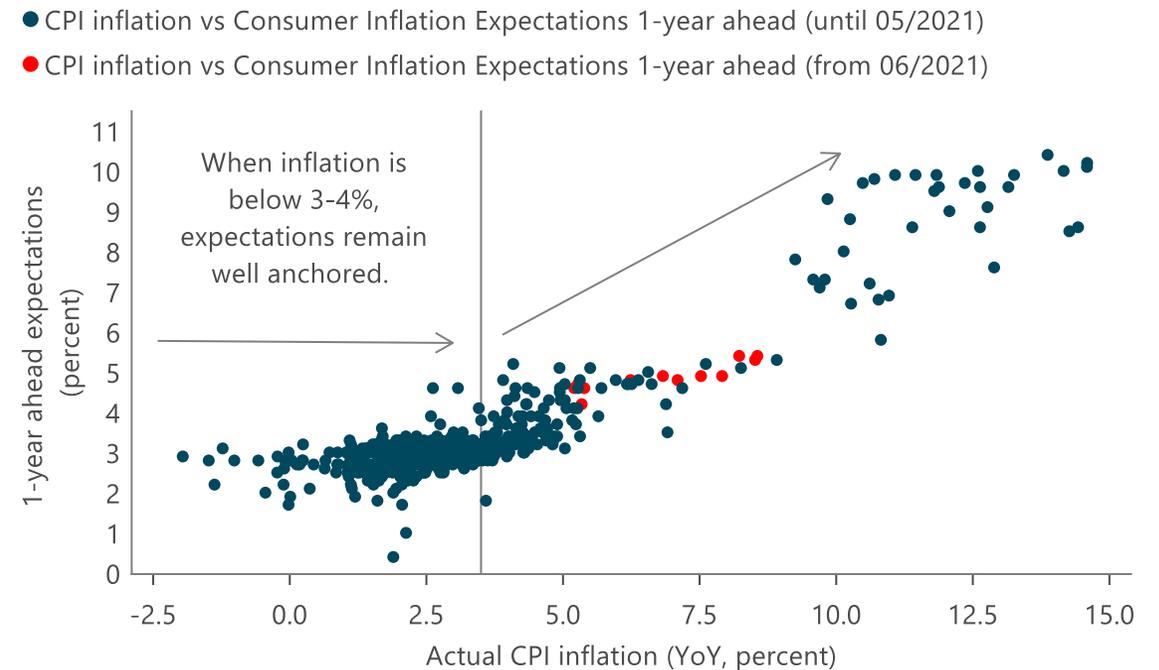
## The Fed's Index of Common Inflation expectations



Source: Macrobond, Federal Reserve

Latest data available as of March 30, 2022. Source: Macrobond.

## US Shorter-term Consumer Inflation Expectations are Rising in Line With the Rise in Actual Inflation



Source: BNY Mellon Investment Management, Macrobond. Data as of 07/07/2022.

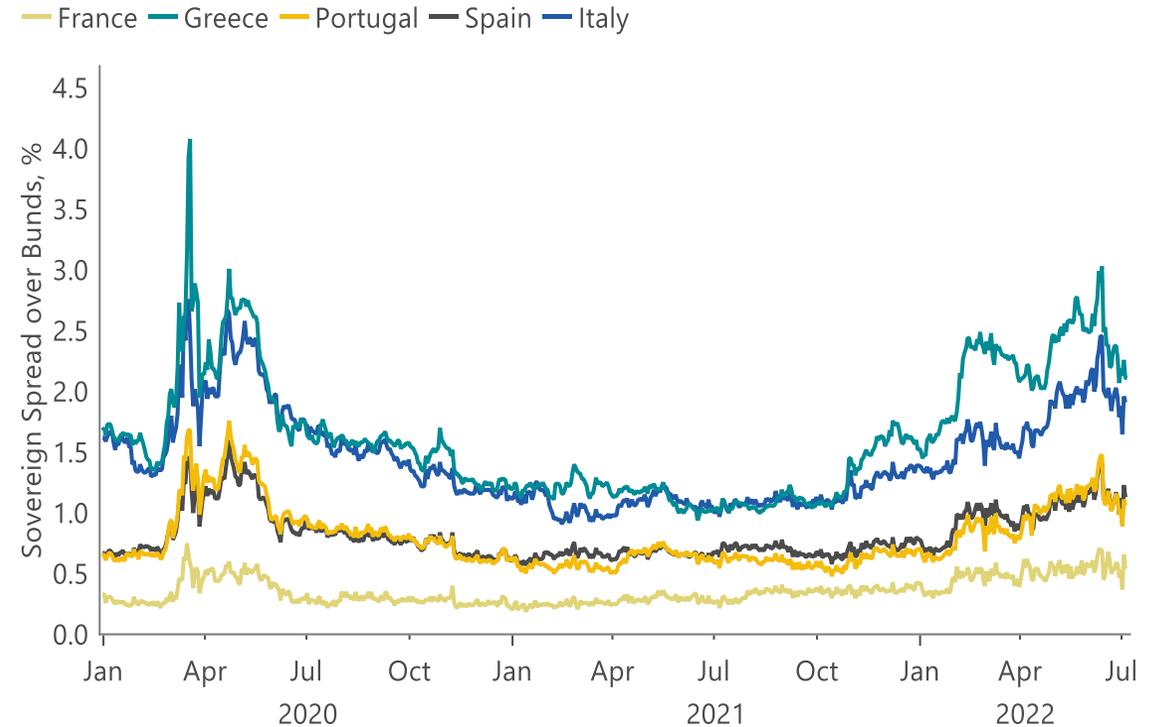
# More risk is now priced into credit markets and Europe periphery bonds

## U.S. Investment Grade & High Yield Corporate Spreads, %



Source: Macrobond, BNY Mellon Investment Management, Data as of 7/6/2022

## Euro area 10-year sovereign spreads to bunds

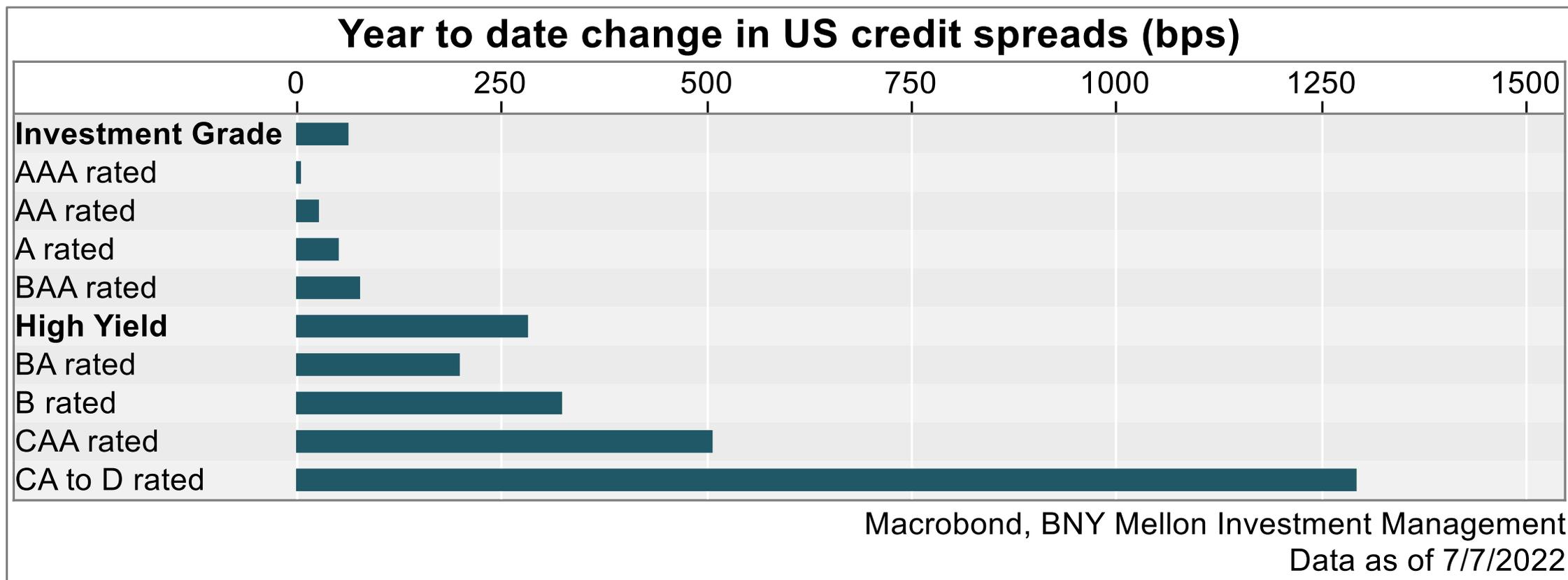


Source: Macrobond, BNY Mellon Investment Management, Data as of 7/6/2022

HY: high yield. IG: investment grade. \*OAS: option adjusted spread. \*\*Bunds are another way to describe German 10-year government bond yields. Data as of July 6, 2022. Source: Macrobond.

# Spreads widened through Q2 2022, with B-rated & below widening the most

## USD corporate credit spreads since 2000



Latest data available as of June 7, 2022. Source: Macrobond.

Charts are provided for illustrative purposes and are not a reliable indicator of current or future performance

# FX & rates volatility have risen on widening policy differentials and stronger USD

## USDJPY Vs. 10Y US Treasury - 10Y Japanese Gov't Bond Yield Differential

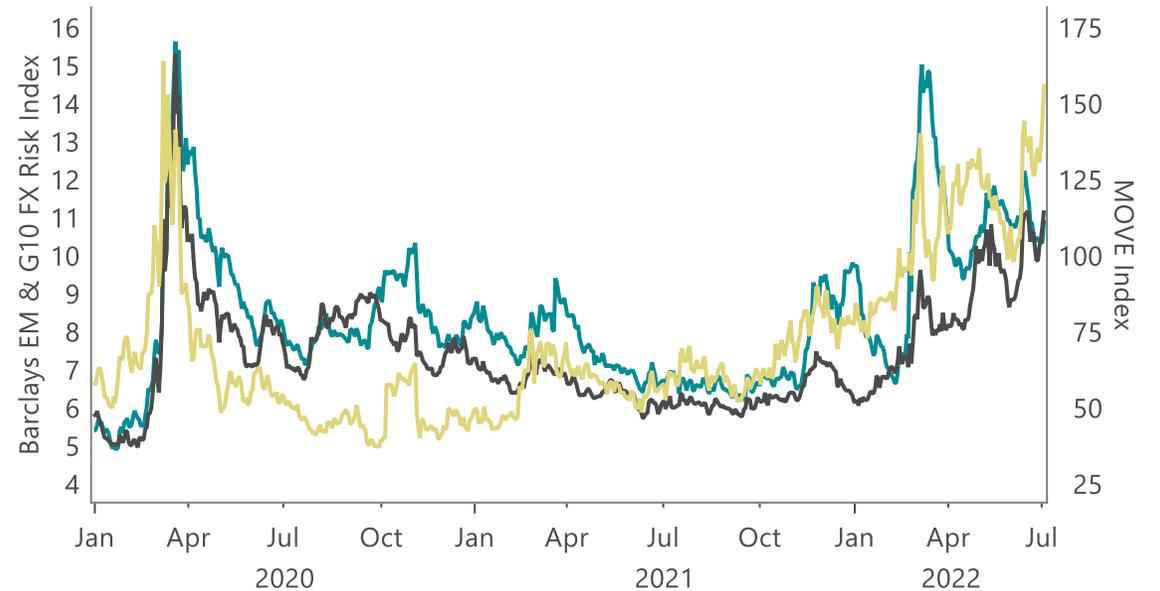
— Yield Differential 10Y UST-10Y JGB, rhs — USDJPY, lhs



Source: Macrobond, BNY Mellon Investment Management  
Data as of 7/6/2022

## FX Risk & Bond Market Volatility Indices

— ICE BofA MOVE Index, rhs — Barclays EM FX Risk Index, lhs  
— Barclays G10 FX Risk Index, lhs



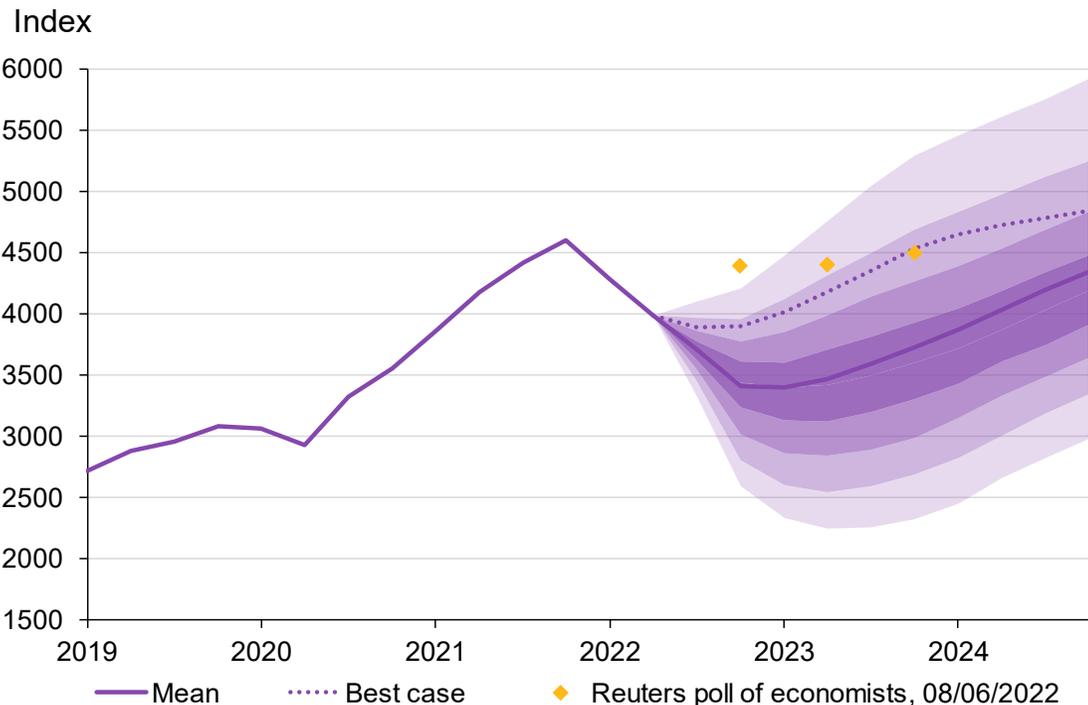
Source: Macrobond, BNY Mellon Investment Management,  
Data as of 7/6/2022

Latest data available as of July 6, 2022. Source: Macrobond.

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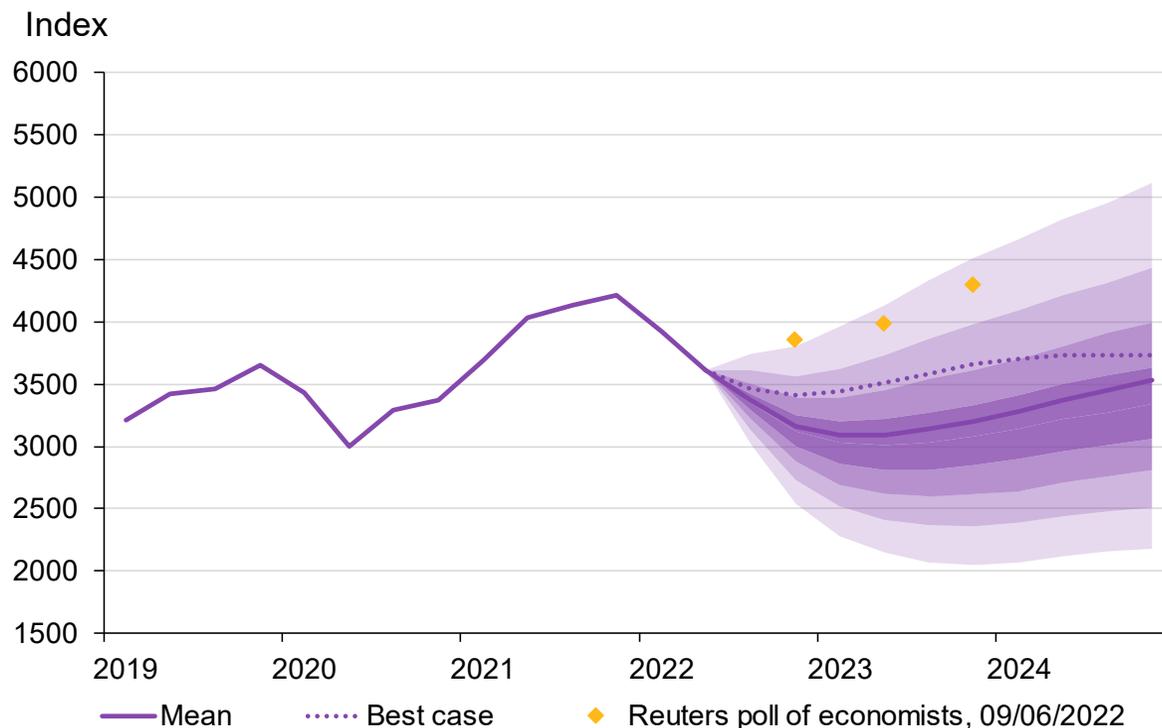
# Equity price forecasts – we see further downside to equities

## US S&P 500



Source: Refinitiv Datastream / Fathom Consulting

## Euro Stoxx 50

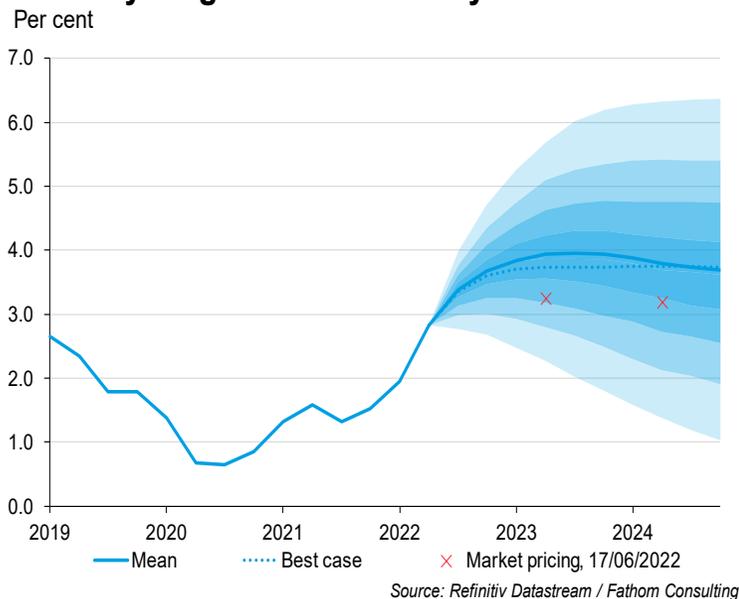


Source: Refinitiv Datastream / Fathom Consulting

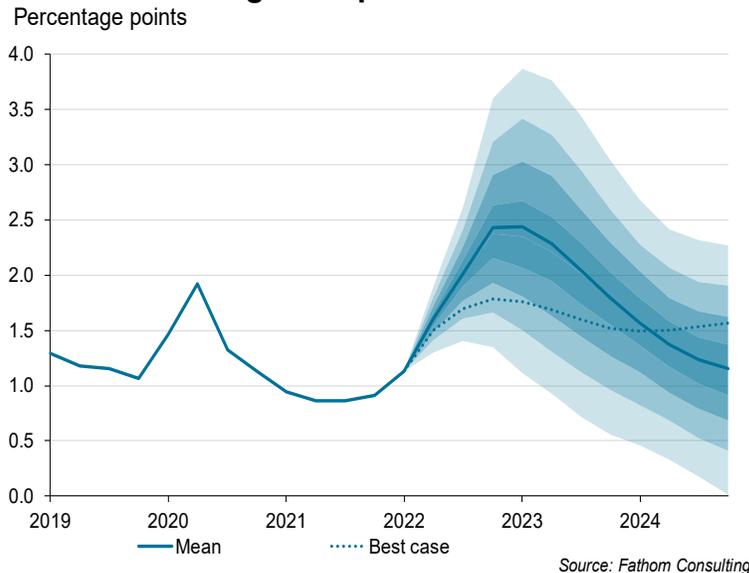
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# Fixed income and credit forecasts – further upward pressure on yields and spreads likely

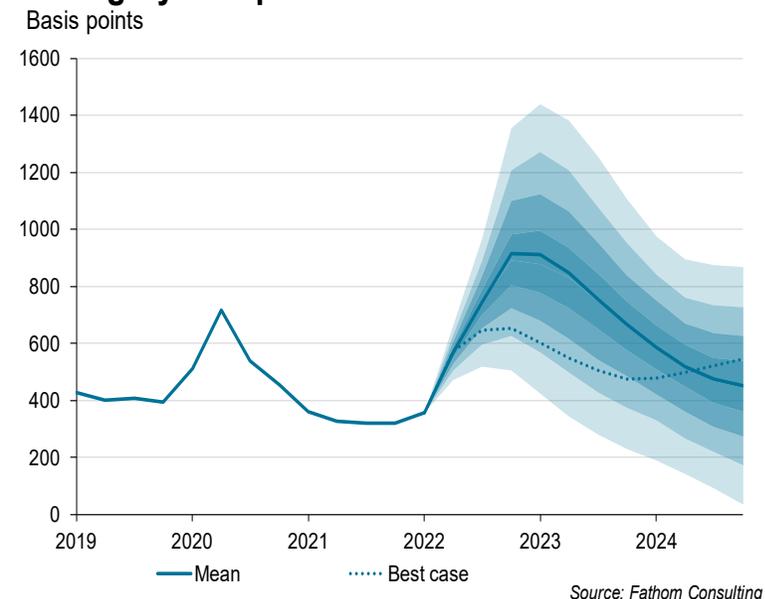
## US ten-year government bond yields



## US investment-grade spread



## US high-yield spread

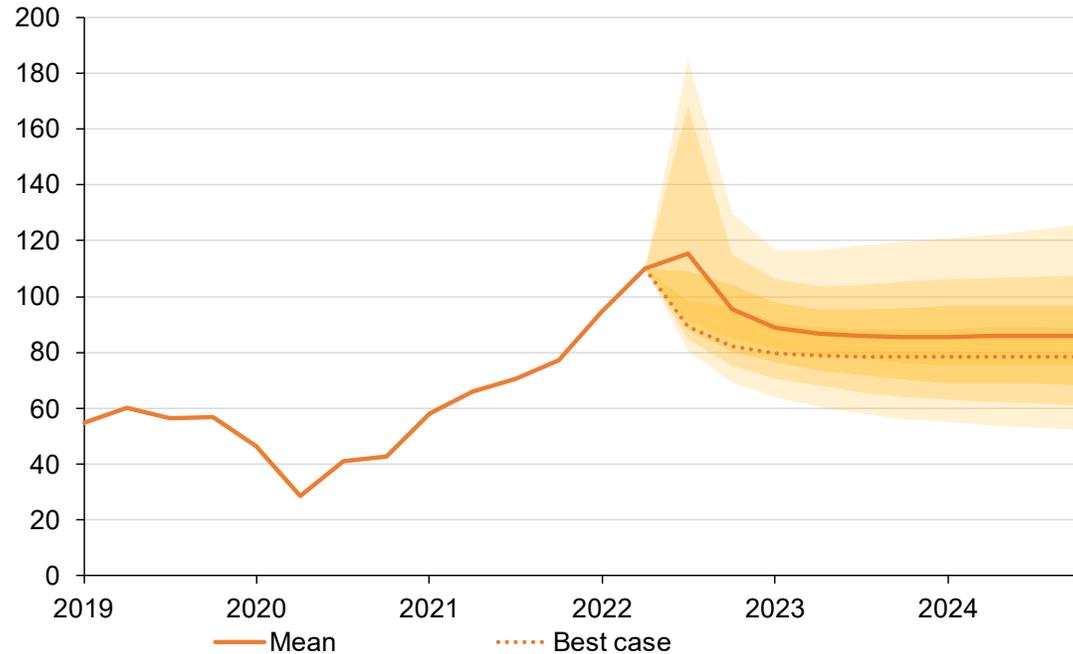


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# Oil price and dollar forecasts – we see oil prices stabilising and USD strengthening

## Oil prices

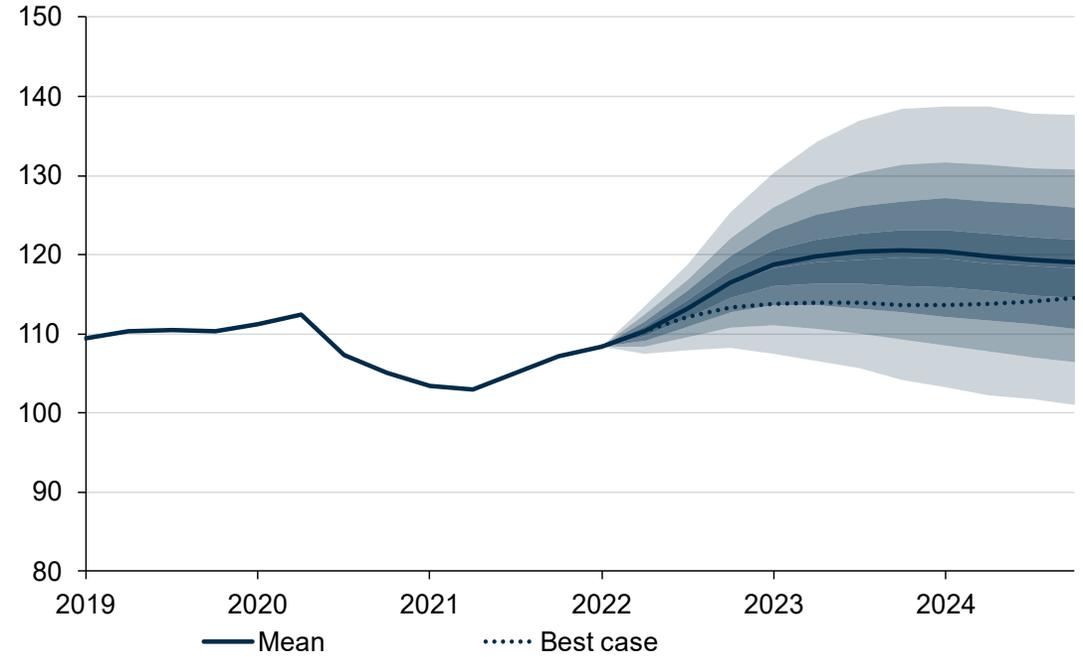
USD per barrel



Source: Fathom Consulting

## USD ERI against major currencies

Index, January 2006 = 100

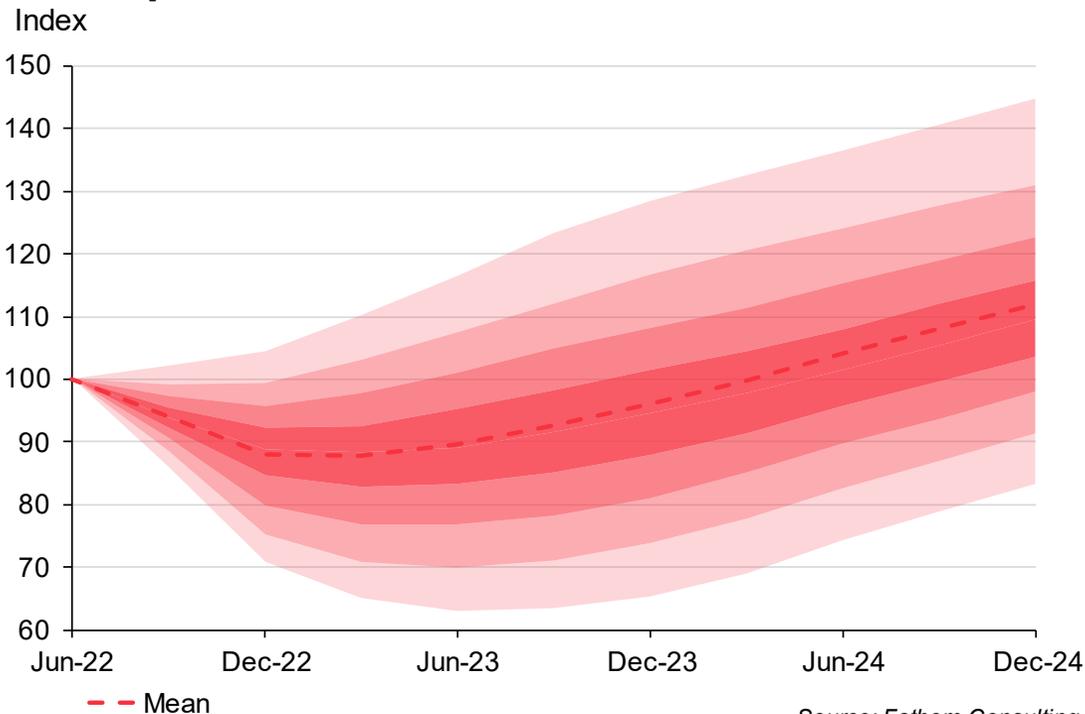


Source: Fathom Consulting

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# Investment Conclusions

## 80:20 portfolio returns



Forecasts begin in Q2 2022 and were calculated as of June 20, 2022 Source: BNY Mellon Investment Management and Fathom Consulting. The dotted line shows the best case scenario mode and the solid line is the mean or probability-weighted average forecast across all three scenarios. Markings show survey and market implied pricing expectations. The darker bands towards the center of the fan chart show the more likely outcomes, while the lighter bands show progressively less likely outcomes covering 80% of the forecast distribution. The width of the fan chart shows the level of uncertainty and when the bands below the central forecast are wider than those above, this shows the balance of risks lies to the downside. Source: Fathom Consulting and BNY Mellon Global Economics and Investment Analysis Team. Data as of 20 June 2022.

## Equities

- The immediate outlook for equities remains poor – markets are likely to remain volatile as recession risk is elevated, risk premia remain high, and our fan chart forecasts suggest risks are skewed to the downside.
- Short-duration parts of the market are likely to outperform long-duration assets.
- High-quality shorter-duration stocks with dividends that protect against inflation are likely to do better – equity ‘income’ stocks and funds. Similarly, value stocks are preferred to growth due to their lower duration in a rising rate environment and when multiples may compress further.
- US and non-European DM stocks are likely to fare better than European
- Overall, given our outlook, it is prudent to trim back cyclical exposures and begin shifting allocation to defensive sectors such as consumer staples and healthcare.

## Fixed Income and Credit

- Yields likely to see upward pressure until inflation stabilizes and markets have sufficiently repriced a tighter monetary policy stance.
- Risk-reward favors buying longer-dated bonds once survey inflation expectations begin softening, realized inflation begins surprising to the downside or growth starts to show serious signs of a recession. This may come sooner than expected.
- For both US and Europe IG corporates, we see material risk of further widening in spreads given the expected removal of the policy support backstop, rising debt servicing cost, uncertain geopolitical environment, and persistently high energy prices impacting profitability, even as pricing power holds

## US Dollar

- From a major dollar index perspective, we still believe that the USD has further upside given the euro comprises 60% of the index. We continue to believe that the euro will come under pressure on market’s pricing in a growth slowdown, fragmentation risks, proximity to Ukraine crisis and energy supply risks.

# Definitions

<b>Purchasing Manger Indices (PMI)</b>	An economic indicator derived from monthly surveys of private sector companies. A level above 50 indicates expansion compared to the prior month and below 50 contraction.
<b>MSCI All-Country World</b>	The MSCI All-Country World Index is an index that tracks the performance of both Developed and Emerging Market equities
<b>MSCI World - DM</b>	The MSCI World Index is an index that tracks the performance of Developed Market equities
<b>MSCI EAFE</b>	The MSCI EAFE Index is an index that tracks the performance of Developed Market equities across Europe, Australasia and the Far East excluding the US and Canada
<b>MSCI EM</b>	The MSCI EM index tracks the performance of Emerging Market Equities
<b>US (S&amp;P 500)</b>	The S&P 500 is an index designed to track the performance of the largest 500 US companies
<b>US (NASDAQ)</b>	The Nasdaq Composite Index is the market capitalization-weighted index of approximately 3,000 common equities listed on the Nasdaq stock exchange
<b>US (Russell 2000)</b>	The Russell 2000 Index is a small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 Index
<b>Japan (Nikkei 225)</b>	The NIKKEI 225 is an index that tracks the performance of the largest 225 companies traded in the Japanese market
<b>EU (STOXX 50)</b>	The EURO STOXX 50 Index, Europe's leading blue-chip index for the Eurozone, provides a blue-chip representation of supersector leaders in the region
<b>UK (FTSE 100)</b>	The STOXX 600 is an index that represents the performance of 600 large, mid and small capitalization companies across 18 countries in the European Union
<b>France (CAC 40)</b>	The CAC 40 is an index that tracks the performance of the largest 40 companies traded on the Paris Stock Exchange
<b>Germany (DAX 30)</b>	The DAX 30 is an index that tracks the performance of the largest 30 companies traded on the Frankfurt Stock Exchange
<b>China (MSCI China)</b>	The MSCI China Index captures large and mid cap representation across H shares, B shares, Red chips, P chips and foreign listings. With 459 constituents, the index covers about 85% of this China equity universe.
<b>China Caixin Services PMI</b>	In China, the Caixin Services Purchasing Managers' Index measures the performance of the services sector.
<b>Global Treasury ex US</b>	The Bloomberg Barclays Global Treasury ex US index tracks fixed-rate local currency government debt of investment grade countries excluding the US and represents the Treasury sector of the Global Aggregate Index
<b>US Treasury</b>	The Bloomberg Barclays US Treasury Index is the US Treasury component of the US Aggregate Index and uses public obligations of the US Treasury with a remaining maturity of one year or more
<b>Global Investment Grade - Corp.</b>	This Index reflects the Corporate component of the Bloomberg Barclays Global Aggregate Index which is designed to provide a broad-based measure of the global investment-grade fixed income markets
<b>Global High Yield</b>	The Bloomberg Barclays Global High Yield Index is a broad-based measure of the global high yield market
<b>US Leveraged Loans</b>	The S&P/LSTA Leveraged Loan Total Return Index is designed to measure the performance of the US leveraged loan market
<b>S&amp;P Municipal Bond IG Intermediate</b>	The S&P Municipal Bond Investment Grade Intermediate Index consists of bonds in the S&P Municipal Bond Index that are rated at least BBB- by Standard & Poor's, Baa3 by Moody's or BBB- by Fitch Ratings. All bonds must also have a minimum maturity of three years and a maximum maturity of up to, but not including, fifteen years as measured from the rebalancing date.
<b>EM USD Denominated</b>	The Bloomberg Barclays EM USD Aggregate Index includes USD denominated debt from sovereign, quasi-sovereign, and corporate EM issuers
<b>Bloomberg Commodity Index</b>	The Dow Jones UBS Commodity Index is designed to provide diversified commodity exposure with weightings based on the commodity's liquidity and economic significance
<b>Oil (WTII, USD / Barrel)</b>	Generic West Texas Intermediate crude oil spot price
<b>Gold (USD / Troy Ounce)</b>	Gold London Bullion Market spot price, quoted in USD per Troy Ounce
<b>US Investment Grade Corporate</b>	Bloomberg Barclays US Aggregate - Corporate Index is designed to measure the performance of the investment grade corporate sector in the US
<b>US ISM manufacturing PMI</b>	Based on a survey of purchasing managers at more than 300 manufacturing firms by the Institute for Supply Management (ISM), the index monitors changes in production levels from month to month.
<b>US High Yield</b>	The Bloomberg Barclays US High Yield Index covers the universe of fixed-rate, non-investment grade corporate debt in the US
<b>3M US Libor</b>	Average interest rate at which a selection of banks in London lend to one another in USD with a maturity of 3 months
<b>2Y US Treasuries</b>	Average yield of a range of Treasury securities all adjusted to the equivalent of a two-year maturity
<b>10Y US Treasuries</b>	Average yield of a range of Treasury securities all adjusted to the equivalent of a ten-year maturity
<b>10Y UK Gilt</b>	Average yield of a range of UK government bonds all adjusted to the equivalent of a ten-year maturity
<b>10Y German Bund</b>	Average yield of a range of German government bonds all adjusted to the equivalent of a ten-year maturity
<b>10Y Japanese Bond</b>	Average yield of a range of Japanese government bonds all adjusted to the equivalent of a ten-year maturity
<b>CBOE VIX</b>	Indicator of the implied volatility of S&P 500 index as calculated by the Chicago Board Options Exchange (CBOE)
<b>US 30Y Fixed-Rate Mortgage</b>	Bankrate.com 30-year US home mortgage fixed rate national average
<b>S&amp;P CoreLogic Case-Shiller 20-city Composite Home Price Index</b>	Tracks the value of single-family housing within the United States
<b>USD - Majors Dollar Index</b>	A measure of the value of the US dollar relative to a basket of currencies of the US's most significant trading partners including the euro, Japanese yen, Canadian dollar, British pound, Swedish krona, and Swiss franc.
<b>PMI (Purchasing Managers. Index)</b>	The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors
<b>Citi Economic Surprise Index (and Inflation Surprise Index)</b>	Citi's Economic Surprise Index — which measures the degree to which economic data (and inflation) is either beating or missing expectations.

# Disclosures

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GU-275 – 7 July 2023

# BNY Mellon Global Economics and Investment Analysis Team

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**Shamik Dhar**  
Chief Economist



**Lale Akoner**  
Senior Market  
Strategist



**Jake Jolly, CFA**  
Senior Investment  
Strategist



**Aninda Mitra**  
Head of Asia Macro  
& Investment Strategy



**Sebastian Vismara**  
Senior Financial  
Economist



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