

The logo for ACCG Detroit, featuring the letters 'ACCG' in a white sans-serif font with a green triangle above the 'A', followed by 'Detroit' in a smaller white sans-serif font. The background is a dark, semi-transparent overlay of a person working at a desk with a laptop and various documents.

ACCG[®] Detroit

ECONOMIC UPDATE

Rising interest rates, market volatility and more—what lies ahead for 2023?

THANK YOU TO OUR GOLD SPONSORS

Cohen & Co

DAWDA MANN
Counselors At Law

Dykema

BDO

Jaffe has joined
Taft/


plante moran

 HURON
CAPITAL

CHASE 
J.P.Morgan

THANK YOU TO OUR SILVER SPONSORS

AON

 **BUTZEL**
ATTORNEYS AND COUNSELORS

CLAYTON  **McKERVEY**

DICKINSON  **WRIGHT** LLP

Dinsm^ore

Howard & Howard
law for business

 **Huntington**
Welcome.

KOTZ SANGSTER
ATTORNEYS AND COUNSELORS AT LAW

 **Marsh**

McDonald Hopkins
A business advisory and advocacy law firm

PURPLE
 **SQUIRREL**
ADVISORS

Rehmann

Schlaupitz 
Madhavan
AUDIT | TAX | ADVISORS

UHY LLP
Certified Public Accountants

Since 1971
W|W|R|P
Waters, Wilkins, Rutner & Patten, P.C.

THANK YOU TO OUR BRONZE SPONSORS

Comerica Bank
Datasite

Doeren Mayhew
Grow Michigan Fund II
Honigman LLP

Hylant
Varnum Law
Warner Norcross + Judd

MEDIA PARTNER

DBUSINESS
DETROIT'S PREMIER BUSINESS JOURNAL



J.P.Morgan

PRIVATE BANK

Key Investment Themes

Your guide to our market views



JANUARY 2023

The views expressed herein may differ from other JPMorgan Chase & Co. affiliates and employees. This constitutes our judgment based on current market conditions and is subject to change without notice. This has not been prepared with any particular investor in mind, and it may not be suitable for all investors. Investors should speak to their financial representatives before engaging in any investment product or strategy. This material should not be regarded as research or as a J.P. Morgan Research Report. **Outlooks and past performance are not reliable indicators of future results. Please read additional regulatory status, disclosures, disclaimers, risks and other important information at the end of this material.**

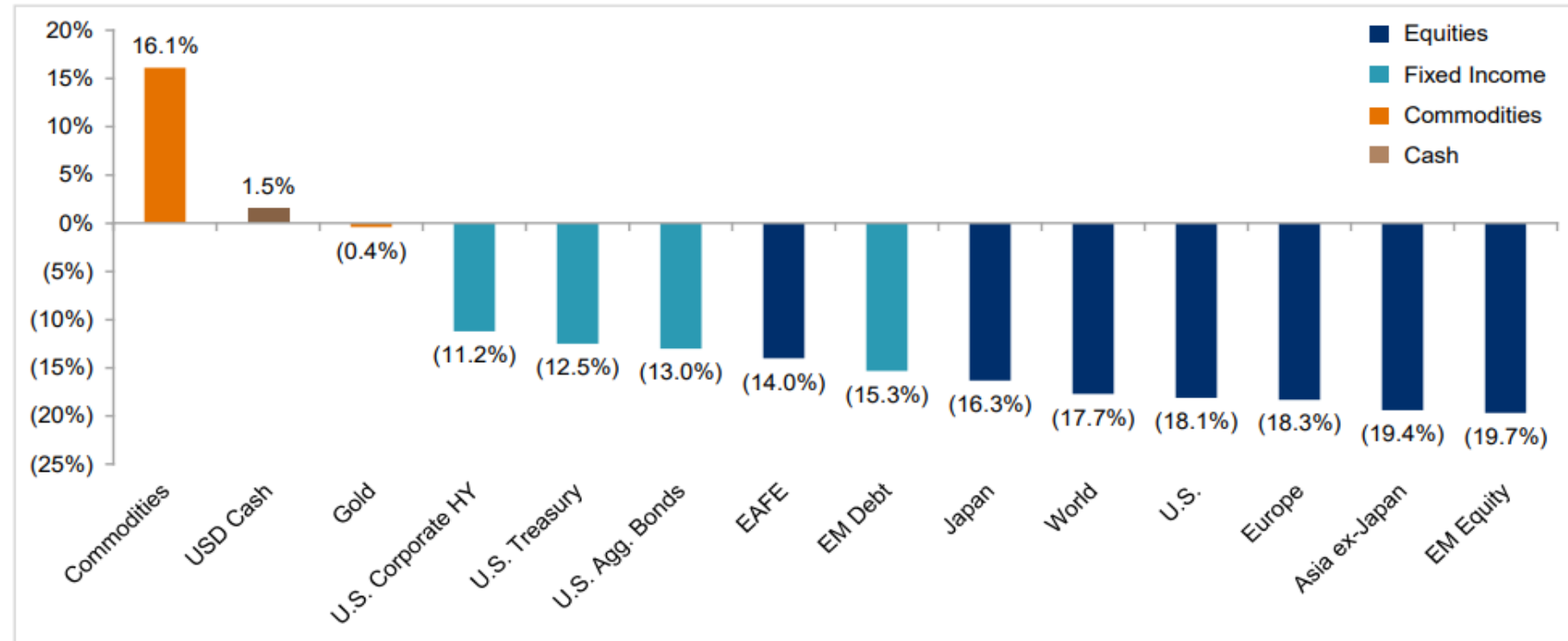
**INVESTMENT AND INSURANCE PRODUCTS ARE: • NOT FDIC INSURED • NOT INSURED BY ANY FEDERAL GOVERNMENT AGENCY
NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, JPMORGAN CHASE BANK, N.A. OR ANY OF ITS AFFILIATES
SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED**

Commodities were some of the only positive performers in 2022

Bonds have been hit by a rapid rise in interest rates, while stocks have sold off amidst heightened risk of recession

PERFORMANCE OF GLOBAL ASSETS IN 2022 (USD)

Total return (%), USD



Source: FactSet. Sectors shown are represented by: EM Equities: MSCI EM; Europe; Stoxx 600, Asia ex-Japan; MSCI Asia ex-Japan; EAFE: MSCI EAFE; World: MSCI World; Gold: GLD (\$/ozt), U.S.: S&P 500; Japan: MSCI Japan; U.S. High Yield: Bloomberg U.S. High Yield; U.S. Agg. Bonds: Bloomberg U.S. Aggregate; Municipal Bonds: Bloomberg Municipal Bonds 1–17 years; EM Fixed Income: Bloomberg EM Aggregate USD; U.S. Treasury: Bloomberg U.S. Treasury; and Commodities: Bloomberg Commodity Index.

Data as of: December 31, 2022

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index.

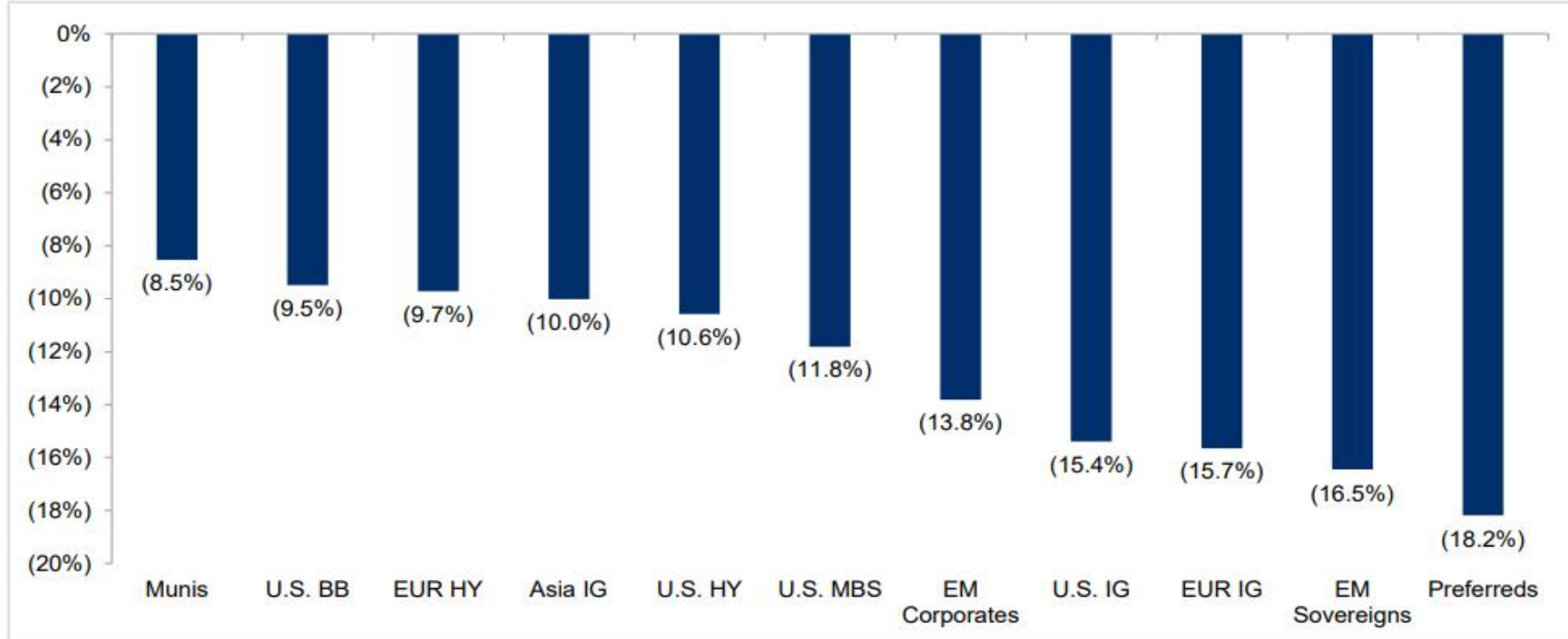
Please refer to "Definition of Indices and Terms" for important information.

Fixed income has been under pressure as rates have risen rapidly

Core fixed income is providing a historically compelling entry point following last year's surge in interest rates

PERFORMANCE OF FIXED INCOME SUB-ASSET CLASSES IN 2022

Total return (%)



Source: J.P. Morgan Corporate Investment Bank, Bloomberg Finance L.P. Sectors shown above are represented by: JPM EMBI Global, JPM Credit, Bloomberg US MBS, JPM CEMBI Broad, JPM JULI, JPM JACI IG, Bloomberg Munis, JPM Domestic HY BB, iShares Preferred & Income, JPM Euro HY, JPM Domestic HY.

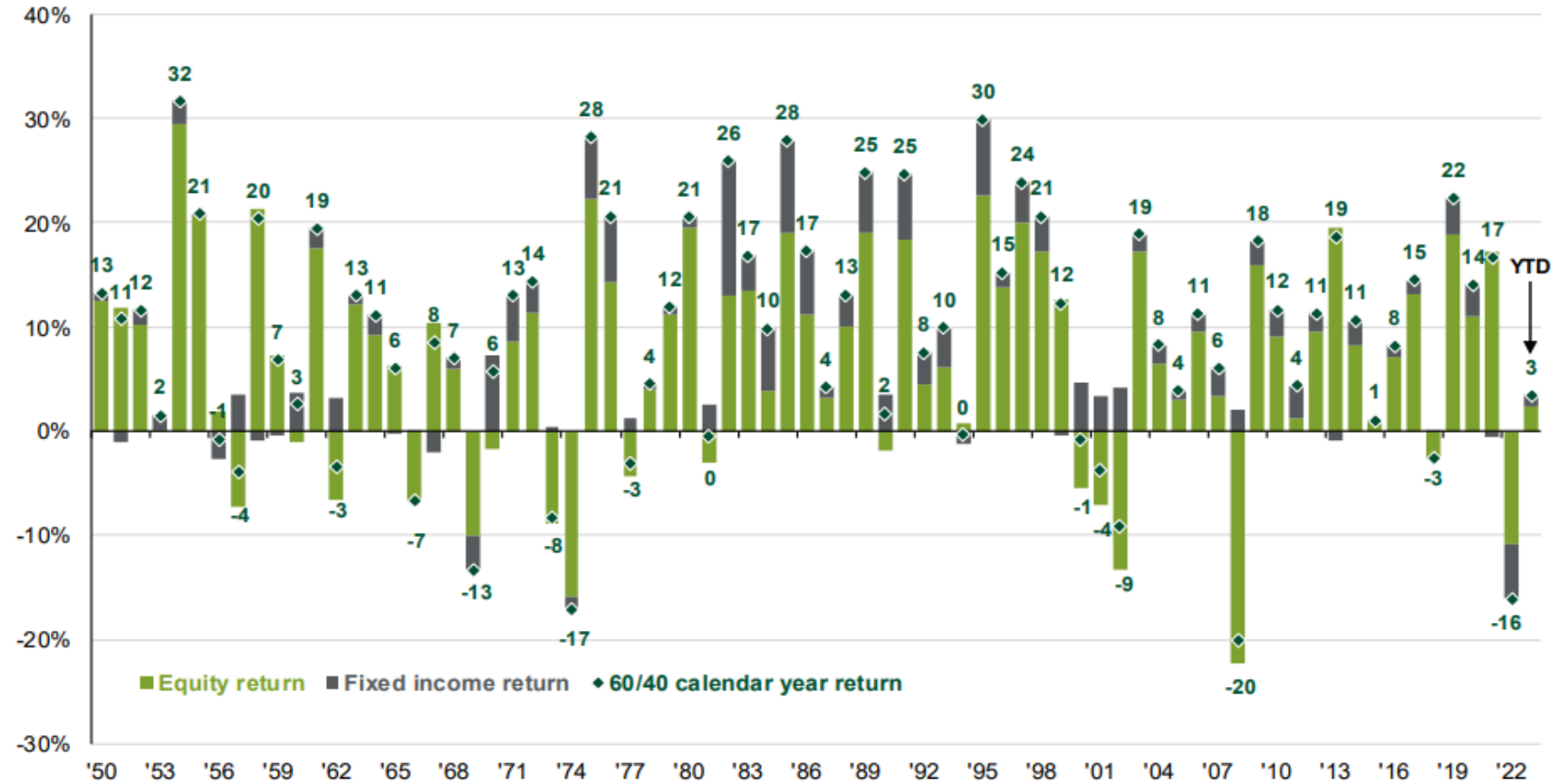
Data as of: December 31, 2022

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

60/40 annual returns

60/40 annual return decomposition

Total returns, 1950 – present



Investing Principles

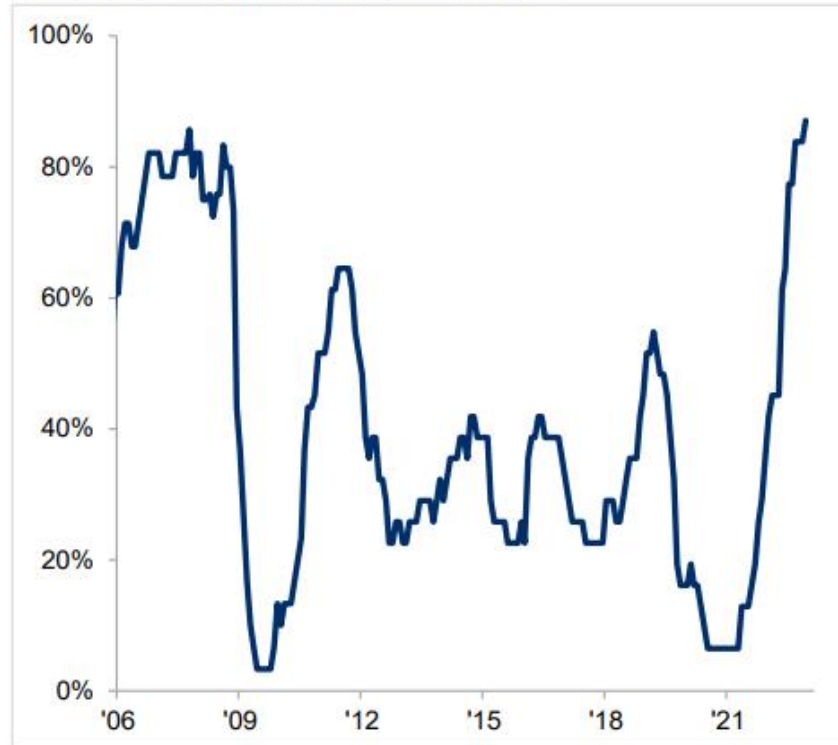
Source: FactSet, Standard & Poor's, Robert Shiller, Yale University, Bloomberg, Ibbotson/Strategas, J.P. Morgan Asset Management. The 60/40 portfolio is 60% invested in S&P 500 Total Return Index and 40% invested in Bloomberg U.S. Aggregate Total Return Index. S&P 500 returns from 1950 – 1970 are estimated using the Shiller S&P Composite. U.S. fixed income total returns from 1950 – 1975 are estimated using data from Strategas/Ibbotson. The portfolio is rebalanced annually. Guide to the Markets – U.S. Data are as of January 17, 2023.

The consequences of global tightening

Central banks around the world launched an aggressive global rate hiking cycle to tame elevated inflation

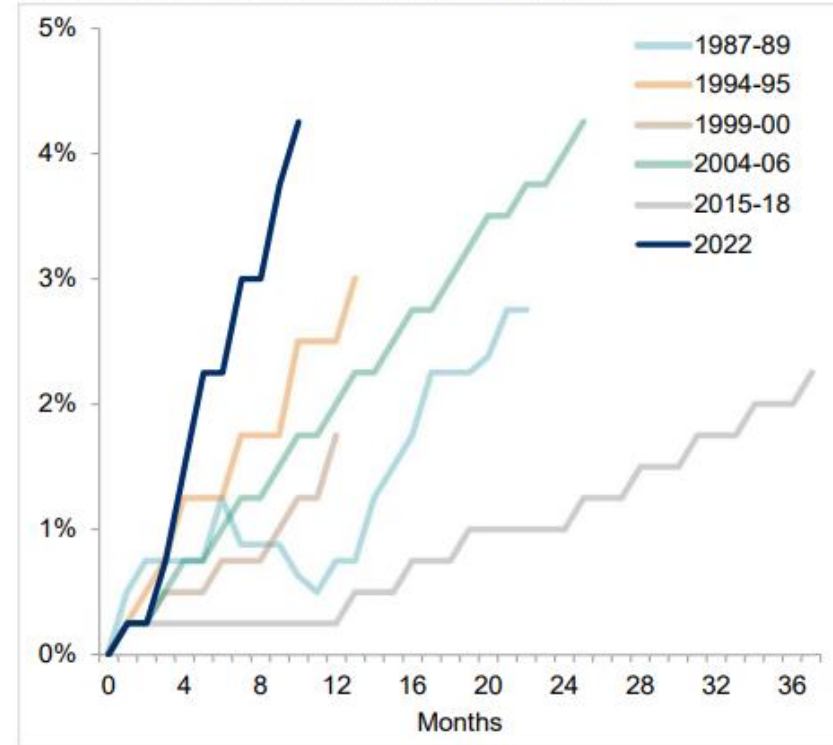
GLOBALLY COORDINATED TIGHTENING

% of central banks whose last move was a hike



THE MOST AGGRESSIVE FED HIKING CYCLE IN FOUR DECADES

Change in fed funds rate since hiking began, %ppts



Sources: (LHS) FactSet. Includes 31 central banks. (RHS) Bloomberg Finance L.P.

Data as of: December 31, 2022.

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Rate hikes are starting to have their intended impact in the U.S.

Some indicators are showing more strain than others

U.S. ECONOMIC AND MARKET INDICATORS IN 2022

| Economic activity | Start of 2022 | Latest Available |
|--|----------------------|-------------------------|
| Mortgage applications index | 293 | 172 |
| Housing starts (millions) | 1768 | 1425 |
| Pending home sales index | 116 | 74 |
| ISM Services index | 62 | 50 |
| ISM Manufacturing index | 59 | 48 |
| Labor market | | |
| Unemployment rate | 3.9% | 3.5% |
| Labor participation rate | 62.0% | 62.3% |
| Non-farm payrolls (thousands) | 588 | 223 |
| Inflation | | |
| Headline CPI (MoM) | 0.6% | 0.1% |
| Core CPI (MoM) | 0.6% | 0.2% |
| Core PPI Final Demand (MoM) | 0.6% | 0.3% |
| Core PCE deflator (MoM) | 0.5% | 0.2% |
| UMich consumer inflation expectations (over next 5-10 years) | 2.9% | 2.9% |
| Wage growth tracker (3mo moving average median) | 4.5% | 6.4% |
| Markets | | |
| 2-year Treasury yield | 0.73% | 4.25% |
| 10-year Treasury yield | 1.51% | 3.56% |
| 30-year national average fixed mortgage rate | 3.27% | 6.47% |
| Bloomberg Dollar Index | 96 | 104 |
| WTI crude oil (\$/bbl) | 78 | 79 |
| S&P 500 | 4766 | 3895 |

Sources: Bureau of Economic Analysis, Bureau of Labor Statistics, Haver Analytics, FactSet, Bloomberg Finance L.P. *Note: Latest reading refers to the last available economic datapoint for each indicator.

Data as of: January 09, 2023

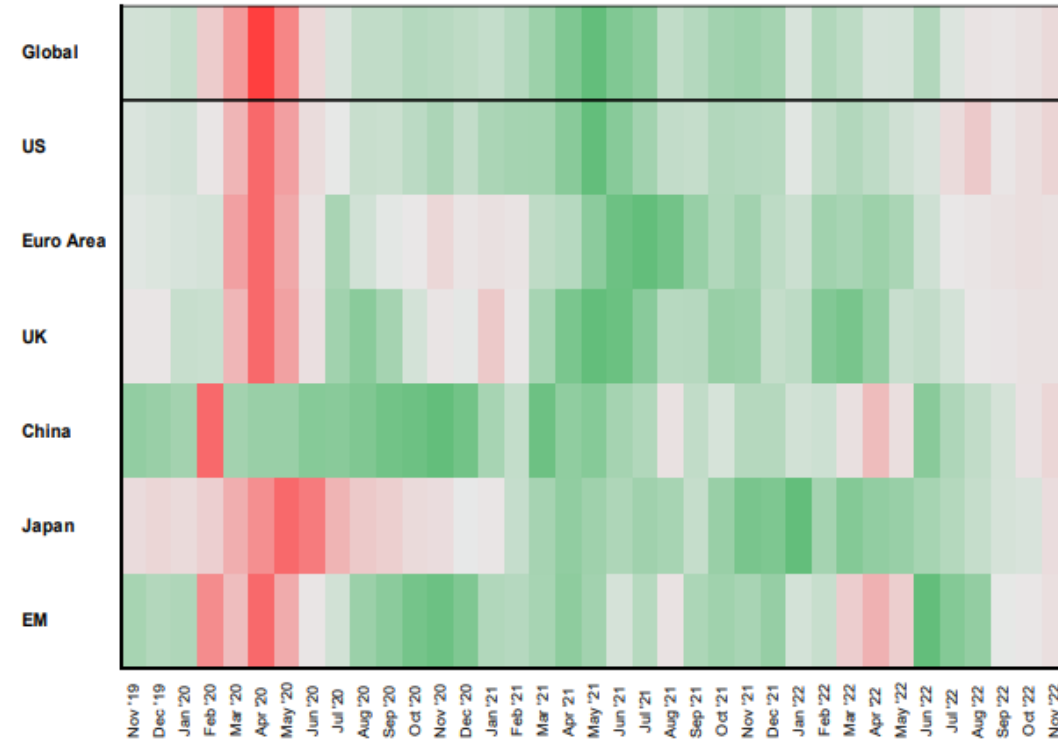
Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Global economic activity is weakening

Each region is contending with its own challenges; growth is slowing in the West and China faces headwinds despite reopening

ECONOMIC ACTIVITY FOR MAJOR REGIONS IN CONTRACTION TERRITORY

Composite PMI Index level (green implies 50+ expansion, red contraction)



Sources: Markit, Haver Analytics.

Data as of: November 30, 2022

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index.

Please refer to "Definition of Indices and Terms" for important information.

Recent data suggests that global economic activity is contracting:

- The Fed's tightening cycle has exacerbated the growth slowdown that was already occurring naturally, and U.S. PMIs have now entered contractionary territory.
- Europe's proximity to the war in Ukraine continues to be a significant drag on the economy. Complications related to the region's dependence on Russian energy imports, which are now near-zero, have put pressure on sentiment, business investment, and growth.
- China's recovery will likely remain choppy; while reopening presents a tailwind that will likely boost consumption, the sharp downturn in the property sector remains a key challenge.

Views in a nutshell: Macro

The global growth slowdown is in swing, with each major region facing its own unique set of challenges

- Higher Fed policy rates are likely to push the U.S. into recession in the back half of this year.
- Europe continues to suffer from an acute energy crisis, likely to push the region to recession this winter.
- In China, reopening is a clear positive for growth, but the property downturn continues to pose a threat.

J.P. MORGAN PRIVATE BANK GDP OUTLOOK

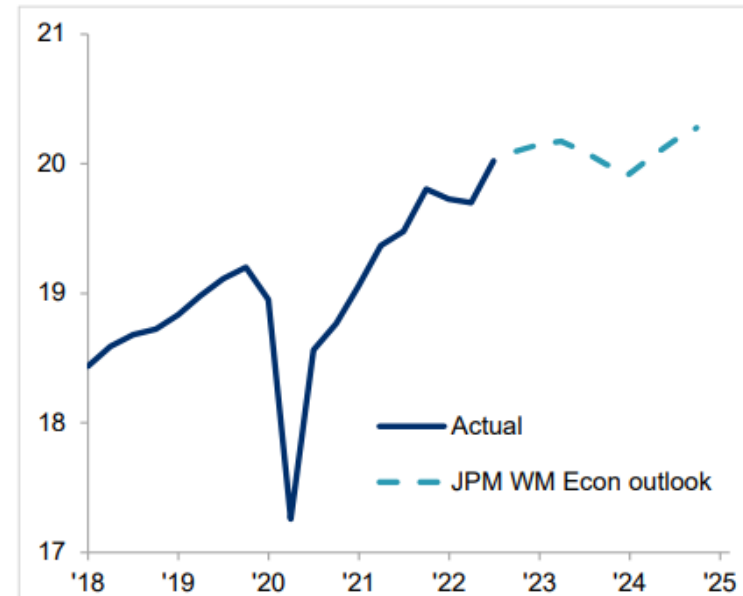
| Real GDP growth rate* | Current | 2023 | | 2024 | |
|-----------------------|---------|------------|------------------|------------|------------------|
| | | PB outlook | Market consensus | PB outlook | Market consensus |
| Global | 2.8% | 1.4% | 2.1% | 2.6% | 2.9% |
| U.S. | 1.9% | -0.5% | 0.3% | 1.4% | 1.3% |
| Eurozone | 2.3% | 0.3% | -0.1% | 1.0% | 1.4% |
| China | 3.9% | 4.0% | 4.8% | 4.9% | 5.0% |

J.P. MORGAN PRIVATE BANK INFLATION OUTLOOK

| Core inflation* | Current | 2023 | | 2024 | |
|-----------------|---------|------------|------------------|------------|------------------|
| | | PB outlook | Market consensus | PB outlook | Market consensus |
| Global | 3.8% | 1.8% | - | 2.1% | - |
| U.S. | 5.0% | 2.1% | 3.6% | 2.2% | 2.4% |
| Eurozone | 6.6% | 2.4% | - | 2.1% | - |
| China | 0.4% | 1.1% | - | 2.0% | - |

REAL GDP OUTLOOK

U.S. average quarterly real GDP (trillions 2012 dollars, SAAR)



Sources: (LHS) J.P. Morgan Private Bank, Haver Analytics. (RHS) Bloomberg Finance, L.P., J.P. Morgan Private Bank. NOTE: *PB Outlook figures shown are the midpoint of our view with a range of +/-10 basis points. Growth and core inflation figures are Q4 YoY numbers.

Data as of: (LHS) January 09, 2023 (RHS) December 31, 2022

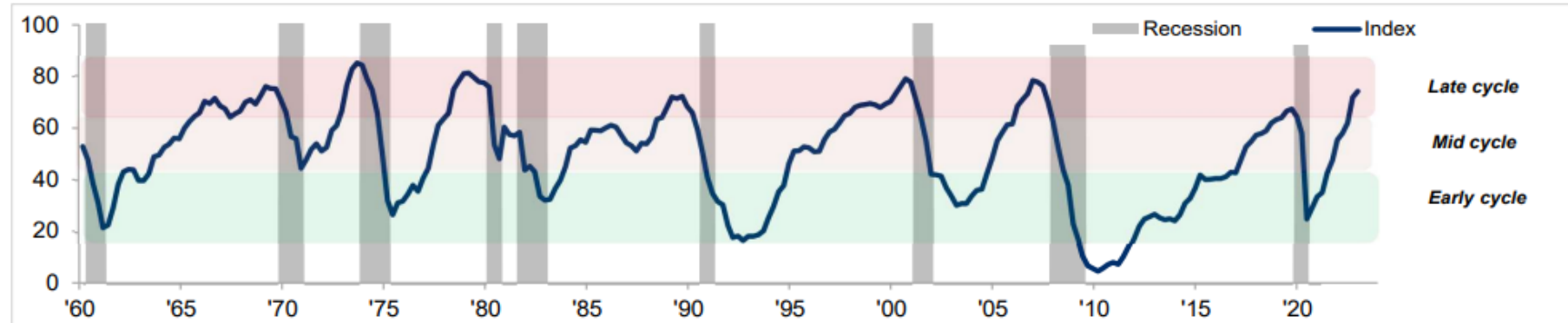
Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Higher rates will rein in growth and likely push the U.S. into recession

This has been among the fastest transitions from early to late cycle in history

BUSINESS CYCLE INDEX

Percentile, %



| | Early-Cycle | Mid-Cycle | Late-Cycle |
|----------------------------|--------------------------|--------------------------------|---------------------------------|
| Output gap | Below potential, rising | Near potential, rising | Above potential, rising |
| Capital expenditure | Low as % of GDP | Rising, moderate as % of GDP | High as % of GDP |
| Residential investment | Low as % of GDP | Rising, moderate as % of GDP | High as % of GDP |
| Consumer interest payments | Below average | Average | Above average |
| Price inflation | Below Fed target, stable | Near Fed target | Above Fed target |
| Unit labor costs | Falling | Moderate, stable | Increasing |
| Unemployment | Well above Fed target | Above Fed target | Near or below Fed target |
| Consumer confidence | Low | Moderate | Exuberant |
| Yield curve | Rates low, curve steep | Rates rising, curve flattening | Rates high, curve flat |

| Aggregate | Early-Cycle | Mid-Cycle | Late-Cycle |
|-----------|-------------|-----------|------------|
|-----------|-------------|-----------|------------|

Source: (Top) Bloomberg Finance L.P., Haver Analytics, J.P. Morgan Private Bank. (Bottom) J.P. Morgan Private Bank, FactSet, Bloomberg Finance L.P.

Data as of: December 31, 2022.

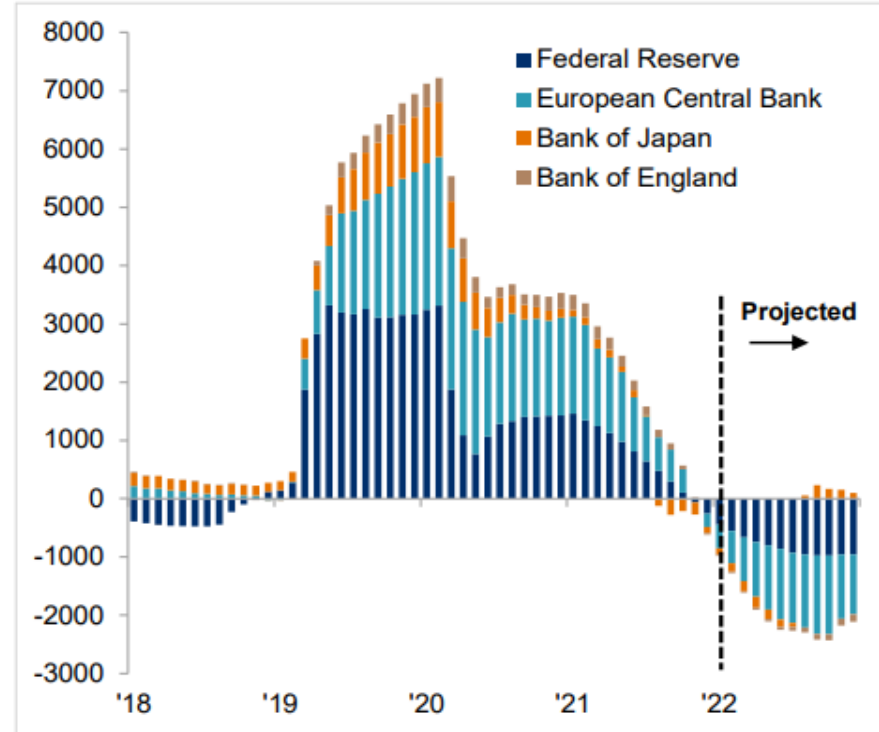
Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Central banks are adamant in fighting inflation

Policymakers are aggressively tightening policy to combat inflation, even at the expense of growth

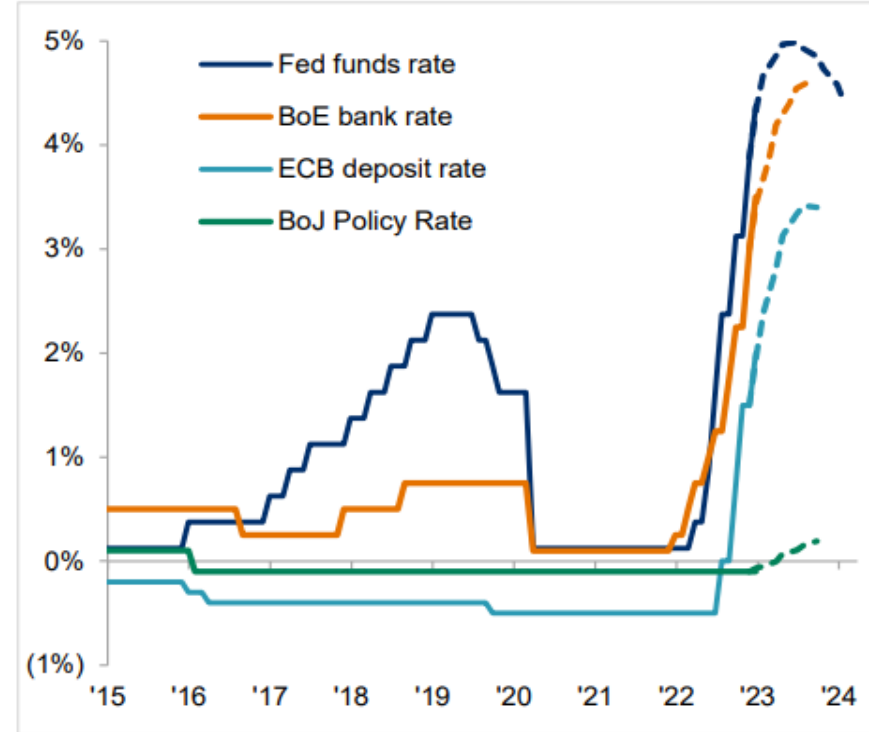
GLOBAL CENTRAL BANKS PARING BACK SUPPORT...

Central bank balance sheet size, 12-month change, USD billions



AND A LARGE MAJORITY ARE TIGHTENING THEIR POLICY RATE

Central bank rates and respective market expectations, %



Sources: (LHS) Federal Reserve, European Central Bank, Bank of Japan, Bank of England, Haver Analytics. Projections from J.P. Morgan Investment Bank Research. (RHS) Federal Reserve, European Central Bank, Bank of England, Bank of Japan, Bloomberg Finance L.P., J.P. Morgan Private Bank. Market expectations for the Fed are determined by Fed Fund futures. Market expectations for the ECB represent the 1-day ESTR (the 1-day interbank interest rate for the Eurozone). Market expectations for the UK bank rate represent the 1-day ECB OIS swap. Data as of: (LHS) December 31, 2022 (RHS) December 28, 2022

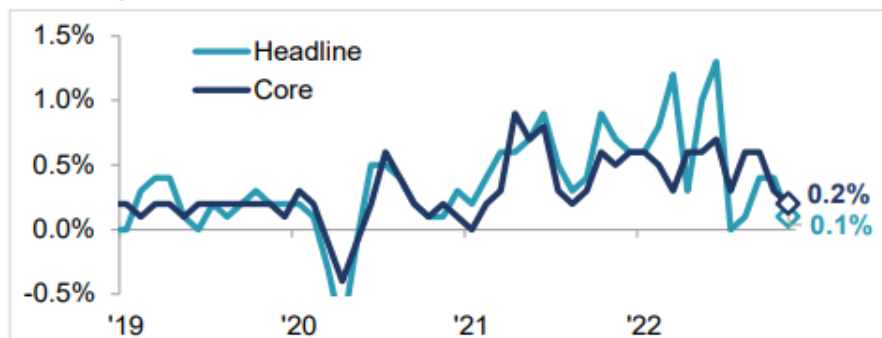
Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

The evidence that inflation has peaked is growing

Inflation is on track to fall, but it could be a bumpy ride

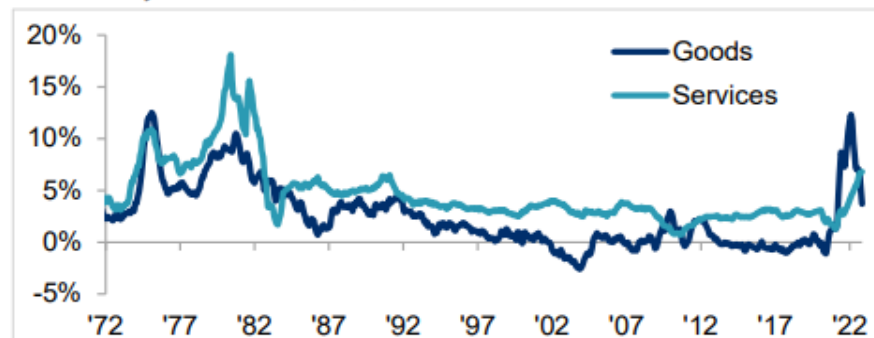
PEAK PRICE PAIN IS LIKELY BEHIND US

U.S. CPI, month-over-month %



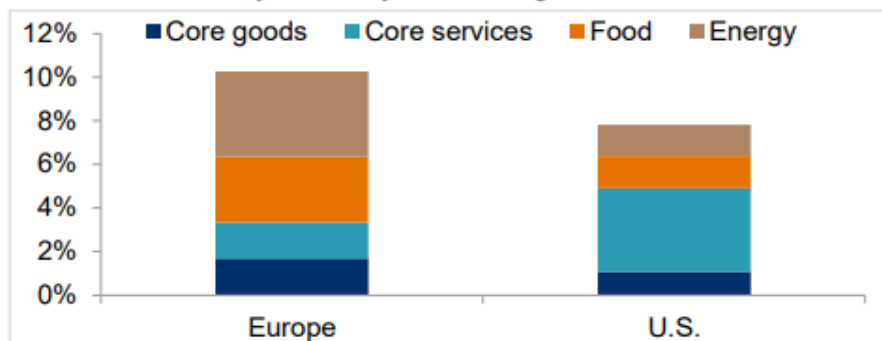
GOODS INFLATION HAS COOLED ON IMPROVING SUPPLY CHAINS

Year-over-year CPI inflation, %



INFLATION IS MORE DRIVEN BY COMMODITIES IN EUROPE

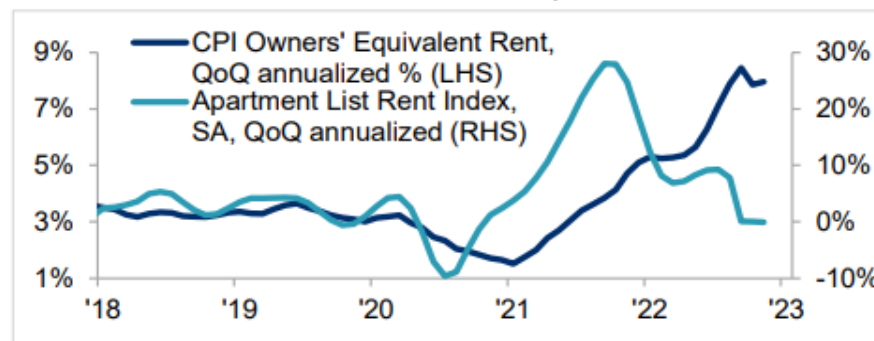
Contribution to CPI, year-over-year % change



LEADING INDICATORS IMPLY SHELTER INFLATION SHOULD FALL

Official U.S. CPI rental inflation

Apartment List rental inflation



Sources: (Top LHS) Bureau of Labor Statistics, Haver Analytics. (Top RHS) Bureau of Labor Statistics, Haver Analytics. (Bottom LHS) Bureau of Labor Statistics, Eurostat, Haver Analytics. (Bottom RHS) Apartment List, Bureau of Labor Statistics, Haver Analytics.

Data as of: (Top LHS) November 30, 2022 (Top RHS) November 30, 2022. (Bottom LHS) November 30, 2022. (Bottom RHS) November 30, 2022.

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index.

Please refer to "Definition of Indices and Terms" for important information.

Inflation heatmap

Consumer Price Index, components

m/m % change, seasonally adjusted

Economy

| | Weight | 2021 | | | | | | | | | | | | 2022 | | | | | | | | | | | |
|--------------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|------|-------|-------|--------|-------|-------|-------|-------|
| | | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| Headline CPI, y/y | 100.0 | 1.4% | 1.7% | 2.7% | 4.2% | 4.9% | 5.3% | 5.3% | 5.2% | 5.4% | 6.2% | 6.8% | 7.1% | 7.5% | 7.9% | 8.6% | 8.2% | 8.5% | 9.0% | 8.5% | 8.2% | 8.2% | 7.8% | 7.1% | 6.4% |
| Core CPI, y/y | 78.2 | 1.4% | 1.3% | 1.7% | 3.0% | 3.8% | 4.4% | 4.2% | 4.0% | 4.0% | 4.6% | 5.0% | 5.5% | 6.0% | 6.4% | 6.4% | 6.1% | 6.0% | 5.9% | 5.9% | 6.3% | 6.7% | 6.3% | 6.0% | 5.7% |
| Headline CPI, m/m | 100.0 | 0.2% | 0.4% | 0.6% | 0.6% | 0.7% | 0.9% | 0.5% | 0.3% | 0.4% | 0.9% | 0.7% | 0.6% | 0.6% | 0.8% | 1.2% | 0.3% | 1.0% | 1.3% | 0.0% | 0.1% | 0.4% | 0.4% | 0.1% | -0.1% |
| Core CPI, m/m | 78.2 | 0.0% | 0.2% | 0.3% | 0.9% | 0.7% | 0.8% | 0.3% | 0.2% | 0.3% | 0.6% | 0.5% | 0.6% | 0.6% | 0.5% | 0.3% | 0.6% | 0.6% | 0.7% | 0.3% | 0.6% | 0.6% | 0.3% | 0.2% | 0.3% |
| Energy | 8.1 | 2.8% | 4.6% | 5.6% | -1.2% | 0.7% | 2.1% | 1.6% | 1.9% | 1.2% | 3.7% | 2.4% | 0.9% | 0.9% | 3.5% | 11.0% | -2.7% | 3.9% | 7.5% | -4.6% | -5.0% | -2.1% | 1.8% | -1.6% | -4.5% |
| Gasoline | 4.1 | 5.8% | 8.2% | 10.3% | -3.3% | 0.6% | 3.3% | 2.5% | 2.5% | 1.1% | 4.6% | 4.5% | 1.3% | -0.8% | 6.6% | 18.3% | -6.1% | 4.1% | 11.2% | -7.7% | -10.6% | -4.9% | 4.0% | -2.0% | -9.4% |
| Electricity | 2.6 | 0.0% | 0.5% | 0.2% | 0.7% | 0.5% | 0.2% | 0.2% | 1.0% | 0.6% | 1.4% | 0.2% | 0.5% | 4.2% | -1.1% | 2.2% | 0.7% | 1.3% | 1.7% | 1.6% | 1.5% | 0.4% | 0.1% | -0.2% | 1.0% |
| Utility Gas | 1.0 | -0.4% | 1.7% | 2.4% | 2.2% | 1.8% | 1.8% | 2.2% | 1.6% | 2.9% | 5.9% | 0.3% | -0.3% | -0.5% | 1.5% | 0.6% | 3.1% | 8.0% | 8.2% | -3.6% | 3.5% | 2.9% | -4.6% | -3.5% | 3.0% |
| Food | 13.7 | 0.2% | 0.1% | 0.2% | 0.4% | 0.5% | 0.7% | 0.7% | 0.4% | 0.9% | 0.9% | 0.8% | 0.5% | 0.9% | 1.0% | 1.0% | 0.9% | 1.2% | 1.0% | 1.1% | 0.8% | 0.8% | 0.6% | 0.5% | 0.3% |
| Food at home | 8.5 | 0.1% | 0.2% | 0.2% | 0.4% | 0.4% | 0.7% | 0.6% | 0.4% | 1.2% | 0.9% | 0.9% | 0.4% | 1.0% | 1.4% | 1.5% | 1.0% | 1.4% | 1.0% | 1.3% | 0.7% | 0.7% | 0.4% | 0.5% | 0.2% |
| Food away from home | 5.2 | 0.3% | 0.1% | 0.1% | 0.3% | 0.6% | 0.7% | 0.8% | 0.4% | 0.5% | 0.8% | 0.6% | 0.6% | 0.7% | 0.4% | 0.3% | 0.6% | 0.7% | 0.9% | 0.7% | 0.9% | 0.9% | 0.9% | 0.5% | 0.4% |
| Core goods | 21.0 | 0.1% | -0.1% | 0.2% | 2.0% | 1.8% | 2.1% | 0.4% | 0.4% | 0.3% | 1.1% | 0.9% | 1.2% | 1.0% | 0.4% | -0.4% | 0.2% | 0.7% | 0.8% | 0.2% | 0.5% | 0.0% | -0.4% | -0.5% | -0.3% |
| Apparel | 2.5 | 1.4% | -0.5% | 0.4% | 0.6% | 1.1% | 0.5% | 0.1% | 0.3% | -0.7% | 0.6% | 0.7% | 1.1% | 1.1% | 0.7% | 0.6% | -0.8% | 0.7% | 0.8% | -0.1% | 0.2% | -0.3% | -0.7% | 0.2% | 0.5% |
| New vehicles | 4.1 | -0.4% | 0.1% | 0.0% | 0.5% | 1.5% | 1.7% | 1.5% | 1.2% | 1.3% | 1.3% | 1.2% | 1.2% | 0.0% | 0.3% | 0.2% | 1.1% | 1.0% | 0.7% | 0.6% | 0.8% | 0.7% | 0.4% | 0.0% | -0.1% |
| Used cars | 3.7 | -0.9% | -0.7% | 0.3% | 9.8% | 7.7% | 10.1% | 0.0% | -1.2% | -0.5% | 2.5% | 2.4% | 3.3% | 1.5% | -0.2% | -3.8% | -0.4% | 1.8% | 1.6% | -0.4% | -0.1% | -1.1% | -2.4% | -2.9% | -2.5% |
| Medical care commod | 1.5 | -0.1% | -0.7% | 0.1% | 0.6% | 0.0% | -0.4% | 0.2% | -0.2% | 0.3% | 0.6% | 0.1% | 0.0% | 0.9% | 0.3% | 0.2% | 0.1% | 0.3% | 0.4% | 0.6% | 0.2% | -0.1% | 0.0% | 0.2% | 0.1% |
| Core services | 57.2 | 0.1% | 0.2% | 0.3% | 0.5% | 0.4% | 0.4% | 0.3% | 0.1% | 0.2% | 0.4% | 0.4% | 0.3% | 0.4% | 0.5% | 0.6% | 0.7% | 0.6% | 0.7% | 0.4% | 0.6% | 0.8% | 0.5% | 0.4% | 0.5% |
| Shelter | 32.7 | 0.1% | 0.2% | 0.3% | 0.4% | 0.3% | 0.4% | 0.4% | 0.2% | 0.4% | 0.5% | 0.5% | 0.4% | 0.3% | 0.5% | 0.5% | 0.5% | 0.6% | 0.6% | 0.5% | 0.7% | 0.7% | 0.8% | 0.6% | 0.8% |
| Rent of primary res. | 7.4 | 0.1% | 0.2% | 0.2% | 0.2% | 0.3% | 0.2% | 0.2% | 0.3% | 0.4% | 0.4% | 0.4% | 0.4% | 0.5% | 0.6% | 0.4% | 0.6% | 0.6% | 0.8% | 0.7% | 0.8% | 0.8% | 0.7% | 0.8% | 0.8% |
| OER | 24.0 | 0.1% | 0.2% | 0.2% | 0.2% | 0.3% | 0.3% | 0.3% | 0.3% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.4% | 0.5% | 0.6% | 0.7% | 0.6% | 0.7% | 0.8% | 0.6% | 0.7% | 0.8% |
| Medical care services | 6.8 | 0.5% | 0.4% | 0.1% | 0.0% | -0.1% | 0.0% | 0.2% | 0.2% | 0.2% | 0.4% | 0.3% | 0.3% | 0.6% | 0.1% | 0.6% | 0.5% | 0.4% | 0.7% | 0.4% | 0.8% | 1.0% | -0.6% | -0.7% | 0.1% |
| Transportation services | 6.0 | -0.3% | 0.4% | 1.0% | 2.2% | 1.7% | 1.1% | -0.9% | -1.2% | -1.0% | 0.2% | 0.7% | 0.0% | 1.0% | 1.4% | 2.0% | 3.1% | 1.3% | 2.1% | -0.5% | 0.5% | 1.9% | 0.8% | -0.1% | 0.2% |

Source: BLS, FactSet, J.P. Morgan Asset Management. Heatmap shading is relative to the two-year period shown. Component weights may not add to 100. OER refers to owner's equivalent rent. Guide to the Markets – U.S. Data are as of January 17, 2023.

Wage inflation in the U.S. is high, but could be peaking

A weakening labor force is helping to cool wage inflation

DEMAND FOR LABOR PAST THE PEAK

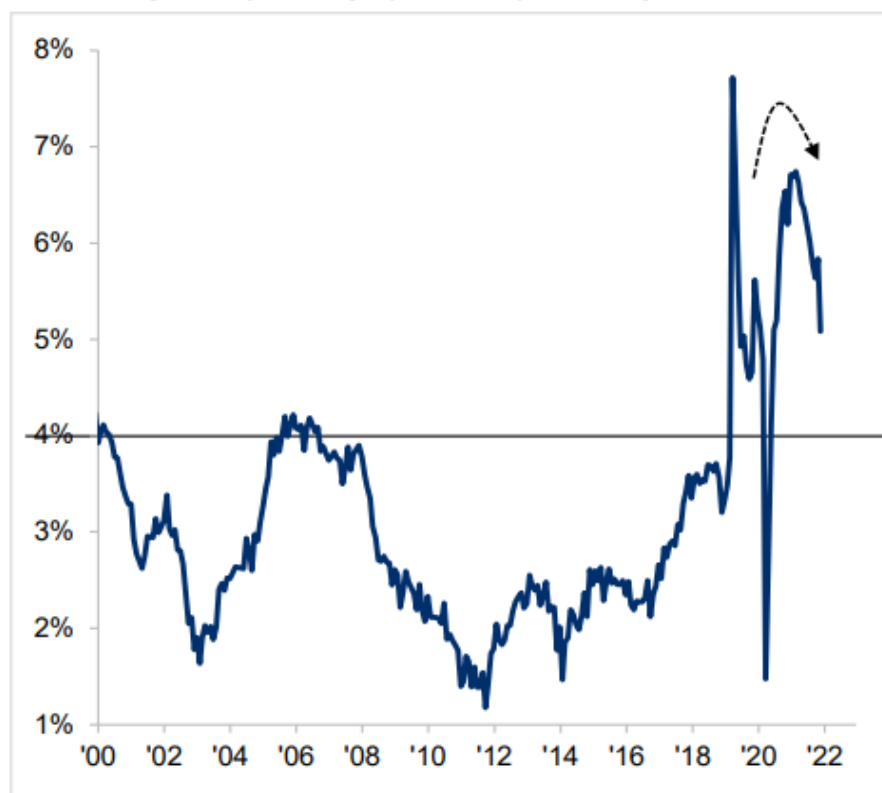
U.S. quits rate, %

U.S. job openings rate, %



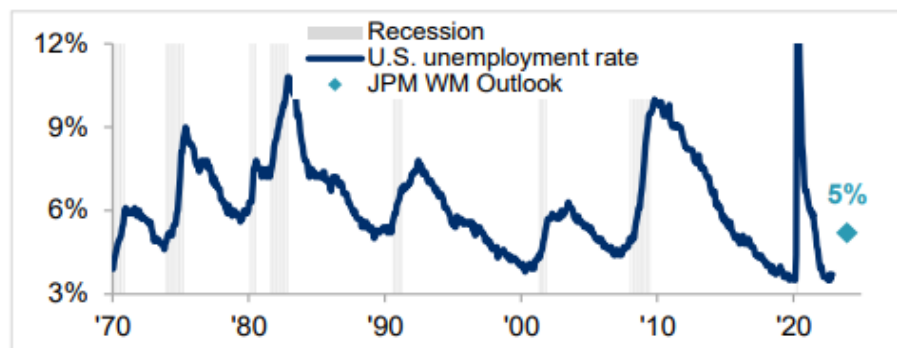
WAGE GROWTH LOOKS SET TO CONTINUE COOLING

U.S. average hourly earnings, year-over-year change, %



UNEMPLOYMENT RATE NEAR RECORD LOWS

%



Source: (Top LHS) Bureau of Labor Statistics, Haver Analytics. (Bottom LHS) Bureau of Labor Statistics, Haver Analytics. (RHS) Bureau of Labor Statistics, Haver Analytics.

Data as of: (Top LHS) October 31, 2022 (Bottom LHS) November 30, 2022 (RHS) November 30, 2022

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index.

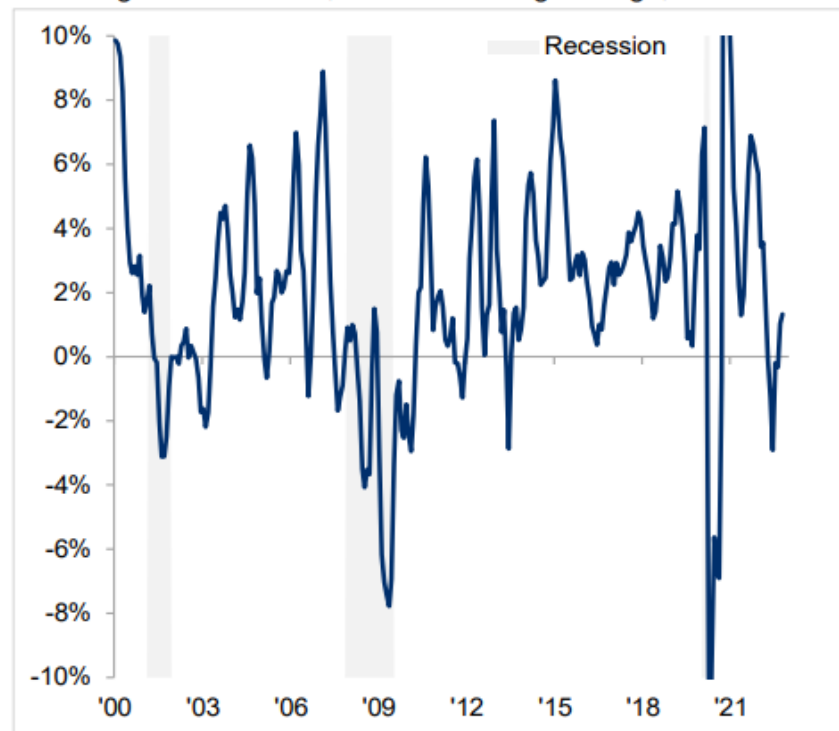
Please refer to "Definition of Indices and Terms" for important information.

The good news: Real incomes are rising, and balance sheets are healthy

Falling inflation relieves consumers, who have historically strong balance sheets

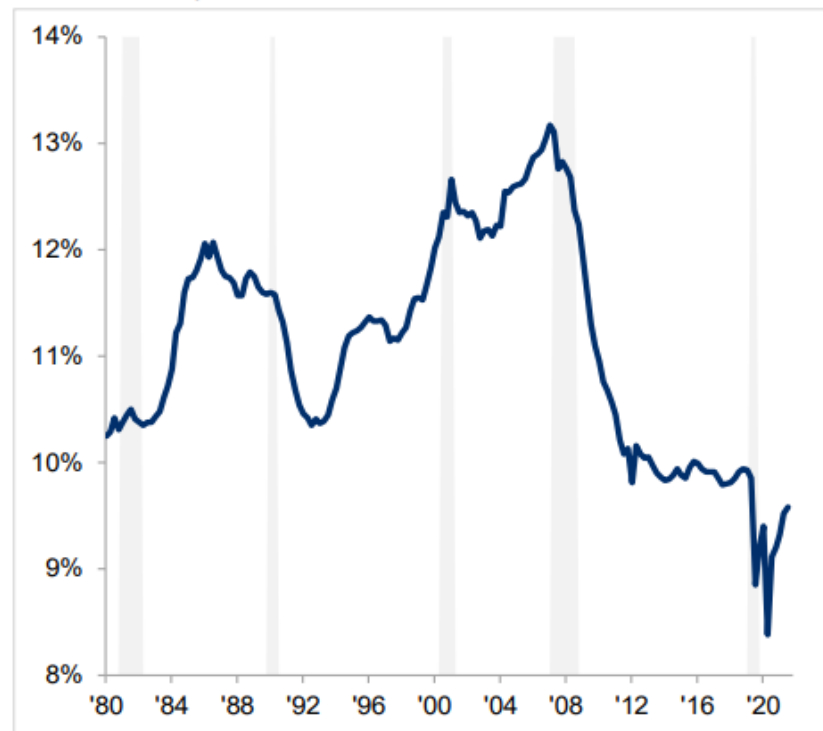
REAL INCOMES ARE ON THE RISE

Real wages and salaries, 6-month moving average, annualized %



HOUSEHOLD DEBT SERVICE HISTORICALLY LOW

Debt service payments as % of disposable personal income



Sources: (LHS) Bureau of Economic Analysis, Haver Analytics. (RHS) Federal Reserve Board, Haver Analytics.

Data as of: (LHS) October 31, 2022. (RHS) Q2 2022.

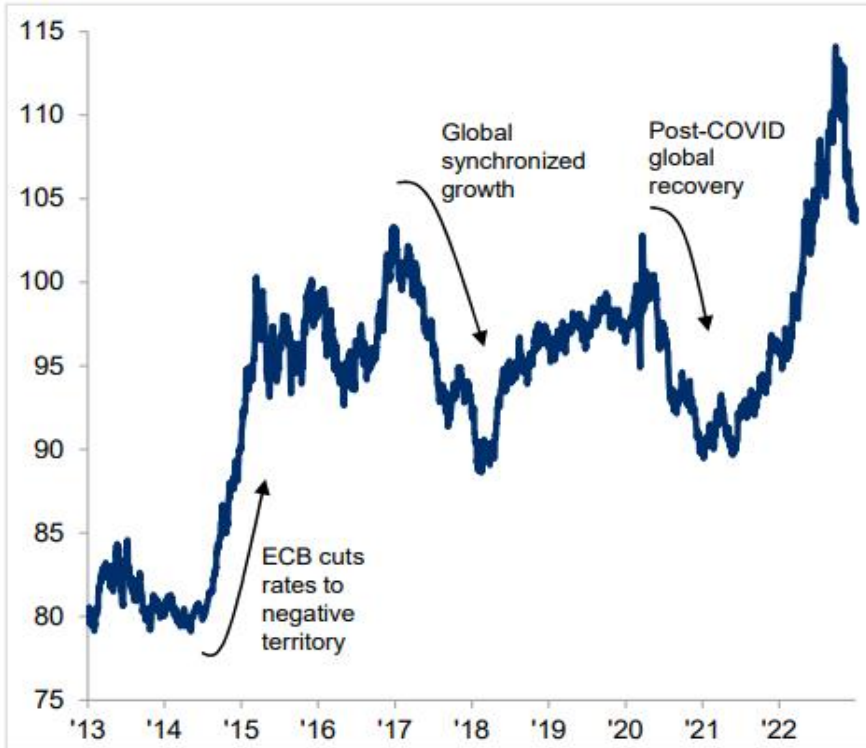
Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

The U.S. dollar peak is likely behind us

Short-term risks for the dollar appear two sided, while we think low yielding currencies should outperform from here

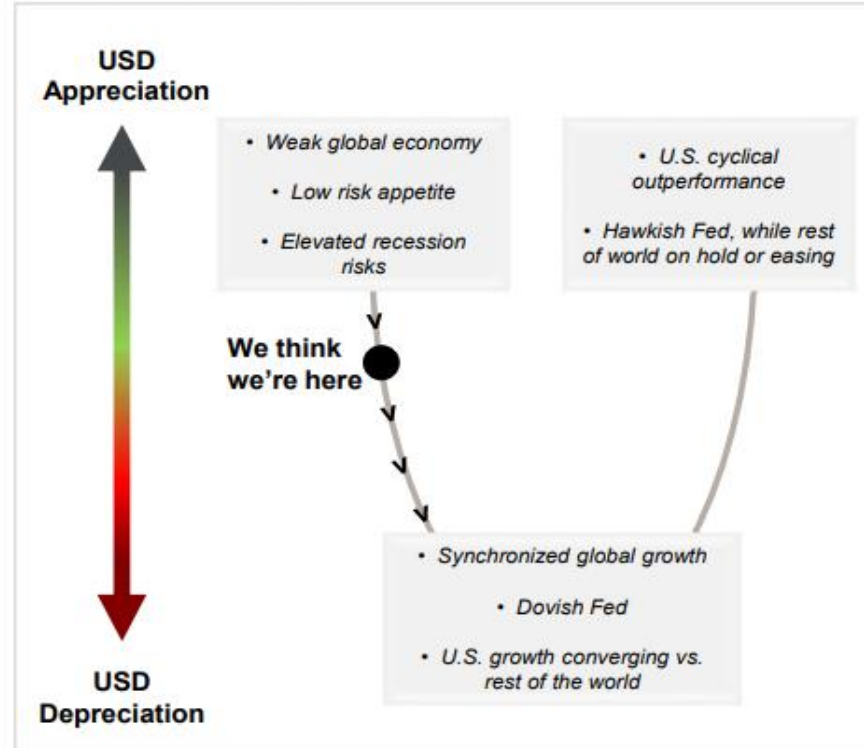
THE DOLLAR HAS ALREADY COME SOME WAY OFF ITS PEAK

DXY Index level



USD SMILE: MOVING FROM THE LEFT TO THE MIDDLE IN 2023

A framework for the U.S. dollar



Source: (LHS) Bloomberg Finance L.P. (RHS) J.P. Morgan Private Bank.

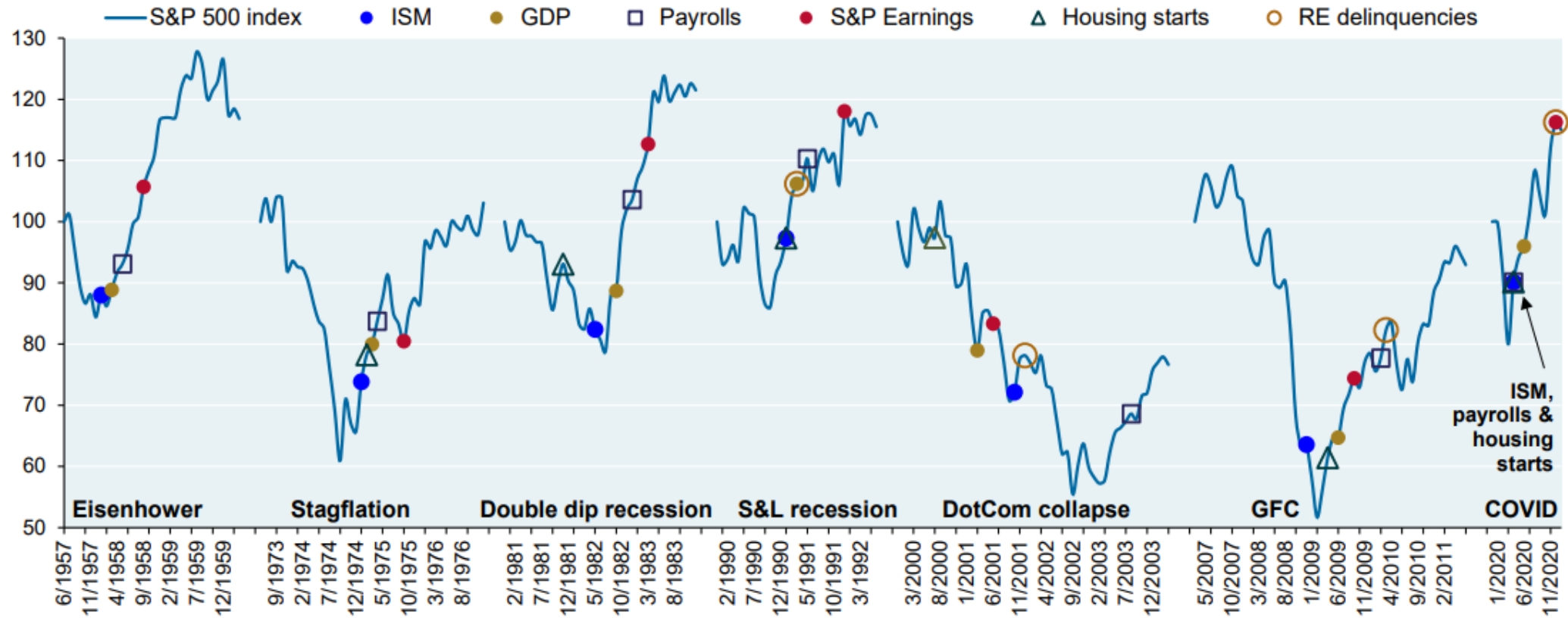
Data as of: (LHS) December 30, 2022. (RHS) November 30, 2022.

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

What to expect when you're expecting (a possible recession)

When recessions occur, the ISM survey has been the best coincident indicator of a bottom in equities

S&P 500 indexed at 100 at start of each period, dots show when each indicator bottomed

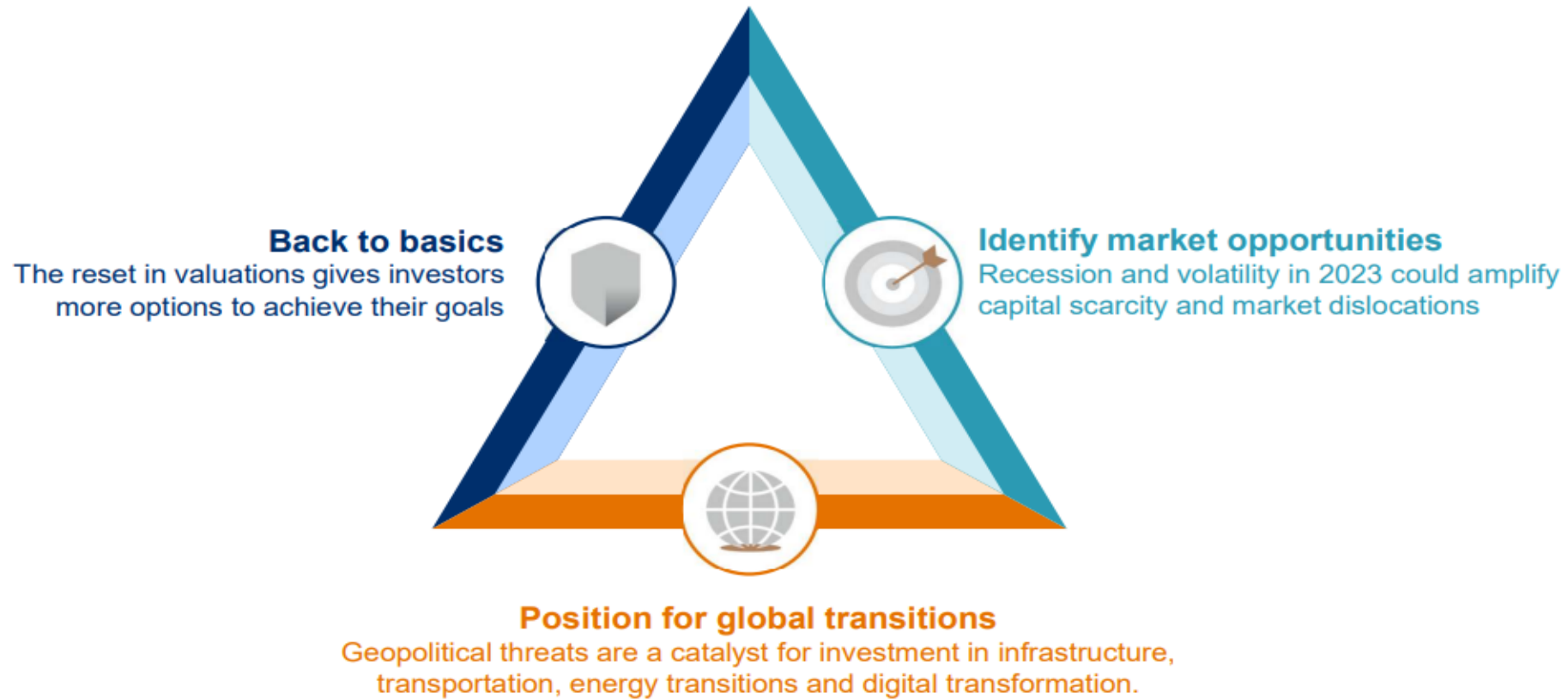


Source: BEA, Census, NAR, Shiller, Bloomberg, S&P Dow Jones, JPMAM. 2022.

INVESTMENT PRODUCTS • NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE

J.P.Morgan
ASSET MANAGEMENT

Key drivers of our investment views



Source: J.P. Morgan Private Bank.

Data as of: December 01, 2022

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

See the potential: Weaker growth, stronger markets



Add core bonds. Core fixed income potentially offers protection, yield, and capital appreciation. We believe that inflation is set to fall, and that yields could decline by over 100bps by the end of 2023. This non-consensus view means investors should lock in longer term rates now by buying **longer duration bonds**.

Focus on quality. Weak economic growth will likely mean negative earnings growth this year, but we expect valuations to expand as the tightening cycle ends. We prefer **high quality equities** with consistent earnings and cash flows over high growth or deep value stocks in this environment.

Invest in small cap, mid cap, and preferred equities. **SMID cap equities** are trading at a steep valuation discount and outperform large cap by over 30% in the first year of the recovery. After the sell-off in 2022, **preferred equities** currently offer a tax-equivalent yield of over 10% with limited default risk.

Monetize volatility. **Tax loss harvesting** strategies use market volatility to drive higher after-tax returns. **Structured notes, options** and **select managed strategies** also use volatility to provide asymmetric return profiles, hedge existing exposures, or generate excess income.

Take advantage of capital scarcity. The drought of capital market activity last year and outsized decline in public markets means that capital providers can earn outsized returns in private markets, especially **secondary private equity**.

Participate in global transitions through real assets. Real assets like real estate (U.S. housing stock underbuilt by ~1.5mm homes), shipping (only 111 active large shipyards vs. 320 in 2008) and natural resources (large-cap energy capex is down -60% since 2015) provide an opportunity to harvest yield and could be a differentiated source of return.

Capitalize on growth megatrends. The clean energy transition creates investment opportunity in both **clean and traditional energy**. After a turbulent bear market, many **secular growth companies** are trading at more reasonable valuations, and the tailwinds for **healthcare innovation** are tremendous.

Source: J.P. Morgan Private Bank.

Data as of: January 02, 2023

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Views in a nutshell: Asset-class overview

| Equities | | 2023 YE | |
|---------------------------|-----------------|--------------|--|
| S&P 500 | Current: | 3895 | |
| Price | | 4200 - 4300 | |
| Forward P/E | | 18.5x | |
| Earnings growth | | (8)% - (6)% | |
| Total return* | | 9% - 12% | |
| Stoxx Europe 600 | Current: | 446 | |
| Price | | 475 - 485 | |
| Forward P/E | | 14.5x | |
| Earnings growth | | (10)% - (8)% | |
| Total return* | | 10% - 12% | |
| TOPIX | Current: | 1,876 | |
| Price | | 1980 - 2030 | |
| Forward P/E | | 12.5x | |
| Earnings growth | | 3% - 5% | |
| Total return* | | 8% - 11% | |
| MSCI Asia ex-Japan | Current: | 642 | |
| Price | | 590 - 640 | |
| Forward P/E | | 11.0x | |
| Earnings growth | | 5% - 7% | |
| Total return* | | (5%) - 3% | |
| MSCI China | Current: | 69 | |
| Price | | 66 - 69 | |
| Forward P/E | | 10.7x | |
| Earnings growth | | 4% - 6% | |
| Total return* | | (2%) - 2% | |

| Commodities | | 2023 YE | |
|---------------------|--|-----------------|--|
| Gold (\$ / oz) | | \$1850 - \$1950 | |
| Brent (\$ / barrel) | | \$93 - \$98 | |

| Macro | | | | | |
|-----------|-------|-------|----------|--------|-------|
| Inflation | 2023 | 2024 | Real GDP | 2023 | 2024 |
| U.S. | 2.10% | 2.20% | U.S. | -0.50% | 1.40% |
| Eurozone | 2.40% | 2.10% | Eurozone | 0.30% | 1.00% |
| China | 1.10% | 2.00% | China | 4.00% | 4.90% |

| Rates & Credit Spreads | | 2023 YE | |
|------------------------|--|---------|--|
| Eff. Fed Funds rate | | 4.15% | |
| 2-year UST | | 3.00% | |
| 10-year UST | | 2.50% | |
| 30-year UST | | 2.55% | |
| 2s/10s spread | | -0.50% | |
| JPM U.S. High Grade | | 185 | |
| JPM U.S. High Yield | | 700 | |
| ECB deposit rate | | 2.25% | |
| 10y German Bunds | | 2.00% | |
| BoE Bank Rate | | 4.25% | |
| 10-year UK Gilt | | 3.50% | |
| EUR IG | | 200 | |
| EUR HY | | 700 | |
| EMBI Global | | 450 | |
| CEMBI Broad | | 425 | |
| JACI IG | | 200 | |
| JACI HY | | 1400 | |

| Currencies | | 2023 YE | |
|------------|--|--------------------------|--|
| USD Index | | 101 (99 - 103) | |
| EUR/USD | | \$1.10 (\$1.08 - \$1.12) | |
| USD/JPY | | ¥130 (¥128 - ¥132) | |
| GBP/USD | | \$1.25 (\$1.23 - \$1.27) | |
| USD/CNH | | ¥7.20 (¥7.10 - ¥7.30) | |

Sources: (LHS) J.P. Morgan Private Bank, Haver Analytics. (RHS) Bloomberg Finance, L.P., J.P. Morgan Private Bank. NOTE: *PB Outlook figures shown are the midpoint of our view with a range of +/-10 basis points. Growth and core inflation figures represent Q4 YoY numbers.

Data as of: January 09, 2023

Outlooks and past performance are no guarantee of future results. It is not possible to invest directly in an index. Please refer to "Definition of Indices and Terms" for important information.

Appendix

Definitions of indices and terms (1/4)

Note: Indices are for illustrative purposes only, are not investment products, and may not be considered for direct investment. Indices are an inherently weak predictive or comparative tool.

All indices denominated in U.S. dollars unless noted otherwise.

The **Bloomberg Global Aggregate** Index provides a broad-based measure of the global investment grade fixed-rate debt markets. The Global Aggregate Index contains three major components: the U.S. Aggregate (USD 300mn), the Pan-European Aggregate (EUR 300mn), and the Asian-Pacific Aggregate Index (JPY 35bn). In addition to securities from these three benchmarks (94.1% of the overall Global Aggregate market value as of December 31, 2009), the Global Aggregate Index includes Global Treasury, Eurodollar (USD 300mn), Euro-Yen (JPY 25bn), Canadian (USD 300mn equivalent), and Investment Grade 144A (USD 300mn) index-eligible securities not already in the three regional aggregate indices. The Global Aggregate Index family includes a wide range of standard and customized subindices by liquidity constraint, sector, quality, and maturity. A component of the Multiverse Index, the Global Aggregate Index was created in 1999, with index history backfilled to January 1, 1990. All indices are denominated in U.S. dollars.

Bloomberg U.S. Corporate High Yield Bond Index is composed of fixed-rate, publicly issued, non-investment grade debt.

Bloomberg Finance L.P. Commodity Index is a benchmark designed to provide liquid and diversified exposure to physical commodities via futures contracts.

Capital expenditure, or CapEx, are funds used by a company to acquire or upgrade physical assets such as property, industrial buildings or equipment. It is often used to undertake new projects or investments by the firm.

A certificate of deposit (CD) is a savings certificate usually issued by a commercial bank with a fixed maturity date and specified fixed interest rate.

Earnings per Share, EPS, The portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company's profitability.

The **Emerging Market Bond Index Global** (EMBI Global) was the first comprehensive EM sovereign index in the market, after the EMBI+. It provides full coverage of the EM asset class with representative countries, investable instruments (sovereign and quasi-sovereign), and transparent rules. The EMBI Global includes only USD-denominated emerging markets sovereign bonds and uses a traditional, market capitalization weighted method for country allocation.

G-7: The Group of 7 (also known as the G-7) is a group consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

The **IBEX 35** is the official index of the Spanish Continuous Market. The index and comprises the 35 most liquid stocks traded on the Continuous market. It is calculated, supervised and published by the Sociedad de Bolsas. The equities use free float shares in the index calculation. The index was created with a base level of 3000 as of December 29, 1989.

Appendix

Definitions of indices and terms (2/4)

The **IBOXX Euro Corporates index** by Markit is designed to replicate the investible investment grade European corporate bond market.

The **Ibovespa Index** is a gross total return index weighted by traded volume and comprises the most liquid stocks traded on the São Paulo Stock Exchange. The Bovespa Index has been divided

10 times by a factor of 10 since January 1, 1985: 12/02/85, 08/29/88, 04/14/89, 01/12/90, 05/28/91, 01/21/92, 01/26/93, 08/27/93, 02/10/94, and 03/03/97.

The **JPM Corporate Emerging Market Bond Index (CEMBI)** series was launched in 2007 and was the first comprehensive USD corporate emerging markets bond index. There are two root versions of the CEMBI with a Diversified overlay for each version: the CEMBI and the CEMBI Broad. The CEMBI Broad Diversified version is the most popular among the four versions largely due to its issuer coverage and diversification weighting scheme.

The **JPM Domestic High Yield Index** is designed to mirror the investable universe of the U.S. dollar domestic high yield corporate debt market.

The **JPM Investment Grade Index (JULI)** provides performance comparisons and valuation metrics across a carefully defined universe of investment grade corporate bonds, tracking individual issuers, sectors and sub-sectors by their various ratings and maturities.

LIBOR: London Interbank Offered Rate is the average of interest rates estimated by each of the leading banks in London that it would be charged were it to borrow from other banks.

M2 Money Supply: M2 refers to a measure of money supply that includes cash and checking deposits (M1) as well as near money including savings deposits, money market mutual funds and other time deposits, which are less liquid and not as suitable as exchange mediums but can be quickly converted into cash or checking deposits.

The **MSCI AC Asia ex Japan Index** captures large and mid cap representation across two of three Developed Markets countries (excluding Japan) and eight Emerging Markets countries in Asia. With 609 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. Developed Markets countries in the index include: Hong Kong and Singapore. Emerging Markets countries include: China, India, Indonesia, Korea, Malaysia, the Philippines, Taiwan and Thailand.

The **MSCI All-country World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The index consists of 23 developed market country indexes and 24 emerging market country indices.

The **MSCI EAFE Index** is an equity index that captures large and mid cap representation across Developed Markets countries around the world, excluding the United States and Canada. With 929 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Appendix

Definitions of indices and terms (3/4)

The **MSCI Emerging Markets Index** captures large and mid cap representation across 23 Emerging Markets (EM) countries. With 834 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. EM countries include: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Qatar, South Africa, Taiwan, Thailand, Turkey and United Arab Emirates.

The **MSCI Emerging Markets (EM) Latin America Index** captures large and mid cap representation across five Emerging Markets (EM) countries in Latin America. With 130 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. EM Latin America countries include: Brazil, Chile, Colombia, Mexico, and Peru.

The **MSCI Europe Index** represents the performance of large and mid-cap equities across 15 developed countries in Europe.

The **MSCI USA Index** is designed to measure the performance of the large and mid cap segments of the U.S. market. With 627 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the United States.

The **MSCI World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed markets. The index consists of 23 developed market country indexes.

The **Mexican IPC index** (Indice de Precios y Cotizaciones) is a capitalization weighted index of the leading stocks traded on the Mexican Stock Exchange. The index was developed with a base level of .78 as of October 30, 1978.

Net Interest Margin: The difference between interest and dividends earned on interest-bearing assets and interest paid to depositors and other creditors, expressed as a percentage of average earning assets.

The Nikkei 225 Index comprises 225 stocks selected from domestic common stocks in the first section of the Tokyo Stock Exchange, excluding ETFs, REITs, preferred equity contribution securities, tracking stocks (on subsidiary dividend), etc., other than common stocks.

P/E (Price to Earnings): A valuation ratio of a company's current share price compared to its per share earnings. Calculated as market value per share divided by earnings per share (EPS).

Appendix

Definitions of indices and terms (4/4)

PMI (Purchasing Managers' Index) is an indicator of the economic health of manufacturing sector.

Purchasing power parity (PPP) is a theory in economics that approximates the total adjustment that must be made on the currency exchange rate between countries that allows the exchange to be equal to the purchasing power of each country's currency.

SPDR Gold Shares is part of the SPDR family of exchange-traded funds (ETFs) managed and marketed by State Street Global Advisors.

Standard and Poor's 500 Index is a capitalization-weighted index of 500 stocks. The index is designed to measure performance of the broad domestic economy through changes in the aggregate market value of 500 stocks representing all major industries. The index was developed with a base level of 10 for the 1941–43 base period.

Standard and Poor's 500 Information Technology Index comprises those companies included in the S&P 500 that are classified as members of the GICS information technology sector.

STOXX Europe 600 Index (SXXP Index): An index tracking 600 publicly traded companies based in one of 18 EU countries. The index includes small cap, medium cap, and large cap companies. The countries represented in the index are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Holland, Iceland, Ireland, Italy, Luxembourg, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

TOPIX also known as the Tokyo Stock Price Index, is a capitalization-weighted index of all companies listed on the First Section of the Tokyo Stock Exchange.

U.S. Treasury Index is a broad, comprehensive, market-value weighted index that seeks to measure the performance of the U.S. Treasury Bond market.

Key risks (1/2)

This material is for information purposes only, and may inform you of certain products and services offered by private banking businesses, part of JPMorgan Chase & Co. ("JPM"). Products and services described, as well as associated fees, charges and interest rates, are subject to change in accordance with the applicable account agreements and may differ among geographic locations. Not all products and services are offered at all locations. If you are a person with a disability and need additional support accessing this material, please contact your J.P. Morgan team or email us at accessibility.support@jpmorgan.com for assistance. **Please read all Important Information.**

GENERAL RISKS & CONSIDERATIONS

Any views, strategies or products discussed in this material may not be appropriate for all individuals and are subject to risks. **Investors may get back less than they invested, and past performance is not a reliable indicator of future results.** Asset allocation/diversification does not guarantee a profit or protect against loss. Nothing in this material should be relied upon in isolation for the purpose of making an investment decision. You are urged to consider carefully whether the services, products, asset classes (e.g. equities, fixed income, alternative investments, commodities, etc.) or strategies discussed are suitable to your needs. You must also consider the objectives, risks, charges, and expenses associated with an investment service, product or strategy prior to making an investment decision. For this and more complete information, including discussion of your goals/situation, contact your J.P. Morgan team.

NON-RELIANCE

Certain information contained in this material is believed to be reliable; however, JPM does not represent or warrant its accuracy, reliability or completeness, or accept any liability for any loss or damage (whether direct or indirect) arising out of the use of all or any part of this material. No representation or warranty should be made with regard to any computations, graphs, tables, diagrams or commentary in this material, which are provided for illustration/ reference purposes only. The views, opinions, estimates and strategies expressed in this material constitute our judgment based on current market conditions and are subject to change without notice. JPM assumes no duty to update any information in this material in the event that such information changes. Views, opinions, estimates and strategies expressed herein may differ from those expressed by other areas of JPM, views expressed for other purposes or in other contexts, and **this material should not be regarded as a research report.** Any projected results and risks are based solely on hypothetical examples cited, and actual results and risks will vary depending on specific circumstances. Forward-looking statements should not be considered as guarantees or predictions of future events.

Nothing in this document shall be construed as giving rise to any duty of care owed to, or advisory relationship with, you or any third party. Nothing in this document shall be regarded as an offer, solicitation, recommendation or advice (whether financial, accounting, legal, tax or other) given by J.P. Morgan and/or its officers or employees, irrespective of whether or not such communication was given at your request. J.P. Morgan and its affiliates and employees do not provide tax, legal or accounting advice. You should consult your own tax, legal and accounting advisors before engaging in any financial transactions.

Key risks (2/2)

COMMODITIES

Investments in commodities may have greater volatility than investments in traditional securities. The value of commodities may be affected by changes in overall market movements, commodity index volatility, changes in interest rates, or factors affecting a particular industry or commodity, such as drought, floods, weather, livestock disease, embargoes, tariffs and international economic, political and regulatory developments. Investing in commodities creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

FIXED INCOME

Investing in fixed income products is subject to certain risks, including interest rate, credit, inflation, call, prepayment, and reinvestment risk.

PREFERRED

Preferred investments share characteristics of both stocks and bonds. Preferred securities are typically long dated securities with call protection that fall in between debt and equity in the capital structure. Preferred securities carry various risks and considerations which include: concentration risk; interest rate risk; lower credit ratings than individual bonds; a lower claim to assets than a firm's individual bonds; higher yields due to these risk characteristics; and "callable" implications meaning the issuing company may redeem the stock at a certain price after a certain date.

Your investments and potential conflicts of interest

Conflicts of interest will arise whenever JPMorgan Chase Bank, N.A. or any of its affiliates (together, "J.P. Morgan") have an actual or perceived economic or other incentive in its management of our clients' portfolios to act in a way that benefits J.P. Morgan. Conflicts will result, for example (to the extent the following activities are permitted in your account): (1) when J.P. Morgan invests in an investment product, such as a mutual fund, structured product, separately managed account or hedge fund issued or managed by JPMorgan Chase Bank, N.A. or an affiliate, such as J.P. Morgan Investment Management Inc.; (2) when a J.P. Morgan entity obtains services, including trade execution and trade clearing, from an affiliate; (3) when J.P. Morgan receives payment as a result of purchasing an investment product for a client's account; or (4) when J.P. Morgan receives payment for providing services (including shareholder servicing, recordkeeping or custody) with respect to investment products purchased for a client's portfolio. Other conflicts will result because of relationships that J.P. Morgan has with other clients or when J.P. Morgan acts for its own account.

Investment strategies are selected from both J.P. Morgan and third-party asset managers and are subject to a review process by our manager research teams. From this pool of strategies, our portfolio construction teams select those strategies we believe fit our asset allocation goals and forward-looking views in order to meet the portfolio's investment objective.

As a general matter, we prefer J.P. Morgan managed strategies. We expect the proportion of J.P. Morgan managed strategies will be high (in fact, up to 100 percent) in strategies such as, for example, cash and high-quality fixed income, subject to applicable law and any account-specific considerations.

While our internally managed strategies generally align well with our forward-looking views, and we are familiar with the investment processes as well as the risk and compliance philosophy of the firm, it is important to note that J.P. Morgan receives more overall fees when internally managed strategies are included. We offer the option of choosing to exclude J.P. Morgan managed strategies (other than cash and liquidity products) in certain portfolios.

Legal entity, brand & regulatory information

In the United States, bank deposit accounts and related services, such as checking, savings and bank lending, are offered by **JPMorgan Chase Bank, N.A.** Member FDIC.

JPMorgan Chase Bank, N.A. and its affiliates (collectively “**JPMCB**”) offer investment products, which may include bank managed investment accounts and custody, as part of its trust and fiduciary services. Other investment products and services, such as brokerage and advisory accounts, are offered through **J.P. Morgan Securities LLC (“JPMS”)**, a member of [FINRA](#) and [SIPC](#). Annuities are made available through Chase Insurance Agency, Inc. (CIA), a licensed insurance agency, doing business as Chase Insurance Agency Services, Inc. in Florida. JPMCB, JPMS and CIA are affiliated companies under the common control of JPM. Products not available in all states.

In **Germany**, this material is issued by **J.P. Morgan SE**, with its registered office at Taunustor 1 (TaunusTurm), 60310 Frankfurt am Main, Germany, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB). In **Luxembourg**, this material is issued by **J.P. Morgan SE – Luxembourg Branch**, with registered office at European Bank and Business Centre, 6 route de Treves, L-2633, Senningerberg, Luxembourg, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Luxembourg Branch is also supervised by the Commission de Surveillance du Secteur Financier (CSSF); registered under R.C.S Luxembourg B255938. In the **United Kingdom**, this material is issued by **J.P. Morgan SE – London Branch**, registered office at 25 Bank Street, Canary Wharf, London E14 5JP,

authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – London Branch is also supervised by the Financial Conduct Authority and Prudential Regulation Authority. In **Spain**, this material is distributed by **J.P. Morgan SE, Sucursal en España**, with registered office at Paseo de la Castellana, 31, 28046 Madrid, Spain, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE, Sucursal en España is also supervised by the Spanish Securities Market Commission (CNMV); registered with Bank of Spain as a branch of J.P. Morgan SE under code 1567. In **Italy**, this material is distributed by **J.P. Morgan SE – Milan Branch**, with its registered office at Via Cordusio, n.3, Milan 20123, Italy, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Milan Branch is also supervised by Bank of Italy and the Commissione Nazionale per le Società e la Borsa (CONSOB); registered with Bank of Italy as a branch of J.P. Morgan SE under code 8076; Milan Chamber of Commerce Registered Number: REA MI 2536325.

Legal entity, brand & regulatory information

In the **Netherlands**, this material is distributed by **J.P. Morgan SE – Amsterdam Branch**, with registered office at World Trade Centre, Tower B, Strawinskylaan 1135, 1077 XX, Amsterdam, The Netherlands, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Amsterdam Branch is also supervised by De Nederlandsche Bank (DNB) and the Autoriteit Financiële Markten (AFM) in the Netherlands. Registered with the Kamer van Koophandel as a branch of J.P. Morgan SE under registration number 72610220. In **Denmark**, this material is distributed by **J.P. Morgan SE – Copenhagen Branch, filial af J.P. Morgan SE, Tyskland**, with registered office at Kalvebod Brygge 39-41, 1560 København V, Denmark, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Copenhagen Branch, filial af J.P. Morgan SE, Tyskland is also supervised by Finanstilsynet (Danish FSA) and is registered with Finanstilsynet as a branch of J.P. Morgan SE under code 29010. In **Sweden**, this material is distributed by **J.P. Morgan SE – Stockholm Bankfilial**, with registered office at Hamngatan 15, Stockholm, 11147, Sweden, authorized by the Bundesanstalt für Finanzdienstleistungsaufsicht (BaFin) and jointly supervised by the BaFin, the German Central Bank (Deutsche Bundesbank) and the European Central Bank (ECB); J.P. Morgan SE – Stockholm Bankfilial is also supervised by Finansinspektionen (Swedish FSA); registered with Finansinspektionen as a branch of J.P. Morgan SE. In **France**, this material is distributed by **JPMorgan Chase Bank, N.A. Paris Branch**, registered office at 14, Place Vendôme, Paris 75001, France, registered at the Registry of the Commercial Court of Paris under number 712 041 334 and licensed by the Autorité de contrôle prudentiel et de résolution (ACPR) and supervised by the ACPR and the Autorité des Marchés Financiers. In **Switzerland**, this material is distributed by **J.P. Morgan (Suisse) SA**, with registered address at rue du Rhône, 35,

1204, Geneva, Switzerland, which is authorised and supervised by the Swiss Financial Market Supervisory Authority (FINMA) as a bank and a securities dealer in Switzerland.

This communication is an advertisement for the purposes of the Markets in Financial Instruments Directive (MIFID II) and the Swiss Financial Services Act (FINSA). Investors should not subscribe for or purchase any financial instruments referred to in this advertisement except on the basis of information contained in any applicable legal documentation, which is or shall be made available in the relevant jurisdictions (as required).

In **Hong Kong**, this material is distributed by **JPMCB, Hong Kong branch**. JPMCB, Hong Kong branch is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong, we will cease to use your personal data for our marketing purposes without charge if you so request. In **Singapore**, this material is distributed by **JPMCB, Singapore branch**. JPMCB, Singapore branch is regulated by the Monetary Authority of Singapore. Dealing and advisory services and discretionary investment management services are provided to you by JPMCB, Hong Kong/Singapore branch (as notified to you). Banking and custody services are provided to you by JPMCB Singapore Branch. The contents of this document have not been reviewed by any regulatory authority in Hong Kong, Singapore or any other jurisdictions. You are advised to exercise caution in relation to this document. If you are in any doubt about any of the contents of this document, you should obtain independent professional advice. For materials which constitute product advertisement under the Securities and Futures Act and the Financial Advisers Act, this advertisement has not been reviewed by the Monetary Authority of Singapore. JPMorgan Chase Bank, N.A., a national banking association chartered under the laws of the United States, and as a body corporate, its shareholder's liability is limited.

Legal entity, brand & regulatory information

With respect to countries in **Latin America**, the distribution of this material may be restricted in certain jurisdictions. We may offer and/or sell to you securities or other financial instruments which may not be registered under, and are not the subject of a public offering under, the securities or other financial regulatory laws of your home country. Such securities or instruments are offered and/or sold to you on a private basis only. Any communication by us to you regarding such securities or instruments, including without limitation the delivery of a prospectus, term sheet or other offering document, is not intended by us as an offer to sell or a solicitation of an offer to buy any securities or instruments in any jurisdiction in which such an offer or a solicitation is unlawful. Furthermore, such securities or instruments may be subject to certain regulatory and/or contractual restrictions on subsequent transfer by you, and you are solely responsible for ascertaining and complying with such restrictions. To the extent this content makes reference to a fund, the Fund may not be publicly offered in any Latin American country, without previous registration of such fund's securities in compliance with the laws of the corresponding jurisdiction. Public offering of any security, including the shares of the Fund, without previous registration at Brazilian Securities and Exchange Commission–CVM is completely prohibited. Some products or services contained in the materials might not be currently provided by the Brazilian and Mexican platforms.

References to “J.P. Morgan” are to JPM, its subsidiaries and affiliates worldwide. “J.P. Morgan Private Bank” is the brand name for the private banking business conducted by JPM. This material is intended for your personal use and should not be circulated to or used by any other person, or duplicated for non-personal use, without our permission. If you have any questions or no longer wish to receive these communications, please contact your J.P. Morgan team.

© 2023 JPMorgan Chase & Co. All rights reserved.

JPMorgan Chase Bank, N.A. (JPMCBNA) (ABN 43 074 112 011/AFS

Licence No: 238367) is regulated by the Australian Securities and Investment Commission and the Australian Prudential Regulation Authority. Material provided by JPMCBNA in Australia is to “wholesale clients” only. For the purposes of this paragraph the term “wholesale client” has the meaning given in section 761G of the Corporations Act 2001 (Cth). Please inform us if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

JPMS is a registered foreign company (overseas) (ARBN 109293610) incorporated in Delaware, U.S.A. Under Australian financial services licensing requirements, carrying on a financial services business in Australia requires a financial service provider, such as J.P. Morgan Securities LLC (JPMS), to hold an Australian Financial Services Licence (AFSL), unless an exemption applies. **JPMS is exempt from the requirement to hold an AFSL under the Corporations Act 2001 (Cth) (Act) in respect of financial services it provides to you, and is regulated by the SEC, FINRA and CFTC under US laws, which differ from Australian laws.** Material provided by JPMS in Australia is to “wholesale clients” only. The information provided in this material is not intended to be, and must not be, distributed or passed on, directly or indirectly, to any other class of persons in Australia. For the purposes of this paragraph the term “wholesale client” has the meaning given in section 761G of the Act. Please inform us immediately if you are not a Wholesale Client now or if you cease to be a Wholesale Client at any time in the future.

This material has not been prepared specifically for Australian investors. It:

- may contain references to dollar amounts which are not Australian dollars;
- may contain financial information which is not prepared in accordance with Australian law or practices;
- may not address risks associated with investment in foreign currency denominated investments; and
- does not address Australian tax issues.

Upcoming Events

2/8 - Scaling Your Business in a Challenging Business Environment: FY 2023

2/14 - The Supply Chain Evolution:
The Future of Procurement & Logistics

2/25 - ACG Cup

3/2 - M&A Update

3/8 – Women’s Forum: Wine Down Wednesday

3/16 - NextGen: March Madness Event