Market Insights

Guide to the Markets®

Jordan Jackson, Global Market Strategist

U.S. | 3Q 2022

As of August 31, 2022

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Agenda

GTM | U.S.

- **Growth:** *not in recession, but risks remain elevated heading into 4Q22*
- **Jobs:** *payroll gains expected to slow as excess demand for labor falls*
- **Profits**: *constructive today, but overly optimistic for tomorrow*
- **Inflation:** *from red-hot to amber*
- **Rates:** *what's next after neutral?*
- **Policy:** *balance of power following midterm elections*
- **Investment opportunities**: *conservative equity; high quality fixed income*

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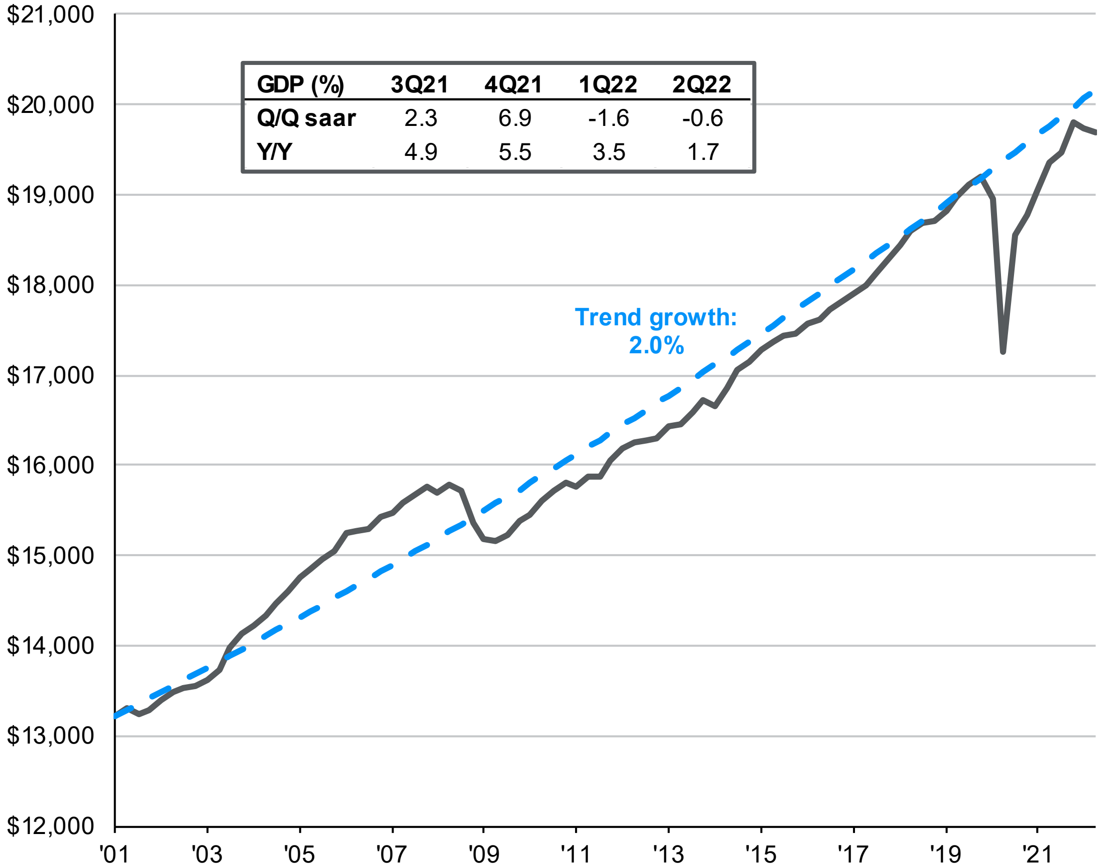
The slide in growth in 1H22 reflects slowing momentum, not recession

Economy

Real GDP

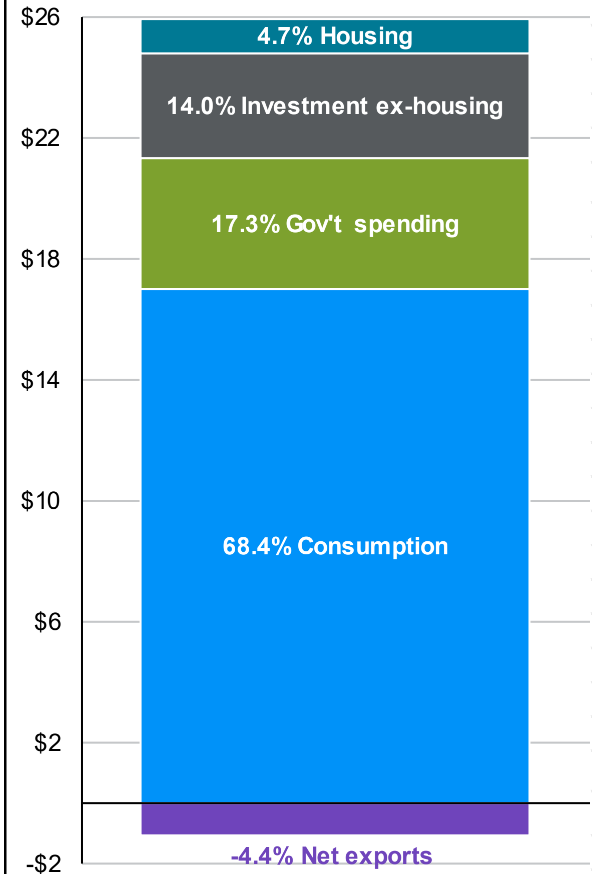
Billions of chained (2012) dollars, seasonally adjusted at annual rates

GDP (%)	3Q21	4Q21	1Q22	2Q22
Q/Q saar	2.3	6.9	-1.6	-0.6
Y/Y	4.9	5.5	3.5	1.7



Components of GDP

2Q22 nominal GDP, USD trillions



Source: BEA, FactSet, J.P. Morgan Asset Management. Values may not sum to 100% due to rounding. Trend growth is measured as the average annual growth rate from business cycle peak 1Q01 to business cycle peak 4Q19.
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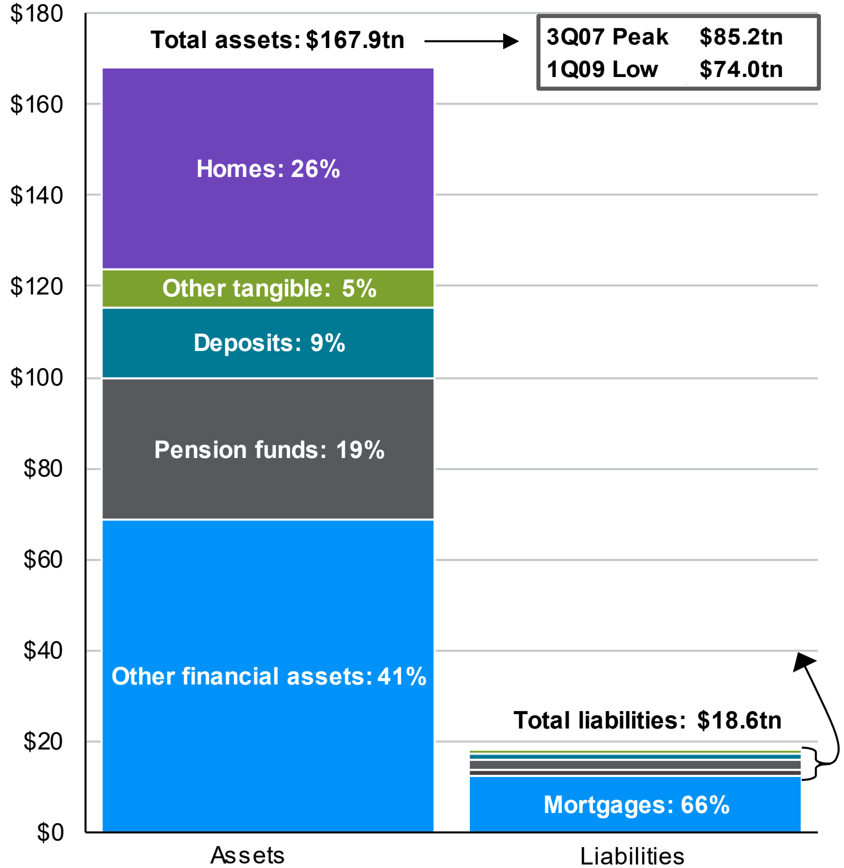
Consumer balance sheets are still in good shape

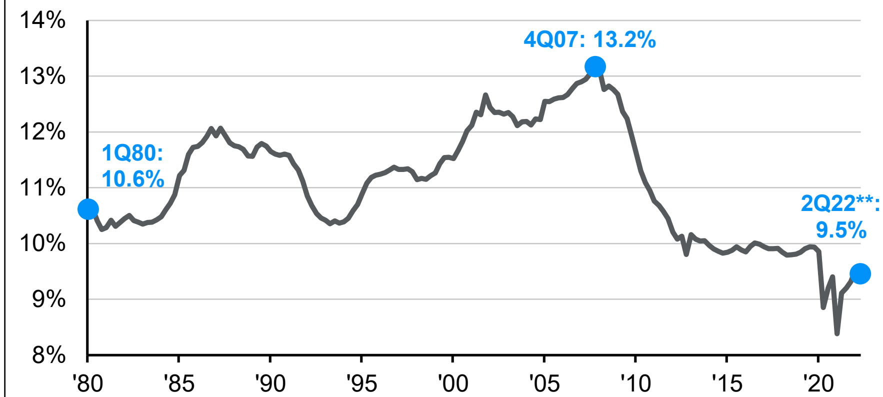
Consumer balance sheet

1Q22, trillions of dollars outstanding, not seasonally adjusted



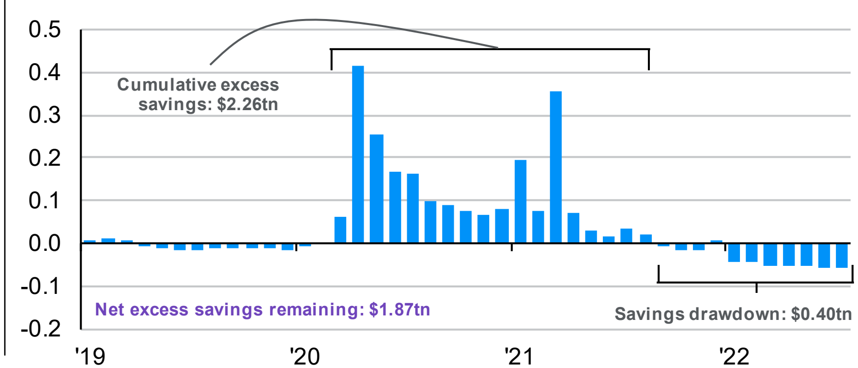
Household debt service ratio

Debt payments as % of disposable personal income, SA



Excess personal savings relative to pre-pandemic trend

Disposable personal income less consumer outlays, minus pre-pandemic trend growth***, $ trillions, monthly



Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA.
Data include households and nonprofit organizations. SA – seasonally adjusted. *Revolving includes credit cards. Values may not sum to 100% due to rounding. **2Q22 figures for debt service ratio are J.P. Morgan Asset Management estimates. ***Figures reflect the difference in monthly realized savings vs. pre-pandemic trend savings from March 2020 to February 2022. From March 2020 to August 2021, consumers amassed $2.3 trillion in excess savings. Since August 2021, consumers have begun to draw down on those excess savings, with the remaining reflected in the chart annotation.
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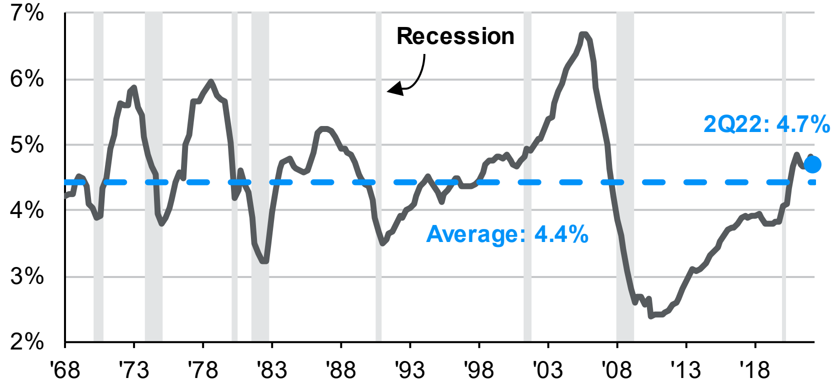
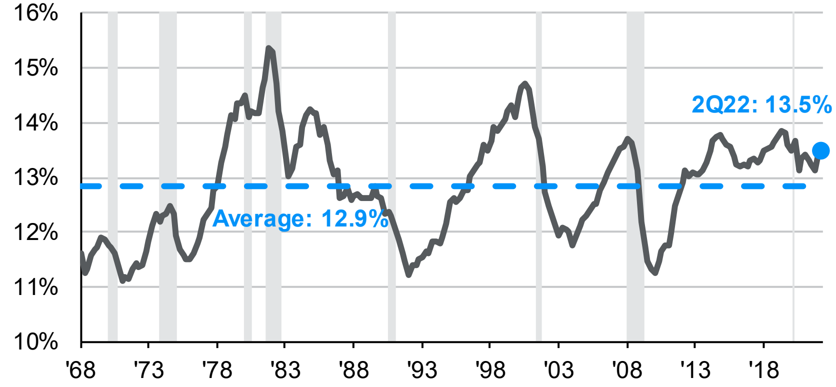
If a recession were to occur, it may be a shallow one

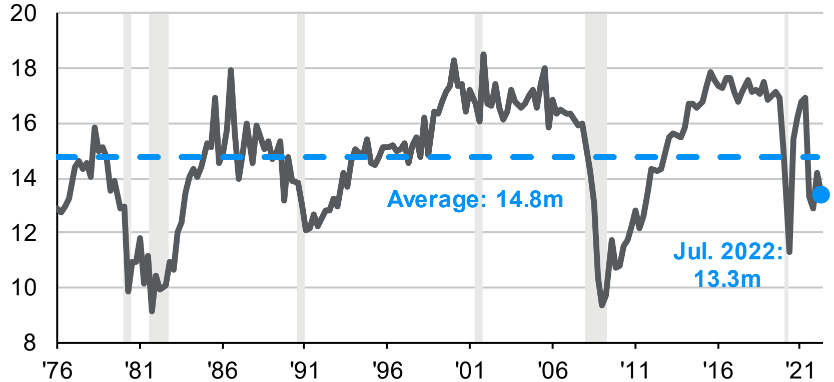
Residential investment as a % of GDP
Quarterly, seasonally adjusted



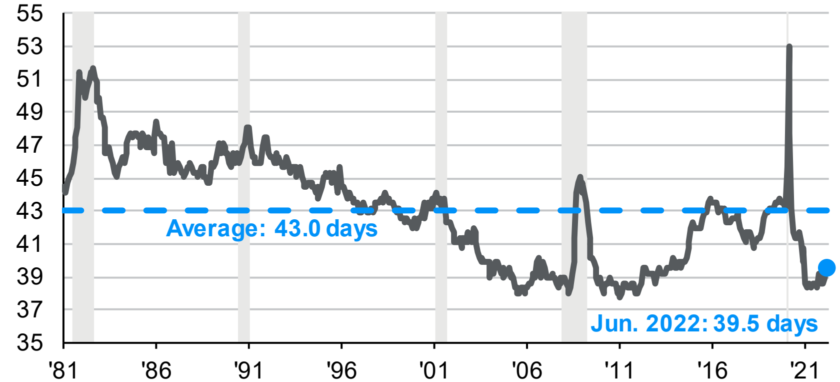
Business fixed investment as a % of GDP
Quarterly, seasonally adjusted



Light vehicle sales
Mil vehicles, seasonally adjusted ann. rate



Total business inventory/sales ratio
Days of sales, monthly, seasonally adjusted



Source: BEA, Census Bureau, FactSet, J.P. Morgan Asset Management. Data for light vehicle sales is quarterly apart from the latest monthly data point.
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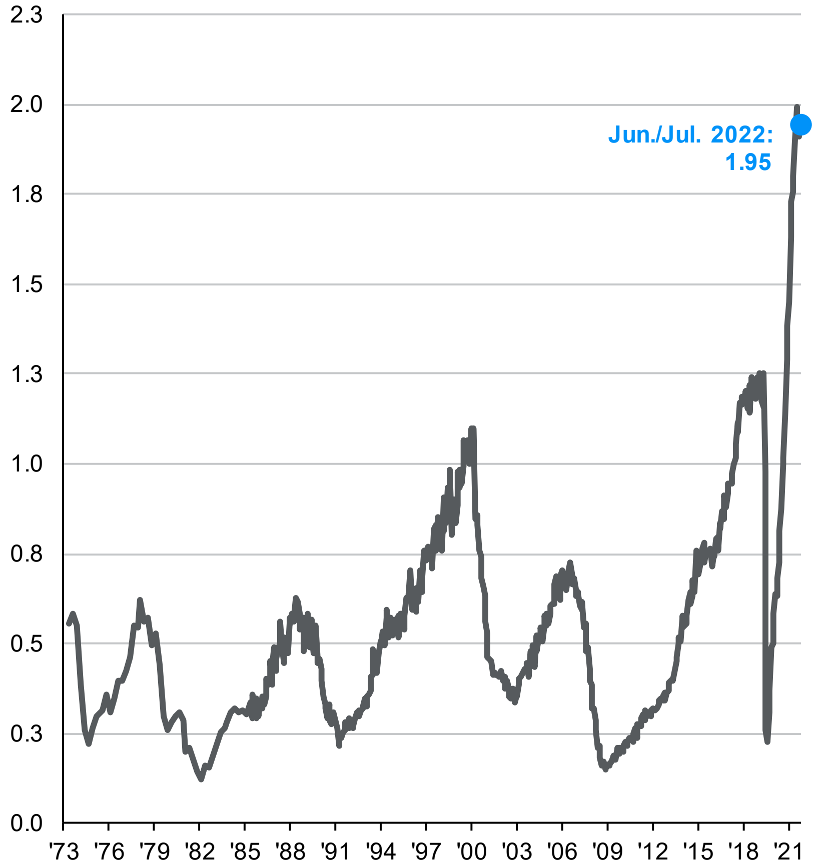
Economy

Demand for labor remains elevated but should soften

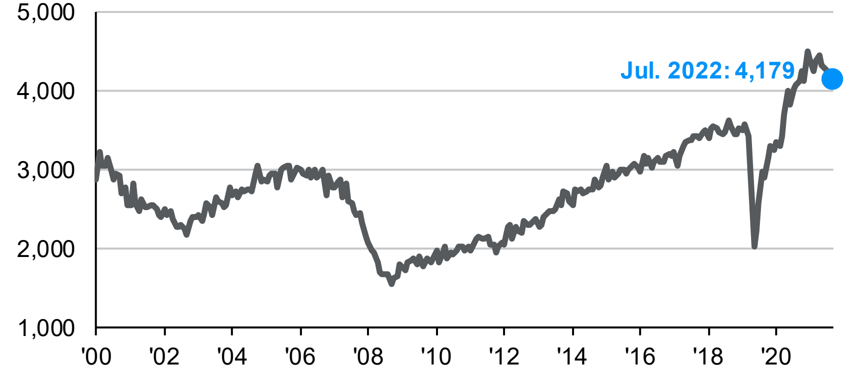
Ratio of job openings to job seekers

Job openings* lagged 1 month divided by unemployed persons, SA



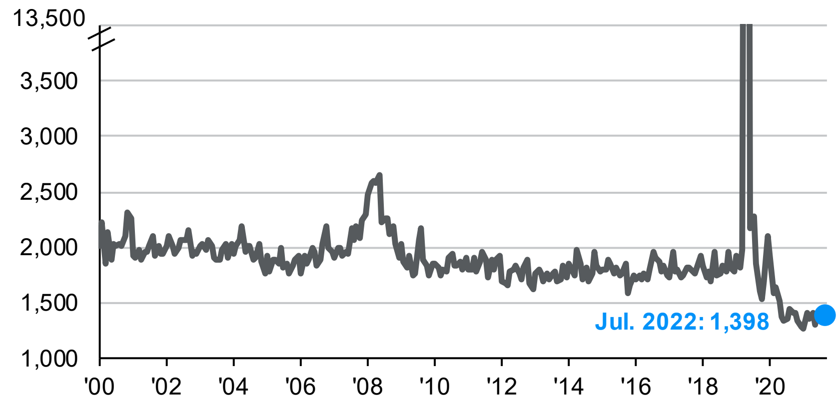
JOLTS quits

Total nonfarm quits, thousands, seasonally adjusted



JOLTS layoffs

Total nonfarm layoffs, thousands, seasonally adjusted



Source: U.S. Department of Labor, J.P. Morgan Asset Management. *JOLTS job openings from February 1974 to November 2000 are J.P. Morgan Asset Management estimates.

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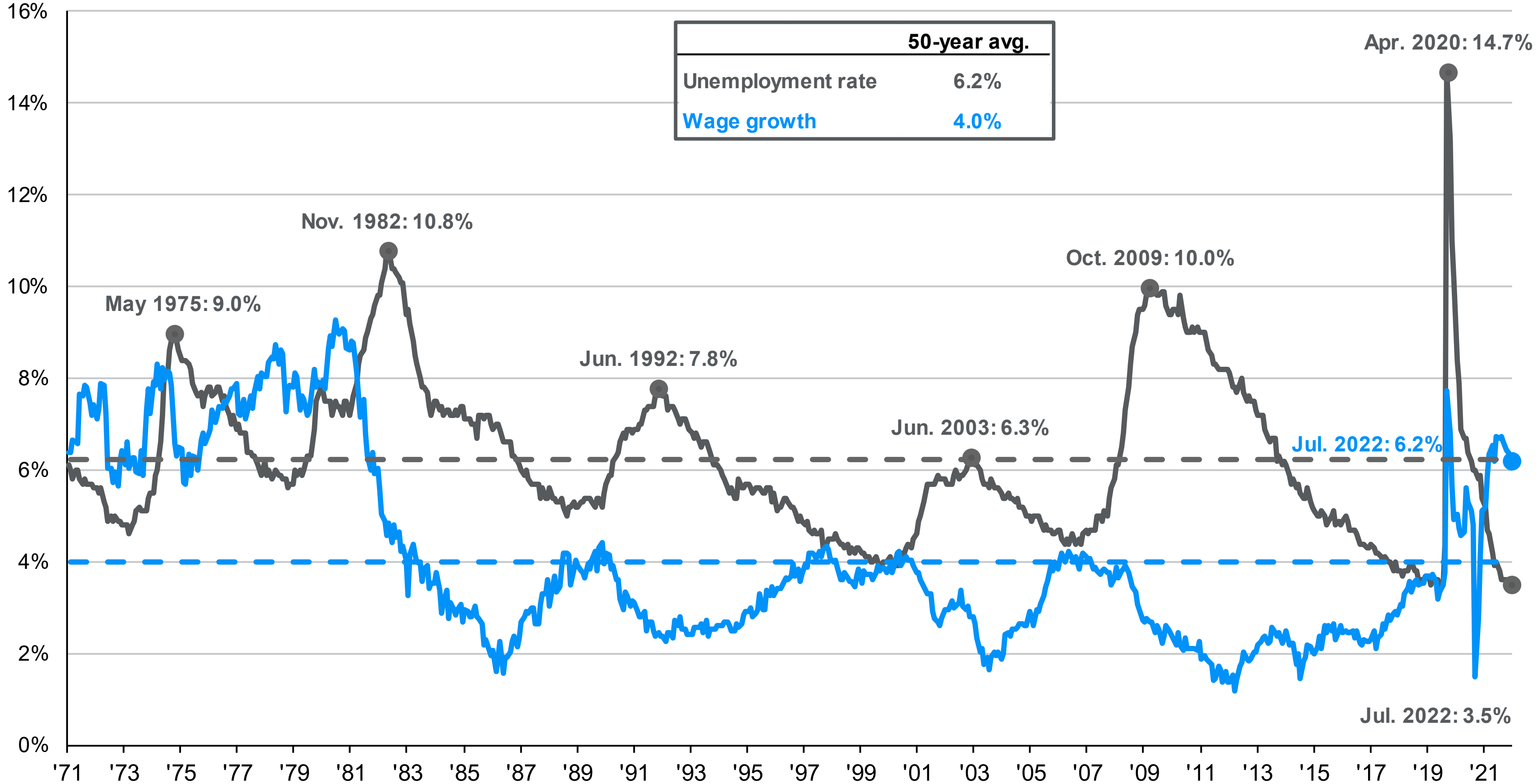
Payroll gains should slow, but wages may remain elevated

Economy

Civilian unemployment rate and year-over-year wage growth

Private production and non-supervisory workers, seasonally adjusted, percent



Source: BLS, FactSet, J.P. Morgan Asset Management.
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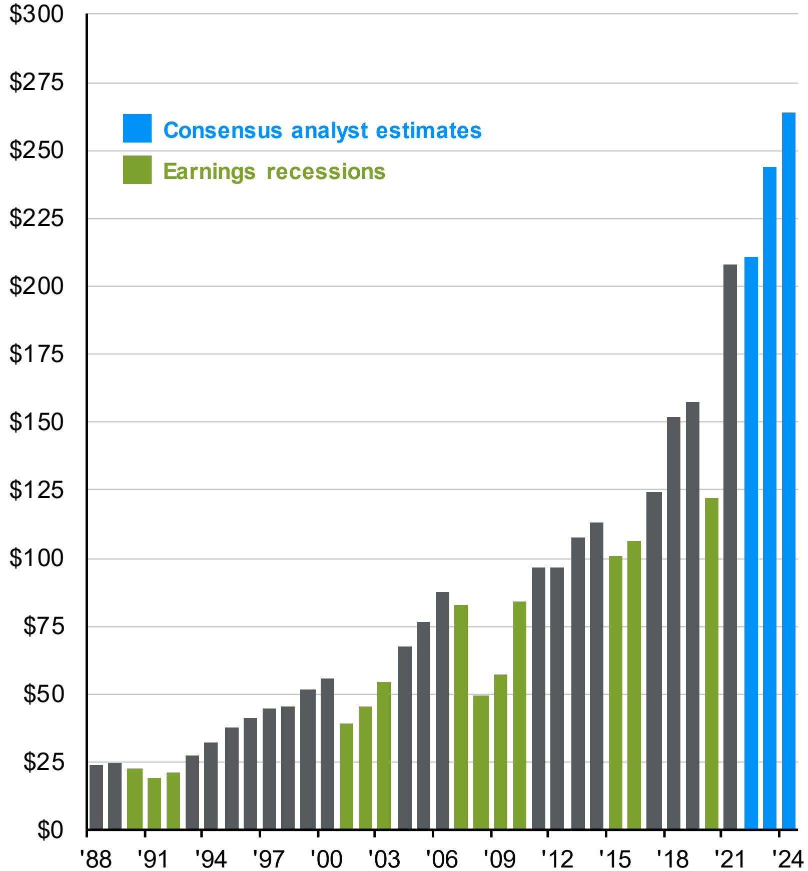
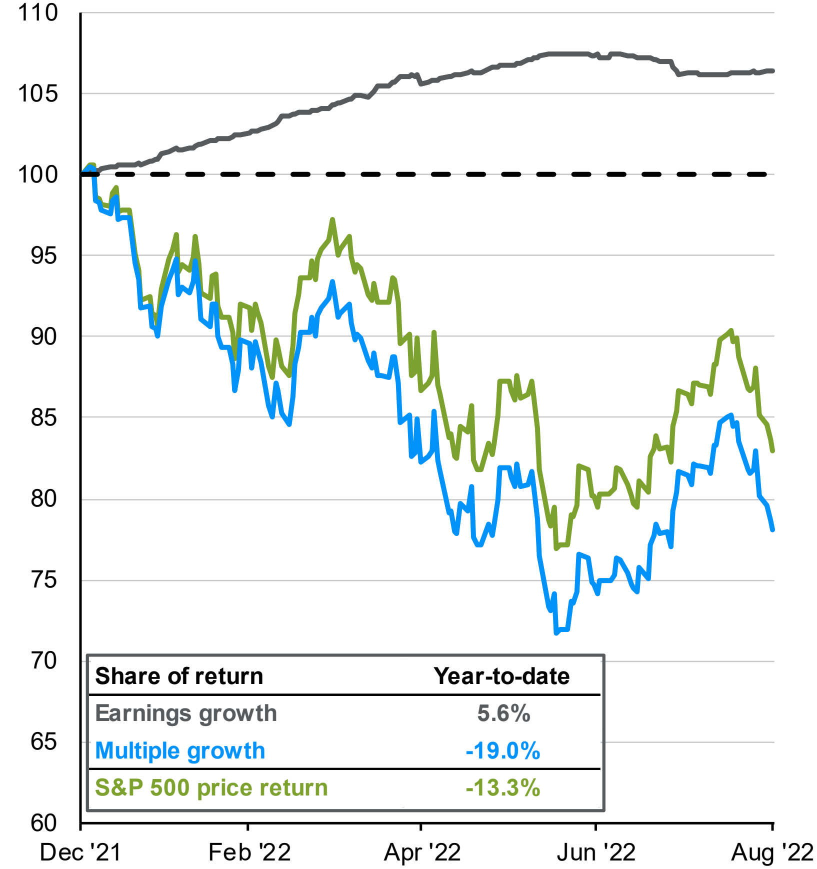
Optimistic forward earnings estimates suggest some further downside

S&P 500 earnings per share
Index annual operating earnings



Percent change in S&P 500, earnings and valuations*
Year-to-date, indexed to 100



Share of return	Year-to-date
Earnings growth	5.6%
Multiple growth	-19.0%
S&P 500 price return	-13.3%

Source: Compustat, FactSet, Standard & Poor's, J.P. Morgan Asset Management.
Historical EPS levels are based on annual operating earnings per share. Earnings estimates are based on estimates from Standard & Poor's and FactSet Market Aggregates. *Earnings and multiple growth are both year-to-date percent changes of next twelve-month estimates. Past performance is not indicative of future returns.
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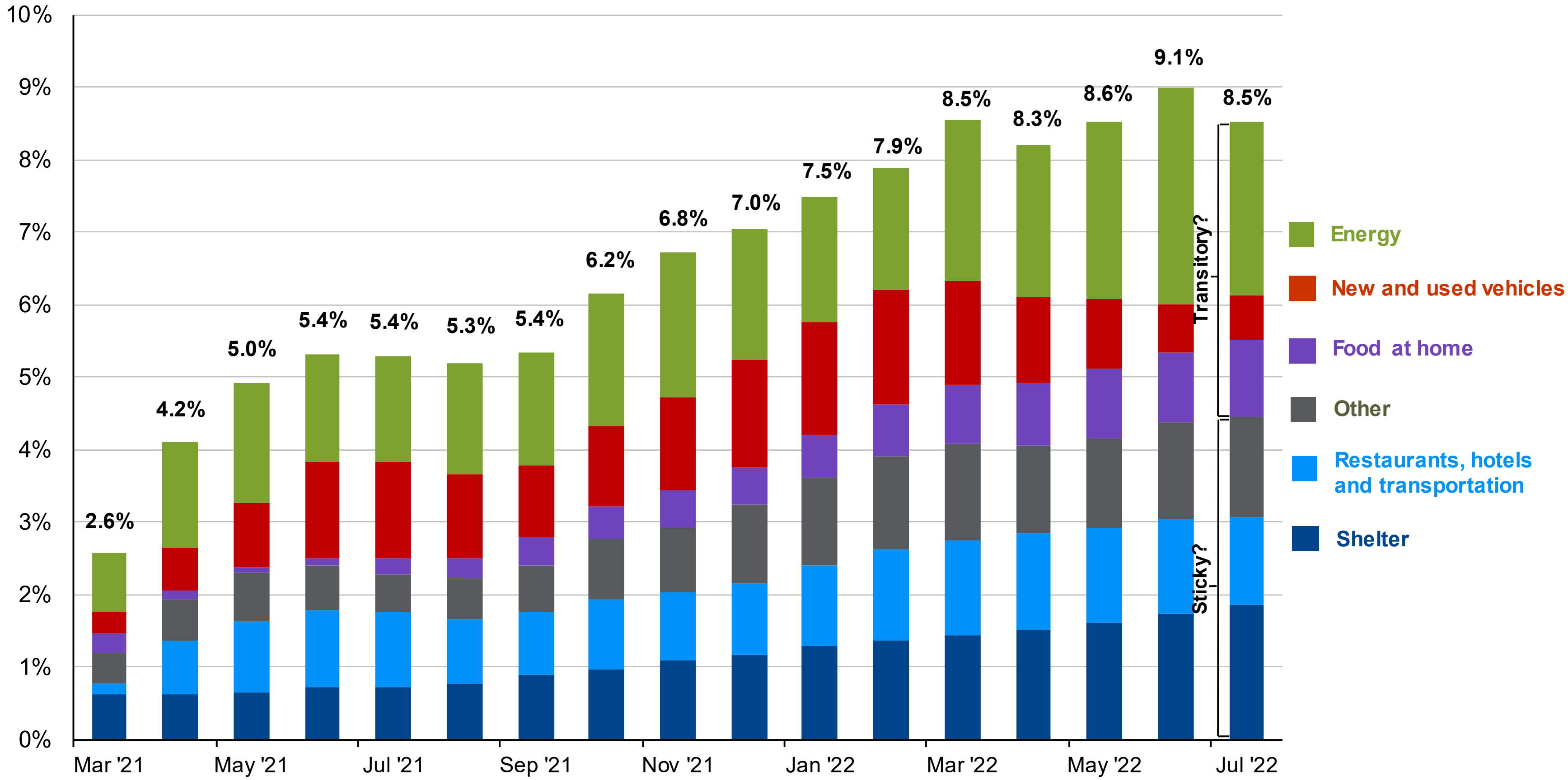
Inflation has begun to moderate, but how much further?

Contributors to headline inflation

Contribution to y/y % change in CPI, non seasonally adjusted



Source: BLS, J.P. Morgan Asset Management. Contributions mirror the BLS methodology on Table 7 of the CPI report. Values may not sum to headline CPI figures due to rounding and underlying calculations. "Shelter" includes owners equivalent rent and rent of primary residence. "Other" primarily reflects household furnishings, apparel, education and communication services, medical care services and other personal services.

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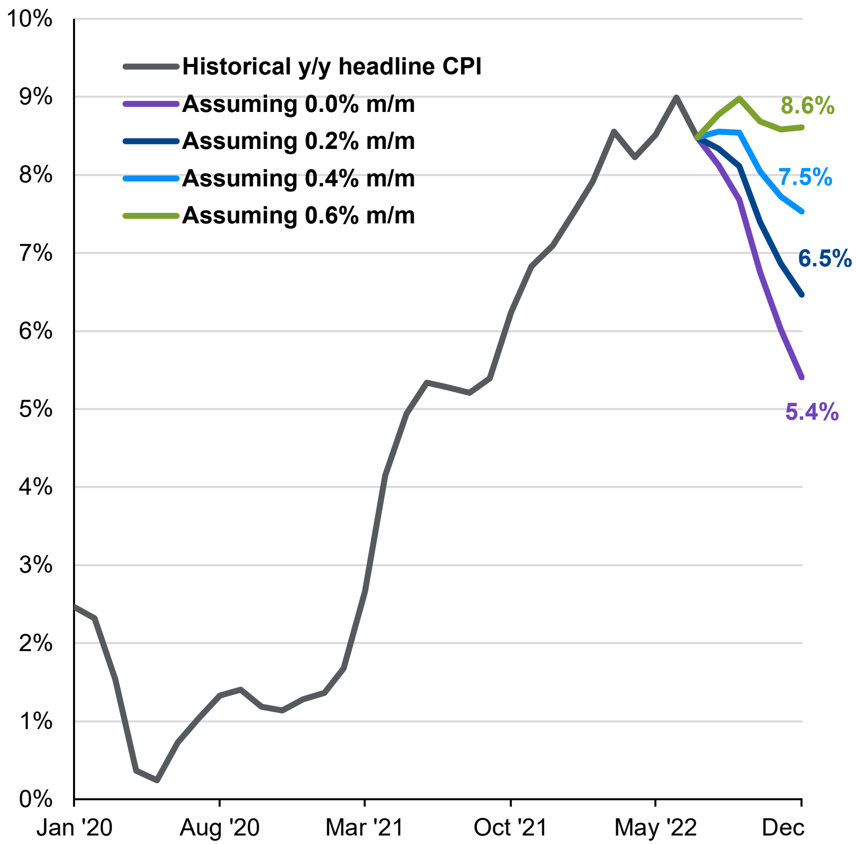
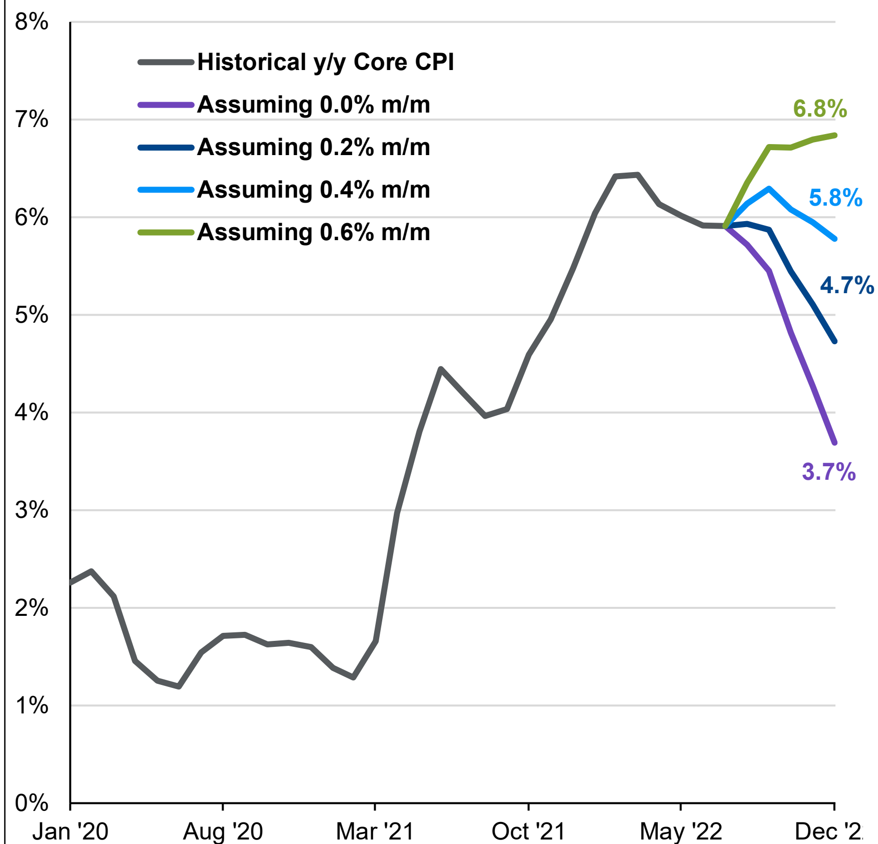
Not enough for Fed officials by year-end

Potential pathways for inflation
Headline CPI, seasonally adjusted, forecasts post July-2022



Potential pathways for inflation
Core CPI, seasonally adjusted, forecasts post July-2022

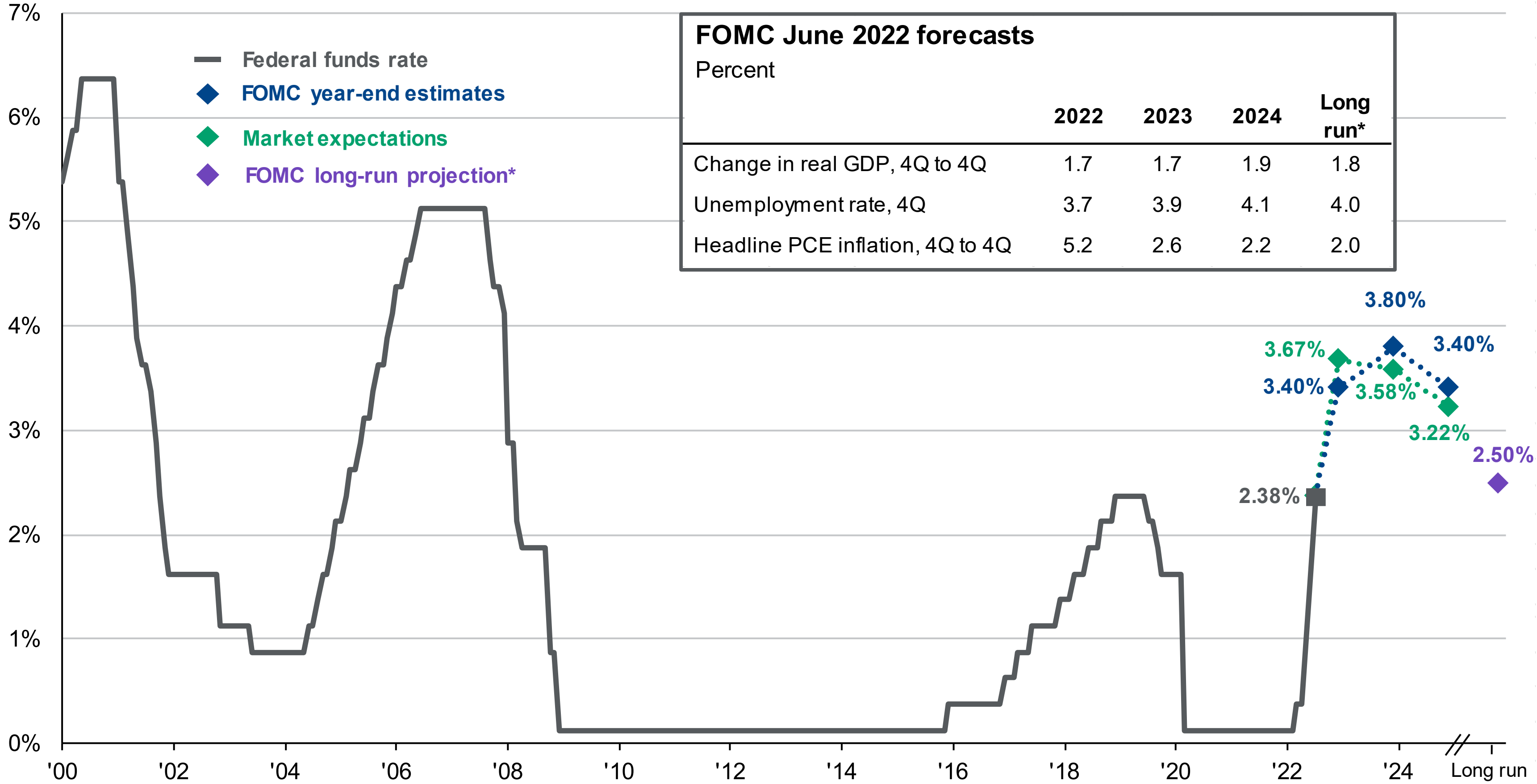


Source: BLS, FactSet, J.P. Morgan Asset Management.

Thus, the Fed has turned hawkish to crush inflation...

Federal funds rate expectations

FOMC and market expectations for the federal funds rate



FOMC June 2022 forecasts

Percent

	2022	2023	2024	Long run*
Change in real GDP, 4Q to 4Q	1.7	1.7	1.9	1.8
Unemployment rate, 4Q	3.7	3.9	4.1	4.0
Headline PCE inflation, 4Q to 4Q	5.2	2.6	2.2	2.0

Source: Bloomberg, FactSet, Federal Reserve, J.P. Morgan Asset Management.
Market expectations are based off of the respective Federal Funds Futures contracts for December expiry. *Long-run projections are the rates of growth, unemployment and inflation to which a policymaker expects the economy to converge over the next five to six years in absence of further shocks and under appropriate monetary policy. Forecasts are not a reliable indicator of future performance. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and serve as an indication of what may occur. Given the inherent uncertainties and risks associated with forecasts, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.
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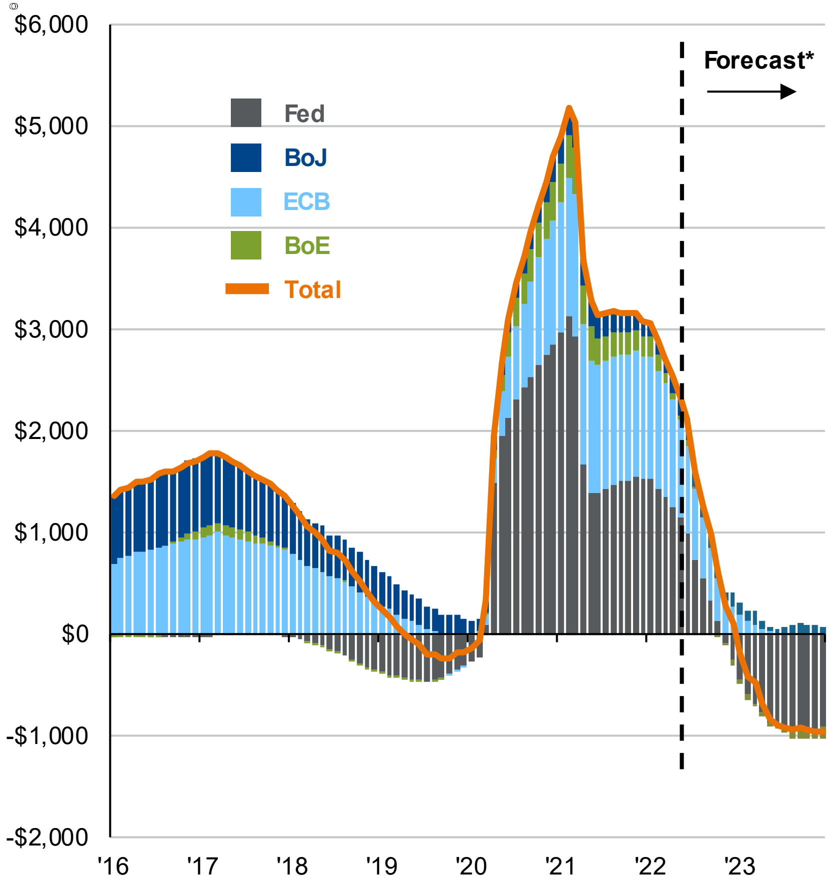
Fixed Income

Hawkish central banks are everywhere

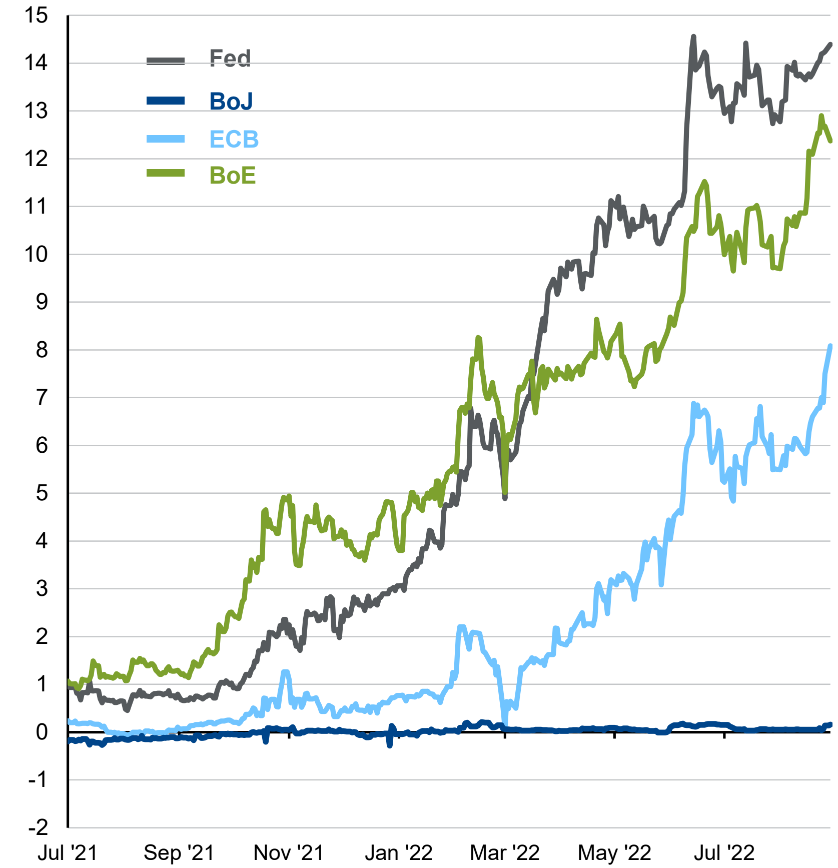
Developed market central bank bond purchases

USD billions, 12-month rolling flow



Market pricing for central bank hikes in 2022

Number of 25bp hikes priced into OIS contracts for year-end 2022**



Source: BIS, Bloomberg, FactSet, J.P. Morgan Asset Management; (Left) Bank of England (BoE), Bank of Japan (BoJ), European Central Bank (ECB), Federal Reserve System (Fed), J.P. Morgan Global Economic Research. *DM bond purchase forecasts are internal assumptions based on government bond purchases as outlined in the most recent monetary policy announcements from the BoE, BoJ, ECB and Federal Reserve through December 2023. **Rate hikes shown are cumulative and reflect hikes delivered year-to-date. Forecasts, projections and other forward-looking statements are based upon current beliefs and expectations. They are for illustrative purposes only and are not a reliable indicator of future performance. Given the inherent uncertainties and risks associated with forecast, projections or other forward-looking statements, actual events, results or performance may differ materially from those reflected or contemplated.

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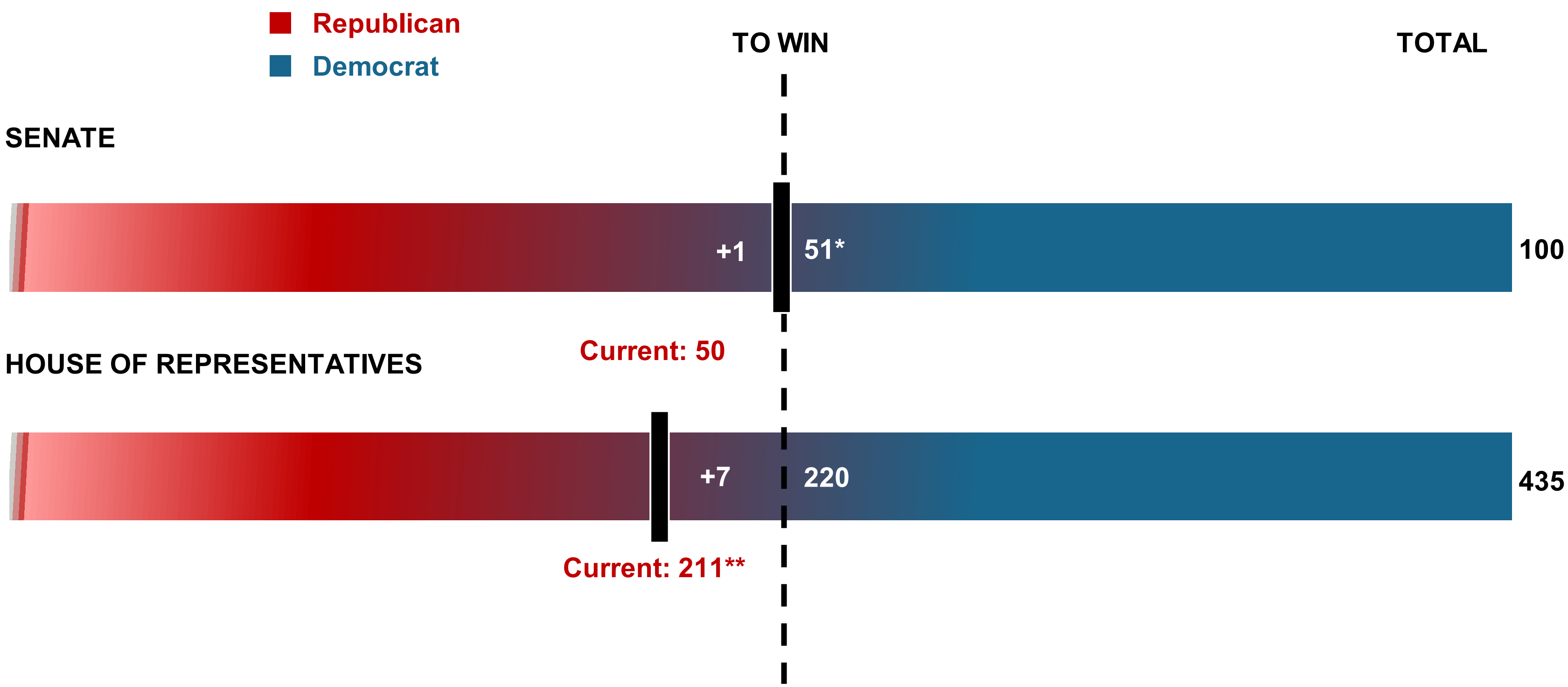
Democrats hold a razor-thin majority of seats in Congress

Votes or seats in the Senate and House of Representatives



Source: 270toWin, The Cook Political Report, J.P. Morgan Asset Management. 51 seats are needed for a simple majority if the dominant party in the Senate is not represented in the White House. If the president and majority party are the same, only 50 seats are needed for a majority because the Vice President casts the tie-breaking vote. **Current House excludes 4 vacant seats, three previously held by Republicans, and 1 previously held by a Democrat. Data are as of August 31, 2022.

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With divided government as the most likely outcome, significant policy actions after the midterms are unlikely

	Before Midterms	After Midterms	Comments
DEMOCRATIC POLICY AMBITIONS			
Inflation Reduction Act	✓	▼	- Raises $739bn through 15% corp. min. tax on companies with $1 billion+ in profits, 1% tax on stock buybacks, drug pricing reform, and greater IRS enforcement - Spends $433bn on climate initiatives and health care subsidies - Further tax reform after midterms unlikely
AREAS FOR COMPROMISE			
Infrastructure	✓		$1.2 trillion package passed last year
Energy		?	Soaring energy prices could prompt marginal cooperation on fossil fuels (e.g. leasing for oil and gas drilling on federal lands)
Defense		?	War in Ukraine could prompt cooperation on defense spending (Congress has committed $14bn + $40bn)
China	✓	?	$280bn CHIPs Act to advance the U.S.'s technological edge and protect from competition from China. Further scope for collaboration on China.
POTENTIAL STANDOFFS			
Government shutdown		▲	Shutdowns may continue to be a political weapon
Debt ceiling crisis		▼	Unlikely to approach debt ceiling until 2024

Source: J.P. Morgan Asset Management. Data are as of August 10, 2022.

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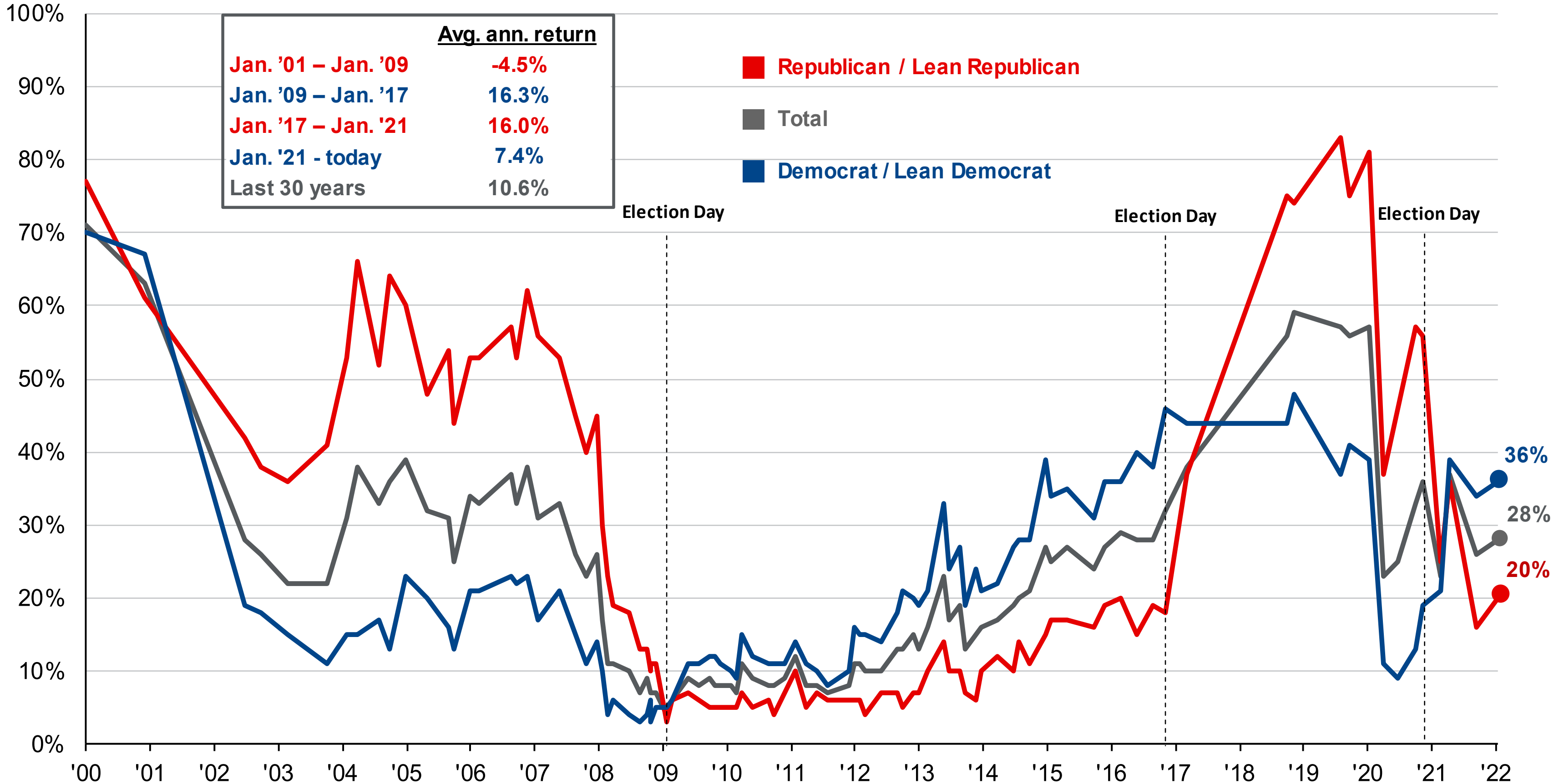
Don’t let how you feel about politics overrule how you think about investing.

Percent of Republicans and Democrats who rate national economic conditions as excellent or good

Percent

	Avg. ann. return
Jan. ’01 – Jan. ’09	-4.5%
Jan. ’09 – Jan. ’17	16.3%
Jan. ’17 – Jan. ’21	16.0%
Jan. '21 - today	7.4%
Last 30 years	10.6%



Source: Pew Research Center, J.P. Morgan Asset Management. Pew Research Center, June 2020, “Republicans, Democrats Move Even Further Apart in Coronavirus Concerns”. Question: Thinking about the nation’s economy, How would you rate economic conditions in this country today… as excellent, good, only fair, or poor? The survey was last conducted in January 2022.

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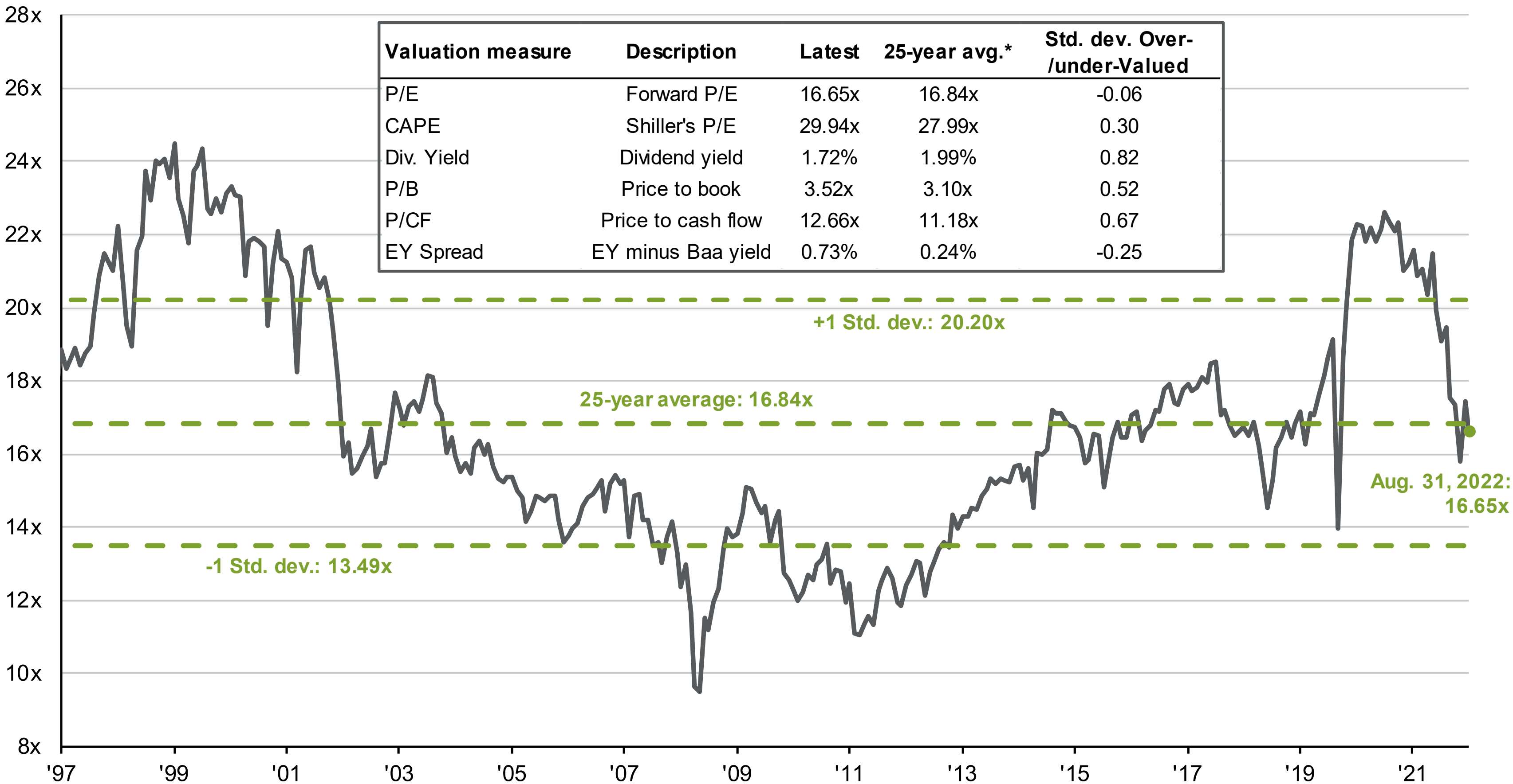
Equity valuations have improved

S&P 500 Index: Forward P/E ratio



Valuation measure	Description	Latest	25-year avg.*	Std. dev. Over-/under-Valued
P/E	Forward P/E	16.65x	16.84x	-0.06
CAPE	Shiller's P/E	29.94x	27.99x	0.30
Div. Yield	Dividend yield	1.72%	1.99%	0.82
P/B	Price to book	3.52x	3.10x	0.52
P/CF	Price to cash flow	12.66x	11.18x	0.67
EY Spread	EY minus Baa yield	0.73%	0.24%	-0.25

Source: FactSet, FRB, Refinitiv Datastream, Robert Shiller, Standard & Poor's, Thomson Reuters, J.P. Morgan Asset Management.
Price-to-earnings is price divided by consensus analyst estimates of earnings per share for the next 12 months as provided by IBES since August 1997 and by FactSet since January 2022. Current next 12-months consensus earnings estimates are $240. Average P/E and standard deviations are calculated using 25 years of history. Shiller's P/E uses trailing 10-years of inflation-adjusted earnings as reported by companies. Dividend yield is calculated as the next 12-months consensus dividend divided by most recent price. Price-to-book ratio is the price divided by book value per share. Price-to-cash flow is price divided by NTM cash flow. EY minus Baa yield is the forward earnings yield (consensus analyst estimates of EPS over the next 12 months divided by price) minus the Moody's Baa seasoned corporate bond yield. Std. dev. over-/under-valued is calculated using the average and standard deviation over 25 years for each measure. *P/CF is a 20-year average due to cash flow availability.
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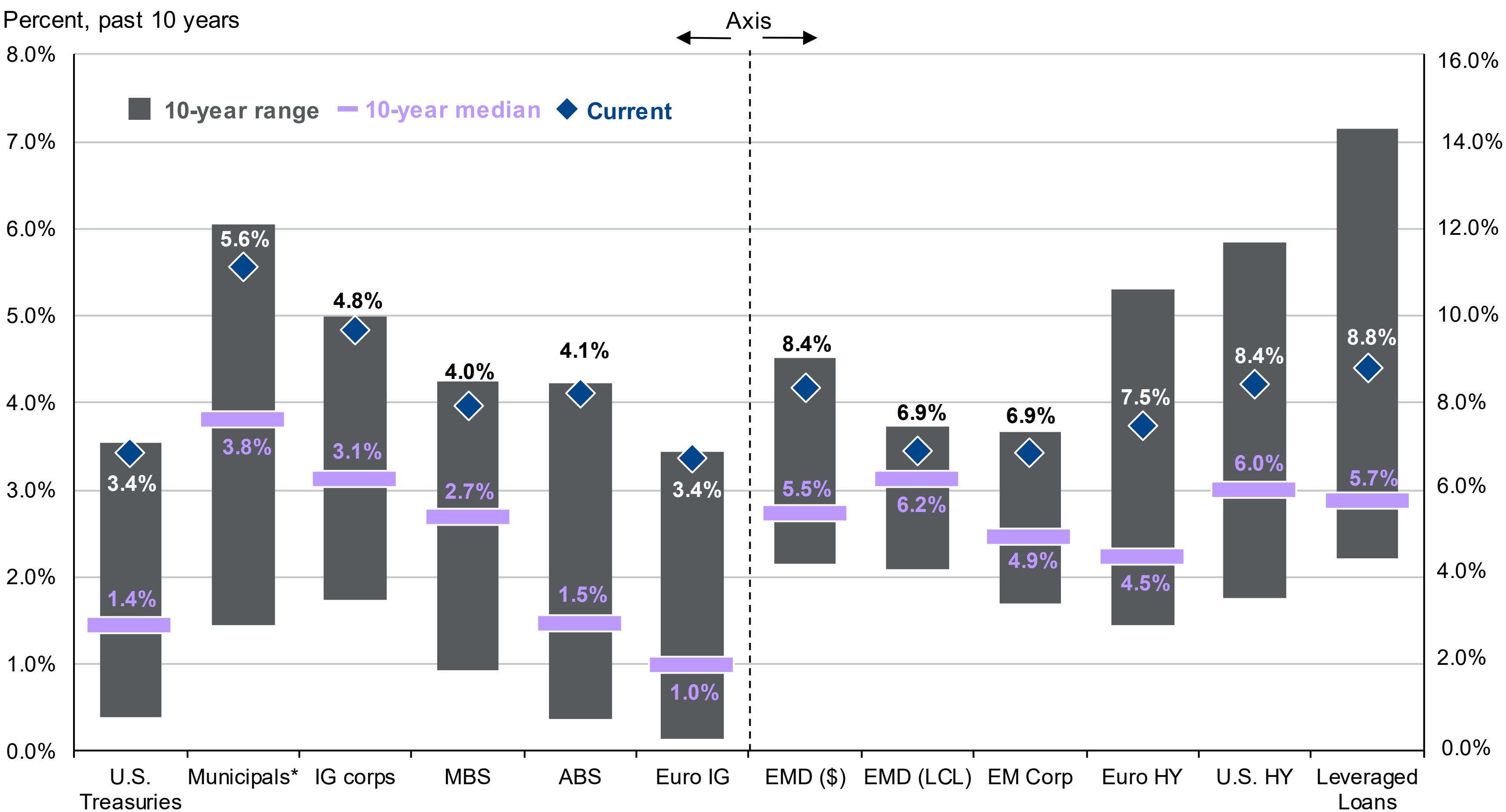
Bonds look attractive relative to recent history

Yield-to-worst across fixed income sectors

Percent, past 10 years



Source: Bloomberg, FactSet, J.P. Morgan Credit Research, J.P. Morgan Asset Management. Indices used are Bloomberg except for emerging market debt and leveraged loans: EMD ($): J.P. Morgan EMIGLOBAL Diversified Index; EMD (LCL): J.P. Morgan GBI-EM Global Diversified Index; EM Corp.: J.P. Morgan CEMBI Broad Diversified; Leveraged loans: JPM Leveraged Loan Index; Euro IG: Bloomberg Euro Aggregate Corporate Index; Euro HY: Bloomberg Pan-European High Yield Index. Yield-to-worst is the lowest possible yield that can be received on a bond apart from the company defaulting. All sectors shown are yield-to-worst except for Municipals, which is based on the tax-equivalent yield-to-worst assuming a top-income tax bracket rate of 37% plus a Medicare tax rate of 3.8%.

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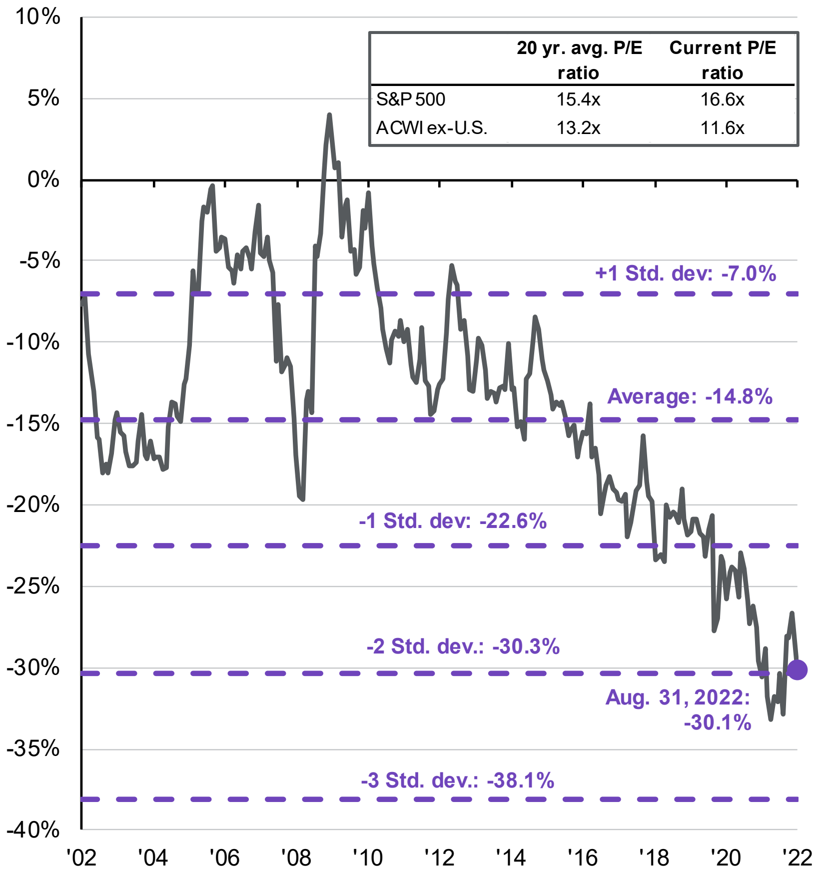
International trades at a steep discount to the U.S.

International: Price-to-earnings discount vs. U.S.

MSCI AC World ex-U.S. vs. S&P 500 Indices, next 12 months



	20 yr. avg. P/E ratio	Current P/E ratio
S&P 500	15.4x	16.6x
ACWI ex-U.S.	13.2x	11.6x

International: Difference in dividend yields vs. U.S.

MSCI AC World ex-U.S. minus S&P 500 Indices, next 12 months

Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
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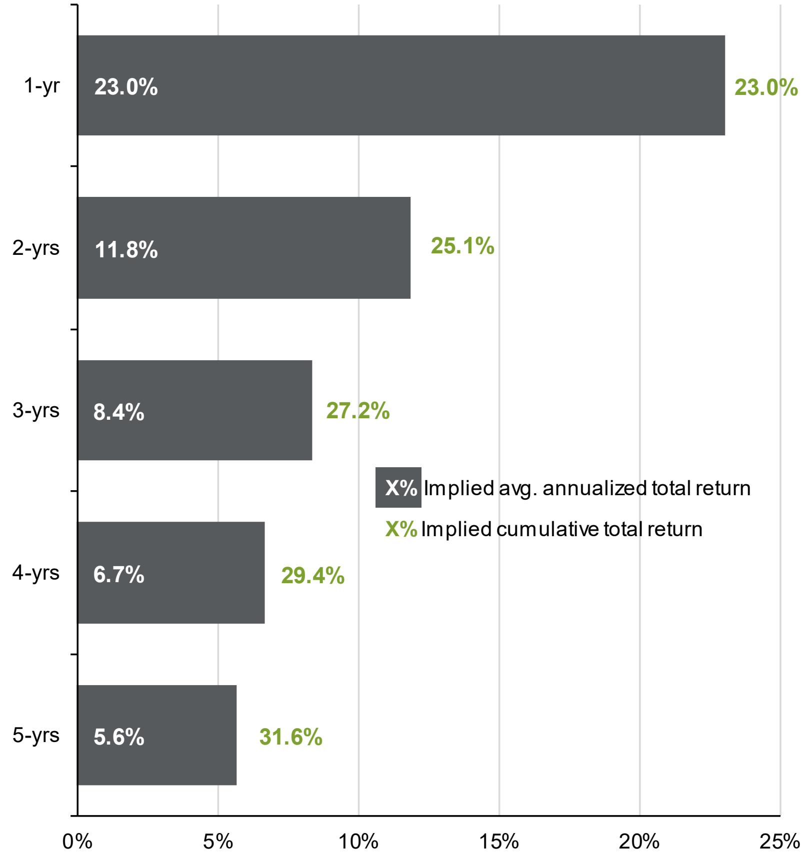
Not a question of "If?", but "when?" markets return to previous peak

Return needed to reach January 2022 peak

Current S&P 500 peak is 4797



Bull and bear markets

Bull markets			Bear markets		
Bull begin date	Bull return	Duration (months)	Market peak	Bear return*	Duration (months)*
Jul 1926	152%	37	Sep 1929	-86%	32
Mar 1935	129%	23	Mar 1937	-60%	61
Apr 1942	158%	49	May 1946	-30%	36
Jun 1949	267%	85	Aug 1956	-22%	14
Oct 1960	39%	13	Dec 1961	-28%	6
Oct 1962	76%	39	Feb 1966	-22%	7
Oct 1966	48%	25	Nov 1968	-36%	17
May 1970	74%	31	Jan 1973	-48%	20
Mar 1978	62%	32	Nov 1980	-27%	20
Aug 1982	229%	60	Aug 1987	-34%	3
Oct 1990	417%	113	Mar 2000	-49%	30
Oct 2002	101%	60	Oct 2007	-57%	17
Mar 2009	401%	131	Feb 2020	-34%	1
Mar 2020	114%	21	Jan. 2022**	-24%	5
Averages	**162%**	**51**	**-**	**-41%**	**20**

Source: FactSet, NBER, Robert Shiller, Standard & Poor's, J.P. Morgan Asset Management. (Right) The current peak of 4797 was observed on January 3, 2022. The current market level as of August 31, 2022 is 4119. (Left) *A bear market is defined as a 20% or more decline from the previous market high. The related market return is the peak to trough return over the cycle. Bear and bull returns are price returns. **The bear market beginning in January 2022 is currently ongoing. The "bear return" for this period is from the January 2022 market peak through the current trough. Averages for the bear market return and duration do not include figures from the current cycle.

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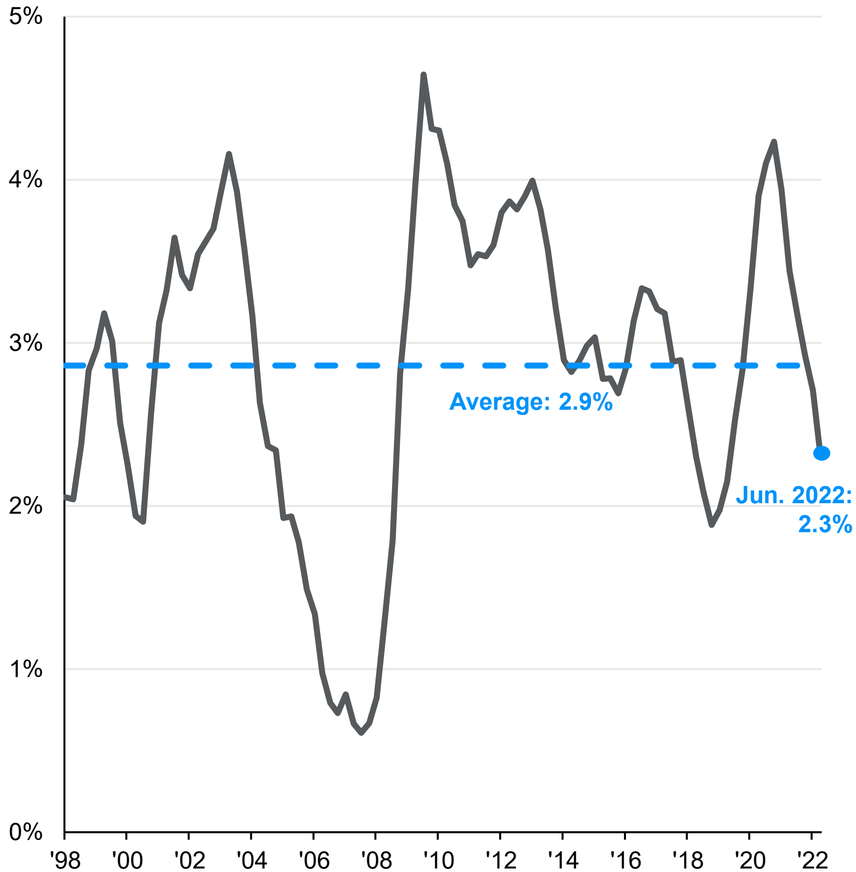
Real estate

Stress in real estate is relatively contained

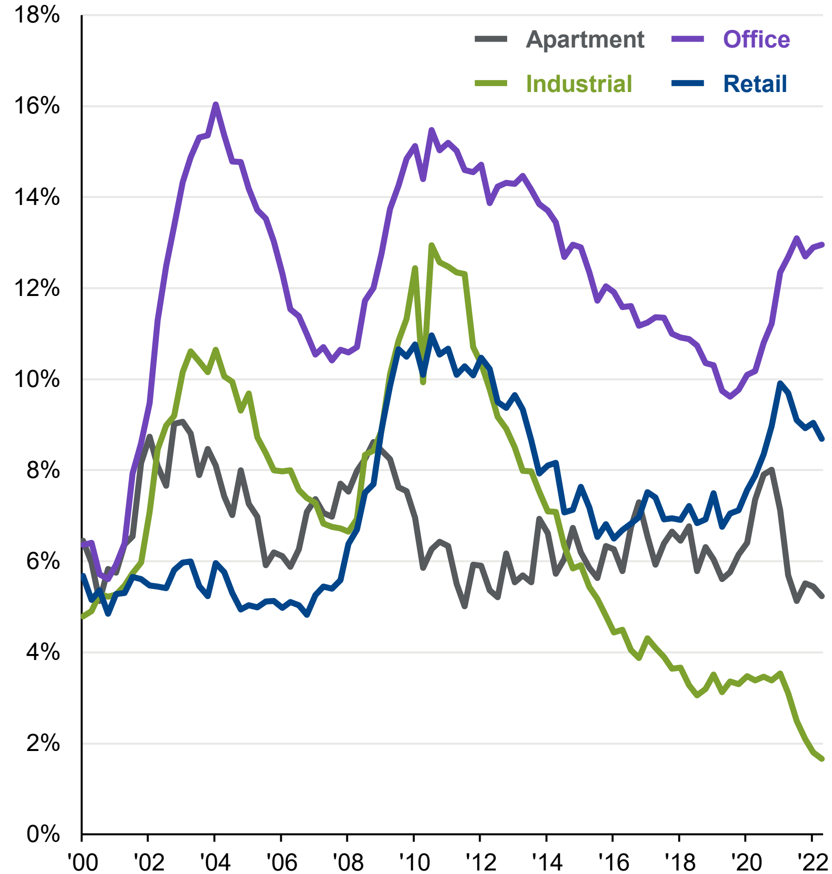
U.S. real estate cap rate spreads

Transaction based, spread to 10y UST, 4-quarter rolling average



U.S. vacancy rates by property type

Percent



Source: NCREIF, NAREIT, Statista, J.P. Morgan Asset Management.
The cap rate, which is computed as the net operating income over sales price, is the rate of return on a real estate investment property. Vacancy rate data is as of June 30, 2022.
Data is based on availability as of August 31, 2022.

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Summary

- Pandemic restrictions have eased, and consumer balance sheets remain healthy suggesting demand in the economy remains healthy.
- Job growth is expected to slow from its robust pace in 1H22, but still be positive, likely pushing the unemployment rate to 3.4% by the end of the year.
- After a stellar year for corporate earnings, we still expect ~8% earnings growth this year, though margins pose the biggest risk to profitability. 2023 earnings estimates still look overly optimistic in our view.
- Continued conflict in Eastern Europe and persistent supply chain issues suggest headline inflation will run north of 5% this year and trend lower to 3.5% next year. Strong job gains and persistent high inflation likely keep the Fed hiking to 4% next year. We expect long rates remain range bound, hovering between 3.00%-3.50%.
- As recession risks rise, investors should strike a balance between value and growth in equites, gradually increase benchmark duration to neutral and embrace high-quality fixed income; after a mixed 2021, international markets present new opportunities.

All indexes are unmanaged and an individual cannot invest directly in an index. Index returns do not include fees or expenses.

Equities:

The **Dow Jones Industrial Average** is a price-weighted average of 30 actively traded blue-chip U.S. stocks.

The **MSCI ACWI (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 **MSCI EAFE Index (Europe, Australasia, Far East)** is a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the US & Canada.

The **MSCI Emerging Markets Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the global emerging markets.

The **MSCI Europe Index** is a free float-adjusted market capitalization index that is designed to measure developed market equity performance in Europe.

The **MSCI Pacific Index** is a free float-adjusted market capitalization index that is designed to measure equity market performance in the Pacific region.

The **Russell 1000 Index**® measures the performance of the 1,000 largest companies in the Russell 3000.

The **Russell 1000 Growth Index**® measures the performance of those Russell 1000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 1000 Value Index**® measures the performance of those Russell 1000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 2000 Index**® measures the performance of the 2,000 smallest companies in the Russell 3000 Index.

The **Russell 2000 Growth Index**® measures the performance of those Russell 2000 companies with higher price-to-book ratios and higher forecasted growth values.

The **Russell 2000 Value Index**® measures the performance of those Russell 2000 companies with lower price-to-book ratios and lower forecasted growth values.

The **Russell 3000 Index**® measures the performance of the 3,000 largest U.S. companies based on total market capitalization.

The **Russell Midcap Index**® measures the performance of the 800 smallest companies in the Russell 1000 Index.

The **Russell Midcap Growth Index** ® measures the performance of those Russell Midcap companies with higher price-to-book ratios and higher forecasted growth values. The stocks are also members of the Russell 1000 Growth index.

The **Russell Midcap Value Index** ® measures the performance of those Russell Midcap companies with lower price-to-book ratios and lower forecasted growth values. The stocks are also members of the Russell 1000 Value index.

The **S&P 500 Index** is widely regarded as the best single gauge of the U.S. equities market. The index includes a representative sample of 500 leading companies in leading industries of the U.S. economy. The **S&P 500 Index** focuses on the large-cap segment of the market; however, since it includes a significant portion of the total value of the market, it also represents the market.

Fixed income:

The **Bloomberg Barclays 1-3 Month U.S. Treasury Bill Index** includes all publicly issued zero-coupon US Treasury Bills that have a remaining maturity of less than 3 months and more than 1 month, are rated investment grade, and have $250 million or more of outstanding face value. In addition, the securities must be denominated in U.S. dollars and must be fixed rate and non convertible.

The **Bloomberg Barclays Global High Yield Index** is a multi-currency flagship measure of the global high yield debt market. The index represents the union of the US High Yield, the Pan-European High Yield, and Emerging Markets (EM) Hard Currency High Yield Indices. The high yield and emerging markets sub-components are mutually exclusive. Until January 1, 2011, the index also included CMBS high yield securities.

The **Bloomberg Barclays Municipal Index**: consists of a broad selection of investment- grade general obligation and revenue bonds of maturities ranging from one year to 30 years. It is an unmanaged index representative of the tax-exempt bond market.

The **Bloomberg Barclays US Dollar Floating Rate Note (FRN) Index** provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg Barclays US Corporate Investment Grade Index** is an unmanaged index consisting of publicly issued US Corporate and specified foreign debentures and secured notes that are rated investment grade (Baa3/BBB or higher) by at least two ratings agencies, have at least one year to final maturity and have at least $250 million par amount outstanding. To qualify, bonds must be SEC-registered.

The **Bloomberg Barclays US High Yield Index** covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included.

The **Bloomberg Barclays US Mortgage Backed Securities Index** is an unmanaged index that measures the performance of investment grade fixed-rate mortgage backed pass-through securities of GNMA, FNMA and FHLMC.

The **Bloomberg Barclays US TIPS Index** consists of Inflation-Protection securities issued by the U.S. Treasury.

The **J.P. Morgan Emerging Market Bond Global Index (EMBI)** includes U.S. dollar denominated Brady bonds, Eurobonds, traded loans and local market debt instruments issued by sovereign and quasi-sovereign entities.

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

The **J.P. Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI Broad Diversified)** is an expansion of the **J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI)**. The CEMBI is a market capitalization weighted index consisting of U.S. dollar denominated emerging market corporate bonds.

The **J.P. Morgan Emerging Markets Bond Index Global Diversified (EMBI Global Diversified)** tracks total returns for U.S. dollar-denominated debt instruments issued by emerging market sovereign and quasi-sovereign entities: Brady bonds, loans, Eurobonds. The index limits the exposure of some of the larger countries.

The **J.P. Morgan GBI EM Global Diversified** tracks the performance of local currency debt issued by emerging market governments, whose debt is accessible by most of the international investor base.

The **U.S. Treasury Index** is a component of the U.S. Government index.

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Other asset classes:

The **Alerian MLP Index** is a composite of the 50 most prominent energy Master Limited Partnerships (MLPs) that provides investors with an unbiased, comprehensive benchmark for the asset class.

The **Bloomberg Commodity Index** and related sub-indices are composed of futures contracts on physical commodities and represents twenty two separate commodities traded on U.S. exchanges, with the exception of aluminum, nickel, and zinc

The **Cambridge Associates U.S. Global Buyout and Growth Index®** is based on data compiled from 1,768 global (U.S. & ex – U.S.) buyout and growth equity funds, including fully liquidated partnerships, formed between 1986 and 2013.

The **CS/Tremont Hedge Fund Index** is compiled by Credit Suisse Tremont Index, LLC. It is an asset-weighted hedge fund index and includes only funds, as opposed to separate accounts. The Index uses the Credit Suisse/Tremont database, which tracks over 4500 funds, and consists only of funds with a minimum of US$50 million under management, a 12-month track record, and audited financial statements. It is calculated and rebalanced on a monthly basis, and shown net of all performance fees and expenses. It is the exclusive property of Credit Suisse Tremont Index, LLC.

The **HFRI Monthly Indices (HFRI)** are equally weighted performance indexes, utilized by numerous hedge fund managers as a benchmark for their own hedge funds. The HFRI are broken down into 4 main strategies, each with multiple sub strategies. All single-manager HFRI Index constituents are included in the HFRI Fund Weighted Composite, which accounts for over 2200 funds listed on the internal HFR Database.

The **NAREIT EQUITY REIT Index** is designed to provide the most comprehensive assessment of overall industry performance, and includes all tax-qualified real estate investment trusts (REITs) that are listed on the NYSE, the American Stock Exchange or the NASDAQ National Market List.

The **NFI-ODCE**, short for NCREIF Fund Index - Open End Diversified Core Equity, is an index of investment returns reporting on both a historical and current basis the results of 33 open-end commingled funds pursuing a core investment strategy, some of which have performance histories dating back to the 1970s. The NFI-ODCE Index is capitalization-weighted and is reported gross of fees. Measurement is time-weighted.

Definitions:

Investing in **alternative assets** involves higher risks than traditional investments and is appropriate only for sophisticated investors. Alternative investments involve greater risks than traditional investments and should not be deemed a complete investment program. They are not tax efficient and an investor should consult with his/her tax advisor prior to investing. Alternative investments have higher fees than traditional investments and they may also be highly leveraged and engage in speculative investment techniques, which can magnify the potential for investment loss or gain. The value of the investment may fall as well as rise and investors may get back less than they invested.

Bonds are subject to interest rate risks. Bond prices generally fall when interest rates rise.

Investments in **commodities** may have greater volatility than investments in traditional securities, particularly if the instruments involve leverage. The value of commodity-linked derivative instruments 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. Use of leveraged commodity-linked derivatives creates an opportunity for increased return but, at the same time, creates the possibility for greater loss.

Derivatives may be riskier than other types of investments because they may be more sensitive to changes in economic or market conditions than other types of investments and could result in losses that significantly exceed the original investment. The use of derivatives may not be successful, resulting in investment losses, and the cost of such strategies may reduce investment returns.

Distressed Restructuring Strategies employ an investment process focused on corporate fixed income instruments, primarily on corporate credit instruments of companies trading at significant discounts to their value at issuance or obliged (par value) at maturity as a result of either formal bankruptcy proceeding or financial market perception of near term proceedings.

Investments in **emerging markets** can be more volatile. The normal risks of investing in foreign countries are heightened when investing in emerging markets. In addition, the small size of securities markets and the low trading volume may lead to a lack of liquidity, which leads to increased volatility. Also, emerging markets may not provide adequate legal protection for private or foreign investment or private property.

The price of **equity** securities may rise, or fall because of changes in the broad market or changes in a company's financial condition, sometimes rapidly or unpredictably. These price movements may result from factors affecting individual companies, sectors or industries, or the securities market as a whole, such as changes in economic or political conditions. Equity securities are subject to "stock market risk" meaning that stock prices in general may decline over short or extended periods of time.

Equity market neutral strategies employ sophisticated quantitative techniques of analyzing price data to ascertain information about future price movement and relationships between securities, select securities for purchase and sale. Equity Market Neutral Strategies typically maintain characteristic net equity market exposure no greater than 10% long or short.

Global macro strategies trade a broad range of strategies in which the investment process is predicated on movements in underlying economic variables and the impact these have on equity, fixed income, hard currency and commodity markets.

International investing involves a greater degree of risk and increased volatility. Changes in currency exchange rates and differences in accounting and taxation policies outside the U.S. can raise or lower returns. Some overseas markets may not be as politically and economically stable as the United States and other nations.

There is no guarantee that the use of **long and short positions** will succeed in limiting an investor's exposure to domestic stock market movements, capitalization, sector swings or other risk factors. Using long and short selling strategies may have higher portfolio turnover rates. Short selling involves certain risks, including additional costs associated with covering short positions and a possibility of unlimited loss on certain short sale positions.

Merger arbitrage strategies which employ an investment process primarily focused on opportunities in equity and equity related instruments of companies which are currently engaged in a corporate transaction.

Mid-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies. Historically, mid-cap companies' stock has experienced a greater degree of market volatility than the average stock.

Price to forward earnings is a measure of the price-to-earnings ratio (P/E) using forecasted earnings. **Price to book value** compares a stock's market value to its book value. **Price to cash flow** is a measure of the market's expectations of a firm's future financial health. **Price to dividends** is the ratio of the price of a share on a stock exchange to the dividends per share paid in the previous year, used as a measure of a company's potential as an investment.

Real estate investments may be subject to a higher degree of market risk because of concentration in a specific industry, sector or geographical sector. Real estate investments may be subject to risks including, but not limited to, declines in the value of real estate, risks related to general and economic conditions, changes in the value of the underlying property owned by the trust and defaults by borrower.

Relative Value Strategies maintain positions in which the investment thesis is predicated on realization of a valuation discrepancy in the relationship between multiple securities.

Small-capitalization investing typically carries more risk than investing in well-established "blue-chip" companies since smaller companies generally have a higher risk of failure. Historically, smaller companies' stock has experienced a greater degree of market volatility than the average stock.

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Unless otherwise stated, all data are as of March 31, 2021 or most recently available.

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