



JANUARY 2024 – MARKET REVIEW

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AssetGrade Market Summary – January 2024


Equities posted strong returns with minimal volatility

- Investors continued to enjoy gains across the equity and fixed income markets. Large Cap Equities, as measured by **the S&P 500 Index returned 26.3% in 2023**. The S&P 500 Index is a market cap weighted index. A significant part of the S&P 500's return was fueled by the “Magnificent Seven,”: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.
- **Headline inflation declined from 9.1% in June 2022 to 3.1% in November 2023** while the Core Consumer Price Index rate declined to 4.0%. Headline inflation rate includes food and energy prices while the Core CPI does not as food and energy prices tend to be volatile. After turning positive in the third quarter, real yields on 10-year treasury bonds are negative again. This occurs when the rate of inflation is higher than nominal yields. Real yields have been adjusted for inflation and is the real yield an investor receives.
- Across the pond, **international equities are undervalued relative to their US counterparts**. With valuations attractive, and 40% of equity opportunities overseas, it's important for investors to invest internationally.
- The US consumer is a critical component to the US economy representing nearly 70% of the US Gross Domestic Product (GDP). **Consumer sentiment about the economy has been slowly increasing and nearly 70% of consumers are feeling positive**. This sentiment translates into spending. The US consumer continues to spend and personal savings rates are at 4.1%. Personal savings rate is the amount of income left after an individual pays taxes and spends money.
- **Investing can be emotional and there is an opportunity cost to having too much cash on the sidelines**. With the election approaching in November, it can be tempting to sit out the year, however, it's better to take a long-term approach and not time the market. Having a diversified portfolio, staying the course and having an appropriate time horizon will lead to your future success.

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AssetGrade Market Summary

Asset Class Returns

Although cash had a great year, up 5.1% in 2023, there is an opportunity cost to holding too much cash. A 60/40 portfolio, mix of stocks and bonds, returned 14.1%. 

2009-2023		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Ann.	Vol.																
Large Cap	Small Cap	Fixed Income	EM Equity	REITs	REITs	REITs	Small Cap	REITs	REITs	Small Cap	EM Equity	Cash	Large Cap	Small Cap	REITs	Comdty.	Large Cap
14.0%	21.9%	5.2%	79.0%	27.9%	8.3%	19.7%	38.8%	28.0%	2.8%	21.3%	37.8%	1.8%	31.5%	20.0%	41.3%	16.1%	26.3%
Small Cap	REITs	Cash	High Yield	Small Cap	Fixed Income	High Yield	Large Cap	Large Cap	Large Cap	High Yield	DM Equity	Fixed Income	REITs	EM Equity	Large Cap	Cash	DM Equity
11.3%	21.2%	1.8%	59.4%	26.9%	7.8%	19.6%	32.4%	13.7%	1.4%	14.3%	25.6%	0.0%	28.7%	18.7%	28.7%	1.5%	18.9%
REITs	EM Equity	Asset Alloc.	DM Equity	EM Equity	High Yield	EM Equity	DM Equity	Fixed Income	Fixed Income	Large Cap	Large Cap	REITs	Small Cap	Large Cap	Comdty.	High Yield	Small Cap
10.9%	20.3%	-25.4%	32.5%	19.2%	3.1%	18.6%	23.3%	6.0%	0.5%	12.0%	21.8%	-4.0%	25.5%	18.4%	27.1%	-12.7%	16.9%
High Yield	DM Equity	High Yield	REITs	Comdty.	Large Cap	DM Equity	Asset Alloc.	Asset Alloc.	Cash	Comdty.	Small Cap	High Yield	DM Equity	Asset Alloc.	Small Cap	Fixed Income	Asset Alloc.
8.6%	18.4%	-26.9%	28.0%	16.8%	2.1%	17.9%	14.9%	5.2%	0.0%	11.8%	14.6%	-4.1%	22.7%	10.6%	14.8%	-13.0%	14.1%
Asset Alloc.	Comdty.	Small Cap	Small Cap	Large Cap	Cash	Small Cap	High Yield	Small Cap	DM Equity	EM Equity	Asset Alloc.	Large Cap	Asset Alloc.	DM Equity	Asset Alloc.	Asset Alloc.	High Yield
8.1%	16.6%	-33.8%	27.2%	15.1%	0.1%	16.3%	7.3%	4.9%	-0.4%	11.6%	14.6%	-4.4%	19.5%	8.3%	13.5%	-13.9%	14.0%
DM Equity	Large Cap	Comdty.	Large Cap	High Yield	Asset Alloc.	Large Cap	REITs	Cash	Asset Alloc.	REITs	High Yield	Asset Alloc.	EM Equity	Fixed Income	DM Equity	DM Equity	REITs
7.4%	16.1%	-35.6%	26.5%	14.8%	-0.7%	16.0%	2.9%	0.0%	-2.0%	8.6%	10.4%	-5.8%	18.9%	7.5%	11.8%	-14.0%	11.4%
EM Equity	High Yield	Large Cap	Asset Alloc.	Asset Alloc.	Small Cap	Asset Alloc.	Cash	High Yield	High Yield	Asset Alloc.	REITs	Small Cap	High Yield	High Yield	High Yield	Large Cap	EM Equity
6.9%	11.5%	-37.0%	25.0%	13.3%	-4.2%	12.2%	0.0%	0.0%	-2.7%	8.3%	8.7%	-11.0%	12.6%	7.0%	1.0%	-18.1%	10.3%
Fixed Income	Asset Alloc.	REITs	Comdty.	DM Equity	DM Equity	Fixed Income	Fixed Income	EM Equity	Small Cap	Fixed Income	Fixed Income	Comdty.	Fixed Income	Cash	Cash	EM Equity	Fixed Income
2.7%	11.5%	-37.7%	18.9%	8.2%	-11.7%	4.2%	-2.0%	-1.8%	-4.4%	2.6%	3.5%	-11.2%	8.7%	0.5%	0.0%	-19.7%	5.5%
Cash	Fixed Income	DM Equity	Fixed Income	Fixed Income	Comdty.	Cash	EM Equity	DM Equity	EM Equity	DM Equity	Comdty.	DM Equity	Comdty.	Comdty.	Fixed Income	Small Cap	Cash
0.8%	4.5%	-43.1%	5.9%	6.5%	-13.3%	0.1%	-2.3%	-4.5%	-14.6%	1.5%	1.7%	-13.4%	7.7%	-3.1%	-1.5%	-20.4%	5.1%
Comdty.	Cash	EM Equity	Cash	Cash	EM Equity	Comdty.	Comdty.	Comdty.	Comdty.	Cash	Cash	EM Equity	Cash	REITs	EM Equity	REITs	Comdty.
-0.2%	0.7%	-53.2%	0.1%	0.1%	-18.2%	-1.1%	-9.5%	-17.0%	-24.7%	0.3%	0.8%	-14.2%	2.2%	-5.1%	-2.2%	-24.9%	-7.9%

Source: Bloomberg, FactSet, MSCI, NAREIT, Russell, Standard & Poor's, J.P. Morgan Asset Management.

Large cap: S&P 500, Small cap: Russell 2000, EM Equity: MSCI EME, DM Equity: MSCI EAFE, Comdty: Bloomberg Commodity Index, High Yield: Bloomberg Global HY Index, Fixed Income: Bloomberg US Aggregate, REITs: NAREIT Equity REIT Index, Cash: Bloomberg 1-3m Treasury. The "Asset Allocation" portfolio assumes the following weights: 25% in the S&P 500, 10% in the Russell 2000, 15% in the MSCI EAFE, 5% in the MSCI EME, 25% in the Bloomberg US Aggregate, 5% in the Bloomberg 1-3m Treasury, 5% in the Bloomberg Global High Yield Index, 5% in the Bloomberg Commodity Index and 5% in the NAREIT Equity REIT Index. Balanced portfolio assumes annual rebalancing. Annualized (Ann.) return and volatility (Vol.) represents period from 12/31/2007 to 12/31/2022. Please see disclosure page at end for index definitions. All data represents total return for stated period. The "Asset Allocation" portfolio is for illustrative purposes only. Past performance is not indicative of future returns.

Guide to the Markets – U.S. Data are as of December 31, 2023.

AssetGrade Market Summary

S&P 500 valuation measures

The top 10 stocks within the S&P 500 (see next page) are overvalued relative to the broad market. Stocks within the S&P 500 remain undervalued relative to last year.

S&P 500 Price Index



Source: Compustat, FactSet, Federal Reserve, Refinitiv Datastream, Standard & Poor's, J.P. Morgan Asset Management.

Dividend yield is calculated as consensus estimates of dividends for the next 12 months, divided by most recent price, as provided by Compustat. Forward price-to-earnings ratio is a bottom-up calculation based on IBES estimates and FactSet estimates since January 2022. Returns are cumulative and based on S&P 500 Index price movement only, and do not include the reinvestment of dividends. Past performance is not indicative of future returns.

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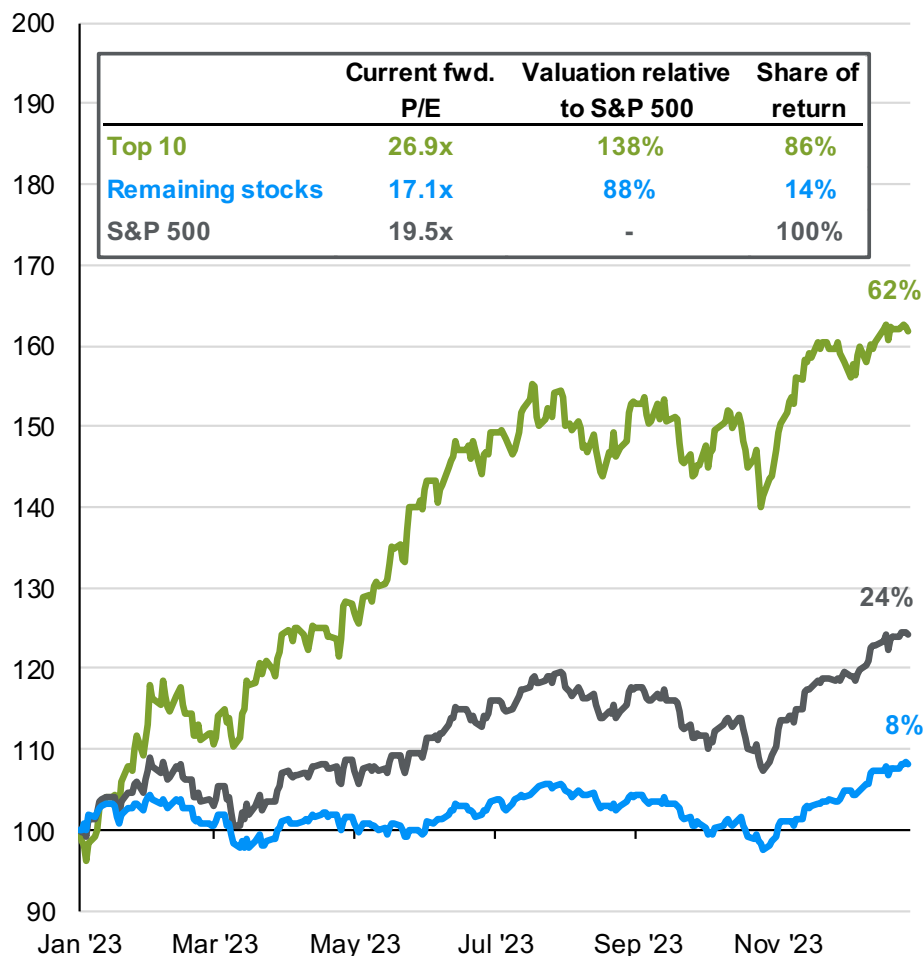
AssetGrade Market Summary

Index concentration, valuations and earnings

The “Magnificent Seven” drove concentration in the S&P 500 among the top 10 stocks. The S&P 500 Index is a market cap weighted index, the top 10 stocks represent almost 33% of the index.

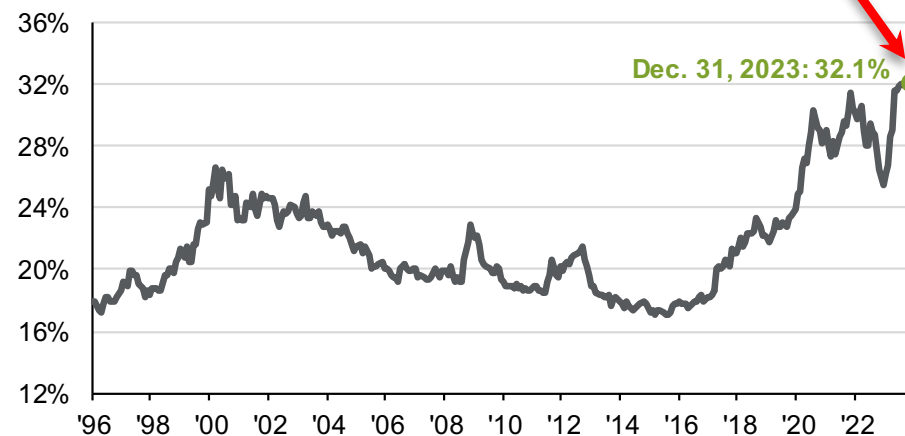
Performance of the top 10 stocks in the S&P 500

Indexed to 100 on 1/1/2023, price return, top 10 held constant



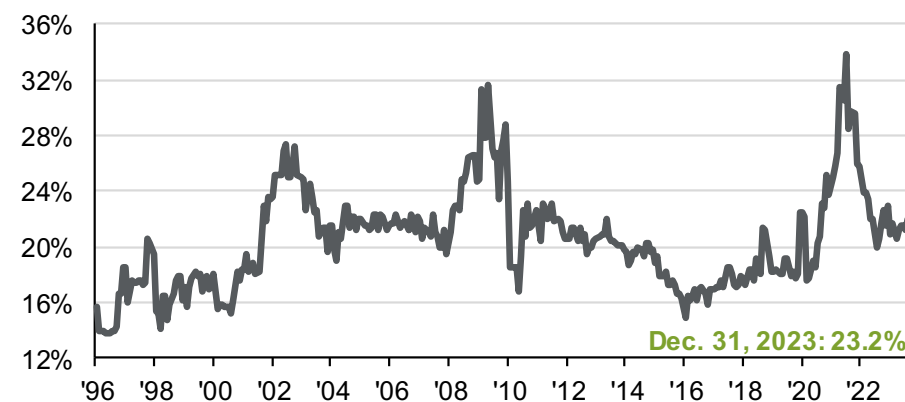
Weight of the top 10 stocks in the S&P 500

% of market capitalization of the S&P 500



Earnings contribution of the top 10 in the S&P 500

Based on last 12 months' earnings



Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management.

(Left) The top 10 companies used for this analysis are held constant and represent the S&P 500's 10 largest index constituents at the start of 2023.

The top 10 stocks are: AAPL, MSFT, AMZN, NVDA, GOOGL, BRK.B, GOOG, META, UNH, and TSLA. The remaining stocks represent the rest of the 494 companies in the S&P 500. (Right) The top 10 companies used for these two analyses are updated monthly and are based on the 10 largest index constituents at the beginning of each month. As of 12/31/2023, the top 10 companies in the index were AAPL (7.0%), MSFT (6.9%), AMZN (3.5%), NVDA (3.0%), GOOGL (2.1%), META (2.0%), GOOG (1.8%), TSLA (1.8%), BRK.B (1.6%), AVGO (1.2%) and JPM (1.2%).

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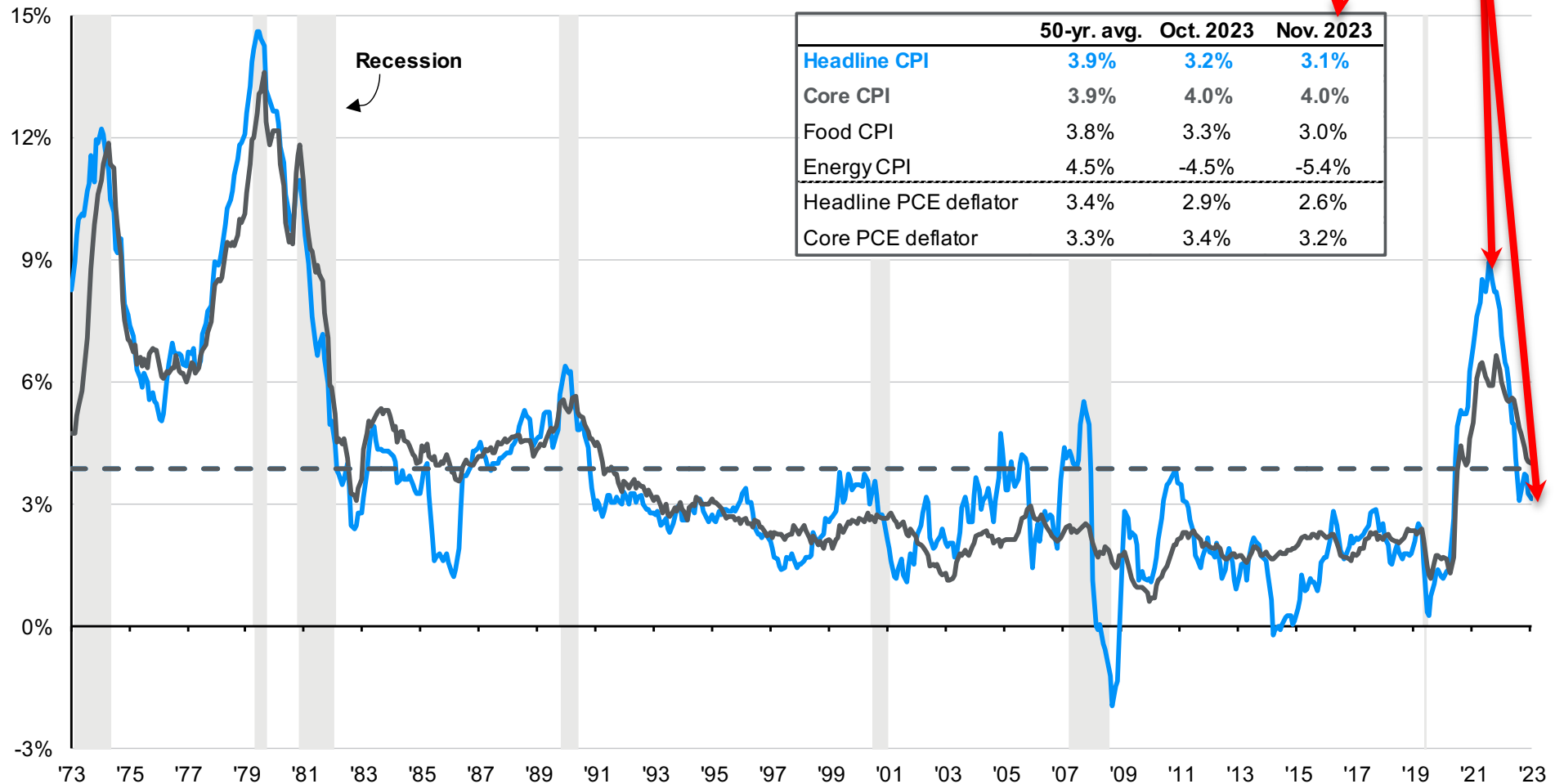
AssetGrade Market Summary

Inflation

Headline inflation declined from 9.1% in June 2022 to 3.1% in November 2023 while the Core Consumer Price Index rate declined to 4.0%. Headline inflation rate includes food and energy prices while the Core CPI does not as food and energy prices tend to be volatile.

CPI and core CPI

% change vs. prior year, seasonally adjusted



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

CPI used is CPI-U and values shown are % change vs. one year ago. Core CPI is defined as CPI excluding food and energy prices. The Personal Consumption Expenditure (PCE) deflator employs an evolving chain-weighted basket of consumer expenditures instead of the fixed-weight basket used in CPI calculations.

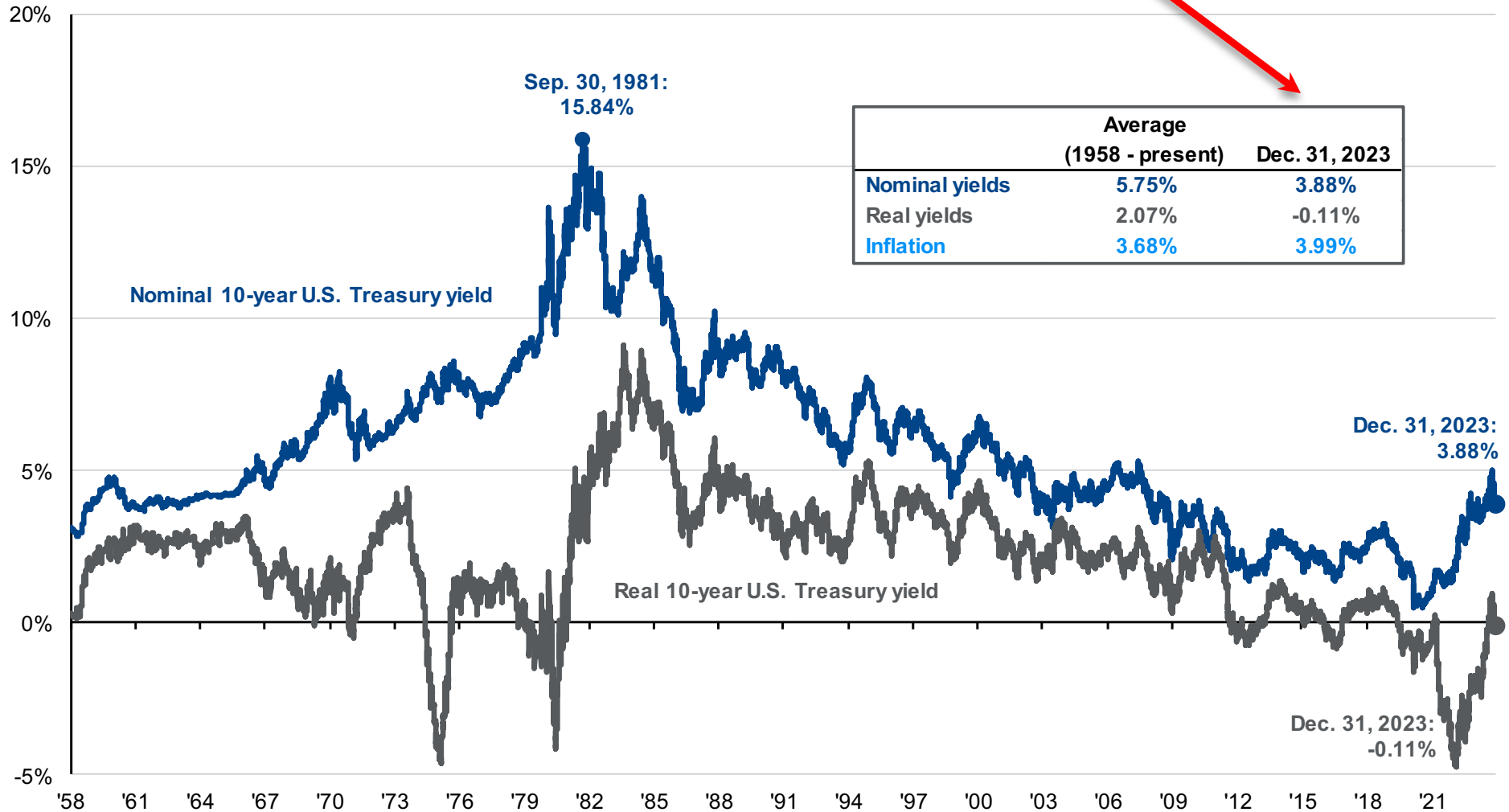
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Interest rates and inflation

Real yields (interest rates) are negative again. This occurs when the rate of inflation is higher than nominal yields. Real yields have been adjusted for inflation.

Nominal and real U.S. 10-year Treasury yields



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

Real 10-year Treasury yields are calculated as the daily Treasury yield less year-over-year core CPI inflation for that month. For the current month, we use the prior month's core CPI figures until the latest data are available.

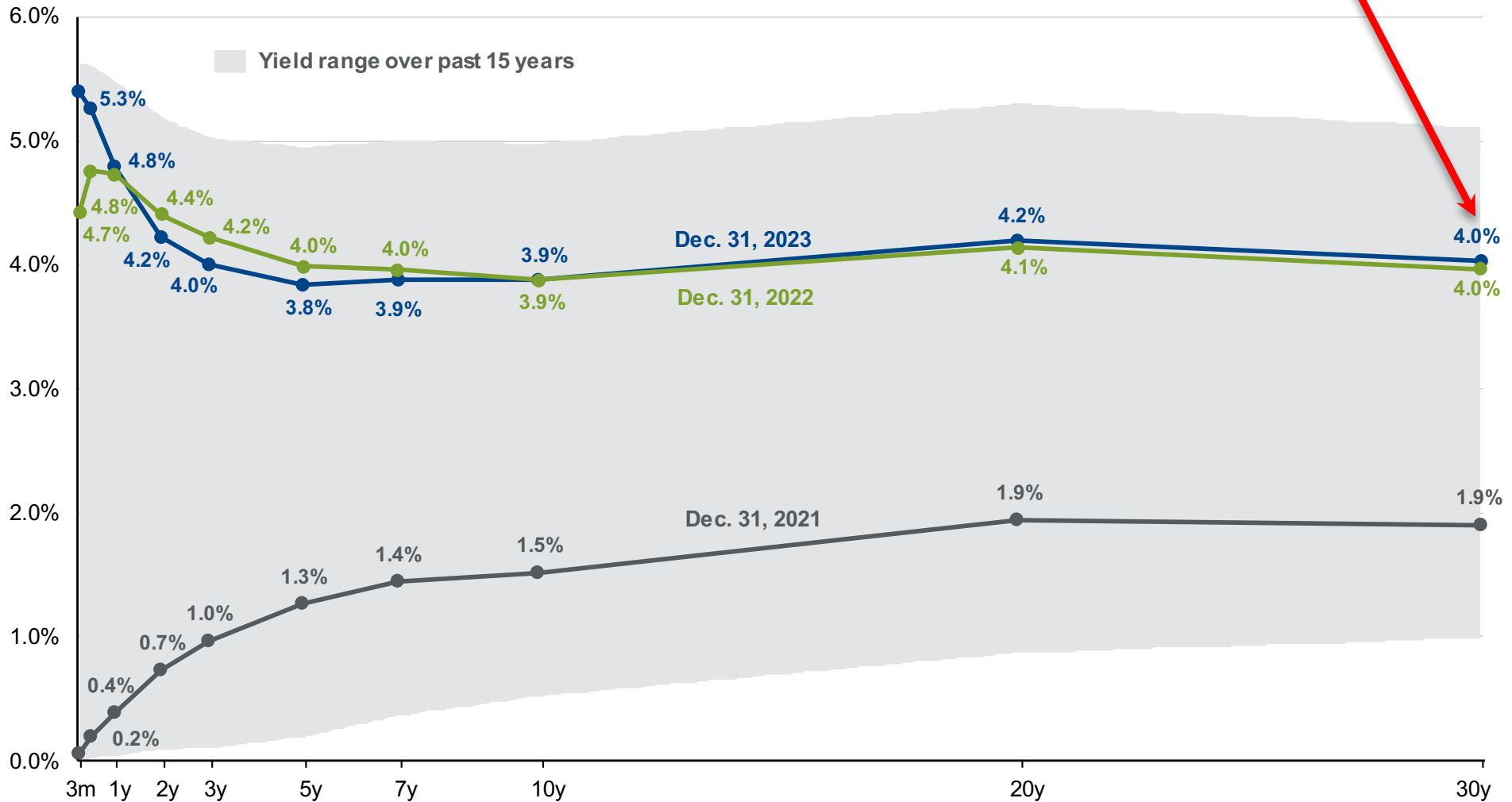
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Yield curve

Treasury rates at the longer end of the yield curve fell in the fourth quarter 2023, as investors were hopeful the Fed was finished hiking rates.

U.S. Treasury yield curve



Source: FactSet, Federal Reserve, J.P. Morgan Asset Management.
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Fixed income market dynamics

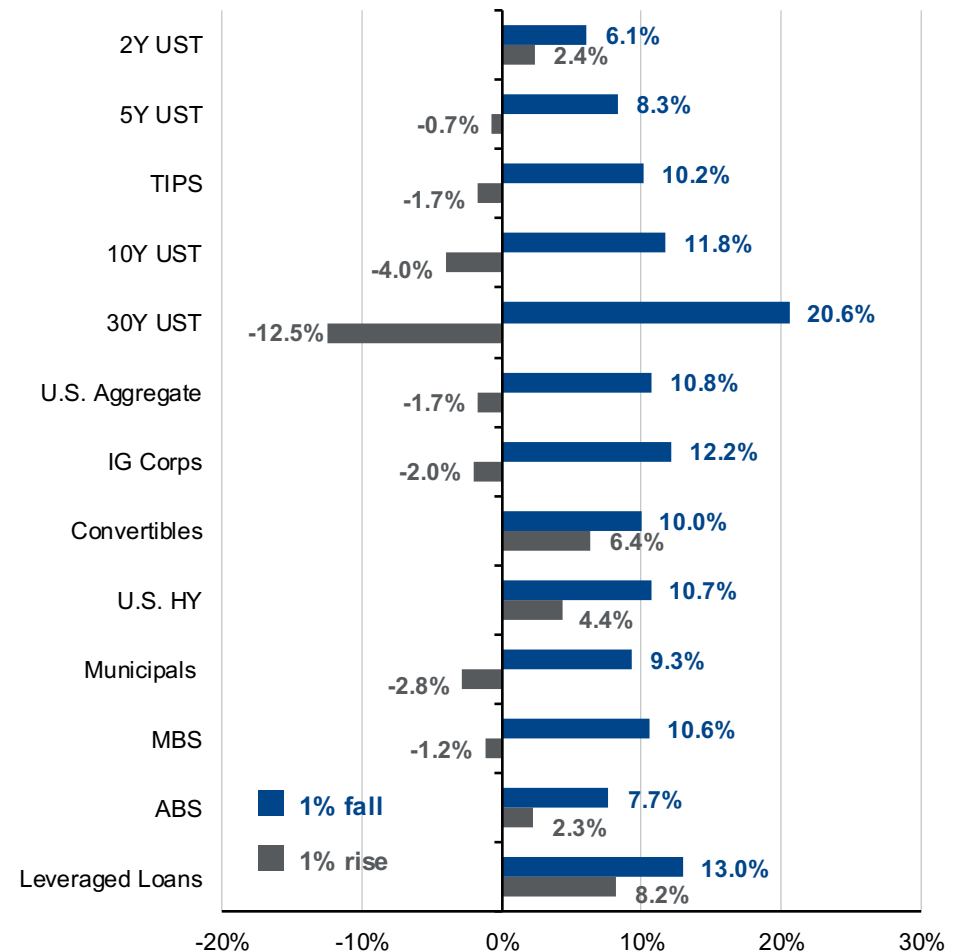
Treasury rates are close to unchanged relative to a year ago.



U.S. Treasuries	Yield		Return			
	12/31/2023	12/31/2022	2023	Avg. Maturity	Correlation to 10-year	Correlation to S&P 500
2-Year	4.23%	4.41%	3.65%	2 years	0.75	0.00
5-Year	3.84%	3.99%	3.93%	5	0.94	-0.02
TIPS	4.24%	4.38%	3.90%	7.1	0.68	0.32
10-Year	3.88%	3.88%	3.21%	10	1.00	-0.06
30-Year	4.03%	3.97%	1.93%	30	0.93	-0.09
Sector						
U.S. Aggregate	4.53%	4.68%	5.53%	8.5	0.87	0.26
IG Corps	5.06%	5.42%	8.52%	10.8	0.58	0.48
Convertibles	7.88%	7.58%	13.92%	-	-0.10	0.86
U.S. HY	7.59%	8.96%	13.44%	4.9	-0.03	0.72
Municipals	3.22%	3.55%	6.40%	13.3	0.62	0.22
MBS	4.68%	4.71%	5.05%	7.5	0.77	0.24
ABS	5.65%	5.89%	7.05%	3.7	0.01	0.03
Leveraged Loans	10.59%	11.41%	13.17%	2.4	-0.30	0.52

Impact of a 1% rise or fall in interest rates

Total return, assumes a parallel shift in the yield curve



Source: Bloomberg, FactSet, Standard & Poor's, U.S. Treasury, J.P. Morgan Asset Management. Sectors shown above are provided by Bloomberg unless otherwise noted and are represented by – U.S. Aggregate; MBS: U.S. Aggregate Securitized - MBS; ABS: J.P. Morgan ABS Index; IG Corporates: U.S. Corporates; Municipals: Muni Bond; High Yield: Corporate High Yield; Leveraged Loans: J.P. Morgan Leveraged Loan Index; TIPS: Treasury Inflation-Protected Securities; Convertibles: U.S. Convertibles Composite. Convertibles yield is as of most recent month-end and is based on U.S. portion of Bloomberg Global Convertibles Index. Yield and return information based on bellwethers for Treasury securities. Sector yields reflect yield-to-worst. Correlations are based on 15-years of monthly returns for all sectors. Past performance is not indicative of future results.
Guide to the Markets – U.S. Data are as of December 31, 2023.

AssetGrade Market Summary

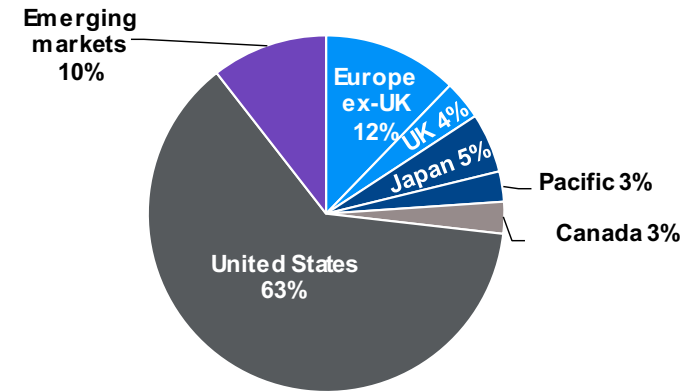
Global equity markets

Although the US stock market, as represented by the S&P 500 outperformed international markets in 2023, it's important for investors to invest globally as 40% of equity opportunities are found overseas.

Returns	2023		2022		15-years	
	Local	USD	Local	USD	Ann.	Beta
Regions						
U.S. (S&P 500)	-	26.3	-	-18.1	14.0	0.9
AC World ex-U.S.	14.7	16.2	-9.2	-15.6	7.2	1.0
EAFE	16.8	18.9	-6.5	-14.0	7.4	1.0
Europe ex-UK	17.3	22.7	-12.2	-17.3	8.0	1.2
Emerging markets	10.3	10.3	-15.2	-19.7	6.9	1.0
Selected Countries						
Japan	29.0	20.8	-4.1	-16.3	6.2	0.7
United Kingdom	7.7	14.1	7.2	-4.8	6.9	1.0
France	18.1	22.3	-6.9	-12.7	8.1	1.2
Canada	13.3	16.4	-5.8	-12.2	8.3	1.1
Germany	19.8	24.0	-16.5	-21.6	6.6	1.3
China	-10.6	-11.0	-20.6	-21.8	4.6	0.9
Taiwan	31.1	31.3	-21.3	-29.1	14.2	1.0
India	22.0	21.3	3.0	-7.5	11.1	1.0
Brazil	22.7	33.4	8.6	14.6	5.4	1.3

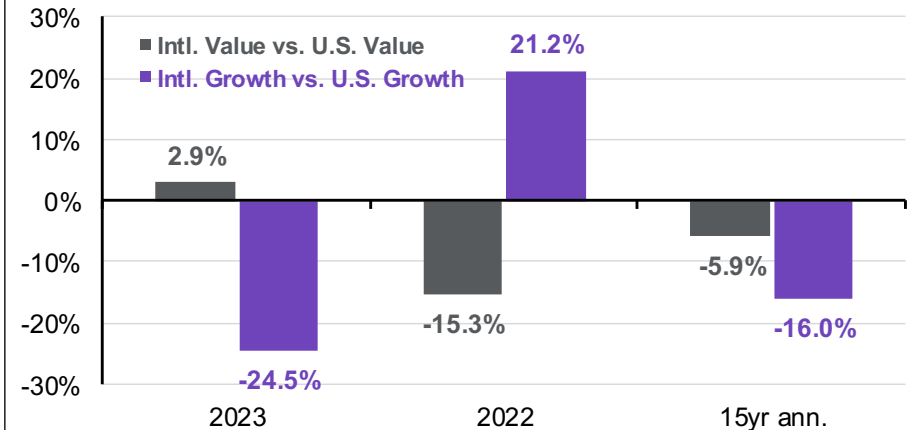
Weights in MSCI All Country World Index

% global market capitalization, float adjusted



Global Value and Growth returns

Monthly, USD, total return



Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management. (Left) All return values are MSCI Total Return Index (Gross) data. 15-year history based on USD returns. 15-year return and beta figures are calculated using a rolling 12-month time period ending with the previously completed month. Beta is for monthly returns relative to the MSCI All Country World Index. Annualized volatility is calculated as the standard deviation of quarterly returns multiplied by the square root of 4. Chart is for illustrative purposes only. Please see disclosure page for index definitions. Past performance is not a reliable indicator of current and future results. (Bottom right) U.S. Value = Russell 1000 Value Index, U.S. Growth = Russell 1000 Growth index, intl. Value = MSCI AC World ex. U.S. Value Index, intl. Growth = MSCI AC World ex. U.S. Growth Index. The 15yr. annualized figures are based on rolling data. *Guide to the Markets – U.S.* Data are as of December 31, 2023.

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Global equity markets

International equities are trading at a discount relative to US equities

International: Price-to-earnings discount vs. U.S.
 MSCI All Country World ex-U.S. vs. S&P 500, next 12 months



International: Difference in dividend yields vs. U.S.
 MSCI All Country World ex-U.S. minus S&P 500, next 12 months

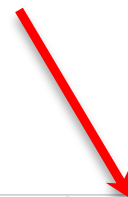


Source: FactSet, MSCI, Standard & Poor's, J.P. Morgan Asset Management.
 Guide to the Markets – U.S. Data are as of December 31, 2023.

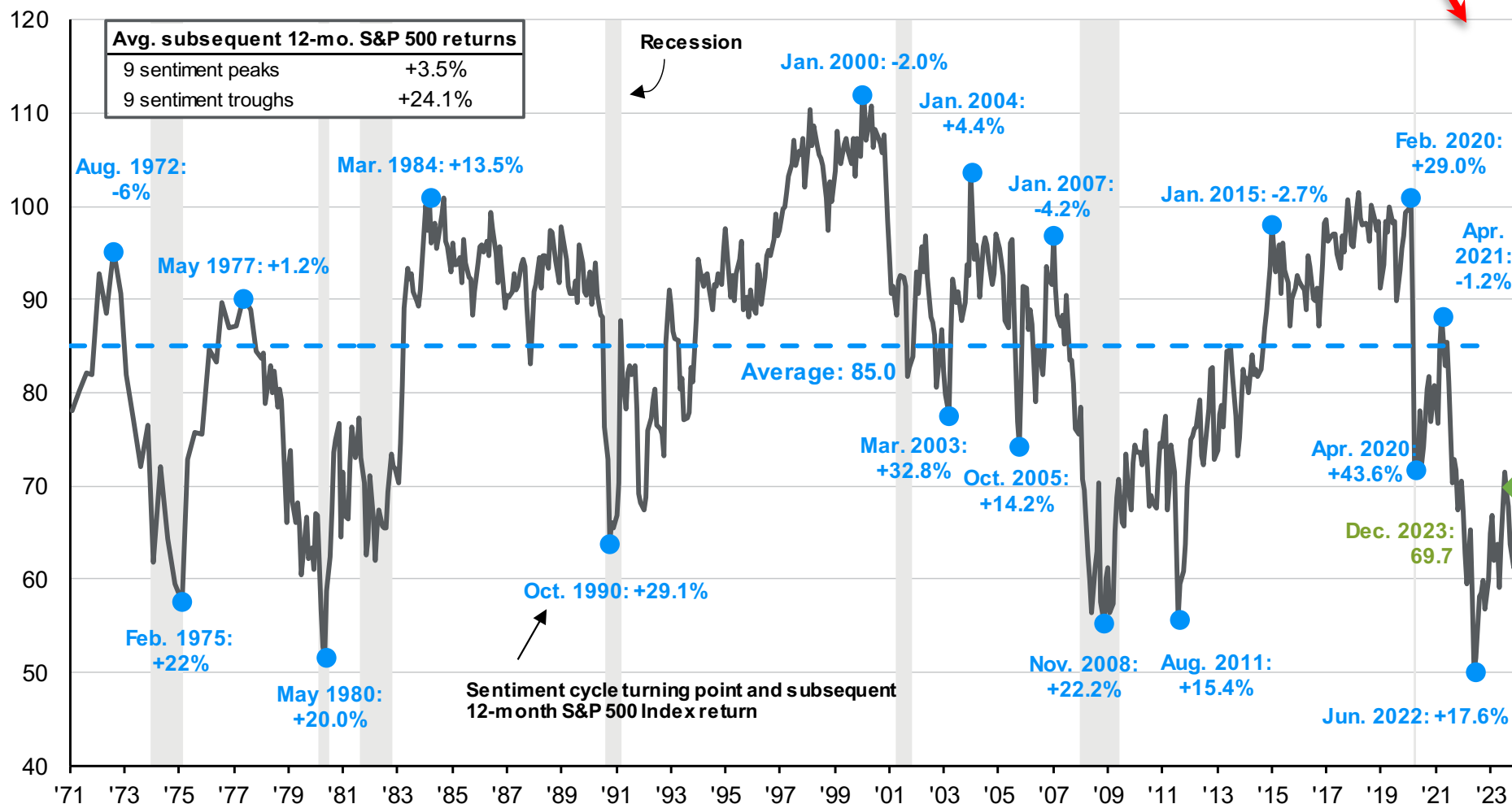
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Consumer confidence and the stock market

Consumer Confidence is improving but still low relative to the average. It can be a good time to invest when others are wary.



Consumer Sentiment Index and subsequent 12-month S&P 500 returns



Source: FactSet, Standard & Poor's, University of Michigan, J.P. Morgan Asset Management.
 Peak is defined as the highest index value before a series of lower lows, while a trough is defined as the lowest index value before a series of higher highs.
 Subsequent 12-month S&P 500 returns are price returns only starting from the end of the month and excluding dividends. Past performance is not a reliable indicator of current and future results.
 Guide to the Markets – U.S. Data are as of December 31, 2023.

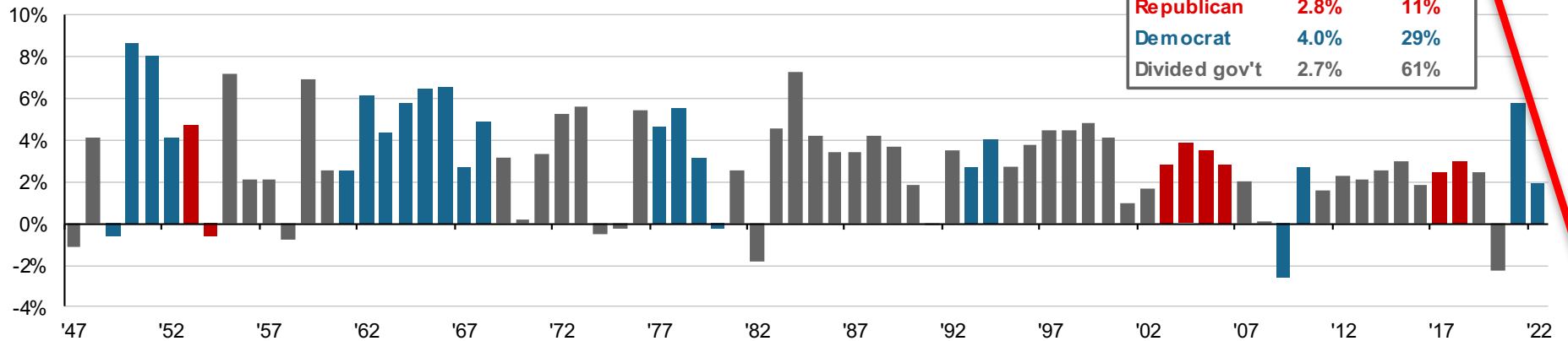
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Government control, the economy and stock market

2024 is an election year. It's important to put politics aside and don't let it affect how you invest. It's better to take a long-term approach and not time the market.

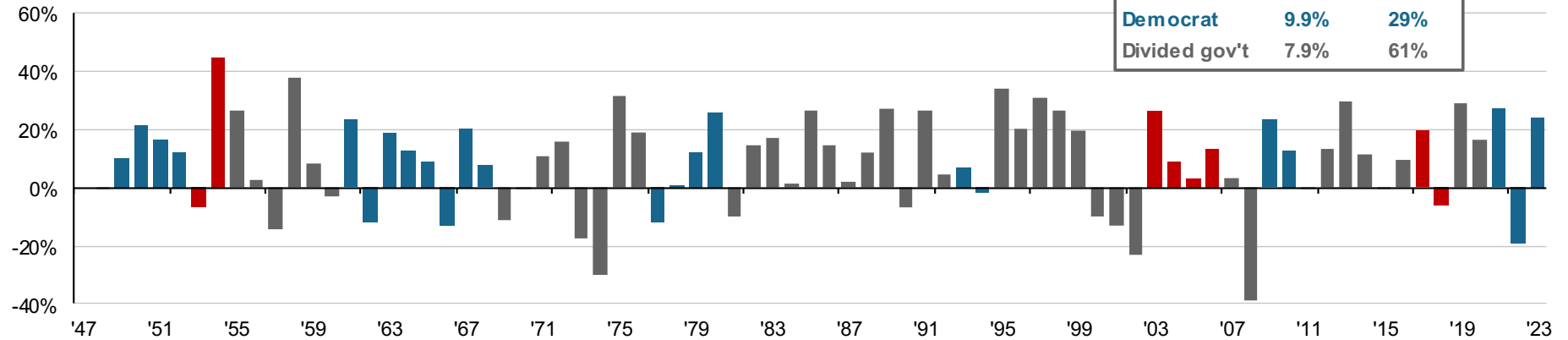
Real GDP

Year-over-year % change, annual



S&P 500 Price Index

Calendar year returns




Source: BEA, Standard & Poor's, FactSet, J.P. Morgan Asset Management. Data is calendar year.
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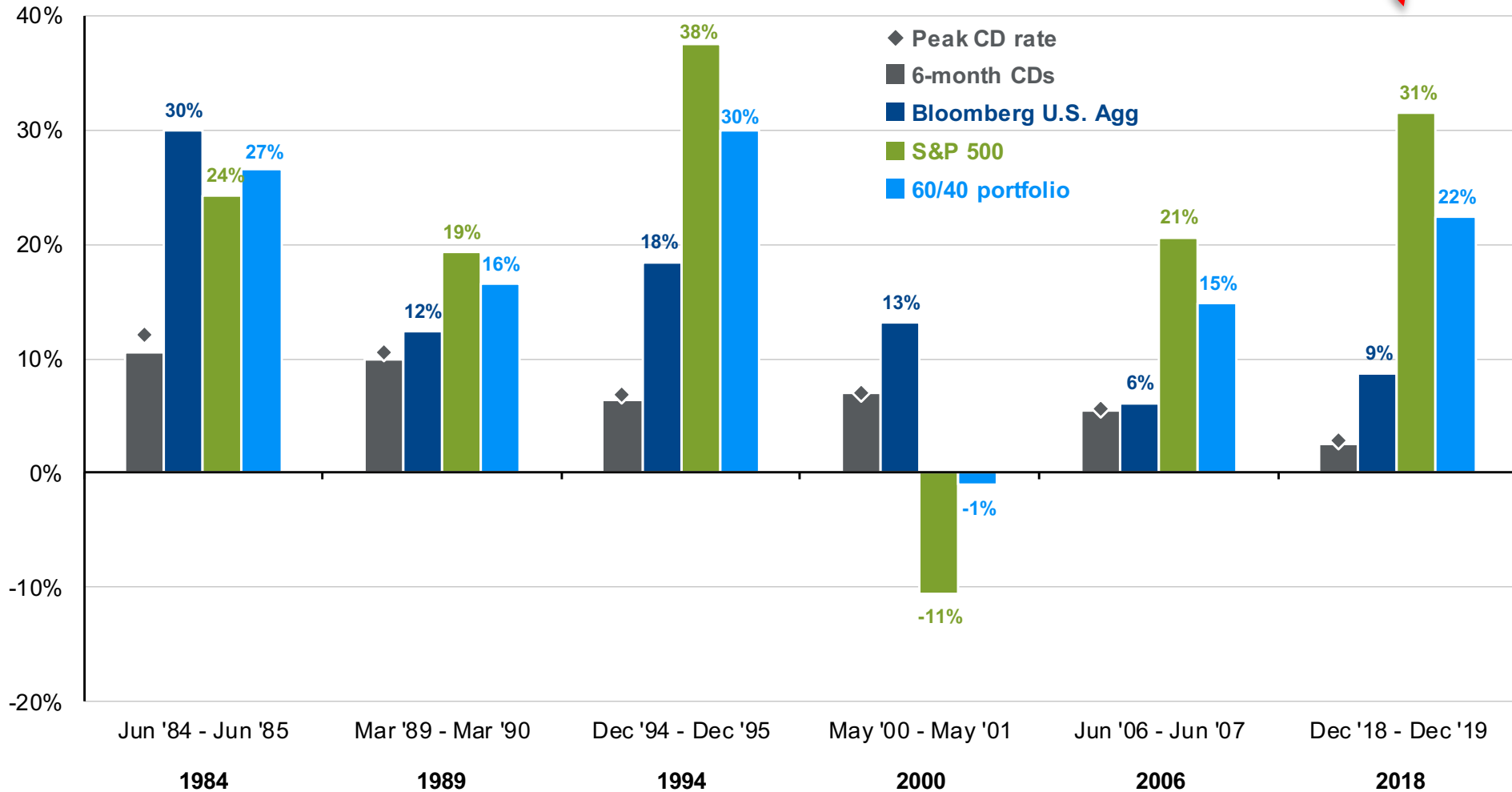
CD rates and other investment opportunities

There is an opportunity cost to holding too much cash on the sidelines.



Investment opportunities outside of CDs

Peak 6-month certificate of deposit (CD) rate during previous rate hiking cycles and subsequent 12-month total returns



Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, 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. The S&P 500 total return figure from the 1984 period was calculated using data from Robert Shiller. The analysis references the month in which the month-end 6-month CD rate peaked during previous rate hiking cycles. CD rate data prior to 2013 are sourced from the Federal Reserve, whereas data from 2013 to 2023 are sourced from Bloomberg. CD subsequent 12-month return calculation assumes reinvestment at the prevailing 6-month rate when the initial CD matures.

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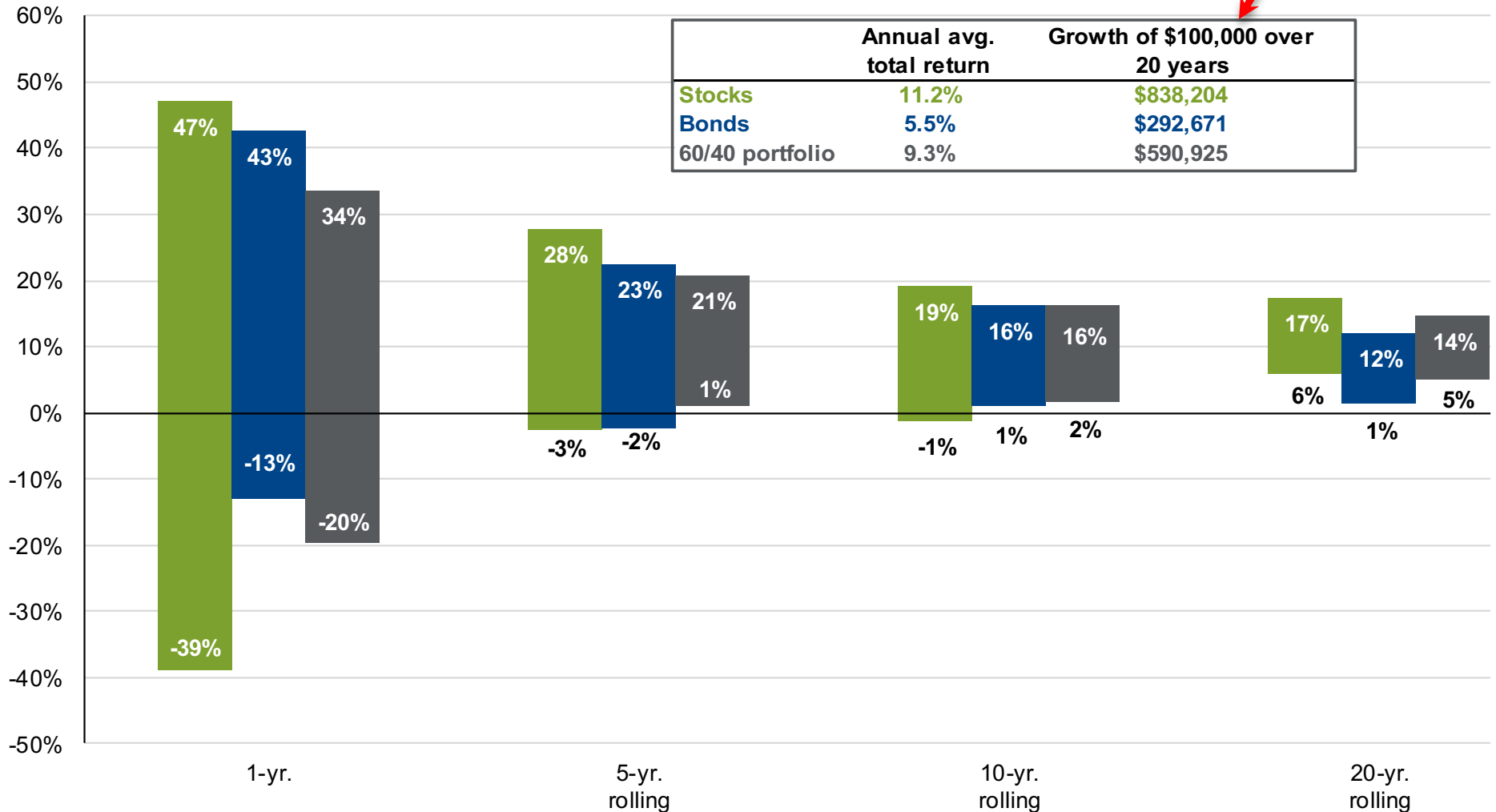
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Time, diversification and the volatility of returns

It's important to take the emotion out of investing. This chart supports having a simple balanced portfolio, staying the course and having an appropriate time horizon.

Range of stock, bond and blended total returns

Annual total returns, 1950-2023



Source: Bloomberg, FactSet, Federal Reserve, Robert Shiller, Strategas/Ibbotson, J.P. Morgan Asset Management.

Returns shown are based on calendar year returns from 1950 to 2023. Stocks represent the S&P 500 Shiller Composite and Bonds represent Strategas/Ibbotson for periods from 1950 to 2010 and Bloomberg Aggregate thereafter. Growth of \$100,000 is based on annual average total returns from 1950 to 2023.

Guide to the Markets – U.S. Data are as of December 31, 2023.

Appendix

Disclosures

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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.

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Disclosures

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+ 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.

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.

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

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