
Market Returns During Election Years

Prepared for Bank of Charles Town

August 20th, 2024

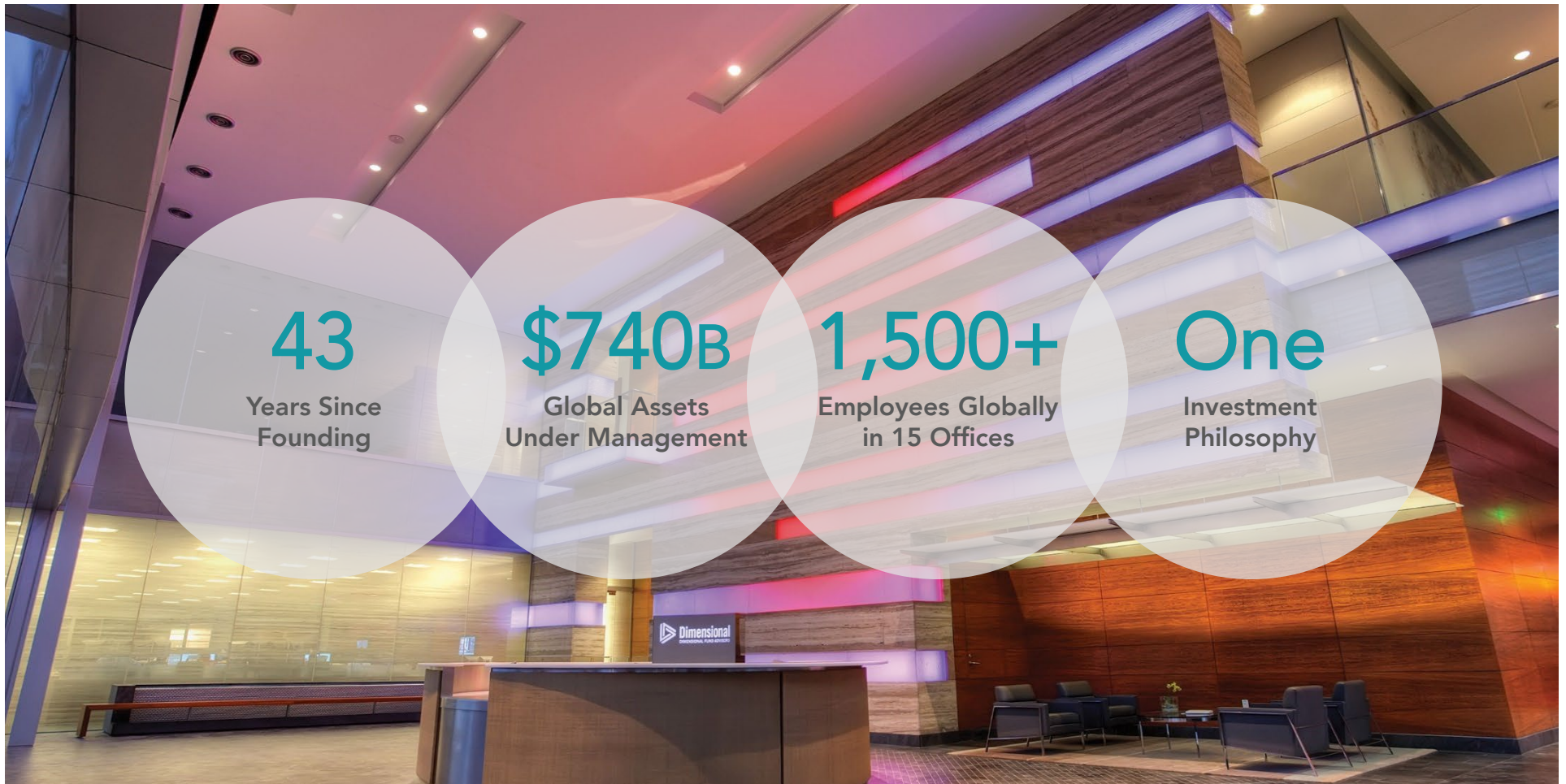
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Katie Lundy, Senior Associate

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Dimensional at a Glance

As of June 30, 2024



Assets in US dollars.

"Dimensional" refers to the Dimensional separate but affiliated entities generally, rather than to one particular entity. These entities are Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., Dimensional Ireland Limited, DFA Australia Limited, Dimensional Fund Advisors Canada ULC, Dimensional Fund Advisors Pte. Ltd., Dimensional Japan Ltd., and Dimensional Hong Kong Limited. Dimensional Hong Kong Limited is licensed by the Securities and Futures Commission to conduct Type 1 (dealing in securities) regulated activities only and does not provide asset management services.

Market Returns and Election Years

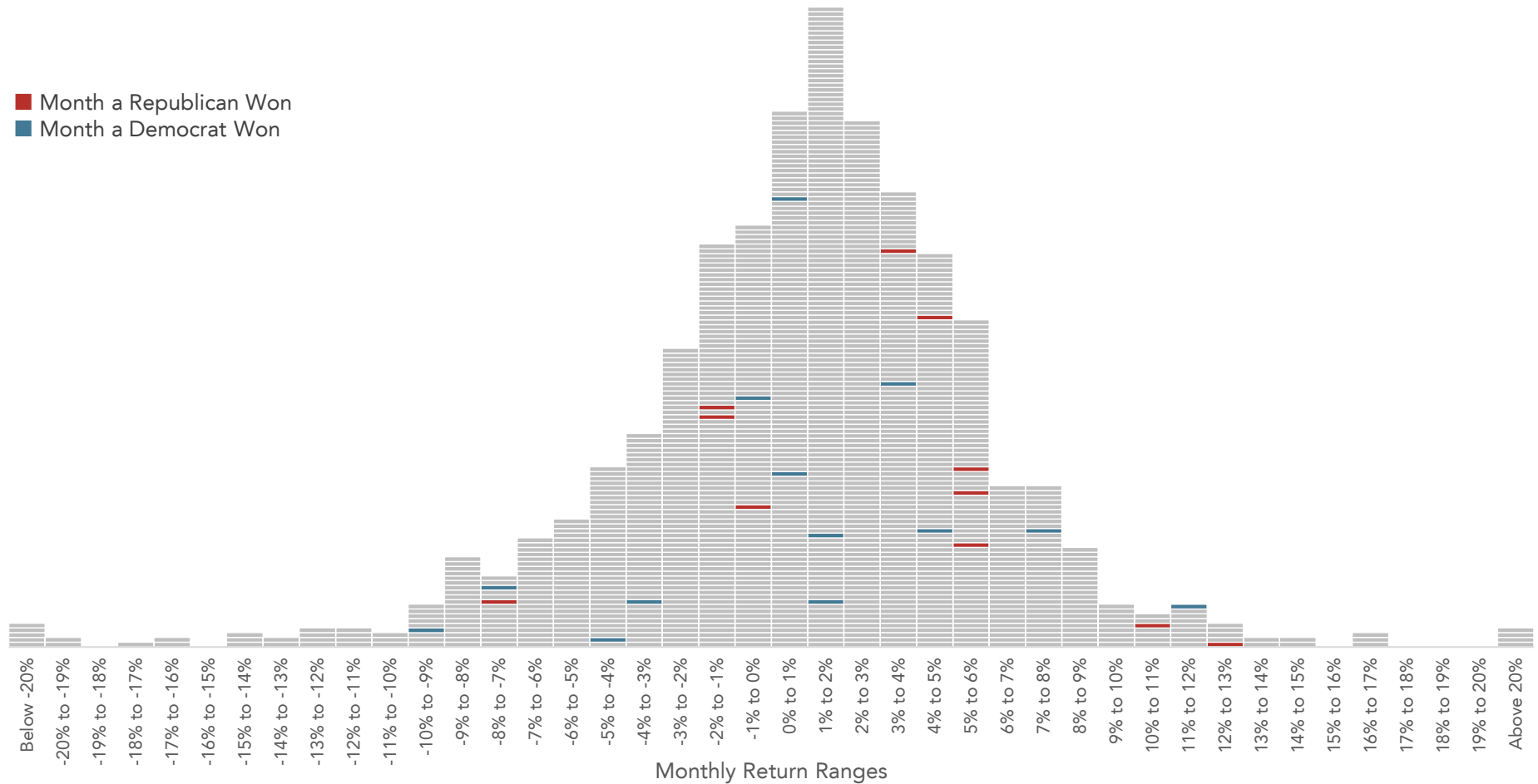
It is difficult to identify systematic return patterns in elections years.

On average, market returns have been positive both in election years and the subsequent year.

Market expectations associated with election outcomes are embedded in security prices.

US Presidential Elections and Monthly Returns

Distribution of Returns for S&P 500 Index, January 1926–December 2023



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Dashes representing returns for a given month are stacked in ascending order of return within each column, with highest return within that range on top. Source: S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Returns During and After US Election Years

S&P 500 Index: 1929–2023

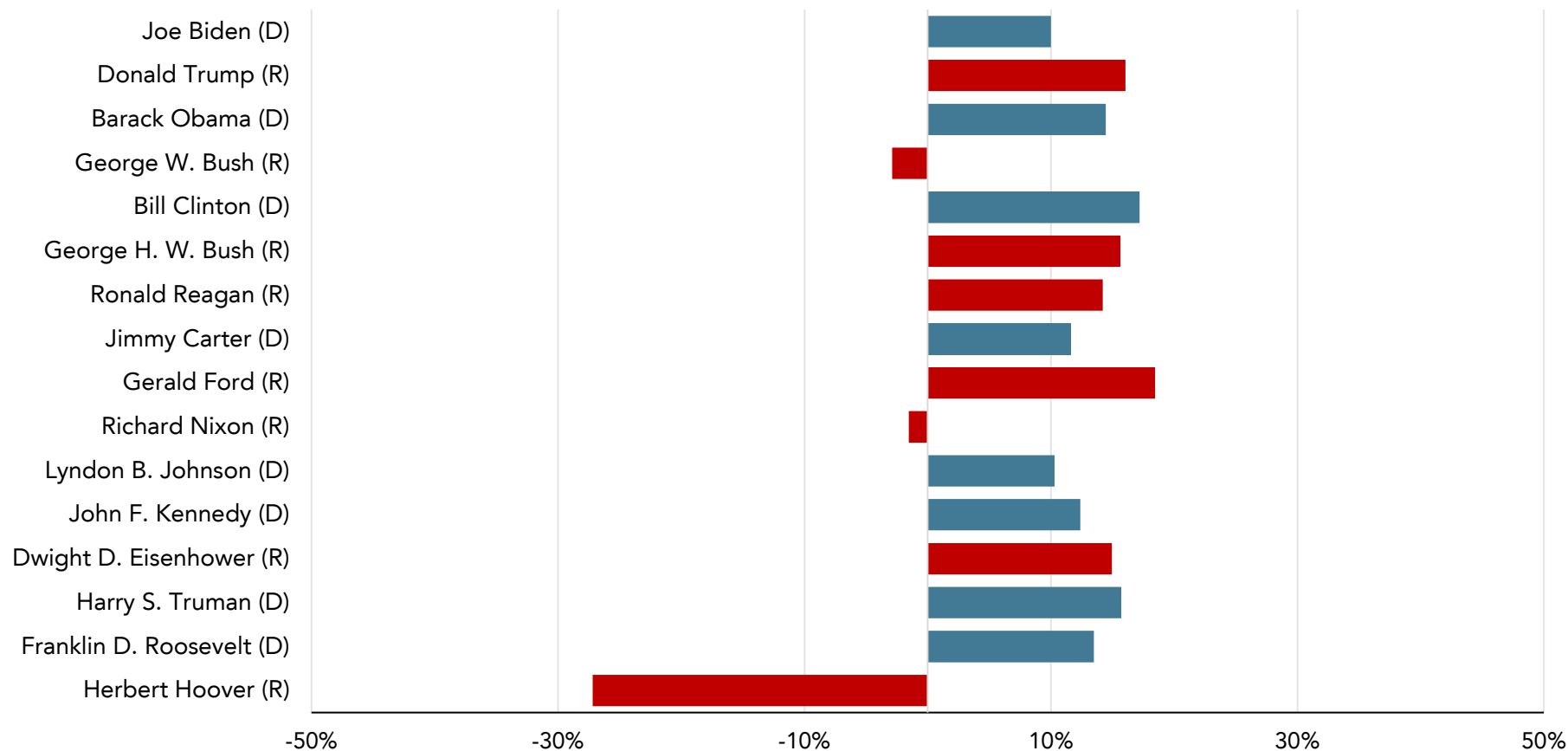


Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Source: S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Annualized Returns During US Presidential Terms

S&P 500 Index, March 1929–December 2023

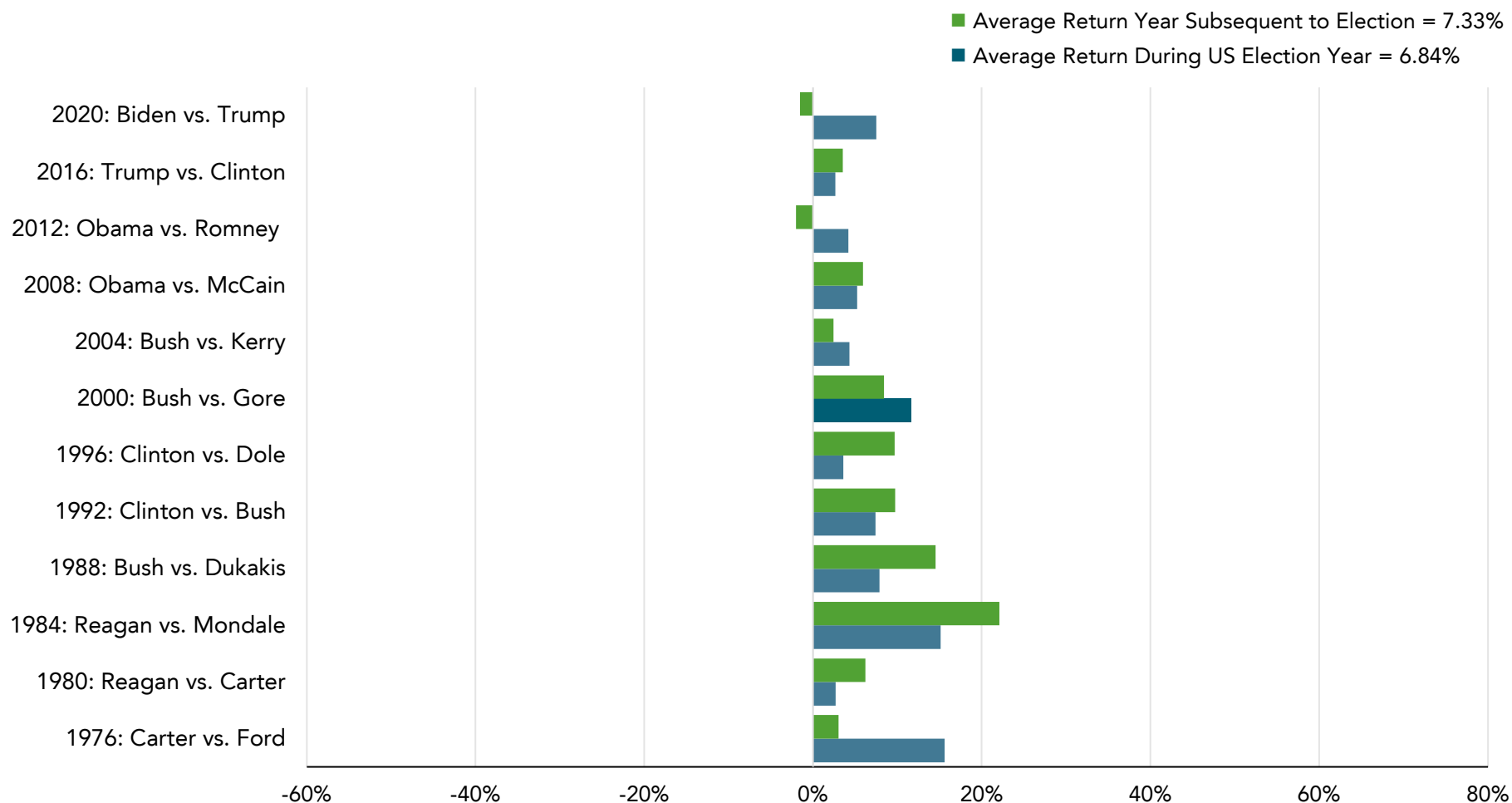
Average Return for US Presidential Terms = 9.5%



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Each president's annualized return starts with the first month of presidency and ends with the last full month of returns of presidency. Source: S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Returns During and After US Election Years

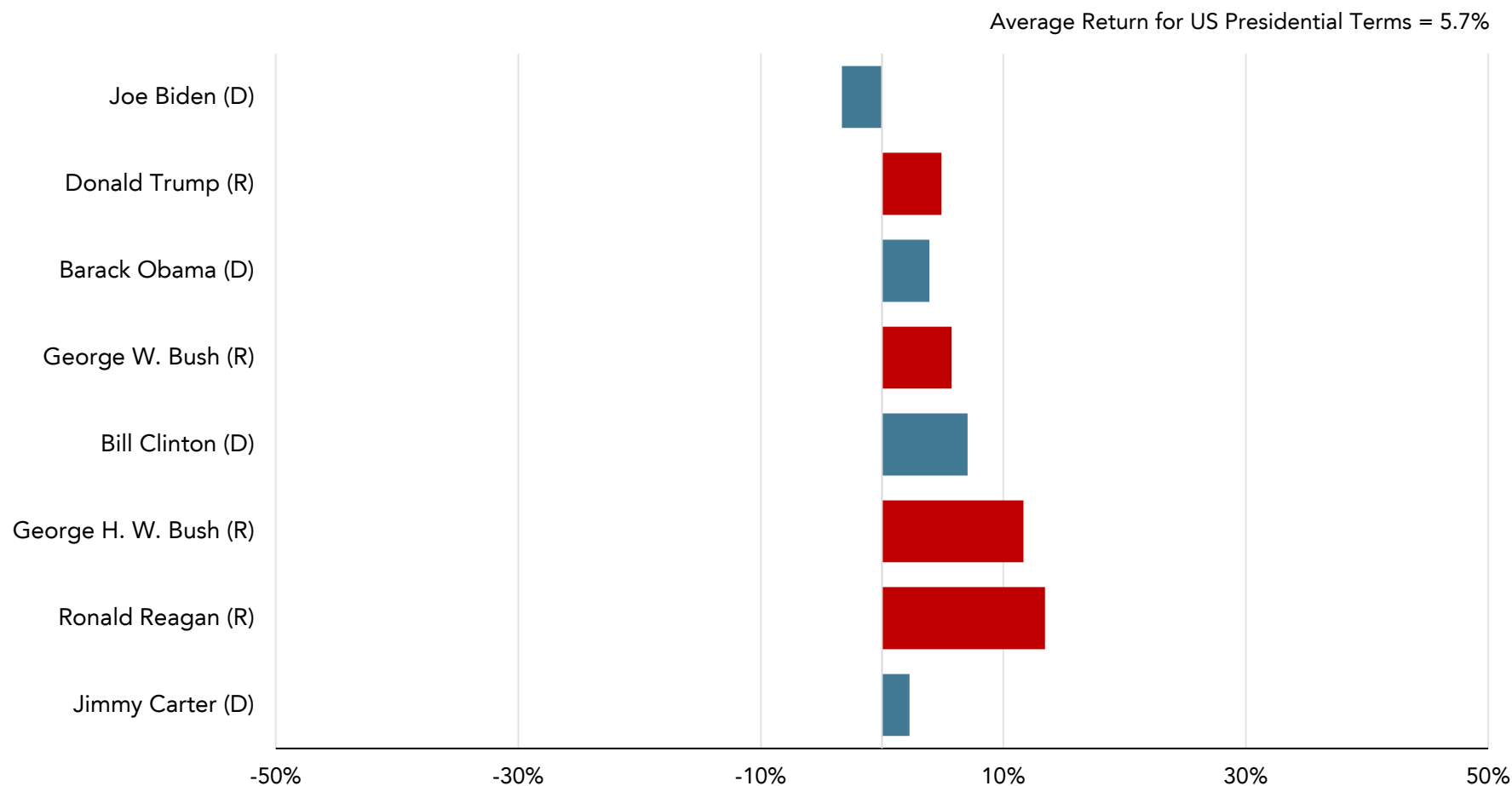
Bloomberg US Aggregate Bond Index: 1976–2023



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Source: Bloomberg data provided by Bloomberg.

Annualized Returns During US Presidential Terms

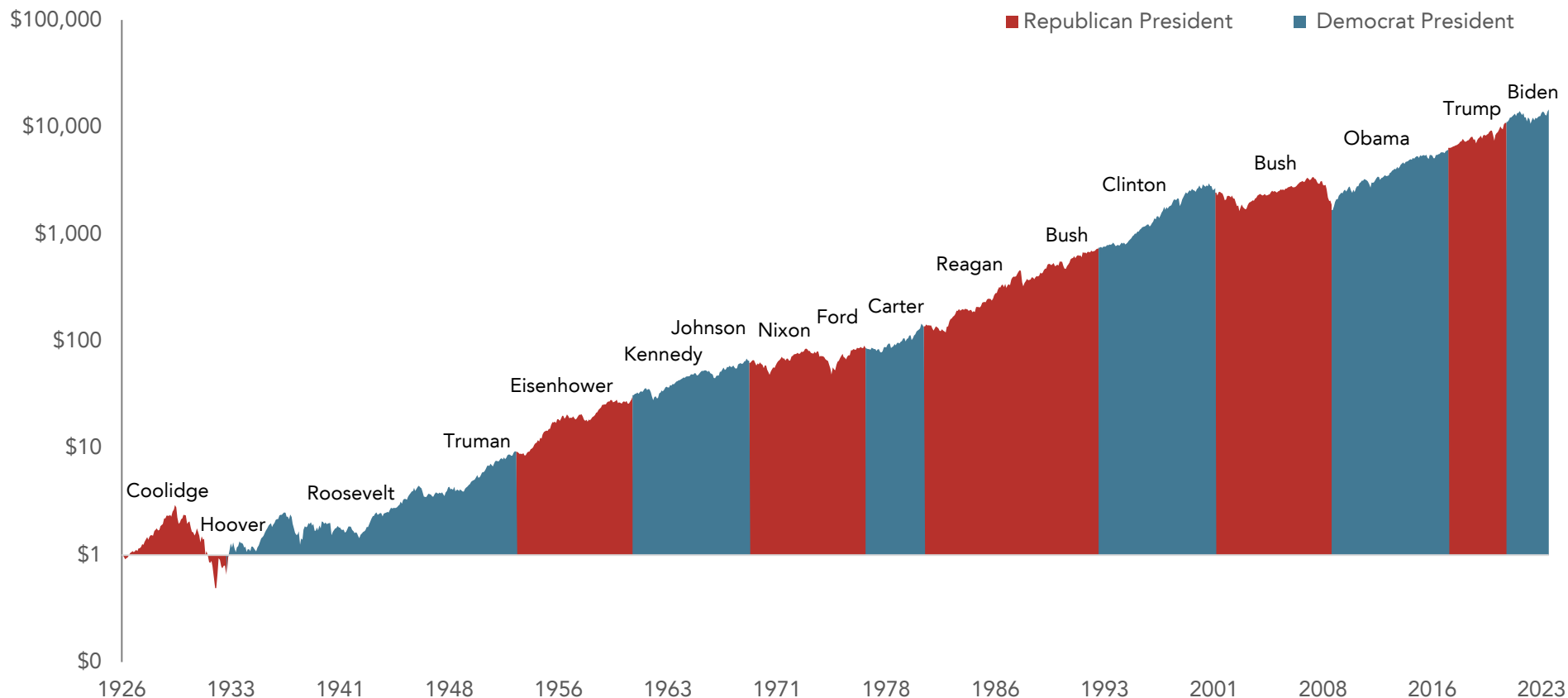
Bloomberg US Aggregate Bond Index, January 1977–December 2023



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Each president's annualized return starts with the first month of presidency and ends with the last full month of returns of presidency. Source: Bloomberg data provided by Bloomberg.

Markets Have Rewarded Long-Term Investors Under a Variety of US Presidents

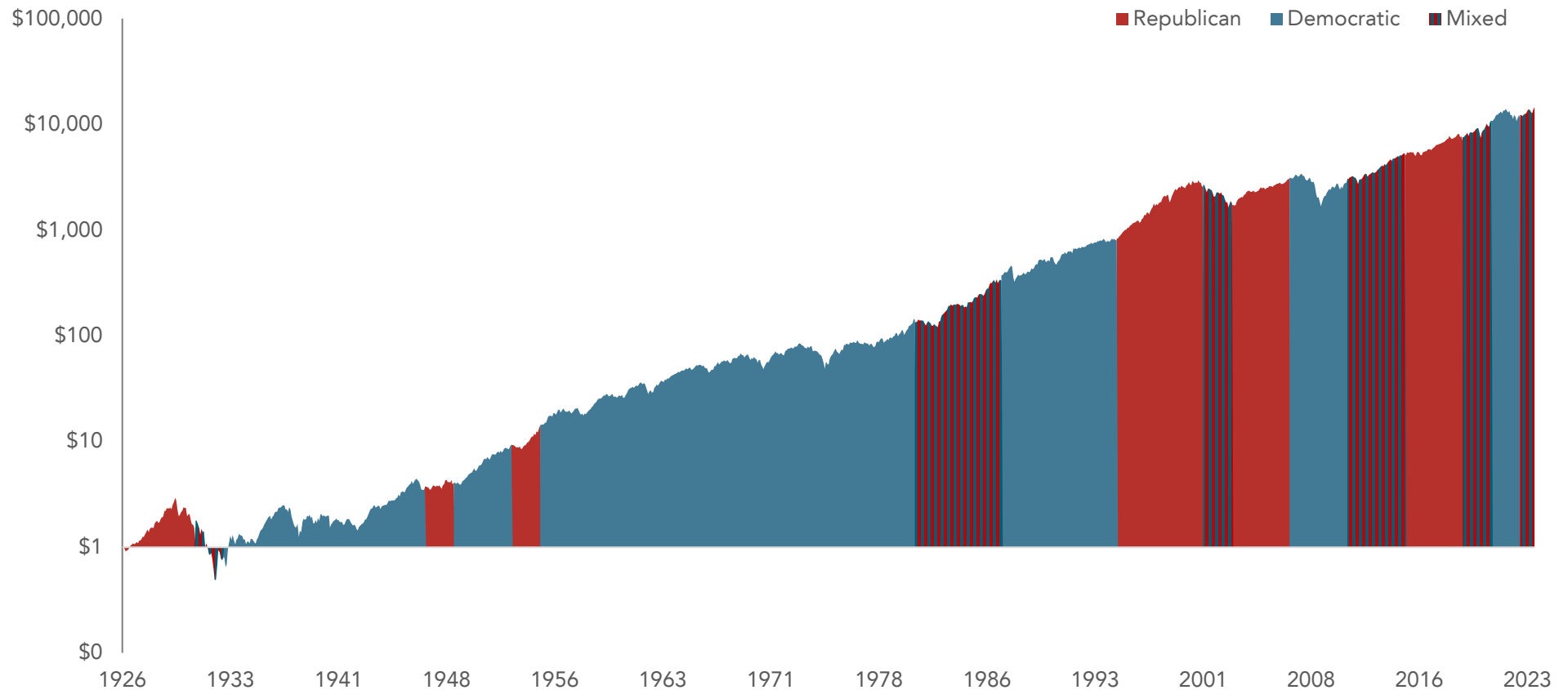
Hypothetical growth of a dollar invested in the S&P 500: January 1926–December 2023



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Data presented in the growth of \$1 chart is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The chart is for illustrative purposes only and is not indicative of any investment. Source: S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Hypothetical Growth of \$1 Invested in the S&P 500 Index and Party Control of Congress

January 1926–December 2023



Past performance is not a guarantee of future results. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Data presented in the growth of \$1 chart is hypothetical and assumes reinvestment of income and no transaction costs or taxes. The chart is for illustrative purposes only and is not indicative of any investment. Source: S&P data © 2024 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved.

Interest Rates and Equity Returns

Interest Rate Levels and the Premiums

Monthly Fama/French US Research Factor Returns against the 10-year Treasury yield, July 1964–June 2023

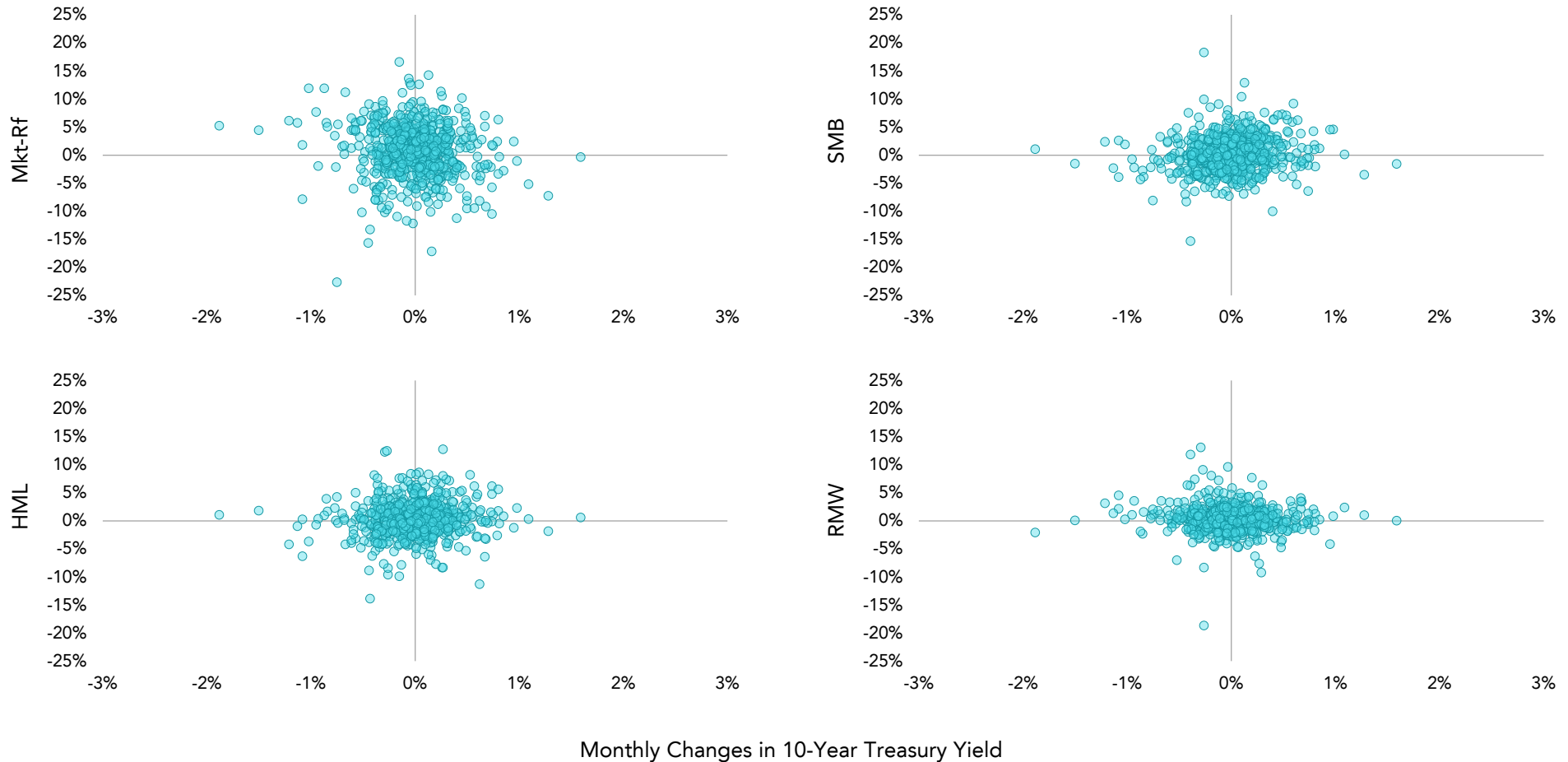


Past performance is not a guarantee of future results.

In USD. Sources: US Treasury data available from FRED, Federal Reserve Bank of St. Louis. Monthly levels are as of the beginning of the month. Fama/French Factors shown are provided by Ken French. Factors are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. Please see "Data Appendix—Fama/French Factors" for more information regarding the factors shown.

Interest Rate Changes and the Premiums

Monthly Fama/French US Research Factor Returns against monthly changes in the 10-year Treasury yield, July 1964–June 2023

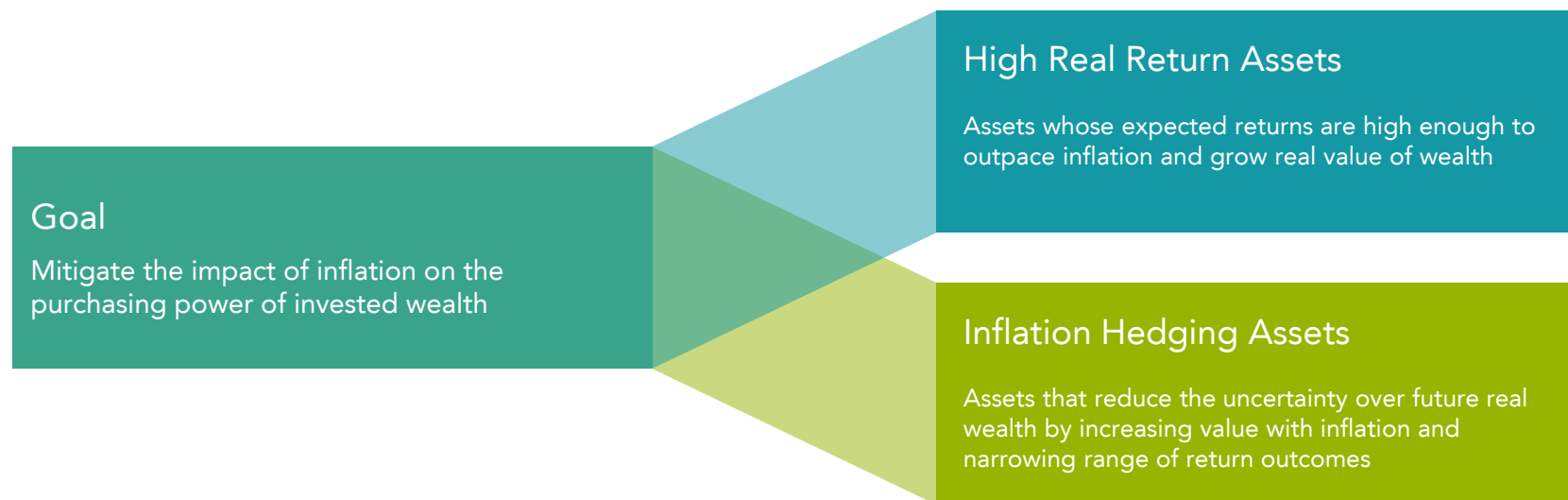


Past performance is not a guarantee of future results.

In USD. Sources: US Treasury data available from FRED, Federal Reserve Bank of St. Louis. Monthly changes are calculated as the difference in end of month and beginning of month yield. Changes are plotted against factor returns in the contemporaneous month. Fama/French Factors shown are provided by Ken French. Factors are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. Please see "Data Appendix—Fama/French Factors" for more information regarding the factors shown.

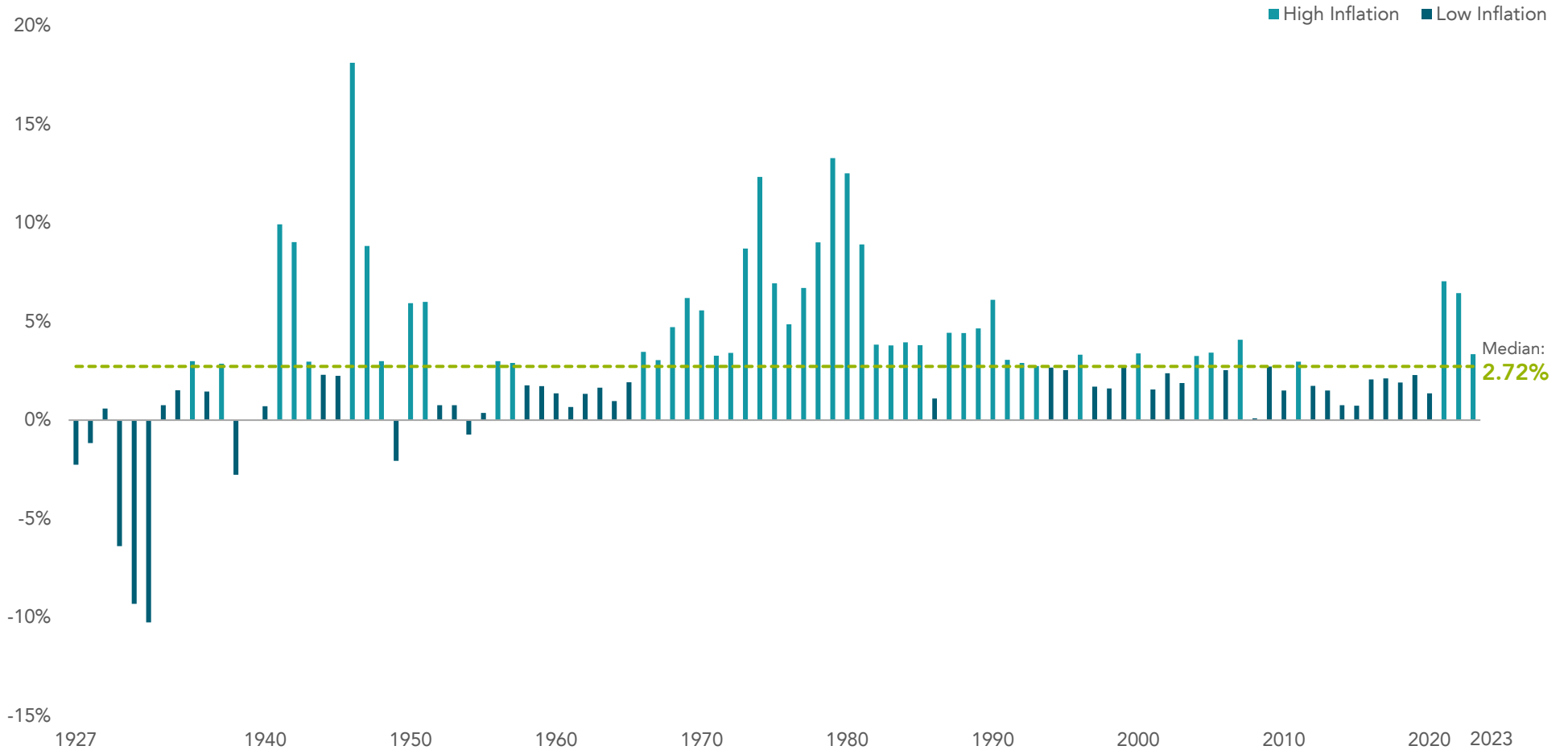
Inflation and Equity Returns

Coping With Inflation



US Inflation

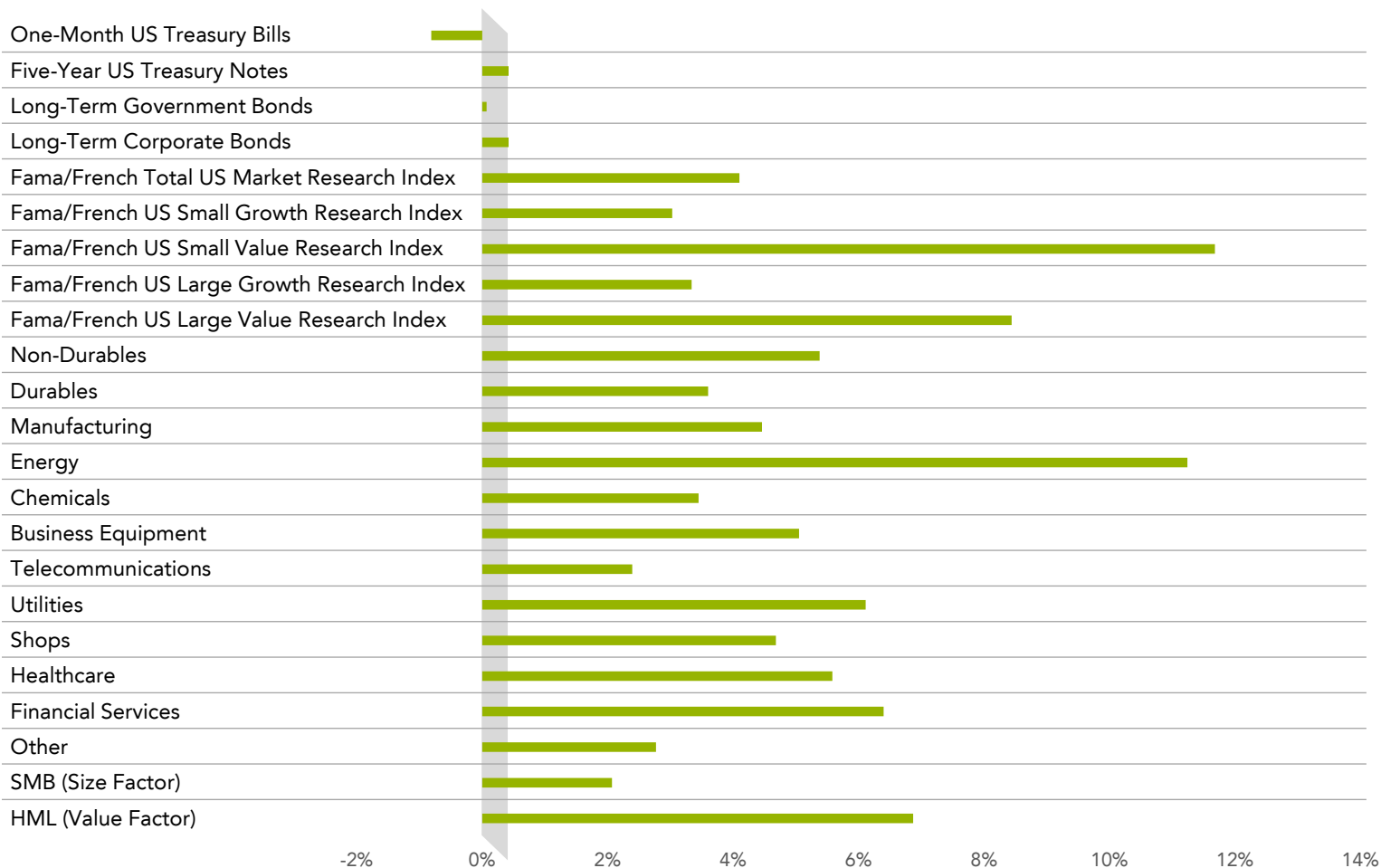
Low- and high-inflation years defined according to the full-sample median, 1927–2023



US inflation is the annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics. See Dai and Medhat (2021), available on SSRN: <https://ssrn.com/abstract=3882899>

Keeping It Real

Average annual real returns in years with above-median US inflation, 1927–2023



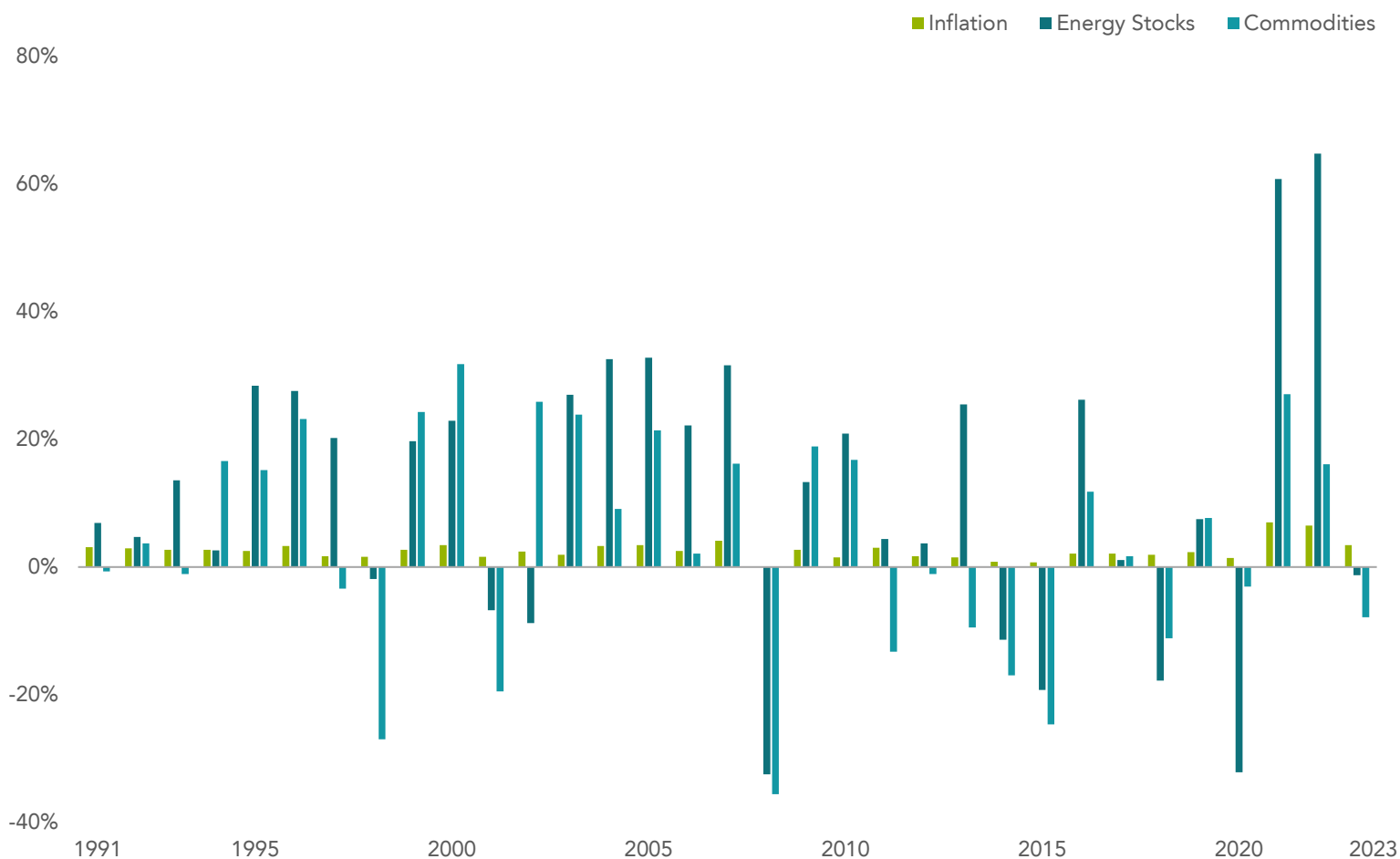
Simply staying invested helps outpace inflation over the long term for a wide range of asset classes.

Past performance is no guarantee of future results.

The Fama/French Indices represent academic concepts that may be used in portfolio construction and are not available for direct investment or for use as a benchmark. Index returns are not representative of actual portfolios and do not reflect costs and fees associated with an actual investment. US inflation is the annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics. Returns are in US dollars. See Dai and Medhat (2021), available on SSRN: <https://ssrn.com/abstract=3882899>. There are 49 years with above-median inflation over the period 1927–2023. See “Data Appendix” for additional information.

One of These Things Isn't Like the Others

Annual US inflation along with nominal returns to energy stocks and commodities, 1991–2023



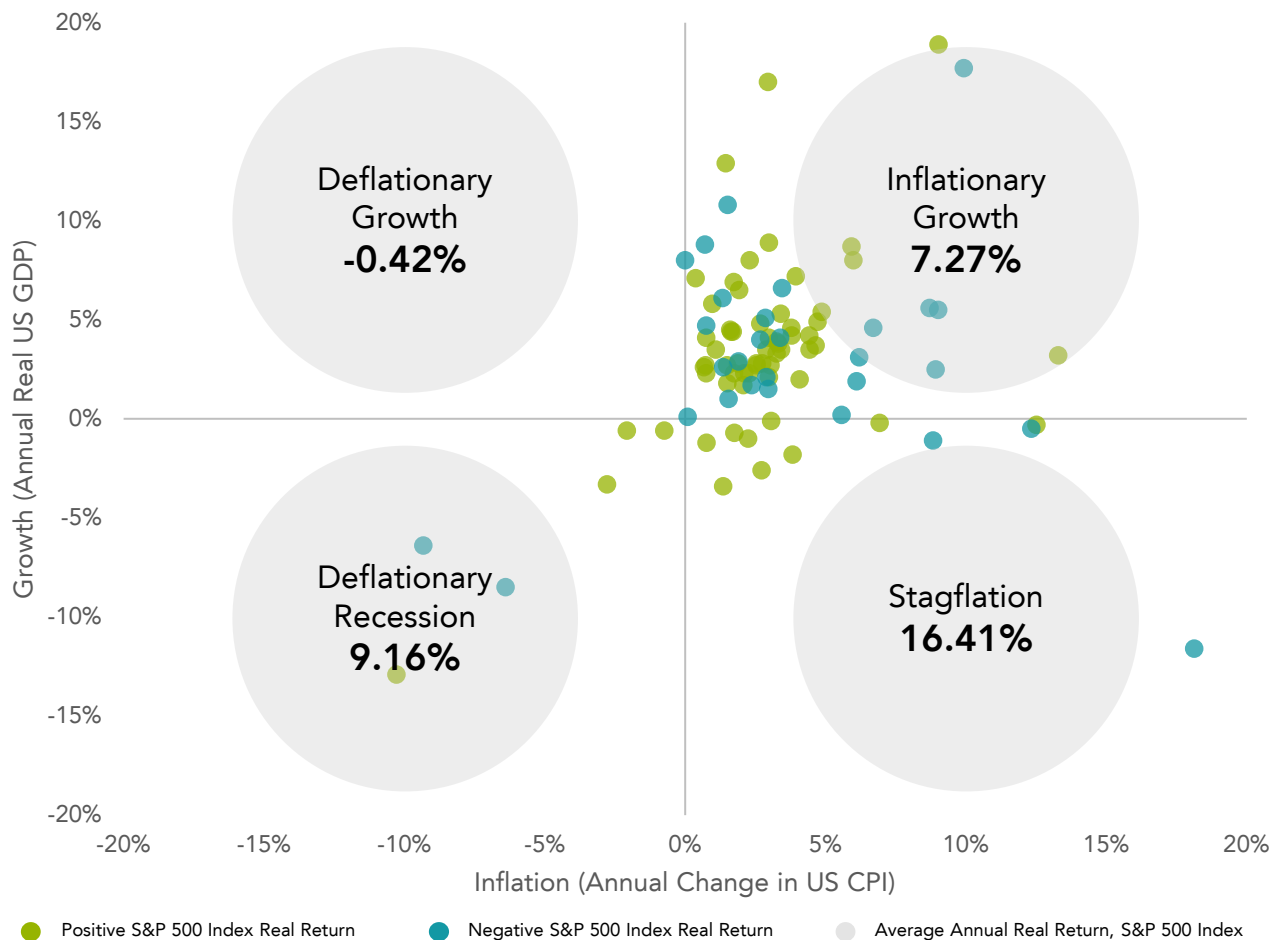
While nominal returns to energy stocks and commodities are positively and reliably related to both expected and unexpected inflation, both assets are too volatile to be an effective inflation hedge.

Past performance is no guarantee of future results.

Indices are not available for direct investment. US inflation is the annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics. Returns are in US dollars. See Dai and Medhat (2021), available on SSRN: <https://ssrn.com/abstract=3882899>. Energy stocks are proxied by the energy-industry portfolio from the 12 Fama/French industry portfolios. Commodities are proxied by the Bloomberg Commodity Total Return Index, which is available starting from February 1991, so its annual return for 1991 is based on the available 11 months. See "Data Appendix" for additional information.

Worried About Stagflation?

Annual inflation, GDP growth, and real S&P 500 Index returns, 1930–2020



Past data show that positive inflation and negative growth, a.k.a. stagflation, has not been a meaningful driver of US stock or bond returns—positive or negative.

Since 1930, US equities delivered positive real returns in 9 of the 12 years with stagflation, while US bonds¹ had positive real returns in 5 of the same 12 years.

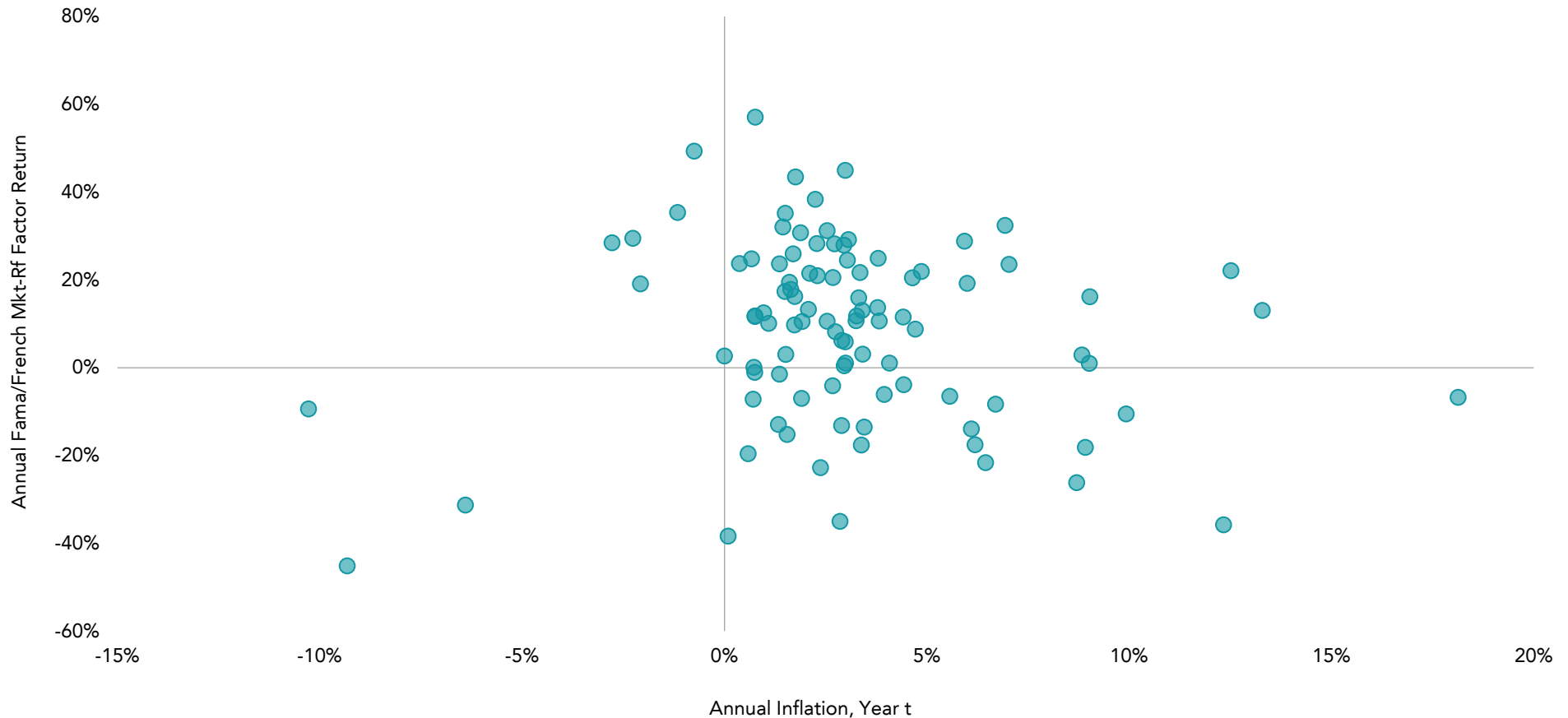
Past performance is no guarantee of future results.

1. US bonds represented using Five-Year U.S. Treasury Notes.

Sources: Bureau of Labor Statistics, Bureau of Economic Analysis, S&P 500 Index: January 1990–Present, Standard & Poors Index Services Group; January 1930–December 1989, Ibbotson data courtesy of © Stocks, Bonds, Bills and Inflation Yearbook™, Ibbotson Associates, Chicago. S&P data © 2021 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. US inflation is the annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics. Annual GDP growth rates obtained from the US Bureau of Economic Analysis. GDP growth numbers are adjusted to 2012 USD terms to remove the effects of inflation. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Returns are in US dollars.

Inflation and the Equity Premium

US inflation against contemporaneous Fama/French US Mkt-Rf Factor, 1927–2023



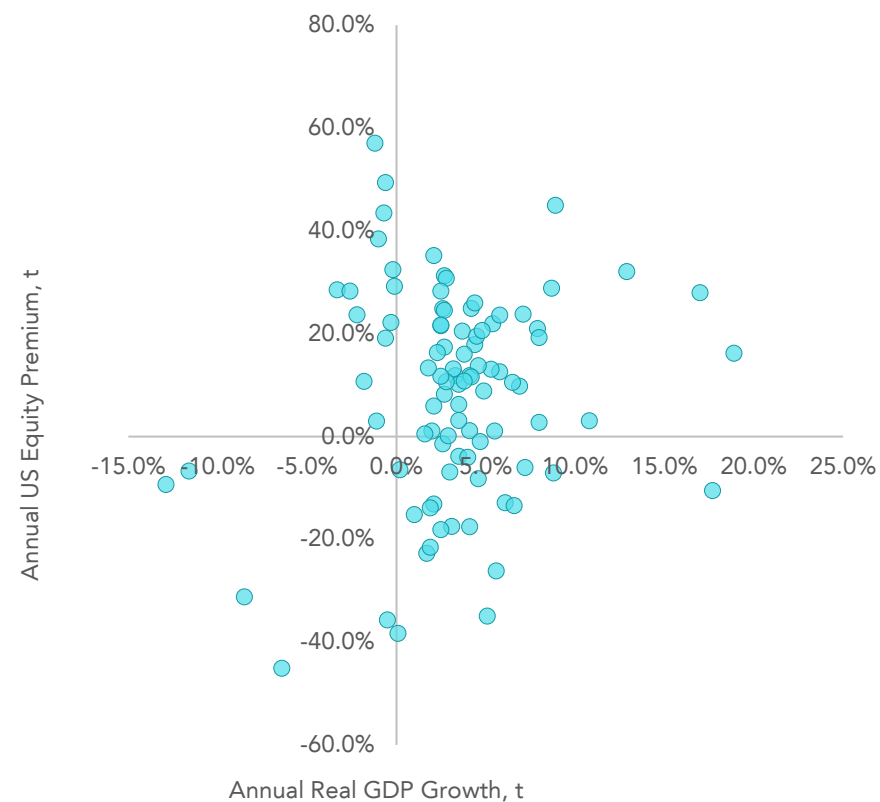
Past performance is not a guarantee of future results.

In USD. Inflation is measured by the annual percentage change in the US Consumer Price Index. Fama/French Factors shown are provided by Ken French. Factors are not available for direct investment; their performance does not reflect the expenses associated with the management of an actual portfolio. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. See “Data Appendix—Fama/French Factors” for more information regarding the factors shown.

GDP Growth and Equity Returns

Stock Prices Are Forward Looking

Scatter plots of annual GDP growth against lagged and contemporaneous stock returns, 1930–2023



Past performance is no guarantee of future results. In USD.

Annual GDP growth rates obtained from the US Bureau of Economic Analysis. GDP growth numbers are adjusted to 2012 USD terms to remove the effects of inflation. US Equity Premium represented by the Fama/French Mkt-Rf factor. Data provided by Fama/French. Eugene Fama and Ken French are members of the Board of Directors of the general partner of, and provide consulting services to, Dimensional Fund Advisors LP. Please see "Data Appendix—Fama/French Factors" for a description of the Fama/French Factors.

GDP Growth and the Equity Premium

Annual equity premium vs. annual GDP growth, Developed Markets, 1980–2023



Past performance is no guarantee of future results.

In USD. GDP growth data from the IMF World Economic Outlook. Equity premium is computed as MSCI Country Indices—One-Month US Treasury Bills. Data provided by MSCI. Sample period by country: Developed Markets equity premium (from 1980 unless stated differently): Australia, Austria, Belgium, Canada, Denmark, Finland (from 1988), France, Germany, Hong Kong, Ireland (from 1988), Italy, Japan, Netherlands (from 1981), New Zealand (from 1988), Norway, Singapore, Spain, Sweden, Switzerland, UK, US.

Takeaways

Markets and economies are constantly evolving, but the principles underpinning reliable investment approaches are evergreen.

Market prices contain the latest information and forward-looking expectations of market participants and prices are set such that expected premiums are positive.

A consistent investment approach with broad diversification remains a reliable way to pursue a successful investment experience.

Appendix

GDP Growth and the Equity Premium

Annual equity premium vs. annual GDP growth, Emerging Markets, 1994–2023



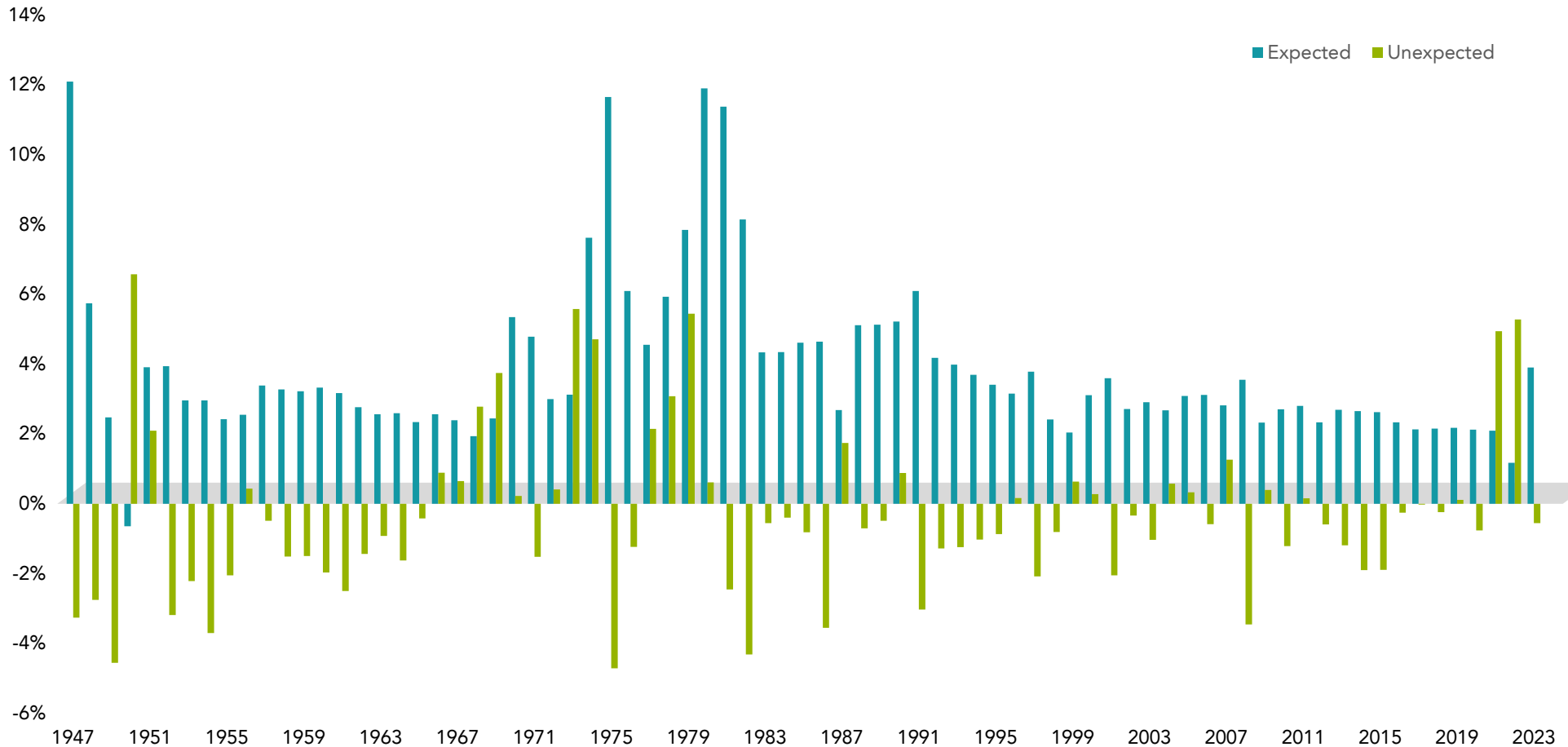
Past performance is no guarantee of future results.

In USD. GDP growth data from the IMF World Economic Outlook. Equity premium is computed as MSCI Country Indices—One-Month US Treasury Bills. Data provided by MSCI. Sample period by country: Emerging markets from 1994 (unless stated differently): Brazil, Chile, China, Colombia, Czech Republic (from 1996), Greece, Hungary (from 1995), India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Qatar (from 2006), Saudi Arabia (from 2015), South Africa, Taiwan, Thailand, Turkey, UAE (from 2006).

FOR RESEARCH AND EDUCATIONAL PURPOSES

Hedging Seeks to Protect Against the Unexpected

Annual US inflation, 1947–2023



Past performance is no guarantee of future results. Indices are not available for direct investment.

US inflation is the annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics. Returns are in US dollars. Expected and unexpected components computed using an autoregressive model with one lag (AR(1)) estimated over rolling 20-year periods. Expected inflation is the one-year ahead forecast and unexpected inflation is actual inflation minus the expected component. See Dai and Medhat (2021), available on SSRN: <https://ssrn.com/abstract=3882899>.

Data Appendix—Fama/French Factors

Fama/French Mkt-Rf: The excess return on the market, value-weight return of all CRSP firms incorporated in the US and listed on the NYSE, AMEX, or NASDAQ that have a CRSP share code of 10 or 11 at the beginning of month t , good shares and price data at the beginning of t , and good return data for t minus the one-month Treasury bill rate (from Ibbotson Associates).

Fama/French US SMB Research Factor: Constructed from six size/book-to-market research portfolios, six size/profitability research portfolios, and six size/investment research portfolios. SMB (Small minus Big) for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity for December $t - 1$ and June of t , (positive) book-to-market equity data for fiscal year ending in $t - 1$, non-missing revenues and at least one of the following: cost of goods sold, selling, general and administrative expenses, or interest expense for $t - 1$, and total assets data for $t - 2$ and $t - 1$. Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed end funds, certificates, shares of beneficial interests, and negative book values.

Fama/French US HML Research Factor: Constructed from four size/book-to-market research portfolios. HML for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity for December $t - 1$ and June of t , and (positive) book-to-market equity data for fiscal year ending in $t - 1$. HML (High minus Low) is the average return on two value research portfolios minus the average return on two growth research portfolios: $1/2$ (Small Value + Big Value) – $1/2$ (Small Growth + Big Growth). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, shares of beneficial interests, and negative book values.

Fama/French US RMW Research Factor: Constructed from four size/profitability research portfolios. RMW for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity data for June of t , (positive) book equity data for $t - 1$, non-missing revenues data for $t - 1$, and non-missing data for at least one of the following: cost of goods sold, selling, general and administrative expenses, or interest expense for $t - 1$. RMW (Robust minus Weak) is the average return on the two robust operating profitability portfolios minus the average return on the two weak operating profitability portfolios: $1/2$ (Small Robust + Big Robust) – $1/2$ (Small Weak + Big Weak). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, and shares of beneficial interests.

Fama/French US CMA Research Factor: Constructed from six size/investment research portfolios that do not include hold ranges. CMA for July of year t to June $t + 1$ includes all NYSE, AMEX, and NASDAQ stocks for which we have market equity data for June of t , total assets data for $t - 2$ and $t - 1$. CMA (Conservative Minus Aggressive) is the average return on the two conservative investment portfolios minus the average return on the two aggressive investment portfolios: $1/2$ (Small Conservative + Big Conservative) – $1/2$ (Small Aggressive + Big Aggressive). Exclusions: ADRs, investment companies, tracking stocks, non-US incorporated companies, closed-end funds, certificates, and shares of beneficial interests.

Data Appendix

US inflation

The annual rate of change in the Consumer Price Index for All Urban Consumers (CPI-U, not seasonally adjusted) from the Bureau of Labor Statistics.

US government securities and long-term corporate bonds

The returns to US government securities (one-month T-bills, five-year notes, and long-term bonds) and long-term corporate bonds are from Morningstar (previously from Ibbotson Associates).

Commodities

Commodities are proxied by the Bloomberg Commodity Total Return Index, which is available starting from February 1991, so its annual return for 1991 is based on the available 11 months.

US equity portfolios and factors

The US equity market is proxied by the Fama/French Total US market research index. The US industry portfolios are the 12 Fama/French industry portfolios. The US style portfolios (small-cap value and growth and large-cap value and growth) are from the Fama/French 6 portfolios sorted on size (market cap) and book-to-market equity. The US size and value premiums are proxied by the Fama/French size and value factors. The returns to all the above are from Ken French's data library:
https://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html

Index Descriptions:

Fama/French Total US Market Research Index: July 1926–present: Fama/French Total US Market Research Factor + One-Month US Treasury Bills. Source: Ken French Website.

Fama/French US Small Growth Research Index: Provided by Fama/French from CRSP securities data. Includes the higher 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973) that have smaller market capitalization than the median NYSE company.

Fama/French US Small Value Research Index: Provided by Fama/French from CRSP securities data. Includes the lower 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973) that have smaller market capitalization than the median NYSE company.

Fama/French US Large Growth Research Index: Provided by Fama/French from CRSP securities data. Includes the higher 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973) that have larger market capitalization than the median NYSE company.

Fama/French US Large Value Research Index: Provided by Fama/French from CRSP securities data. Includes the lower 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaq equivalents since 1973) that have larger market capitalization than the median NYSE company.