# **Aspiriant**

Independent Trustee Alliance May 16th, 2024



#### Presenters



#### Gregory P. Fasig, CFA, CFP – Director, Wealth Management, Partner

- 34 years of industry experience, Fiduciary since 1995
- Previously with Deloitte Investment Advisors
- Trust Officer for 10 years
- CFA, CFP
- Served on boards of various non-profits, endowments and foundations



#### Ryan T. Nelson, CFA – Director, Investment Advisory, Partner

- 16 years of industry experience
- Formerly worked at Wells Fargo Advisors, AXA Advisors
- CFA

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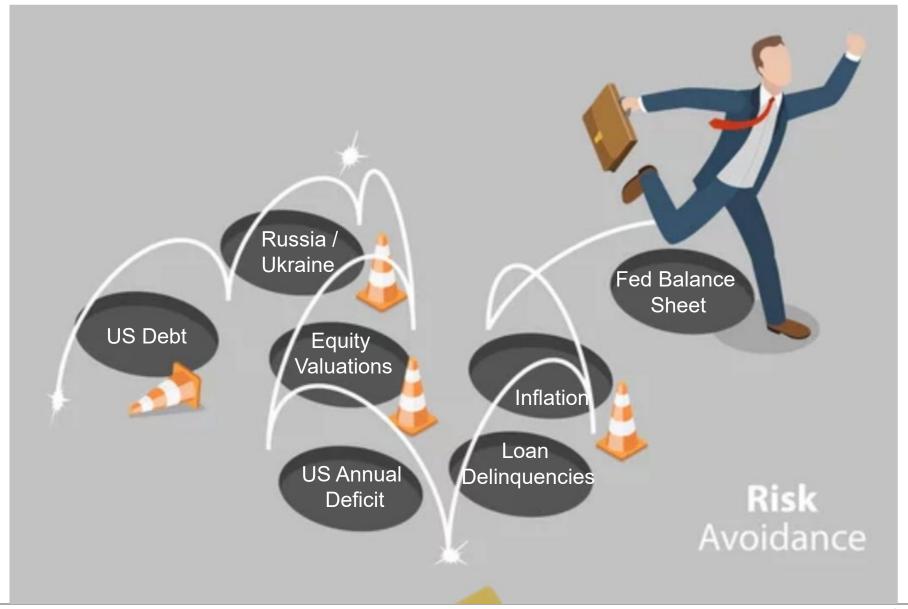
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# Overview

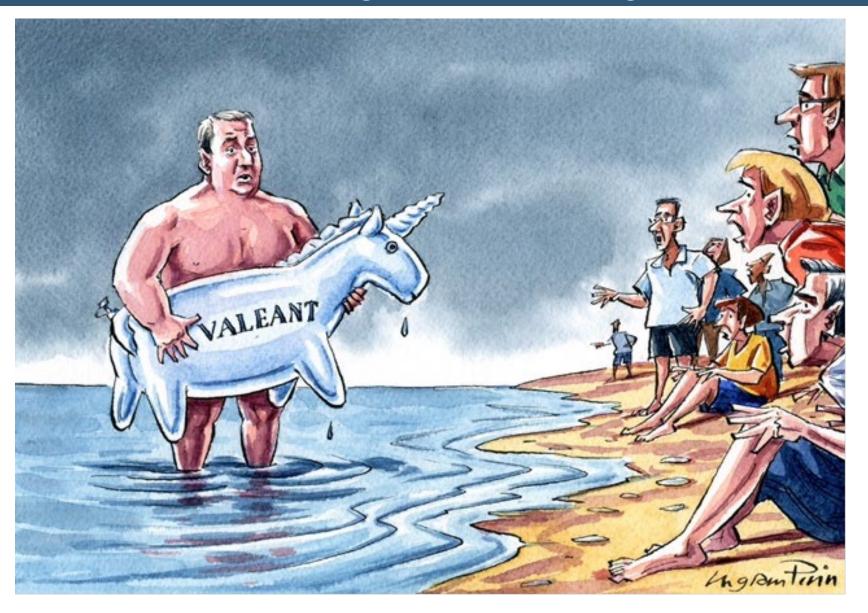
- Financial Markets
- o Economy
- Monetary Policy
- Election Year Analysis
- Recent Trends Mag 7
- Current Valuations
- Outlook

# **Broad Overview**



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# You find out who's swimming naked when the tide goes out



# Landscape

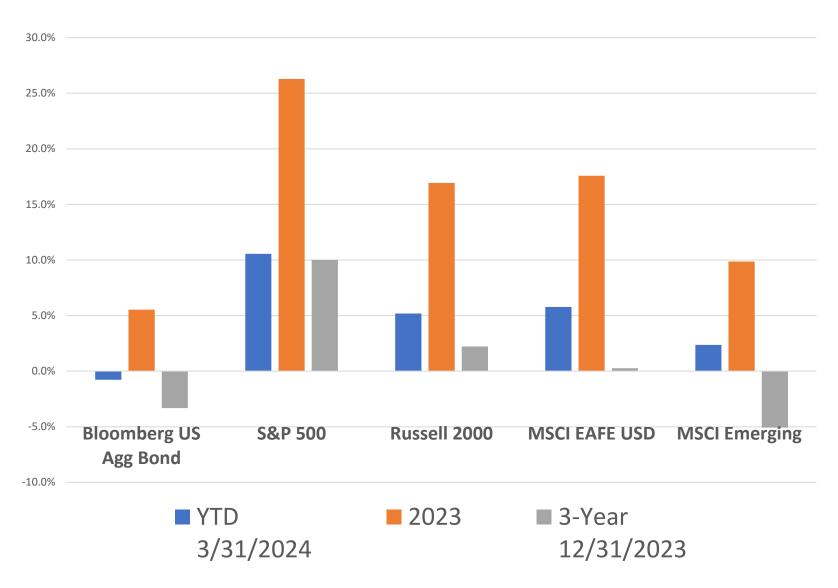
- Excess Federal Reserve balance sheet and shrinking
- Excessive level of US debt and increasing cost to carry
- Divided government
- Inverted yield curve
- Numerous economic warning signs
- Unprecedented levels of cash
- Expensive equity markets with pockets of opportunity

# What May be "Different" this Time

- Intergenerational wealth transfer contributing to consumer spending
  - Estimated \$30t in wealth for those over age 70 (FRB 2021)
  - Estimated transfer of \$73t to next generation between 2022-2045<sup>1</sup>
  - Spending more for longer then would otherwise be the case
- Al's impact on financial forecasting / data analysis
  - Policy makers may devise more effective ways to monitor and buffer the impacts of financial downturns
- International conflicts Dollar stronger, longer
  - No better alternative than the US
  - Strong dollar is good for US, bad for foreign, especially EM
  - Loss of the "peace dividend", long-term economic growth implications

### **Financial Markets**

#### Financial Markets - Investment Performance



Data as of 12/31/2023

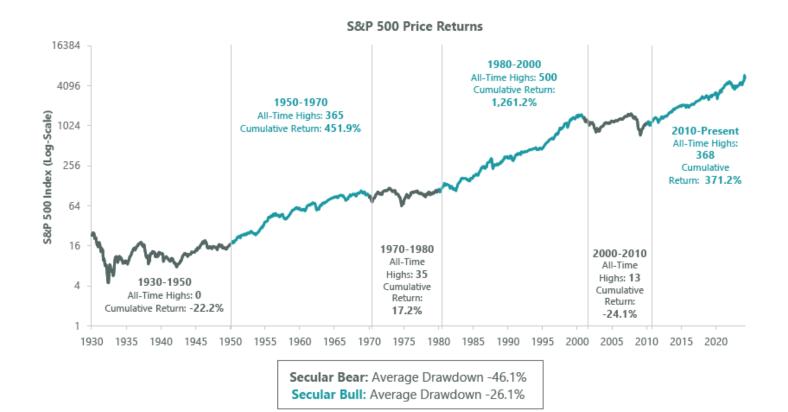
# Financial Markets - Investment Performance

		YTD 3/31/2024	2023	<b>3-Year</b> 12/31/2023		
Fixed :	xed Income					
	Bloomberg US Agg Bond	-0.8%	<b>5.5</b> %	-3.3%		
	Bloomberg Municipal Bond	<b>-0.4</b> %	<b>6.4</b> %	0.4%		
Equity						
	S&P 500	10.6%	26.3%	10.0%		
	Russell 1000 Value	9.0%	11.5%	8.9%		
	Russell 1000 Growth	11.4%	42.7%	8.9%		
	Russell 2000	5.2%	16.9%	2.2%		
	Russell 2000 Value	2.9%	14.7%	7.9%		
	Russell 2000 Growth	7.6%	18.7%	-3.5%		
	MSCI EAFE USD	5.8%	17.6%	0.3%		
	MSCI EAFE Value	4.5%	19.0%	7.6%		
	MSCI EAFE Growth	7.0%	17.6%	0.3%		
	MSCI Emerging	2.4%	9.9%	-5.1%		
	MSCI Emerging Value	1.3%	14.2%	0.0%		
	MSCI Emerging Growth	3.4%	18.7%	-9.7%		
Alternative						
	FTSE EPRA/NAREIT United Stat	0.6%	13.3%	<b>6.7</b> %		
	IQ Hedge Fund Multi-Strategy	2.5%	10.3%	0.2%		
	Bloomberg Commodity	2.2%	<b>-7.9</b> %	10.8%		
	,					

#### Financial Market – Secular Market Trends

#### New Secular Bull Market?





In the 12 months following an all-time high, stocks have historically been up 8.3% on average with positive returns 70% of the time.

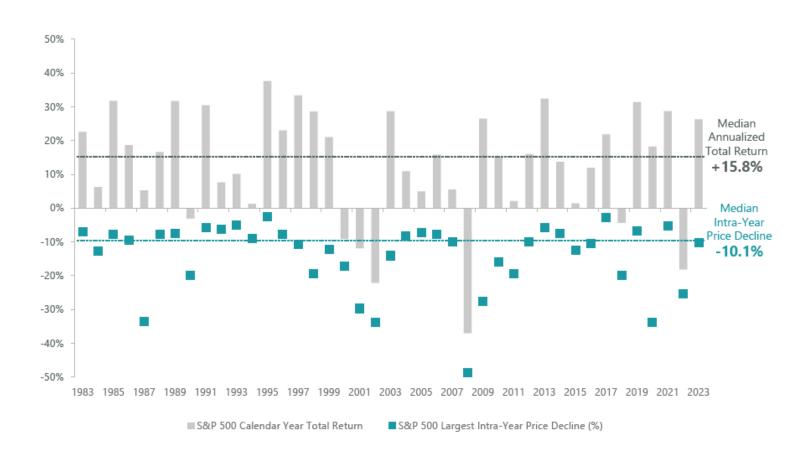


Secular bear market average drawdown includes selloff beginning September 1929. Data as of March 31, 2024. Sources: Bloomberg, FactSet, S&P. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

# Financial Markets - Market Volatility



#### Volatility Not a Financial Loss Unless You Sell

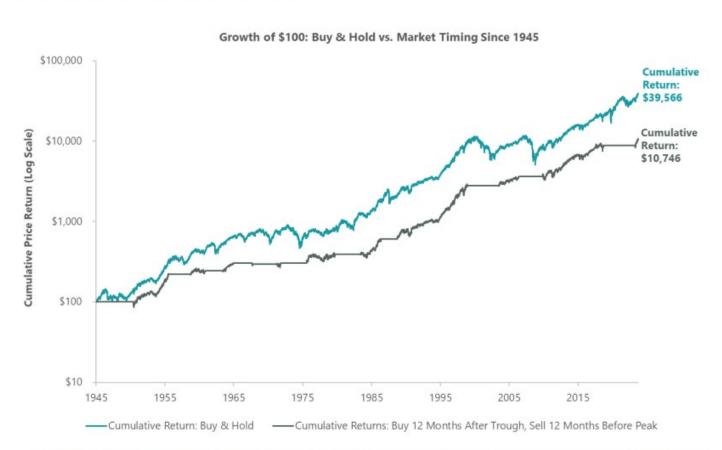




As of Dec. 31, 2023. Sources: FactSet, S&P. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

#### Can You Time the Market?





Since 1945, an investor that consistently sold 12 months prior to a market peak and bought back 12 months after the trough was worse off overall than a buy-and-hold investor.



Data as of March 31, 2024. Sources: FactSet, S&P. Past performance is not a guarantee of future results.

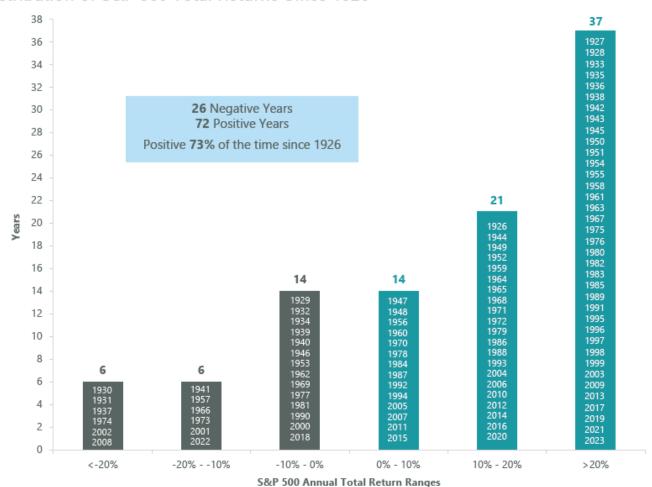
Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

#### **Financial Markets**



#### Market Annual Returns

Distribution of S&P 500 Total Returns Since 1926





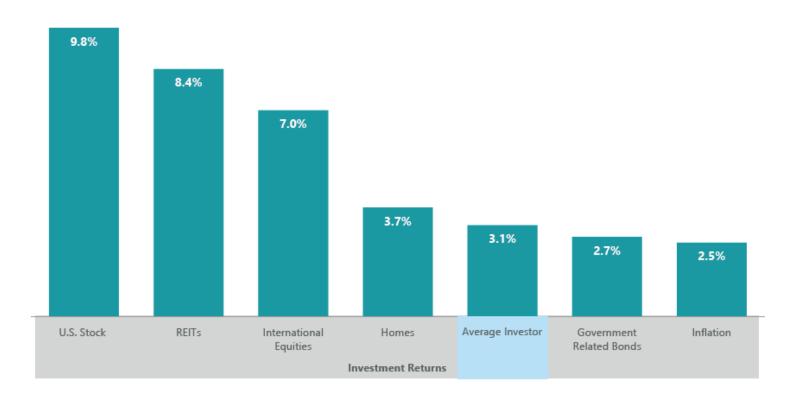
As of Dec. 31, 2023. Sources: FactSet, S&P. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

## Financial Markets – Average Investor Performance



#### Don't Fall Victim to Panic Attacks

20-Year Annualized Returns (2003-2022)



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Source: Bloomberg, June 30, 2023. Average asset allocation investor return is based on an analysis by DALBAR, Inc., which utilizes the net of aggregate mutual fund sales, redemptions and exchanges each month as a measure of investor behavior. Indices shown are as follows: REITs are represented by the NAREIT Equity REIT Index, U.S. Stocks are represented by the S&P 500 Index, International Equities are represented by the MSCI EAFE Index, Government-Related Bonds are represented by the Bloomberg Global Aggregate TR Index, Homes are represented by U.S. existing home sales median price, Inflation is represented by the Consumer Price Index. Indices are unmanaged and cannot be purchased directly by investors. Index performance is shown for illustrative purposes only and does not predict or depict the performance of any investment. Past performance is no guarantee of future results, Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

#### Financial Markets - Cash



#### Copious Cash on Sidelines

#### Change in Money Market Fund AUM 18 Months Following Major Market Lows

Year	Money Market AUM Net Change (Billions)	Money Market AUM Net Percent Change	Total Money Market AUM (Billions)
1990	\$89	21.6%	\$500
1998	\$407	32.0%	\$1,679
2002	-\$181	-8.2%	\$2,039
2009	-\$1,068	-27.3%	\$2,839
2016	-\$62	-2.2%	\$2,693
2018	\$1,644	54.1%	\$4,683
2020	\$293	6.9%	\$4,515
2022*	\$1,453	31.7%	\$6,041

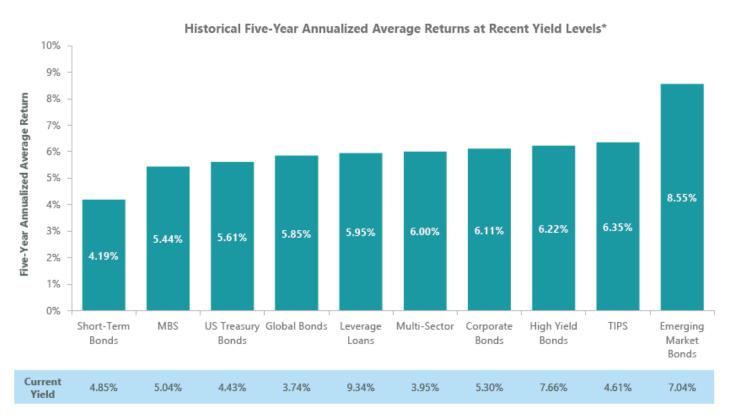
- Following the October 2022 lows, investors flocked into money market funds with a net increase of \$1.5 trillion, or 32%.
- Should the Fed embark upon its widely anticipated cutting cycle later this year, investors may reallocate. This represents a potential source of upside for equities.



#### Financial Markets – Fixed Income Yields



#### Recent Yields Offer Attractive Return Potential

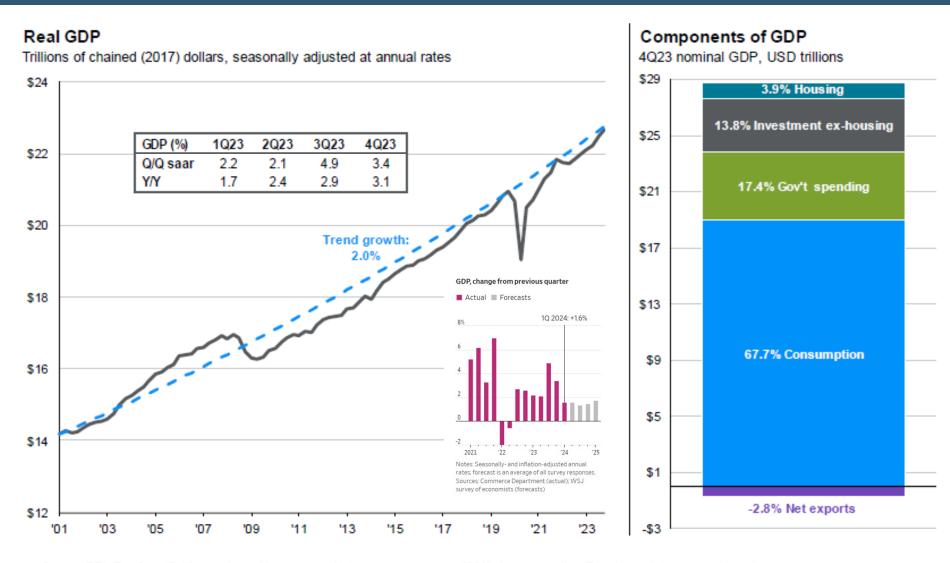


► Following the strongest tightening cycle in 40 years, bond yields have risen to levels that have historically offered attractive five-year returns.

<sup>\*</sup>Returns represent the average five-year annualized return between Jan. 29, 1999 and March 31, 2024 when the current yield was within 50bps on March 31, 2024 for each fixed income sector. As of March 31, 2024. Sources: Bloomberg, Credit Suisse. Past performance does not guarantee future results. For illustrative purposes only and not reflective of the performance or portfolio composition of any Franklin Templeton fund.

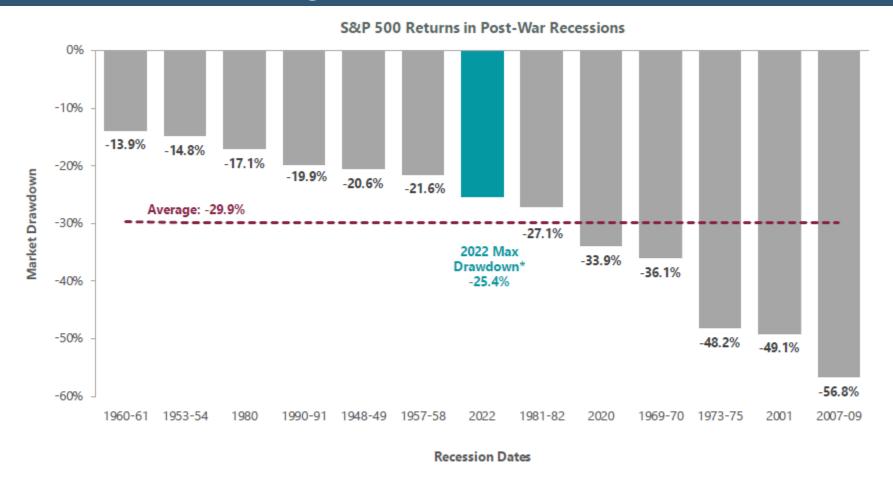
# The Economy

#### Economic Growth



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. Guide to the Markets - U.S. Data are as of March 31, 2024.

# Market Drawdowns During Recessions



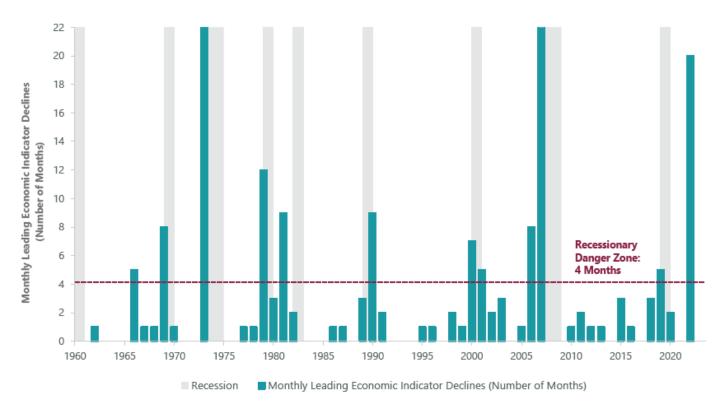
Since World War II, the average recessionary selloff has been -29.9%, a level the current selloff is approaching but has not yet reached.

\*Max drawdown reflects the 2022 Peak-Trough from market close on Jan. 3 to Oct. 12, 2022. Data as of Dec. 31, 2022. Source: FactSet, S&P, Shiller data, Haver, Deutsche Bank. Past performance is not a quarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

#### Economy



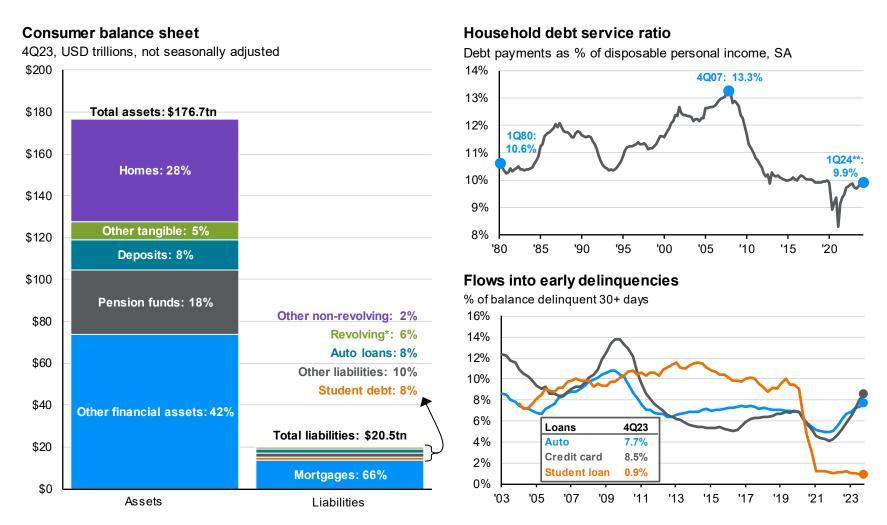
#### Leading Indicators Point to Recession



- Historical declines in the Leading Economic Indicators lasting more than several months have foreshadowed economic downturns.
- The Leading Economic Indicators have been declining for the last 20 months.



### **Economy - Consumer finances**

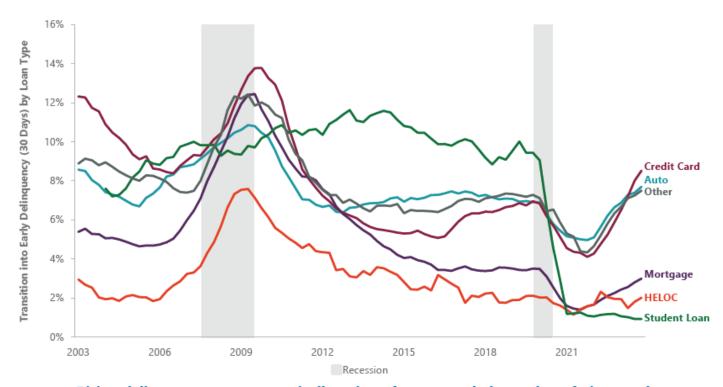


Source: FactSet, FRB, J.P. Morgan Asset Management; (Top and bottom right) BEA. Data include households and nonprofit organizations. SA – seasonally adjusted. \*Revolving includes credit cards. Values may not sum to 100% due to rounding. \*\*4Q23 and 1Q24 figures for debt service ratio are J.P. Morgan Asset Management estimates. Guide to the Markets - U.S. Data are as of March 31, 2024.

#### Economy – Consumer



#### **Delinquency Rates Rising**



- Rising delinquency rates are typically a sign of consumer balance sheet fatigue and increasing recession odds.
- Consumers are facing additional pressure with the student loan payment moratorium now expired and meaningful upticks in borrowing costs. For example, credit card rates are 6% above the pandemic lows while a 48-month auto loan is up 3%, on average.



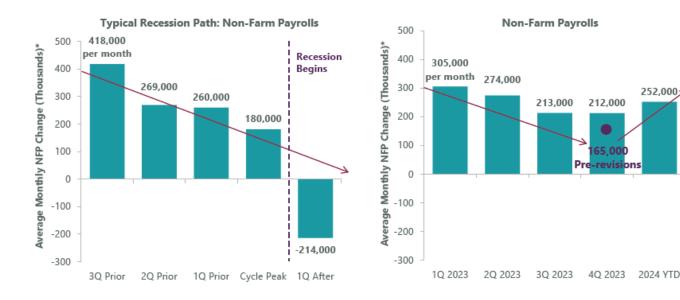
HELOC stands for Home Equity Line of Credit. Data as of Dec. 31, 2023, latest available as of March 31, 2024. Sources: NY Fed, Equifax, NBER. Past performance is not a guarantee of future results.

### Economy - Employment



252,000

#### Job Trend Improving



- The labor market is notoriously a lagging indicator that typically rolls over after a recession begins.
- Over the course of 2023, it appeared the labor market was following the typical prerecession path. Between positive revisions and a strong start to the year, the labor market is looking much more buoyant.



\*Average monthly non-farm payrolls (NFP) change based on three-month historical average change (relative to cycle peaks as defined by NBER) as a percentage of total NFP adjusted for the current size of the labor force. Data as of Feb. 29, 2024, latest available as of March 31, 2024. Sources: Macrobond, BLS, NBER, and Bloomberg. Note: 1948-present; 2020 recovery excluded due to pandemic distortions. Past performance is not a quarantee of future results,

# Economy - Employment



#### **Temp Trends Troubling**



- A rollover in temporary worker employment has preceded each of the last three recessions as temps are often laid off before full-time employees.
- Temp employment has contracted every month for nearly two years.

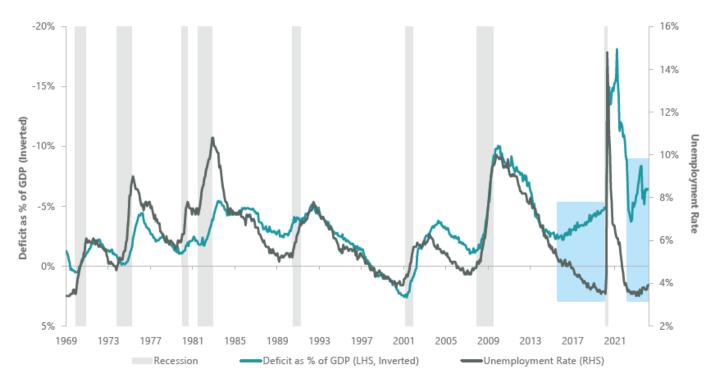


Data as of Feb. 29, 2024, latest available as of March 31, 2024. Sources: BLS, NBER, Federal Reserve Bank of St. Louis.

## Economy – Budget Deficit to Unemployment

# Huge Deficit, Low Unemployment?





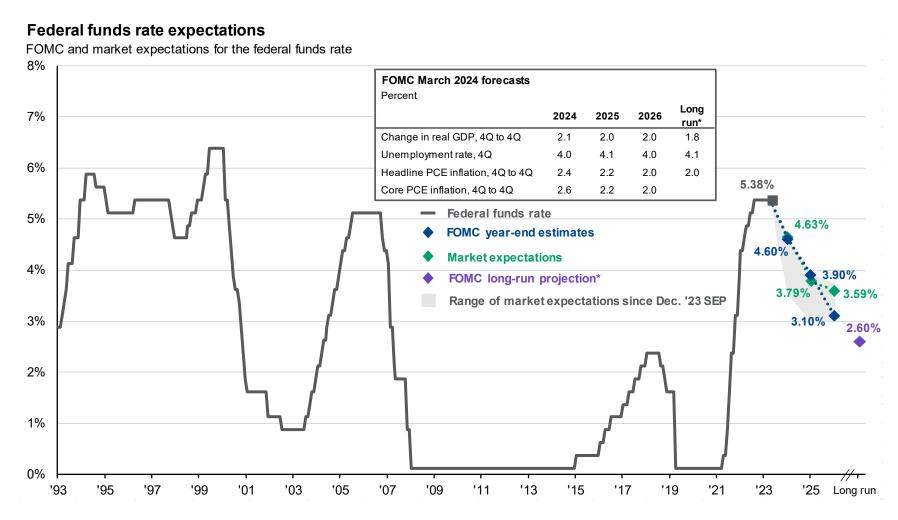
- The Federal deficit (as a % of GDP) tends to move in the opposite direction of the unemployment rate with tight labor markets (and a strong economy) helping to reduce deficits, and vice versa.
- At present, the deficit is at an unprecedented level given the strength of the economy, however, there are no additional spending bills on the horizon to further boost economic activity in 2024.

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# **Monetary Policy**

Interest Rates & Governmental Spending

## Monetary Policy – The Fed and interest rates



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

Market expectations are based off of USD Overnight Index Swaps. \*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. Guide to the Markets – U.S. Data are as of March 31, 2024.

## Monetary Policy - Federal Reserve Balance Sheet

#### The Federal Reserve balance sheet USD trillions Forecast\* \$10 Balance sheet expansion under rounds of quantitative easing (QE), USD billions \$9 Announced Terminated Length (m) Treasuries MBS Loans\*\* Balance sheet Loans QE1 11/25/2008 3/31/2010 16 \$300 \$1.074 \$0 \$1,403 \$8 QE2 11/3/2010 6/29/2012 19 \$829 -\$196 \$568 \$0 QE3 9/13/2012 10/29/2014 25 \$822 \$874 \$1,674 \$7 QE4 3/23/2020 3/15/2022 24 \$3,286 \$1,343 \$62 \$4,779 \$6 \$5 \$4 **MBS** \$3 \$2 **Treasuries** \$1 \$0 '21 '22 '24 '10 '11 '12 '13 '17 '18 '20 '25

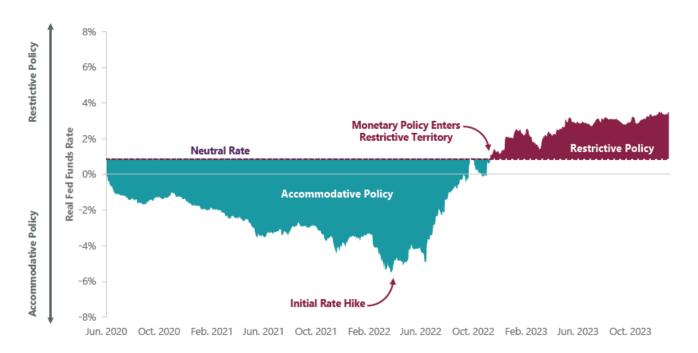
Source: FactSet. Federal Reserve, J.P. Morgan Investment Bank, J.P. Morgan Asset Management.

At its peak, the balance sheet contained \$5.8tn in Treasuries and \$2.7tn in MBS. \*Per the most recent Federal Reserve policy meeting, the forecast assumes the Federal Reserve began balance sheet runoff in June 2022. From June to August, the committee allowed up to \$30bn in U.S. Treasury securities and \$17.5bn in agency mortgagebacked securities to mature per month, with that pace doubling to \$60bn and \$35bn, respectively, in September. Any maturing amount in excess of these caps are reinvested. The forecast does not include the active selling of securities from the committee, \*\*Loans include liquidity and credit extended through corporate credit facilities established in March 2020. Other includes primary, secondary and seasonal loans, repurchase agreements, foreign currency reserves and maiden lane securities. 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. Guide to the Markets - U.S. Data are as of December 31, 2022.

# Monetary Policy – Interest Rate Changes



#### When Did The Fed Headwind Arrive?

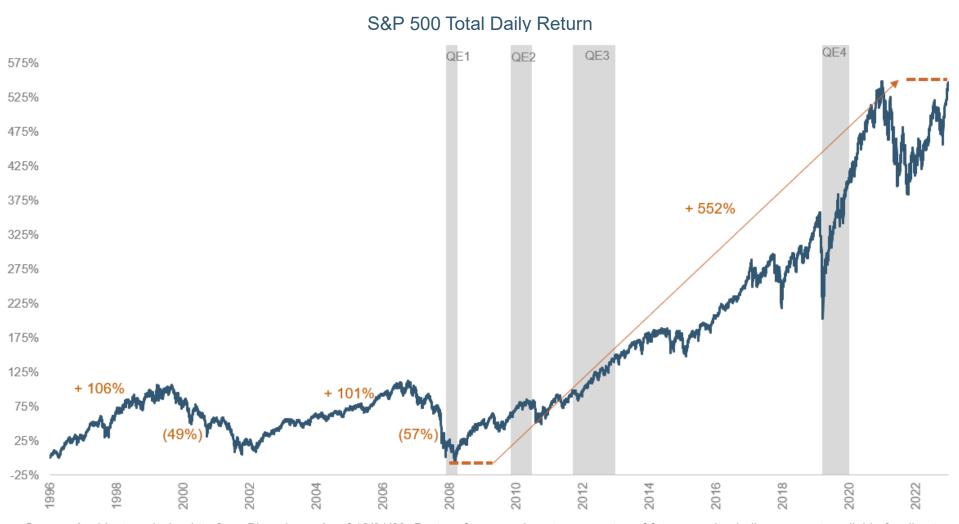


- Despite rapidly rising rates in the summer and fall of 2022, the Fed only reached restrictive policy (real Fed funds above neutral rate) in late 2022.
- As a result, the U.S. is squarely in the window when restrictive monetary policy would be expected to slow economic growth given the traditional lags of monetary policy.



Note: Real Fed Funds is Fed Funds Rate less 1-Year Zero Coupon Inflation Swep; Neutral Rate is current estimate of Holston-Laubach-Williams Model. Data as of Dec. 21, 2022. Sources: Federal Reserve and Bloomberg. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or seles charges.

# QE Provided a Tailwind to Equity Returns But led to stretched equity valuations

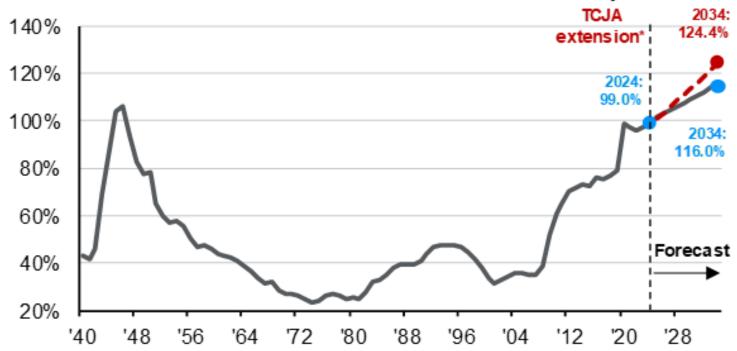


Source: Aspiriant analysis, data from Bloomberg. As of 12/31/23. Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. All Investments can lose value. S&P 500 is a market-capitalization weighted index composed of the 500 most widely held companies chosen with respect to market size, liquidity and industry. Quantitative Easing (QE) programs were monetary policies conducted by the U.S. Federal Reserve to increase liquidity.

# Monetary Policy – Government Spending

#### Federal net debt (accumulated deficits)

% of GDP, 1940-2034, CBO Baseline Forecast, end of fiscal year

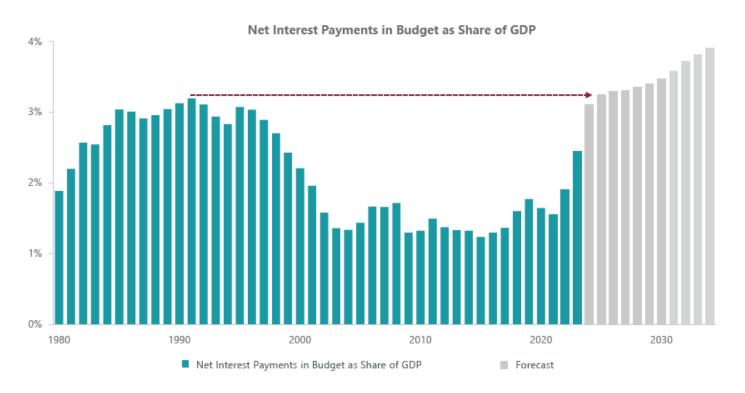


Source: CBO, J.P. Morgan Asset Management; (Top and bottom right) BEA, Treasury Department, Estimates are from the Congressional Budget Office (CBO) February 2024 An Update to the Budget Outlook: 2024 to 2034. "Other" spending includes, but is not limited to, health insurance subsidies, income security and federal civilian and military retirement. Years shown are fiscal years. \*Adjusted by JPMAM to include estimates from the CBO May 2023 report "Budgetary Outcomes Under Alternative Assumptions About Spending and Revenues" on the extension of TCJA provisions. 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. Guide to the Markets - U.S. Data are as of March 31, 2024.

# Monetary Policy – US Government Debt



#### When Will U.S. Debt Be An Issue?



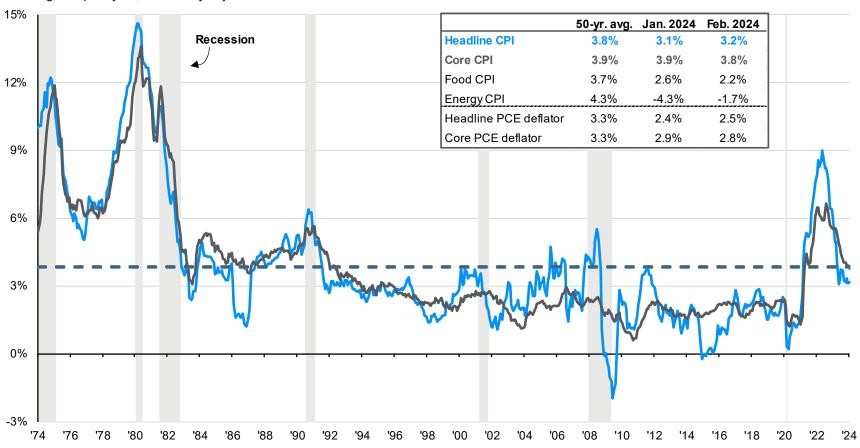
- Despite a dramatic increase in government debt outstanding since the GFC, total debt servicing costs as a percent of GDP declined due to falling rates.
- Current CBO projections show the interest burden returning to early 1990s levels over the next couple of years.

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### Monetary Policy – Headline Inflation

#### **CPI and core CPI**

% change vs. prior year, seasonally adjusted



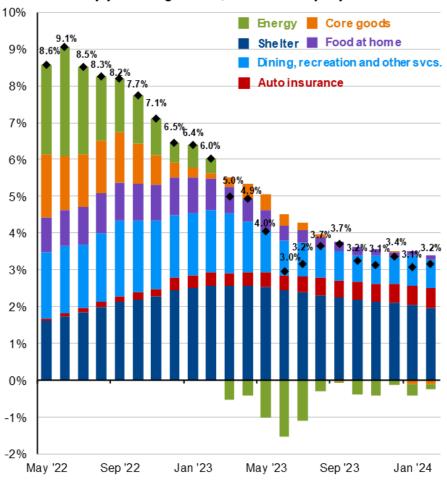
Source: BLS, FactSet, J.P. Morgan Asset Management.

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 Guide to the Markets - U.S. Data are as of March 31, 2024.

# Monetary Policy - Inflation components

#### Contributors to headline CPI inflation

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



Source: BLS, FactSet, 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. \*Core services ex-shelter CPI is a custom index using CPI components created by J.P. Morgan Asset Management. (Left) "Shelter" includes owners' equivalent rent, rent of primary residence and home insurance. Guide to the Markets - U.S. Data are as of March 31, 2024.

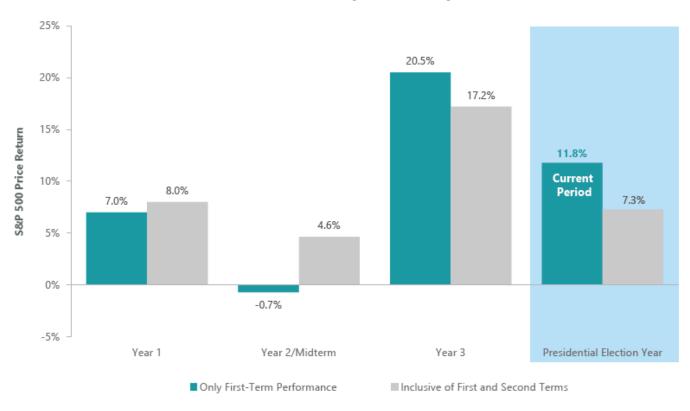
# **Election Year Analysis**

# **Election Year Analysis**



# Presidential Cycle: The Stock Market

#### S&P 500 Annual Performance by Presidential Cycle Year (1949-Present)

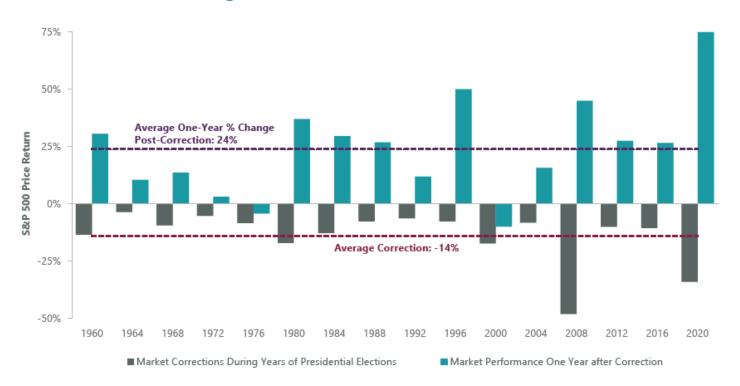




# **Election Year Analysis**



# **Corrections During Presidential Election Years**

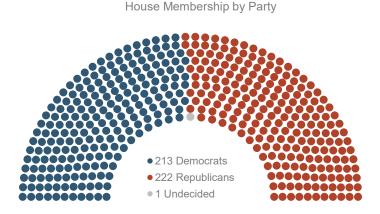


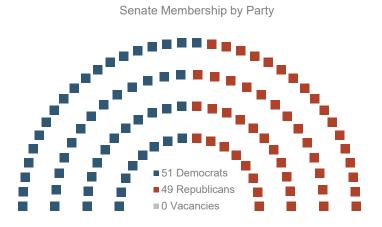
- ► Historically, drawdowns during presidential election years have proven to be good entry points for long-term investors, with an average rebound of 24% in the 12 months following the lows.
- ► The opposition took the White House in the five largest drawdowns (2020, 2008, 2000, 1980, and 1960).



As of Dec. 31, 2023. Sources: S&P, FactSet. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

# Political Discord Will Prevail For At Least The Next Few Years Downside risks are higher as prospects of fiscal stimulus appear low.





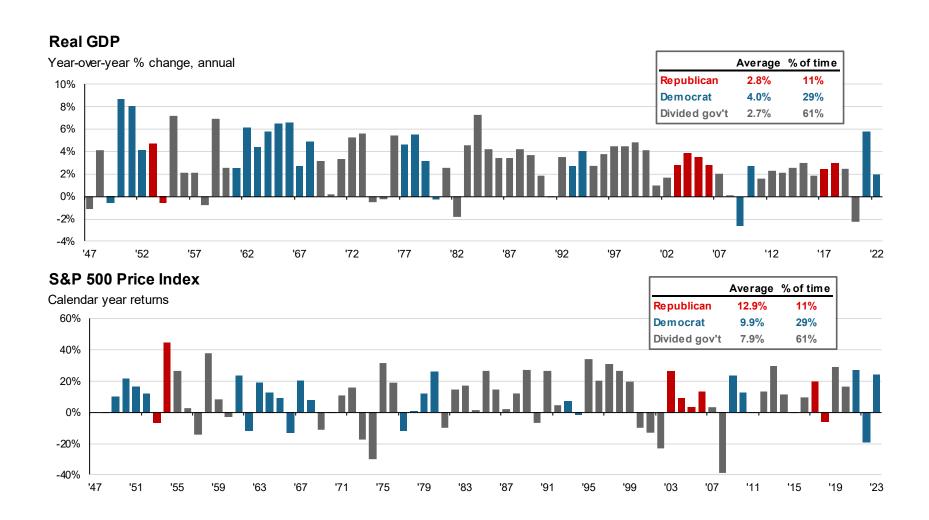
#### Republicans Gained Control of the House

- Republican majority slim and mirrors the Democrat majority it just recently lost
- Only a handful of votes (3 to 4) can be lost to maintain a majority
- Rebellious factions of the Republican conference will make gaining consensus difficult
- Republican leadership crisis has frozen new legislation, including Israel and Ukraine aid, as well as border security
- U.S. government funding due to expire November 17th

#### Democrats Maintained Thin Majority in Senate

- Democrats to hold a minimum of 50 seats
- Democrats have to defend 23 seats (including two Independents) and Republicans 10 seats in the 2024 elections, creating a very unfavorable map in the next cycle

# Government control, the economy and stock market



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

Magnificent Seven and Market Cap-Weighted Investing

# The Magnificent Seven





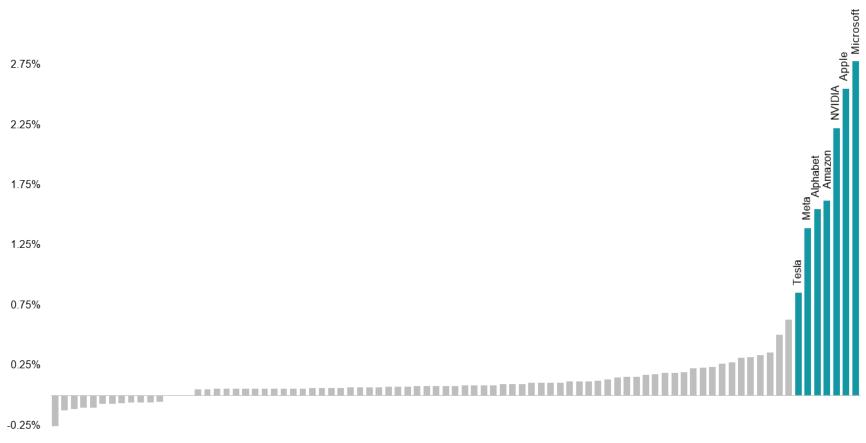


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# Magnificent Seven Risks of Market Cap Weighted Investing

# Magnificent 7 Dominated Stock Returns in 2023

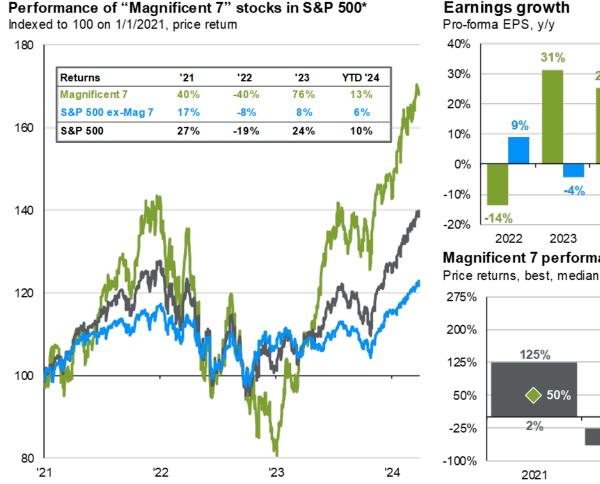
Contribution to Russell 3000 Index return, 1 year as of December 31, 2023



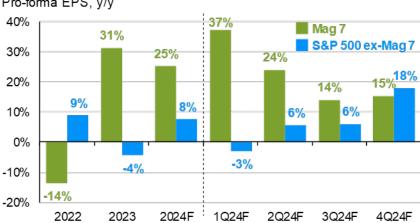
Source: Dimensional Fund Advisors. Stocks with contributions less than 5 bps and greater than -5 bps are excluded from the chart.

Past performance is no guarantee of future results. Returns and weights are derived from Russell 3000 Index published security weights, Dimensional computed security returns. The Magnificent 7 stocks are represented by Tesla, Meta, Alphabet, Amazon, NVIDIA, Apple, and Microsoft. This information is intended for educational purposes and should not be considered a recommendation to buy or sell a particular security. Named securities may be held in accounts managed by Dimensional. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio.

# Magnificent 7 – Performance & Earnings Forecast







#### Magnificent 7 performance dispersion

Price returns, best, median and worst performing Mag 7 stock by year

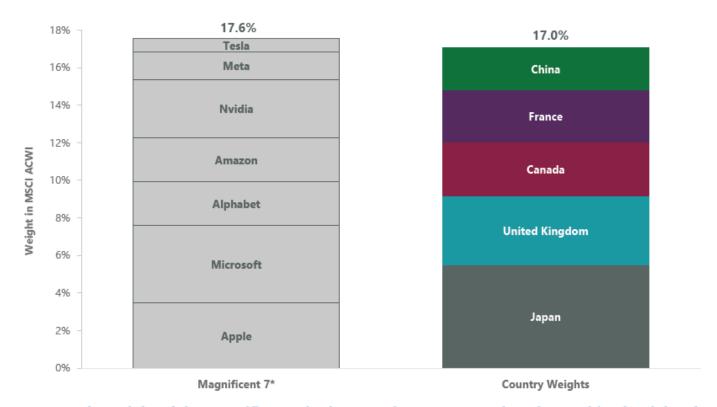


Source: FactSet, Standard & Poor's, J.P. Morgan Asset Management. \*Magnificent 7 includes AAPL, AMZN, GOOG, GOOGL, META, MSFT, NVDA and TSLA. Earnings estimates for 2024 are forecasts based on consensus analyst expectations. Guide to the Markets – U.S. Data are as of March 31, 2024.

# Magnificent 7



# The Mag 7 in a Global Context



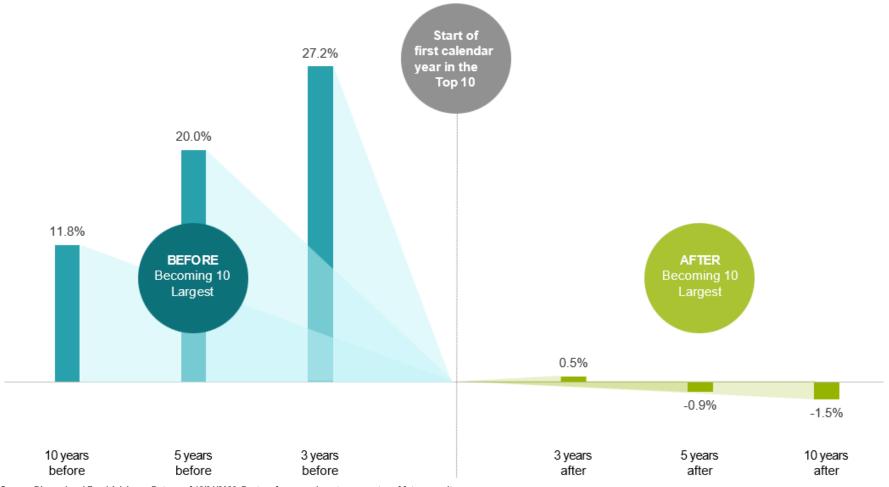
The weight of the Magnificent 7 in the ACWI is now greater than the combined weight of Japan, the U.K., Canada, France, and China.



\*Magnificent 7 data refers to the following set of stocks: Microsoft (MSFT), Amazon (AMZN), Meta (META), Apple (AAPL), Google parent Alphabet (GOOGL), Nvidia (NVDA), and Tesla (TSLA). Data as of March 31, 2024. Sources: FactSet, MSCI. Past performance is not a quarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges. For illustrative purposes only and not reflective of the performance or portfolio composition of any Franklin Templeton fund. Company references are used for illustrative purposes and should not be construed as an endorsement of sponsorship by Franklin Templeton companies. This information is not intended as an investment recommendation, nor does it constitute investment advice.

# Magnificent Seven Strong Performance Unlikely To Continue

Annualized return in excess of market for stocks after joining list of 10 largest US stocks, 1927–2023



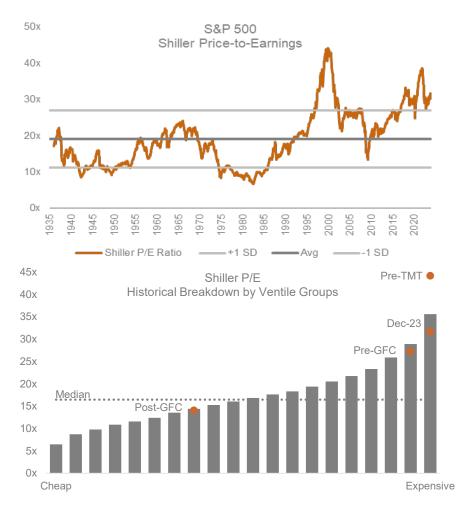
Source: Dimensional Fund Advisors. Data as of 12/31/2023. Past performance is not a guarantee of future results.

In USD. Indices are not available for direct investment; therefore, their performance does not reflect the expenses associated with the management of an actual portfolio. Data from CRSP and Compustat. Companies are sorted every January by beginning of month market capitalization to identify first time entrants into the 10 largest stocks. Market defined as Fama/French US Total Market Research Index. 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. See "Index Descriptions" for descriptions of the Fama/French index data.

# **Current Valuations**

# Current Valuations - U.S. Equities

## Valuations remain elevated with select markets at all time highs



#### Shiller Price-to-Earnings

- PE ratio that adjusts for the impact of business cycles and inflation
- Currently stands at the 96<sup>th</sup> percentile of expensiveness
- Late 1990s/early 2000s (technology bubble) is the only period with higher valuations (and higher than the period before the global financial crisis/GFC)

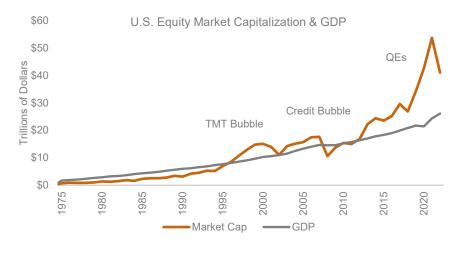
#### Breakdown of Expensiveness

- Based on the Shiller PE, the S&P 500 is currently in the second highest ventile (96<sup>th</sup> percentile) of expensiveness
- Today's Shiller PE is higher than its historical median
- Relative attractiveness of equities has dropped significantly since the depths of the recession (Feb. 2009) as valuations have climbed appreciably

Data as of 12/31/23. Sources: Aspiriant analysis, data from Professor Robert Shiller of Yale University, Bloomberg. Shiller P/E estimates the valuation of publicly traded companies by dividing its price by the average previous 10 years of earnings, adjusted for inflation. It produces a "smoothed" or "normalized" measure of equity valuation across business and market cycles. The data used in this material was obtained from third-party sources the firm believes are reliable and internally. Aspiriant is not responsible for the accuracy of any third-party data used in the construction of this presentation. TMT is Technology, Media and Telecommunications, GFC is the Global Financial Crisis. SD is standard deviation, a measure of the amount of variation or dispersion of a set of values relative to its average. See additional disclosures for index descriptions and other considerations.

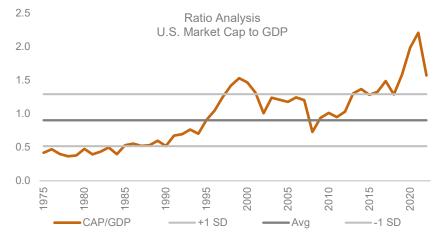
# Current Valuations - U.S. Equities

## Valuations remain elevated with select markets at all time highs



#### Market Cap vs GDP Growth

- Over the long-term, GDP growth should provide a reasonable estimate for the growth in earnings of the S&P 500
- Significant departures can represent building risks or growing opportunities
- How much has QE distorted asset prices?



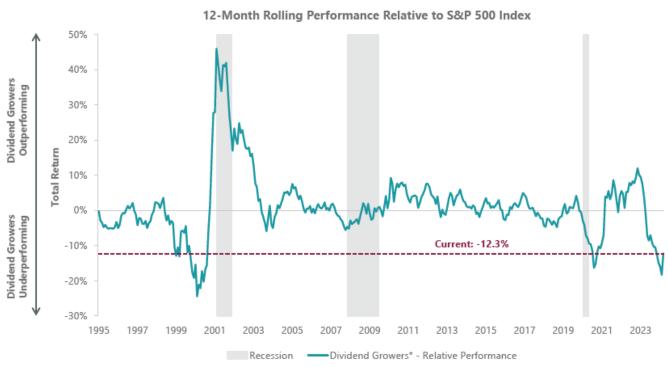
#### Market Cap to GDP

- Warren Buffett's preferred market valuation methodology
- Broad fair value range tends to capture most observations since the 1970s
- Current reading hovers above prior peaks in 1999 and 2007

Data as of 12/31/23. Sources: Aspiriant analysis, data from Bureau of Economic Analysis, World Bank, Bloomberg. U.S. equity market capitalization is calculated from all shares outstanding and does not include ETFs and ADRs as they do not represent directly listed companies. TMT is Technology, Media and Telecommunications. QE represents quantitative easing, a form of stimulative monetary policy implemented by global central banks following the Global Financial Crisis in 2008. SD is standard deviation, a measure of the amount of variation or dispersion of a set of values relative to its average. See additional disclosures for third-party data and other considerations.

### **Dividend Growers Overdue**





- Over the past year, dividend growers have trailed the broader market to a degree rarely seen over the past three decades.
- Past instances of similar underperformance have been followed by a strong bounce-back for dividend growers.



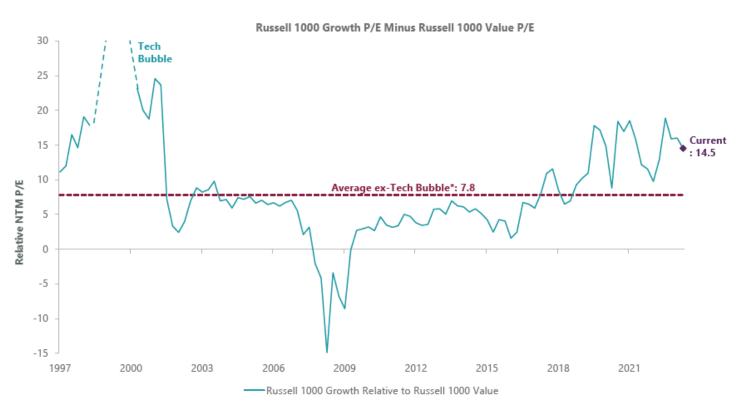
\*Dividend Growers are S&P 500 stocks with three consecutive trailing years of positive dividend growth (inclusive of special dividends) on a rolling basis (quarterly), evaluated monthly, equal weighted.

Data as of March 31, 2024. Sources: S&P, NBER, Bloomberg. Past performance is not a guarantee of future results, Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

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## Value Not Yet Expensive



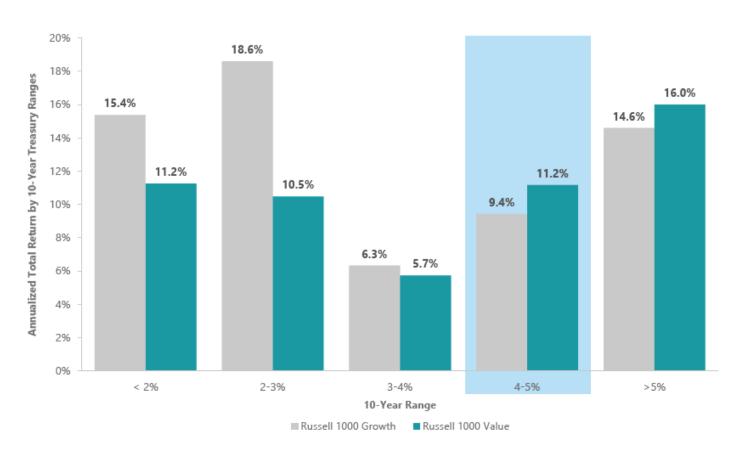
While Value outpaced Growth by 21.6% in 2022, Growth roared back with a 31.2% advantage in 2023 and 2.4% advantage in 1Q24, once again driving the valuation differential to an extreme.



Note: Price Return. NTM stands for Next Twelve Months. \*The Tech Bubble period removed from the chart is from June 30, 1999 through Dec. 31, 2000. Data as of March 31, 2024. Sources: FactSet, Russell. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.

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## Higher Rates Favor Value



▶ Value has historically outperformed Growth when the 10-year Treasury yield is north of 4%.



Data as of March 31, 2024, reflective of period from 1980-present. Sources: FactSet, Russell, Federal Reserve. Past performance is not a guarantee of future results. Investors cannot invest directly in an index, and unmanaged index returns do not reflect any fees, expenses or sales charges.



# SMID Caps on Sale



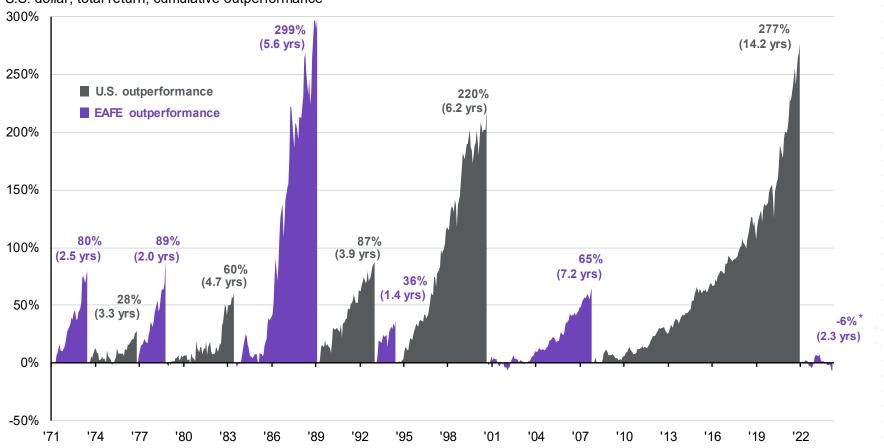
- Small and mid cap stocks historically traded at similar multiples to large.
- With large caps leading since the pandemic, the valuation discount for small and mid is near the widest in over 20 years.



# Financial Markets - Cycles of U.S. equity outperformance

#### MSCI EAFE and MSCI USA relative performance





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

Regime change determined when cumulative outperformance peaks and is not reached again in the subsequent 12-month period. \*Peak MSCI EAFE outperformance vs. MSCI USA occurred in April 2023. If this is sustained for 12 months, the regime will switch in April 2024. Guide to the Markets – U.S. Data are as of March 31, 2024.

Outlook for 2024 and Beyond

# Landscape

- Excess Federal Reserve balance sheet and shrinking
- Excessive level of US debt and increasing cost to carry
- Divided government
- Inverted yield curve
- Numerous economic warning signs
- Unprecedented levels of cash
- Expensive equity markets with pockets of opportunity

# What May be "Different" this Time

- Intergenerational wealth transfer contributing to consumer spending
- Al's impact on financial forecasting / data analysis
- International conflicts Dollar stronger, longer

## Outlook

- Challenging year for bonds as inflation remains stubborn
- Solid year for stocks but "qualified"
  - Threats to Democracy Russia, China, US election
  - Further tightening could kill the goose
  - US remains the best place to invest
- Very good time to consider alternative investments
  - Private equity & private credit
  - Investments with low systematic risk



Please feel free to use the Q&A box on your screens to submit questions.

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# Clearbridge Disclosures

## Glossary of Terms

**BEA:** Bureau of Economic Analysis

Bloomberg US Aggregate Bond Index: an unmanaged index of U.S. investment-grade fixed-income securities.

Bloomberg US Corporate Investment Grade Bond Index: an unmanaged index of U.S. investment-grade corporate bond securities.

Bloomberg Global Aggregate Total Return Index: measure of global investment grade debt from a multitude of local currency markets. This multicurrency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

CPI (Consumer Price Index): measure of the average change in U.S. consumer prices over time in a fixed market basket of goods and services as determined by U.S. Bureau of Labor Statistics.

**EPS (Earnings per Share):** the portion of a company's profit allocated to each outstanding share of common stock.

Fed (Federal Reserve Board): the U.S. central bank, responsible for policies designed to promote full economic growth, full employment, and price stability.

**GDP:** Gross Domestic Product

GFC (Great Financial Crisis): the severe economic and market downturn experienced in 2007-2008.

Home Sales Median Price: measures the price at which half of existing homes sold for more and half sold for less.

MSCI All Country Asia Index: unmanaged index of large and mid cap stocks across Developed Markets countries and Emerging Markets countries in Asia.

MSCI EM Index: unmanaged index of large- and mid-cap stocks in 27 emerging market countries.

MSCI Europe Index: unmanaged index of large- and mid-cap stocks across 15 Developed Markets (DM) countries in Europe.

MSCI EAFE Index: unmanaged index of equity securities from developed countries in Western Europe, the Far East, and Australasia.

MSCI Germany Index: unmanaged index of large- and mid-cap stocks across the German market.

MSCI Japan Index: unmanaged index of large- and mid-cap stocks across the Japanese market.

MSCI UK Index: unmanaged index of large- and mid-cap stocks across the UK market.

MSCI USA Index: unmanaged index of US large- and mid-cap equity securities.

NAREIT All-Equity REITS Total Return Index: free-float-adjusted market capitalization weighted index that includes all tax qualified REITS listed in the NYSE, AMEX and NASDAQ National Markets.

NFIB (National Federation of Independent Business): a U.S. small business advocacy association, representing over 350,000 small and independent business owners.

NFIB Small Business Optimism Index: measure of small business sentiment produced by the National Federation of Independent Business based on its monthly survey of small business owners.

**P/E Ratio:** Price/Earnings ratio

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## Glossary of Terms



PMI: Purchasing Manager's Index

Russell 1000 Index: a subset of the Russell 3000 Index that includes approximately 1,000 of the largest companies in the U.S. equity universe.

Russell 1000 Growth Index: unmanaged index of large-cap stocks chosen for their growth orientation.

Russell 1000 Value Index: unmanaged index of large-cap stocks chosen for their value orientation.

Russell 2000 Index: unmanaged index of small-cap stocks.

Russell 2000 Growth Index: unmanaged index of small-cap stocks chosen for their growth orientation.

Russell 2000 Value Index: unmanaged index of small-cap stocks chosen for their value orientation.

Russell Mid Cap Index: unmanaged index consisting of the 800 smallest companies in the Russell 1000 Index.

Russell Mid Cap Growth Index: unmanaged index of mid-capitalization U.S. equities that exhibit growth characteristics.

Russell Mid Cap Value Index: unmanaged index of mid-capitalization U.S. equities that exhibit value characteristics.

S&P MidCap 400 Index: unmanaged index of 400 US mid-cap stocks

S&P 400 Growth Index: unmanaged index of mid-cap stocks having higher price-to-book ratios relative to the S&P 400 MidCap as a whole.

S&P 400 Value Index: unmanaged index of mid-cap stocks having lower price-to-book ratios relative to the S&P 400 MidCap as a whole.

S&P 500 Growth Index: unmanaged index of large-cap stocks selected based on sales growth, the ratio of earnings change to price and momentum.

**S&P 500 Value Index:** unmanaged index of large-cap stocks selected based on the ratios of book value, earnings, and sales to price.

S&P 600 Index: unmanaged index of 600 US small-cap stocks

**S&P 600 Growth Index:** unmanaged index of US small-cap growth stocks, selected based on sales growth, the ratio of earnings change to price, and momentum.

**S&P 600 Value Index:** unmanaged index of US small-cap value stocks, selected based on ratios of book value, earnings, and sales to price.

S&P 500 Index: Unmanaged index of 500 stocks that is generally representative of the performance of larger companies in the U.S.

Yield Curve: Comparison of interest rates at a point in time of bonds with equal credit quality but different maturity dates.

YoY: Year Over Year

**U.S. Treasurys:** Direct debt obligations issued and backed by the "full faith and credit" of the U.S. government. The U.S. government guarantees the principal and interest payments on U.S. Treasuries when the securities are held to maturity. Unlike U.S. Treasury securities, debt securities issued by the federal agencies and instrumentalities and related investments may or may not be backed by the full faith and credit of the U.S. government. Even when the U.S. government guarantees principal and interest payments on securities, this guarantee does not apply to losses resulting from declines in the market value of these securities.



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Gross domestic product (GDP) measures the monetary value of final goods and services produced in a country in a given period of time. Real GDP represents the growth in GDP after adjusting for the impacts of inflation. Consumer Price Index (CPI) represents the changes in prices of all goods and services purchased for consumption by urban households. Core Consumer Price Index (Core CPI) represents the changes in prices of all goods and services purchased for consumption by urban households minus the more volatile food and energy price changes. Zombie Stocks are defined as companies that cannot cover interest with current operating profit. SPACs are special purpose acquisition companies that are listed on a stock exchange and created with the purpose of acquiring an existing company. IPOs are initial public offerings. NFTs (non-fungible tokens) are digital assets that represents real-world objects like art, music, in-game items and videos. TMT is Technology, Media and Telecommunications, which had a corresponding market drawdown from March 2000 to October 2022. GFC is the Global Financial Crisis, which had a corresponding market drawdown from October 2007 to March 2009. Covid is the COVID-19 health pandemic, which had a corresponding market drawdown from February 2020 to March 2022. Federal funds rate (FFR) is the interest rate at which depository institutions lend reserve balances to other depository institutions overnight on an uncollateralized basis. The Purchasing Managers' Index (PMI) is an index of the prevailing direction of economic trends in the manufacturing and service sectors.

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# Aspiriant Disclosures – Index Descriptions

#### **Fixed Income**

Muni Core represented by the Bloomberg Municipal Index; a rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. The index has four main sectors: general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds.

Taxable Core represented by the Bloomberg US Aggregate Bond Index; a broad-based benchmark measuring investment grade, US dollar-denominated, fixed-rate taxable bonds.

TIPS are Treasury bonds that are indexed to an inflationary gauge to protect investors from the decline in the purchasing power of their money.

#### **Equities**

- U.S. Large Cap represented by the S&P 500, a market-capitalization weighted index that includes the 500 most widely held companies chosen with respect to market size, liquidity and industry.
- U.S. Large Cap Growth and Value represented by The Russell 1000 Growth represents the companies in the Russell 1000 universe with higher price-to-book ratios and higher forecasted growth ratios. The Russell 1000 Value represents the companies in the Russell 1000 universe with lower price-to-book ratios and lower forecasted growth ratios.
- U.S. Small Cap represented by the Russell 2000 Index, which measures the performance of the small-cap segment of the U.S. equity universe. It is a subset of the Russell 3000 Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. U.S. Small Cap Growth and Value represented by the Russell 2000 Growth and Value Indices, which measures the performance of the small-cap growth and value segments of the U.S. equity universe.

Global Equities represented by the MSCI ACWI Index is a free-float weighted equity index representing large and mid cap securities across Developed Markets countries and Emerging Markets (EM) countries.

International Large Cap represented by the MSCI EAFE Index (Europe, Australasia, and Far East); a free float-adjusted market capitalization index that is designed to measure the equity market performance of developed markets, excluding the U.S. and Canada. International Large Growth and Value represented by the MSCI EAFE Growth and Value Indices (Europe, Australasia, and Far East); free float-adjusted market capitalization indices that are designed to measure the equity market performance of large and mid cap developed markets exhibiting overall growth and value style characteristics, excluding the U.S. and Canada.

International Small represented by the MSCI EAFE Small Index (Europe, Australasia, and Far East); free float-adjusted market capitalization indices designed to measure the equity market performance of small cap developed markets, excluding the U.S. and Canada. International Small Growth and Value represented by the MSCI EAFE Small Growth and Value Indices (Europe, Australasia, and Far East); free float-adjusted market capitalization indices designed to measure the equity market performance of small cap developed markets exhibiting overall growth and value style characteristics, excluding the U.S. and Canada.

Emerging Markets represented by the MSCI Emerging Markets Index; a free float-adjusted market capitalization index that is designed to measure equity market performance of emerging markets. Emerging Markets Growth and Value represented by the MSCI Emerging Markets Growth and Value Indices; free float-adjusted market capitalization indices designed to measure large and mid cap equity market performance of emerging markets exhibiting overall growth and value style characteristics.

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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 priceto-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 priceto-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 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 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 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 US Dollar Floating Rate Note (FRN) Index provides a measure of the U.S. dollar denominated floating rate note market.

The **Bloomberg 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 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 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 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.

## J.P. Morgan Disclosures

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 suitable 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 December 31, 2023 or most recently available.

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## Dimensional Fund Advisors Disclosures

## **Index Descriptions**

Nasdaq equivalents since 1973).

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 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

Fama/French US 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).

Fama/French US Small Value Research Index: Provided by Fama/French from CRSPsecurities data. Includes the lower 30% in price-to-book of NYSE securities (plus NYSE Amex equivalents since July 1962 and Nasdaqequivalents 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 High Profitability Index: July 1963–present: Fama/French US High Profitability Index. Courtesy of Fama/French from CRSP and Compustat securities data. Includes all stocks in the upper 30% operating profitability range of NYSE eligible firms; rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1. Fama/French and multifactor data provided by Fama/French.

Fama/French US Low Profitability Index: July 1963—present: Fama/French US Low Profitability Index. Courtesy of Fama/French from CRSP and Compustat securities data. Includes all stocks in the lower 30% operating profitability range of NYSE eligible firms; rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1. Fama/French and multifactor data provided by Fama/French.

Fama/French International Market Index: January 1975-present: Fama/French International Market Index. Source: Ken French website. Simulated from MSCI and Bloomberg data.

Fama/French International Value Index: January 1975–present: Fama/French International Value Index. Simulated strategy of international developed countries with securities in the lower 30% price-to-book range. Source: Ken French website. Simulated from MSCI and Bloomberg data.

Fama/French International Growth Index: January 1975—present: Fama/French International Growth Index. Simulated strategy of international developed countries with securities in the higher 30% price-to-book range. Source: Ken French website. Simulated from MSCI and Bloomberg data.

Fama/French International High Profitability Index: July 1990—present: Fama/French International High Profitability Index. Courtesy of Fama/French from Bloomberg securities data. Includes stocks in the upper 30% operating profitability range in each region; companies weighted by float-adjusted market cap; rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1. Fama/French and multifactor data provided by Fama/French.

Fama/French International Low Profitability Index: July 1990—present: Courtesy of Fama/French from Bloomberg securities data. Includes stocks in the lower 30% operating profitability range in each region; companies weighted by float-adjusted market cap; rebalanced annually in June. OP for June of year t is annual revenues minus cost of goods sold, interest expense, and selling, general, and administrative expenses divided by book equity for the last fiscal year end in t-1. Fama/French and multifactor data provided by Fama/French.

Results shown during periods prior to each index is index inception date do not represent actual returns of the respective index. Other periods selected may have different results, including losses. Backtested index performance is hypothetical and is provided for informational purposes only to indicate historical performance had the index been calculated over the relevant time periods. Backtested performance results assume the reinvestment of dividends and capital gains.

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