



Quarterly Reference Guide

Fourth Quarter 2025

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| About Orion

Orion's Mission: "We are building a wealth-tech community where every advisor and investor thrives."

Orion*
Advisor Technology

Orion*
Portfolio Solutions

Orion*
OCIO

Brinker*
an Orion company

Redtail*
an Orion company

Orion's Scale

7.5M Technology
Accounts



\$102.7B

Wealth Management
Assets

2,400 Independent
Advisory Firms



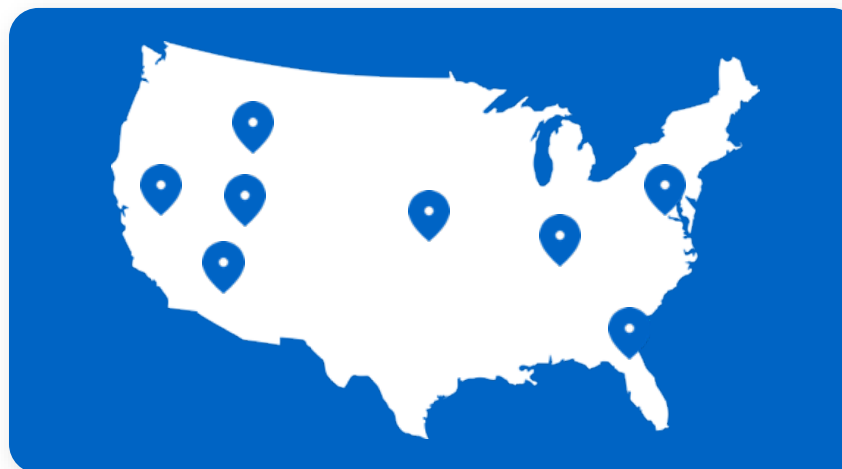
114,000

Retail Users



\$5.2T

Platform Assets



**We are building
a wealth-tech
community
where every
advisor and
investor thrives.**

*As of 6/30/25

Wealth Management platform assets include assets managed on a discretionary and non-discretionary basis by Orion Portfolio Solutions, LLC ("OPS") and TownSquare Capital, LLC ("TSC") on their proprietary platforms, assets in proprietary and third-party models made available through OPS's Communities platform, and assets in OPS's proprietary models managed on third-party platforms.
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Investment Strategy Team

The Investment Strategy team serves financial advisors, investors, and Orion stakeholders through thoughtful investment education, timely market content, and one-on-one consultations. We strive to achieve our key objectives of keeping clients invested, diversified, and disciplined by building resilient portfolios crafted to withstand any market cycle.



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These addresses will reach our entire team and can be used to ask questions or help with various requests including:

- Portfolio Construction
- Strategy Selection
- Strategy Information
- Strategy Comparisons
- Performance and Flows Data
- Ad Hoc Presentation requests
 - And more!

Market Review

Third Quarter 2025

Market Performance

Third Quarter 2025

- US markets posted another solid quarterly return of about 8% in the third quarter, continuing to hit multiple new all-time highs.
- Volatility was more muted in Q3 relative to earlier in the year
- Gains were led by US tech stocks. The Mag 7 posted a return of about 16% just in Q3.
- Despite the US Dollar rebounding by about 1%, international equities continued their strength from prior quarters, led by emerging markets.
- The 10Y treasury yield saw less volatility and fell, pushing bond prices higher by about 2%.
- Silver and gold each posted double digit returns, pushing the broad commodity index higher by nearly 4%.

Fixed Income	10 Year	5 Year	3 Year	1 Year	YTD	6 Month	3 Month	Max Drawdown*
Cash Equivalent Morningstar Cash Index	2.1%	3.1%	4.9%	4.5%	3.3%	2.2%	1.1%	0.0%
U.S. Bonds Bloomberg U.S. Agg Bond Index	1.8%	-0.4%	4.9%	2.9%	6.1%	3.3%	2.0%	-6.1%
Stock Market	10 Year	5 Year	3 Year	1 Year	YTD	6 Month	3 Month	Max Drawdown*
Global Equity Market Morningstar GblMkt Large-Mid Index	11.8%	13.3%	22.9%	17.0%	18.5%	20.1%	7.6%	-9.6%
Total U.S. Market Morningstar U.S. Market Index	14.8%	15.8%	24.5%	17.5%	14.6%	20.1%	8.1%	-8.8%
Domestic Large-Cap Equity Morningstar U.S. Large Cap Index	16.1%	16.8%	27.2%	20.1%	16.3%	22.5%	9.0%	-7.9%
Domestic Small-Cap Equity Morningstar U.S. Small Cap Index	9.7%	12.3%	16.3%	9.2%	8.8%	15.8%	8.0%	-15.3%
Domestic Growth Equity Morningstar U.S. Growth Index	15.9%	12.0%	25.6%	23.2%	15.9%	27.7%	6.9%	-12.9%
Domestic Value Equity Morningstar U.S. Value Index	11.4%	15.7%	18.0%	10.0%	12.6%	7.8%	6.4%	-8.8%
International Equity Morningstar Gbl xU.S. Large-Mid Index	8.3%	10.3%	20.4%	15.9%	25.5%	19.9%	6.9%	-11.2%
Developed International Equity Morningstar DM xU.S. Large-Mid Index	8.4%	11.2%	21.5%	16.2%	25.6%	18.5%	5.6%	-11.1%
Emerging Market Equity Morningstar EM Large-Mid Index	8.5%	7.9%	17.7%	15.4%	25.2%	23.3%	9.8%	-11.4%
Diversifiers	10 Year	5 Year	3 Year	1 Year	YTD	6 Month	3 Month	Max Drawdown*
Real Estate Morningstar Gbl Real Estate	4.1%	4.1%	9.2%	0.2%	11.2%	8.2%	3.3%	-16.7%
Commodities Bloomberg Commodity Index	4.0%	11.5%	2.8%	8.9%	9.4%	0.5%	3.6%	-13.5%
Liquid Alternatives Wilshire Liquid Alternatives Index	2.7%	3.9%	6.1%	3.8%	5.7%	4.9%	2.9%	-2.4%

Return Barometer

U.S. Equity Sectors			
Sector	3rd Quarter	YTD	Return Chart
Basic Materials	2.6%	8.1%	3rd Quarter YTD
Communication Svc.	9.5%	23.4%	
Cons. Discretionary	10.4%	7.6%	
Cons. Staples	-2.5%	1.7%	
Energy	6.3%	6.9%	
Financial Svc.	3.2%	12.7%	
Healthcare	3.7%	2.6%	
Industrials	5.0%	18.3%	
Real Estate	2.5%	6.0%	
Technology	11.5%	21.9%	
Utilities	7.5%	17.7%	
U.S. Equity Market	8.1%	14.2%	
Global Equity Regions			
Region	3rd Quarter	YTD	Return Chart
United States	8.1%	14.2%	3rd Quarter YTD
International Equity	6.7%	26.7%	
International Developed	4.6%	25.9%	
Emerging Markets	10.6%	27.8%	
China	19.6%	41.2%	
Canada	9.4%	26.5%	
Japan	7.6%	21.7%	
United Kingdom	5.9%	26.4%	
Global Equity Market	7.6%	18.7%	
Global Equity Factors			
Factor	3rd Quarter	YTD	Return Chart
Momentum	7.1%	22.0%	3rd Quarter YTD
Quality	6.4%	12.9%	
Size	8.1%	16.6%	
Minimum Volatility	1.1%	10.5%	
Value	6.1%	17.7%	
Growth	9.0%	19.1%	

U.S. Equity Style Box			
	Value	Core	Growth
Large	6.2%	4.6%	6.7%
	6.7%	4.8%	2.5%
Small	7.2%	8.1%	8.5%

Fixed Income		
Sector	3rd Quarter	YTD
U.S. Corporates	2.0%	6.1%
U.S. Treasuries	1.5%	5.4%
U.S. High Yield	2.5%	7.2%
U.S. Municipal	3.0%	2.6%
U.S. Credit	2.6%	6.9%
MBS	2.4%	6.7%
Ex-U.S. Bonds	0.6%	2.4%
Global Credit	2.0%	9.4%
Cash	1.1%	3.2%

Alternatives and Real Assets		
Asset	3rd Quarter	YTD
Liquid Alts	2.9%	5.7%
Commodities	3.6%	9.4%
Gold	16.4%	44.8%
Real Estate	2.5%	6.0%
U.S. Dollar	0.9%	-9.9%
Bitcoin	6.1%	21.5%

| GDP & Inflation

U.S. Market Historical Inflation Probabilities

- As of August, CPI inflation was 2.9%
- Since 1871, headline inflation has been between 2% and 3% about 15% of the time.
- When the Consumer Price Index (CPI) is between 2% and 3%, the average inflation rate has been 2.5%.
- When headline inflation is between 2% and 3%, corporate earnings growth has averaged about 23.9%.
- While inflation evidently has a negative influence on real growth, earnings growth is still positive. Long-term average earnings are only negative in deflationary periods.

Headline Inflation Probabilities

Year-Over-Year Inflation	Probability of Occurrence	Average Inflation	Average Earnings Growth
Deflation	22%	-5.2%	-7.2%
0% to 2%	22%	1.1%	13.4%
2% to 3%	15%	2.5%	23.9%
3% to 4%	11%	3.5%	9.2%
4% to 5%	6%	4.5%	10.9%
5% to 7%	8%	6.0%	9.6%
7+%	15%	11.7%	11.9%
Average		2.3%	9.2%

U.S. Market Historical GDP Probabilities

- As of the second quarter of 2025, Real GDP growth was 3.8%
- Since 1948, Quarterly Real GDP Growth has been between 3% and 4% about 16% of the time, averaging 3.4% in these instances.
- When Real GDP is between 3% and 4%, corporate earnings growth has averaged around 19.3%
- Current earnings projections for CY 2025 are for about 11% earnings growth.

US. Real GDP Probabilities

Year-Over-Year Real GDP Growth	Probability of Occurrence	Average Real GDP Growth	Average Earnings Growth
Less than 0%	11%	-1.7%	-12.1%
0% to 2%	16%	1.2%	17.2%
2% to 3%	21%	2.5%	18.5%
3% to 4%	16%	3.4%	19.3%
4% to 5%	16%	4.4%	19.7%
5% to 7%	13%	5.9%	13.6%
7+%	6%	8.8%	16.8%
Average		3.1%	14.5%

Orion*

| The Equity Market

The Building Blocks of Return

Equity Investments Get Their Returns From Three Sources

Yield

Since 1871, the average dividend yield is 4.2%, which is higher than the current dividend yield of about 1.2%.



Growth of Earnings

Nominally, the current expected earnings growth for 2025 is 10.9%, which outpaces the long-term average (since 1871) of 4.2%. The average earnings growth over the last ten years has been 8.9%.



Changes in Valuations

Changes in valuations have contributed 0.5% to returns per year since 1871. However, the current CAPE ratio is 39x compared to the long-term average of 18x.

Capital Market Assumptions

Industry Projections for the Next 10 Years

Below are the 10-year annualized capital market assumptions from major investment companies. Notably, all six of these companies are projecting poor U.S. large cap equity performance relative to other asset classes and history.

Long-term projections tend to rely heavily on valuations. While they have little effect on short-term performance, valuations have explained 71% of the variations in the forward 10-year returns of the S&P 500 since 1971. Current U.S. large cap valuations are extremely high, implying below average forward returns.

Firm Name	U.S. Large Cap	U.S. Small Cap	International Equities	Emerging Markets Equities	U.S. Corporate Bonds	U.S. High Yield Bonds	U.S. Treasury Bonds	REITs
BlackRock	5.2%	4.1%	7.4%	7.8%	4.2%	5.9%	3.9%	7.0%
JP Morgan	6.7%	7.0%	8.0%	7.5%	5.0%	6.1%	3.8%	8.0%
State Street	6.4%	6.9%	6.8%	7.4%	4.4%	5.0%	4.2%	5.8%
Vanguard	4.1%	6.0%	6.1%	4.1%	4.5%	5.2%	4.3%	4.0%
Invesco	5.0%	7.8%	6.9%	9.1%	5.5%	6.2%	4.9%	7.4%
Research Affiliates	3.2%	7.4%	8.0%	8.0%	5.0%	4.9%	4.5%	6.3%
Average Forecast	5.1%	6.5%	7.2%	7.3%	4.8%	5.6%	4.3%	6.4%
Last 10 Years Total Return	15.3%	9.8%	8.2%	8.0%	1.8%	6.2%	1.2%	6.6%

All Returns are annualized. Capital Market Assumptions are from each of the listed firms. Last 10 Years Total Return is from Morningstar. Indices used: U.S. Large Caps: S&P 500 TR USD. U.S. Small Caps: Russell 2000 TR USD. International Equities: MSCI ACWI Ex USA NR USD. Emerging Markets Equities: MCI EM NR USD. U.S. Corporate Bonds: Bloomberg US Agg Bond TR USD. U.S. High Yield Bonds: Bloomberg High Yield Corporate TR USD. U.S. Treasury Bonds: Bloomberg US Treasury TR USD. REITs: MSCI US REIT GR USD. As of 9/30/2025.

U.S. Market Historical Return Probabilities

Equity Market Since 1871

- While equity returns are volatile in the short term, holding equities for a full 12-month cycle has resulted in positive returns 72% of the time since 1871.
- Over a longer time horizon of 10 years, the historical probability of positive returns is 97%.

Range of Returns	1 Year	3 Year	5 Year	10 Year
Greater than 20%	30%	15%	9%	0.4%
10% to 20%	22%	35%	40%	39%
5% to 10%	10%	19%	21%	40%
0% to 5%	10%	16%	20%	17%
-5% to 0%	9%	9%	7%	3%
-10% to -5%	7%	4%	2%	0%
Less than -10%	12%	3%	2%	0%

*Shaded regions indicate current return buckets

Stock market data from Yale Professor of Economics Robert Shiller.
Data ranges 1871 – 9/30/2025
The sum of the figures may be lesser or greater than 100% due to rounding.
Past performance is not a guide to future performance. Individual client accounts may vary.

U.S. Market Historical Return Probabilities

Equity Market by Valuation Quintile – P/E

- This table shows next-12-months return probabilities for a given market valuation level, measured by P/E.
- A common misconception is that high market valuations result in negative forward returns. Although Q5 exhibits the lowest average forward returns, it still averages a nominal return of 7.5% with an overall 70% probability of positive return.
- The current trailing-twelve-month P/E ratio of the S&P 500 is 27, well within the highest quintile of historical P/E.

Quintiles Since 1871	Q1 – Lowest	Q2	Q3	Q4	Q5 - Highest
Greater than 20%	38%	35%	34%	23%	22%
10% to 20%	24%	15%	17%	28%	27%
5% to 10%	10%	6%	12%	10%	13%
0% to 5%	9%	12%	9%	11%	8%
Less than 0%	20%	31%	28%	28%	30%
Average Return	15.2%	11.8%	11.9%	8.2%	7.5%

Stock market data from Yale Professor of Economics Robert Shiller.
Data ranges 1871 – 6/30/2025

The sum of the figures may be lesser or greater than 100% due to rounding.

Past performance is not a guide to future performance. Individual client accounts may vary.

1 Year Forward returns matched with valuation quintiles determined by P/E. Breakpoints of 369. Q1: P/E less than 10.88; Q2: 10.88-13.62; Q3: 13.62-16.43; Q4: 16.43-19.33. Q5: 19.33+

U.S. Market Historical Return Probabilities

Equity Market by Valuation Quintile – CAPE

- A valid alternative to the P/E ratio for valuation is the CAPE Ratio, which uses a company's average inflation-adjusted earnings over a 10-year period to smooth out some of the impacts of short-term earnings volatility.
- A common misconception is that high market valuations result in negative forward returns. In contrast, the periods with the highest CAPE's still average a nominal return of 9.2% with an overall 74% probability of positive return.
- The current CAPE Ratio is 39, well within the highest quintile of historical CAPE ratios.

Quintiles Since 1871	Q1 – Lowest	Q2	Q3	Q4	Q5 - Highest
Greater than 20%	47%	35%	23%	22%	26%
10% to 20%	22%	16%	19%	26%	29%
5% to 10%	6%	10%	10%	12%	13%
0% to 5%	6%	12%	11%	11%	7%
Less than 0%	18%	26%	37%	29%	26%
Average Return	18.8%	13.1%	6.9%	6.9%	9.2%

Stock market data from Yale Professor of Economics Robert Shiller.
 Data ranges 1871 – 9/30/2025
 The sum of the figures may be lesser or greater than 100% due to rounding.
 Past performance is not a guide to future performance. Individual client accounts may vary.
 1 Year Forward returns matched with valuation quintiles determined by CAPE. Breakpoints of 347.
 Q1: CAPE is less than 11.33; Q2: 11.33-15.02; Q3: 15.02-18.08; Q4: 18.08-22.82. Q5: 22.82+

U.S. Market Historical Return Probabilities

Equity Market by Investor Sentiment Quintile – AAll Sentiment Survey

- This table shows historical data since 1988 to show the probabilities of the forward 12-month return of the stock market at different levels of investor sentiment.
- Interestingly, the stock market is most likely to produce a negative return over the twelve months following the most bullish investor sentiment, while the most bearish periods have the highest probability to see returns above 20% the following year.
- The average Bull-Bear spread in the first quarter was -3.0%, falling in the second quintile.

Quintiles Since 1988	Q1 – Most Bearish	Q2	Q3	Q4	Q5 – Most Bullish
Greater than 20%	36%	29%	19%	23%	19%
10% to 20%	28%	30%	35%	33%	26%
5% to 10%	8%	16%	16%	18%	19%
0% to 5%	8%	8%	12%	9%	12%
Less than 0%	20%	17%	19%	17%	25%
Average Return	11.9%	12.0%	9.3%	10.7%	6.4%

Sentiment data from AAll. Stock market data from Yale Professor of Economics Robert Shiller.
Data ranges 12/31/1987 – 9/30/2025

The sum of the figures may be lesser or greater than 100% due to rounding.

Past performance is not a guide to future performance. Individual client accounts may vary.

1 Year Forward returns matched with sentiment quintiles determined by the AAll Sentiment Survey. Breakpoints of 383.

Q1: Bull/Bear Spread lower than -8.66%; Q2: -8.66%-2.80%; Q3: 2.80%-12.00%; Q4: 12.00%-21.86%; Q5: 21.86%+

2025 S&P 500 Index Value Possibilities

The table below illustrates the potential S&P 500 price levels based on operating earnings per share (EPS) and valuation multiples (price-to-earnings ratio). For context, the S&P 500 closed 2024 at 5,882 and Q2 of 2025 at 6,205.

According to FactSet, the current bottoms-up operating EPS projection for the next 12 months is approximately \$295, implying an expected earnings growth rate of roughly 11%, and the current forward P/E of the S&P 500 is 22. For comparison, the average annual growth rate over the past 10 years has been about 9%, and the historical average since 1871 is 4%. The average forward P/E ratio over the last 10 years has been about 18.

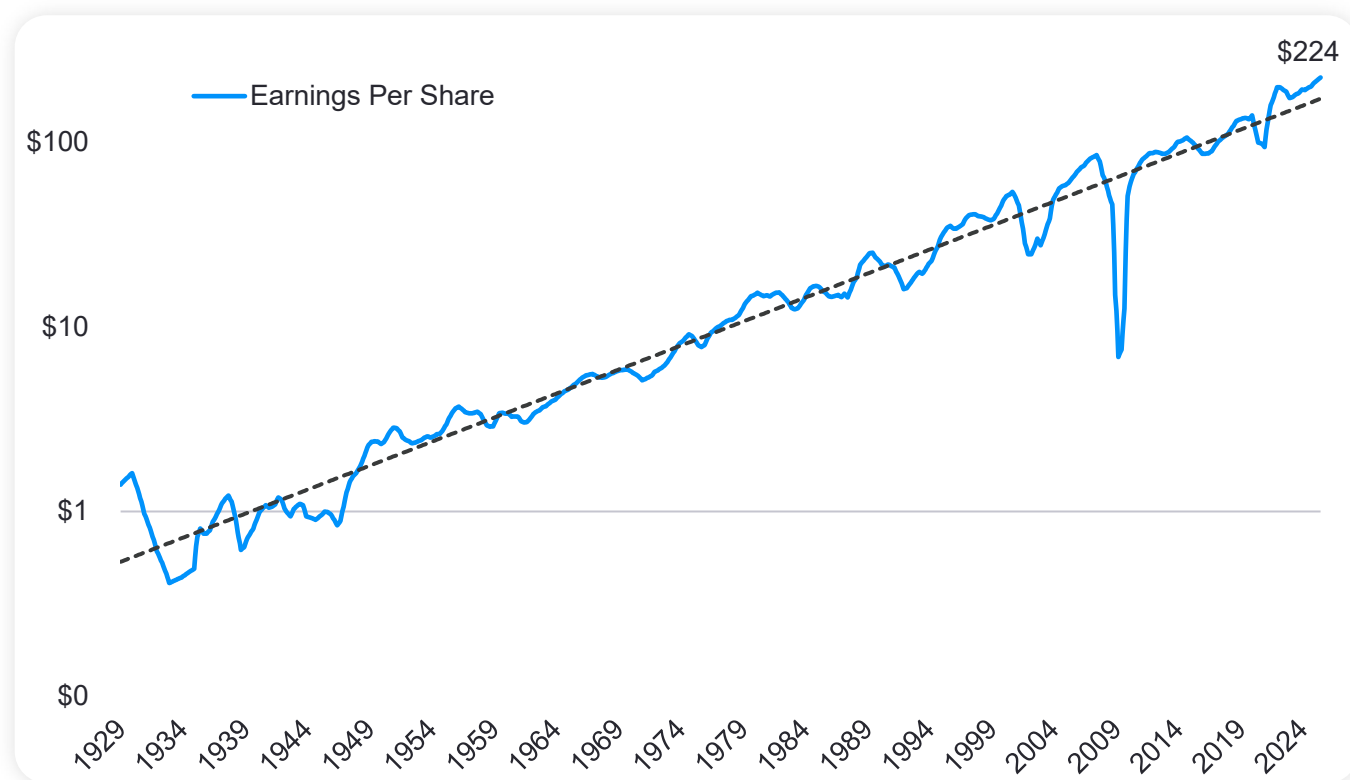
Example, if the S&P has operating earnings growth of \$295 per share and ends the period with a P/E of 22, the S&P would end at 6,490. This would be a price return of -3% over the next 12 months.

		S&P 500 Forward 12-Month P/E Ratio							
		19	20	21	22	23	24	25	26
S&P 500 Index, Next 12-Month EPS	\$275	5,225	5,500	5,775	6,050	6,325	6,600	6,875	7,150
	\$280	5,320	5,600	5,880	6,160	6,440	6,720	7,000	7,280
	\$285	5,415	5,700	5,985	6,270	6,555	6,840	7,125	7,410
	\$290	5,510	5,800	6,090	6,380	6,670	6,960	7,250	7,540
	\$295	5,605	5,900	6,195	6,490	6,785	7,080	7,375	7,670
	\$300	5,700	6,000	6,300	6,600	6,900	7,200	7,500	7,800
	\$305	5,795	6,100	6,405	6,710	7,015	7,320	7,625	7,930
	\$310	5,890	6,200	6,510	6,820	7,130	7,440	7,750	8,060
	\$315	5,985	6,300	6,615	6,930	7,245	7,560	7,875	8,190
	\$320	6,080	6,400	6,720	7,040	7,360	7,680	8,000	8,320

U.S. Earnings Growth

- From 1929 – 1990, earnings grew at a compound annual growth rate of 4.8%.
- From 1990 to today, earnings have grown much more quickly at a compound annual growth rate of 6.6%.
- Analysts are expecting earnings growth of about 10.9% for the S&P 500 in 2025*

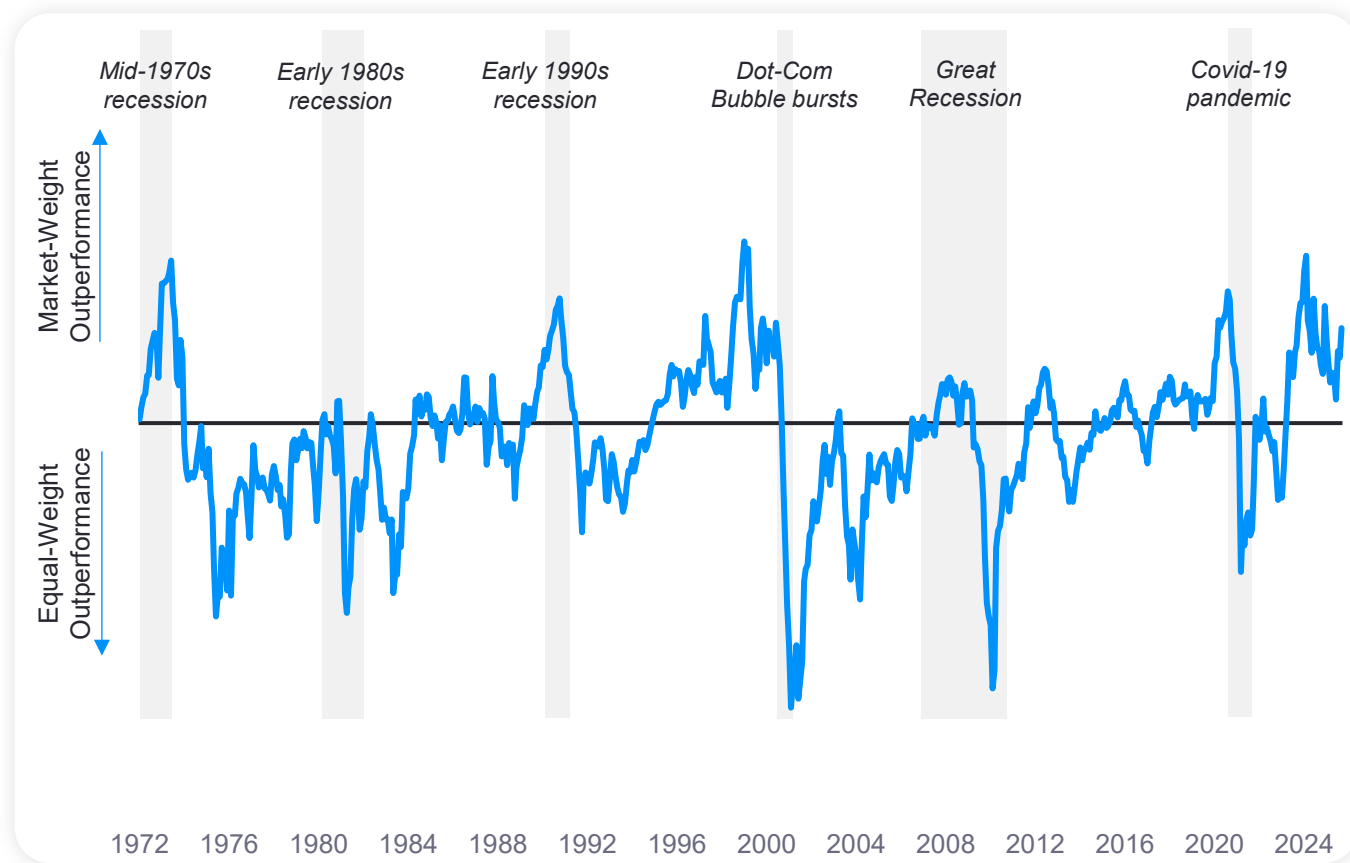
S&P 500 Earnings Growth



U.S. Market Concentration

- The S&P 500 is currently outperforming its equal-weight counterpart by 8%, down from its recent high of 17% outperformance in February 2024.
- High market concentration, when only a few stocks drive market movements, can cause a divergence between the two indexes.
- Historically, the return relationship between the two indexes is mean reverting within a few years of extreme disparity. A diversified equity allocation can help investors be prepared when reversions take place.

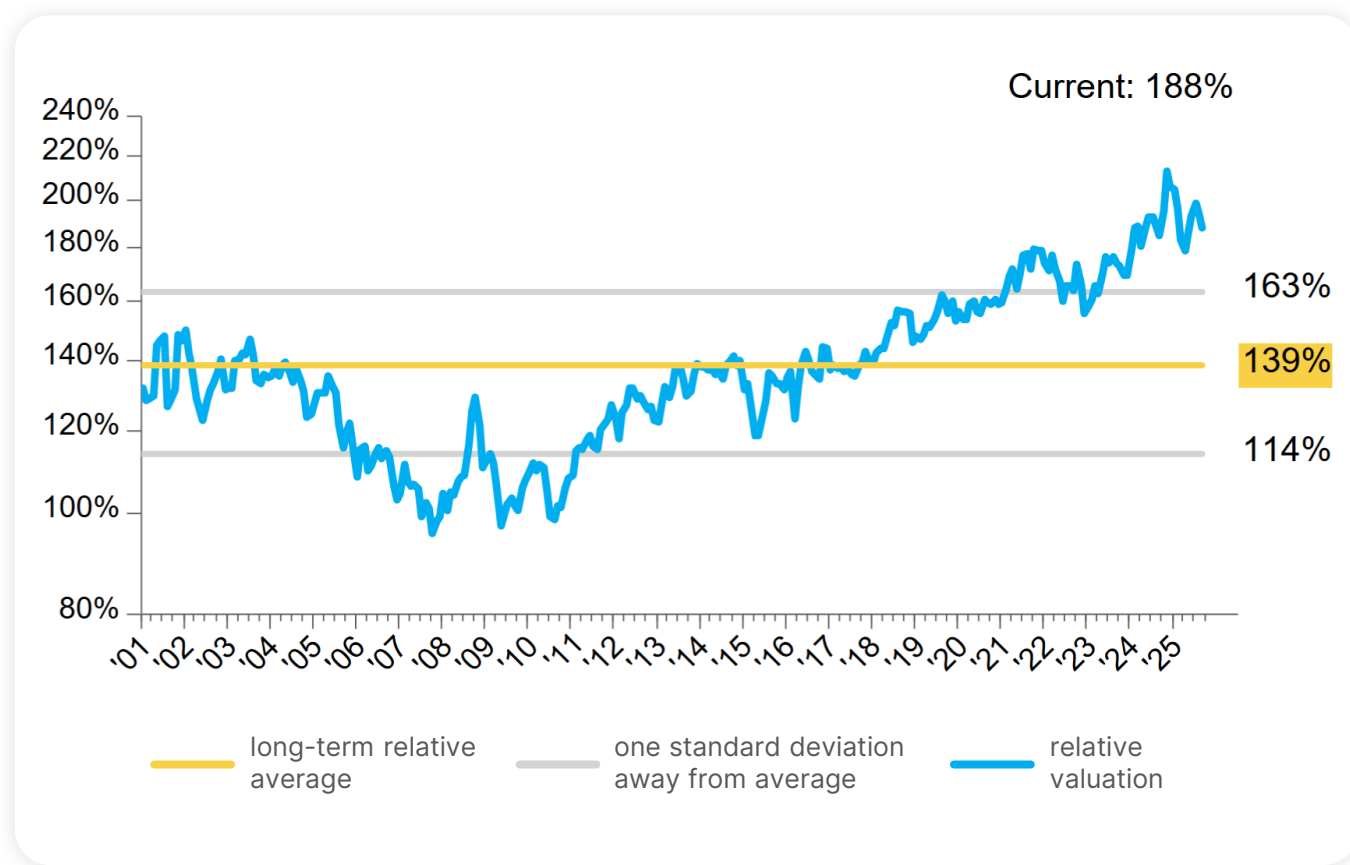
Market-Weighted S&P 500 Minus Equal-Weight S&P 500



U.S. Valuations Not on Sale

- Since the beginning of the century, US stocks have traded at about a 39% premium to international stocks.
- Currently, US stocks are trading at an 88% premium to the international market.
- This greater valuation discrepancy presents an opportunity for enhanced diversification.

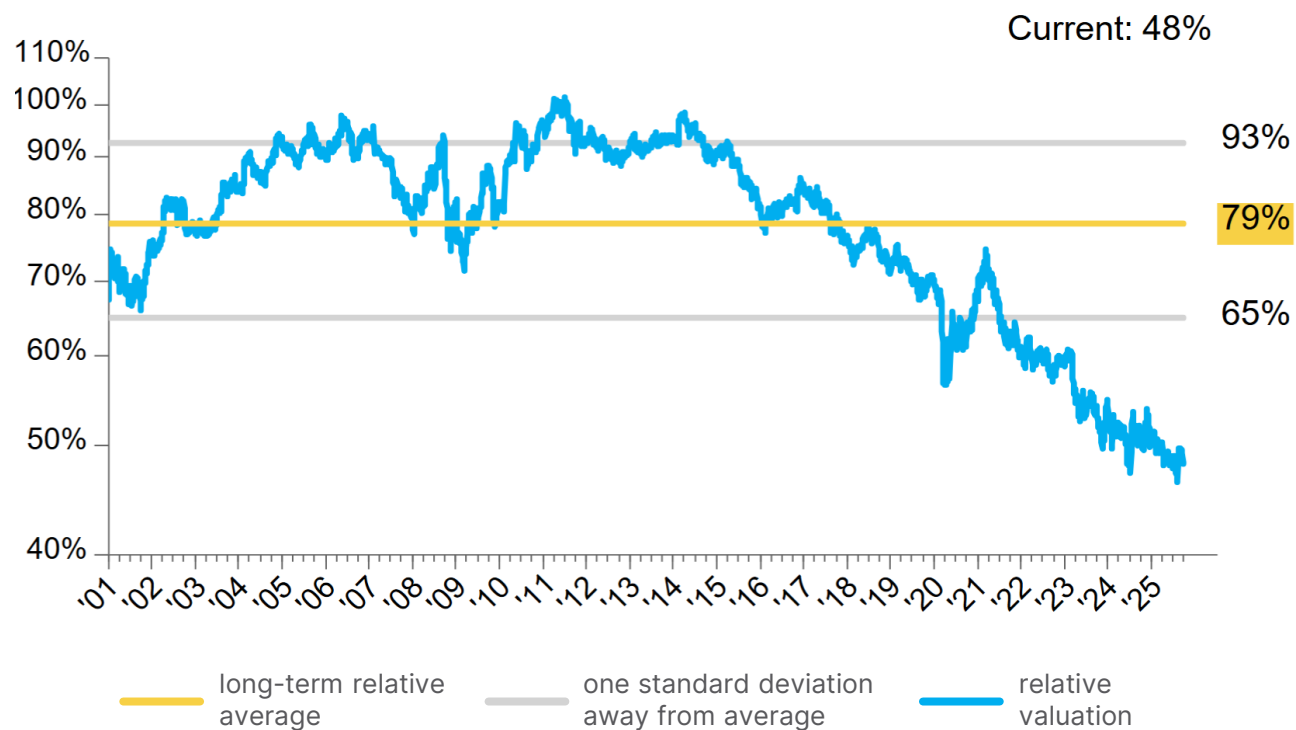
U.S./International



Relative Valuations: Small Cap Stocks

- Since the beginning of the century, small cap stocks have traded at about a 21% discount to the US market.
- Currently, small cap stocks are trading at about a 52% discount to the overall US Market.
- This lower valuation level presents an opportunity for enhanced diversification.

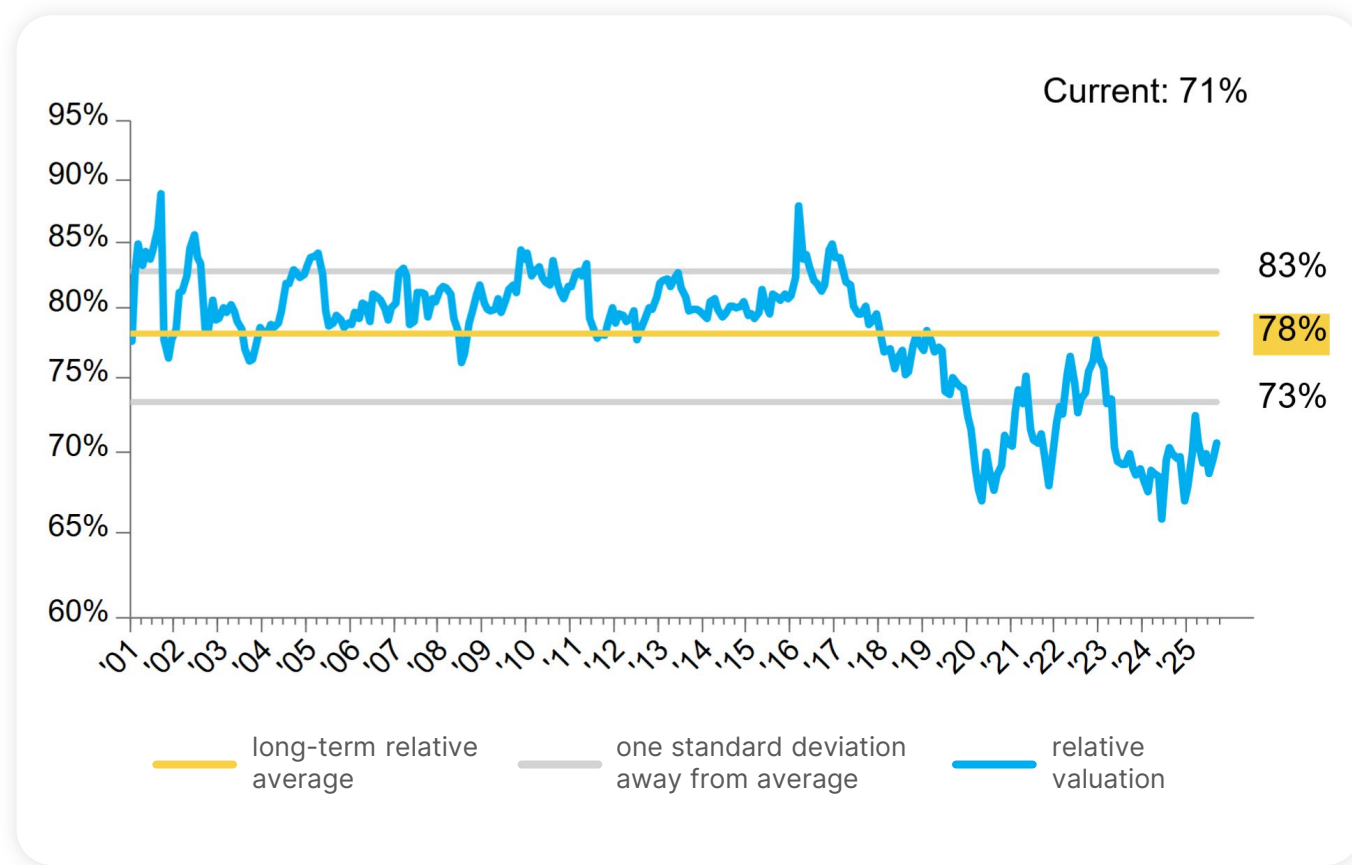
Small Caps/U.S. Market



Relative Valuations: Value Stocks

- Since the beginning of the century, value stocks have traded at about a 22% discount to the US market.
- Currently, value stocks are trading at about a 29% discount to the US market.
- This lower valuation level presents an opportunity for enhanced diversification.

Value/U.S. Market



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| The Bond Market

U.S. Market Historical Return Probabilities

Bond Market Since 1926

- Bonds are not immune to bear markets, but holding bonds for a full year has historically resulted in positive returns 85% of the time.
- Since 1972, bonds have not produced a negative return over any 10-year time frame.
- The yield on U.S. Aggregate Bonds is currently 4.4%, and the U.S. 10 Year Treasury Bond's is 4.0%. Starting yields have historically correlated with forward returns.

Range of Returns	1 Year	3 Year	5 Year	10 Year
Greater than 10%	26%	19%	18%	22%
7% to 10%	17%	22%	25%	29%
3% to 7%	27%	39%	38%	35%
0% to 3%	15%	15%	14%	14%
-3% to 0%	10%	3%	4%	0%
-5% to -3%	3%	2%	0%	0%
Less than -5%	2%	1%	0%	0%

*Shaded regions indicate current return buckets

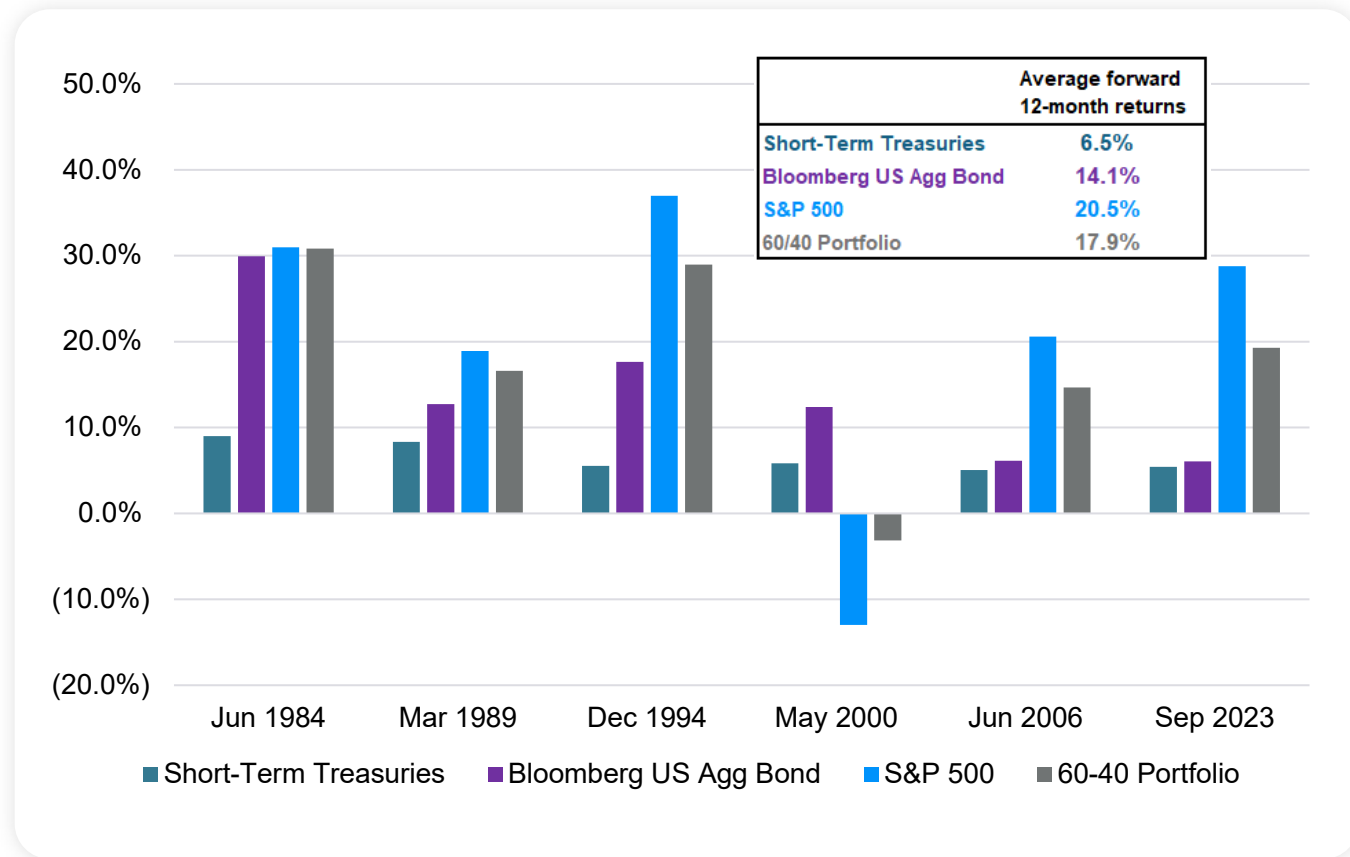
Source: Bloomberg US Treasury TR USD (1972), Morningstar.
Numbers range 1926 – 9/30/2025

The sum of the figures may be lesser or greater than 100% due to rounding.
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U.S. Market Historical Return Probabilities

Stock and Bond Markets Following Peak Short-Term Treasury Rates

- History has shown that U.S. stock and bond markets have tended to outperform cash and short-term investments in the subsequent 12 months following a peak in short-term Treasury rates.
- As rates begin to fall, stocks and bonds have both tended to benefit. The traditional 60/40 portfolio has averaged just under 18% in the 12 months following a treasury rate peak.
- This chart suggests the importance of staying invested throughout market cycles to participate in market uptrends across asset classes.



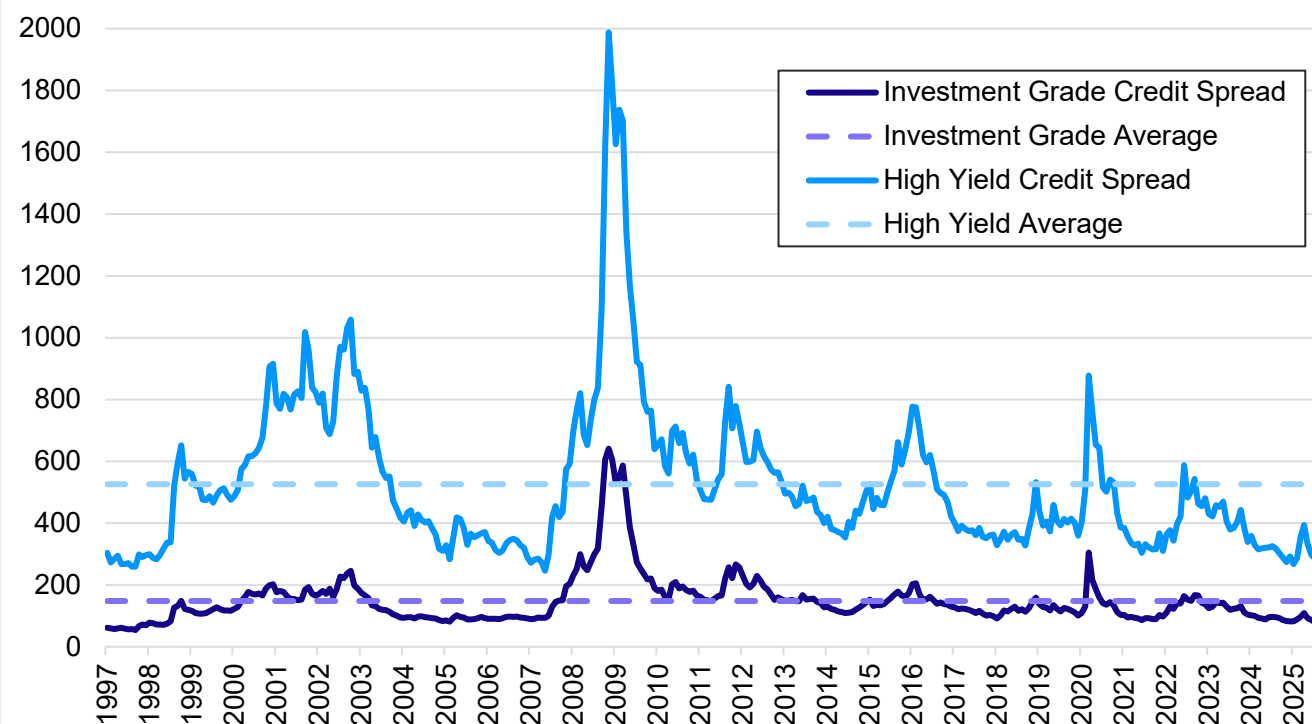
Returns Data from Morningstar.
 CD Rate data is from the Federal Reserve Bank of St. Louis (FRED). Data ranges from 6/1984-6/2023.
 Indices used: Short-term Treasuries: 1A SBBI US 30 Day TBill TR USD, Bonds: Bloomberg US Agg Bond TR USD,
 S&P 500: S&P 500 TR USD, 60-40 Portfolio: 60% S&P 500, 40% Bloomberg US Agg Tbond TR USD

U.S. Bond Valuations

A Look at Credit Spreads

- Credit spreads measure how much an investor is getting paid for holding the credit risk of a fixed income security. The spread is the difference between the yield on a risky bond and that of a Treasury bond of the same maturity.
- When credit spreads are tight, investors are compensated less for holding risky bonds (i.e., the bond is expensive), and when spreads are wide investors are compensated more (the bond is cheap).
- Credit spreads are currently significantly tighter than average, nearing century lows.

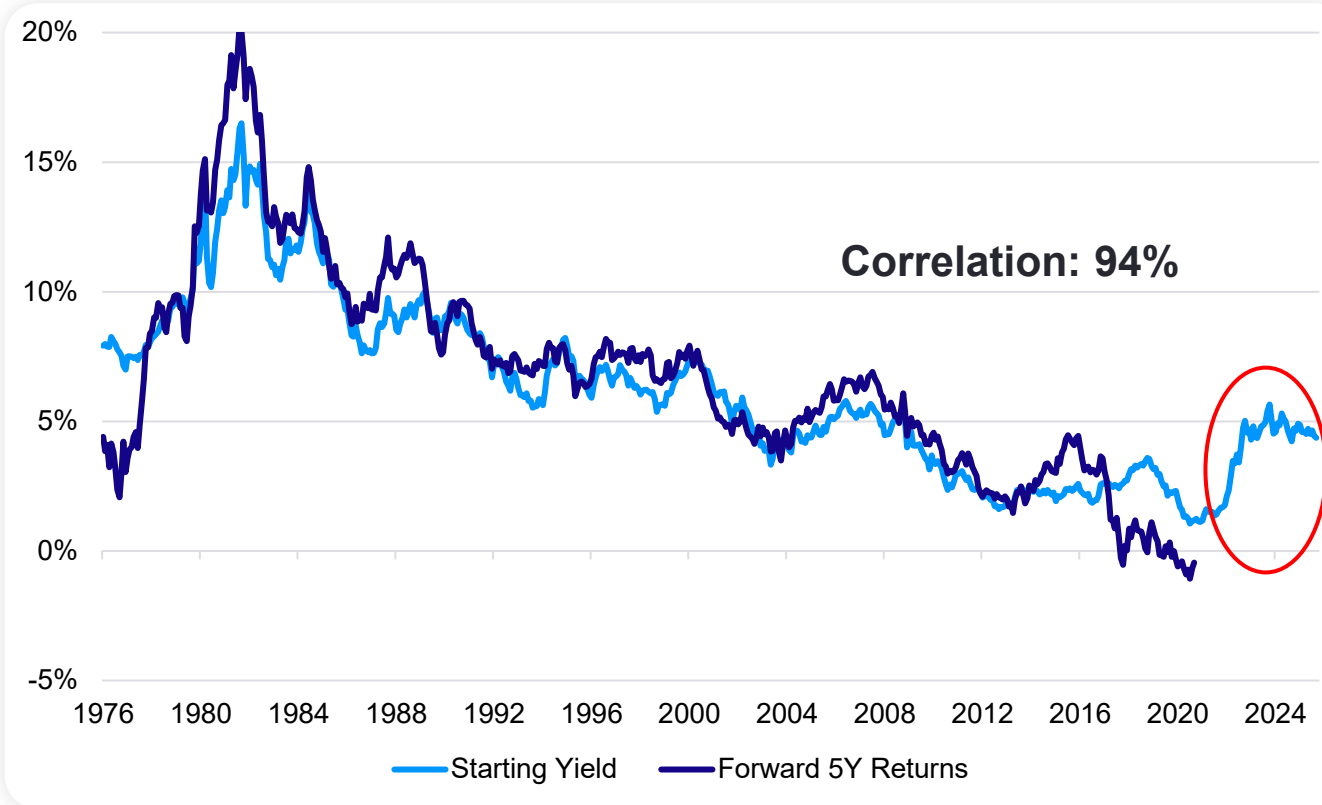
Option-Adjusted Spreads Over Treasuries (bps)



Starting Bond Yields

- U.S. bond yields are the highest they've been since the mid 2000s. As of September 30, the Bloomberg Aggregate Index was yielding 4.4%.
- Our analysis found that there is a 94% historical correlation between the U.S. Aggregate Bond Index's starting yield and subsequent 5-year returns.
- Elevated yields may indicate a good entry point into the bond market.

Starting Bond Yield & Forward 5Y Returns



| Bridging the Behavior Gap

Orion Behavioral Finance Resources



[Orion Behavioral Finance Website](#)

The home of Orion's Behavioral Finance materials and access to content from Orion's Chief Behavioral Officer, Dr. Daniel Crosby



[Standard Deviations Podcast](#)

Weekly podcast on applied behavioral finance hosted by Orion's Chief Behavioral Officer, Dr. Daniel Crosby



[Orion Advisor Academy](#)

Free CE resource with a behavioral finance tilt; includes ethics courses and all credits necessary for two years of CE.



[PulseCheck](#)

BeFi tool that allows advisors to monitor a client's personal wellness and fulfillment right alongside their financial wellness



[BeFi20](#)

Brief (under 3 minute) assessment of financial personality; can be taken solo or with a loved one, allows for deep customization.



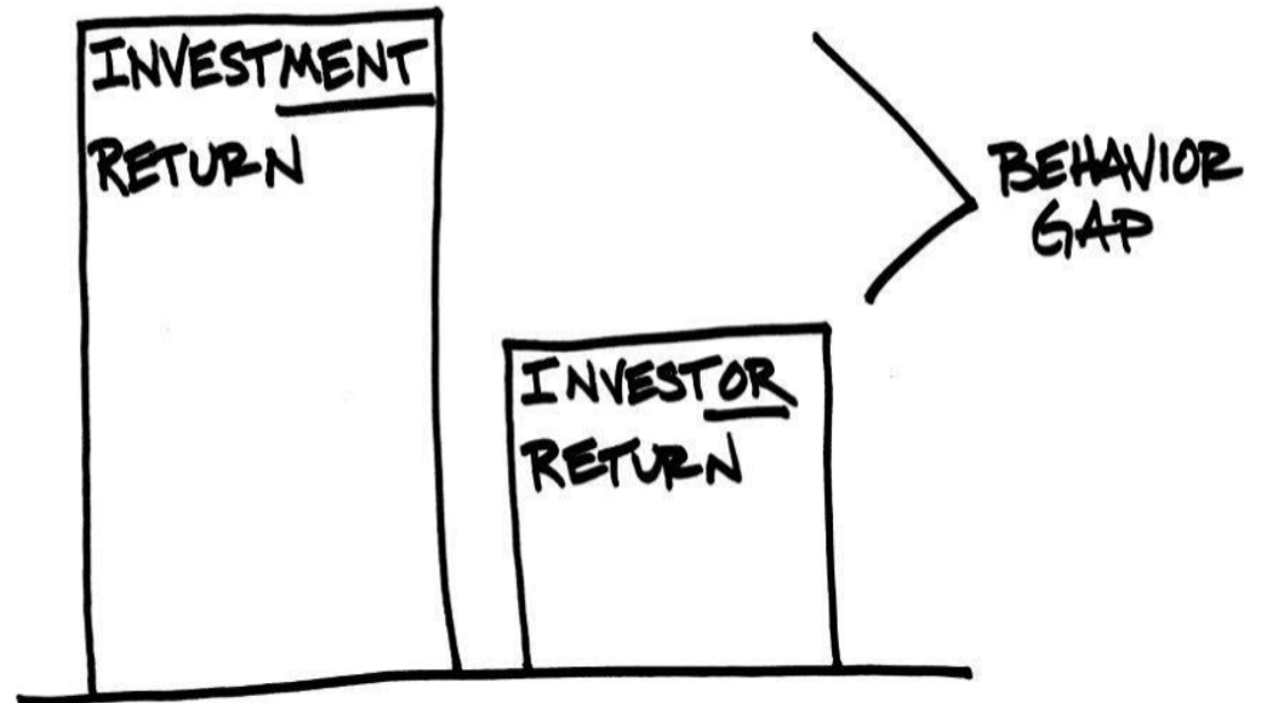
[3D Risk Tolerance Questionnaire](#)

RTQ that measures behavioral tendencies alongside more traditional risk metrics.

Professional Money Management

Bridging the Behavior Gap

- The behavior gap represents the difference between investment and investor returns as a result of human behavior and emotion.
- Professional money management can help prevent emotion-driven investing and performance chasing, which can help lessen this gap.



Professional Money Management

Reducing Investor Emotion

- Research has shown that most investors do not invest optimally on their own due to a severe cycle of emotions with their investments.
- Professional money managers can help investors identify points of risk and opportunity and avoid making costly investment mistakes that are based on emotion.



Professional Money Management

Value Added by Investment Advisors, Vanguard

Though much of an advisor’s added value may seem intangible, research shows that advisors can potentially add up to 3.0% in net returns as a result of their services. Fortunately, when advisors work with Orion Portfolio Solutions (OPS), they receive peace of mind knowing that OPS is addressing these key factors toward achieving optimal portfolio returns.

Advisor Behavior	Potential Value Added
Behavioral coaching	Up to 2.0%
Investment selection	Up to 1.0%
Rebalancing	0.12%
Asset location	Up to 0.6%
Tax-efficient retirement strategy	Up to 1.0%
Tax-loss harvesting	Up to 1.5%
Total Potential Value Added	Up to or exceeding 3.0%

Professional Money Management

Value of an Advisor Study, Russell Investments

An alternate piece of research shows that the value added by advisors is potentially higher, approaching 5.0% in returns as a result of their services.

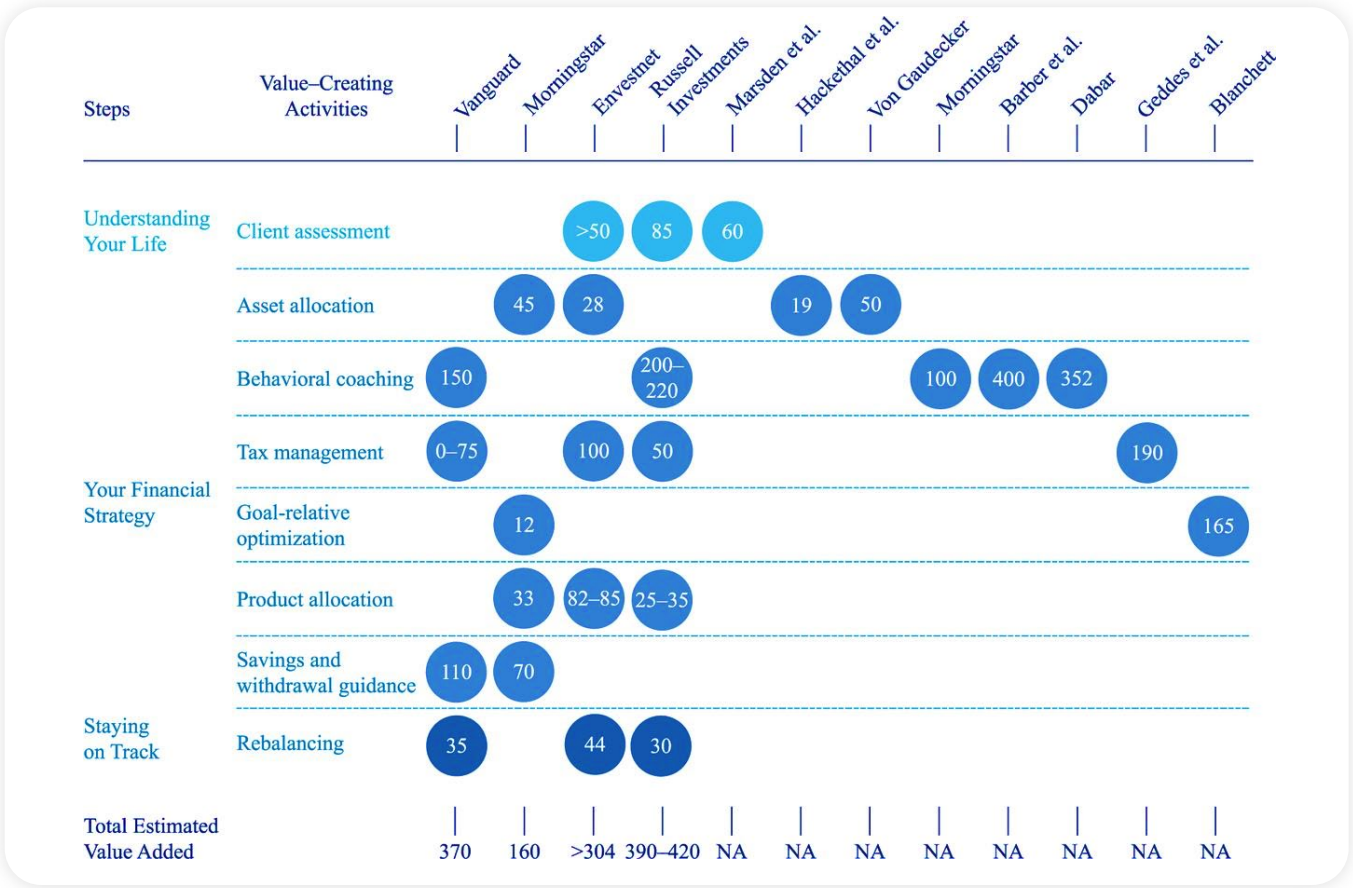
Note the consistency between these two studies:
 Behavioral Coaching provides a significant amount of value, both in terms of return and investor discipline.

Advisor Behavior	Potential Value Added
Active Rebalancing of Investment Portfolios	Average of 0.3%
Behavioral Coaching	Average of 2.5%
Customized Client Experience, Planning & Product Alignment	Average of 1.1%
Tax-Smart Planning & Investing	Average of 1.0%

Professional Money Management

Adding Value with more than Asset Allocation

- This collection of studies paints a powerful picture...
- The value of financial advice comes more from behavioral aspects of investing than investment fundamentals like asset allocation, product allocation or rebalancing.
- Behavioral coaching is consistently deemed a high relative value-add across industry studies.



Source: Merrill Lynch, The Value of Personal Financial Advice (2016). Value added figures in basis points.

Focus On What You Can Control

- Investors can control a lot.
- How much they save, the amount they spend, when they want to pay taxes, and the types of investments they select (expensive or cheap).
- However, investors tend to focus on market returns. Returns are important, but out of the control of the investor.
- Focus on what you can control.

What Investors Can Control

Risk
Cost
Time
Emotion
When Taxes Are Paid
Valuation

What Investors Can't Control



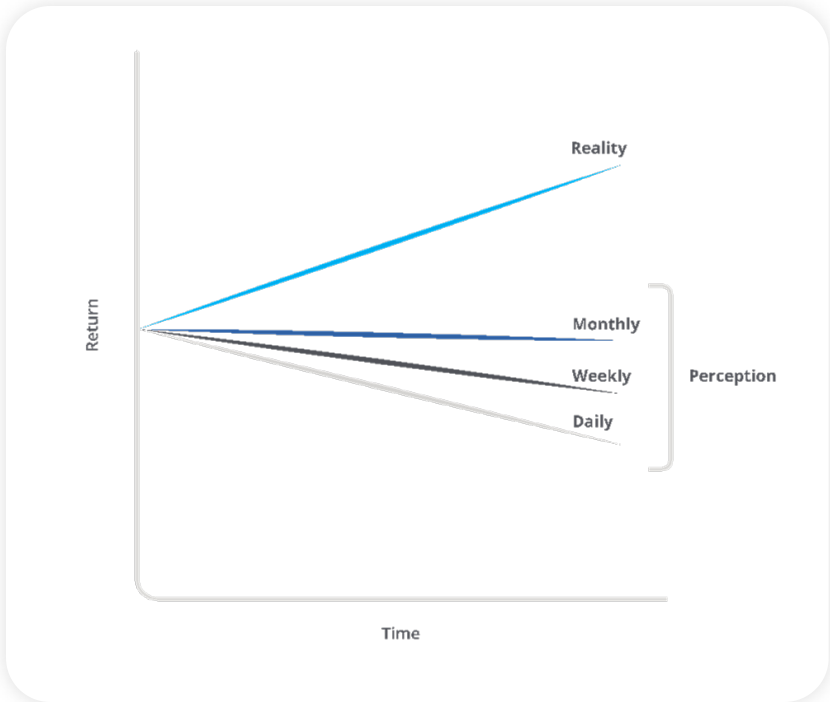
Reality Versus Perception

Investment Performance Over Time

In behavioral finance, there is an emotional experience known as “prospect theory,” which states that losses hurt more than gains of the same amount. In other words, investors are more loss averse than risk averse. In fact, they may take on more risk to recoup some of their losses, hold onto losers too long, or get out of the market altogether – generally making bad investing choices. But, as the table below shows, it is important to focus on the long term, as staying invested tends to be rewarding.

The key points the table makes are:

- The more investors look at their accounts, the worse their emotional investor experience will be and the more disruptive and volatile their performance is perceived to be.



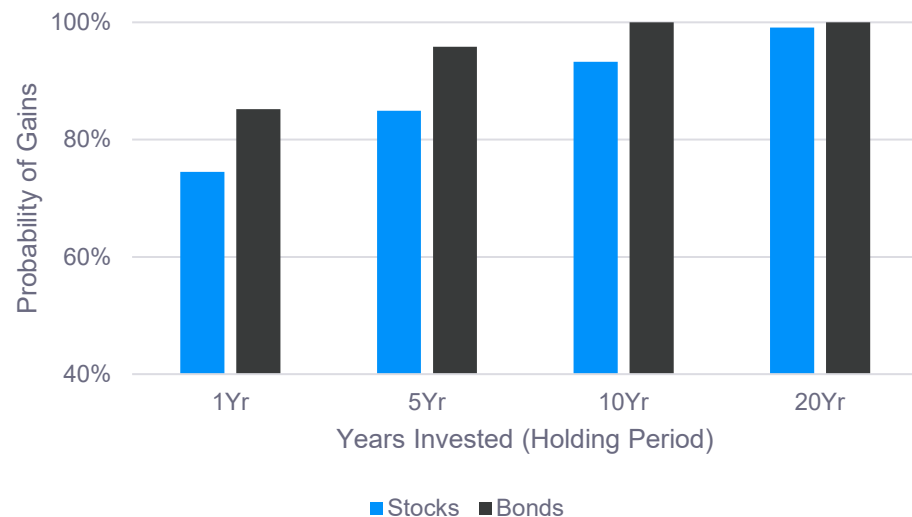
S&P 500 Percent of Positive Return (Since 1950)										
Return Frequency	Daily	Weekly	Monthly	Quarterly	Yearly	3-Year	5-Year	10-Year	20-Year	30-Year
% Positive	53%	57%	62%	66%	74%	86%	85%	93%	99%	100%

Time and Dispersion of Returns

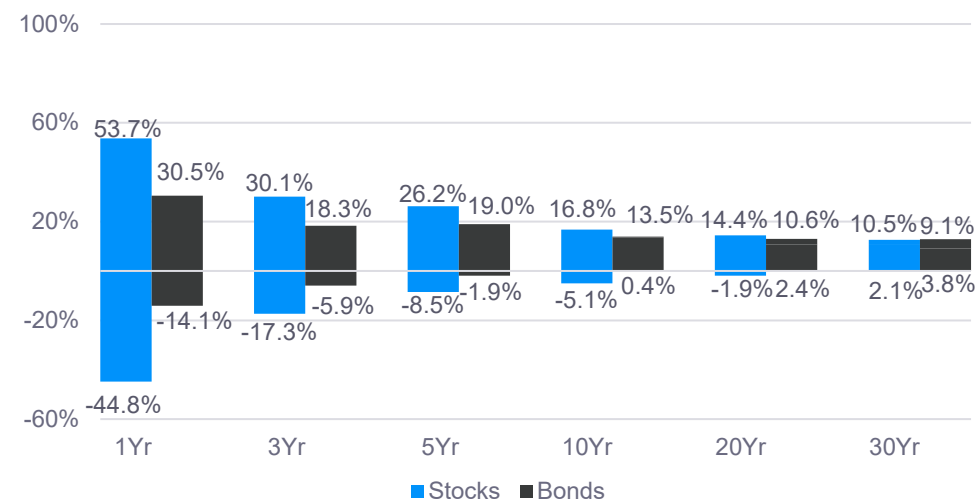
Stocks and Bonds

The dispersion of stock and bond returns can vary given the time horizon an investor has to invest. Stock and bond returns can be wide-ranging in a one-year time frame. However, the longer an investor stays invested, the less volatile the range of stock and bond returns is likely to be and the higher the probability of a positive return.

Probability of Positive Return

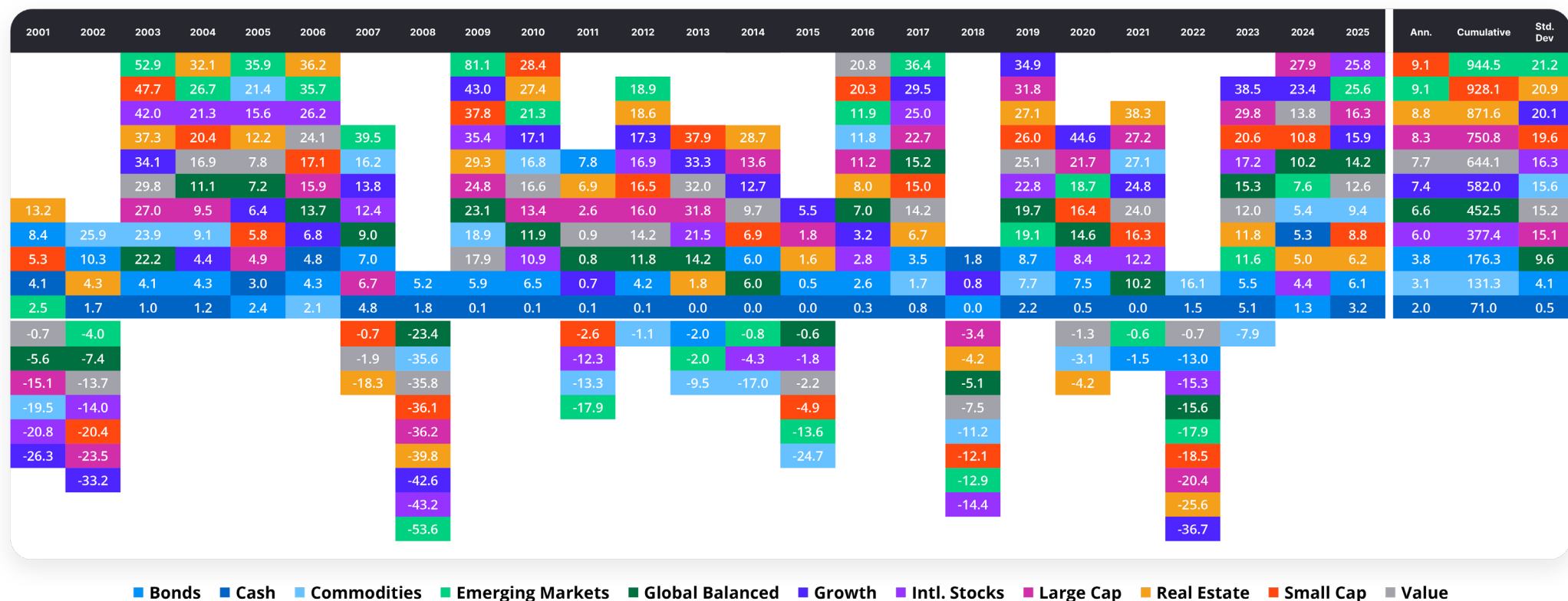


Ranges of Stock & Bond Returns



Balanced Portfolios May Help Smooth Returns

Take a look at the extreme highs and lows of emerging markets over this time period, as compared to the much smoother returns for a global, balanced portfolio. Having exposure to a variety of asset classes may counteract a significant drop in any one asset class and may provide a smoother ride for investors. Staying invested long-term has historically helped smooth out returns.

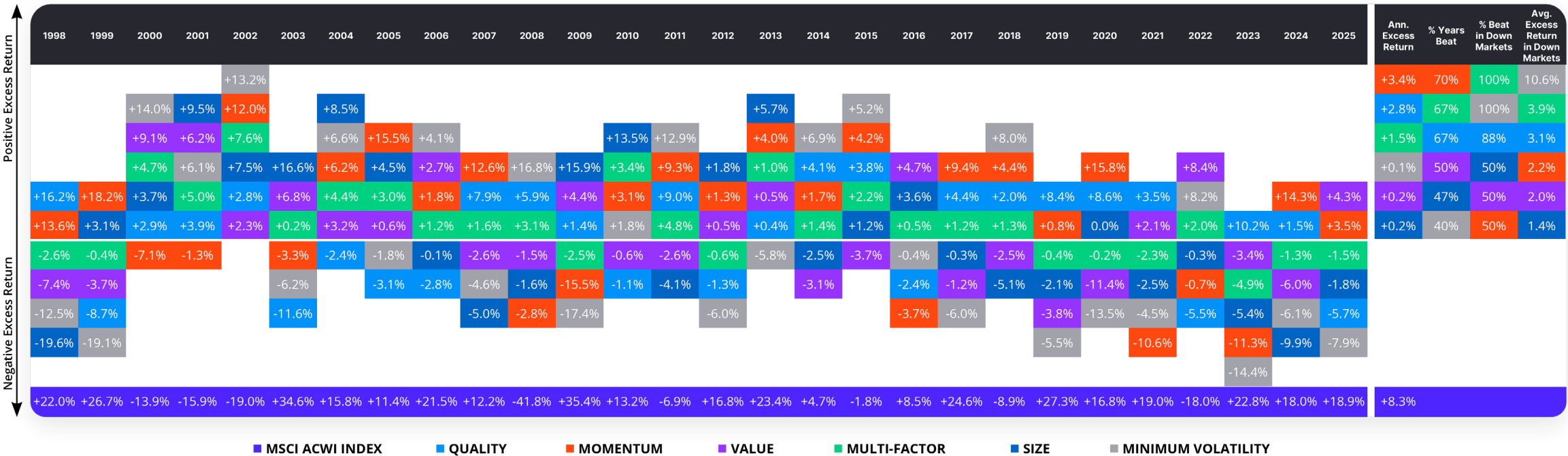


Global Balanced: 60% stock and 40% bond with the stock portion being 60% domestic and 40% international.
 Domestic equities: Morningstar U.S. Markets Index, International equities: Morningstar DM xUS NR Index. Bonds: Bloomberg US Aggregate Index.
 Source: Morningstar Direct as of 9/30/2025.

Factors May Deliver More Diversified Risk-Adjusted Returns

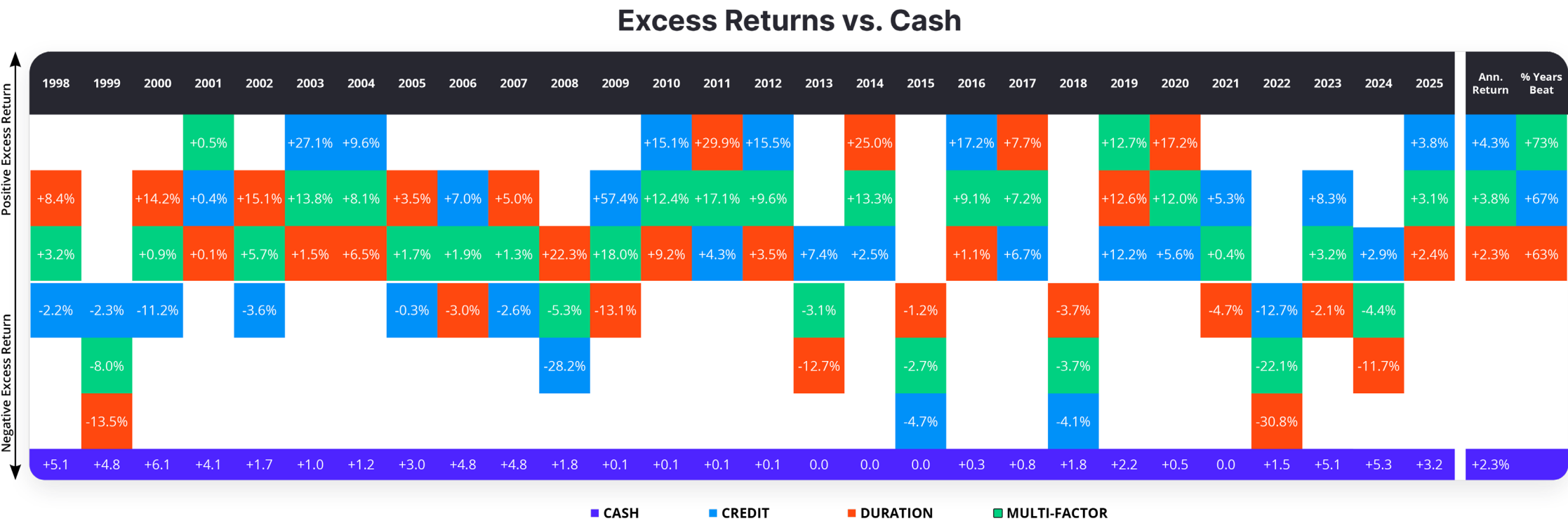
Factor investing, like all kinds of investing, has a cyclical nature. But despite the cyclical nature, factor investing usually wins in calendar year performance returns. Factor investing has the potential to do well in all environments, but particularly so in down markets. We believe that a strategic emphasis on factor investing may help to add value over time. In addition, diversification among the factors in a multi-factor approach may provide smoother returns over time.

Excess Returns vs. MSCI ACWI



Factors May Deliver More Diversified Risk-Adjusted Returns

Similar to equity factors, cyclicality is present in the performance of fixed income factors. The key point is that factor returns have historically shown a strong positive bias. Credit and duration have typically outperformed cash on a calendar year basis, and the probability of outperformance has generally increased historically when combining both factors in a portfolio.



Source: Morningstar Direct as of 9/30/2025.
 Bloomberg Long Term US Treasury TR USD and BofAML US HY Master II TR USD Index
 relative to the BBgBarc US Treasury Bill 1-3 Mon TR USD Index.

Retirement: The Magic Number

Are you saving enough for retirement? There is no magic number, however, this is a helpful guide to address this question.

How to Use

Household income is assumed to be gross income (before taxes and savings).
Go to the intersection of your current age and your closest current household income. This is the amount you should have saved by today.
Example: For a 40-year-old with a household income of \$100,000, your current savings should be \$200,000.

Annual Gross Savings
 5.0% for \$30-90k
 10.0% for \$100-300k
Pre-retirement investment portfolio
 60/40 diversified
Post retirement investment portfolio
 40/60 diversified
Inflation rate
 2.5%
Years in retirement
 35 years starting at age 65

Household Income	\$60,000	\$70,000	\$80,000	\$90,000	\$100,000	\$125,000	\$150,000	\$175,000	\$200,000	\$250,000	\$300,000
At this Age:	To maintain an equivalent lifestyle in retirement, you should have this amount saved by these milestones (in thousands of \$).										
35	95k	115k	135k	155k	110k	130k	145k	160k	175k	225k	330k
40	135	165	195	220	200	240	275	305	340	435	600
45	190	225	265	300	305	375	435	485	540	685	920
50	235	280	330	375	415	505	590	665	745	940	1,240
55	305	360	420	480	565	690	805	910	1,025	1,295	1,690
60	375	445	520	590	725	890	1,045	1,185	1,330	1,680	2,180
65	445	525	615	700	890	1,090	1,280	1,455	1,640	2,070	2,670

J.P. Morgan: Guide to Retirement. Page 11-12. This chart is for illustrative purposes only and must not be relied upon to make investment decisions. J.P. Morgan's model is based on J.P. Morgan Asset Management's (JPMAM) proprietary long-term capital market assumptions (10-15 years) and an 80% confidence level. Household income replacement rates are derived from an inflation-adjusted analysis of: Consumer Expenditure Survey (BLS) data (2013-2016); Social Security benefits using modified scaled earnings in 2019 for a single wage earner at age 65 and a spousal benefit at age 62 reduced by Medicare Part B premiums.

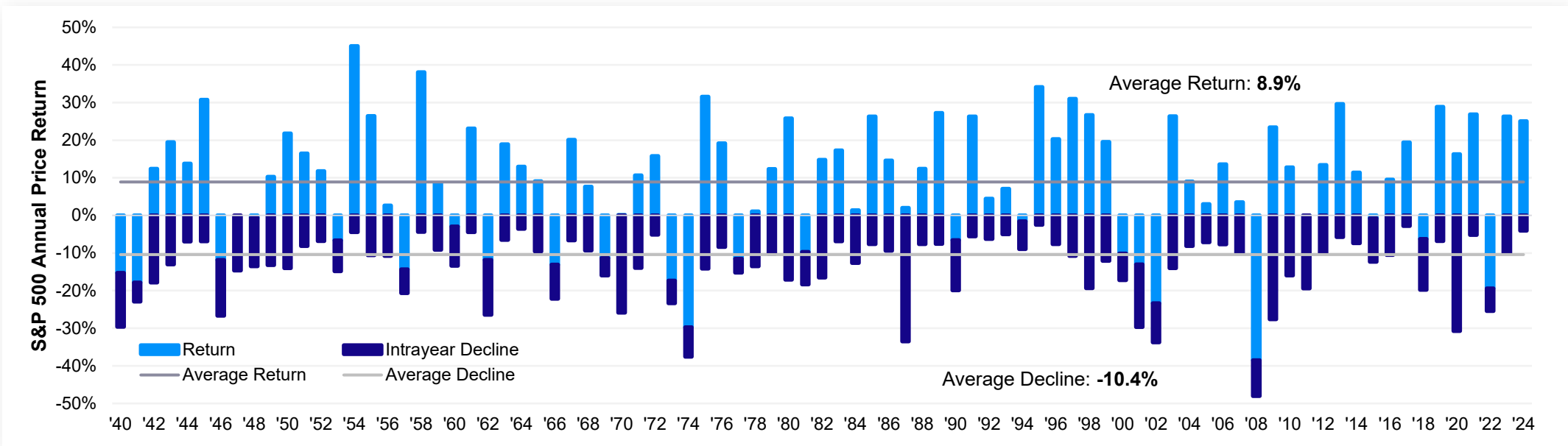
Bull and Bear Markets

Professional Money Management

Helping Investors Stay Invested

Professional money managers can help investors stay disciplined. This chart shows the importance of staying invested to participate in market gains and remain focused on long-term goals. For example, in 2020, the market low during the year was -30.8%; however, the market ended the year up 16.3%. Investors who exited the market during the lows would have locked in their losses and missed out on a large upside gain.

S&P 500 Annual Return, with Market Low During Year



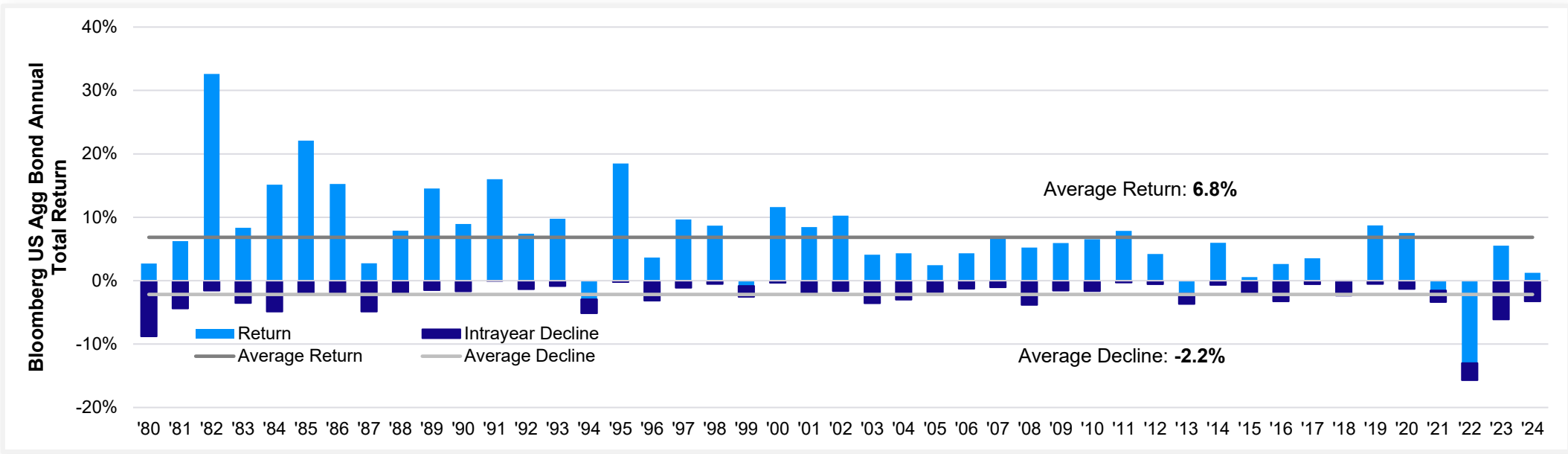
Source: Morningstar Direct 12/31/2024.
 Light blue bars represent calendar year return based on price index only and do not include dividends.
 Dark blue bars represent calendar year max drawdown, or the steepest decline from a peak to a trough during the year.
 Returns are calendar year returns from 1940 to 2024.

Professional Money Management

Helping Investors Stay Invested

Even in the historically less volatile bond market, bear markets can and have occurred over time. Professional money management can help investors stay invested and diversified throughout cycles in the bond market to target portfolio diversification benefits and participation in uptrends.

Bloomberg US Agg Bond Annual Return, with Market Low During Year



Source: Morningstar Direct 12/31/2024.
 Light blue bars represent calendar year return based on price index only and do not include dividends.
 Dark blue bars represent calendar year max drawdown, or the steepest decline from a peak to a trough during the year.
 Returns are calendar year returns from 1980 to 2024.

History of Bull and Bear Markets

As of the end of the second quarter, the current bull market was about two and a half years old and had returned about 61%. Markets generally move up slower than they drop, but the “up” periods are overwhelmingly longer and stronger than those that are “down.” This further reinforces the benefits of staying invested for the long term.

Average Bull Market

5.1 Years

Average Bull Market Cumulative Return

180%

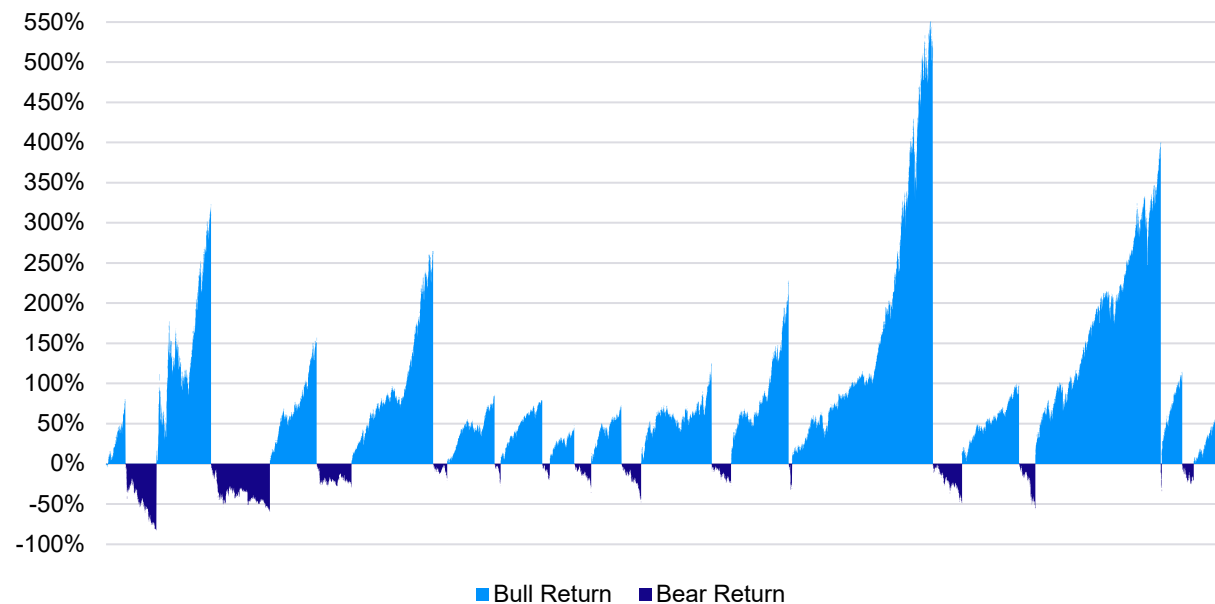
Average Bear Market Length

1.7 Years

Average Bear Market Cumulative Loss

-39%

S&P 500 Index Bull & Bear Markets Since 1928



Stocks vs. Bonds Performance in Bear Markets

- Bear markets are a natural outcome of a stock market. While on average stocks were down roughly 35.0%, bonds were up 4.6%.
- Diversifying across asset classes may provide investors with a smoother ride through all stages of the market cycle.

Start Date	End Date	Length in Months	US Stock Market Returns	Intermediate-Term Treasury Returns
1929-9	1929-11	3	-33.1%	3.4%
1930-4	1932-6	27	-79.6%	6.0%
1932-9	1933-2	6	-29.8%	2.1%
1937-3	1938-3	13	-50.0%	3.1%
1939-10	1940-5	8	-25.7%	3.9%
1941-9	1942-4	8	-22.4%	0.5%
1946-6	1946-11	6	-21.8%	0.3%
1962-1	1962-6	6	-22.3%	2.5%
1968-12	1970-6	19	-29.3%	2.6%
1973-1	1974-9	21	-42.6%	4.9%
1987-9	1987-11	3	-29.5%	2.4%
2000-9	2002-9	25	-44.7%	27.5%
2007-11	2009-2	16	-51.0%	15.6%
2020-2	2020-3	1	-19.6%	5.1%
2022-1	2022-10	9	-23.9%	-10.7%
Averages		12	-35.0%	4.6%

Source: Monthly return data from Morningstar Direct from 1/1926 to 12/2024.
 Bear market defined as a drop of 20% or more in the US stock market.
 US stock market represented by Ibbotson SBBI US Large Stock TR USD index.
 Intermediate-term Treasuries represented by IA SBBI US IT Govt TR USD index.

For Long Term Investors

It's Always a Good Time to Invest

This chart compares an S&P 500 portfolio with a cash portfolio, in which an investor made a \$1 contribution at the peak price point every year. Did the investments fare better than simply putting money in the bank? Yes, investing generated significantly higher returns than cash over the full time period, even through three brutal bear market declines!

Further:

Investing at the “worst” day each year would have produced an annualized return of about 10.2%, while staying in cash would have returned around 1.8% per year.

The market has not had historically good returns this century, including two market crashes of over 50.0% and one of the worst economic downturns in history. However, a long-term investor still beat the bank.

Growth of \$1 Contribution at Each Year's Peak Price

Year	S&P 500	Cash
1999	\$1.00	\$1.00
2000	\$1.78	\$2.06
2001	\$2.41	\$3.14
2002	\$2.64	\$4.20
2003	\$4.40	\$5.24
2004	\$5.88	\$6.31
2005	\$7.15	\$7.50
2006	\$9.27	\$8.85
2007	\$10.72	\$10.28
2008	\$7.39	\$11.46
2009	\$10.33	\$12.48
2010	\$12.88	\$13.49
2011	\$14.09	\$14.50
2012	\$17.33	\$15.51
2013	\$23.94	\$16.52
2014	\$28.20	\$17.53
2015	\$29.56	\$18.53
2016	\$34.09	\$19.58
2017	\$42.52	\$20.74
2018	\$41.52	\$22.12
2019	\$55.59	\$23.61
2020	\$66.81	\$24.73
2021	\$86.99	\$31.94
2022	\$72.05	\$26.93
2023	\$91.98	\$29.32
2024	\$115.96	\$31.87
Rate of Return	10.2%	1.8%

97 Reasons Why People Did Not Invest

There Are Plenty of Excuses For Not Investing in the Stock Market

Despite all the events listed below, \$10,000 invested in large company stocks in January of 1928 would have growth to over \$3.4 million by the end of the second quarter. It's easy to find reasons not to invest in the stock market.

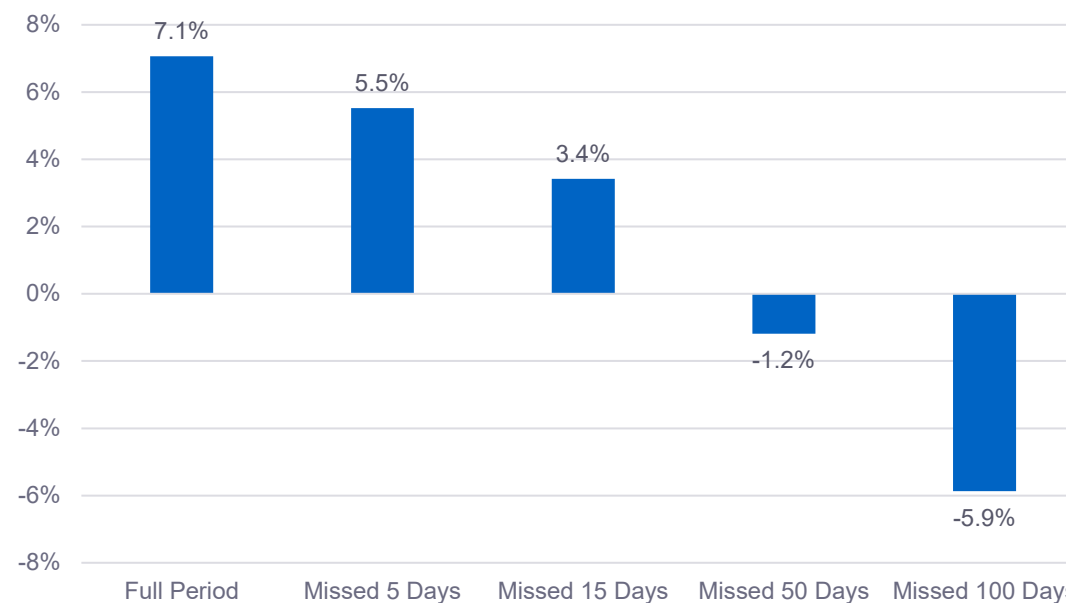
- | | | | |
|--|---|---|--|
| 1929 Stock Market Crash | 1954 First Atomic Submarine Launched | 1979 Three Mile Island | 2004 Tsunami in Asia |
| 1930 Unemployment Soars | 1955 Eisenhower Illness | 1980 Mount St. Helens Erupts | 2005 Oil Prices Increase |
| 1931 16.3% Unemployment | 1956 Suez Crisis | 1981 AIDS is Identified | 2006 Interest Rates Rise |
| 1932 24.1% Unemployment | 1957 Russia Launches Sputnik | 1982 Worst Recession in 40 Years | 2007 Sub-Prime Mortgage Crisis |
| 1933 Hitler Becomes German Chancellor | 1958 Marines Sent to Lebanon | 1983 Market Hits New Highs | 2008 Worst Market Conditions Since the 1930s |
| 1934 Dust Storms Damage 300M Acres | 1959 Castro Seizes Power in Cuba | 1984 Record Federal Deficits | 2009 General Motors Declares Bankruptcy |
| 1935 Nazis Enact Nuremberg Laws | 1960 Russia Downs U-2 Plane | 1985 Famine in Ethiopia | 2010 PIIGS Crisis in Europe |
| 1936 Spanish Civil War Begins | 1961 Berlin Wall Erected | 1986 Chernobyl Nuclear Accident | 2011 European Debt Crisis |
| 1937 Hindenburg Disaster | 1962 Cuban Missile Crisis | 1987 Stocks Drop on Black Monday | 2012 Financial Woes in Greece |
| 1938 War Clouds Gather | 1963 Kennedy Assassinated | 1988 Pan Am 103 is Bombed Over Scotland | 2013 Federal Reserve Begins to Taper |
| 1939 World War II Begins | 1964 China Detonates Atomic Bomb | 1989 Savings and Loan Crisis | 2014 Oil Prices Collapse |
| 1940 France Falls | 1965 Troops Arrive in Vietnam | 1990 Persian Gulf Crisis | 2015 China Slowdown |
| 1941 Pearl Harbor, U.S. Enters WWII | 1966 Draft Protests | 1991 Operation Desert Storm | 2016 Brexit |
| 1942 Wartime Price Controls | 1967 Arafat Becomes PLO Leader | 1992 Los Angeles Riots | 2017 High Stock Valuations |
| 1943 Income Tax Introduced | 1968 Martin Luther King, Jr Assassinated | 1993 World Trade Center Bombed | 2018 Trade tensions between U.S. and China |
| 1944 Battle of the Bulge | 1969 Money Tightens - Market Falls | 1994 Fed Raises Interest Rates Six Times | 2019 Inverted U.S. Treasury Yield Curve |
| 1945 U.S. Bombs Japan | 1970 Cambodia Invaded - Vietnam War Spreads | 1995 U.S. Troops to Bosnia | 2020 COVID-19 Pandemic |
| 1946 Work Stoppages in Coal and Steel | 1971 Anti-war Protest in Washington | 1996 Whitewater Scandal | 2021 Meme Stock Craze |
| 1947 Cold War Begins | 1972 Watergate Scandal | 1997 Hong Kong Reverts to China | 2022 Highest Inflation since 1980s |
| 1948 Soviet Blockade of Berlin | 1973 Oil Crisis | 1998 President Clinton Impeached | 2023 Global Banking Sector Turmoil |
| 1949 Russia Explodes Atomic Bomb | 1974 Watergate - Nixon Resigns | 1999 Y2K Scare | 2024 Wars in Ukraine and Middle East |
| 1950 Korean War Begins | 1975 Attempted Assassination of President Ford | 2000 Technology Bubble Burst | 2025 Trump Tariffs/Global Trade War Uncertainty |
| 1951 Presidential Term Limit Ratified | 1976 High Unemployment | 2001 Terrorist Attacks on America | |
| 1952 U.S. Detonates First H-Bomb | 1977 Market Slumps | 2002 Corporate Accounting Scandals | |
| 1953 Russia Explodes H-Bomb | 1978 Record High Interest Rates | 2003 War in Iraq | |

For Long Term Investors

It's Always a Good Time to Invest

- If an investor stayed invested the entire 24-year period shown in the chart to the right, they would have achieved a return of about 7.1% per year.
- If they tried to market time and missed the best 5 days, then their return would drop to about 5.5%.
- If they missed the best 15 days, then they would be up around 3.4% – barely outpacing inflation.
- What's tough about market timing is knowing that some of the best days of the market occur within weeks of the worst days.

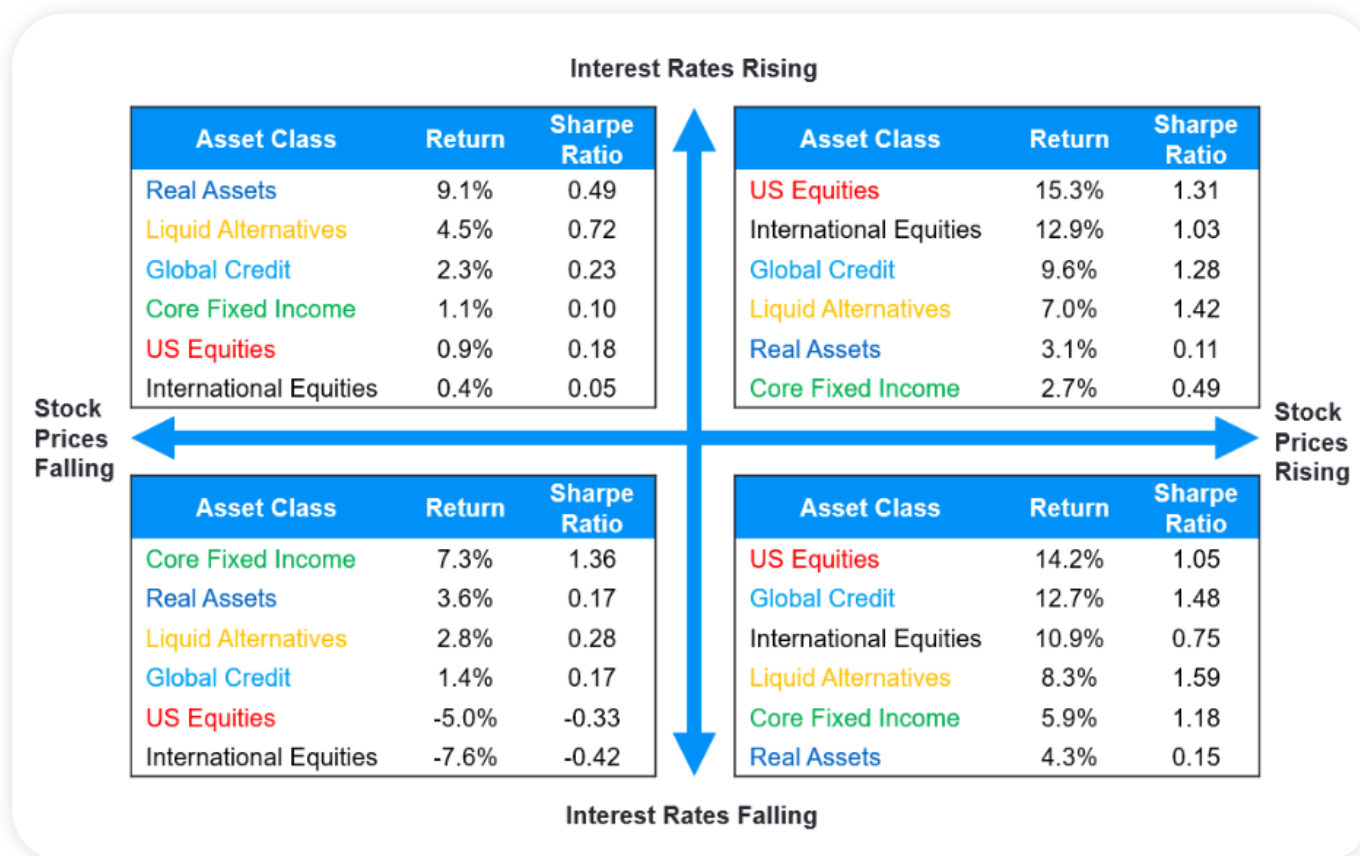
MSCI ACWI Annualized Returns 1/1/2001 – 9/30/2025



| All-Seasons Investing

All-Seasons Investing: Interest Rates

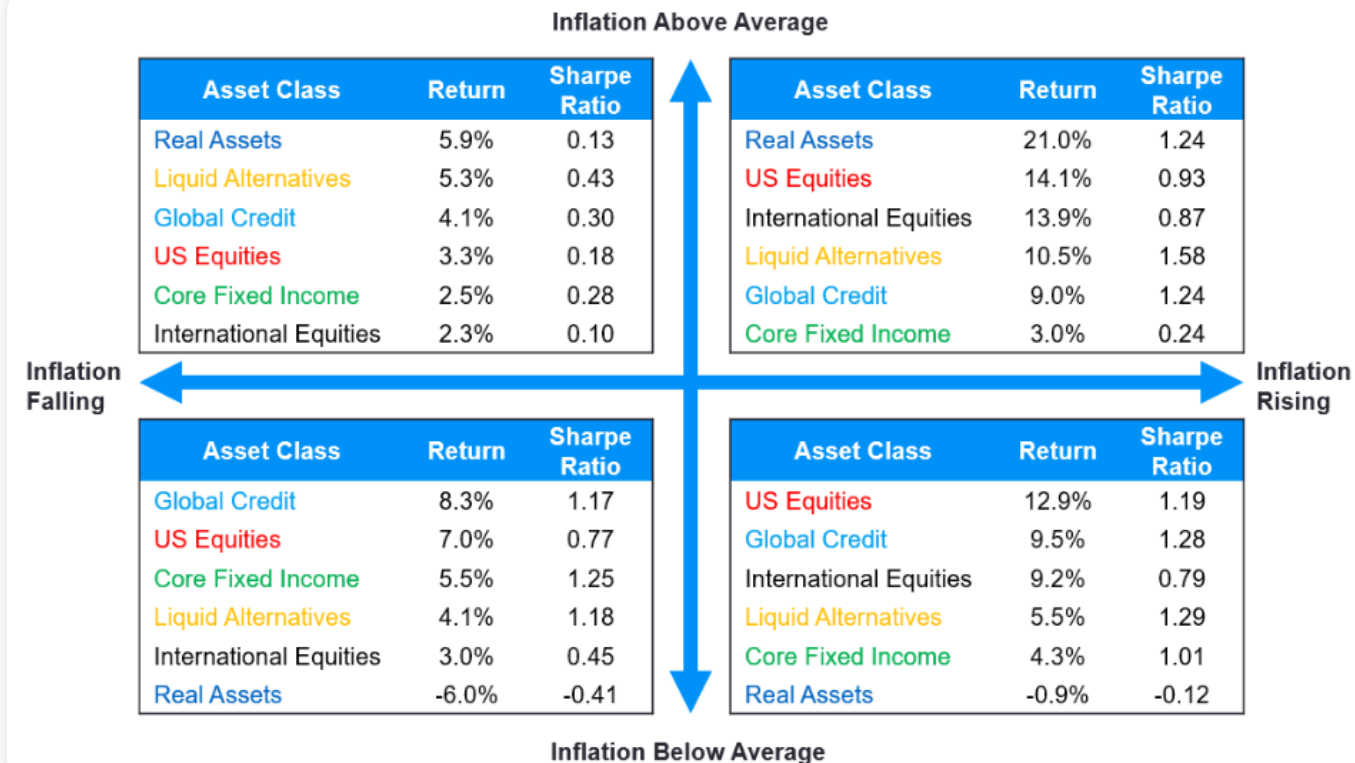
- All-Seasons Investing is the idea that each asset class reacts differently to various market cycles and trends, and so, through disciplined asset allocation, an all-seasons investor may capture strong returns while mitigating downside risk.
- In the first quarter, stocks were falling, and short-term interest rates were steady.
- When markets are operating efficiently, riskier investments like equities and global credit have performed well since 1999, but in times of heightened volatility, diversifiers like core fixed income and inflation hedges like real assets and alternatives have strongly outperformed equities.



Risk and return metrics are rolling, trailing 12 months.
 Return data from Morningstar. Yields data from the Federal Reserve Bank of St. Louis.
 Monthly data spans from 1/1/1999-9/30/2025.
 Benchmarks used: US Equities: Russell 3000 TR USD; Int'l Equities: MSCI ACWI Ex USA GR USD; Core Fixed Income: Bloomberg US Agg Bond TR USD; Liquid Alternatives: Credit Suisse Hedge Fund USD; Global Credit: 50% Bloomberg High Yield Corporate TR USD + 50% Bloomberg EM Ex US Agg TR USD; Real Assets: Bloomberg Commodity TR

All-Seasons Investing: Inflation

- Looking instead at inflation levels and trends, the All-Seasons Investing thesis again has merit.
- In the first quarter, inflation was about average and falling.
- Real Assets and Liquid Alternatives have proved to be effective inflation hedges since 1999, while global credit and core fixed income have both benefitted from times of falling inflation.



Risk and return metrics are rolling, trailing 12 months.
 Return data from Morningstar. Yields data from the Federal Reserve Bank of St. Louis.
 Monthly data spans from 1/1/1999-9/30/2025.

Benchmarks used: US Equities: Russell 3000 TR USD; Int'l Equities: MSCI ACWI Ex USA GR USD; Core Fixed Income: Bloomberg US Agg Bond TR USD; Liquid Alternatives: Credit Suisse Hedge Fund USD; Global Credit: 50% Bloomberg High Yield Corporate TR USD + 50% Bloomberg EM Ex US Agg TR USD; Real Assets: Bloomberg Commodity TR

| Why Global Equities?

A Larger Investment Opportunity Set

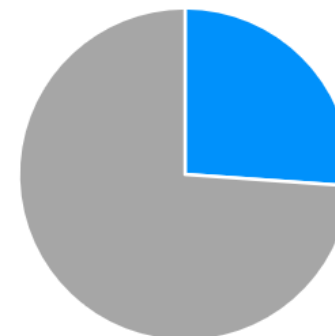
- While the US dominates the global market cap, making up 64% of investible market cap, non-US dominates GDP. The US only accounts for 26% of world GDP.
- US stocks only make up 10% of the listed companies in the world.
- The US also only makes up 4% of the global population and is growing at a much slower rate than other areas of the world.
- Larger investment opportunity set = more opportunities to enhance returns.

% of World Population



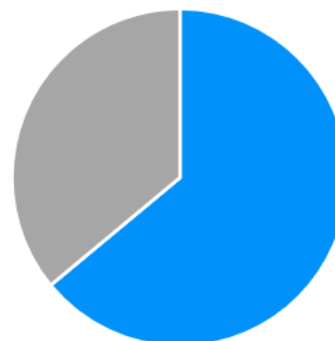
■ US ■ World ex US

% of World GDP



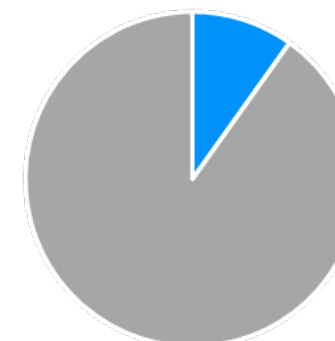
■ US ■ World ex US

% of Investible Market Cap



■ US ■ World ex US

% of Listed Companies

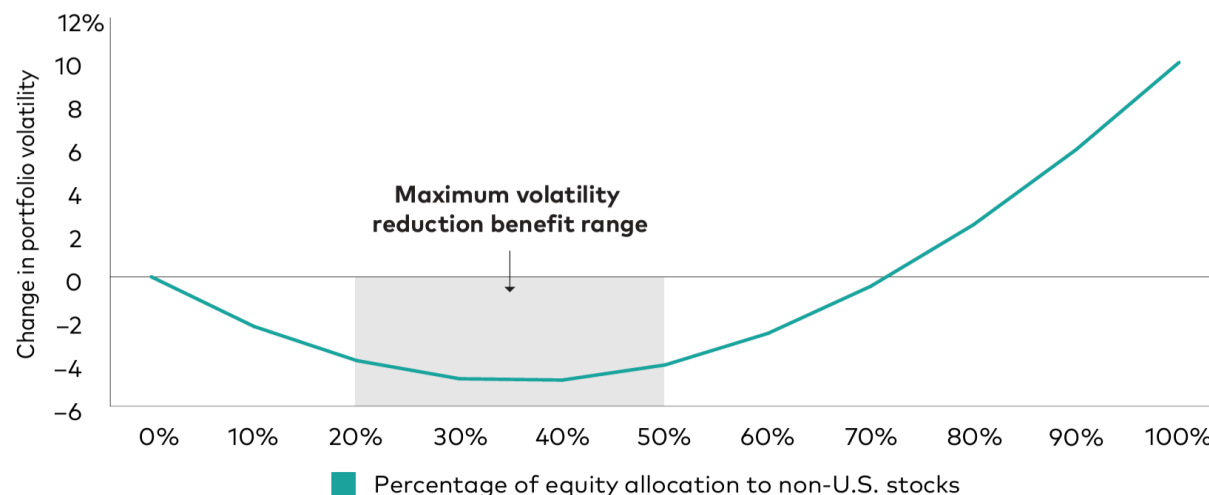


■ US ■ World

Why International? It Helps Reduce Risk

- Since 1970, maximum risk reduction benefits are gained from an international allocation between 20% and 50%.
- In addition, it's likely the trend toward more globalization peaked a few years ago, which in turn means we expect that correlations between economies and markets will decrease.
- Falling correlations would even further increase the diversification benefits of an allocation to international equities.

Average Annualized Change in Portfolio Volatility When Adding Non-US Stocks to a US Portfolio 1970-2023

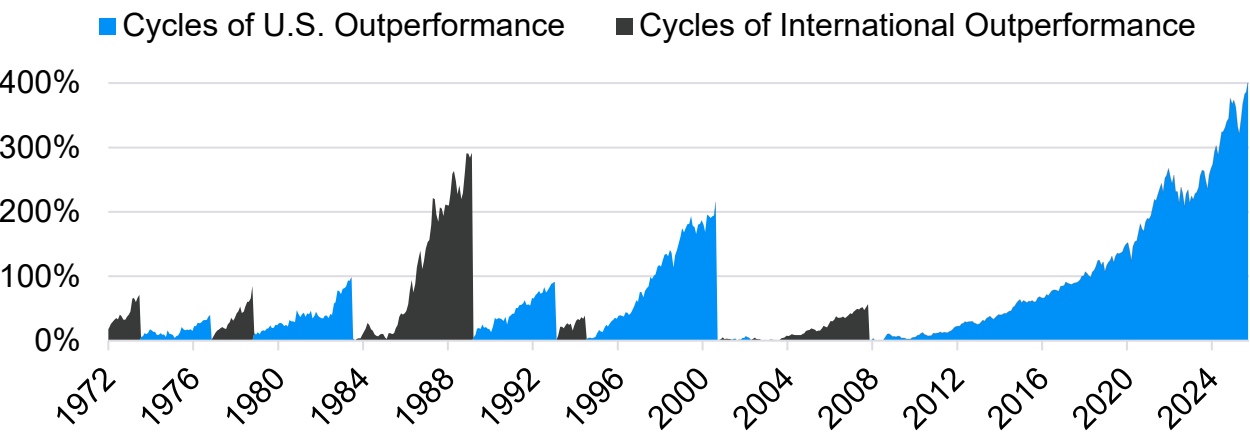


Source: Vanguard
 Notes: Non-U.S. equities represented by MSCI World Index ex USA and U.S. stocks are represented by the MSCI USA Index from March 31, 1970, through March 31, 2020. Past performance is no guarantee of future results. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.
 Sources: Derived from data provided by Vanguard and MSCI as of January 31, 2023.

Reversion to the Mean

U.S. market returns versus those of international markets tend to be cyclical in nature. The current cycle length of U.S. outperformance is the longest since 1970 and it's more than double the historic average of 82 months. The 367.3% outperformance is more than the historic performance average of 162.1%. Due to the stretched period of U.S. outperformance, there is a higher likelihood of a reversal in performance in favor of international markets due to the historic tendency of reversion to the mean.

Cumulative Relative Performance of the MSCI EAFE Index Relative to the S&P 500 Index



Cycles of International Outperformance

Start Date	End Date	# of Months	Performance
1971	1973	31	71.0%
1976	1978	24	85.0%
1983	1989	68	292.0%
1993	1994	17	39.0%
2000	2007	86	57.0%
Average		45	108.8%

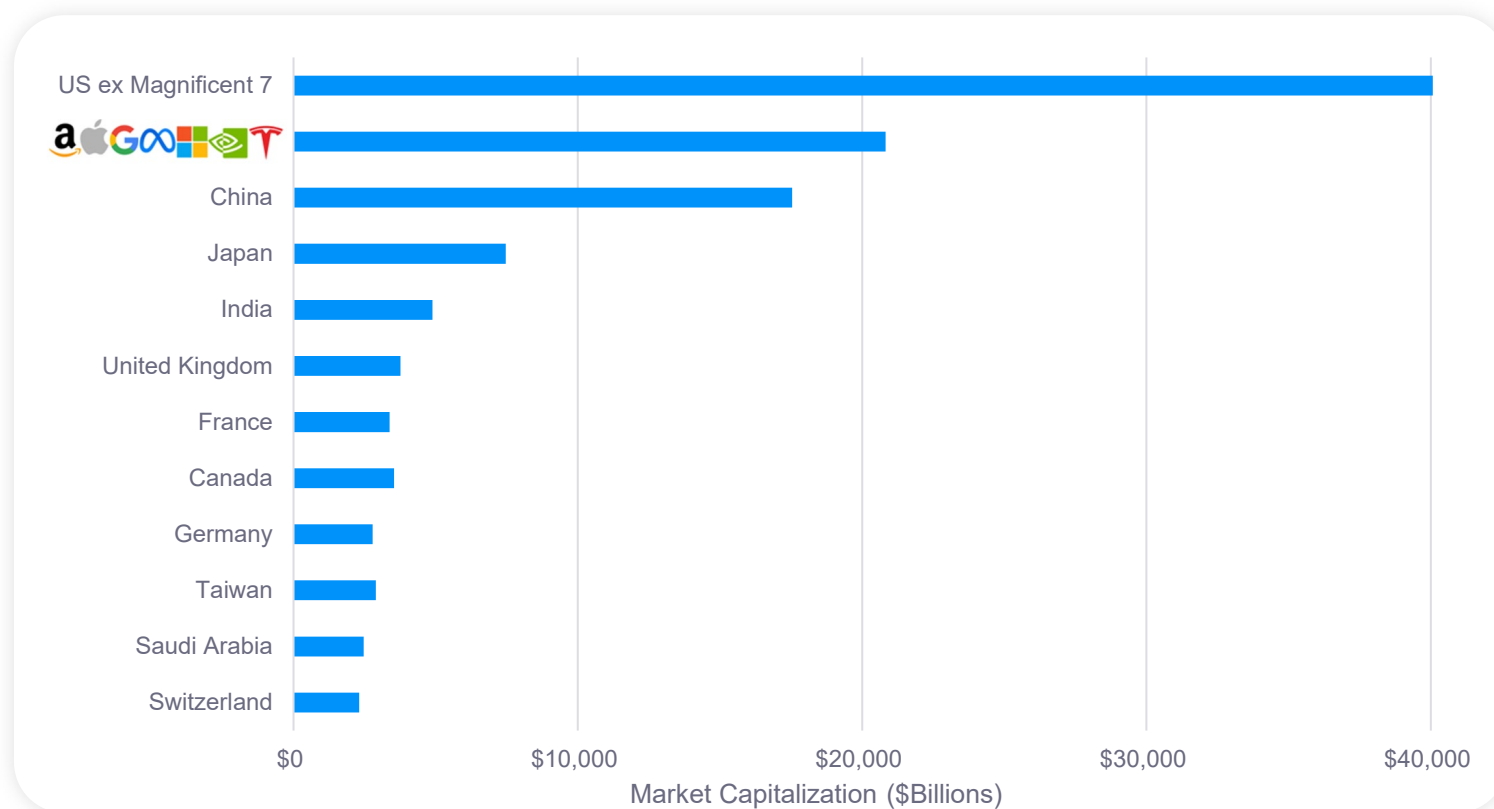
Cycles of U.S. Outperformance

Start Date	End Date	# of Months	Performance
1973	1976	40	39.0%
1978	1983	57	98.0%
1989	1993	47	91.0%
1994	2000	74	215.0%
2007	Present	215	403.6%
Average		87	169.3%

The US Stock Market is Concentrated

Potential Catalyst for Relative Performance Change

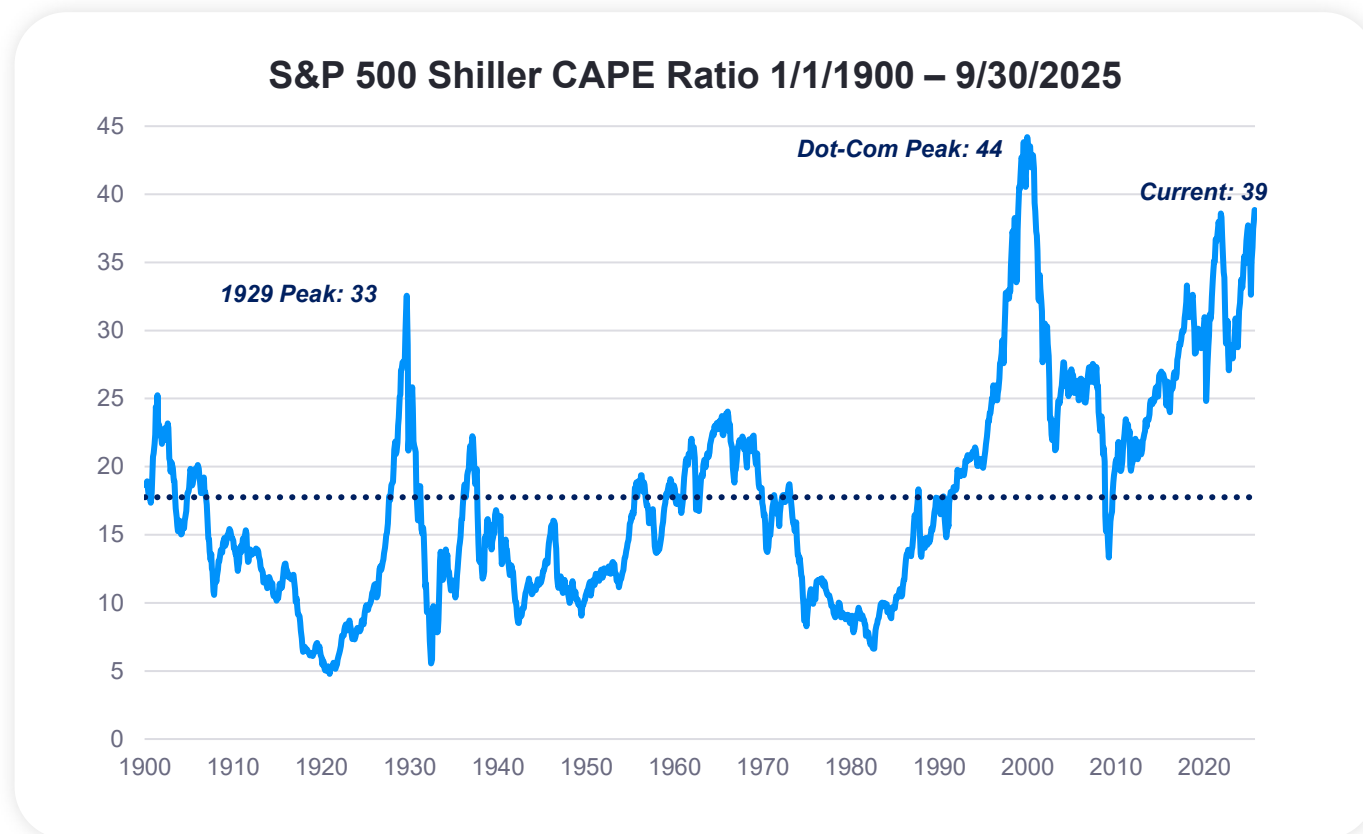
- The “Magnificent Seven” stocks in total have a higher market cap than every country in the world except the US.
- The Magnificent Seven is worth more than the 3rd through 6th countries combined: Japan, India, the U.K., and France.



The US Stock Market is Expensive

Potential Catalyst for Relative Performance Change

- The US stock market is expensive compared to history on a variety of valuation metrics, including the CAPE Ratio.
- The current CAPE Ratio is 39, which falls in the 98th percentile of valuations going back to 1900.
- Outside of recent years, the US stock market has only been this expensive once – in the late 1990s at the peak of the Dot-Com Bubble.
- Despite valuations expanding this year (despite rising interest rates), valuations appear to have peaked.



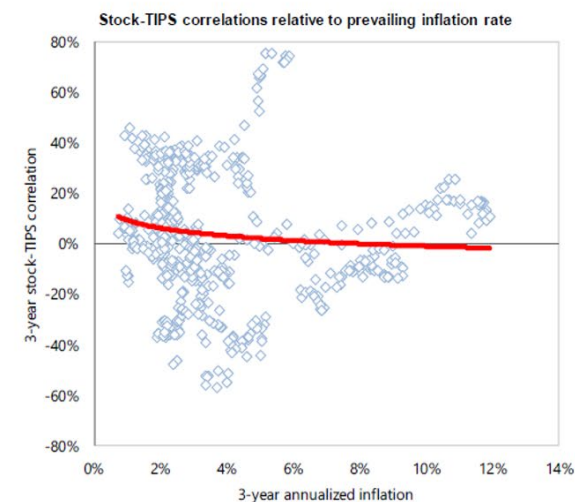
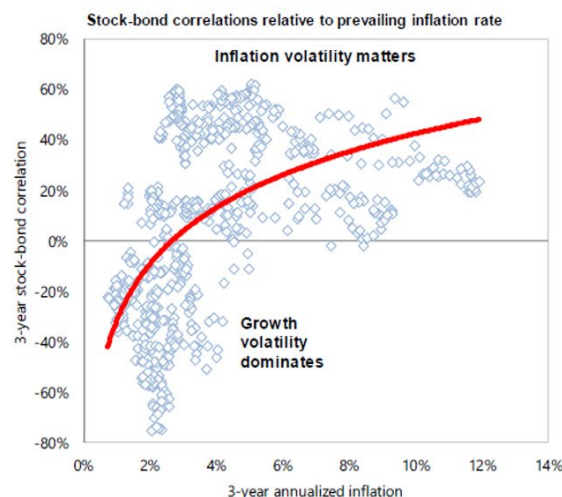
| Why Real Assets?

Why Real Assets Now?

- Stocks and Bonds are typically thought to have relatively low correlations to each other, providing strong diversification benefits in a strictly stock and bond portfolio.
- Inflation affects stocks and bonds similarly, as rising interest rates diminish existing bond value while also stifling growth for equities, pushing up the correlation between them.
- A rising correlation between stocks and bonds raises a need for a new diversifier in portfolios – an area in which real assets fit nicely as both a diversifier and an inflation hedge.

High inflation often leads to higher stock/bond correlations

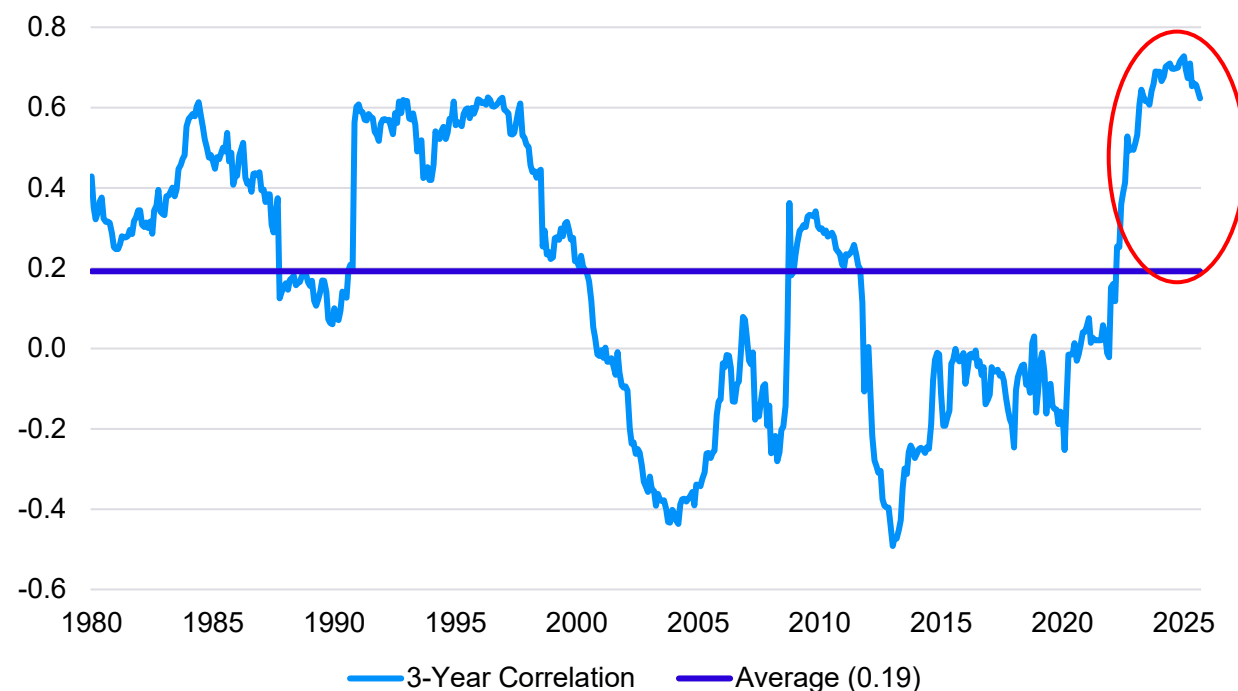
To maintain diversification amid high inflation, investors may need to consider re-allocating portfolios and potentially consider including real assets



Why Real Assets Now?

- In recent years, stocks and bonds have been the most highly correlated they've been since 1995 due to recent inflation.
- In 2022, the traditional 60% equity, 40% bond portfolio lost 16% - one of its worst years ever
- This higher correlation creates space for real assets to function as both diversifiers and an inflation hedge.

3 Year Correlation between Stocks and Bonds



Real Assets

Diversification

- This chart shows the 10-year correlations between stocks, bonds, and real assets.
- Real assets generally have lower correlation with traditional stocks and bonds, and even diversification benefits amongst real asset sub-sectors

Asset Class	US Stocks	US Bonds	Precious Metals	Natural Resources	Commodities	Infrastructure	Global Real Estate
US Stocks	1.00	0.39	0.26	0.72	0.40	0.76	0.81
US Bonds	0.39	1.00	0.43	0.21	-0.03	0.45	0.59
Precious Metals	0.26	0.43	1.00	0.48	0.25	0.47	0.42
Natural Resources	0.72	0.21	0.48	1.00	0.68	0.79	0.72
Commodities	0.40	-0.03	0.25	0.68	1.00	0.53	0.41
Infrastructure	0.76	0.45	0.47	0.79	0.53	1.00	0.88
Global Real Estate	0.81	0.59	0.42	0.72	0.41	0.88	1.00

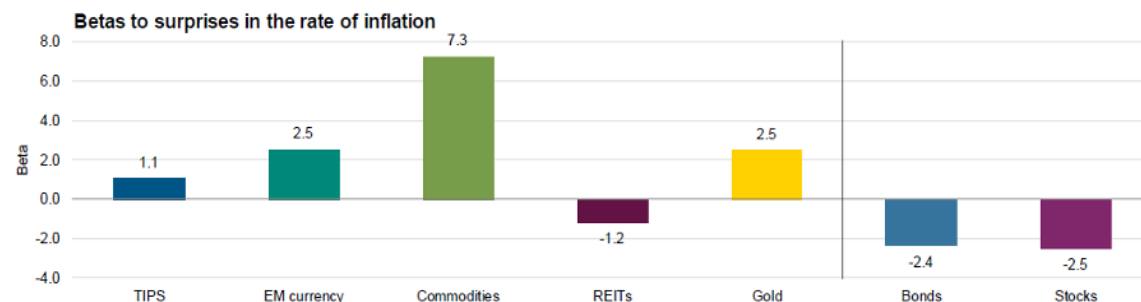
Real Assets

Inflation Hedging

- This chart measures the return sensitivity of different asset classes to changes in the rate of inflation.
- Real assets have historically performed well in times of rising inflation and are a common inflation hedge in many portfolios. Many real asset groups have high betas to unexpected inflation.
- Important to note from this information is the nearly identical negative beta to inflationary surprises that stocks and bonds share.
- Real assets also strongly outperform TIPS during inflationary surprises. Many investors tend to default to TIPS as their only inflation hedge, but real assets have a track record of further outperformance.

Real assets are an effective portfolio diversification tool against inflationary surprises

Return sensitivity to changes in the rate of inflation



U.S. Market Versus Commodities

This chart shows the relative price of the S&P 500 to the price of commodities (represented by PPI). When stocks outperform commodities, the chart rises, and when commodities outperform stocks, the chart declines. As you can see, commodities tend to perform better relative to stocks during inflationary periods, denoted by the red shading. Currently, commodities are trading at an all-time low relative to stocks.

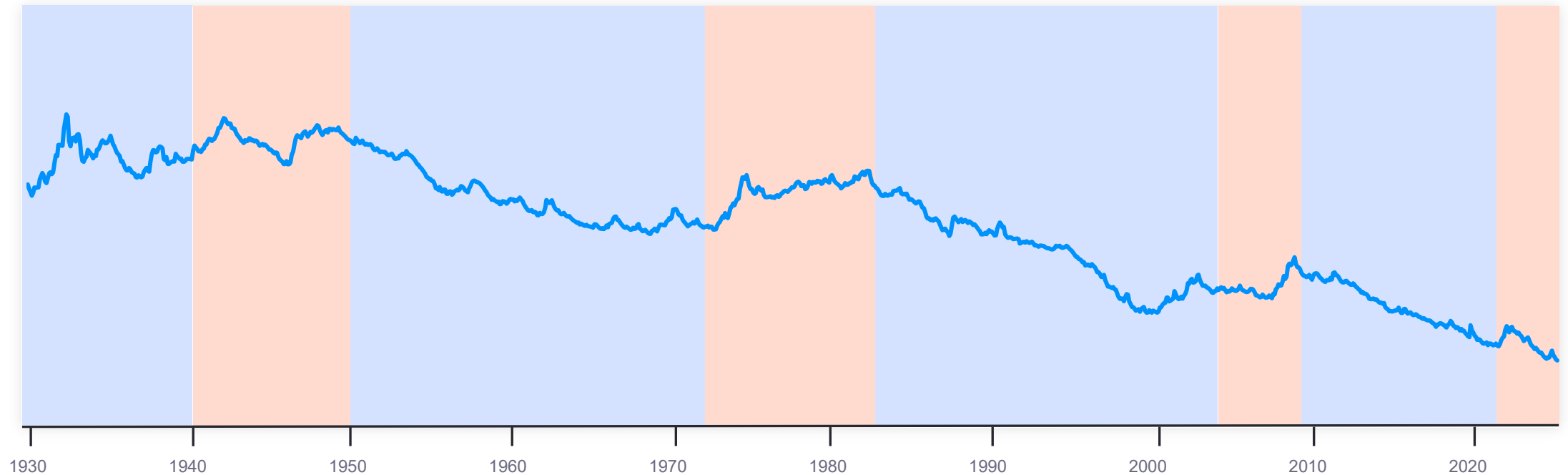
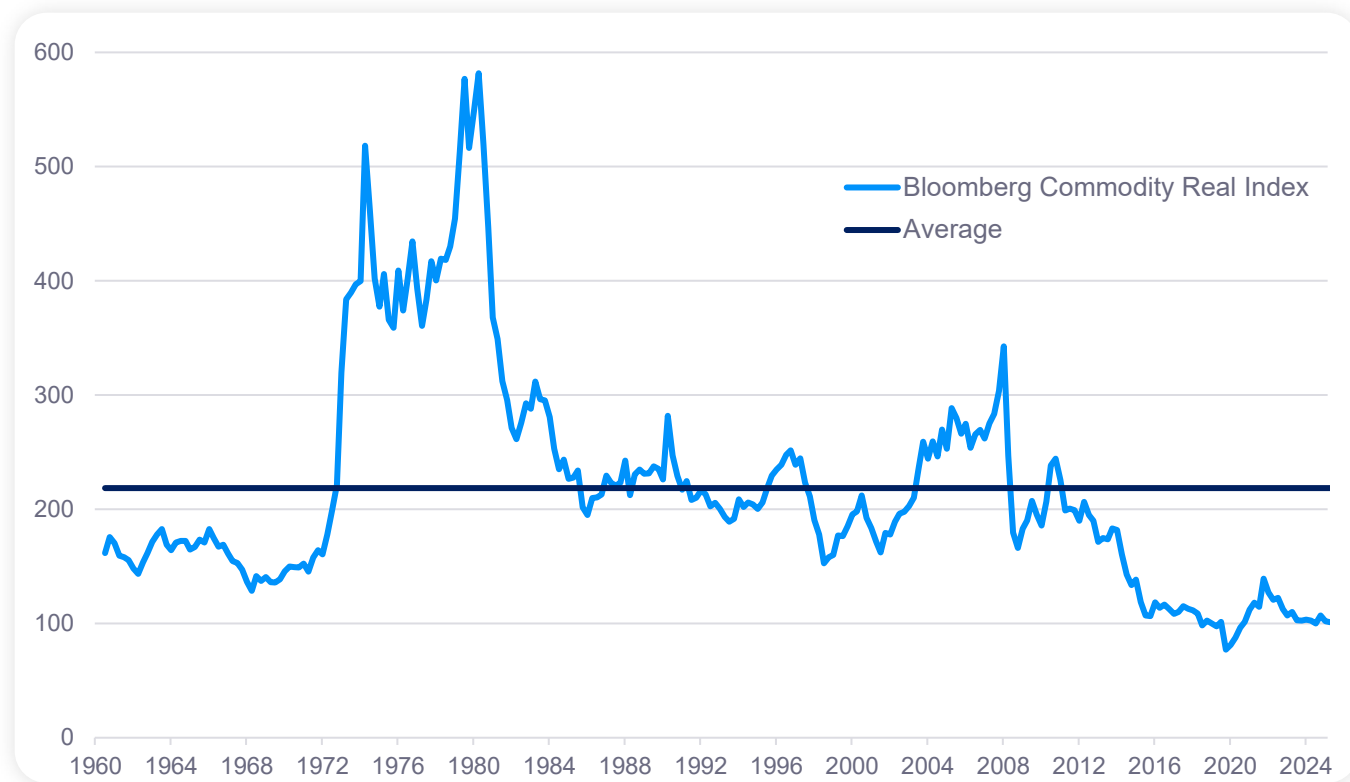


Chart represents the ratio of S&P 500 : PPI from 1930-2025
S&P 500 Price Return Source: Morningstar
Bonds represented by IA SBBI US Intermediate Govt TR
PPI Data from St. Louis Federal Reserve "FRED" Database

Why Real Assets Now?

Commodity Valuation

- This chart shows the inflation-adjusted value of the Bloomberg Commodity Real Index over time.
- Most sub-sectors of real assets are trading at discounts to the market and history. Commodities have been trading below the historical average for over a decade.



| Additional Resources

Resources Tailored For You

Weekly Wire

Start every week off right with market perspectives and prose penned by Tim Holland and the Investment Strategy Team, plus more resources deigned to make client conversations a breeze



Reference Guide

A quarterly guide to help advisors and investors learn more about Orion Portfolio Solutions, understand the value of professional money management, navigate the markets, and more.



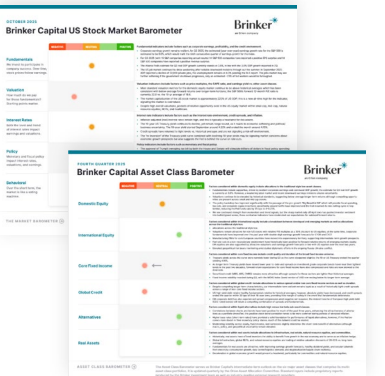
Chart Pack

The OPS Chart Pack reviews composite relative valuations from the last 20 years and they might mean for investors.



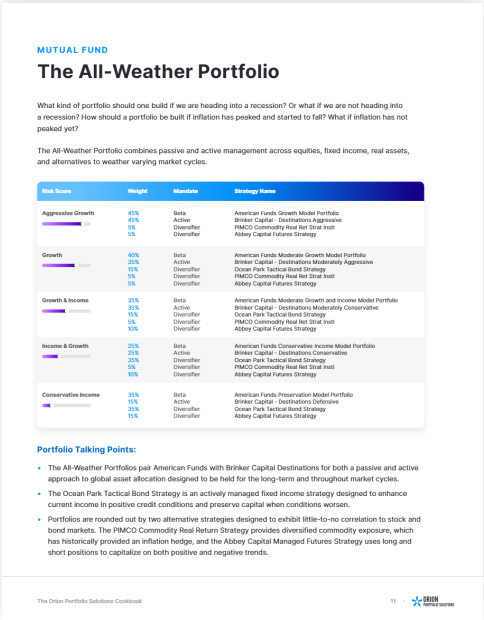
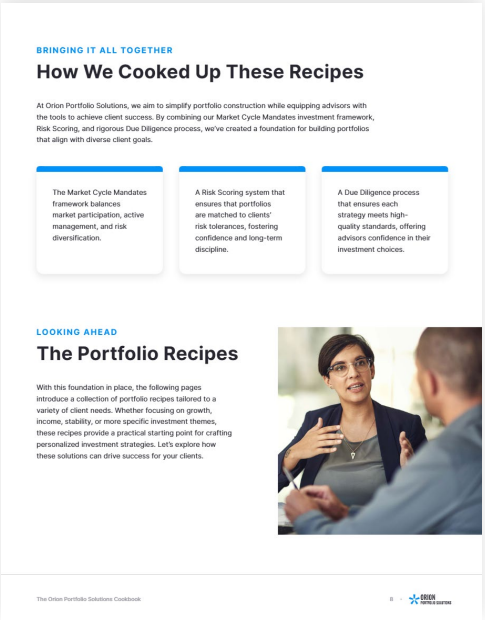
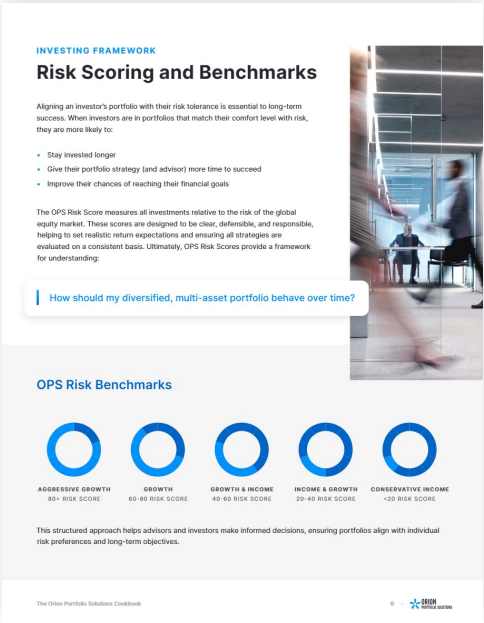
Brinker Barometer

The Brinker Capital Stock Market Barometer is our monthly assessment of different factors that impact market performance.



OPS Cookbook

- Crafted by Orion's Investment Strategy Team, the 2025 Orion Portfolio Solutions (OPS) Cookbook serves as an introduction to our investment offerings and philosophies as well as a collection of pre-designed portfolio recipes.
- These recipes are tailored to meet diverse investment objectives and are easily implemented on the OPS platform.
- With this guide, advisors can confidently build portfolios that are both diversified and aligned with clients' unique financial objectives.

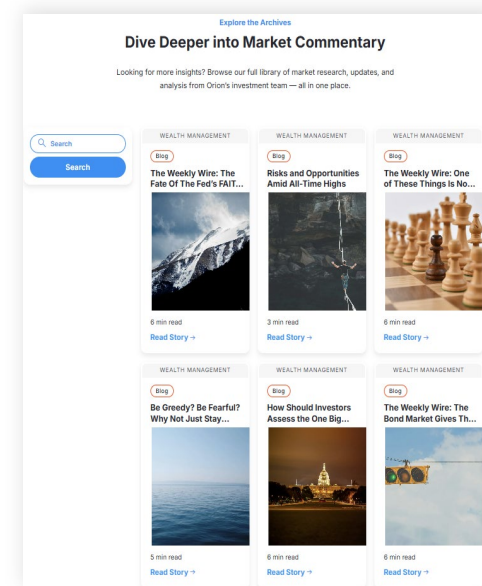
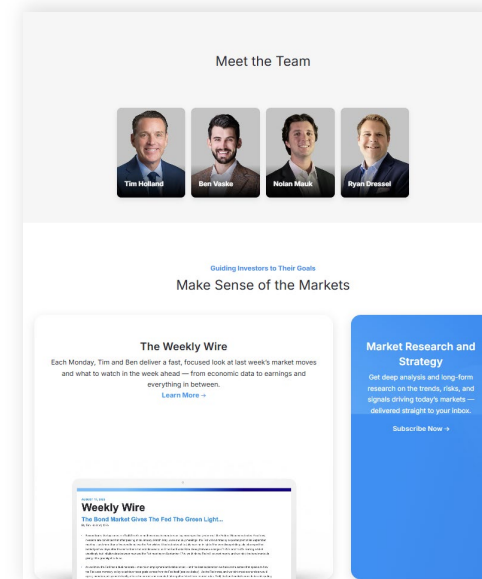
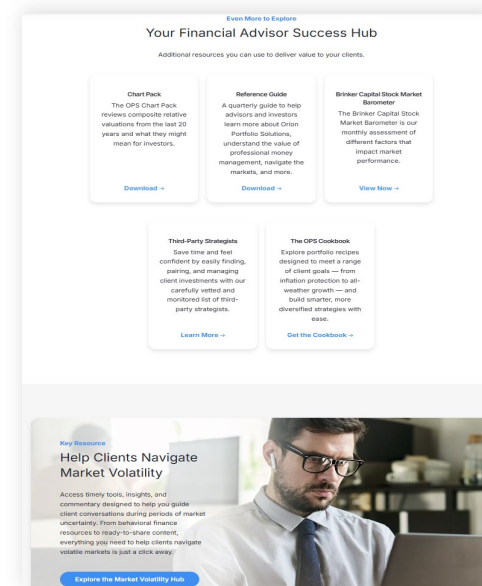
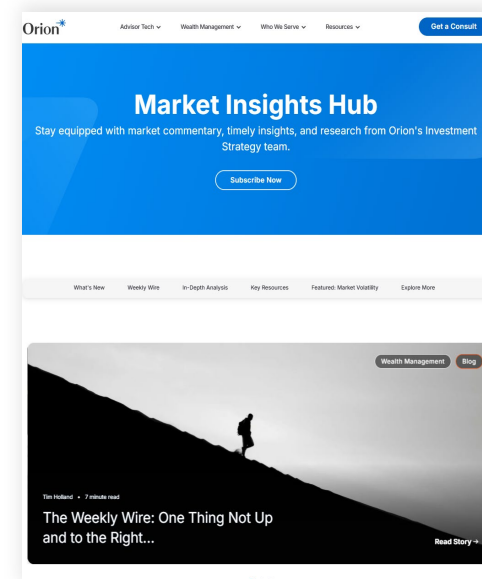


Orion Market Insights Hub

- The new Orion Market Insights Hub is the primary store of all content from the Investment Strategy Team and other Investments material.
- This site includes access to our weekly, monthly, quarterly, and annual content including blogs, presentations, chart packs, and more.



orion.com/wealth-management/market-insights



| Our Team

Investment Strategy Team

The Investment Strategy team serves financial advisors, investors, and Orion stakeholders through thoughtful investment education, timely market content, and one-on-one consultations. We strive to achieve our key objectives of keeping clients invested, diversified, and disciplined by building resilient portfolios crafted to withstand any market cycle.



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Senior Investment Strategy

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Nolan Mauk, BFA

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strategists@brinkercapital.com

These addresses will reach our entire team and can be used to ask questions or help with various requests including:

- Portfolio Construction
- Strategy Selection
- Strategy Information
- Strategy Comparisons
- Performance and Flows Data
- Ad Hoc Presentation requests
 - And more!

Ben Vaske, BFA

Manager, Investment Strategy

Ben Vaske manages Orion's Investment Strategy Team, which focuses on delivering macroeconomic and capital markets research, client portfolio management, and discretionary portfolio support to financial advisors seeking to streamline their investment processes.

Ben earned a Bachelor of Science in Business Administration with concentrations in finance and accounting from the University of Nebraska–Lincoln and an MBA from Creighton University. Before joining Orion, he worked on the finance team at Blue Cross Blue Shield of Nebraska.

He is a CFA Level III candidate and holds the Behavioral Financial Advisor (BFA) and the Certified in Blockchain and Digital Assets (CBDA) designations. His market commentary has been featured in publications such as The Wall Street Journal, Reuters, Forbes, Yahoo Finance, and Kiplinger.



Ryan Dressel

Senior Investment Strategist



Ryan Dressel is a Senior Investment Strategist at Orion Advisor Solutions. In this role, Ryan is responsible for developing, procuring, and delivering investment content for key internal and external relationships. He works closely with the Chief Investment Officer to produce independent research, generate new investment ideas, and engage with industry leaders. Additionally, Ryan serves on Orion's investment committee and as a voting member on Orion's asset allocation committee; a senior group that sets market outlook expectations and portfolio positioning decisions on a quarterly basis.

Ryan has over twelve years of industry experience and has completed progress toward the Chartered Financial Analyst (CFA) designation, as well as being registered with Orion as an Investment Advisor Representative (IAR). Prior to joining Orion, Ryan was an analyst at Brinker Capital performing due diligence on third-party investment strategies utilized on Brinker's discretionary strategic risk models. Ryan also worked as an analyst at Helmes & Company (now part of Veritas Advisory Group) and as an operations associate at Upromise Investments. Ryan received his Bachelor of Science in finance from Bentley University.

Nolan Mauk, BFA

Investment Research Analyst

Nolan Mauk currently serves as an Investment Research Analyst on the Investment Strategy team at Orion. In his role, Nolan leverages the strategies on the Orion platform to help financial advisors build resilient portfolios, seeking to provide better investment outcomes for their clients. Nolan also regularly conducts research on various financial and economic topics to provide relevant market commentary in the forms of blogs, white papers, and presentations.

Nolan received his Bachelor of Science in Business Administration with highest distinction, with emphases in finance and economics, from the University of Nebraska-Lincoln.

Nolan is a Level III CFA Candidate and holds the Behavioral Financial Advisor (BFA) designation.



Wealth Management Sales Map

NATIONAL

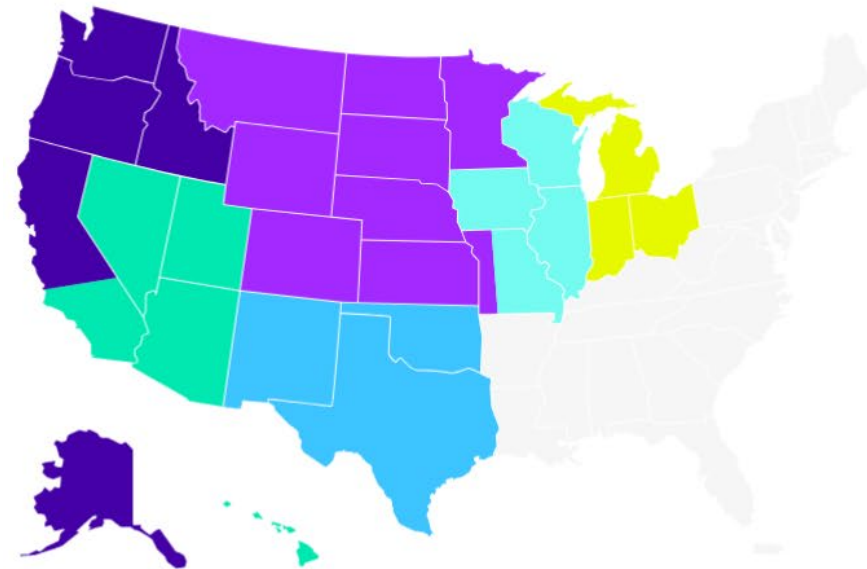
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Wealth Management Sales Map

NATIONAL

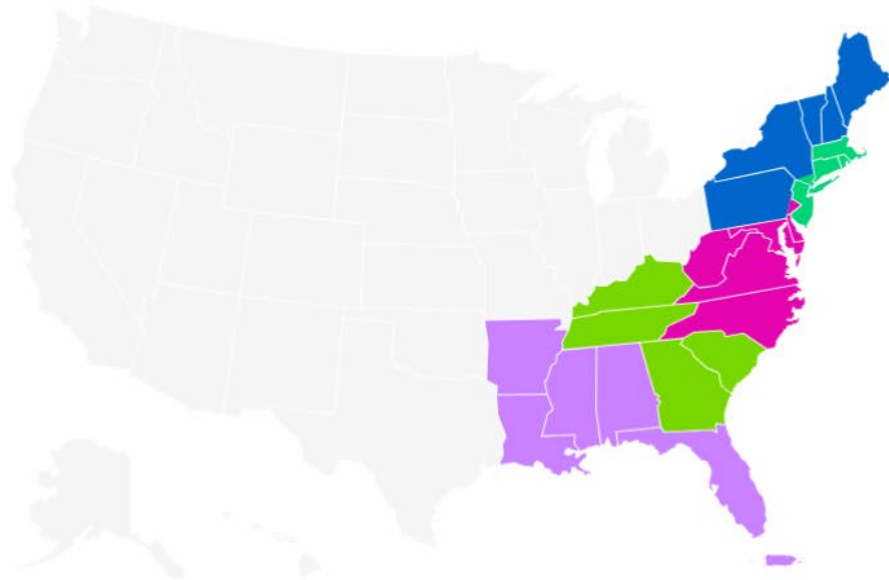
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| Glossary and Disclosures

Glossary - Indexes

An index is an unmanaged group of stocks considered to be representative of different segments of the stock market in general. You cannot invest directly in an index.

- **Bloomberg Barclays Capital U.S. Aggregate Bond Index:** An index used by bond funds as a benchmark to measure relative performance. This index includes government, mortgage-backed, asset-backed, and corporate securities.
- **MSCI Emerging Markets Index:** Seeks to track the investment results of an index composed of large- and mid-cap emerging market equities.
- **Bloomberg Commodity Index:** The index is made up of 22 exchange-traded futures on physical commodities and represents 20 commodities that are weighted to account for economic significance and market liquidity.
- **MSCI ACWI Index (MSCI All-Countries World Index):** an index considered representative of stock markets of developed and emerging markets.
- **MSCI ACWI ex-U.S. Index:** An index considered representative of stock markets of developed and emerging markets, excluding those of the U.S.
- **MSCI EAFE Index:** Measures international equity performance. It comprises the MSCI country indexes capturing large- and mid-cap equities across developed markets in Europe, Australasia, and the Far East, excluding the U.S. and Canada.
- **S&P 500 Index:** A stock market index based on the market capitalizations of 500 large companies having common stock listed on the NYSE or NASDAQ. This index is representative of large-cap stocks.
- **Morningstar Global Market Large-Mid Index:** An index that measures the performance of the global market's equity markets targeting the top 90% of stocks by market capitalization.
- **Morningstar U.S. Market Index:** An index that measures the performance of U.S. securities and targets 97% market capitalization coverage of the investable universe. It is a diversified broad market index.
- **Morningstar U.S. Large Cap Index:** An index that measures the performance of U.S. large-cap stocks. These stocks represent the largest 70% capitalization of the investable universe.
- **Morningstar U.S. Small Cap Index:** An index that measures the performance of U.S. small-cap stocks. These stocks fall between the 90th and 97th percentile in market capitalization of the investable universe. In aggregate, the Small Cap Index represents 7% of the investable universe.
- **Morningstar Global ex U.S. Large-Mid Index:** An index that measures the performance of Global Markets (ex-U.S.) equity markets targeting the top 90% of stocks by market capitalization.
- **Morningstar DM ex U.S. Large-Mid Index:** An index that measures the performance of developed markets ex-U.S. equity markets targeting the top 90% of stocks by market capitalization.
- **Morningstar EM Large-Mid Index:** An index that measures the performance of emerging markets targeting the top 90% of stocks by market capitalization. The Barclay's Capital U.S. Aggregate Bond® Index measures the performance of the total United States investment-grade bond market.
- **Morningstar Cash Index:** An index that measures the performance of a Treasury Bill with six to eight weeks until maturity in the U.S. market.
- **Bloomberg Commodity Index:** The index is made up of exchange-traded futures on physical commodities and represents commodities that are weighted to account for economic significance and market liquidity. This index provides investors with a means of understanding the performance of commodity futures markets and serves as a benchmark for investment performance of commodities as an asset class.
- **Morningstar Gbl Real Estate NR USA Index:** measures the performance of mortgage companies, property management companies, and REITs.
- **Wilshire Liquid Alternative IndexSM:** measures the collective performance of the five Wilshire Liquid Alternative strategies that make up the Wilshire Liquid Alternative Universe.

Glossary – Indexes (continued)

An index is an unmanaged group of stocks considered to be representative of different segments of the stock market in general. You cannot invest directly in an index.

- **Russell 3000 Index:** An index constituted by the 3,000 largest companies in the United States. It is commonly thought to represent the entire U.S. stock market.
- **S&P Global Gold BMI Index:** An index tracking the performance of companies classified as belonging to the gold sub-industry within the larger S&P Global BMI.
- **S&P Global Natural Resources Index:** An index tracking the performance of companies classified as belonging to the natural resources industry.
- **S&P Global Infrastructure Index:** An index tracking the performance of companies classified as belonging to the infrastructure industry.
- **DJ Global World Real Estate Index:** An index designed to measure the performance of publicly traded global real estate securities.

Glossary - Factors

Factor investing breaks down the individual drivers of long-term return and targets investments that excel in one or more of these drivers.

Equity Factors

Quality Factor: The quality factor describes the profitability and financial leverage of a company, based on an equally weighted mix of trailing 12-month returns on equity and debt-to-capital ratios. A higher exposure to the quality factor indicates a higher quality of the firm.

Value Factor: The value factor targets stocks trading at low multiples of fundamental measures like earnings, book value, cash flow and sales.

Volatility Factor: The volatility factor describes the maximum-observed spread in long-term returns, based on the trailing 12-month standard deviation of daily returns. A higher exposure to the volatility factor indicates larger variation in long-run outcomes.

Momentum Factor: The momentum factor describes how much a stock has risen in price over the past year relative to other stocks, calculated by subtracting the trailing one-month return from the trailing 12-month return. A higher exposure to the momentum factor indicates the company has performed well recently.

Size Factor: The size factor describes the market capitalization of a company, based on the same measure used for the Morningstar Style Box. A higher exposure to the size factor indicates smaller market capitalization. (Though we plot large-cap exposure at the top of the size capsule to simplify the Factor Profile visual and keep all “high” or “large” indicators aligned at the top).

Fixed Income Factors

Cash Factor: This factor refers to holding cash and cash equivalents.

Credit Factor: The credit factor refers to targeting lower credit quality in the pursuit of possible higher yields.

Duration Factor: The duration factor refers to targeting bonds with longer maturities.

Glossary - Miscellaneous

Beta: A measure of volatility, or systematic risk of a security or a portfolio in comparison to the market as a whole. A beta of 1 indicates that the portfolio will likely move with the market. Anything less than 1 indicates that the security or the portfolio is typically less volatile than the market.

Cyclically Adjusted Price to Earnings Ratio (CAPE): A valuation ratio created by Yale professor of economics Robert Shiller which divides a company's share price by the average of its inflation-adjusted earnings over the past ten years.

Dividend Yield: Calculated by annual dividends per share divided by price per share. This ratio indicates how much a company pays out in dividends each year relative to its share price.

Downside Capture Ratio: A measure of performance in down markets. The ratio is calculated by dividing the manager's returns by the returns of the index during the down-market and multiplying that factor by 100.

Earnings Growth: The annual rate of growth of earnings from investments.

Earnings Yield: Calculated by earnings per share divided by price per share. This ratio shows the percentage of each dollar invested in the stock that was earned by the company.

Exchange Traded Fund (ETF): An exchange traded fund (ETF) is an investment fund that is priced and traded on an exchange throughout the day just like a stock. ETFs hold a basket of securities (stocks, commodities, or bonds), and most track an index.

Price to Earnings Ratio (P/E): A valuation ratio equated by dividing a company's share price by its earnings per share. Trailing P/E uses the previous four quarters' EPS, and Forward P/E uses expected EPS over the next four quarters.

Standard Deviation: A statistical measurement of volatility risk based on historical returns. This risk measure shows how much the return of the fund or security is deviating from its historical mean return. The larger the standard deviation, the more volatile the fund or security.

Strategic Investment Style: Sets target allocations that are long term in nature. Strategic does not mean buy-and-hold or passive. Strategic can still be active, such as making active decisions in response to changes in risk and opportunities around the world.

Tactical Investment Style: An unconstrained investment approach that can quickly and abruptly change its allocation and risk profile from 100% stocks to 100% cash, and vice versa. Tactical money managers try to move in and out of the market and asset classes in an attempt to time and achieve outperformance over a stated benchmark that may not be representative of their true portfolio over time.

Return Barometer (p. 9) Indexes Used

- Basic Materials: The Materials Select Sector SPDR® ETF
- Communication Svc.: The Comm Svcs Sel Sect SPDR® ETF
- Cons. Discretionary: The Consumer Discret Sel Sect SPDR® ETF
- Cons. Staples: The Consumer Staples Sel Sect SPDR® ETF
- Energy: The Energy Select Sector SPDR® ETF
- Financial Svc.: The Financial Select Sector SPDR® ETF
- Healthcare: The Health Care Sector SPDR® ETF
- Industrials: The Industrial Select Sector SPDR® ETF
- Real Estate Sector: The Real Estate Select Sector SPDR® ETF
- Technology: The Technology Select Sector SPDR® ETF
- Utilities: The Utilities Select Sector® ETF
- United States: iShares Russell 3000 ETF
- International Equity: iShares MSCI ACWI ex US ETF
- International Developed: iShares MSCI EAFE ETF
- Emerging Markets: iShares MSCI Emerging Markets ETF
- China: iShares MSCI China ETF
- Canada: iShares MSCI Canada ETF
- Japan: iShares MSCI Japan ETF
- United Kingdom: iShares MSCI United Kingdom ETF
- Momentum: MSCI ACWI Momentum NR USD
- Quality: MSCI ACWI Quality NR USD
- Size: MSCI ACWI Small NR USD
- Minimum Volatility: MSCI ACWI Minimum Vol (USD) NR USD
- Value: MSCI ACWI Value NR USD
- Growth: MSCI ACWI Growth NR USD
- Large Value: Morningstar US Large Value TR USD
- Large Core: Morningstar US Large Core TR USD
- Large Growth: Morningstar US Large Growth TR USD
- Mid Value: Morningstar US Mid Value TR USD
- Mid Core: Morningstar US Mid Core TR USD
- Mid Growth: Morningstar US Mid Growth TR USD
- Small Value: Morningstar US Small Value TR USD
- Small Core: Morningstar US Small Core TR USD
- Small Growth: Morningstar US Small Growth TR USD
- U.S. Corporates: Bloomberg US Agg Bond TR USD
- U.S. Treasuries: Bloomberg US Treasury TR USD (1972)
- U.S. High Yield: Bloomberg High Yield Corporate TR USD
- U.S. Municipal: Bloomberg Municipal TR USD
- U.S. Credit: Bloomberg U.S. Credit TR USD
- MBS: Bloomberg US MBS Float Adjusted TR USD
- Ex-U.S. Bonds: iShares Core International Aggt Bd ETF
- Global Credit: Bloomberg Global Credit Corp TR USD
- Cash: Bloomberg US Treasury Bill 1-3 M TR USD
- Liquid Alts: Wilshire Liquid Alternative TR USD
- Commodities: Bloomberg Commodity TR USD
- Gold: Bloomberg Sub Gold TR USD
- Real Estate Asset Class: DJ Global World Real Estate TR USD
- U.S. Dollar: US Dollar
- Bitcoin: iShares Bitcoin Trust ETF

Disclosures

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