

# Raising your Investor IQ

A comprehensive view of economic and market conditions July 1*st*, 2025 <u>nsag.com</u>



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Economy

**Fixed Income** 

U.S. Equity

**International Equity** 

Alternatives

**Investing Principles** 

Disclosures

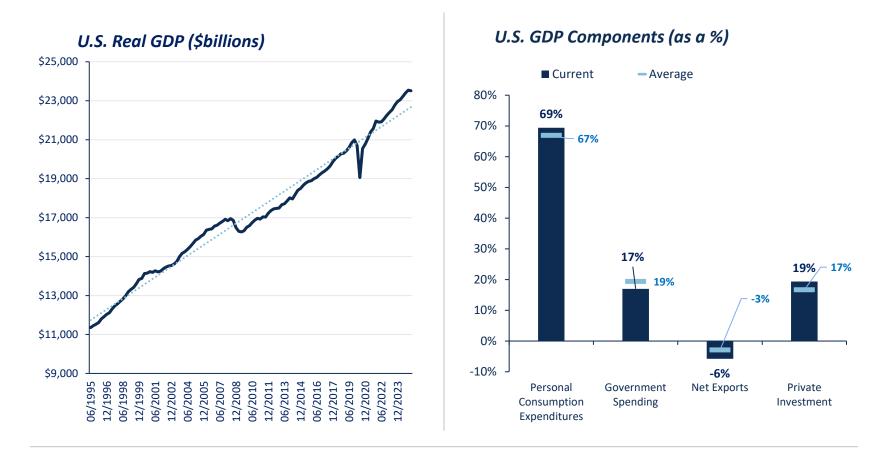


# Economy

Raising your Investor IQ

## U.S. Real GDP and Component Breakdown





(Left): U.S. Real GDP is measured quarterly in \$ Billions, adjusted for inflation. (Right): Components of GDP are measured on an actual quarterly basis, over a 30-year quarterly historic timeline.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Growth and Interest Rates





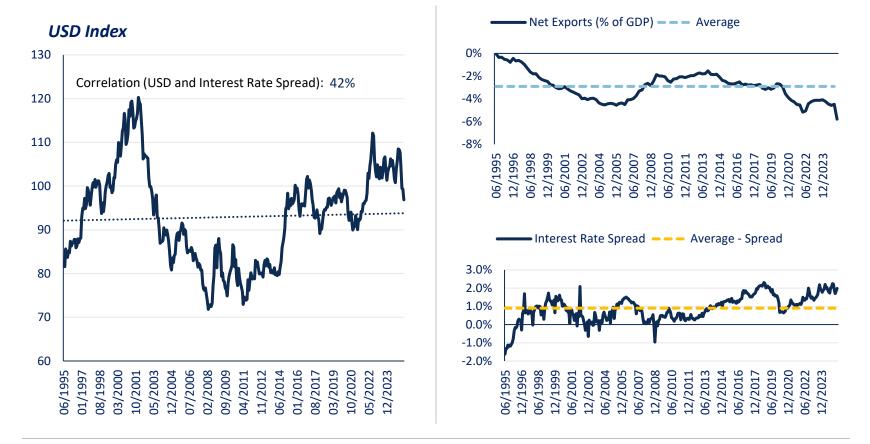
Historically, economic growth and inflation have displayed positive correlation. Given that the Federal Reserve has a mandate to target an inflation rate of 2% and when strong economic growth is followed by higher inflation in the economy, you'll tend to see the Federal Reserve raise interest rates to combat inflation. The chart above displays a positive relationship between nominal GDP growth and the Federal Funds Target Rate.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Dollar – Drivers of Strength and Weakness





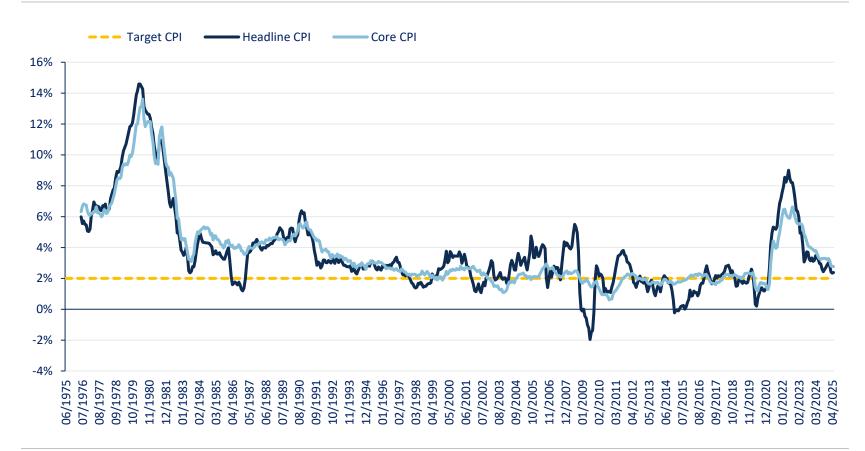
(Left): U.S. Dollar Index Price, measured monthly. (Top Right): U.S. net exports as a % of real GDP, measured quarterly. Net exports equals exports – imports. A negative value indicates that the U.S. is importing "buying" more goods from foreign nations than exporting "selling". (Bottom Right): U.S. 10-Year Treasury Yield spread over an average of U.S. top trading partner 10-year yields, measured monthly. Top trading partners; Australia, Japan, Canada, Europe (19 Eurozone countries – Economic Union), Sweden, Switzerland, and the U.K.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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U.S. Inflation





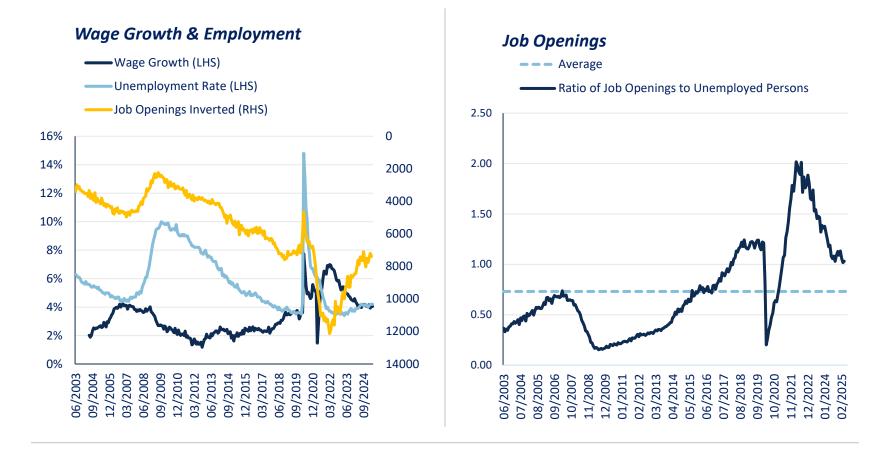
Since October 1971, the U.S. 10 Year treasury rate has had a 65% correlation to CPI measured by all items. When food and energy are removed from CPI calculations, the correlation jumps to 75%. From a macroeconomic perspective, the federal reserve will raise policy rates when inflation runs too high. Although, in current times due to Covid-19, the federal reserve has held off rate hikes while inflation is running hot.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Employment Dynamics





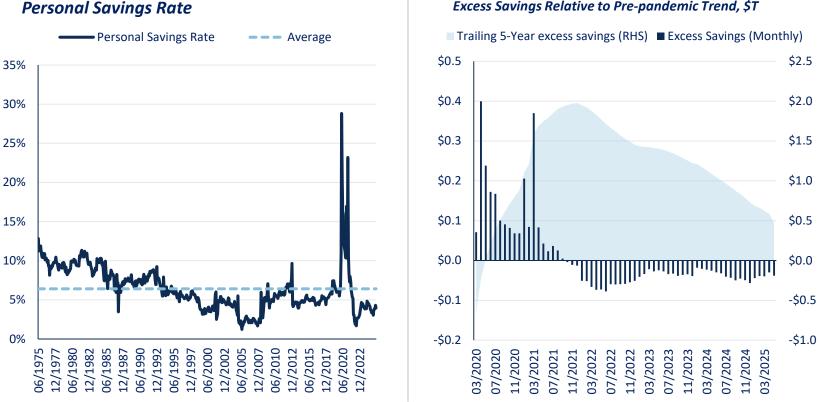
(Left): The unemployment rate in the U.S. displays negative correlations with nominal wage growth and total job openings (JOLTs) over the long-run. (Right): The ratio of job openings to unemployed persons (job openings per unemployed person) has significantly increased above its long-term average due to labor shortages and early retirees triggered by the effects of the COVID-19 pandemic.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Consumer Finances – Income & Savings





Excess Savings Relative to Pre-pandemic Trend, \$T

(Left): U.S. personal savings rate calculated as savings divided by personal income in nominal terms. (Right): Blue bars represent monthly excess savings relative to pre-pandemic trend. This is calculated as personal savings minus the pre-pandemic trend to illustrate the increase and drawdown in savings generated by the pandemic. The pre-pandemic trend is calculated as the average monthly growth rate from 12/1972 to 02/2020. Blue dashed represent the trailing 3-year sum of excess savings relative to the pre-pandemic trend. Both series are measured in Trillions of \$.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Consumer Debt - Delinquencies



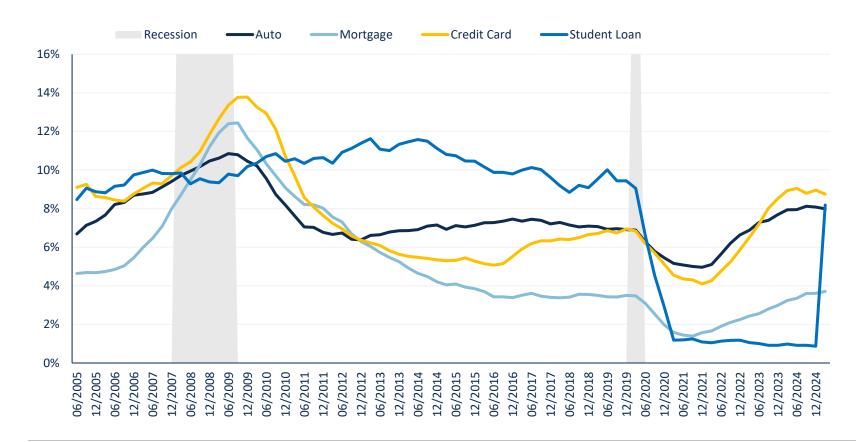


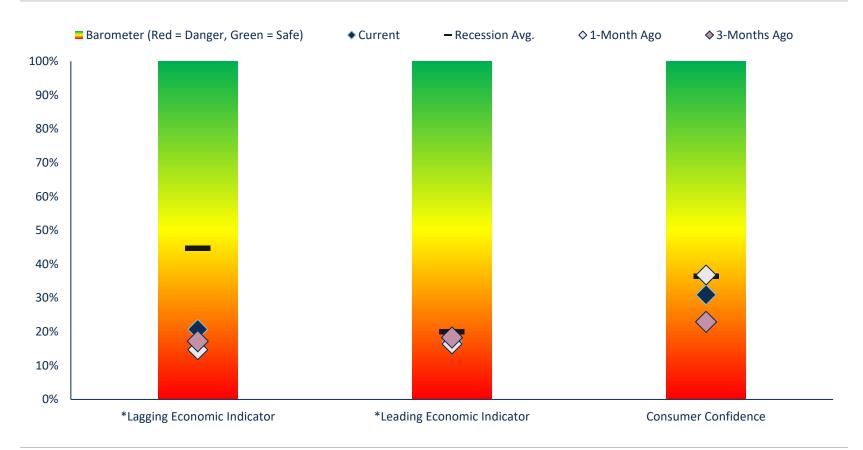
Chart displays the percentage of debt balances that are delinquent by 30 or more days. Debt balance types include auto loans, mortgages, credit cards, and student loans.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Economic Indicator Barometers





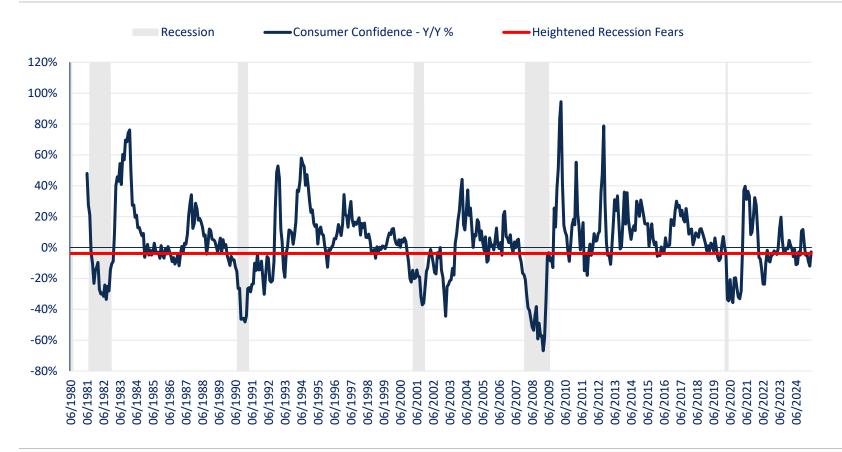
\* - Indicates the values are measured by the U.S. Conference Board. For both leading and lagging indexes, the conference aggregates 10 key economic indicators for both leading and lagging. Current value and recession values are based on percentile rank of % YoY change based historical data. Historical data dates back 50 years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Consumer Confidence





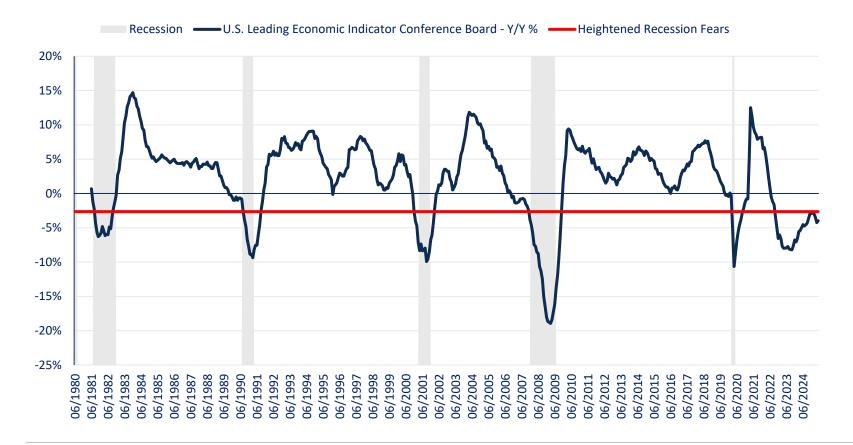
This chart is measuring consumer confidence's Y/Y growth. The red line (Heightened Recession Fears), is measured as the aggregate of each index point prior to each recession.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Conference Leading Economic Indicator





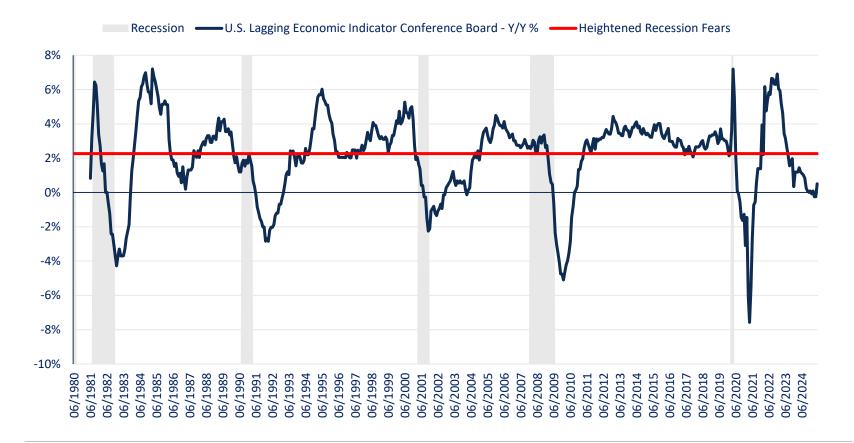
The U.S. Conference Board measures 10 core leading economic indicators. This chart is measuring the index's Y/Y growth. The red line (Heightened Recession Fears), is measured as the aggregate of each index point prior to each recession.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Conference Lagging Economic Indicator





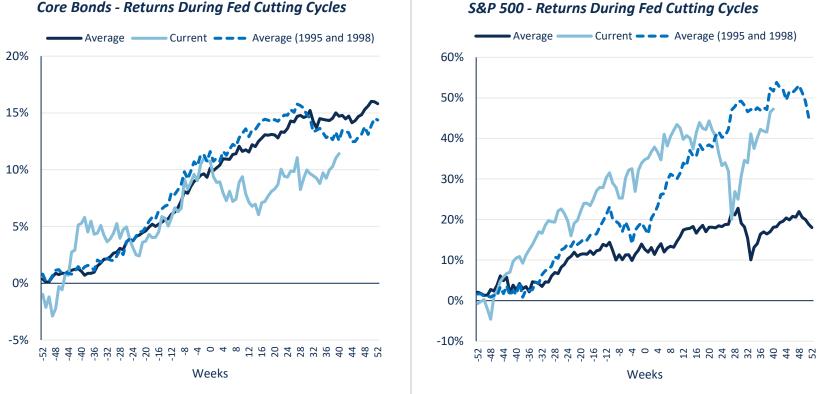
The U.S. Conference Board measures 10 core lagging economic indicators. This chart is measuring the index's Y/Y growth. The red line (Heightened Recession Fears), is measured as the aggregate of each index point prior to each recession.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Stock and Bond Returns Pre and Post First Fed Cut





S&P 500 - Returns During Fed Cutting Cycles

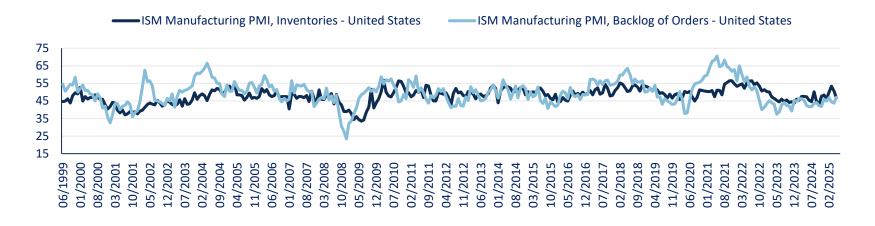
(Left): Track historical average returns for the Bloomberg Barclays Aggregate Bond Index +/- 52 weeks around the past five starts to a Federal Reserve rate cutting cycle (1995, 1998, 2001, 2007, and 2019). Current represents 2024's movement. (Right): Track historical average returns for the S&P 500 Index +/- 52 weeks around the past five starts to a Federal Reserve rate cutting cycle (1995, 1998, 2001, 2007, and 2019). Current represents 2024's movement.

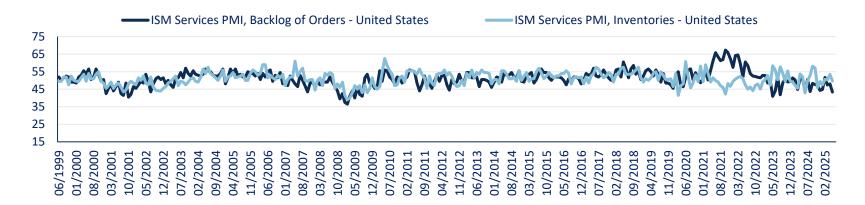
Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Supply Chains







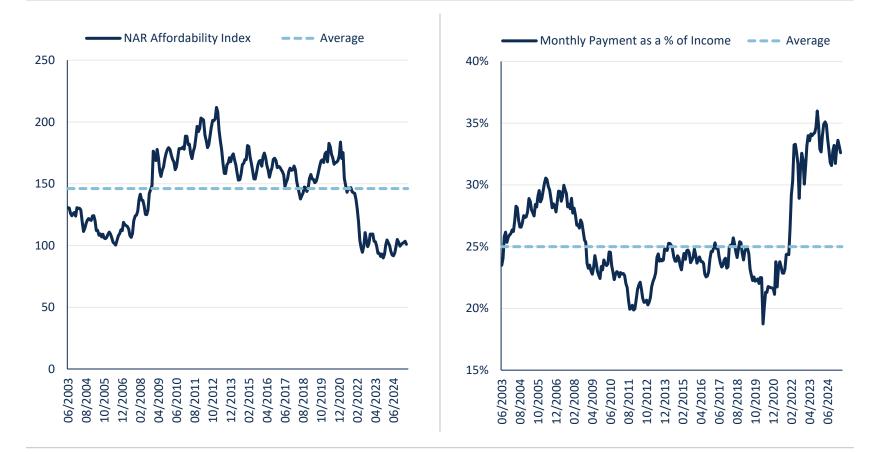
Backlog of orders versus inventories show a converging trend as global supply chain woes continue easing. This trend is occurring in both manufacturing (Top) and services (Bottom).

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Housing Market, Affordability





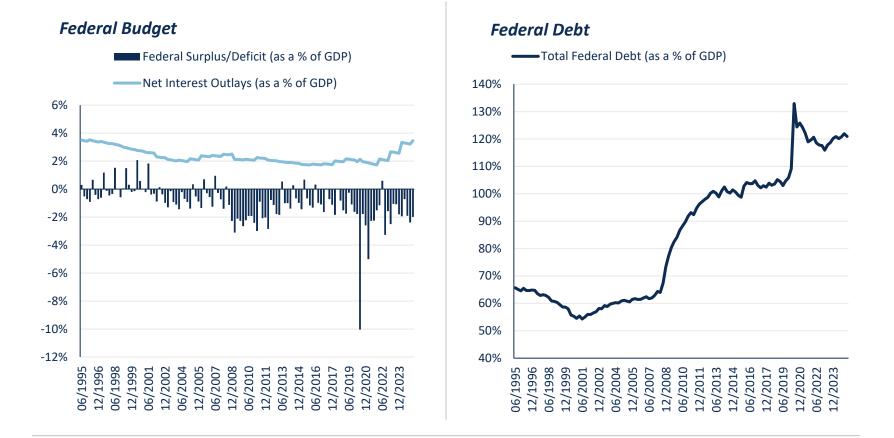
(Left): NAR Housing Affordability Index for new purchases. This index is based on median estimated monthly payment as a % of current median income. This value should be around 25%, according to the NAR. (Right): Median estimated monthly payment for new purchases as a % of current median income.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Federal Finances





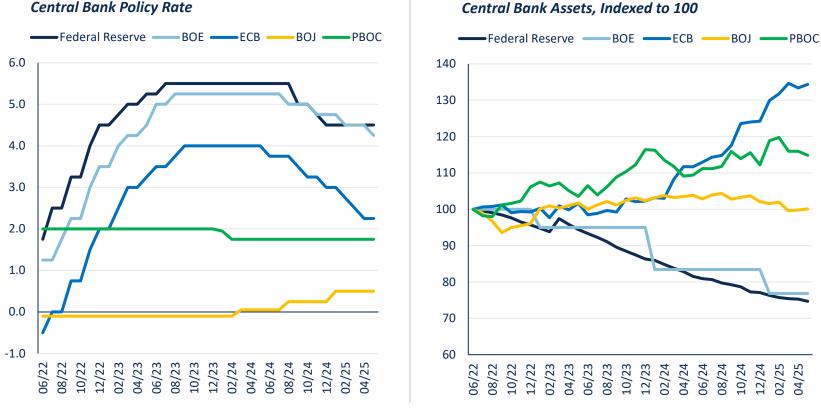
(Left): Federal budget and Federal net interest outlays. (Right): Federal Debt as a % of nominal GDP. Both charts are measured monthly over the past 30 years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Global Monetary Policy





**Central Bank Policy Rate** 

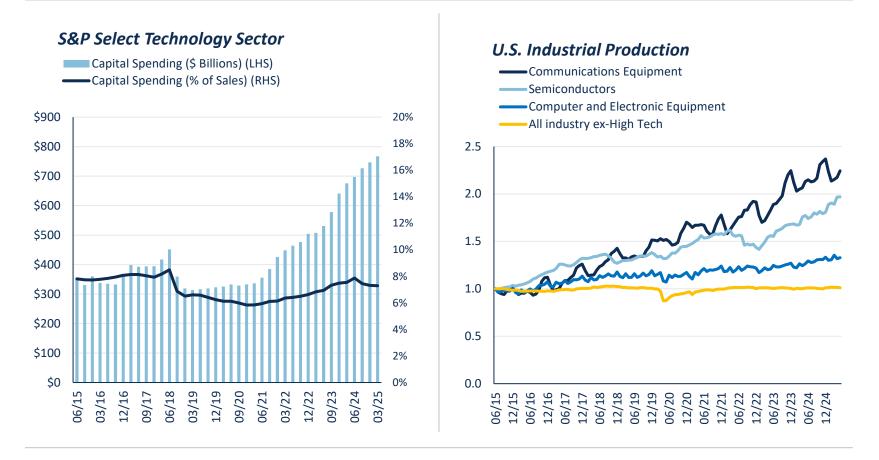
(Left): Policy rate level for each respective major central bank. When rates are falling, the central bank is adopting a stimulative policy, and vice a versa. (Right): Balance sheet asset growth for each respective major central bank. Increasing values demonstrate a stimulative policy, and vice a versa. BOE: Bank of England, ECB: European Central Bank, BOJ: Bank of Japan, PBOC: Peoples Bank of China.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Technology Infrastructure





(Left): Measures the aggregate capital expenditures for companies included in the S&P Select Technology Sector by total value and as a % of sales. Spending has not accelerated relative to sales in the sector over the past 10 years. (Right): Industrial production for high tech industries relative to the rest of the industries over the past 10 years, indexed to 1.0.

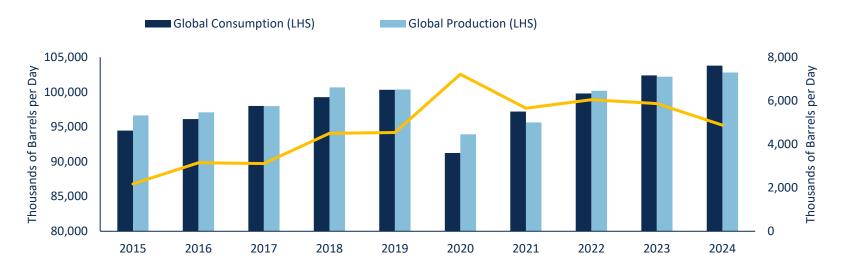
Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Global Oil Markets



Oil Producers (Thousar	ds of Barrels p	per Day)									
Country	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	Ann. Chg %
U.S.	15,154	14,849	15,671	17,903	19,468	18,614	19,015	20,377	21,968	22,715	4.2%
Russia	10,253	10,551	10,605	10,759	10,847	9 <i>,</i> 865	10,112	10,319	10,277	9,892	0.0%
Saudi Arabia	10,336	10,635	10,305	10,598	9,981	9,406	9,313	10,644	9,733	9,242	-0.7%
Oil Consumers (Thousa	nds of Barrels	per Day)									
U.S.	19,688	19,831	20,102	20,654	20,403	18,049	19,753	20,160	20,362	20,400	0.4%
China	11,640	12,118	12,743	13,212	14,002	14,269	15,500	15,047	16,400	16,700	3.7%
India	4,204	4,487	4,696	4,934	4,994	4,510	4,800	5,100	5,342	5,600	2.9%
Inventory Change	2,175	974	-38	1,391	36	2,680	-1,561	393	-180	-991	4,878



(Top): Top three producers and consumers of crude oil by country measured in thousands of barrels per day. (Bottom): Global production and consumption measured in thousands of barrels per day. Over the past 10 years, the globe has been a net producer of oil, adding to world inventory

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Major Countries – Estimated GDP Growth & Inflation



		Real GDP			Inflation	
Country:	2025	2026	2027	2025	2026	2027
U.S.	1.5%	1.8%	1.9%	3.0%	2.8%	2.3%
China	4.4%	4.2%	4.2%	0.3%	1.1%	1.5%
Germany	0.2%	1.2%	1.5%	2.1%	2.0%	2.1%
Japan	0.9%	0.8%	0.8%	2.8%	1.9%	1.9%
India	6.5%	6.5%	6.5%	4.3%	4.4%	4.0%
U.K.	1.1%	1.4%	1.5%	3.1%	2.3%	2.0%
Canada	1.3%	1.2%	1.7%	2.2%	2.1%	2.1%
Brazil	2.1%	1.8%	2.3%	5.3%	4.4%	3.8%
Russia	1.6%	1.3%	1.3%	8.7%	5.6%	4.4%
Israel	3.3%	4.0%	3.8%	3.0%	2.2%	2.0%

Real GDP growth and CPI is measured as an annual % forecasted 3 years. Forecasted estimates are not indicative of future results. Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Major Countries – Business Conditions



	22-Jun	22-Sep	22-Dec	23-Mar	23-Jun	23-Sep	23-Dec	24-Mar	24-Jun	24-Sep	24-Dec	25-Mar
U.S	-	47.25	46.53	49.72	53.62	50.76	50.79	52.18	53.69	54.30	54.79	52.60
Eurozone	-	48.97	48.15	52.00	52.26	47.50	47.23	49.15	51.60	50.26	49.32	50.44
China	-	51.81	47.89	53.29	53.91	51.49	51.39	52.58	53.23	50.89	51.85	51.48
Japan	-	50.18	50.10	51.57	53.09	52.30	50.03	51.25	51.53	52.49	50.06	50.65
Germany	-	46.89	46.78	51.06	52.88	46.49	47.03	47.00	51.14	48.34	47.94	50.73
ИК	-	50.27	48.47	51.26	53.90	49.32	50.49	52.90	53.13	53.08	50.87	50.85
France	-	51.10	49.35	51.16	50.28	45.56	44.67	47.00	49.38	50.28	47.18	46.90
India	-	56.67	57.21	58.31	60.87	61.27	58.09	61.22	60.96	59.93	58.94	58.62
Brazil	-	53.45	50.76	50.10	51.90	49.73	50.37	54.50	54.32	54.69	53.63	50.67

In this table, we are measuring business conditions by country via the Purchasing Managers' Index (PMI). PMI is an index of the prevailing direction of economic trends in the manufacturing and service sectors. It consists of a diffusion index that summarizes whether market conditions, as viewed by purchasing managers, are expanding, staying the same, or contracting. Above 50 signals "expansion", while below 50 signals "contraction".

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Calendar Year Returns by Asset Class



	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
U.S. Dollar 9.3%	Small Cap 21.31%	Emerging Equity 37.75%	U.S. Dollar 4.4%	U.S. Large Cap 31.49%	Small Cap 19.96%	REITs 39.88%	Commodity 16.09%	U.S. Large Cap 26.29%	U.S. Large Cap 25.02%	International 19.92%
9%	High Yield 17.13%	International 25.62%	Fixed Income 0.01%	REITs 28.07%	Emerging Equity 18.69%	U.S. Large Cap 28.71%	U.S. Dollar 7.9%	International 18.85%	Small Cap 11.54%	Emerging Equity 15.57%
U.S. Large Cap 1.38%	U.S. Large Cap 11.96%	U.S. Large Cap 21.83%	High Yield - 2.08%	Small Cap 25.52%	U.S. Large Cap 18.4%	Commodity 27.11%	High Yield - 11.19%	Small Cap 16.93%	Asset Alloc. 10.2%	U.S. Large Cap 6.2%
9%	Commodity 11.77%	Small Cap 14.65%	EMD -2.46%	International 22.66%	Asset Alloc. 12%	Small Cap 14.82%	Fixed Income - 13.01%	Asset Alloc. 14.8%	High Yield 8.19%	Asset Alloc. 6.1%
Fixed Income 0.55%	Emerging Equity 11.6%	Asset Alloc. 14.3%	REITs -4.1%	Asset Alloc. 20.1%	International 8.28%	Asset Alloc. 12.5%	International - 14.01%	High Yield 13.44%	Emerging Equity 8.05%	Commodity 5.53%
International - 0.39%	EMD 9.88%	REITs 9.27%	U.S. Large Cap -4.38%	Emerging Equity 18.88%	Fixed Income 7.51%	International 11.78%	EMD -15.26%	REITs 11.48%	U.S. Dollar 7.1%	EMD 4.94%
Asset Alloc 0.5%	REITs 9.28%	EMD 8.17%	Asset Alloc 4.7%	High Yield 14.32%	High Yield 7.11%	U.S. Dollar 6.7%	Asset Alloc 16.3%	Emerging Equity 10.27%	EMD 6.58%	High Yield 4.57%
Small Cap - 4.41%	Asset Alloc. 8%	High Yield 7.5%	Small Cap - 11.01%	EMD 13.11%	EMD 6.52%	High Yield 5.28%	U.S. Large Cap -18.11%	EMD 9.09%	Commodity 5.38%	Fixed Income 4.02%
High Yield - 4.47%	U.S. Dollar 3.6%	Fixed Income 3.54%	Commodity - 11.25%	Fixed Income 8.72%	Commodity - 3.12%	Fixed Income - 1.54%	Emerging Equity - 19.74%	Fixed Income 5.53%	International 4.35%	REITs 1.71%
Emerging Equity -14.6%	Fixed Income 2.65%	Commodity 1.7%	International - 13.36%	Commodity 7.69%	REITs -5.86%	EMD -1.65%	Small Cap - 20.44%	U.S. Dollar - 2.1%	REITs 4.33%	Small Cap - 1.79%
Commodity - 24.66%	International 1.51%	U.S. Dollar - 9.9%	Emerging Equity - 14.24%	U.S. Dollar 0.2%	U.S. Dollar - 6.7%	Emerging Equity -2.22%	REITs -25.1%	Commodity - 7.91%	Fixed Income 1.25%	U.S. Dollar - 10.7%

*Indices used:* U.S. Large Cap – S&P 500, Developed International – MSCI EAFE, Emerging Equity – MSCI EME, Fixed Income – Bloomberg Barclays US Aggregate, High Yield – Bloomberg Barclays US High Yield, Munis – Bloomberg Barclays Municipal Bond, Currency – Federal Reserve nominal effective exchange rate, Emerging Debt – Bloomberg Barclays Emerging USD Aggregate, Commodities – Bloomberg Commodity Index, REITs – FTSE Nareit All REITs, Gold – Gold NYMEX Near Term (\$/oz), Small Cap – Russell 2000, Asset Allocation – 40% S&P 500/15% MSCI EAFE/ 15% MSCI EME / 10% Small Cap /20% BB US AGG.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Fixed Income

Raising your Investor IQ

## Global Bond Market Performance



Description	Current YTM	YTM - 1 Year Ago	12-Month Total Return
U.S.	4.5%	5.0%	6.08%
Global ex-U.S.	3.5%	3.9%	8.91%
Japan	1.4%	1.0%	8.49%
Germany	2.3%	2.6%	11.74%
UK	4.4%	4.3%	9.77%
Italy	2.9%	3.7%	18.36%
Spain	2.8%	3.3%	15.14%
U.S. Aggregate	4.5%	5.0%	6.08%
U.S. Investment Grade	5.0%	5.5%	6.91%
U.S. High Yield	7.4%	8.1%	10.29%
U.S. MBS	5.0%	5.3%	6.44%
U.S. CMBS	5.3%	6.3%	8.28%

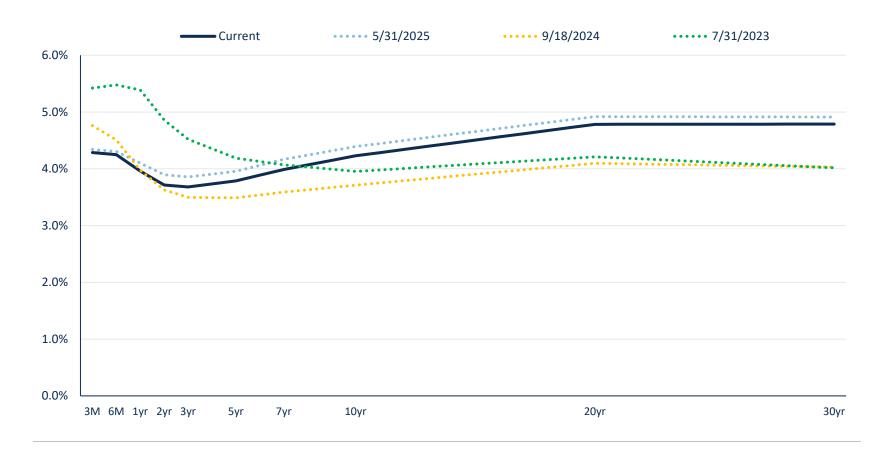
Indices used: U.S. - Bloomberg US Aggregate, Global ex-U.S. - Bloomberg Global Aggregate, Japan - Bloomberg Global Japan, Germany - Bloomberg Global Germany, UK - Bloomberg Global V.K., Italy - Bloomberg Global Italy, Spain - Bloomberg Global Spain, U.S. Agg. – Bloomberg Barclays U.S. Aggregate, U.S. CMBS – BB Agg Corporate MBS, U.S. MBS – BB Agg MBS, U.S. High Yield – BB Agg Corp. High Yield, U.S. IG – BB Agg Corp. Investment Grade. (Right): Bloomberg and Ice BofA indices used to measure performance in various areas of the fixed income style box. Short though extended equates to the level of interest rate risk, while low through high refers to underlying credit quality of bond index constituents.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Yield Curve





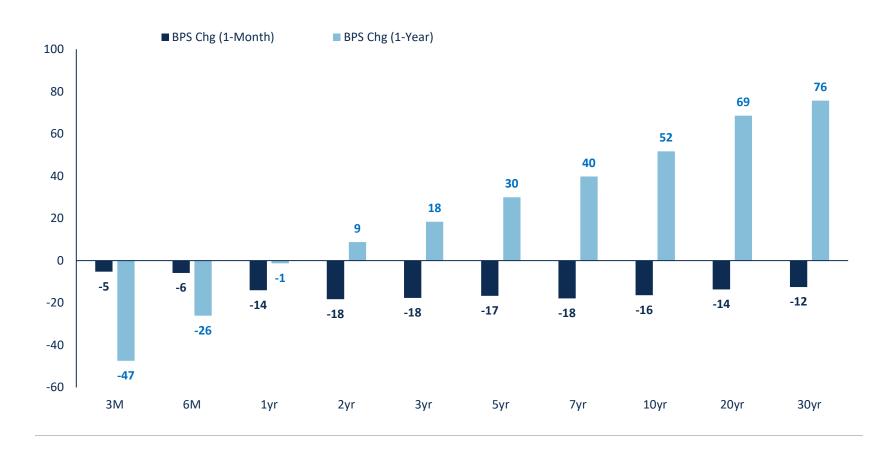
#### U.S. Yield Curve is based on U.S. benchmark treasury bill yields and linear interpolation.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Yield Curve Changes





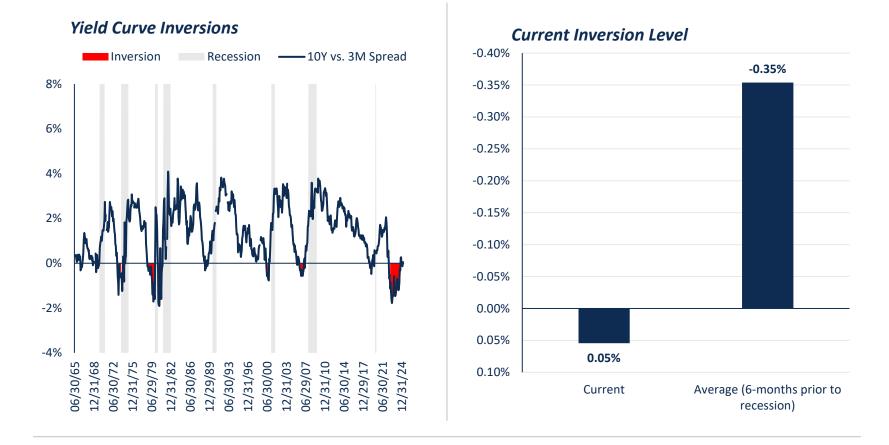
#### 1 BPS = 1/10,000. 100 BPS = 1%.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## *Yield Curve – Term Spreads & Inversions*





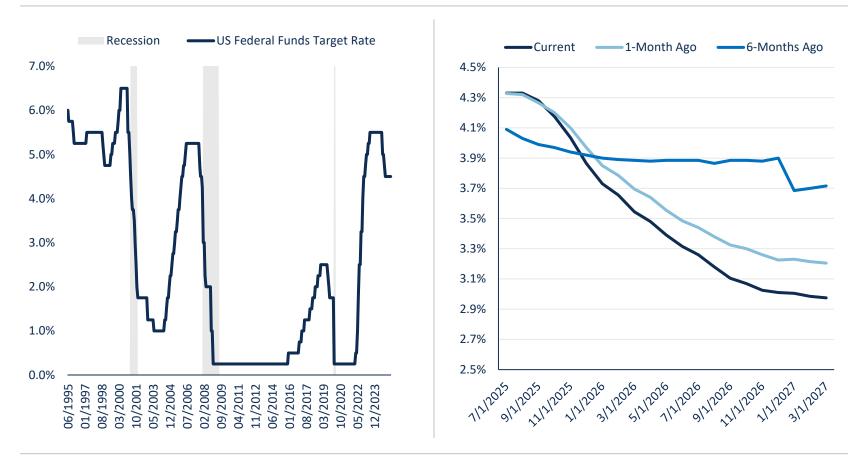
(Left): Displays the difference between the US 3-month treasury yield and the US 10-year treasury yield, measured monthly over the past 60 years. Historically, these spreads have tuned negative prior to economic recessions. (Right): Displays the current inversion level versus the historic average 6-months prior to a recession.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## U.S. Federal Funds Rate – Actual and Estimate



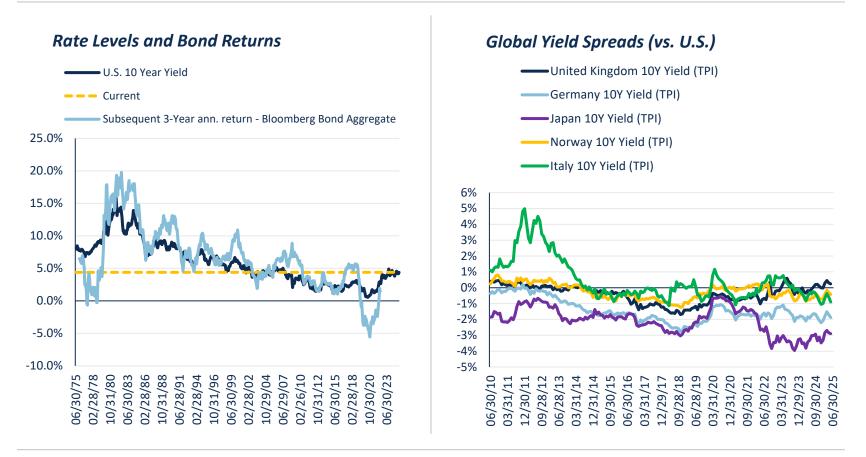


(Left): Actual. (Right): Market Estimate. The U.S. Federal Funds Rate is set by the Federal Open Market Committee (FOMC) of the Federal Reserve. It can be defined as the interest rate charged to various lending institutions such as banks on unsecured loans that are borrowed overnight. Market expectations are based on 30-day federal funds continuous futures contract prices.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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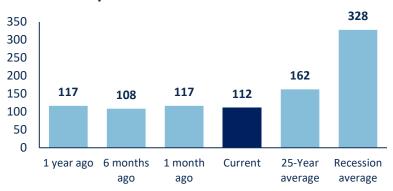
(Left): U.S. 10-Year Treasury yield (YTM) is displayed monthly over the past 50-year period versus subsequent annualized returns for the Bloomberg Aggregate Bond Index over three years. (Right): Treasury yield spreads for each country measured relative to U.S. 10-Year Treasury benchmark. Measured monthly over the past 15 years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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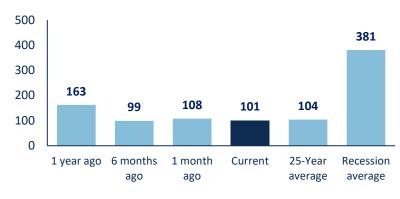
## Credit Spreads



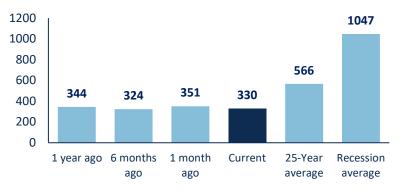


#### U.S. Corporate - Investment Grade

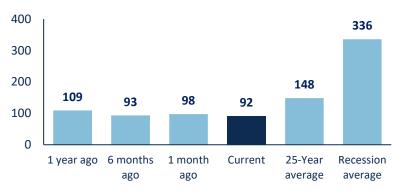
### U.S. ABS & CMBS



U.S. Corporate - High Yield



### U.S. Banking



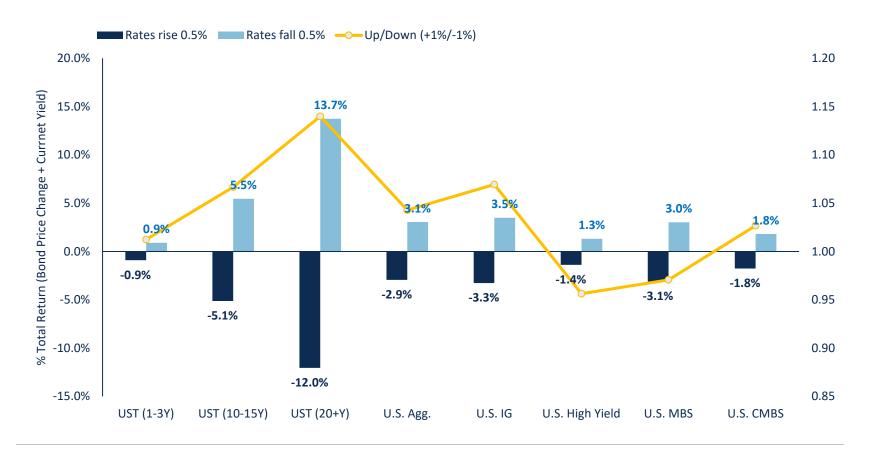
Spreads are measured in basis points (bps). 1% = 100bps. ICE BofA indices are used to measure credit spreads for each sub-asset class. Average values are measured monthly over the past 25 years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Bond Convexity





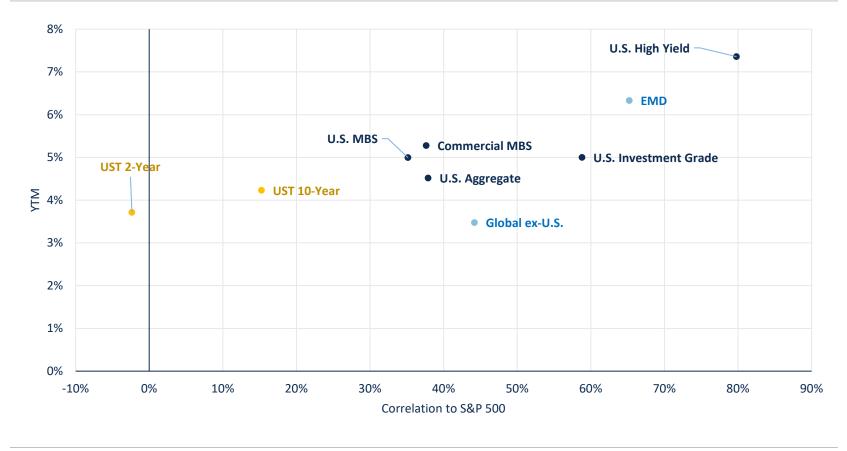
*Indices used:* UST(s) – Bloomberg Barclays Government Aggregates, U.S. Agg. – Bloomberg Barclays U.S. Aggregate, U.S. CMBS – BB Agg Corporate MBS, U.S. MBS – BB Agg MBS, U.S. High Yield – BB Agg Corp. High Yield, U.S. IG – BB Agg Corp. Investment Grade. Approximate return is calculated using effective duration and effective convexity. Based on a parallel shift in the yield curve.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Yields and Equity Correlation





Yield is calculated as most recent Yield-to-maturity value for each asset classes index. Correlation to the S&P 500 is measured by monthly returns over the most recent 10-year period.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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Real Yields





The nominal yield contains an inflation premium (expected inflation). While the real yield represents nominal yield (less) inflation (Core CPI). Real yields are measured with the U.S. 1-year Treasury Yield.

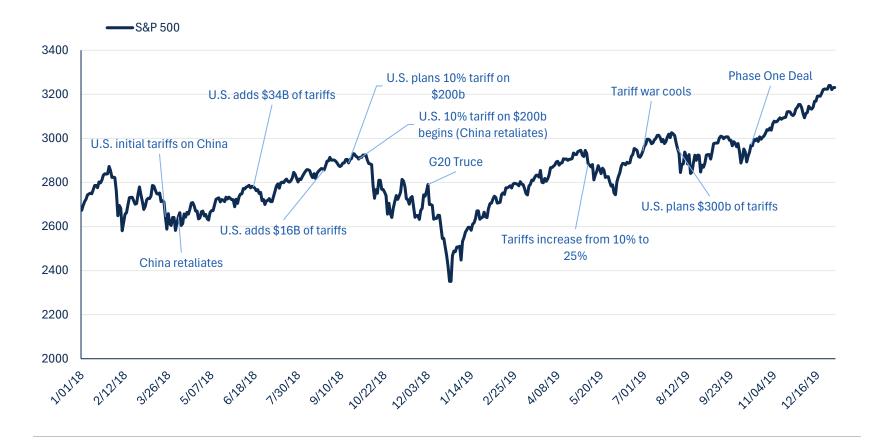
Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# *S&P 500 – U.S. x China Trade War (2018 – 2019)*





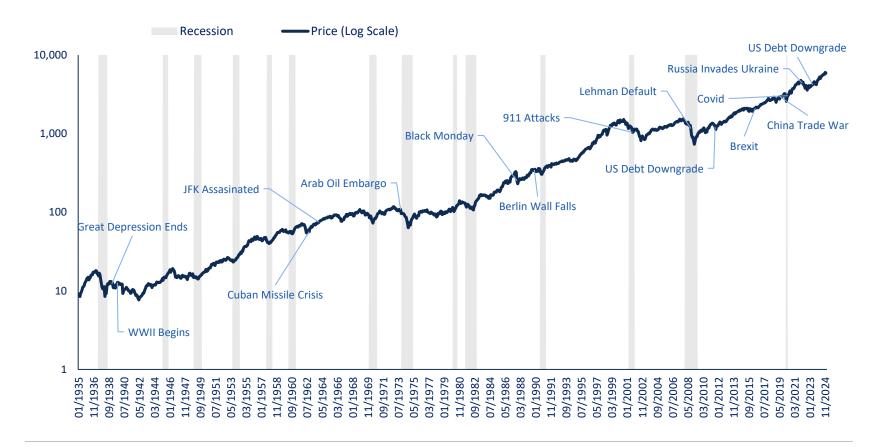
Despite a trade war with the world's second largest economy (as well as rate hikes in from the Federal Reserve in late 2018), the S&P 500 rallies 20% from 1/1/2018 - 1/1/2020 with ~15% annualized volatility (measured daily).

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# S&P 500 – Historic Price Trend





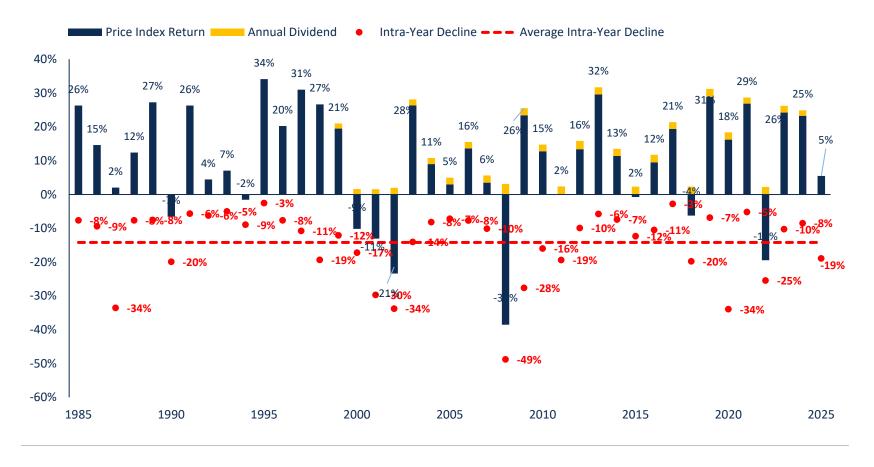
Price are measured monthly over the past 90 years. Prices are additionally set in log-scale to reflect % changes in the S&P 500's price over time. Gray shaded areas represent recessions.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# S&P 500 – Calendar Year Returns & Intra-Year Declines





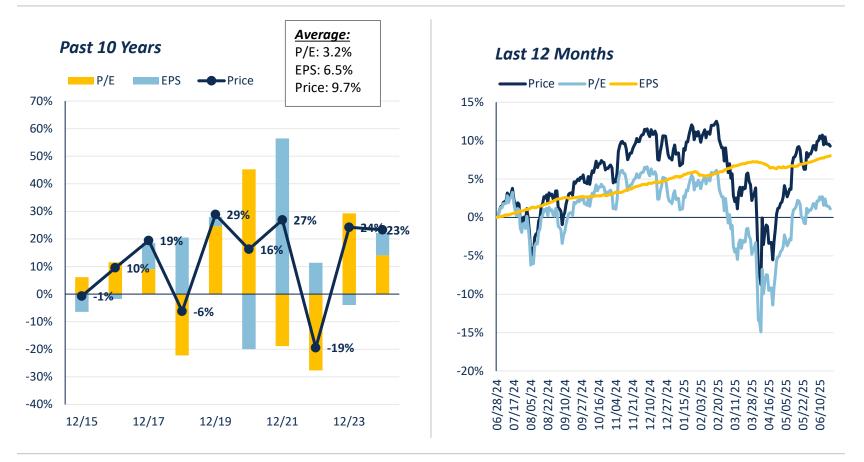
Intra-year declines are calculated based on the largest peak to trough fall within the respective calendar year based on index price level. Prior to 1999, only index price returns are given on a calendar year basis and all other calendar year return values (1999 – 2024) are given as the total return for the index (price return + dividend return).

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# *S&P 500 – Performance Decomposition*



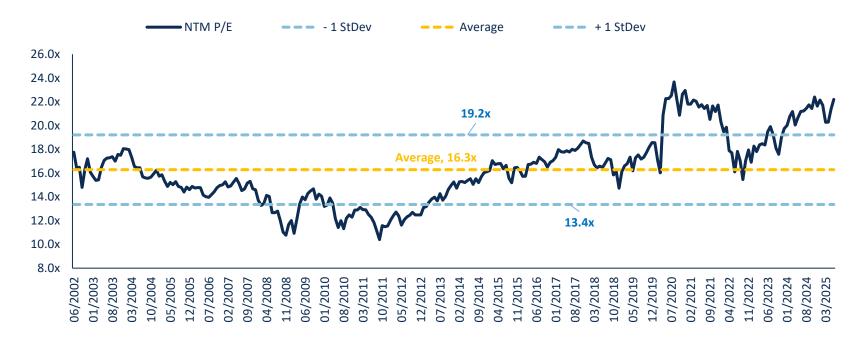


(Left): Breaks down the contribution to the price return of the S&P 500 index on an annual basis over the past 10-years by actual earnings growth and change in valuation levels, P/E. (Right); Breaks down the contribution to the price return of the S&P 500 index on an annual basis over the past 12 months by changes in earnings growth estimates and change in valuation levels, P/E.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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Description	Current	Average	Over/(Under) Valued
Forward price to earnings	22.2x	16.3x	1.81
Dividend yield	1.56%	2.39%	2.26
Price to book	4.6x	2.9x	2.32
Price to free cash flow	27.7x	19.6x	2.49

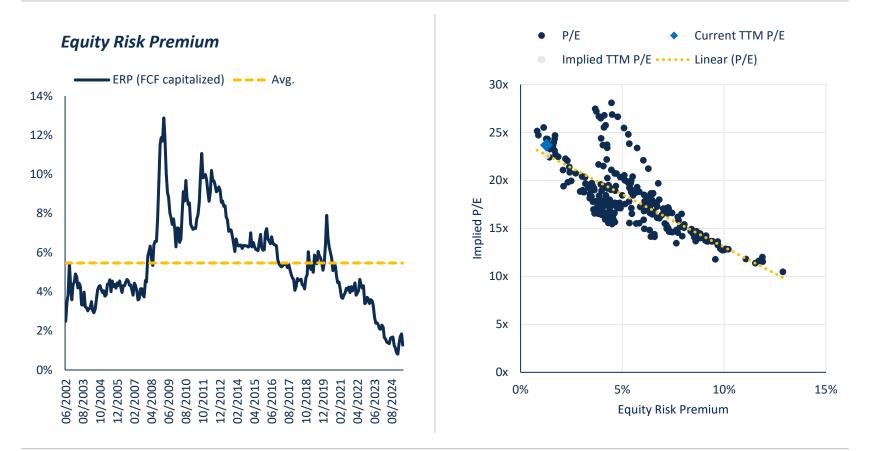
Forward P/E (FWD P/E) is measured as current price divided by the next 12 months forward looking earnings per share (EPS) for the S&P 500. "Over/(Under) Valued" is based on the standard deviations (StDev) away from the average.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# S&P 500 Valuation – Equity Risk Premium



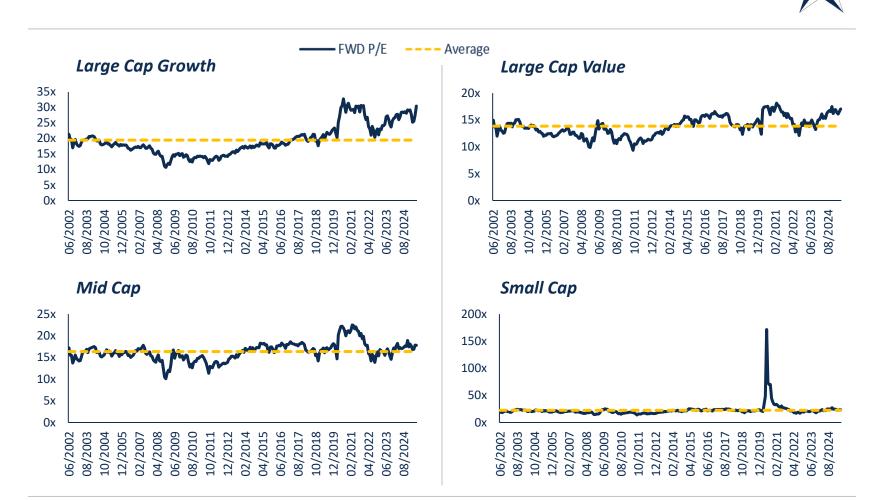


(Left): Equity risk premium, "ERP", for the S&P 500 index over the past 23 years, measured monthly. Calculated using a FCF capitalization model with a 4% long-term growth assumption. The equity risk premium represents the difference between the discount rate on risk-free bonds versus equities. (Right): Equity risk premium versus TTM P/E ratio for the S&P 500, measured monthly over 24 years. ERP and TTM P/E show a strong inverse relationship, with an R square value of  $\sim$ 60%.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Price to Earnings Ratio by Size and Style



Forward P/E (FWD P/E) is measured as current price divided by the next 12 months forward looking earnings per share (EPS). Measured monthly over the past 23 years. Each chart utilizes its respective Russell Index.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## **U.S. Equity**

North ST R Advisory Group

# Valuation, Earnings, and Interest Rates Matter



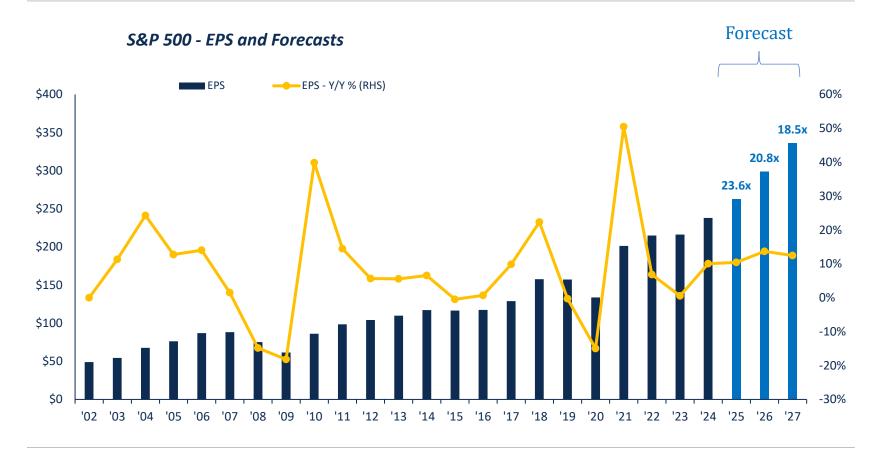


(Left): This chart represents the relationship between 12-Month Forward P/E and subsequent returns for the S&P 500. Each observation represents the 5-year annualized return on the S&P 500 given the 12-Month Forward P/E at the starting date. Data is measured monthly, over the past 22 years.  $R^2$  represents the % of return variation caused by the independent variable (12-Month Forward P/E). (Right): Identical relationship is run using (earnings yield – U.S. 10-yr Treasury Rate) to predict the 5-year returns. This exhibits a stronger  $R^2$  of 40%.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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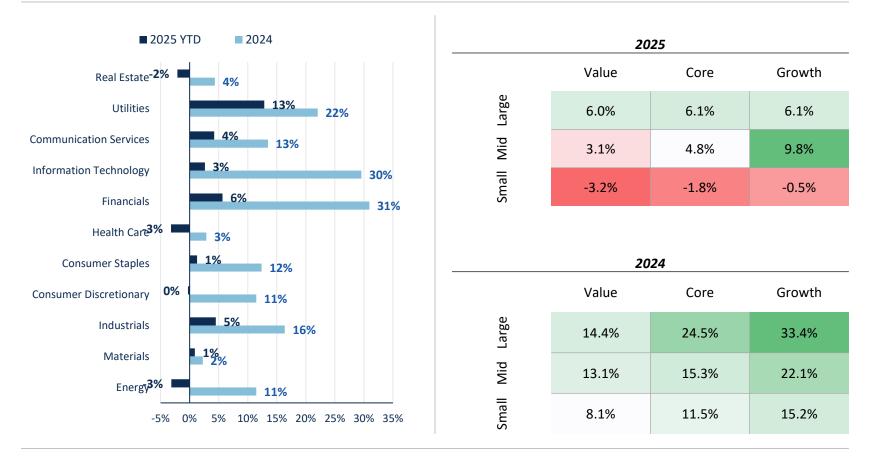
Annual EPS for the S&P 500. Year-over-year (Y/Y) % growth is represented by the yellow line. Lighter blue bars are consensus full year estimates accompanied by an implied P/E ratio based on the index's current price.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Performance by Sector, Style and Size





(Left): Performance by sector uses S&P Thematic indices assigned to track each listed sector. (Right): Russell indices are used to calculate style and size performance, using Russel's respective index for each category.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Sector Characteristics



Sector:	Energy	Materials	Industrial s	Cons. Desc.	Cons. Staples	Health Care	Financials	Tech	Comm. Services	Utilities	Real Estate	
P/E	15.0x	19.2x	24.2x	26.2x	19.4x	16.1x	16.9x	27.5x	18.8x	17.9x	17.7x	NTM
10-Yr Avg.	15.8x	17.3x	18.9x	22.8x	19.5x	16.3x	13.6x	21.3x	18.4x	17.8x	18.6x	Avg.
P/B	1.9x	2.4x	6.0x	7.8x	4.7x	4.0x	2.2x	8.2x	3.1x	2.1x	3.1x	NTM
10-Yr Avg.	1.8x	2.6x	4.5x	6.6x	5.1x	3.9x	1.5x	6.5x	2.9x	1.9x	3.3x	Avg.
P/FCF	14.0x	25.2x	26.0x	29.8x	22.8x	17.3x	#N/A	31.2x	19.0x	-53.2x	24.7x	NTM
10-Yr Avg.	19.9x	20.4x	20.7x	24.2x	21.0x	16.6x	17.4x	21.7x	17.7x	51.6x	25.9x	Avg.
<b>Return on Equity</b>	12.8%	12.4%	24.7%	29.6%	24.1%	24.5%	13.2%	29.7%	16.7%	11.7%	17.3%	ROE
<b>Return on Assets</b>	6.1%	4.4%	6.8%	7.7%	6.9%	7.0%	1.5%	10.5%	4.5%	2.8%	3.2%	ROA
Return on Inv. Capital	9.0%	6.5%	12.4%	14.1%	11.9%	11.5%	6.8%	16.0%	7.2%	4.3%	3.8%	ROIC
Debt to Equity	0.5x	0.6x	1.1x	1.6x	1.1x	0.9x	0.4x	0.6x	1.0x	1.7x	1.1x	LTM
Dividend Yield	3.5%	2.3%	1.6%	#N/A	2.9%	2.4%	1.8%	0.9%	1.5%	3.0%	3.8%	Div
EPS Growth (est.)	2.3%	13.9%	12.5%	2.5%	2.7%	12.3%	9.2%	17.1%	29.7%	7.7%	4.1%	NTM
1-Year Return	-3.9%	1.4%	22.8%	20.2%	8.4%	-6.0%	29.3%	12.7%	28.1%	23.3%	11.4%	LTM
Beta to S&P 500	0.74	0.88	0.88	1.18	0.39	0.54	0.87	1.33	1.02	0.51	0.75	β

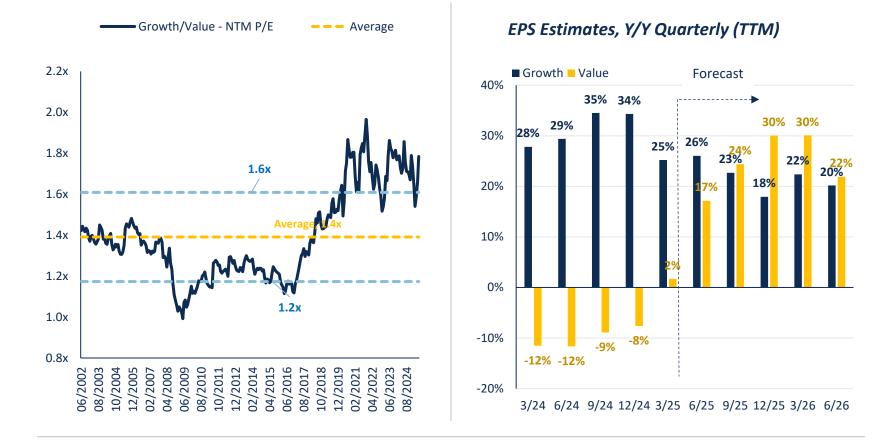
"NTM" indicates next twelve months. NTM valuation metrics are calculated based on current price divided by the estimated eps/book value/free cash flow over the next 12-months. ROE, ROA, and ROIC metrics use most recent net income values divided by average balance sheet values from period-to-period. Correlation and Beta are calculated based on 3-year trailing monthly returns.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Growth vs. Value Equity





(Left): Relative valuation equals NTM P/E on the Russell 1000 growth / NTM P/E on the Russell 1000 Value. Growth is more expensive above 1.4, and cheaper below 1.4. Vice-a-versa for value equity. 22-year monthly history. (Right): Estimated EPS growth by calendar year for both large cap growth and large cap value equity. Both market segments are measured using the Russell 1000 Growth and Russell 1000 Value.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Large Cap vs. Small Cap



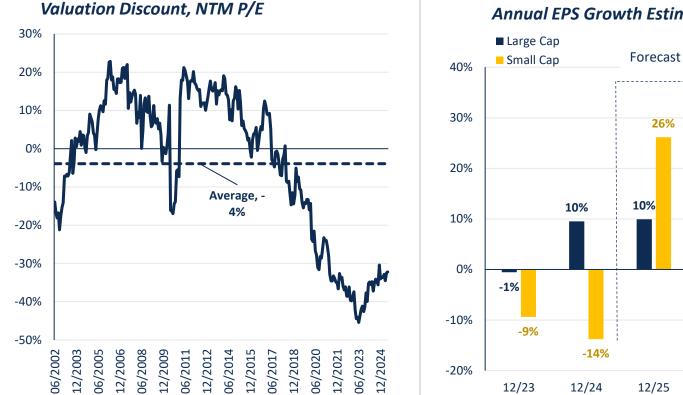
<mark>14%</mark> 12%

12/27

37%

14%

12/26



### **Annual EPS Growth Estimates**

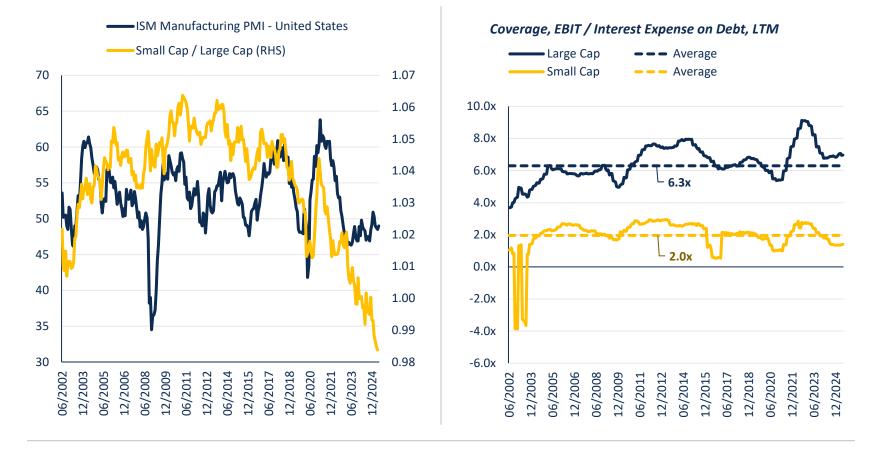
(Left): Relative valuation discount/premium for small cap equities versus large cap equities. Negative values indicate lower valuations for small cap relative to large cap. (Right): Small cap equity earnings yield premium over the 10-year treasury yield (x-axis) vs. the subsequent 5year annualized return for small cap equities. Total returns measured monthly over the last 23 years. Russell 2000 Index is used for small cap equities while the Russell 1000 Index is used for large cap equities

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Large Cap vs. Small Cap (cont.)





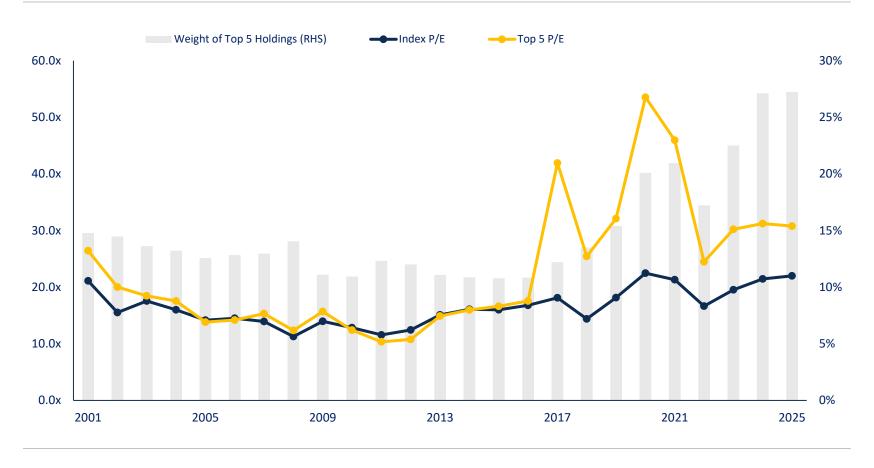
(Left): Small cap equities have historically been more cyclical than large cap equities. Taking the ratio of log prices between the small cap and large cap indices in comparison to ISM Manufacturing shows positive correlations over time. (Right): EBIT / Interest Expense ratio is metric that measures a company's ability to make its interest payments and the safety cushion they have in times of declining operating profits. Higher values are seen as stronger, historically, small cap equities have had lower ratios. Russell 2000 Index is used for small cap equities while the Russell 1000 Index is used for large cap equities.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# S&P 500 Concentration





Each measure for top 5 P/E, index P/E, and top 5 weight are measured at the end of each calendar year with the exception of the current year which is calculated at the end of the most recently completed calendar month.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# *S&P 500 – Top 5 Holdings by Calendar Year*



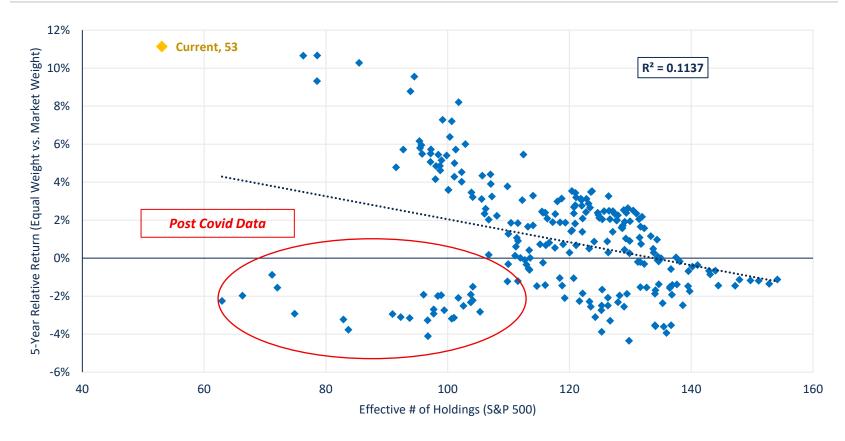
Year	1	2	3	4	5	Cumulative Weight	Average
2002	MSFT	GE	ХОМ	WMT	PFE	14%	15%
2003	GE	MSFT	PFE	XOM	С	14%	15%
2004	GE	XOM	MSFT	С	WMT	13%	15%
2005	GE	XOM	С	MSFT	BAC	13%	15%
2006	XOM	GE	С	MSFT	BAC	13%	15%
2007	XOM	GE	MSFT	Т	PG	13%	15%
2008	XOM	PG	Т	JNJ	GE	14%	15%
2009	XOM	MSFT	AAPL	JNJ	PG	11%	15%
2010	XOM	AAPL	MSFT	GE	CVX	11%	15%
2011	XOM	AAPL	IBM	CVX	MSFT	12%	15%
2012	AAPL	XOM	GE	CVX	IBM	12%	15%
2013	AAPL	XOM	GOOGL	MSFT	GE	11%	15%
2014	AAPL	XOM	MSFT	JNJ	BRK.B	11%	15%
2015	AAPL	MSFT	XOM	GE	JNJ	11%	15%
2016	AAPL	MSFT	XOM	JNJ	BRK.B	11%	15%
2017	AAPL	MSFT	AMZN	META	BRK.B	12%	15%
2018	MSFT	AAPL	AMZN	BRK.B	JNJ	14%	15%
2019	AAPL	MSFT	AMZN	META	BRK.B	15%	15%
2020	AAPL	MSFT	AMZN	META	TSLA	20%	15%
2021	AAPL	MSFT	AMZN	GOOGL	TSLA	21%	15%
2022	AAPL	MSFT	AMZN	BRK.B	GOOGL	17%	15%
2023	AAPL	MSFT	AMZN	NVDA	GOOGL	23%	15%
2024	AAPL	NVDA	MSFT	AMZN	META	27%	15%
2025	NVDA	MSFT	AAPL	AMZN	META	27%	15%

Top 5 holdings, ranked by % weight of total index. Cumulative weight is the sum of the individual weights of the top 5 positions. Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Market Cap Weight vs. Equal Weight





In this chart, we compare the relative returns of the S&P 500 Equal Weighted Index and the S&P 500 Market Cap Weighted Index to the concentration level of the S&P 500 Market Cap Weighted Index. We measure the concentration level by using the HHI Index, which calculates the effective number of stocks in an index/portfolio. The lower the value, the higher the concentration. For example, if the effective number of stocks for the S&P 500 is 100, this means that the index is offering the same level of diversification as an equal weighted index of 100 stocks. This relationship shows that as concentration increases, there is a higher probability that the equal weight index will subsequently outperform the market cap weight index.

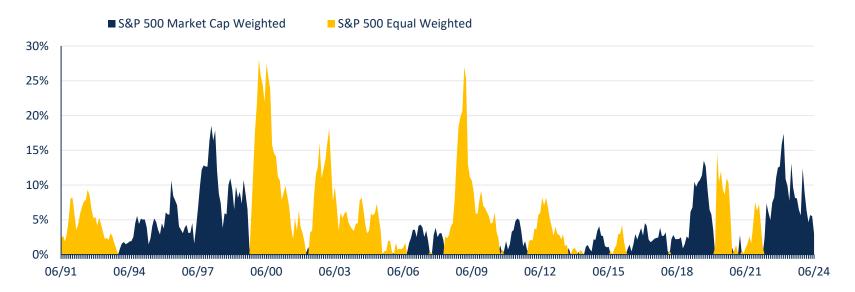
Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# S&P 500 – Market Cap Weight vs. Equal Weight



### Relative Y/Y % Returns, Measured Monthly



	Share of periods outperforming	Average outperformance	Current P/E	Average. P/E	
S&P 500 Market Cap Weighted	49%	5.0%	22.2x	16.8x	
S&P 500 Equal Weighted	51%	6.5%	16.9x	15.6x	

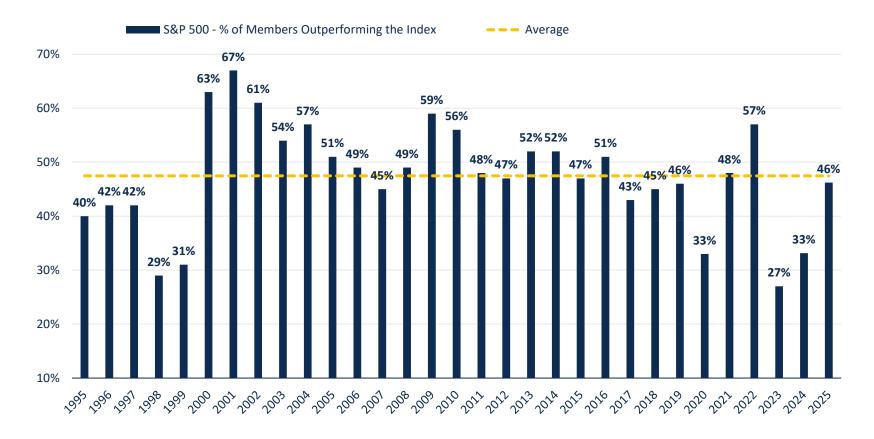
The top chart measures the relative year-over-year (Y/Y) returns between the S&P 500 Market cap weighted index and the S&P 500 equal weighted index. These returns are measured monthly. In the lower table, we've summarized the relative performance and valuation levels for each index since 1990.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Market Breadth





Measuring the percentage of constituents in an index that are outperforming the total index's performance is a popular way to track market breadth. In years with a low percentage, the index is typically "top-heavy" and being driven by a small number of concentrated names. In 2023, we saw the lowest level of market breadth since the late '90s (Tech bubble). Post '99, we saw seven years of above average market breadth.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# International Equity Markets

Raising your Investor IQ





# International Equity Market Performance

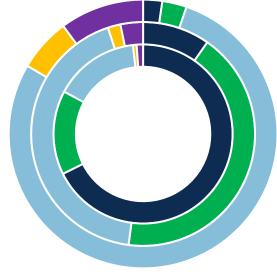


And 6.2% 6.2% 25.0% 25.0% 13.6% 13.6%   orld 7.3% 10.3% 20.7% 18.0% 10.9% 10.5%   8.3% 19.9% 11.8% 4.3% 7.6% 7.0%   ing ts 11.1% 15.6% 13.7% 8.1% 6.9% 5.2%   ed ries 9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   any 19.5% 35.5% 18.7% 11.3% 7.5% 8.1%   19.9% 12.0% 21.2% 8.7% 8.2% 6.4%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	Returns	2025	YTD	20	24	10-Year A	nnualized
6.2%6.2%25.0%25.0%13.6%13.6%orld .7.3%10.3%20.7%18.0%10.9%10.5%8.3%19.9%11.8%4.3%7.6%7.0%ing ts11.1%15.6%13.7%8.1%6.9%5.2%ed ries9.0%19.3%9.5%7.5%7.0%5.5%a9.0%19.3%9.5%7.5%8.1%8.7%a9.0%12.0%21.2%8.7%8.2%6.4%18.1%17.5%19.8%19.7%2.5%2.3%a9.9%15.9%23.0%12.7%9.7%8.8%Kong22.1%20.9%-0.4%0.1%2.4%2.3%	Currency Regions	Local	USD	Local	USD	Local	USD
7.3% 10.3% 20.7% 18.0% 10.9% 10.5%   8.3% 19.9% 11.8% 4.3% 7.6% 7.0%   ing ts 11.1% 15.6% 13.7% 8.1% 6.9% 5.2%   ed ries 9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   e 7.2% 21.5% 1.9% -4.5% 8.1% 8.7%   enny 19.5% 35.5% 18.7% 11.3% 7.5% 8.1%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   16.3% 29.4% -11.4% -29.5% 10.8% 4.7%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	.S.	6.2%	6.2%	25.0%	25.0%	13.6%	13.6%
ing ts11.1%15.6%13.7%8.1%6.9%5.2%ed ries9.0%19.3%9.5%7.5%7.0%5.5%a9.0%19.3%9.5%7.5%8.1%8.7%a9.0%19.3%9.5%1.3%7.5%8.1%b7.2%21.5%1.9%-4.5%8.1%8.7%a9.0%12.0%21.2%8.7%8.2%6.4%a9.9%15.9%23.0%12.7%9.7%8.8%cong22.1%20.9%-0.4%0.1%2.4%2.3%	.C World x-U.S.	7.3%	10.3%	20.7%	18.0%	10.9%	10.5%
ed 11.1% 15.6% 13.7% 8.1% 6.9% 5.2%   ed 9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   om 9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   e 7.2% 21.5% 1.9% -4.5% 8.1% 8.7%   any 19.5% 35.5% 18.7% 11.3% 7.5% 8.1%   2.9% 12.0% 21.2% 8.7% 8.2% 6.4%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   16.3% 29.4% -11.4% -29.5% 10.8% 4.7%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	AFE	8.3%	19.9%	11.8%	4.3%	7.6%	7.0%
Pries   9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   9.0% 21.5% 1.9% -4.5% 8.1% 8.7%   9.0% 12.5% 18.7% 11.3% 7.5% 8.1%   2.9% 12.0% 21.2% 8.7% 8.2% 6.4%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   16.3% 29.4% -11.4% -29.5% 10.8% 4.7%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	imerging Markets	11.1%	15.6%	13.7%	8.1%	6.9%	5.2%
9.0% 19.3% 9.5% 7.5% 7.0% 5.5%   e 7.2% 21.5% 1.9% -4.5% 8.1% 8.7%   any 19.5% 35.5% 18.7% 11.3% 7.5% 8.1%   2.9% 12.0% 21.2% 8.7% 8.2% 6.4%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   16.3% 29.4% -11.4% -29.5% 10.8% 4.7%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	elected Countries						
iny19.5%35.5%18.7%11.3%7.5%8.1%2.9%12.0%21.2%8.7%8.2%6.4%18.1%17.5%19.8%19.7%2.5%2.3%16.3%29.4%-11.4%-29.5%10.8%4.7%a9.9%15.9%23.0%12.7%9.7%8.8%Kong22.1%20.9%-0.4%0.1%2.4%2.3%	Jnited (ingdom	9.0%	19.3%	9.5%	7.5%	7.0%	5.5%
2.9% 12.0% 21.2% 8.7% 8.2% 6.4%   18.1% 17.5% 19.8% 19.7% 2.5% 2.3%   16.3% 29.4% -11.4% -29.5% 10.8% 4.7%   a 9.9% 15.9% 23.0% 12.7% 9.7% 8.8%   Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	rance	7.2%	21.5%	1.9%	-4.5%	8.1%	8.7%
18.1%17.5%19.8%19.7%2.5%2.3%16.3%29.4%-11.4%-29.5%10.8%4.7%a9.9%15.9%23.0%12.7%9.7%8.8%Kong22.1%20.9%-0.4%0.1%2.4%2.3%	Germany	19.5%	35.5%	18.7%	11.3%	7.5%	8.1%
16.3%29.4%-11.4%-29.5%10.8%4.7%a9.9%15.9%23.0%12.7%9.7%8.8%Kong22.1%20.9%-0.4%0.1%2.4%2.3%	apan	2.9%	12.0%	21.2%	8.7%	8.2%	6.4%
a9.9%15.9%23.0%12.7%9.7%8.8%Kong22.1%20.9%-0.4%0.1%2.4%2.3%	China	18.1%	17.5%	19.8%	19.7%	2.5%	2.3%
Kong 22.1% 20.9% -0.4% 0.1% 2.4% 2.3%	Brazil	16.3%	29.4%	-11.4%	-29.5%	10.8%	4.7%
-	anada	9.9%	15.9%	23.0%	12.7%	9.7%	8.8%
6.7% 6.5% 15.7% 12.4% 12.8% 9.5%	long Kong	22.1%	20.9%	-0.4%	0.1%	2.4%	2.3%
	ndia	6.7%	6.5%	15.7%	12.4%	12.8%	9.5%

### **Regional Exposure**

- North America
- Asia Pacific
- Middle East & Africa
- Europe
- Latin America

Duter Rim: MSCI EME; Middle Rim: MSCI EAFE; Inner Rim: MSCI AC World



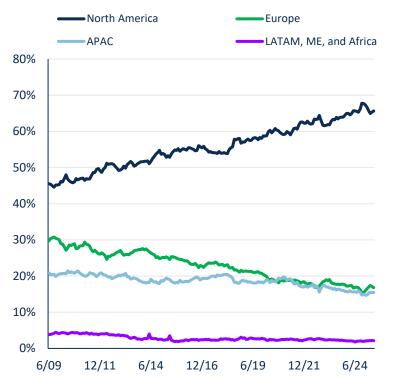
(Left): US; S&P 500, ACWI ex U.S; MSCI ACWX, EAFE; MSCI EAFE, Emerging Markets; MSCI EME, United Kingdom; MSCI UK, France; MSCI France, Germany; MSCI Germany, Japan; MSCI Japan, China; MSCI China, Brazil; MSCI Brazil, Canada; MSCI Canada, Russia; FTSE Russia, India; MSCI India. (Right): MSCI ACWI; MSCI All Country World Index, developed international; MSCI EAFE, emerging market; MSCI EME

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Global Underinvestment





### % Market Weight in MSCI All Country World Index

#### % Share of World Nominal GDP

■ North America ■ Europe ■ APAC ■ LATAM, ME, and Africa



Country	2024	2025	2026	2027
United States	2.8%	1.5%	1.8%	1.9%
Germany	-0.2%	0.2%	1.2%	1.5%
United Kingdom	1.1%	1.1%	1.4%	1.5%
China	5.0%	4.4%	4.2%	4.2%
India	6.5%	6.5%	6.5%	6.5%
Japan	0.2%	0.9%	0.8%	0.8%
Brazil	3.4%	2.1%	1.8%	2.3%
Saudi Arabia	2.0%	3.2%	4.1%	3.7%
South Africa	0.5%	1.0%	1.6%	2.0%

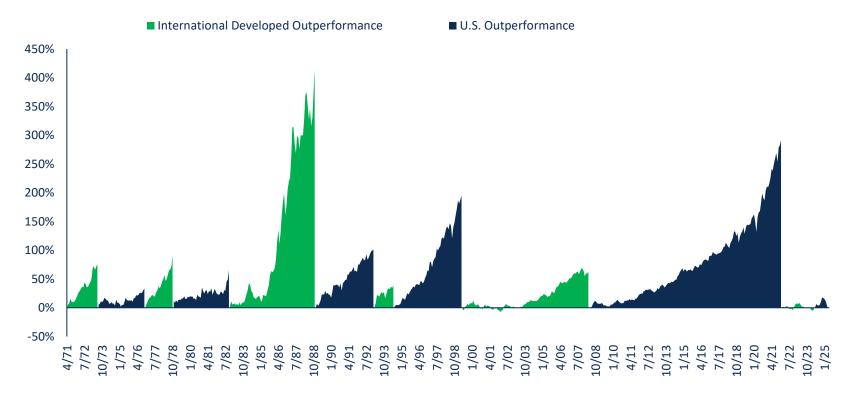
(Left): Represents the market cap weighted exposure of the MSCI All Country World Index grouped by global regions. (Top Right): Regional share of the world's nominal GDP (03/2024). (Bottom Right): Table contains real GDP growth estimates for major countries in each of the world's major global regions. Real growth estimates are a mixed bag globally, but generally non-US countries are expected to also have higher inflations over the next couple of years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# International Equity Cycles





### *Relative Performance, International Developed vs. U.S. Equity*

International developed equity is measured using the MSCI EAFE Index. U.S. Equity is measured using the MSCI USA Index. Periods of cumulative outperformance are reset to zero when a regime change occurs. When one series' outperformance peaks and does not reach a new high over the next 12 months, a regime change is assumed. On 12/2021, the regime flipped from U.S. outperformance to international outperformance. Returns are measured using total return on a cumulative basis.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# International Valuation Discount to U.S. Equities





*Indices used:* International Developed – MSCI EAFE, Emerging Markets – MSCI EM, U.S. – S&P 500. These charts compares the relative valuation levels of International equities to U.S. equities. Negative values represent a discount to U.S., while positive represents a premium.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# **Global Valuations**



### **Global Valuation Z-Scores**



(Left): Range and average is a measure of 20-year monthly historical values. U.S. is measured using the S&P 500 Index while the remaining regions and countries use their respective MSCI Indices.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Regional Summary – Europe



104%

107%

94%

97%

94%

97%

96%

100%

108%

120%

112%

Country	Real GDP	СРІ	Unemploy ment	Gov. Debt
Metric	Y/Y %	Y/Y %	Level %	% of GDP
U.K.	1.3	2.6	4.5	99.1
Germany	-0.2	2.2	3.6	62.4
France	0.6	0.8	7.4	113.1
Italy	0.3	1.9	6.1	135.3
Spain	2.7	2.2	-	101.4
Netherlands	2.2	3.7	3.9	43.4
Poland	-0.1	5.4	5.3	48.0
Switzerland	2.0	0.3	2.8	27.2
U.S.	2.0	2.4	4.2	120.9

■ NTM P/E (% of 5-Year Avg.) ■ Technology Exposure (Revenue)

60%

80%

(Left): Economic data points for various major countries within the European Region compared to the United States. (Right): Next twelves month's price to earnings ratio (NTM P/E) as a % of the average NTM P/E of the last 5-year period for each countries respective FactSet index. Aggregate revenue % derived from technology products and services for each country's respective index.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Regional Summary – Asia Pacific



Country	Real GDP	СРІ	Unemploy ment	Gov. Debt
Metric	Y/Y %	Y/Y %	Level %	% of GDP
China	5.4	-0.1	5.2	28.3
India	7.4	3.3	#N/A	56.6
Japan	1.7	3.6	2.5	211.7
South Korea	0.0	#N/A	2.9	45.4
Philippines	5.4	1.8	4.0	63.3
Indonesia	4.9	1.9	4.8	39.0
Australia	-0.5	3.0	6.8	81.4
Thailand	3.1	0.9	0.9	57.5
Singapore	3.9	0.9	2.0	168.1
U.S.	2.0	2.4	4.2	120.9

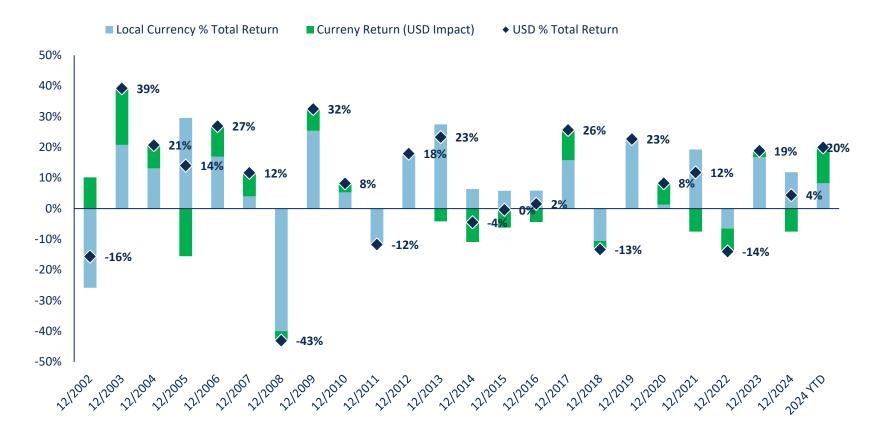
(Left): Economic data points for various major countries within the Asia Pacific Region compared to the United States. (Right): Next twelves month's price to earnings ratio (NTM P/E) as a % of the average NTM P/E of the last 5-year period for each countries respective FactSet index. Aggregate revenue % derived from technology products and services for each country's respective index.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# **Currency Impact on Returns**





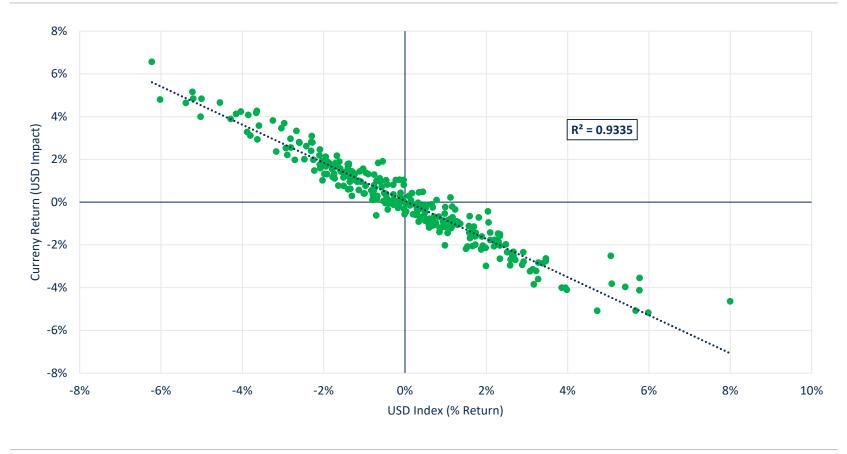
Index used: MSCI EAFE Index. This chart displays the calendar year total return % for the index in U.S. Dollar. Each year's return is broken out by the return in local currency (foreign) and the % impact from USD. Local currency return + USD impact = Total % return in USD.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# International Return





This chart represents the relationship between monthly percentage changes in the USD Index and the currency component of the MSCI EAFE Index's total monthly returns. There is a strong negative correlation displayed in this relationship.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Asset Class Correlations



	U.S. Large Cap	International Equity	Emerging Equity	U.S. Bonds	U.S. Corp. HY	Munis	U.S. Dollar	Emerging Debt	Commodities	REITs	Gold	TIPS
U.S. Large Cap												
International Equity	84%											
Emerging Equity	71%	67%										
U.S. Bonds	31%	17%	35%									
U.S. Corp. HY	79%	73%	71%	45%								
Munis	32%	26%	38%	86%	51%							
U.S. Dollar	-38%	-18%	-54%	-37%	-41%	-37%						
Emerging Debt	63%	59%	73%	65%	83%	71%	-51%					
Commodities	44%	38%	47%	-4%	54%	7%	-44%	36%				
REITs	76%	66%	57%	50%	71%	52%	-23%	66%	36%			
Gold	8%	-7%	25%	48%	21%	38%	-48%	35%	21%	21%		
TIPS	44%	29%	40%	83%	57%	72%	-36%	61%	22%	61%	51%	

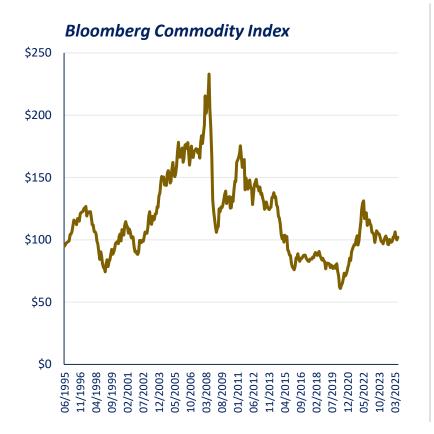
*Indices used in order from U.S. Large Cap to Gold are;* S&P 500, MSCI EAFE, MSCI EME, Bloomberg Barclay's Agg. Bond Index, Bloomberg Barclay's Municipal Bond Index, Federal Reserve effective exch. Rate index, Bloomberg Barclay's Emerging Bond Index, Bloomberg Commodity Index, FTSE All REITS, Credit Suisse Hedge Fund Index, LPX Direct Listed P.E. Index, and GC00 gold futures. Correlation calculations use 10-year historical pricing data.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Commodity Returns





Constituents	2025 Change (%)	Peak to Trough Change (%)
Energy	-1.2%	-42.4%
Crude Oil	-3.2%	-15.8%
Brent Crude	-4.2%	-9.3%
Natural Gas	2.2%	-86.1%
Unleaded Gas	-3.5%	-4.5%
Industrial Metals	8.1%	-7.7%
Copper	24.9%	24.2%
Aluminum	2.9%	-8.0%
Zinc	-7.5%	-21.9%
Nickel	-1.4%	-46.7%
Precious Metals	24.1%	72.8%
Gold	24.4%	75.4%
Silver	22.9%	63.7%
Agriculture	-2.1%	-16.4%
Corn	-10.0%	-36.7%
Cotton	-4.6%	-40.7%
Wheat	-7.6%	-61.6%
Soybean Oil	29.4%	-16.1%
Coffee	-0.6%	77.8%
Sugar	-8.3%	17.9%
Livestock	13.7%	48.7%
Live Cattle	18.1%	77.4%
Lean Hogs	6.1%	10.2%

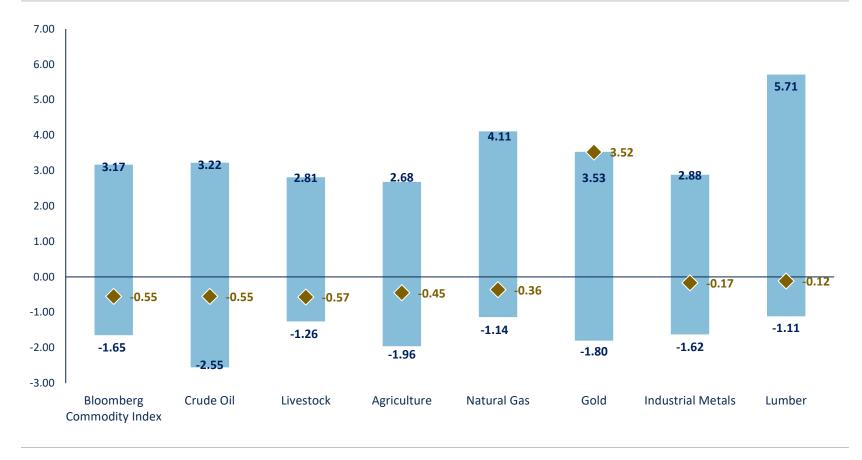
(Left): Bloomberg Commodity Index Price. (Right): Return breakdown of the Bloomberg Commodity Index's primary constituents and subcomponents. Peak to trough returns are measured from 05/31/2022, the peak price date on the overall index, to current.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Commodity Prices and Volatility





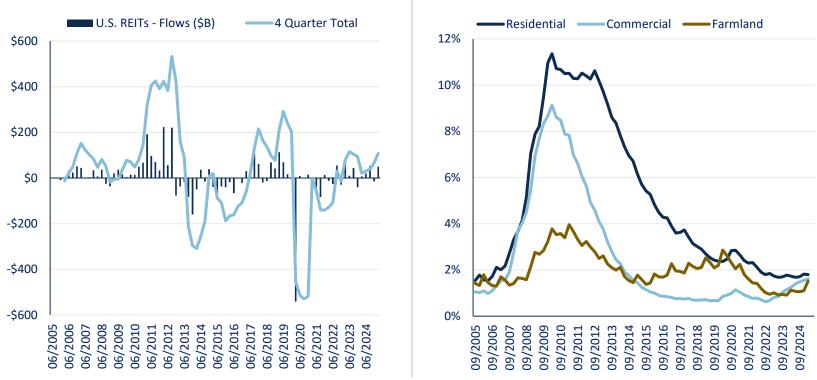
Each bar within the chart is measured by the respective commodity's z-score (left axis). The Z-score calculation measures how many standard deviations each price level is away from it's average. So, when analyzing commodity prices, we are measuring where prices stand <u>given</u> the historic volatility (standard deviation). 20-years of daily historical prices are used in the calculation of Z-score.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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Real Estate





U.S. REITs - Flows (\$B)

**Commercial Banks - % of Loans Deliquent** 

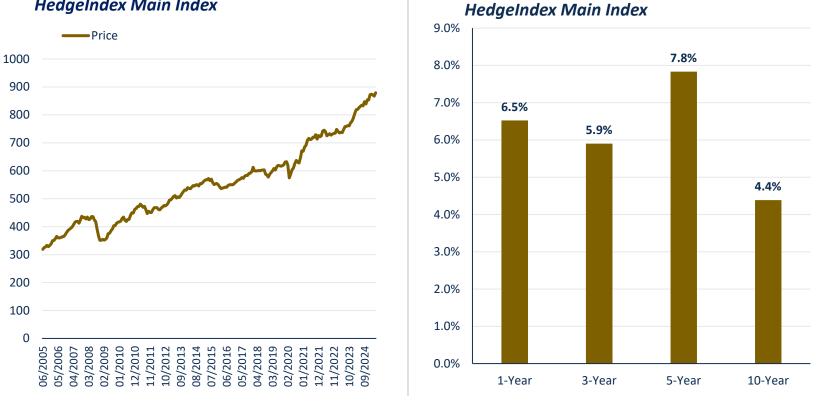
(Left): Net flows (\$B) into U.S. Real Estate Investment Trusts "REITs". (Right): Percentage of real estate loans that are in delinquency by real estate asset type for all U.S. commercial banks.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Hedge Funds





HedgeIndex Main Index

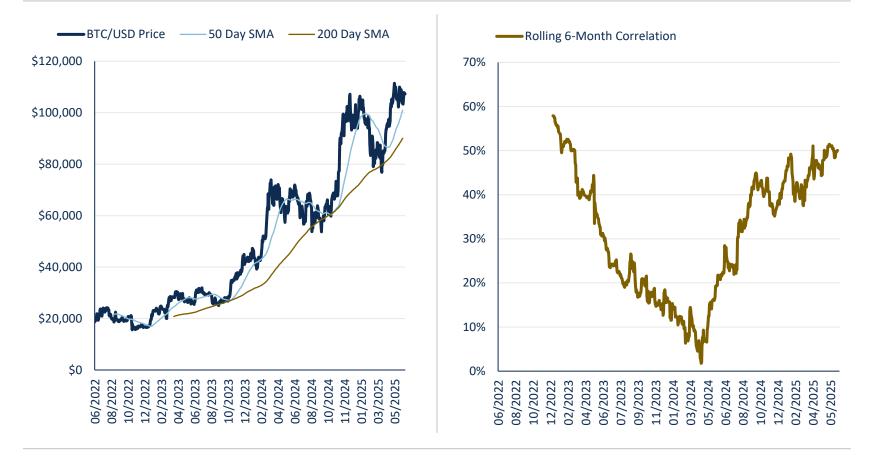
(Left): Credit Suisse Hedge Fund Index - Price Level. (Right): Index used: Credit Suisse Hedge Fund Index. 3-, 5-, and 10-year return values are annualized.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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# Bitcoin Price and Rolling Correlation





(Left): Bitcoin's price is measured relative to USD as the dollar amount of USD per 1 Bitcoin. Moving averages are a simple moving average calculation. Pricing source: BTC USA Futures (BTC00-USA – FactSet Global). (Right): Bitcoin's correlation with U.S. equities (NASDAQ 100) sharply spiked in 2021 and 2022 and has since come back down through 2023, measuring by daily returns.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Time and Savings Impact



This chart displays the impact of a household's gross annual savings rate and the investor's starting age on future portfolio values. Additionally, we assume household income of \$100k and all dollars are invested in equity at an average annual rate of return equal to 7%.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

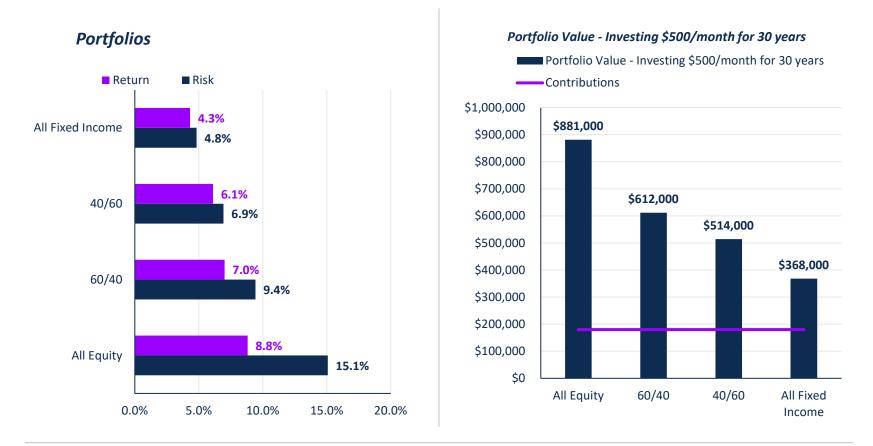
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### **Investing Principles**

North ST R Advisory Group

## Asset Allocation – Risk/Return & Growth





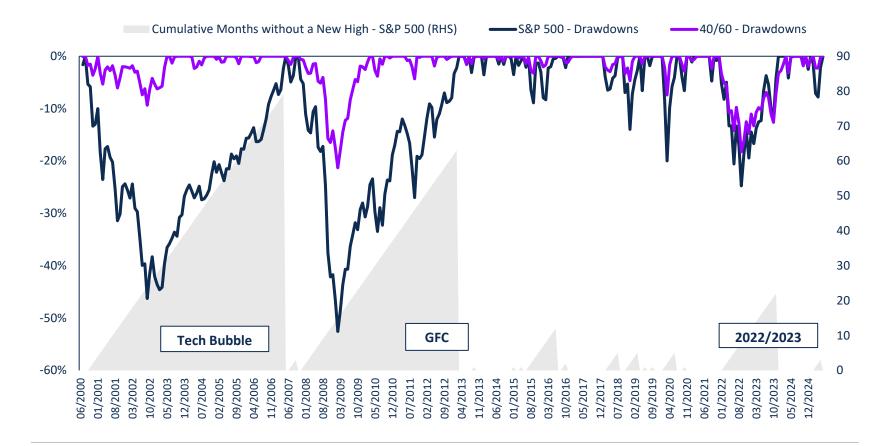
(Left): MSCI All Country World Index is used as a proxy for equity and the Bloomberg Barclays Aggregate Bond Index is used as a proxy for fixed income in each asset allocation's risk and return calculations. Risk and return for each index is measured over the past 30 years. (Right): Ending portfolio values are estimated using the risk and return metrics in the first chart, assuming an investment of \$500 per month for 30 years.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## S&P 500 – Historic Drawdowns and Time to Recovery





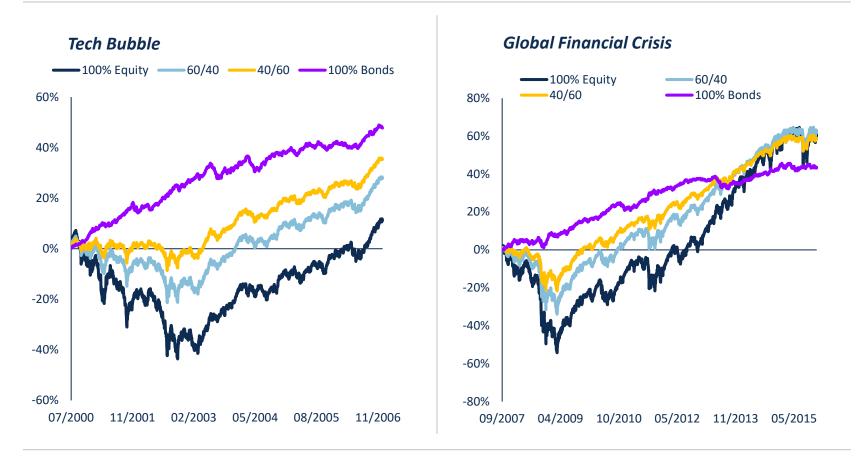
This chart measures drawdowns from prior peaks on the S&P 500 and the time taken (months) to recover each drawdown. The longest time to recovery was during the tech bubble of the early 2000s where the S&P 500 took 79 months to reach a new all time high. The 60/40 portfolio is a 40% blend of the S&P 500 and a 60% blend of the Bloomberg Barclays U.S. Aggregate Bond Index.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Major Market Pullbacks and Recoveries





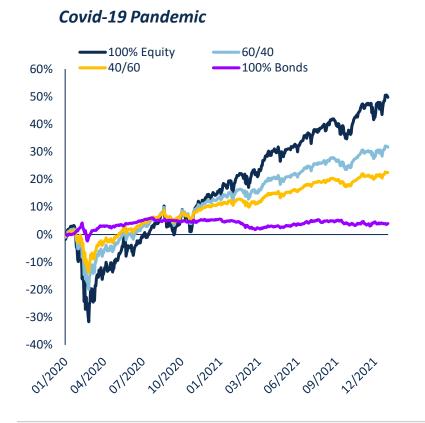
(Left): Tech bubble. (Right): Global Financial Crisis. Each chart shows the respective pullback and recovery for a portfolio of 100% equity, 60% equity and 40% bonds, 40% equity and 60% bonds, and 100% bonds. The S&P 500 Index is used to measure equity returns while the Bloomberg Barclays Aggregate Bond Index is used to measure bond returns.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Major Market Pullbacks and Recoveries





#### 2022 Rate Hike Cycle



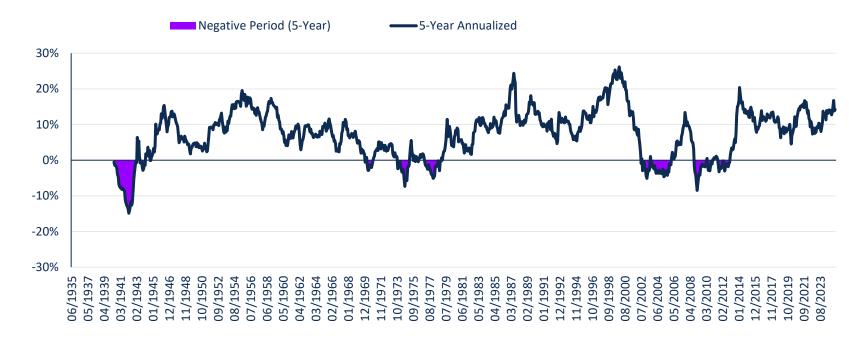
(Left): Covid-19 Pandemic. (Right): 2022 Rate hike cycle. Each chart shows the respective pullback and recovery for a portfolio of 100% equity, 60% equity and 40% bonds, 40% equity and 60% bonds, and 100% bonds. The S&P 500 Index is used to measure equity returns while the Bloomberg Barclays Aggregate Bond Index is used to measure bond returns.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Time Diversification





Statistic	1-Year	3-Year Annualized	5-Year Annualized	10-Year Annualized
Max	53.7%	30.1%	26.2%	16.8%
Min	-52.6%	-17.3%	-14.9%	-5.1%
Average	8.5%	7.3%	7.3%	7.4%
% of Periods Negative	28%	19%	18%	8%

(Top Chart): Rolling monthly annualized price returns for the S&P 500 over the past 90 years measured over 5-year periods. (Bottom Table): Descriptive statistic dataset on the S&P 500's 90-year monthly rolling returns, measured over 1-, 3-, 5-, and 10-year periods.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Benefits of Rebalancing





#### Diversified Equity Portfolio - Past 20 Years

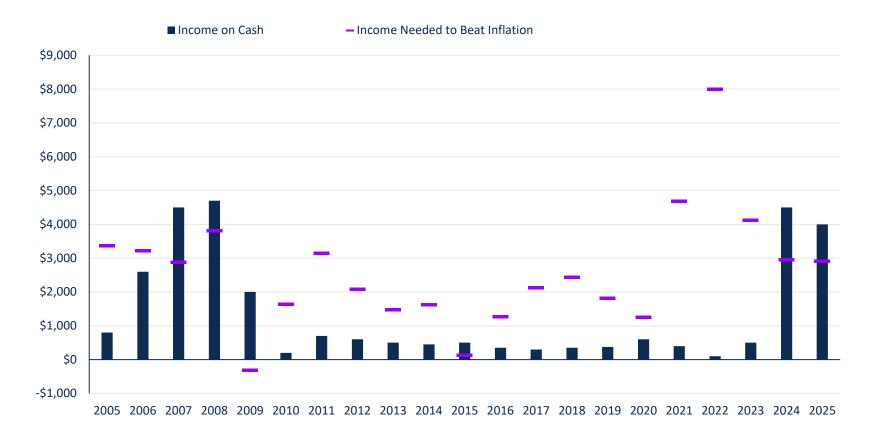
Portfolio construction is 30% Russell 1000 Growth, 30% Russell 1000 Value, 5% Russell Mid Cap, 5% Russell 2000, and 30% MSCI All Country World ex U.S. Quarterly rebalancing offers the highest risk adjusted return in comparison to annual rebalancing and never rebalancing as evidenced by unit of return per 1% of risk taken (Return/Risk).

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Inflation vs. Interest on Savings





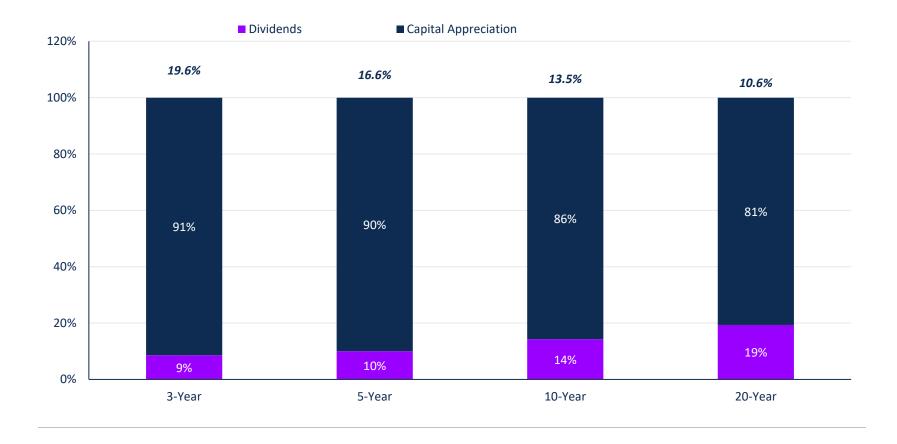
Savings income based on BankRate.com aggregate savings account yield on a calendar year basis. Earnings to beat inflation measured as Core CPI Quarterly YoY growth.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Annualized Returns - Capital Appreciation vs. Dividends

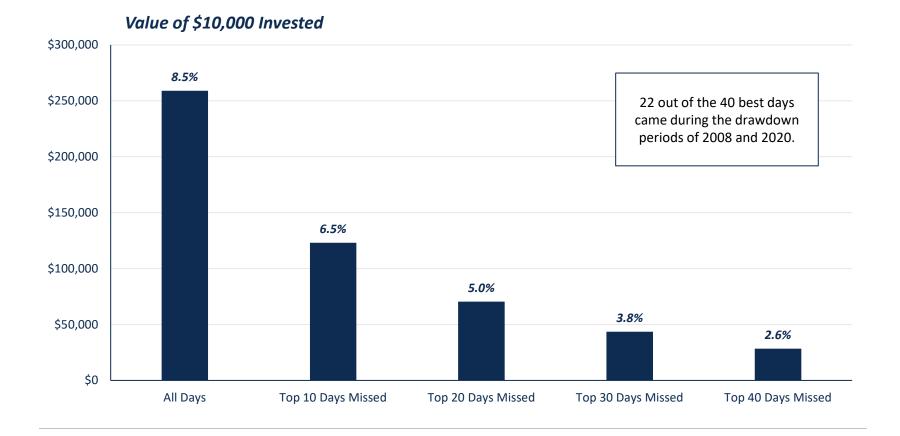




S&P 500 annualized returns broken out between dividend yield return and capital (price) appreciation return contribution percentage. Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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*Index used*: S&P 500. Return values are measured as daily return over a 40-year historical timeline (dividend reinvestment included In calculation). Largest daily gains replaced with 0% gain.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Timing the Market - Daily Price Returns



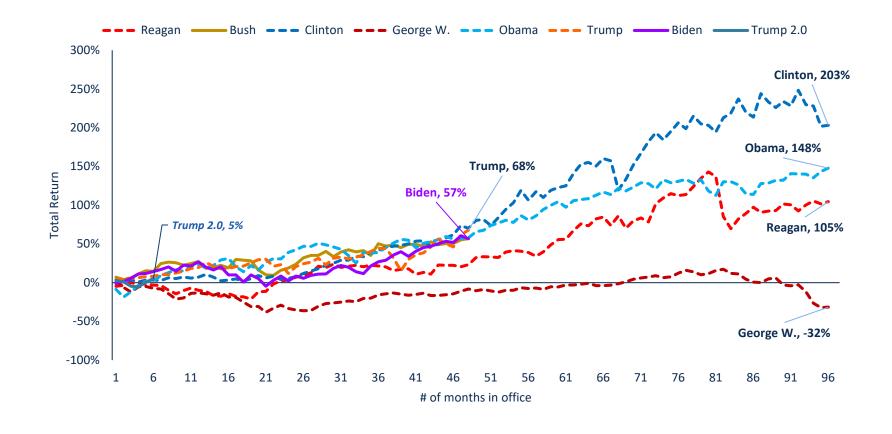
Year	% Up Days	% Down Days	< -3%	>= -3% and < -2%	>= -2% and < -1%	>= -1% and < 0%	>= 0% and < 1%	>= 1% and < 2%	>= 2% and < 3%	> 3%
2005	54%	46%	0	0	17	94	136	13	0	0
2006	54%	46%	0	0	13	98	133	14	2	0
2007	52%	48%	1	10	23	80	116	25	6	0
2008	48%	52%	23	18	34	51	77	28	12	19
2009	54%	46%	12	16	27	57	86	36	16	11
2010	55%	45%	5	5	27	71	114	27	9	3
2011	53%	47%	6	15	27	66	98	34	8	6
2012	51%	49%	0	3	18	97	114	26	3	0
2013	56%	44%	0	2	15	88	135	19	2	0
2014	55%	45%	0	4	15	89	134	17	2	0
2015	46%	54%	2	4	25	102	87	37	3	1
2016	50%	50%	1	4	17	99	114	22	4	0
2017	55%	45%	0	0	4	103	149	4	0	0
2018	51%	49%	5	10	17	87	110	27	4	1
2019	57%	43%	0	5	10	87	137	20	1	1
2020	55%	45%	16	9	20	63	90	45	7	12
2021	55%	45%	0	5	16	88	118	32	2	0
2022	42%	58%	8	15	40	80	58	36	19	4
2023	53%	47%	0	1	27	85	111	35	1	0
2024	55%	45%	0	4	15	90	122	28	3	0
2025	54%	46%	3	3	15	31	59	12	4	2
Average	53%	47%	4	6	20	81	109	26	5	3

This table tracks daily price returns for the S&P 500 Index over the past 20 years. Annually, we measure the % of days with positive returns "Up Days" and the % of days with negative returns "Down Days". Additionally, we count the number of days where price returns fell within a specified range. Over the past 20 years, 2022 and 2015 where the only annual periods where 50% or more of all trading days where negative.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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## Equity Market Returns by Administration



Returns values are a total return calculation on the S&P 500, including dividend reinvestment.

Source: North Star Advisory Group LLC, FactSet | All data and values are as of 6/30/2025, or most recently available.

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### **Investing Principles**

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## **Risks and Disclosures**



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- Additional Sources: BEA U.S. Bureau of Economic Analysis, DOL U.S. Department of Labor, Federal Reserve System, S&P Global, Bloomberg, MSCI Global, FTSE Russell, Credit Suisse, NCREIF – National Council of Real Estate Investment Fiduciaries, ISM – Institute of Supply Management, Yale Economics, U.S. Bureau of the Census, U.S. Bureau of the Census, U.S. Department of Housing & Urban Development.
- Unless otherwise stated, all data and values are as of 6/30/2025, or most recently available.
- Prepared by: Mark Kangas, CFP®, and Brian Duffield, CFA® | See our team here: NSAG Team.



(216) 202-0202 | www.nsag.com | 2000 Auburn Drive Suite 415, Beachwood, OH 44122 | info@nsag.com North Star Advisory Group, LLC is a registered investment advisor. A more detailed description of the company, its management and practices are contained in its Disclosure Brochure, Form ADV, Part 2A. A copy of this form may be received by contacting the company.

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Name:	FactSet Symbol:	Index Family Description:		
S&P 500	SP50	The S&P 500 includes 500 leading companies in leading industries of the U.S. economy. It is a core component of the U.S. indices that could be used as building blocks for portfolio construction. It is also the U.S. component of S&P Global 1200.		
Bloomberg US Aggregate	LHMN0001	The Bloomberg US Aggregate Bond Index, or the Agg, is a broad base, market capitalization-weighted bond market index representing intermediate term investment grade bonds traded in the United States. Investors frequently use the index as a stand-in for measuring the performance of the US bond market.		
MSCI EAFE	990300	The MSCI EAFE Index is an equity index which captures large and mid cap representation across 21 Developed Markets countries* around the world, excluding the US and Canada. With 845 constituents, the index covers approximately 85% of the free floatadjusted market capitalization in each country.		
MSCI EM (Emerging Markets)	891800	The MSCI Emerging Markets Index captures large and mid cap representation across 27 Emerging Markets (EM) countries. With 1,418 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.		
Russell 1000 Value	R.1000V	The Russell 1000 Index is a stock market index that tracks the highest-ranking 1,000 value stocks in the Russell 3000 Index, which represent about 90% of the total market capitalization of that index.		
Russell 1000 Growth	R.1000G	The Russell 1000 Index is a stock market index that tracks the highest-ranking 1,000 growth stocks in the Russell 3000 Index, which represent about 90% of the total market capitalization of that index.		
Russell 2000	R.2000	Built in 1984, the Russell U.S. Indexes are designed to represent the investable U.S. equity market. The indexes are market cap- weighted and include only common stocks incorporated in the United States and its territories. All indexes are subsets of the Russell 3000 Index, which represents approximately 98% of the investable U.S. equity market.		
S&P Completion Energy	SPCI001	The S&P Completion Index (CI) Energy comprises those companies included in the S&P CI that are classified as members of the GICS® Energy sector.		
S&P Completion Materials	SPCI002	The S&P Completion Index (CI) Materials comprises those companies included in the S&P CI that are classified as members of the GICS® Materials sector.		
S&P Completion Industrials	SPCI003	The S&P Completion Index (CI) Industrials comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Industrial's sector.		



S&P Completion Consumer Discretionary	SPCI004	The S&P Completion Index (CI) Consumer Discretionary comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Consumer Discretionary sector.
S&P Completion Consumer Staples	SPCI005	The S&P Completion Index (CI) Consumer Staples comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Consumer Staples sector.
S&P Completion Health Care	SPCI006	The S&P Completion Index (CI) Health Care comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Health Care sector.
S&P Completion Financials	SPCI007	The S&P Completion Index (CI) Financials comprises those companies included in the S&P CI that are classified as members of the GICS® Financials sector.
S&P Completion Information Technology	SPCI008	The S&P Completion Index (CI) Information Technology comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Information Technology sector.
S&P Completion Communication Services	SPCI009	The S&P Completion Index (CI) Communication Services comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Communication Services sector.
S&P Completion Utilities	SPCI010	The S&P Completion Index (CI) Utilities comprises those companies included in the S&P CI that are classified as members of the GICS <sup>®</sup> Utilities sector.
S&P Completion Real Estate	SPCI011	The S&P Completion Index (CI) Real Estate comprises those companies included in the S&P CI that are classified as members of the GICS® Real Estate sector.
MSCI USA Large Cap Value	MS650145	The MSCI USA Large Cap Value Index captures large cap US securities exhibiting overall value style characteristics. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.
MSCI US Large Cap (300)	MS600065	The MSCI US Large Cap 300 Index is designed to measure the performance of the large cap segment of the US equity market. The index represents approximately 71% of the free float-adjusted market capitalization in the US equity market.



MSCI US Large Cap (300) Growth	MS600469	The MSCI USA Large Cap Growth Index captures large cap securities exhibiting overall growth style characteristics in the US. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.		
MSCI US Mid Cap (450) Value	MS600467	The MSCI US Mid Cap 450 Index is comprised of the next largest 450 value companies in terms of market capitalization of the US equity market and designed to measure the performance of the mid cap segment. The index represents approximately 16% of the free float-adjusted market capitalization of the US equity market.		
MSCI US Mid Cap (450)	MS600251	The MSCI US Mid Cap 450 Index is comprised of the next largest 450 companies in terms of market capitalization of the US equity market and designed to measure the performance of the mid cap segment. The index represents approximately 16% of the free floa adjusted market capitalization of the US equity market.		
MSCI US Mid Cap (450) Growth	MS600470	The MSCI US Mid Cap 450 Index is comprised of the next largest 450 growth companies in terms of market capitalization of the US equity market and designed to measure the performance of the mid cap segment. The index represents approximately 16% of the free float-adjusted market capitalization of the US equity market.		
MSCI US Small Cap (1750) Value	MS600468	The MSCI USA Small Cap Value Index captures small cap securities exhibiting overall value style characteristics across the US equity markets. The value investment style characteristics for index construction are defined using three variables: book value to price, 12-month forward earnings to price and dividend yield.		
MSCI US Small Cap (1750)	MS600344	The MSCI US Small Cap 1750 Index is comprised of the remaining smallest 1,750 companies in the US Investable Market 2500 Index of the US equity market and designed to measure the performance of the small cap segment. The index represents approximately 11.5% of the free float-adjusted market capitalization of the US equity market.		
MSCI US Small Cap (1750) Growth	MS600471	The MSCI US Small Cap Growth Index captures small cap securities exhibiting overall growth style characteristics in the US. The growth investment style characteristics for index construction are defined using five variables: long-term forward EPS growth rate, short-term forward EPS growth rate, current internal growth rate and long-term historical EPS growth trend and long-term historical sales per share growth trend.		
MSCI World ex USA	991000	The MSCI World ex USA Index captures large and mid cap representation across 22 of 23 Developed Markets (DM) countries* excluding the United States. With 936 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.		
MSCI United Kingdom	982600	The MSCI United Kingdom Index is designed to measure the performance of the large and mid cap segments of the UK market. With 86 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in the UK.		
FTSE France	180918	The FTSE France RIC Capped Index represents the performance of French large and mid capitalization stocks.		



FTSE Germany	180924	The FTSE Germany All Cap Index is part of a range of indexes designed to help European investors benchmark their investments. It is a market-capitalization weighted index representing the performance of German large, mid and small cap stocks.
MSCI Japan	939200	The MSCI Japan Index is designed to measure the performance of the large and mid cap segments of the Japanese market. With 272 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Japan.
MSCI China	MS302400	The MSCI China Index captures large and mid cap representation across China A shares, H shares, B shares, Red chips, P chips and foreign listings (e.g. ADRs). With 740 constituents, the index covers about 85% of this China equity universe. Currently, the index includes Large Cap A and Mid Cap A shares represented at 20% of their free float adjusted market capitalization.
MSCI Brazil	907600	he MSCI Brazil Index is designed to measure the performance of the large and mid cap segments of the Brazilian market. With 53 constituents, the index covers about 85% of the Brazilian equity universe.
MSCI Canada	912400	The MSCI Canada Index is designed to measure the performance of the large and mid cap segments of the Canada market. With 91 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in Canada.
FTSE Russia	i04787	The FTSE Russia RIC Capped Index represents the performance of Russian large and mid capitalization stocks.
MSCI India	935600	The MSCI India Index is designed to measure the performance of the large and mid cap segments of the Indian market. With 101 constituents, the index covers approximately 85% of the Indian equity universe.
Bloomberg US Corporate Investment Grade	LHMN2765	The Bloomberg Barclays U.S. Corporate Bond Index is an unmanaged market-value-weighted index of investment-grade corporate fixed-rate debt issues with maturities of one year or more. You cannot invest directly in an index.
Bloomberg US High Yield - Corporate	LHMN2814	The Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Bloomberg EM country definition, are excluded (Future Ticker: 100012US)
Bloomberg US MBS (30 Y)	LHMN10926	The Index tracks agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC); investment grade debt asset backed securities; and investment grade commercial mortgage-backed securities. The index is constructed by grouping individual pools into aggregates or generics based on program, coupon, and vintage. You cannot invest directly in an index.



Bloomberg US CMBS 2.0	LHMN26711	The Index tracks agency mortgage-backed pass-through securities (both fixed-rate and hybrid ARM) guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC); investment grade debt asset backed securities; and investment grade commercial mortgage-backed securities. The index is constructed by grouping individual pools into aggregates or generics based on program, coupon, and vintage. You cannot invest directly in an index.
FactSet Market Indices - Emerging	FR0000R5	FactSet Market Indices are time-series composite indices based on proprietary country, region, sector, and industry classifications. Aggregates are valuable benchmarks for company and trend analysis.
FactSet Market Indices - Asia Pacific	FR0000R2	
FactSet Market Indices - Europe	FR0000R3	
FactSet Market Indices - Japan	FC0000JP	
Bloomberg Municipal Bond	LHMN0730	The Bloomberg Barclays Municipal Bond Index is an unmanaged index composed of long-term tax-exempt bonds with a minimum credit rating of Baa. You cannot invest directly in an index.
Federal Reserve nominal broad effective exchange rate index - United States	FRBUSANEXB	Nominal effective exchange rates are calculated as geometric weighted averages of bilateral exchange rates. Used for calculating correlation of asset class returns to currency fluctuations
Bloomberg Emerging Markets USD Aggregate	LHMN0014	The Bloomberg Barclays Emerging Markets Hard Currency Aggregate Index is a flagship hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers. You cannot invest directly in an index.
Bloomberg Commodity Index	BBGCICMP	The Bloomberg Commodity Index (BCOM) is a broadly diversified commodity price index distributed by Bloomberg Indexes.
FTSE Nareit All REITs	FNARXXXX	The FTSE NAREIT US Real Estate Index Series is designed to present investors with a comprehensive family of REIT performance indexes that span the commercial real estate space across the US economy, offering exposure to all investment and property sectors. In addition, the more narrowly focused property sector and sub-sector indexes provide the facility to concentrate commercial real estate exposure in more selected markets.
Credit Suisse Hedge Fund Index	CSTHF000	The Dow Jones Credit Suisse Hedge Fund Indexes (formerly known as the Credit Suisse/Tremont Hedge Fund Index) offer asset- weighted benchmarks of hedge fund performance, using rules-based selection criteria, transparent methodology and published constituents. Flagship indices include Dow Jones Credit Suisse Hedge Fund Index, Dow Jones Credit Suisse Core Hedge Fund Index, Dow Jones Credit Suisse All Hedge Index, Dow Jones Credit Suisse Blue Chip Hedge Fund Index and Dow Jones Credit Suisse LEA Hedge Fund Index.
LPX Direct Listed Private Equity Index	LPXDITU	Based on a global universe of listed private equity companies, the LPX Listed Private Equity Index Series are modularly structured to ensure optimal benchmarking. A proprietary industry classification scheme ensures transparency and comparability and thus a representative composition of the indices.
Gold NYMEX Near Term (\$/ozt)	NYGOLD-FDS	** Gold Futures prices measured to observe correlation with other asset classes **



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