



The Stock Market Story 2025

How does the stock market work? Why does it behave the way it does? What are the proof points that can instill confidence that the stock market remains a good place to invest your assets?

Historical trends provide a frame of reference for developing a range of future economic and market activity. When trying to develop a forecast for the stock market, interest rates, or anything else, the key question is how good or how bad might things be? . History, and the linkage between market variables, provide a helpful guide. “Uncertainty” is the range of outcomes of each of the variables we are trying to forecast. “Base rates” are the historical range of each variable, and help develop a realistic perspective about the likely future range of those variables.

But first, we have to know the base rates....

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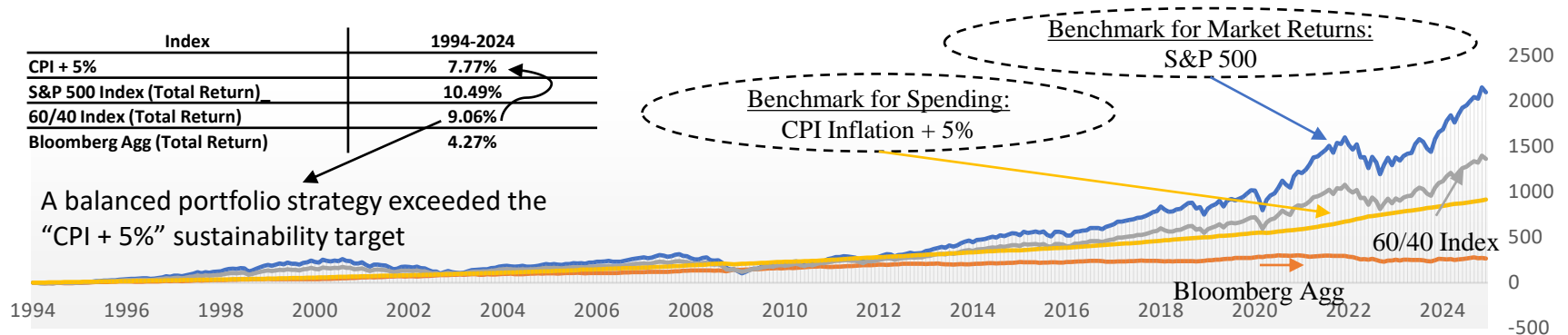
Introduction

The Stock Market Story 2025 provides information that can help investors consider the trends that drive performance of the stock market. The markets seem chaotic many days, but understanding the rhyme and reason of stock market trends can help us to be better investors.

Key Points

1. We think growth trends in assets, sales, profits and dividends are helpful to understand the sources of stock market performance. These trends might be different in the future, but we believe they provide an indication of the level of growth needed to sustain future stock market performance.
2. Forecasting the performance and growth of the economy and markets is different than forecasting household and investor behavior, but they are related. Investing involves anticipating shifts in economic and market trends, but also shifts in behavior.
3. We believe historical growth in U.S. GDP and corporate profits, and the long-term performance of the U.S. stock market reflect stable relationships between economic growth and market performance. These trends and relationships could change in the future, but the substantial size of aggregate household net worth, and the existing level of corporate financial resources, are important considerations when developing forecast of future economic and market performance.
4. Although the corporate and consumer sector can be viewed as “net savers”, the government sector has been a consistent “net borrower”. The size of the government sector, relative to the overall economy, influences resource allocation and the potential for economic growth.
5. We believe recent government policies, including management of the Fed Funds rate and quantitative easing, have managed interest rates to levels that have been different than rates that might have been established through equilibrium market forces. For investors, distortions in market prices can impact valuation and expected returns, requiring adjustments to investment strategy.

- **The Stock Market Story** 2025 provides information to answer an ongoing question: Can investing in the stock and bond markets offer a good solution for the challenges of preserving wealth and providing cash income?
- The chart below is our first step in answering this question by showing that the well-known “60/40” balanced investment strategy has provided returns that exceed our inflation + 5% return required for **sustainability**.

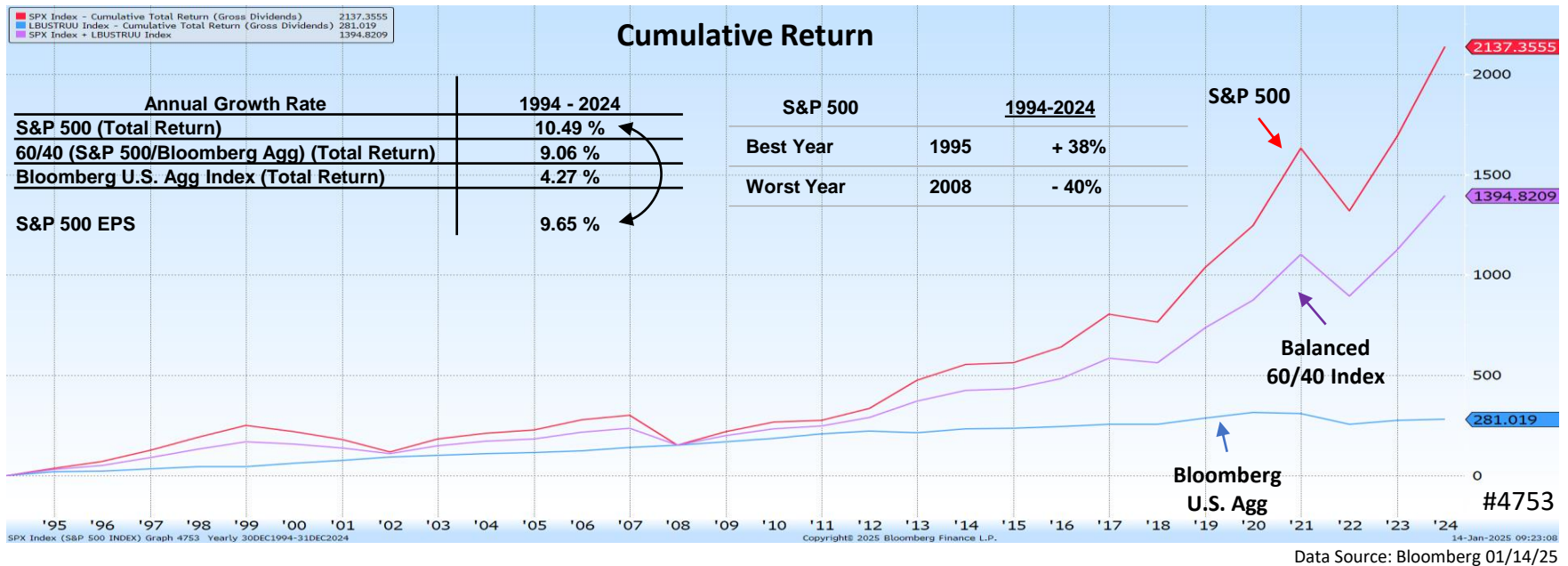


“Sustainability” Requires Thinking About Reconciling Two Benchmarks:

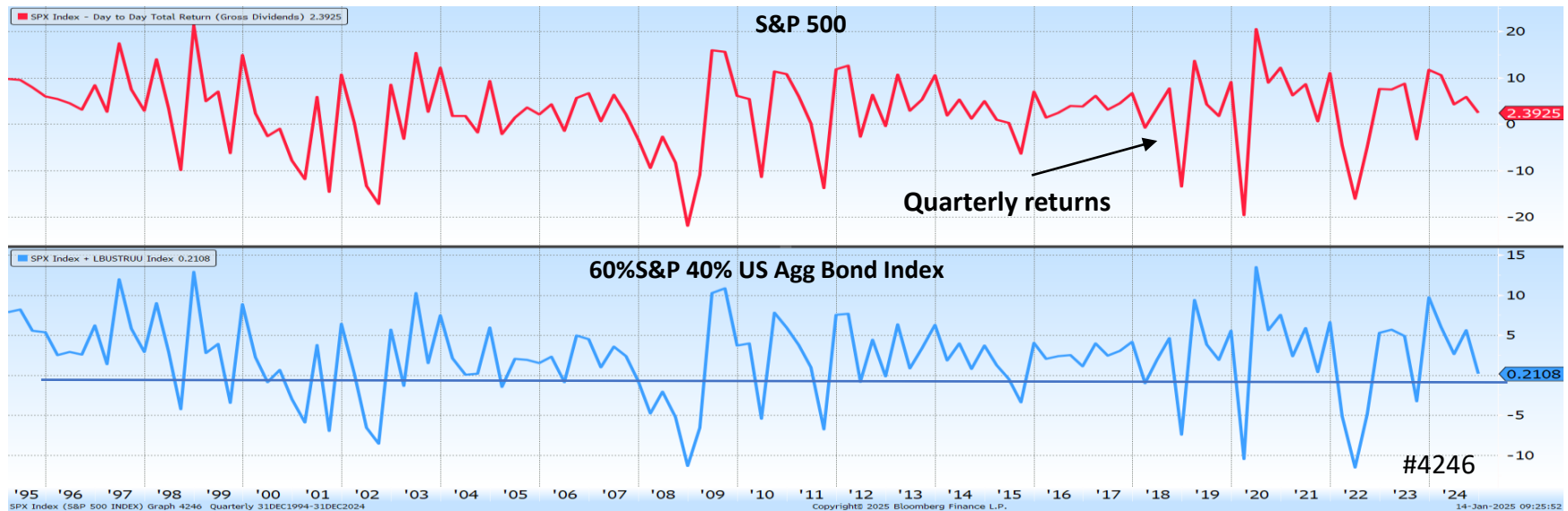
Data Source: Bloomberg 01/14/25

1) Investment Performance and 2) Annual Withdrawals for Spending

- The most familiar **frame of reference for investment performance** is provided by historical returns of stocks and bonds. A balanced asset allocation consisting of stocks and bonds is typically used for diversified portfolios. A blended benchmark consisting of 60% S&P 500 and 40% Bloomberg Aggregate is a commonly used benchmark for investment performance.
- We think investors should consider a second frame of reference, one that is more relevant to their financial planning objectives. The second **frame of reference is the level of annual return needed to provide after-inflation “wealth preservation”**. The benchmark for wealth preservation quantifies the level of returns **needed to meet long-term spending forecasts**. To account for portfolio withdrawals, inflation and taxes, we think a performance benchmark for wealth preservation should be **CPI Inflation + 5%**.
- Will the history of market performance in the past 30 years continue in the future? The charts, data and commentary in this presentation provide information for you to develop your own conclusion.

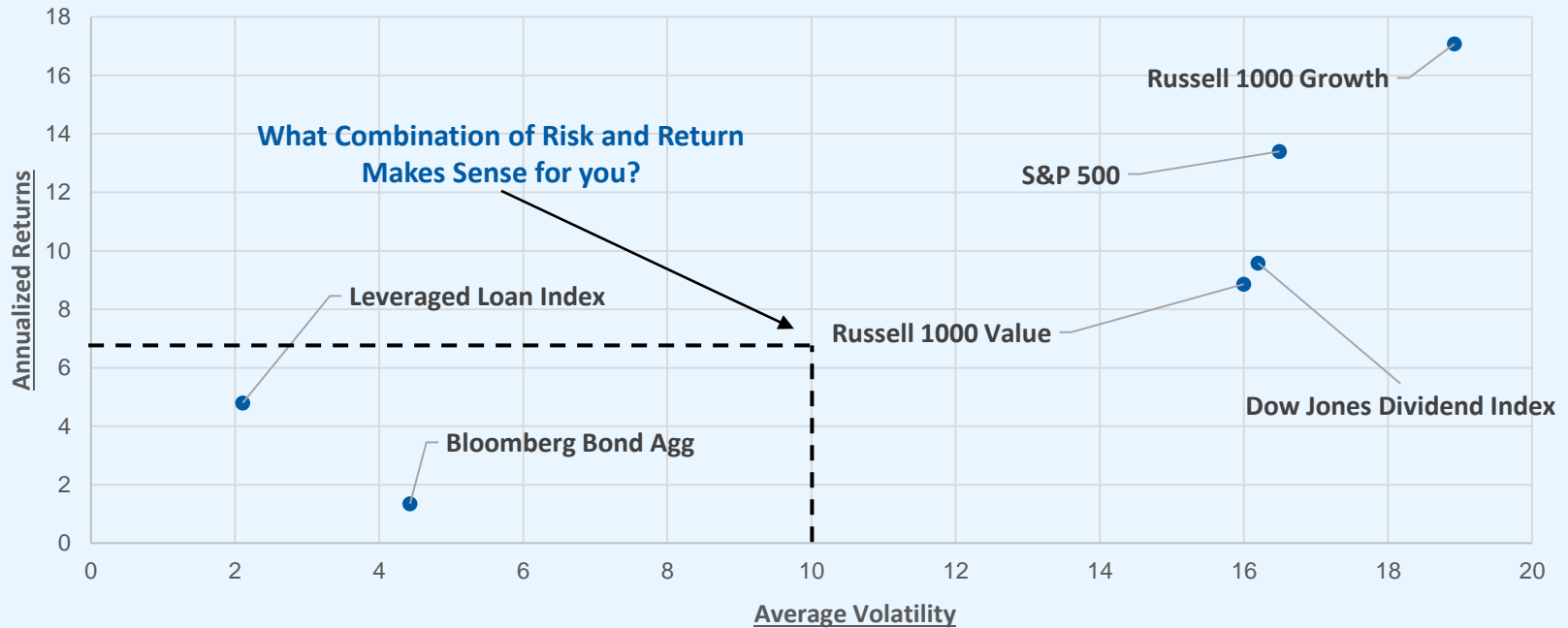


- Despite periodic declines, cumulative returns provide perspective about the long-term performance of the U.S. stock market.
- The performance of “stocks”, as an asset class, is often very different than the performance of individual stocks.
- “Total return” includes price changes in the S&P 500 index and reinvestment of dividends into the index.
- Note the close relationship between “total return” of the S&P 500 and earnings growth.
- Low interest rates in recent years have led to **significant differences between the performance of stocks and bonds**.
- Will the stock market continue to deliver returns comparable to what’s been achieved over the past 30 years? We think the biggest part of that answer depends upon future earnings growth. The following pages provide trends in the drivers of earnings growth.



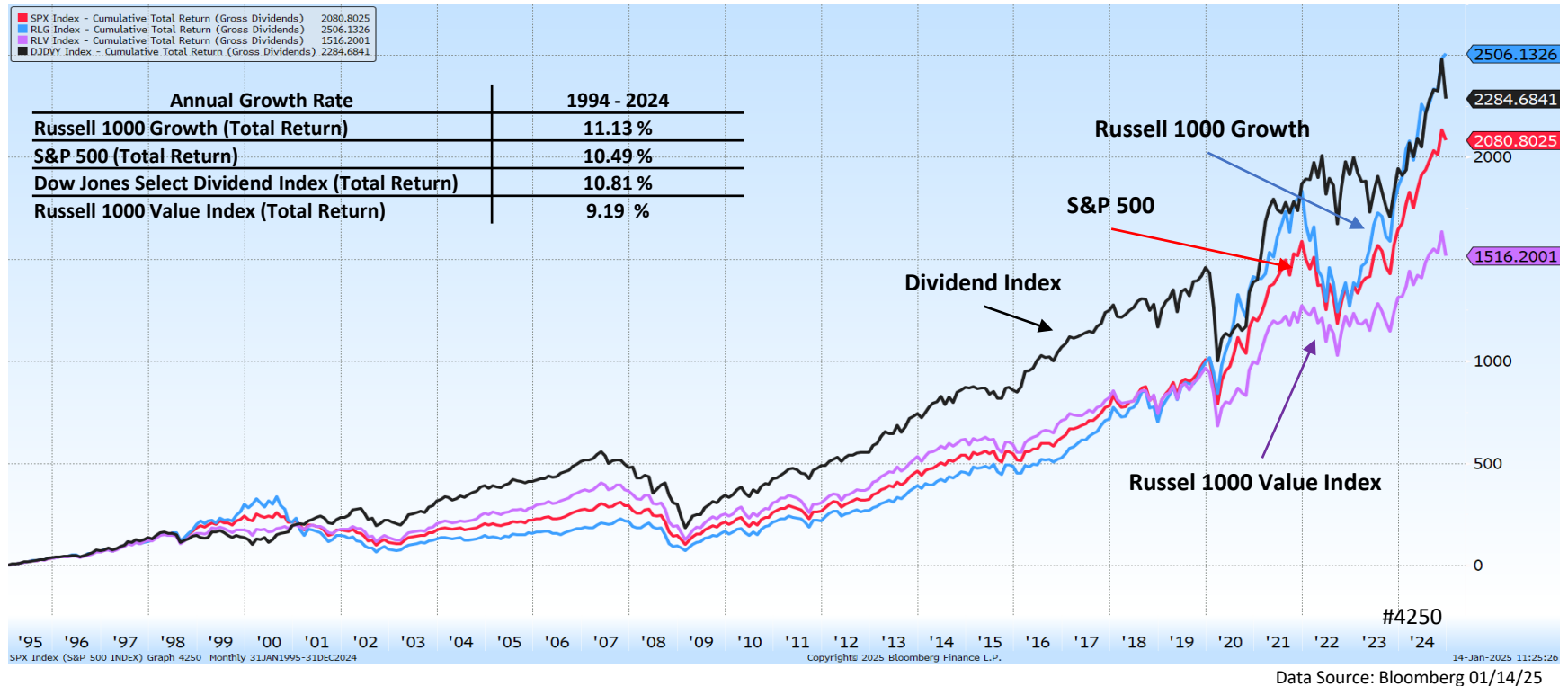
Data Source: Bloomberg 01/14/25

- Developing a view about the likely performance of your investments includes anticipating the range of good or bad performance.
- This chart shows that the plus/minus range of all stock portfolios was much greater than balanced portfolios. Balanced portfolios had smaller declines in bad years than all-stock portfolios.
- The investment strategy tradeoff between return and risk has historically led many investors to a preference for a balanced asset allocation of stocks and bonds.
- While long-term charts provide perspective about stock market performance, the “lived experience” of short-term fluctuations can shake confidence in maintaining long-term commitments to the stock market.

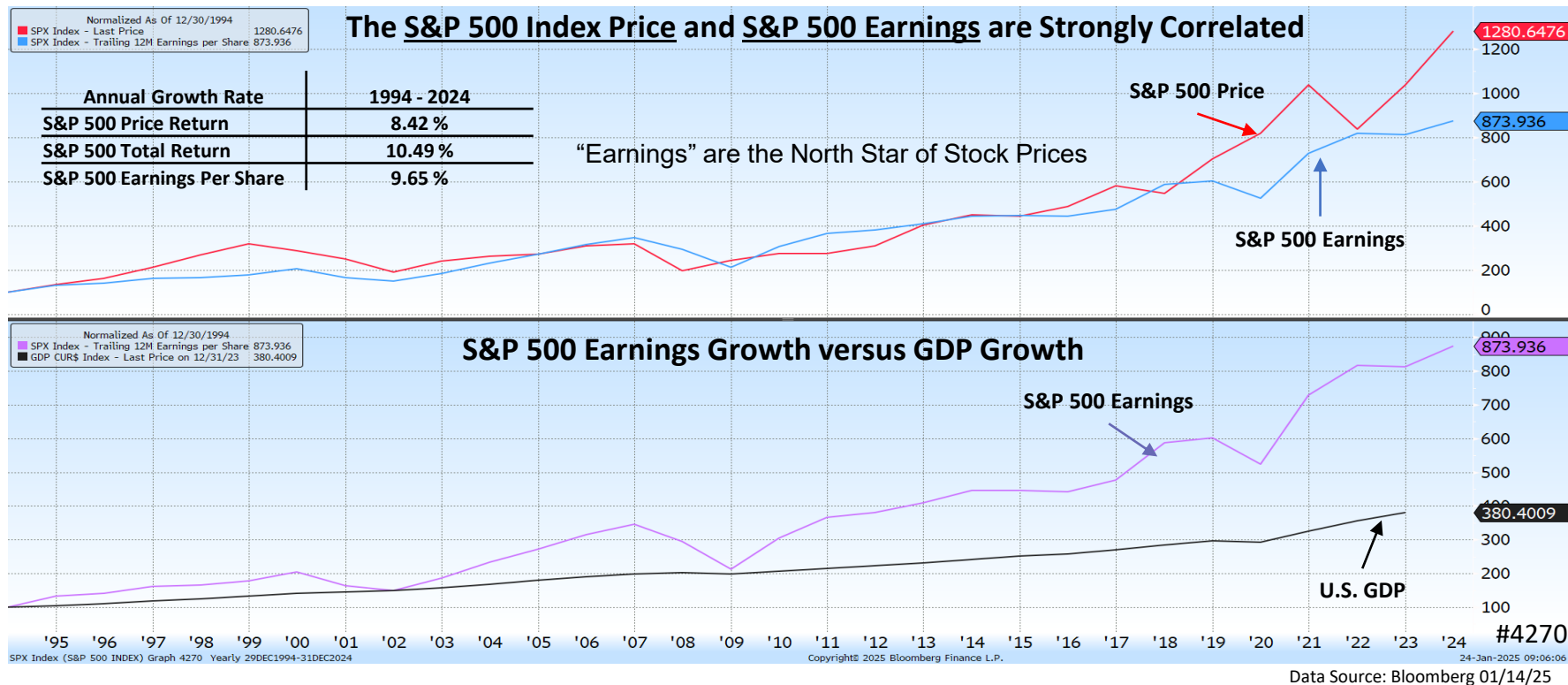


Data Source: Bloomberg 01.14.25

- The “capital market line” compares both the return and risk of different asset classes. The relationship between return and risk over the past 10 years is consistent with longer term trends.
- The capital market line helps investors consider the level of volatility associated with an investment strategy, and whether the potential range of outcomes each year is reasonable in **the context of financial planning objectives**.
- Like other charts in this presentation, the comparison of return and risk are shown for asset class indices, which could be very different than the risk/reward of individual stocks or bonds. The “portfolio level” relationship between return and risk is predicated upon a prudent level of diversification.

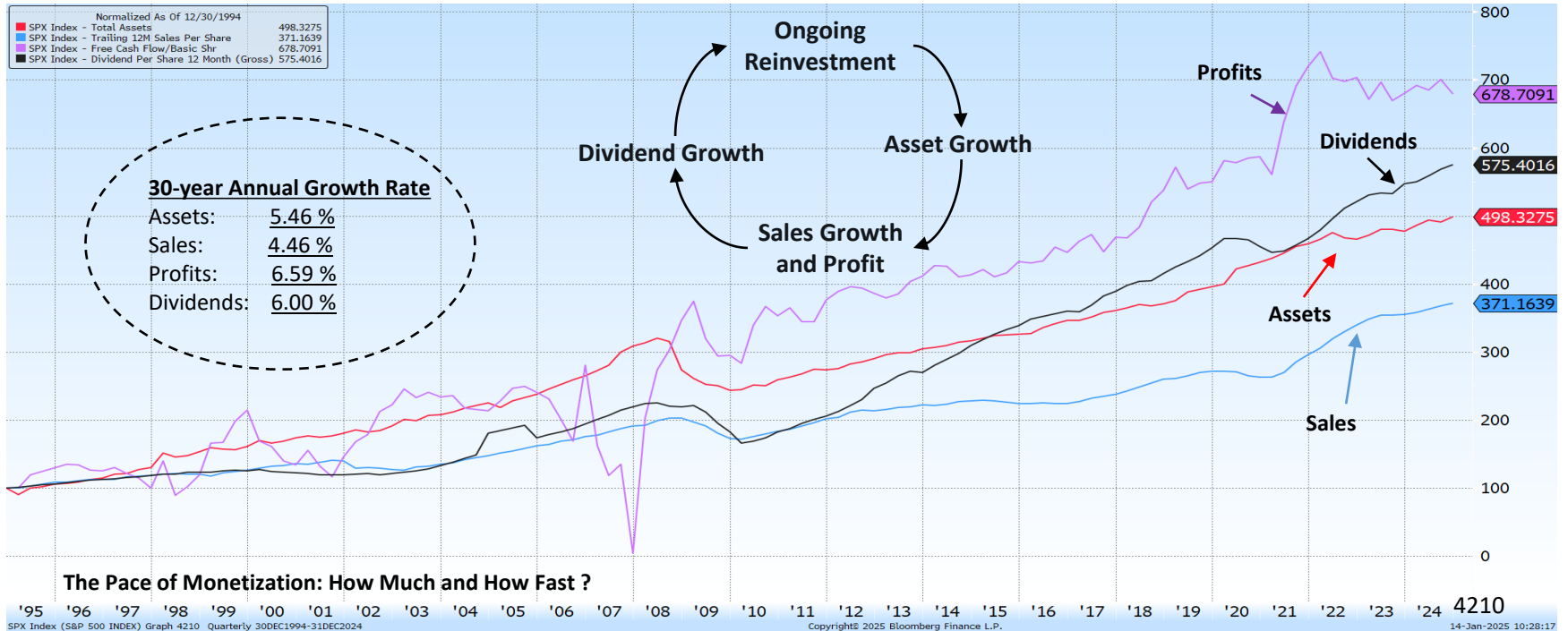


- Performance differences, or “dispersion” between equity styles have varied during different time periods, making the choice of one style versus another an important consideration.
- Low dispersion between equity styles enables preference for returns from “growth” or “income” to be less likely to have an opportunity cost.
- Unprecedented monetary policies and government stimulus in recent years, leading to very low interest rates, has led to sharp differences in the performance of different equity styles. In particular, we think low interest rates between 2008 and 2022 benefitted the valuation and performance of growth stocks.



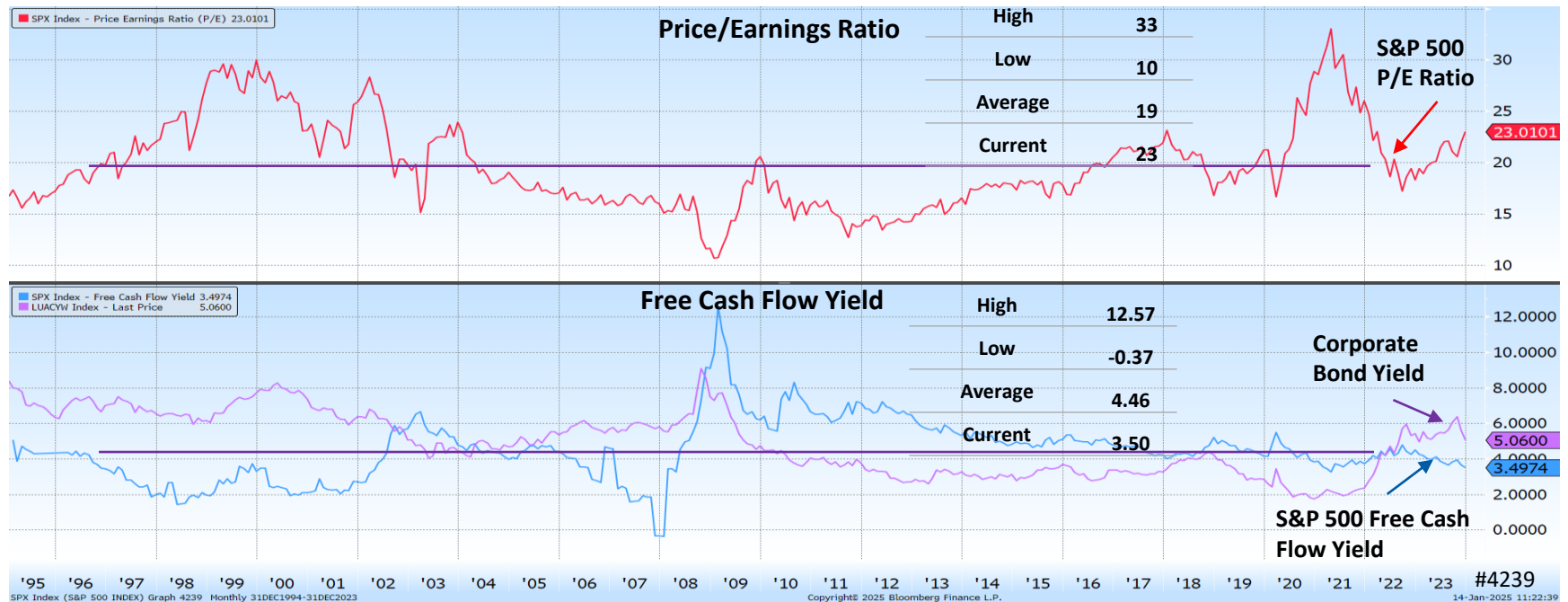
- The chart above shows the percentage change in earnings compared to the percentage change in the S&P 500 index price.
- Over long time periods, the growth rate of the S&P 500 earnings and the index price are closely related: **Earnings are the North Star for the direction of the stock market.**
- The lower chart compares the growth of U.S. GDP and of S&P 500 earnings, showing that S&P 500 earnings have growth faster than the U.S. economy as a whole.

The Stock Market is a Machine: The S&P 500 Investment Cycle



Data Source: Bloomberg 01/14/25

- The **investment cycle** is an ongoing process in which companies raise capital to buy assets, convert those assets into sales and profits, reinvest profits for growth, and seek to return excess cash to investors.
- This chart shows trends in each of the elements of the investment cycle, and how those trends relate to each other. The combination of these trends is the **“pace of monetization”**.
- The “pace of monetization” relationship between each of the elements of the investment cycle suggests to us that the stock market growth formula is working: the magnitude of asset growth is matched by a similar magnitude of earnings growth.



Data Source: Bloomberg 01/14/25

- Various approaches can be used to measure valuation of the stock market. We prefer to monitor the price/earnings ratio and free cash flow yield. Stable GDP growth and inflation might suggest that valuation trends would be stable, from one year to the next, but they are not.
- Changes in valuation measures occur for different reasons at different times. We believe interest rate trends and sentiment about the potential for earnings growth are key factors driving valuation multiples.
- Measures of current valuation versus long-term averages can provide perspective about whether current expectations might be too high or too low. Investing when expectations and valuations are too high can lead to poor future returns.
- These charts provide valuation information for the well-known S&P 500. An important question for each investor is whether the S&P 500, or another stock market index, is relevant and appropriate to guide investment strategy. Benchmarks are often used to guide strategy.

S&P 500 Sales : 1994 to 2024*

- This chart shows the long-term “growth channel” of S&P 500 sales. The chart shows the range of annual growth within the boundaries, providing a “**base rate**” perspective about the range of annual sales growth.

Sales

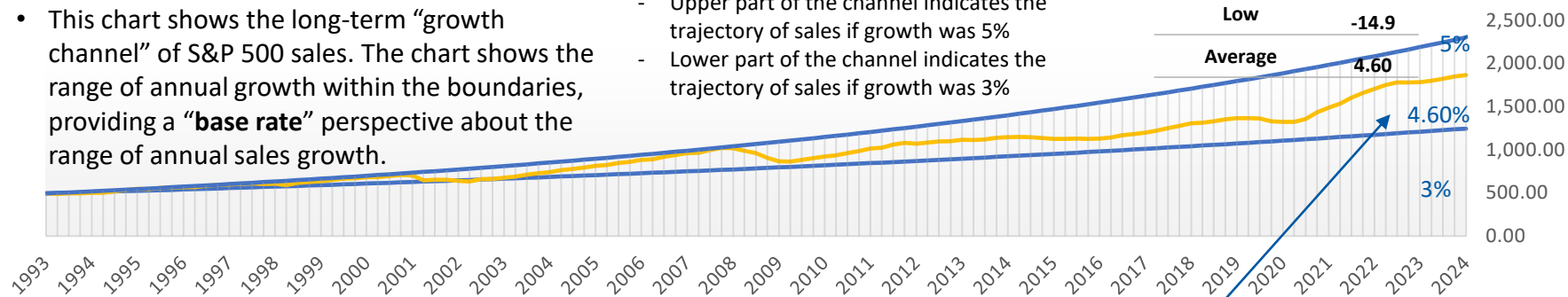
- Upper part of the channel indicates the trajectory of sales if growth was 5%
- Lower part of the channel indicates the trajectory of sales if growth was 3%

Annual Sales Growth

| | |
|------|------|
| High | 18.2 |
|------|------|

| | |
|-----|-------|
| Low | -14.9 |
|-----|-------|

| | |
|---------|------|
| Average | 4.60 |
|---------|------|

S&P 500 Earnings : 1994 to 2024*

- S&P 500 earnings growth has averaged 9.2% over the past 30 years. Operating and financial leverage contribute to earnings growing faster than sales.

Going forward, our forecasts are based on belief that annual growth will be within these ranges

Data Source: Bloomberg 01/14/25

Annual Earnings Growth

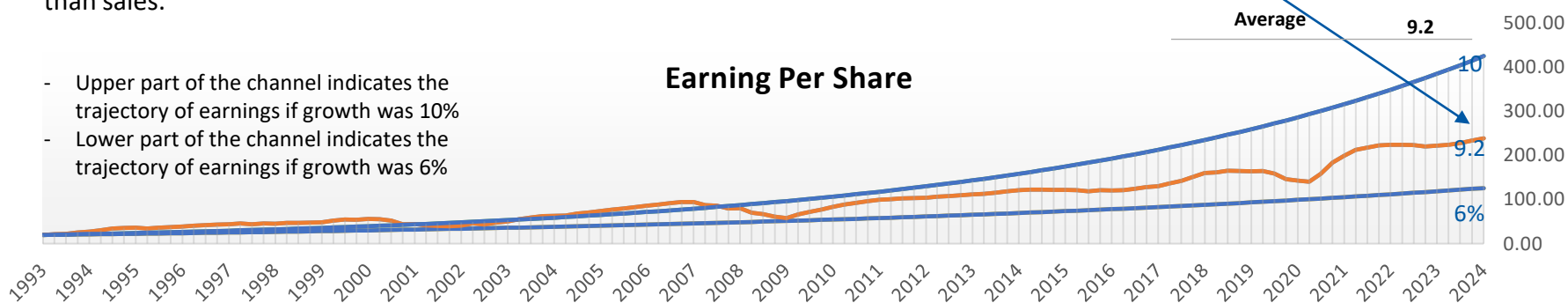
| | |
|------|------|
| High | 52.3 |
|------|------|

| | |
|-----|-------|
| Low | -27.7 |
|-----|-------|

| | |
|---------|-----|
| Average | 9.2 |
|---------|-----|

Earning Per Share

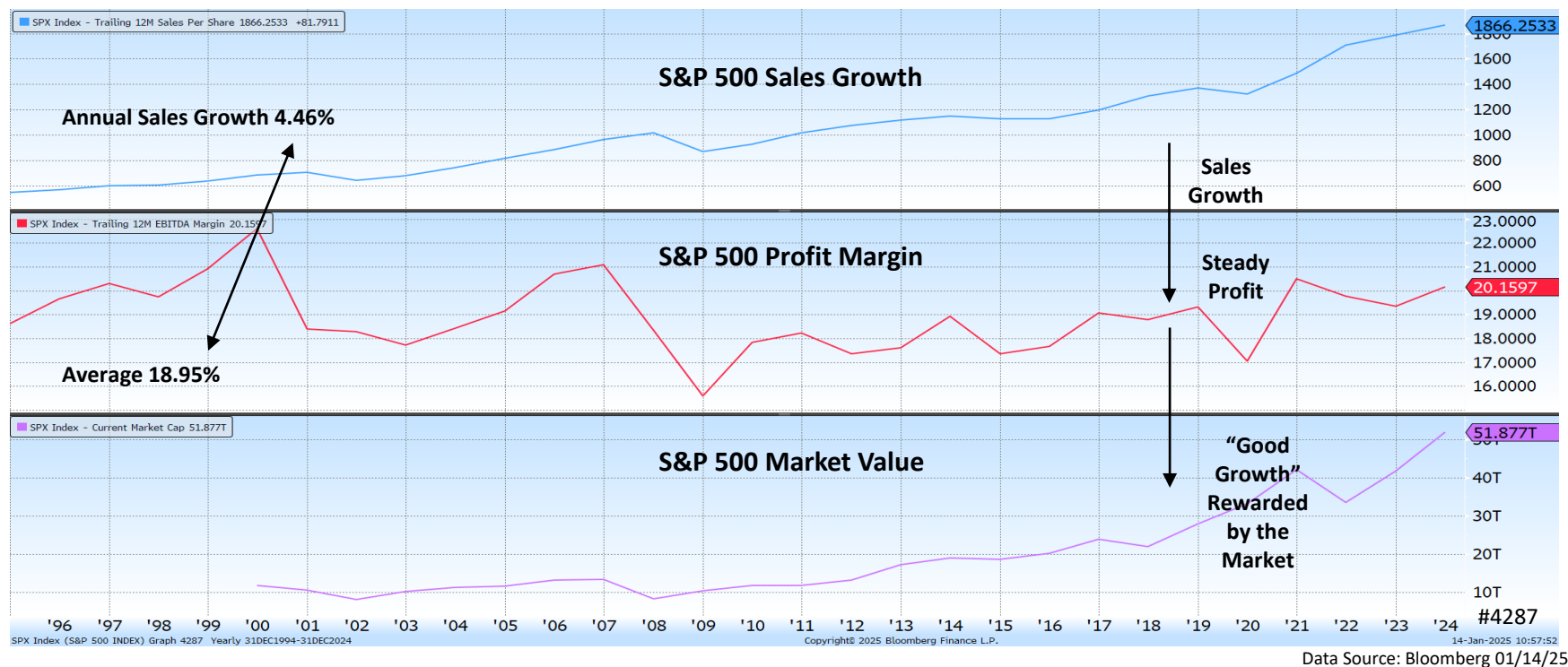
- Upper part of the channel indicates the trajectory of earnings if growth was 10%
- Lower part of the channel indicates the trajectory of earnings if growth was 6%



Data Source: Bloomberg 01/14/25

- **Average earnings growth of 9.2% and dividend yields of 2% add to 11%**, which is close to the long-term actual annual performance of the S&P 500.
- Having a view about future earnings and dividend trends provide a basis for expectations of future returns from the stock market.

The Stock Market Growth Engine: Sales Growth + Steady Profitability = Value Creation



- The combination of continuing sales growth, in the context of the large size of the U.S. economy, and maintaining high levels of profitability, contributes to ongoing **value creation** for investors in the stock market. The notion of “good growth” is that wealth is only created when the profitability of incremental sales is maintained, and not diminished. We think of higher sales at lower profitability as “profitless prosperity”
- The idea that the market only rewards “good growth” creates a demanding bar for the performance of companies: find growth opportunities, but only those that offer profitability as good as the existing business.
- We think “good growth” is an indicator of “end market” demand and competition.

What Drives Stock Market Returns?

The Total Shareholder Return Framework

S&P 500 “Return Attribution”

| Year | Index | Earnings Per Share | Price / Earnings | (1) + EPS Change % | (2) + P/E Multiple Change % | (3) Dividend Yield % | = (4) Estimated Total Return | Actual Total Return |
|------|-------|--------------------|------------------|-----------------------|--------------------------------|-------------------------|---------------------------------|---------------------|
| 2014 | 2059 | 108.9 | 17.9 | 10.0 | 9.1 | 2.0 | 21.1 | 15.9 |
| 2015 | 2044 | 92.5 | 18.0 | -15.1 | 0.6 | 2.1 | -12.3 | 1.1 |
| 2016 | 2239 | 93.8 | 20.6 | 1.4 | 14.4 | 2.1 | 17.9 | 12.5 |
| 2017 | 2674 | 108.8 | 22.0 | 16.0 | 6.8 | 1.9 | 24.7 | 20.6 |
| 2018 | 2507 | 131.8 | 16.7 | 21.1 | -23.8 | 2.1 | -0.5 | -5.4 |
| 2019 | 3231 | 134.4 | 21.2 | 1.9 | 26.7 | 1.8 | 30.5 | 32.8 |
| 2020 | 3756 | 101.3 | 28.8 | -24.6 | 35.7 | 1.6 | 12.6 | 17.3 |
| 2021 | 4766 | 179.1 | 25.8 | 76.8 | -10.4 | 1.3 | 67.8 | 30.4 |
| 2022 | 3840 | 190.3 | 18.2 | 6.2 | -29.3 | 1.8 | -21.3 | -18.4 |
| 2023 | 4770 | 190.5 | 22.9 | 0.1 | 25.8 | 1.5 | 27.4 | 25.9 |
| 2024 | 5885 | 202.2 | 26.5 | 6.2 | 15.4 | 1.3 | 22.8 | 25.0 |

Data Source: Bloomberg 01/14/2025

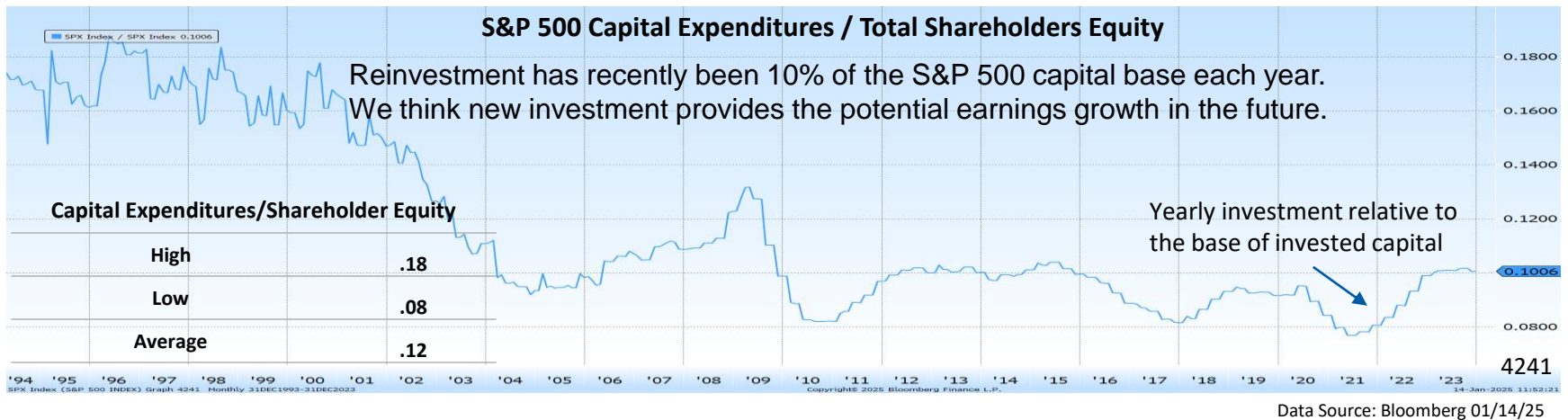
Big swings from one year to the next

➤ Over longer time periods, earnings growth and dividends are the primary sources of stock market returns. The “total shareholder return” framework provides a way to explain the primary sources of annual returns in the stock market. The three components are:

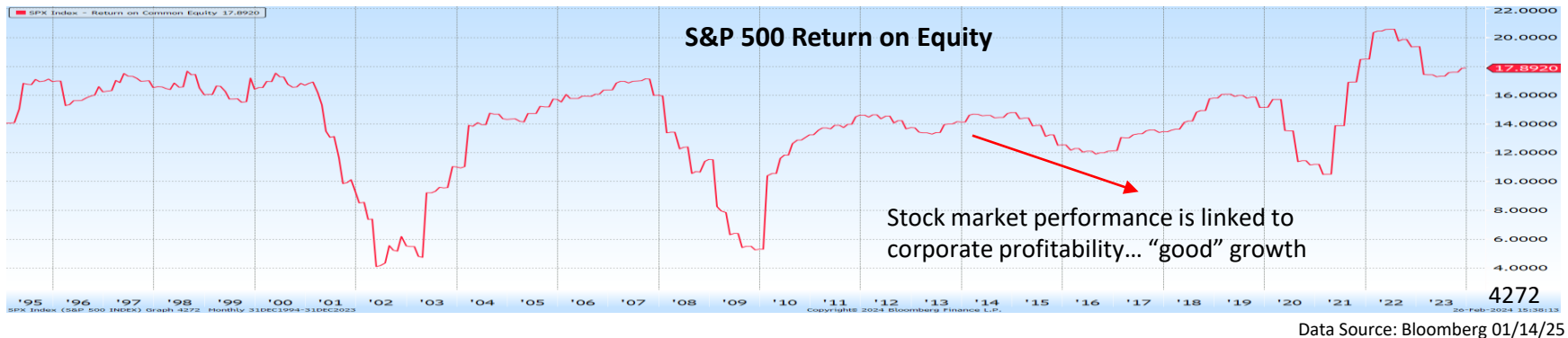
- 1) Annual earnings growth
- 2) Changes in the valuation multiple of the stock market (the Price/Earnings multiple)
- 3) Dividend yield

➤ Over the past 10 years, the best year was 2021 (30.4%) and the worst year was 2022 (-18.4%)

➤ A short-term forecast of stock market performance takes both earnings growth year-to-year and changes in the valuation multiple into consideration. In the past 10 years, changes in each of these variable has been significant.



- What level of reinvestment are companies making for future growth? Over the past 30 years, trends in the S&P 500 dividend payout ratio suggest that approximately **2/3** of annual profits are reinvested and **1/3** are distributed as dividends.
- “Capital intensity”, measured as annual capital expenditures as a percentage of sales and invested capital, moved lower after 2000, which we believe reflects the growing importance of intellectual property-based assets versus physical assets.

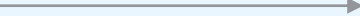
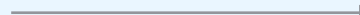
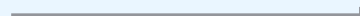


- Has **reinvestment been successful**? The lower chart shows the profitability of the S&P 500, measured by return on equity. We think the stable trend in profitability is evidence that **capital allocation decisions to reinvest profits have been successful**.

| <u>2015-2024</u> | | |
|-------------------------------|-----------------------------------|--|
| S&P 500 | Sales (10yr Annualized Growth) | Total Return (10yr annualized) (Quartile Average) |
| Top Quartile (75-100) | 9.9% to 54% | 17.72 |
| Upper Middle Quartile (50-75) | 5.9% to 9.9% | 12.78 |
| Lower Middle Quartile (25-50) | 2.4% to 5.9% | 9.63 |
| Bottom Quartile (0-25) | -10.42% to 2.4% | 7.74 |


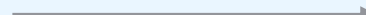

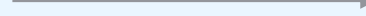
Data Source: Bloomberg 01/14/25

- This table shows quartiles of annual sales growth of companies in the S&P 500 over the past 10 years. For each quartile, we also show the average annual return of the companies in the corresponding quartile.
- The table shows the wide variation in sales growth of companies in the S&P 500.
- “Sales growth” is only one of several drivers of stock market performance, but suggests that faster growth contributes to better returns.
- Over the past 20 years, S&P 500 sales growth and GDP growth have been comparable at 4% per year.

| <u>2015-2024</u> | | |
|-------------------------------|---|--|
| S&P 500 | Earnings (10yr Annualized Growth) | Total Return (10yr annualized) (Quartile Average) |
| Top Quartile (75-100) | 14.92% - 71.0%  | 19.9 % |
| Upper Middle Quartile (50-75) | 9.08% - 14.92%  | 14.14 % |
| Lower Middle Quartile (25-50) | 3.82% - 9.08%  | 10.37 % |
| Bottom Quartile (0-25) | -32.32% - 3.82%  | 5.52 % |

Data Source: Bloomberg 01/14/25

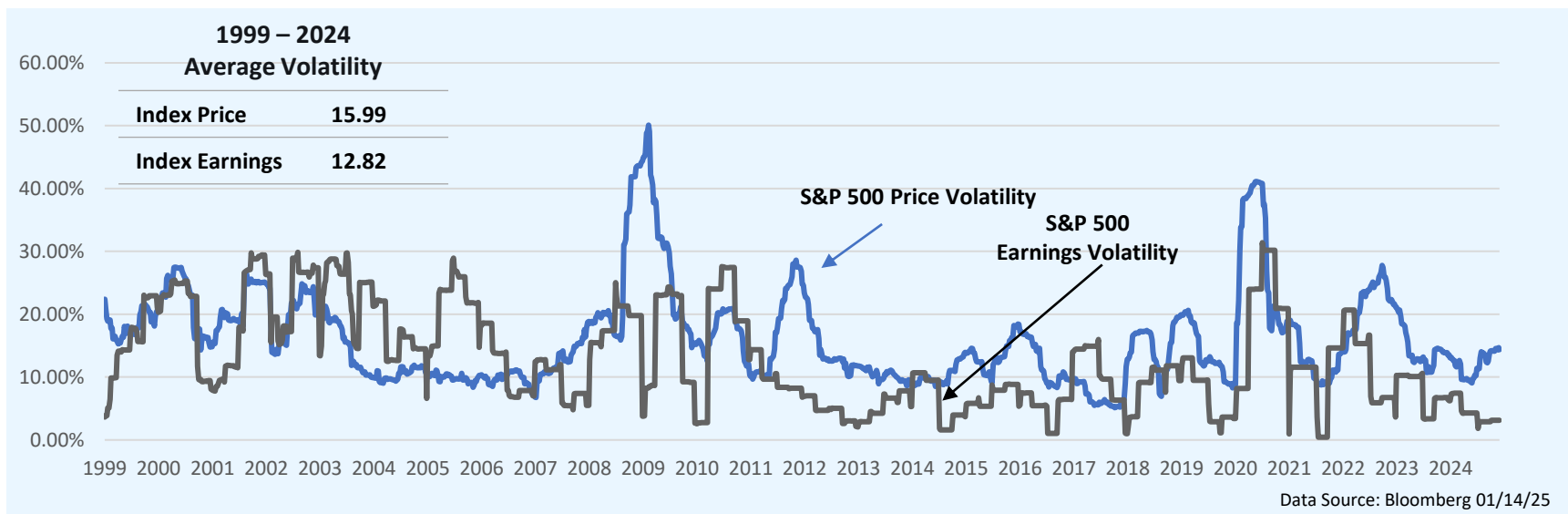
- This table shows quartiles of annual earnings growth of companies in the S&P 500 over that past 10 years. For each quartile we also show the average annual return of the companies in the corresponding quartiles.
- The table shows the **wide variation in earnings growth** of companies in the S&P 500, and that the **range of earnings growth is considerably greater than sales growth**.
- Over the past 30 years, S&P 500 earnings growth has averaged 9% per year. This table shows that recent earnings growth has been considerably higher than the historical average. Should forecasts of earnings growth be based upon recent growth or long-term average growth? This is a key issue: assuming that very strong performance will continue indefinitely could lead investors to overpay for stocks.
- Was faster recent earnings growth due to ultra-low interest rates? Will future growth move lower toward the long-term average? A range of factors will determine the outcome, but paying higher valuations based upon recent performance could be disappointing if growth trends “revert” toward the long-term trend.

| <u>2015-2024</u> | | |
|-------------------------------|--|--|
| S&P 500 | Return on Invested Capital (10yr Annual Average) | Total Return (10yr annualized) (Quartile Average) |
| Top Quartile (75-100) | 15.5% - 141.7%  | 16.8 % |
| Upper Middle Quartile (50-75) | 9.3% - 15.5%  | 12.8 % |
| Lower Middle Quartile (25-50) | 5.1% - 9.3%  | -10.4 % |
| Bottom Quartile (0-25) | -80.9% - 5.1%  | 8.2 % |

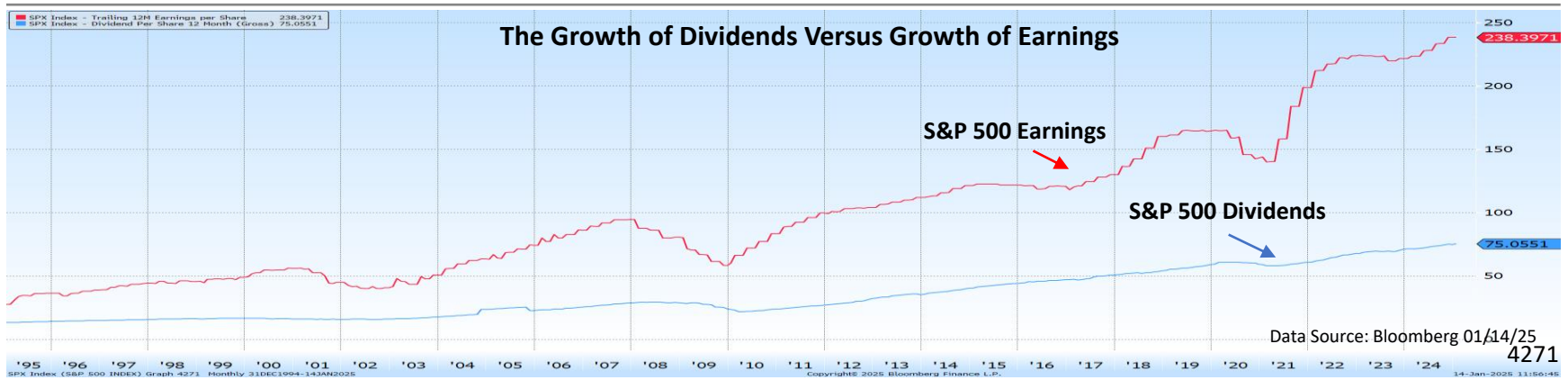
Data Source: Bloomberg 01/14/25

- We think trends in “return on invested capital (ROIC)” is the best measure of value creation by large, well-established companies. We think different yardsticks can be used for smaller, earlier-stage companies.
- Stock market performance requires **“enough” growth, “enough” profitability, and efficient capital management**. The ability of a company to successfully manage each of these dimensions of the “growth algorithm” is captured in the annual calculation of return on capital.
- Companies create value for shareholders when “return on capital” is higher than “cost of capital”. Sales growth and profitability are the primary drivers of asset performance, but must be considered in the context of the amount of capital used to create sales and profits.
- As investors, we’d like to identify companies that can consistently maintain a positive spread between “return on invested capital” and “cost of capital”, showing “persistency” in performance over time.
- Over longer periods of time, we think the annual stock market performance of individual companies becomes similar to that company’s level of ROIC.

Price and Earnings Volatility



- A shortcut to monitoring risk in the stock market is to chart price and earnings trends in volatility. Volatility in the S&P 500 price index value is a visible measure of investor behavior, showing how news and events are interpreted by the market.
- Volatility in corporate earnings provide an indication of trends in the business cycle, and macroeconomic trends.
- Stock price volatility is generally higher than earnings volatility, suggesting to us that **investor behavior** is an important factor in market activity. It may also suggest that more weight is attached to short-term news than may ultimately be warranted by long-term trends.
- Are stocks too risky for conservative investors? Stocks have historically provided higher returns than bonds, contributing to the level of portfolio return needed to achieve after-inflation sustainability. We think most long-term investors generally need stocks as part of a strategy for sustainability. The volatility of the stock market, versus the much greater volatility of individual stocks, emphasizes the case for diversification.
- The riskiness of stocks can be considered in the context of the tradeoff between “**drawdown risk**”, and “**shortfall risk**”. Drawdown risk is magnitude of periodic declines in a portfolio. Shortfall risk is the possibility that, at some point, portfolio resources will be insufficient to fund spending. The art of investment strategy is to find the right tradeoff between these two important types of risk.

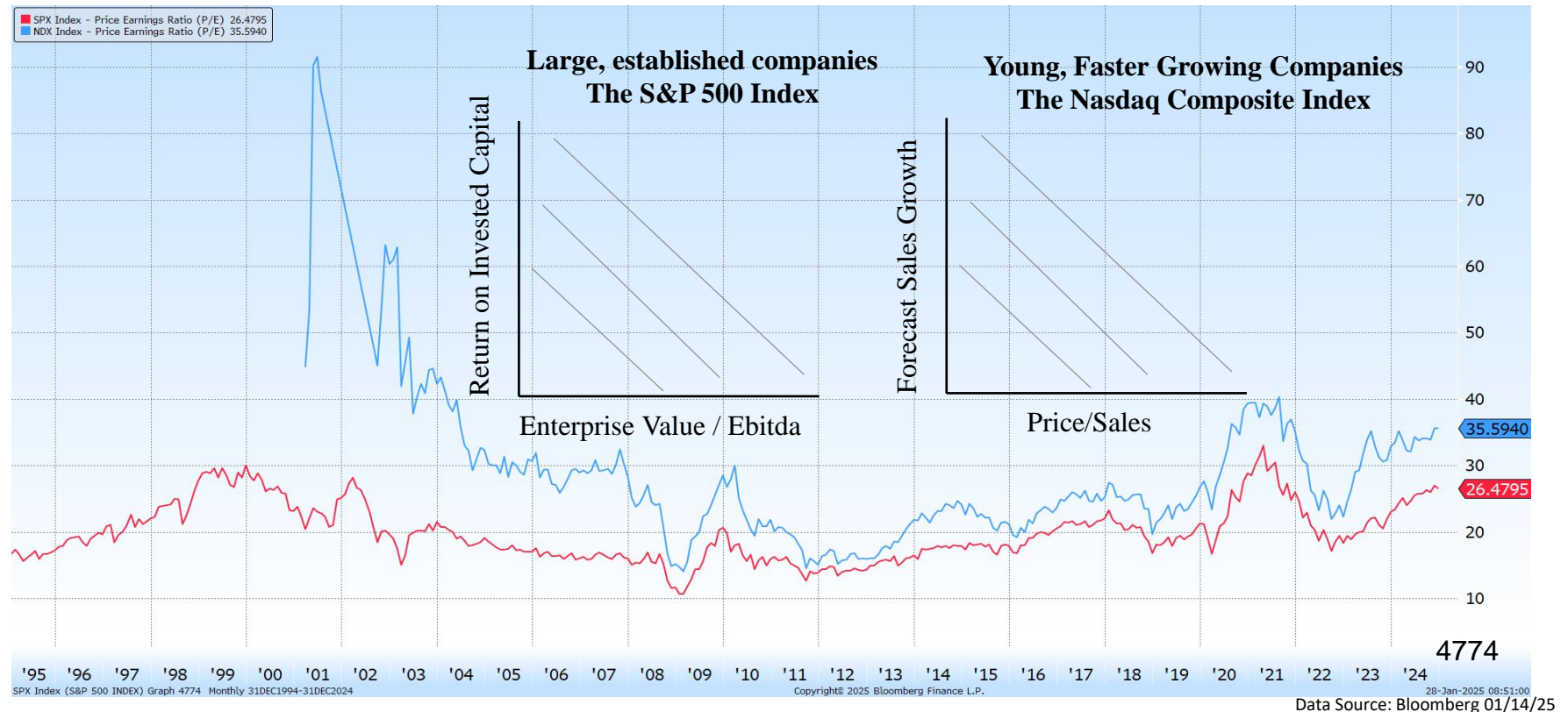


- The upper chart compares trends in S&P 500 earnings and dividends. Earnings are significantly more than dividends, providing an indication of the level of profits available to pay dividends. We think the “coverage” of dividends by earnings is sustainable, and may suggest that capital allocation by companies toward dividends could be much higher.
- Are dividends sustainable? Will dividends grow in the future? We believe a strong linkage exists between growth of assets, sales, earnings and dividends. We believe recent trends in reinvestment, and the relationship between asset growth and profit growth, suggest that the current level of dividend distributions is sustainable, and that the potential exists for future dividend growth.

Are Dividends a Good Hedge Against Inflation



- The lower chart compares the growth of the S&P 500 dividend with the CPI price index. The chart shows that S&P 500 **dividends have grown faster than inflation**.



- The thousands of companies in the stock market have very different financial characteristics, and are managed following different priorities.
- Because of different financial characteristics, including size, sales growth rate and levels of profitability, different valuation-paradigms are used for different categories of companies. “Valuation” is not a one-size-fits-all concept.
- Valuation paradigms reflect different ways of measuring opportunity and risk. In particular, valuation paradigms reflect different priorities between the importance of existing profits versus focus on expectations of future profits.
- For conservative investors that prioritize sustainable income, that want to limit fluctuations in portfolio value, we think investment choices should be focused on companies with established profitability and traditional valuation.

Corporate Leverage Trends



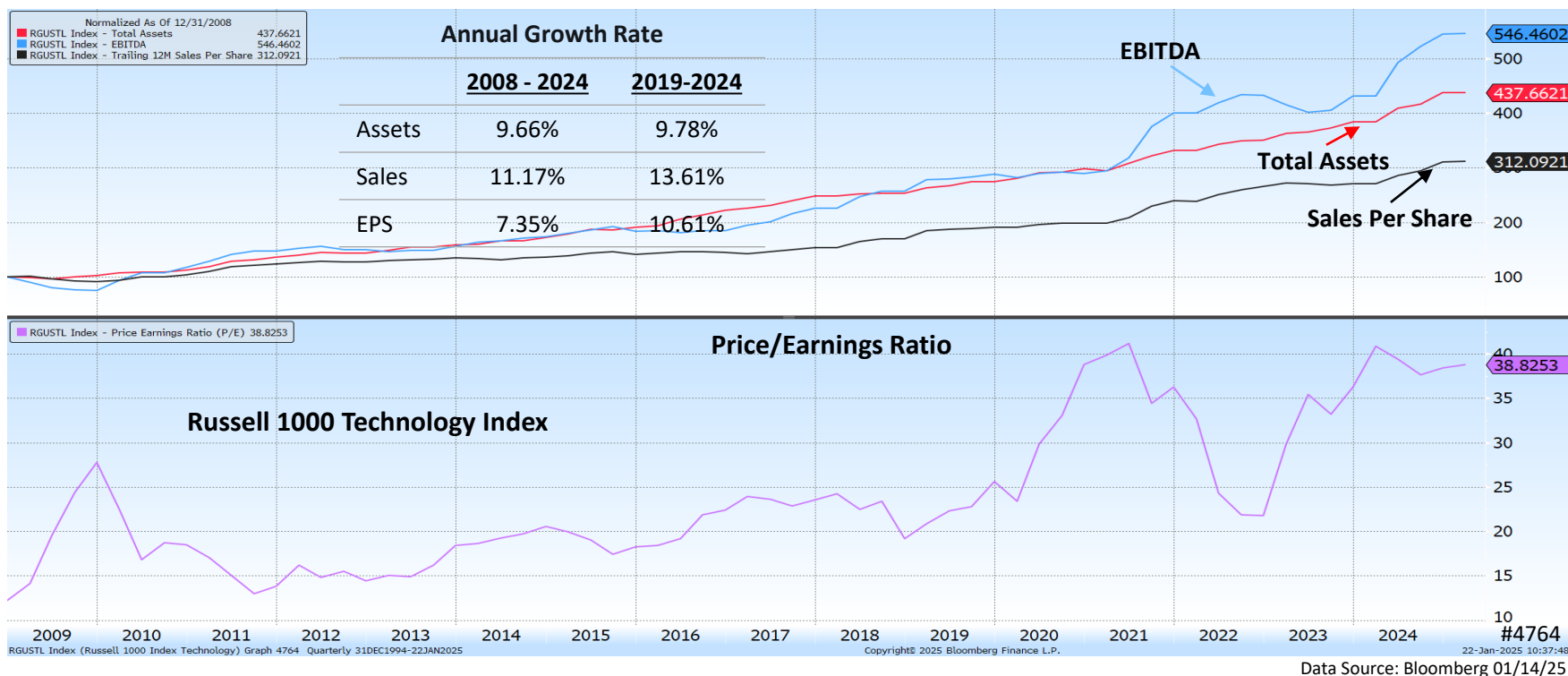
Data Source: Bloomberg 01/14/25

- The S&P 500 is “**self-financing**”, meaning that ongoing needs for reinvestment and dividends are generally provided from “internal” profits provided by company operations, as opposed to requiring “external” equity or debt capital. This chart suggests that asset growth has been accomplished primarily by reinvesting profits rather than adding debt.



Data Source: Bloomberg 01/14/25

- Leverage can enhance returns for many companies, and we believe debt levels are generally manageable, and do not represent a threat to sustainability.
- The chart shows S&P 500 debt to cashflow, and debt to enterprise value, showing a trend toward lower leverage.
- A scenario in which corporate America significantly relied upon debt to fund growth might suggest excessive leverage and a systematic risk to investors. These charts currently show manageable debt, in which asset growth has been primarily funded by profits, and that in general, corporate debt has not created a threat to either sustainability or future growth.



- This chart shows the trend in the growth of total assets of the Russell 1000 Technology Index, relative to the growth in sales and cash flow.
- Recent enthusiasm for cloud computing and AI, and the data centers needed to provide AI-based information, has led to higher growth rates of capital expenditures by technology companies.
- The chart shows that the rate of growth of Technology index cash flow has exceeded asset growth, suggesting that investments have been successfully monetized.
- However, the lower chart shows the increase in the P/E of the Technology index, suggesting expected growth may already be reflected in stock prices.

Glossary of Terms

Average Volatility: A measure of the price moves for a security calculated from the standard deviation of day-to-day logarithmic price change. The 180-day price volatility equals the annualized standard deviation of the relative price change for the 180 most recent trading days closing price, expressed as percentage.

Annualized Return: The annual geometric average increase in value over a specified amount of time.

Price Earnings Ratio: Ratio of price of a stock and the company's trailing 12-month earnings per share.

Free Cash Flow Yield: Ratio of a company's trailing 12-month free cash flow per share and stock price.

Average 10yr Annualized Earnings Growth Rate (S&P 500): The average trailing 12-month earnings geometric growth rate over the past 10 years for all companies in the S&P 500.

Average 10yr Annualized Sales Growth Rate (S&P 500): The average trailing 12-month sales geometric growth rate over the past 10 years for all companies in the S&P 500.

Return on Invested Capital: Ratio of trailing 12-month net operating profit after tax and average invested capital.

Return on Equity: Ratio of a company's trailing 12-month net income and average total common equity.

Profit Margin: Ratio of trailing 12-month earnings and trailing 12-month sales.

Market Cap: Total value of a company's outstanding shares multiplied by stock price.

Enterprise Value: A company's market cap plus total debt minus cash and cash equivalents.

Total Shareholder Equity: Company's total assets minus total liabilities.

Capital Expenditures: Capital Expenditures-Purchase of long-term physical or fixed assets used in the operations of a business.

EBITDA: Company's trailing 12-month earnings before interest, taxes, depreciation, amortization.

CPI (Consumer Price Index): A measure of the average change in prices paid by consumers over time for a basket of goods and services:

Corporate Debt: Money a company owes to finance operations and growth. May be in the form of bonds, notes, debentures or revolving credit

Please note: Source of Data is Bloomberg as of 01.14.2025

Bonds are subject to interest rate risk. When interest rates rise, bond prices fall; generally, the longer a bond's maturity, the more sensitive it is to this risk. Bonds may also be subject to call risk, which is the risk that the issuer will redeem the debt at its option, fully or partially, before the scheduled maturity date. The market value of debt instruments may fluctuate, and proceeds from sales prior to maturity may be more or less than the amount originally invested or the maturity value due to changes in market conditions or changes in the credit quality of the issuer. Bonds are subject to the credit risk of the issuer. This is the risk that the issuer might be unable to make interest and/or principal payments on a timely basis. Bonds are also subject to reinvestment risk, which is the risk that principal and/or interest payments from a given investment may be reinvested at a lower interest rate.

Equity securities may fluctuate in response to news on companies, industries, market conditions and the general economic environment. Companies cannot assure or guarantee a certain rate of return or dividend yield; they can increase, decrease or totally eliminate their dividends without notice.

Investing involves risk and it is possible to lose money when investing. Past performance is not a guarantee of future results.

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Duration, the most commonly used measure of bond risk, quantifies the effect of changes in interest rates on the price of a bond or bond portfolio. The longer the duration, the more sensitive the bond or portfolio would be to changes in interest rates. Generally, if interest rates rise, bond prices fall and vice versa. Long-term bonds carry a longer or higher duration than shorter-term bonds; as such, they could be affected by interest rates for a greater period of time if the interest rates were to increase. Consequently, the price of a long-term bond would drop significantly as compared to the price of a short-term bond.

Because of their narrow focus, sector investments tend to be more volatile than investments that diversify across many sectors and companies. This risk is heightened in the technology sector.

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