Cornell Capital Group LLC

Investor Memo Q4 2024

Valuation, Momentum, and the Risk of a Market Correction

Stock Price Performance in Review

The year 2023 ended on a high note. During the year, the S&P 500 Index rose 24.2% to close the year at 4,769.83. The total return on the index, including dividends, was 26.3%. However, as of December 2023, analysts predicted a more sedate 2024. Exhibit 1 shows

Exhibit 1

Analyst Forecasts for 2024 as of December 2023

Institution	2024 Forecast	Percent change for year
BANK OF AMERICA	5000	4.8%
BARCLAYS	4800	0.6%
BMO	5100	6.9%
CFRA	4940	3.6%
CITI	5100	6.9%
DEUTSHCE BANK	5100	6.9%
EVERCORE	4750	-0.4%
GOLDMAN SACHS	4700	-1.5%
JP MORGAN	4200	-11.9%
MORGAN STANLEY	4500	-5.7%
OPPENHEIMER	5200	9.0%
RBC	5000	4.8%
UBS	4850	1.7%
WELLS FARGO	4700	-1.5%
YARDENI	5400	13.2%
AVERAGE	**4889**	**2.5%**

the average forecast for year-end 2024 was 4,899, a scant 2.5% above the year-end 2023 level of the index. The most optimistic forecaster was the persistent bull Edward Yardeni who forecasted an increase of 13.2% to 5400.

As it turned out, the market far outperformed even the optimistic Dr. Yardeni. It rose 23.31% to close at 5,881.63 and provided investors with a total return of 25.02%.

In response to the errors in 2024, in December analysts dialed up their forecasts for 2025. Exhibit 2 shows that the average forecast for year-end 2025 is 6,621.

Exhibit 2

Analyst Forecasts for 2025 as of December 2024

Institution	2025 Forecast	Percent change for year
BANK OF AMERICA	6666	10.4%
BARCLAYS	6600	9.3%
BMO	6700	10.9%
CITI	6500	7.6%
DEUTSHCE BANK	7000	15.9%
GOLDMAN SACHS	6500	7.6%
JP MORGAN	6500	7.6%
MORGAN STANLEY	6500	7.6%
OPPENHEIMER	7100	17.5%
RBC	6600	9.3%
SOCIIETE GENERALE	6750	11.8%
STIFEL	5500	-8.9%
UBS	6400	6.0%
WELLS FARGO	7000	15.9%
YARDENI RESEARCH	7000	15.9%
AVERAGE	**6621**	**9.6%**

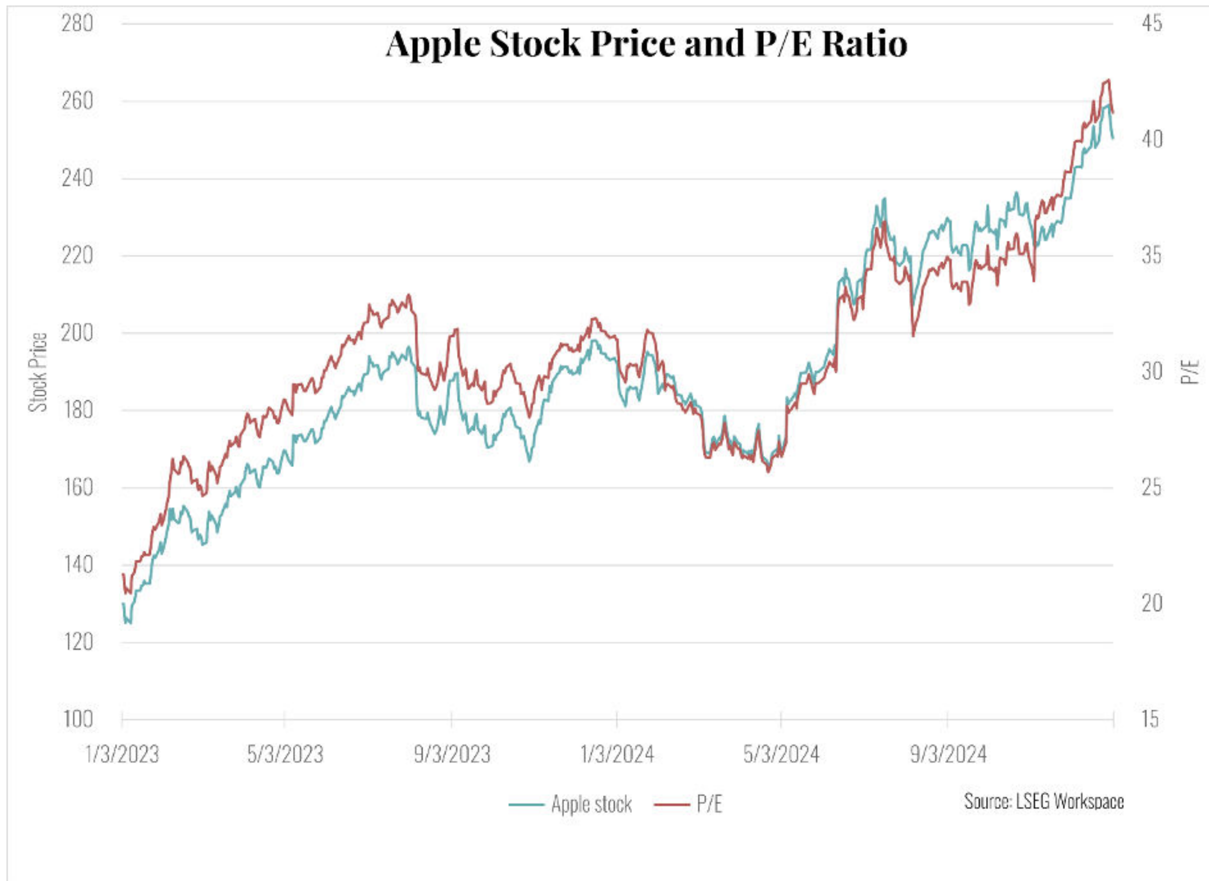
To assess these forecasts, it is necessary to delve into the factors that drive stock prices. Basic math implies that the price appreciation of a stock or stock index equals the growth in earnings plus the growth in the P/E multiple. To develop an outlook for 2025 both components must be considered.

The Keys to 2025: Multiple Expansion and Earnings Growth

We start our analysis with the example of Apple, the world's most valuable and perhaps most widely followed company. In 2023 and 2024, Apple outperformed the S&P 500 index. Whereas the index rose 24.2% and 23.3% for a total increase over the two years of 53.2%, Apple's stock price jumped 48.2% and 30.1% for a total increase of 92.7%. Needless to say, Apple's shareholders were happy.

The surprise, as illustrated by Exhibit 3 below, is that over the two–year period the growth in Apple's P/E actually outpaced the price increase – jumping 93.7% from 21.3 to 41.2. In other words, all the price appreciation in Apple's stock was due to expansion of the multiple! Net income was essentially flat.

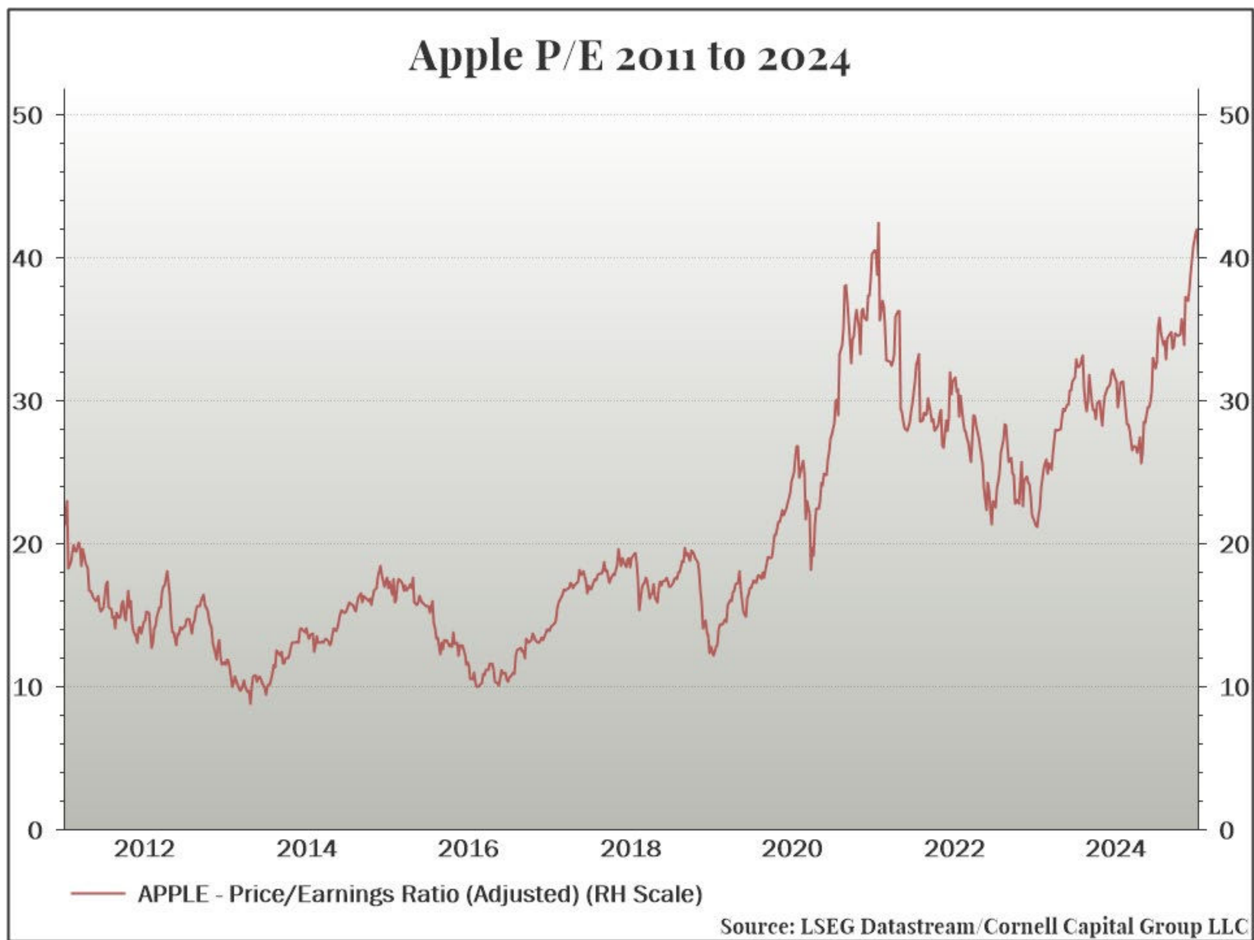
Exhibit 3



This suggests that the behavior of the multiple is likely to play a key role in the behavior of Apple's stock in 2025. The multiple, in turn, depends on two underlying factors: expected earnings growth and the risk premium that investors demand for holding the stock. Faster expected earnings growth and lower risk premiums produce higher multiples. For the multiple to increase expected earnings growth must rise or the risk premium must fall *from the levels already reflected in the current multiple*. In the case of Apple, a multiple of 41.2 already reflects some combination of rapid future earnings growth and/or depressed risk premiums. Improvements in either are going to be hard to come by.

To provide context, Exhibit 4 plots Apple's P/E ratio from 2011, when iPhone sales were in full swing and the impact of the financial crisis had passed, to the end of 2024. The Exhibit shows that Apple's P/E was typically around 20 except for the tech stock boom in 2021 and currently. At the end of 2024, therefore, Apple investors must have been expecting either significantly greater earnings growth than they the company experienced in the recent past or be willing to accept markedly smaller risk premiums than they had in earlier years.

Exhibit 4

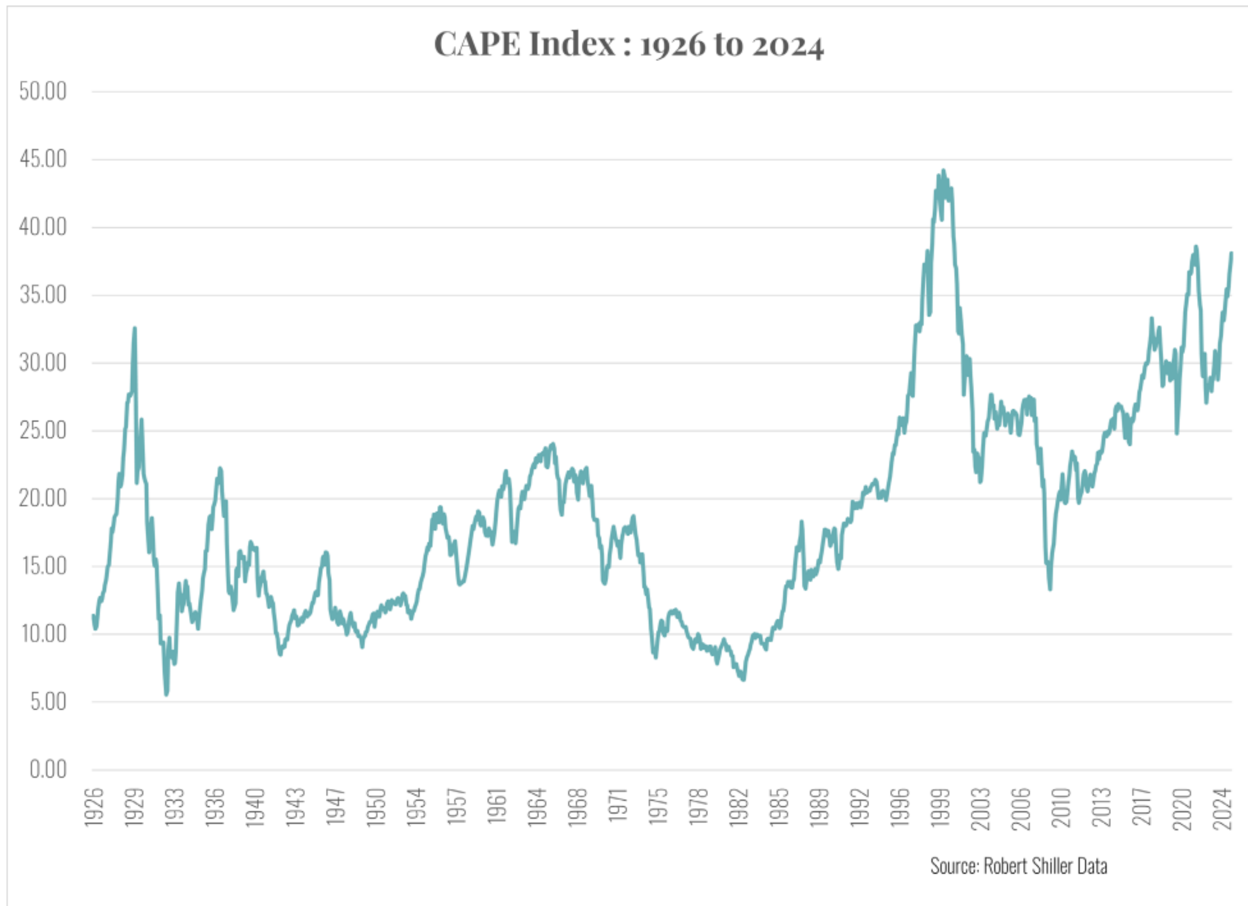


Looking ahead to 2025, for Apple's multiple to expand further either expected earnings growth must rise from the level reflected in the current multiple of 41.2 or risk premiums must decline. In our view, both alternatives are highly unlikely. If the multiple fails to increase, then the future appreciation in Apple stock will be limited to the actual growth in earnings which have been modest. The risk is that if the expectations built into the 41.2 multiple may fail to materialize and the multiple will fall back towards its pre-2021 average of 20. Should the multiple fall to 25, for example, that would imply an approximately 40% decline in Apple's stock price, offset by whatever the actual growth in earnings turned out to be. Because our view is that further increases in multiple are unlikely and declines are quite possible, we conclude that the current risk-return tradeoff provided by Apple stock is unfavorable.

The case of Apple is not unique. Not only does it hold for a host of other stocks, the same basic story also holds for the aggregate market. During 2023 and 2024 when the S&P 500 rose 53.2%, the multiple increased 43.4% from 20.0 to 28.6. Thus, the increase in the multiple accounted for 81.5% of the price appreciation of the index. From our perspective, it is hard to see multiple rising much further but easy to see it reverting back toward the long-run mean. The result is an unfavorable risk-return tradeoff.

Further evidence on the risk-return tradeoff is provided by the history of Prof. Shiller's CAPE index which equals the current level of the S&P 500 divided by the average earnings over the last ten years. Exhibit 5 taken from Prof. Shiller's website shows that the current level of the CAPE is near a century long high surpassing the level of 1929 and exceeded only during the dot-com boom in 2000.

Exhibit 5

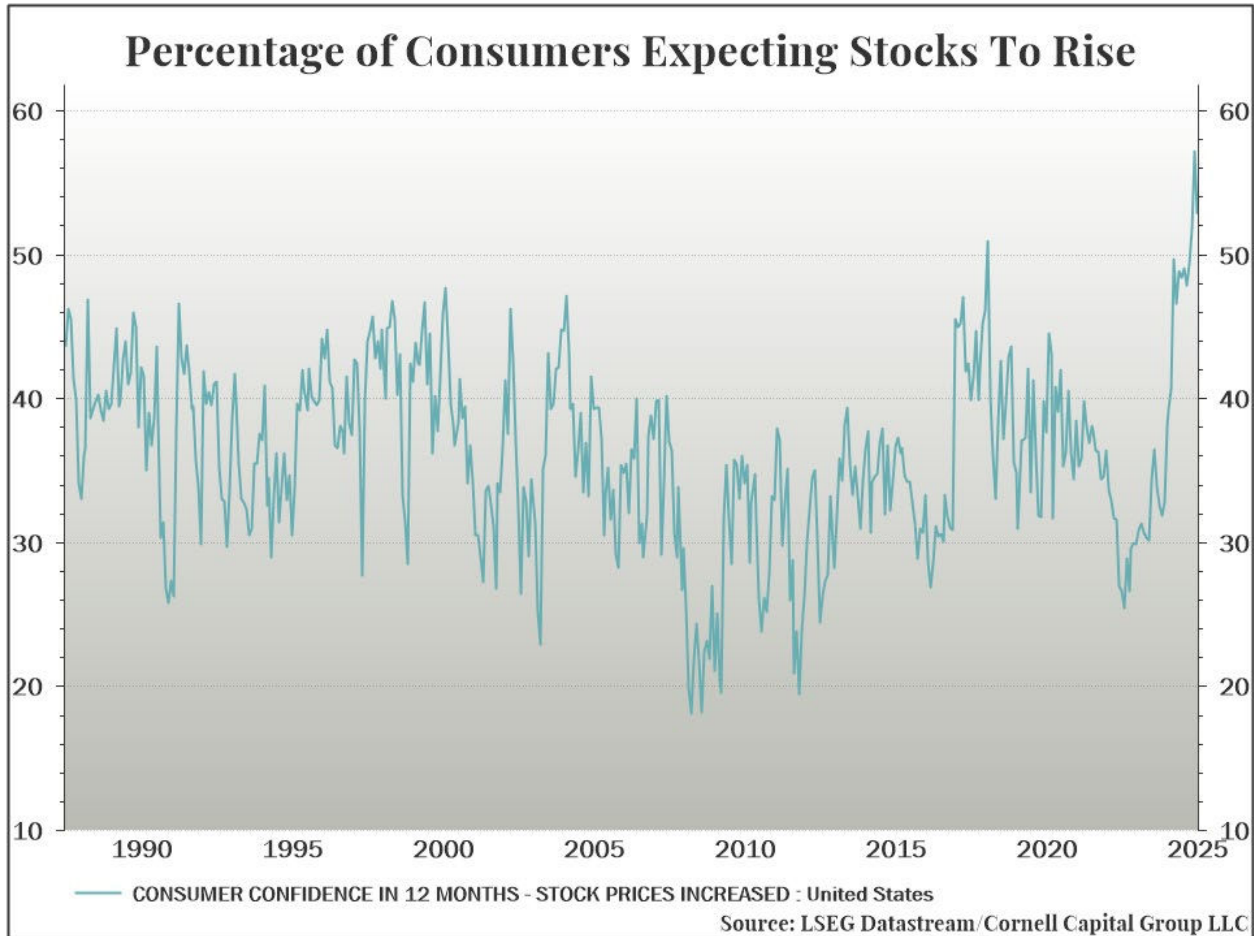


In our view, hoping that continued expansion of the multiple will drive stock prices higher in 2025 is a bridge too far. A regression back toward the mean seems more likely.

Inconsistent Beliefs and Stock Price Bubbles

Our assessment of the risk-return tradeoff flies in the face of the views expressed by many investors. Exhibit 6 presents the results of a Conference Board survey asking investors whether stock prices will rise over the coming year. In 2024, the percentage responding positively was the highest it had been in the history of the survey dating back to 1990.

Exhibit 6

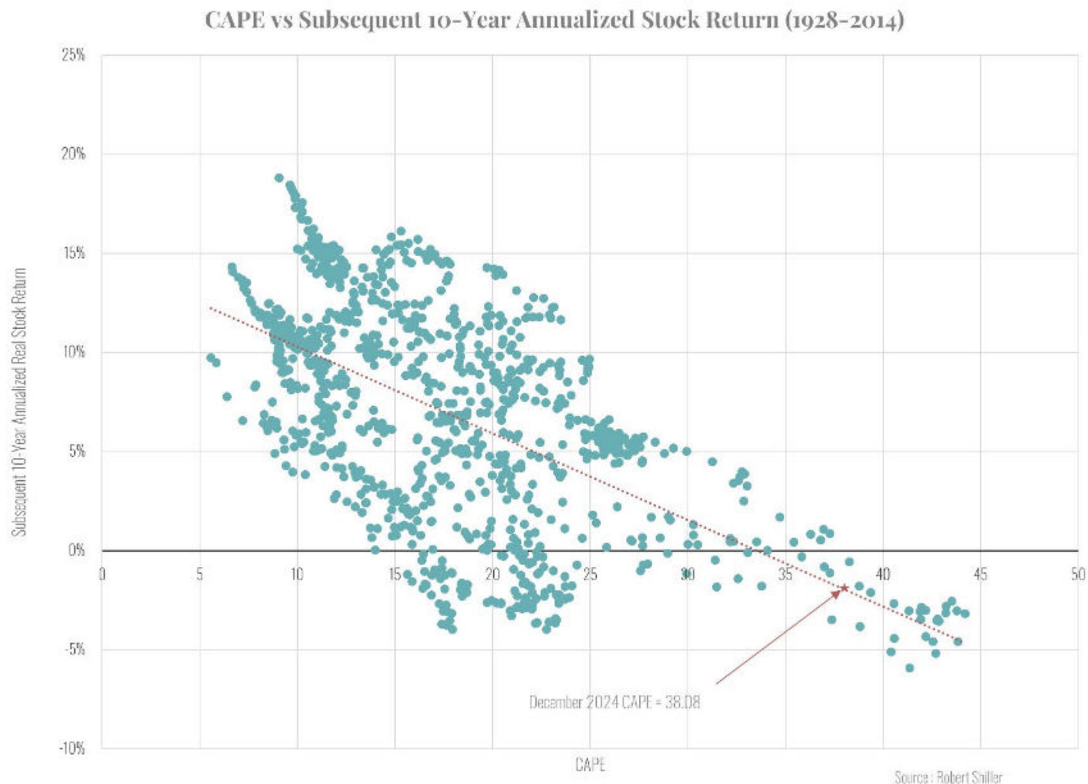


The survey indicates that bullish investors were basing the expectations for future price movements on extrapolation of past price movements rather than valuations. From a valuation perspective, as prices rise rapidly, as they did during 2023 and 2024, stocks become more expensive. Basic math suggests that the more you pay for stocks in terms of the multiple, the lower the future returns tend to be. But extrapolation says exactly the opposite. Consequently, as stock prices rise, valuation and extrapolation are typically at

odds. Do the rising prices mean stocks have become too expensive or do past price increases portend future increases?

This is a question we explored in our publication Structural Change and Valuation: Implications for Future Stock Returns. Here we update an analysis presented there on the relation between stock market multiples, as given by Prof. Shiller's CAPE ratio, and average future stock returns over the next decade. Exhibit 7 presents a scatter plot of the level of the CAPE against the S&P 500 real total return (annualized) in the subsequent ten years. The exhibit includes a dotted line fitted to the data. The data clearly show the inverse relation between the level of the CAPE and the subsequent ten-year return. It implies that at the current level of the CAPE, 38.08 in December 2024, the implied annual real return for the S&P 500 over the next ten years is negative.

Exhibit 7



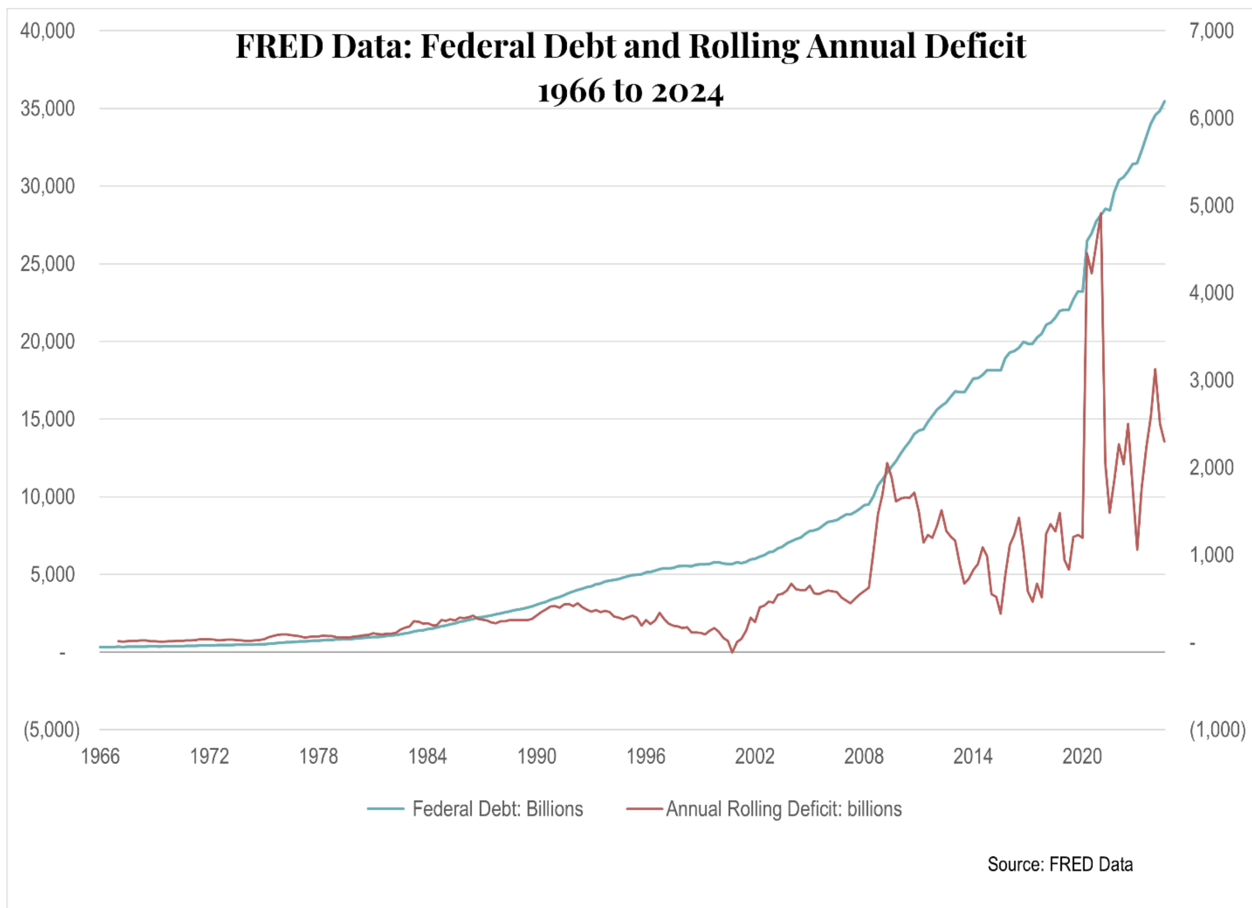
But valuation analyses such as those presented in Exhibit 7 have an Achilles heel. They apply in the long term such as the decade horizon in Exhibit 7. In the short run things can be quite different. Rising prices can attract investor attention and lead to new purchases. The added buying pushes prices up further, confirming the view that stocks whose prices were rising were the ones to buy. The result is positive stock price momentum in which rising prices produce further price increases. In 2023 and 2024 there was extensive evidence of such momentum. Furthermore, those two years are not unique. As hedge fund AQR notes, *Momentum is an investment style that has been studied extensively by academics for many years. The evidence for momentum is pervasive and supported by almost two decades of academic and practitioner research*. The problem with momentum is that it works until it doesn't. Eventually, prices are stretched to the point where new investors willing to pay more become scarce. Then, as prices plateau or start to fall a reverse momentum effect can set in as investors sell to get out before prices fall further.

Looking forward to 2025, a critical question is will the driving force be the downward pull of high valuations or the continuing upward thrust of positive momentum? Put another way, has the positive momentum of 2023 and 2024 pushed prices to the point where valuation will come to the fore end the positive momentum? If it does, will the result be a period of negative momentum? After all, the ten-year forecast based on the CAPE ratio is dismal, implying a period of decline sometime in the next decade. Unfortunately, there is no way to answer these questions with any certainty. However, we see a scenario in which there is an onset of negative momentum caused by frothy valuations as a distinct risk.

The Elephant is Still in the Room: Only Bigger

In our third quarter memo we referred to the Federal government debt and deficit as the elephant in the room. The elephant is still in the room – only bigger. As Exhibit 8 below shows, the total Federal debt has now risen to $35.47 trillion. In addition, the country continues to run deficits at levels never before seen during peacetime with a strong

Exhibit 8



economy. The projected deficit for 2024 is on the order of $2.2 trillion. We continue to believe that this is an unsustainable situation. The problem is that Americans have become

used to receiving more government services than they pay for with taxes. The key questions are how and when the situation will be resolved and how will the resolution impact investors? If higher corporate taxes are required that will presumably reduce profits causing stock prices to fall. Another possibility is that the debt will be inflated away but accelerating inflation has historically been bad news for the stock market. At this point, it is unclear what will happen but, in our view, investors should keep a close eye on the growing elephant. It could be the catalyst that sets off a market decline.

Outlook and Conclusion

Recognizing the hazard in attempting to forecast stock prices for the year ahead, we think there are two central observations. As noted above, price appreciation equals the sum of earnings growth and expansion of the multiple. With respect to the market multiple, it stands near a record level, and we cannot see it expanding much further in 2025. This means that market price appreciation cannot exceed the growth in earnings, which we see as being 10% at best. On the upside, therefore, total market returns would be about 11.25% - price appreciation plus dividend yield. On the downside, if the economy softens, earnings growth would likely stall, and multiples would contract. If the CAPE ratio were to fall to 25, still well above its long-term average, the total return on the market would be south of -30%. While we refrain from putting probabilities on the two outcomes, we see the risk-return trade-off for US equities in the long-run as being relatively unfavorable and believe that asset allocation should reflect this outlook.

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