



## Quarterly Recap – September 30<sup>th</sup>, 2025

The stock market ended September at new all-time highs, continuing 2025's bullish run. While there has been no shortage of news, the quarter stands in stark contrast to the uncertainty we've become used to. After the election angst to close out 2024, the aggressive policy changes to start the year, and the abrupt selloff and recovery of the second quarter, the summer was remarkably calm in comparison. Volatility is low and economic data remains largely robust while the Federal Reserve has cut interest rates for the first time in nearly a year. We remain wary of a head-scratching labor market and elevated but steady inflation.

Equity markets have continued to add to their gains for the year. While large cap stocks, especially those in the technology sector, continue to contribute in an outsized manner, the rally started to broaden into smaller companies in other sectors. International stocks have not significantly outperformed since the first quarter, though they have kept pace with domestic companies. Equity markets remain expensive based on many historical comparisons, though these valuations are increasingly tied to optimism around Artificial Intelligence.

The Federal Reserve lowered the Federal Funds interest rate and has projected several more interest rate cuts over the next few months. Short- and long-term interest rates fell throughout the quarter, creating a persistent tailwind for bond prices. A healthy economy and stock market have encouraged investors to discount concerns of any imminent recession.

The Federal Reserve's change in interest rates was the first since December of 2024. They find themselves under extraordinary pressure from President Trump to lower rates, while also assessing a volatile labor market and troublesome inflation. The labor market has changed due to the effects of AI and the rapid change in immigration policy, making it difficult to determine whether it's weakening at the margins. Meanwhile inflation remains above the Fed's long-term 2% target and seems to be turning higher again. The uncertainty will compound as economic data is delayed due to the shutdown of the federal government.

We remain cautious in the current environment. Stocks are trading at expensive levels and bond prices have room to fall. At the same time, falling interest rates in a healthy economy is a good recipe for returns for both asset classes if news flow remains benign.

INDEX RETURNS	3 <sup>rd</sup> Qtr	2025	2024
MSCI All Country World	7.8%	18.9%	18.0%
S&P 500	8.2%	14.8%	25.0%
Dow Jones Industrial	4.7%	10.5%	15.0%
Russell 2000	11.2%	10.4%	11.5%
EAFE	4.9%	25.8%	4.4%
MSCI Emerging Markets	10.3%	28.2%	8.0%
BC Aggregate Bond Index	2.1%	6.1%	1.3%

TREASURY RATES	9/30/25
Fed Funds	4.38%
3 Month	4.29%
2 Year	3.72%
5 Year	3.80%
10 Year	4.23%
20 Year	4.78%
30 Year	4.78%

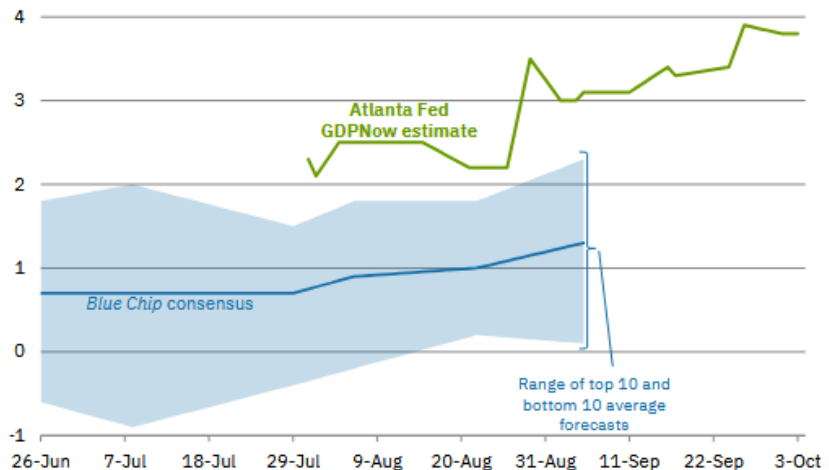
## Economic Developments

During the first half of 2025, economists and investors were most concerned with the impending impacts of tariffs. The Trump administration promised sky-high tariffs on many trading partners to level the playing field for global trade and incentivize investment in the United States. Though the tariffs were delayed to allow for negotiations, the administration eventually pushed forward with dramatic changes.

The tariff developments have muddled the outlook for the global economy. American companies initially increased their imports to avoid the tax increase. This resulted in the first negative GDP reading since 2022, as imports detract from the GDP calculation. It wasn't clear whether this dynamic would immediately reverse. Fewer imports later in the year would theoretically increase GDP, but greater uncertainty and higher taxes could have offset that effect. Second quarter GDP was somewhere in the middle of the two extremes at 3.0%. In what's becoming a theme in economic reporting, this GDP number was later revised to 3.3% in August, then 3.8% in September. What had been a mediocre data point now looks rather strong.

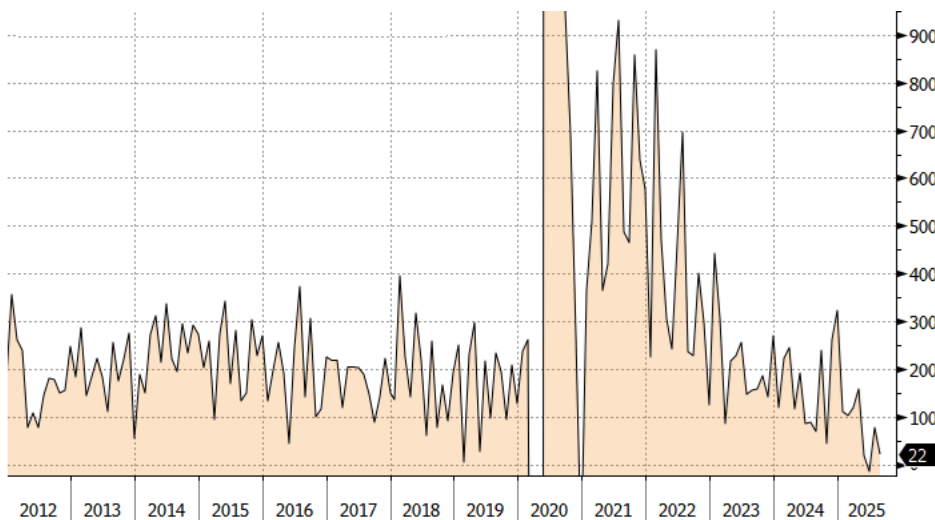
Third quarter GDP also looks good. The Atlanta Fed's GDPNow estimate has increased

**Evolution of Atlanta Fed GDPNow real GDP estimate for 2025: Q3**  
Quarterly percent change (SAAR)



*The Atlanta Fed's GDPNow estimate has climbed through the quarter. Note that if the government shutdown continues, no other data will be used to update this projection.*

from 2.5% to nearly 4%. While tariffs ostensibly represent an ongoing headwind to the global economy, actual economic numbers continue to exceed expectations. We will discuss some negative developments shortly, but it's important to recognize the actual strength of the current economy, as well as the tailwinds entering 2026. The Federal



*Nonfarm payroll additions have dropped to lower-than-usual levels. Is this a new normal due to immigration restrictions? Or early signs of a slowdown?*

Reserve is lowering interest rates and mortgage rates are falling. More anecdotally, the country will be celebrating its 250<sup>th</sup> anniversary next year and will also be hosting the World Cup.



*The probability of finding a job in the next three months dropped to 45%. This aligns with what we have heard anecdotally from colleagues looking for jobs.*

The labor market arguably throws cold water on this discussion. The employment picture has worsened considerably on many metrics during the summer. Adding to the concern, the Bureau of Labor Statistics lowered their estimates for job additions by 911,000 for the twelve months extending from April 2024 through March 2025, the largest such revision on record, removing over 50% of the jobs reported during that period. The official reasons for the revisions are declining survey response rates as well as discrepancies between pre-pandemic behavior and the current environment. Especially in these increasingly polarized times when trust in institutions has fallen so far, it's clear that our federal agencies need to adapt their methods for collecting data. Surveys in particular seem to be fraught with low response rates and partisan bias. The uncertainty surrounding economic data is only going to increase in the short-term as the federal government shut down on October 1<sup>st</sup>.

In addition to the drastic negative revisions to the labor outlook, recent data indicates that we are currently in a markedly different environment from the usual. The most recent six years have seen extreme disruptions. First the pandemic in 2020, which also catalyzed a trend towards remote work. The vaccines and economic reopening brought increased wage inflation. The Biden administration allowed record immigration, followed by President Trump's administration, which promptly shut the border entirely and campaigned on deportations. All this is to say that the

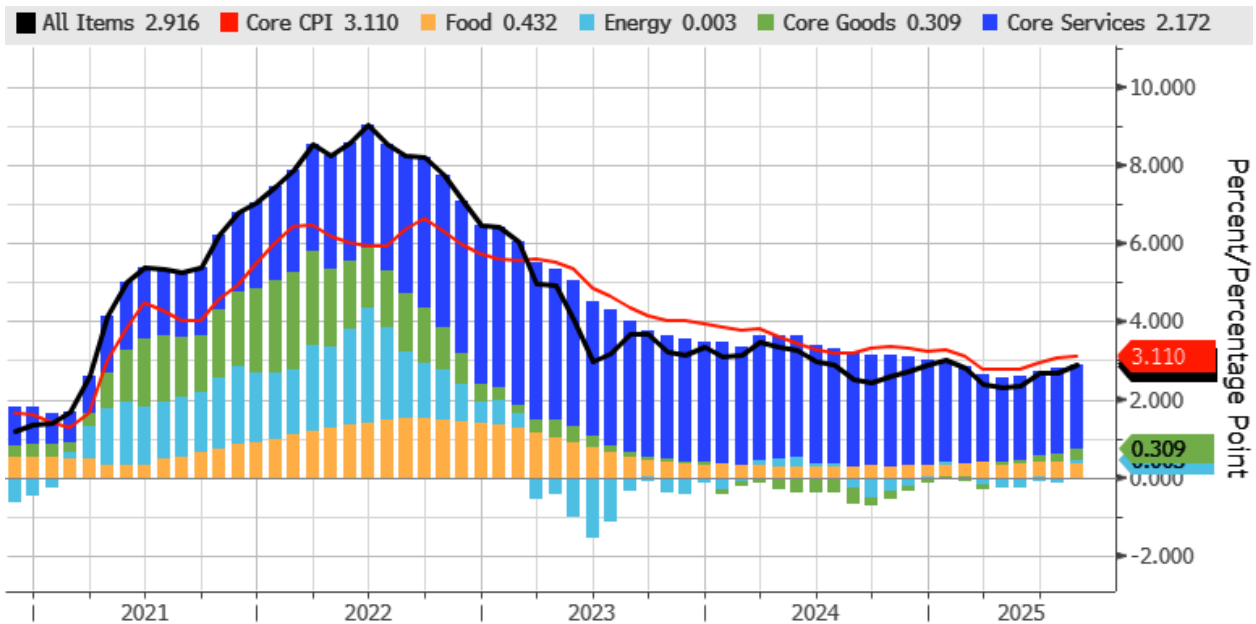
status quo has not been consistent for many years. The most recent employment data points have been dramatically lower than what we are accustomed to; it's not clear whether this is due to a weakening labor market or a new

*"There are many different ways to calculate [the job creation breakeven rate] and none of them is perfect, but, you know, it's clearly come way down... You could say it's somewhere between 0 and 50,000, and you'd be right or wrong... So wherever it was – 150,000, 200,000 a few months ago – it's come down quite significantly. And that's because a very – a lower amount of people are joining the labor force... It's interesting that supply and demand have really come down together so far."*

*-Federal Reserve Chairman Jerome Powell comments on recent low payrolls numbers at his press conference on September 17<sup>th</sup>, 2025*

normal due to reduced immigration. The environment has broadly been described as “no-hire no-fire” – reflecting employer reticence to either add or reduce headcount. The “Mean Probability of Finding a Job in the Next Three Months” touched 45% – the lowest level ever recorded (this has been collected since 2013). This confirms a labor market where it’s difficult to find a job for those who are looking, even if the unemployment rate remains low at 4.3%.

Inflation data has somewhat receded from the spotlight. Tariff announcements originally threatened to deliver a stark increase in prices to consumers, but that effect has been moderated due to delays in implementation, reductions in the threatened tariffs, and



The Consumer Price Index (CPI) levelled off and is edging higher again. Goods inflation (green) has become a growing contributor in the months following implementation of tariffs.

corporations absorbing the tax increase. Nevertheless, a variety of sources indicate that the years-long decline in inflation might be slowing or even reaccelerating to the upside. This can be seen in CPI, where goods inflation is becoming a contributor once again, after being a detractor



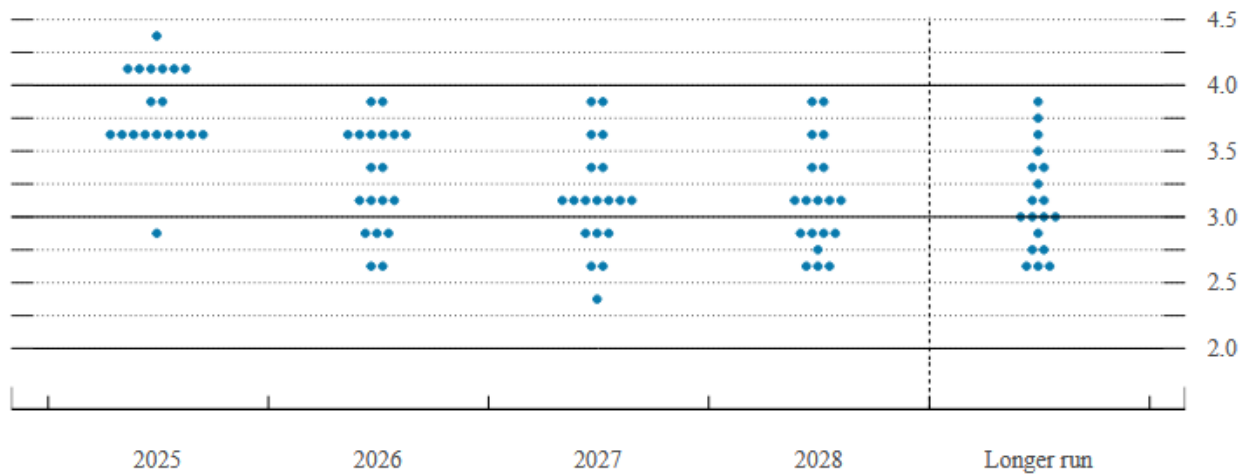
Gold’s price languished for years despite high inflation. Since 2023 its price has nearly doubled.

from inflation for a while. Data for inflation is not yet worrisome but trends point to a potential rise.

Gold's price has rocketed higher this year. There are several potential explanations for this – geopolitical uncertainty, central bank purchases, and distrust of centralized currencies. However, other assets are not confirming any of these storylines. It's unusual for gold to perform well while stocks are at all-time highs. Similarly, gold acts a hedge for inflation, but current inflation numbers are well lower than they were several years ago. If fears of inflation were driving the price, we would also see long-term interest rates moving higher. It's a bit reductive to say that "the price is being driven by demand," but that appears to be the case. Gold's current run doesn't seem to be correlated with a cohesive larger economic narrative when you look at how other asset classes are performing.

### Preserve – Interest Rate Commentary

The Federal Reserve lowered interest rates by 25 basis points in September, the first reduction since December of last year. It was an 11-1 vote, with the sole dissenter being newly appointed Governor Stephen Miran. Governor Miran replaced Governor Adriana Kugler, who resigned from her position in August when it was set to expire in January. Kugler has not stated her reason for resigning, but it came during fierce ongoing criticism of the Federal Reserve from President Trump.



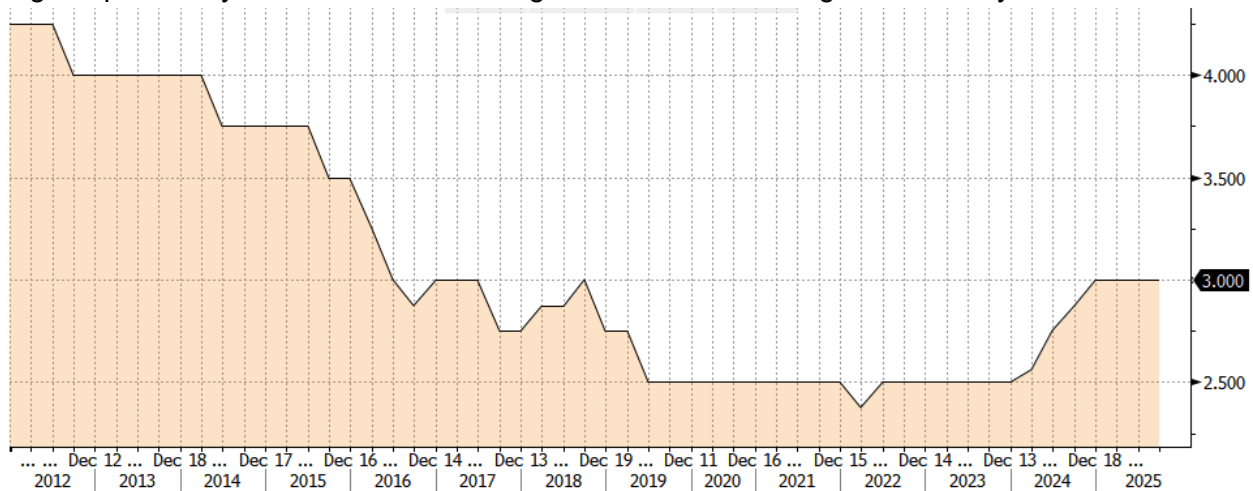
*The Federal Reserve's most recent Summary of Economic Projections (SEP) shows a wide range of opinions for both short-term and long-term interest rate policy.*

Despite the nearly unanimous vote, the Federal Reserve's new "Dot Plot" shows a group of economists who disagree in their views of interest rate policy. Normally the Dot Plot is loosely described as the "prediction" for where interest rates will be at different points in time, but this time around, it's clear that certain voters are making their voices heard by saying where interest rates "should" be, even if there isn't any possible way for that to happen, at least for the end of 2025. While the "dots" are not identified by individual, Governor Miran is easily picked out. In his opinion, the Fed Funds Rate should be 1.25% lower by end of year; this would be five more 25 basis point cuts over the course of two more meetings. Such a move would only happen during an acute emergency. It's clear why he dissented if this is where he thinks interest rates should be. Another member believes that interest rates should be 25 basis points higher at the end of 2025. They must not be a voter, because they clearly disagreed with the decision to reduce interest rates. Along with these two outlier opinions, a large number of members project interest

rates to remain unchanged for the rest of the year, while others see two more rate cuts. An 11-1 vote dramatically overstates the unanimity and certainty of this group of economists!

Powell described the decision to lower interest rates as a “risk management cut.” This is an innocuous but new description that has raised eyebrows. A “risk management cut” is almost directly contrary to the Federal Reserve’s typical commitment to remain “data dependent.” It’s basically an admission that they are reacting to potential future changes to the data, for better or worse. This mindset has frustrated Trump for months as the Fed has used fears of “tariff-driven” inflation to keep rates high & unchanged. They are now potentially extrapolating weakness in the labor market and using it as a reason to lower rates in anticipation.

The longer-run estimate for interest rates is also always interesting to consider. This is, theoretically, the level for interest rates which is neither stimulative nor restrictive. While this estimate has risen slightly since the pandemic bottoms, it remains extremely low. This suggests that the Federal Reserve continues to believe that rates are currently restrictive, and that the low-interest-rate-paradigm since 2008 remains. We would argue that the neutral rate level is higher, potentially around 4%, and cutting rates risks stimulating the economy too much.



*The Federal Reserve was slow to revise their estimate for the “Longer Run” neutral level of interest rates after 2008. Are they perhaps equally slow following 2020?*

The reaction to the decline in interest rates has been muted. Interest rates had fallen during the quarter in anticipation of a cut, so it was not a surprise when they did so. This must come as a relief to the Trump administration and the Federal Reserve. When the Fed first cut rates in 2024, by half a percent, long-term interest rates rose substantially as a result, signaling disagreement from investors, and therefore increasing funding costs for the government. That’s not the case this time as 10-year interest rates hover above 4%.

Investors anticipate two more cuts, one at each remaining meeting. They have become even more confident since the government has shut down. In the absence of further data, the Fed is likely to take the path of least resistance. Investors expect one more interest rate cut in 2026 before Powell’s term as Fed Chairman ends in May. As we approach the end of Powell’s tenure, short-term interest rate decisions will become less meaningful.



*When the Fed lowered interest rates three times in 2024, 10-year interest rates rose considerably. In contrast, 10-year rates have hardly moved following the cut in 2025.*

### **Earn – Bond Market Commentary**

The bond market was positive for the quarter, quietly rising 2% as interest rates fell. Most bond assets appreciated in value. High yield and investment grade spreads – the amount of income earned in excess of similar risk-free Treasuries – shrank to their lowest levels since the 90’s. This reflects a desire for income and a low fear of default.

Municipal bonds closed the quarter in an electric fashion. The municipal bond yield curve has been steeper than the Treasury curve for much of the year, meaning long-term interest rates were higher for munis. Before the One Big Beautiful Bill Act (OBBBA) passed, there was broad concern that the tax-favored status of municipal debt could come under review. This led to widespread issuance, pushing yields higher. As rates fell in September, municipal bond interest rates dropped further, allowing them to somewhat close the gap and appreciate in price.

Floating rate bonds began to decline near the end of the quarter. These bonds are anchored to short-term interest rates, so they’ll begin to see their yields fall as a result of the interest rate cuts. Additionally, two auto loan companies suddenly declared bankruptcy near the end of the quarter. This has spooked parts of the market where borrowers have lower credit quality and where recovery rates are low – the amount a lender recovers in the event of insolvency. Investors will watch as these stories develop further to determine whether these lenders were anomalies, or whether their difficulties point to systemic concerns.

Perhaps relatedly, Business Development Companies (BDCs) sold off aggressively near the end of the quarter and into October. It’s true that these lenders are equally exposed to falling interest rates – a Fed cut will typically result in an eventual decrease in their payouts as well. But with interest rates much higher for these companies, you’d expect the negative from the decline in interest rates to be offset by the stimulative nature of the interest rate cut. Instead, we’ve seen a dramatic decline in prices that seems to be anticipating serious concerns about the underlying loans. The loans these companies own are categorized as “Level 3,” meaning that they don’t trade in a public market, so price discovery (figuring out what they are worth) is very difficult. The companies disclose their best estimate for the value of their portfolio on a quarterly basis, but the value of a loan can only really be determined when it comes due and is repaid – or isn’t. Similar declines in the stocks of Private Equity (PE) firms point to potential general unease in private markets.

Closed-end funds (CEFs) were largely quiet during the quarter. Their underlying Net Asset Values (NAVs) held their value with low volatility. These funds have performed well this year. Falling interest rates push their value higher in at least three separate ways. First, lower rates increase the value of their NAVs. Second, lower short-term rates decrease their cost of leverage. Third and finally, lower prevailing interest rates make money market funds less attractive. This can drive yield-conscious investors into other parts of the market where they can find higher yields. There is one major headwind which could offset these positives. Many CEFs tie their distribution rate to short-term interest rates. As prevailing rates fall, these funds could follow suit and lower their distributions. When these announcements catch investors by surprise they can cause the price of the fund to fall.



*The MVIS US BDC Index, which follows the performance of BDCs, shows the recent dramatic decline in BDC prices. When the economy is doing well and BDCs are trading below book value, it can be a great opportunity, but we'll want to hear what management teams are saying about the private lending market.*

### **Grow – Stock Market Commentary**

The stock market was broadly higher during the quarter, extending gains from earlier in the year. Since the panicked reaction to “Liberation Day” the market has been on a one-way trip higher. Pullbacks have been limited to just a few days at a time and never denting performance by more than a few percentage points. As we have become accustomed to, gains have accrued disproportionately to the largest companies, especially those in the technology sector. After a discussion of broad trends in the stock market, we’ll take a fresh look at the Artificial Intelligence

*“October. This is one of the peculiarly dangerous months to speculate in stocks. The others are July, January, September, April, November, May, March, June, December, August, and February.”*

*-Mark Twain*

theme from a variety of perspectives. The stock market’s steady glide higher has some investors worried

about a reversal during the month of October, historically the worst month of the year for markets. However, we see little need for immediate concern. Market leadership remains in the hands of the largest, and also healthiest, companies. As interest rates have declined, breadth has improved. Small stocks have not kept pace with large stocks overall, but they are starting to benefit from lower interest rates.

International stocks experienced another strong quarter, though they've mostly just kept pace with domestic stocks through the summer. The frequently discussed "Sell America" trade from early in the year is no longer much of a talking point.



*The Profitless Tech index (black) has tended to outperform the Profitable Tech index when markets are doing well. This includes the post-pandemic period, post-election, and the recent all-time highs. This chart shows the last twelve months' performance for both indices.*

With markets at all-time highs and interest rates again declining, "animal spirits" have captured investors' emotions. Unprofitable but exciting companies are outperforming, somewhat reminiscent of the "meme stock" period from 2021. We thought that experience was completely unique, created by a general feeling of boredom and catalyzed by government stimulus checks that was literally sent in the mail, as well as zero percent interest rates. It turns out that culture has just become more speculative over the last few years and seems likely to stay that way.

The gambling mania isn't limited to the stock market. Sports gambling continues to expand in popularity and has become a key talking point during broadcasts. And prediction markets – where "investors" can get rewarded for correctly predicting the results of elections and other world events – have grown in popularity. They're now really pushing the limits, adding the ability to "predict" the results of sports games (sounds like gambling to us!), and recently even adding the ability to create sports "parlay" predictions (a longshot bet that multiple independent events will happen in order for the wager to pay off).

Another strong period of returns has us reexamining valuations. Based on many historical valuations, stocks are fully valued, especially the largest stocks. The CAPE ratio (Cyclically Adjusted Price-to-Equity) is a long-term tool for looking at valuations and expectations for returns. This measure looks at current prices relative to earnings. We can then compare the current valuation with similar periods in the past. Based on this, return expectations for the next few years should be extremely muted, and perhaps negative. It's worth noting, however, that this was the case in January of this year, and it hasn't held back performance at all in 2025. Momentum is certainly in the market's favor right now, and even if valuations are expensive, it doesn't mean that they can't become even more expensive. There's a legendary quote from economist John Maynard Keynes that "the market can stay irrational longer than you can stay solvent" which reminds investors that they might be eventually proven correct, they can still lose everything through poor timing or bad risk management.

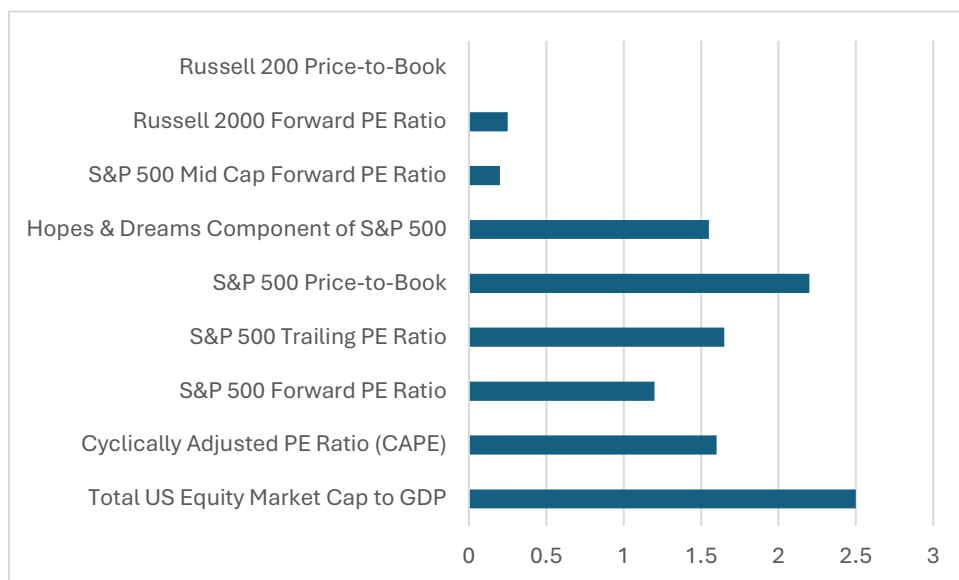
Another way to look at the value of the stock market is to break it into book value, earnings, and “Hopes and Dreams”. Book value is straightforward; this is the actual value of property owned by the companies, whether in the form of cash, buildings, inventory, etc. This value tends to rise over time, though not quickly. Earnings are estimated by the value of the next three years’ worth of expected profits. These two pieces of a stock are a lot like a bond. The book value is what can be recouped if the borrower were to default. The earnings are the interest payments. Stocks almost exclusively trade at a price greater than these two values due to the value of being a

company – the vision, gameplan, management, employees, ideas, future earnings, etc. The chart provided shows the percentage of the valuation which “Hopes and Dreams” contributes over the years, an ever-growing portion of the valuation. To some extent this is to be expected as the economy has transitioned away from manufacturing business models and into knowledge work, which has a lower book value. It’s worth noting, however, that the proportion

attributed to “Hopes and Dreams” is at nearly 70%, roughly where it topped out in 2000. Whether this is a useful measure of overall valuations is debatable. But it is an interesting way to consider the value of a company – the bond-like portion, and then an additional piece which puts a value on the potential outside that.

It’s no secret that Artificial Intelligence has been the primary driver of stock market returns for several years now. The “Magnificent 7” technology stocks have become a common theme of this newsletter as they typically move in the same direction. Owing to their size, the fortunes of the stock market generally have become increasingly tied to the sentiment in AI. JP Morgan recently analyzed market returns since the release of ChatGPT in November of 2022. They categorized just 41 stocks from the S&P 500 as part of the “AI Universe”, which were either Direct AI, Utilities, or AI Capital Equipment. We were aware that the Magnificent 7 were the primary drivers of the S&P’s returns, but including these other AI companies shows exactly how much AI has driven returns, and therefore how reliant the index has become on the future promise of AI.

These stocks have been responsible for 75% of the index’s returns since November of 2022. They’ve grown from 29% of the index to 47%. That means a passive investment in an index fund has nearly 50% exposure to stocks whose performance have largely been driven by the prospects for AI – a technology that has yet to turn a profit.



*The z-scores for different valuation measures show how current valuations compare to historical levels. A score of 1 indicates that it is one standard deviation higher than average. All these valuations are at or higher than historical averages, but some by a much greater extent!*

These companies can be excused for not having achieved profitability yet. After all, AI is a uniquely capital-intensive technology that requires chips, data centers, electricity, reams of data & permission to use it, and niche expertise from a small pool of software engineers. These companies are engaged in a race to seize market share, and also to develop the first and best Artificial General Intelligence (AGI). From some of OpenAI's (potentially tongue-in-cheek) founding documents "it's unclear what role money will play in a 'post-AGI world.' " Money's role may change, but it's undoubtedly beneficial to be the first one there!



*The percentage of the S&P's value which is \*not\* explained by book value or the earnings from the next three years is called the "Hopes and Dreams Ratio." It measures the amount of the value which is attributable to potential growth and/or future expectations.*

We focus on the spending for capital expenditures (capex) for three reasons. First, it's not clear it's in the best interest of investors. Second, achieving profitability requires certain assumptions, which are worth examining. And third, the nature of capex funding is changing in a meaningful way, from cash flow-funded to debt-funded.

The OpenAI quote mentioned earlier can be forgiven as a snarky joke made by an upstart "non-profit" hoping to create hype around a new and exciting technology. "We'll make so much money that money won't have meaning anymore!" is certainly an audacious pitch that, perhaps, has never been made before. But as the technology has matured, we have seen tech executives make more statements along these lines. They want to be the first to the finish line, though we don't necessarily know what the finish line looks like, what the reward will be, or what it costs to get there. (There's also a fascinating lack of curiosity about *whether* we should want to get there.) For billionaires perhaps seeking existential meaning in their lives, profligate spending might have its merits. But we would question whether such an admitted and purposeful disregard of return on investment (ROI) is desirable for your typical investor saving for retirement.

*Larry Page (co-founder of Google): "I am willing to go bankrupt rather than lose this race." (multiple times, allegedly)*

*Mark Zuckerberg (founder & CEO of Meta Platforms): "If we end up mispending a couple of hundred billion dollars, I think that that is going to be very unfortunate obviously. But what I'd say is I actually think the risk is higher on the other side."*

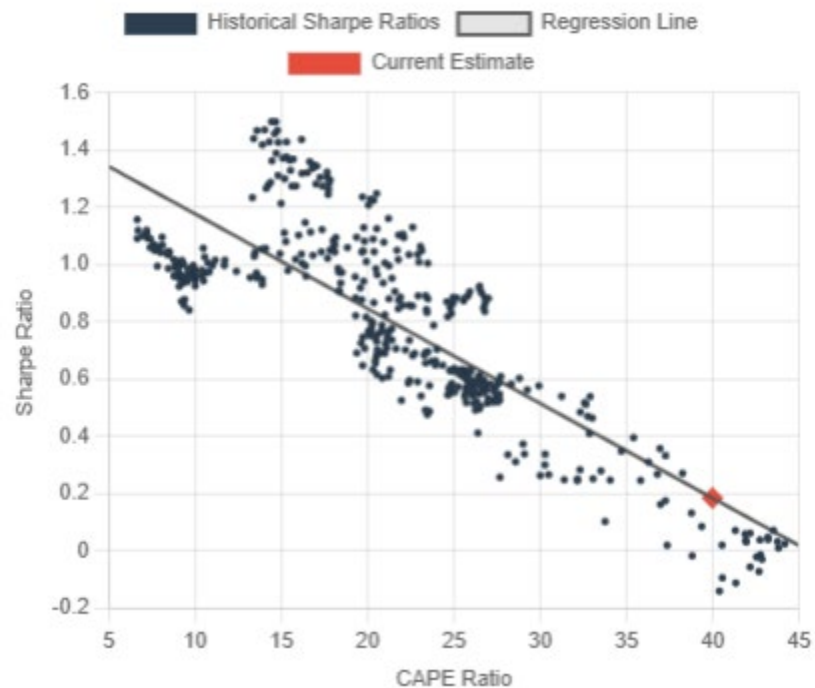
roon (pseudonymous X.com (Twitter) account of OpenAI staff member): all the technology fortunes in the world are on record saying they're betting the entire bank on superintelligence, don't care about losses, etc.

The buildout of AI infrastructure has cost hundreds of billions of dollars, with relatively little revenue to show for it thus far. That's far from an indictment of the technology, as it's new, uniquely capex-intensive, and developing quickly. Trying to correctly value these investments based on traditional metrics right now is a fool's errand. But it's worth considering what might eventually be necessary to make current investments make sense. This is arguably where investors during the Dot Com bubble made mistakes. They invented new metrics, such as "eyeballs", "mind share", "price-to-click ratio", etc. These metrics are still used to some extent today but fail when used to value large businesses. It doesn't matter how many eyeballs a website receives if it's not eventually profitable. The new metrics might be useful to compare entrants for a new technology, but eventually normal business fundamentals will be necessary to determine if a business is worth anything.

These business fundamentals will take several years to determine. While AI only generates tens of billions in revenue in 2025, global revenue is expected to grow to roughly \$800 billion in 2030 with 1 billion users. That equates to \$800 per user on average. If you treat these values as very rough estimates, the revenue per user could be anywhere in the ballpark of \$200-\$4,000 per user. Given AI's current capabilities, the high end of this range seems like a steep cost. It's hard to imagine paying \$16,000 for AI for a family of four. That said, if AI were to

*"We tend to overestimate the effect of a technology in the short run and underestimate the effect in the long run."*

*-Amara's Law, an approximation of which was popularized for the mainstream by a quote from Bill Gates*



*This chart shows that when the market's CAPE ratio is high, its Sharpe ratio tends to be lower, perhaps even negative. The Sharpe ratio measures the amount of expected return compared to the expected amount of risk.*

seamlessly expand into robots, self-driving, education, administrative jobs, etc., it's not a completely absurd price tag. A separate and potentially severe constraint is electricity usage. The International Energy Agency projects electricity demand from datacenters to quadruple from current levels by 2030. This would account for approximately 20% of

global energy demand. The ability to supply the electricity demands of AI – with powerplants, semiconductors, datacenters, and water – has quickly become as much of a concern as the underlying technology of AI.

The final concern is perhaps most meaningful in the short-term. Spending on AI thus far has mostly been financed with cash flow. The largest players in the AI market also operate some of the most profitable businesses in the world, allowing them ample freedom to invest profits wherever they desire. They mostly haven't had to raise money through equity or debt offerings.

*“My buddy lost his job to AI. It was his job to chug thousands of gallons of water at a data center.”*

*-@FeldFrog on X.com (Twitter)*

That equilibrium changed in September, when a newly serious entrant to the AI space announced a deal with OpenAI where they would mutually provide each other with products and services. The details are hardly important to this commentary, but suffice to say that neither of the companies are currently positioned to honor their side of the agreement and will need to rely on outside investor capital. Separately, an AI chip manufacturer and OpenAI most recently agreed that OpenAI would buy the other company's chips in exchange for the right to an equity stake. These deals invariably send the companies involved to higher valuations when they're announced.

The nature of these deals raises concerns. The circular and incestuous nature worries investors as any weak link could derail the entire sector. The long-term nature of the agreements creates more hype while doing little to address short-term funding concerns. And the massive commitments will require selling either equity, or more likely debt. If any development derails the development of AI, the value of these capex investments could be devastated, as neither the chips nor the datacenters have alternative uses at this scale. The circular nature of the agreements reminds us of the Dot Com boom, where vendors subsidized demand for hardware in order to maintain growth. The enormous debt spending on capex reminds us of the buildout of the national railway network during the 1800s, which resulted in bankruptcies all over the country. In neither of these analogous situations was the underlying technology a failure, and we are also not promising that the AI capex buildout will play out the same. But it's worth noting the similarities as society as a whole invests trillions into this technology over the next decade.

Best regards,



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The MSCI All Country World Index (ACWI) captures large and mid cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries.

The Dow Jones Industrial Average is a price-weighted index of 30 "blue-chip" industrial U.S. stocks.

The Russell 2000® Index measures the performance of the 2,000 smallest companies in the Russell 3000® Index, which represents approximately 8% of the total market capitalization of the Russell 3000 Index.

The MSCI EAFE Index is a free float-adjusted market capitalization index that is designed to measure the equity market performance of 21 developed markets, excluding the U.S. and Canada.

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Bloomberg U.S. Aggregate Bond Index is a broad-based measure of the investment grade, US dollar-denominated, fixed-rate taxable bond market.