



BOTH SIDES NOW

CLOUD DELUSIONS; VALUE AT A SECULAR PLATEAU
AND – BERKSHIRE HATHAWAY: GOING OUT ON TOP

2025 LETTER TO CLIENTS

February 25, 2026

CONTENTS

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CLOUD DELUSIONS; VALUE AT A SECULAR PLATEAU; AND – BERKSHIRE HATHAWAY: GOING OUT ON TOP

INTRODUCTION – THE RETIREMENT OF OLD-FASHIONED INTELLIGENCE	5
INTRINSIC VALUE UPDATE – VALUE AT A SECULAR PLATEAU	8
Four Years Beyond a Secular Peak?	8
Mr. Market and the Semper Portfolio	10
Semper and the S&P – A Wide Disparity in Leverage and Valuation	12
Key Common-Size Figures for the Semper Portfolio and S&P 500 (Table)	13
Semper and the S&P – Behind the Numbers	14
Share Repurchases, Meet Capital Expenditures	18
Expected Returns	19
S&P Expectations – Don’t Expect Much	22
Semper and the S&P – The Power of Compound Interest	23
The Opportunity Cost of Holding Cash	25
Expectations and Outcome	27
NEVER MAKE FORECASTS, ESPECIALLY ABOUT THE FUTURE	29
Returns from Peaks and Troughs – With Yet Better Data at the Ibbotson Centennial	30
The Very Long Term?	33
Riddle Me This: What Can Lose 99% of its Value—Twice – and Still Beat the Market?	33
Semantics	36
Growth and the Price Paid for It	43
GREAT EXPECTATIONS	47
Five-Factor Math	49
In Practice	50
Five Factors at Work – Past, Present and Future S&P 500 Scenarios	51
Revisiting the Tech Bubble and Aftermath	52
Forecasts About the Future	54
ARTIFICIAL INTELLIGENCE – IT’S CLOUD DELUSIONS, I RECALL	60
Get Moore Fiber in Your Diet	60
History Rhymes	61
The Infrastructure Capital Cycle	61
Profitability, Capital Intensity, Depreciation and Return on Capital	63
Give Up the Funk: Leverage on BS; Leverage Off BS; Circular Finance	66
Start Me Up	69
Feel the Burn Rate	73
AND THEN THERE WERE TWO	77
The Seven	81
BOOKS AND MUSIC	87

BERKSHIRE HATHAWAY: GOING OUT ON TOP	89
The Year at Berkshire	89
The Buffett Scorecard – The Eighth Wonder of the World	94
Just Simple Compound Interest	95
Charlie Would Be Impressed	97
The Entire Record	99
Going Out on Top	100
The Real Buffett Scorecard	102
Succession	104
Berkshire Hathaway Energy Under Fire	109
Six Decades of Compounding	112
Berkshire’s Performance vs. the S&P 500 (Table)	114
The Tools of Capital Allocation	116
Investable Cash Flow and Capital Allocation (Table)	118
A Tale of Two Stocks	124
Got Coke?	124
Won’t Get Coked Again – A Bite of the Apple	129
Berkshire Hathaway: Ten-Year Expected Return	133
Ten-Year Expected Return at Year-End 2034 with ROE at 10% and 12% (Table)	137
The Stock Portfolio	138
On Kraft Heinz	138
Berkshire Hathaway Intrinsic Value Update	143
Methods Employed in Assessing Intrinsic Value	145
Net Income Basis	146
Other Methods for Valuing Berkshire	148
Sum of the Parts Basis	149
Berkshire Hathaway Energy	150
BNSF	152
Manufacturing, Service, Retailing and Finance	153
Insurance	154
Pilot Travel Services	161
Holding Company Assets and Liabilities	162
Equity Method Investments	162
Simple Price to GAAP Book Value Basis	165
Two-Pronged Approach	166
GAAP Adjusted Financials Approach	167
Summary of GAAP Adjustments to Economic Earnings (Table)	176
SUMMARY	177
APPENDIX	179
Appendix A – Key Business Segment Information – Berkshire 2024 Expected	179
Appendix B – Capital Expenditures and Depreciation; Deferred-Tax Liabilities	180
Appendix C – Cash and GAAP Tax Reconciliation	180
Appendix D – Manufacturing Service and Retail Group Summary Financial Figures	181
Appendix E – Secular Peak and Trough Total Return Tables Dividend Methodology	182
Appendix F – Semper Augustus Investments Group Historical Returns	183

BOTH SIDES NOW

Rows and groves of solar cells
And data centers in the air
And grid expansion everywhere
I've looked at clouds that way
But now, they only block the sun
They'll advertise for everyone
So many things they should've done
But clouds got in the way
I've looked at clouds from both sides now
From up and down, and still somehow
It's cloud delusions, I recall
I really don't know clouds at all
Land and racks and inference
Depreciation that you expense
As every fairy tale must end
I've looked at chips that way
But now, it's a redundant show
And they leave 'em bankrupt when they go
And if you care, don't let them grow
Don't give your cash away
I've looked at chips from both sides now
From capital burn and funding rounds
It's hallucinations that I recall
I really don't know chips, really don't know chips at all
SPVs and hidden debt
Interest charges what the heck
Dreams and schemes and tech-bro clowns
I've looked at AI that way
Oh, but now, the stocks, they're acting strange
And they retrace gains, and they tell me free cash has changed
Well, profit's lost, but EBITDA's gained
In lying every day
Oh, I've looked at AI from both sides now
The jobs are lost and still somehow
It's open AI delusions, I recall
I really don't know AI at all
It's AI delusions that I recall
I really don't know AI
I really don't know AI at all

INTRODUCTION – THE RETIREMENT OF OLD-FASHIONED INTELLIGENCE

“Art is short for artificial...so the art of art is to be as real as you can without this artificial situation...In a way it’s a lie to get you to see the truth.” – Joni Mitchell

Student: “Professor Einstein, is the most powerful force in the Universe atomic energy?” Einstein: “No, the most powerful force in the Universe is compound interest.”



First, profound apologies to Joni and to her dark-yacht-rock devotees under the Sun, wherever they may sail, though from the quote above, I have a guess as to what they might think about Artificial Intelligence...

Incidentally, Joni Mitchell penned *Both Sides Now* sixty years ago and only days after Warren Buffett gained control of Berkshire Hathaway. Warren and his business partner of decades, Charlie Munger, shared skepticism of AI, Charlie noting, “I think old-fashioned intelligence works pretty well.”

A section in this year’s letter attempts a skeptical case about AI, particularly of the illogic of expecting even a reasonable investment return on the billions, and what will soon be trillions, of dollars of capital being poured into the endeavor. We are witness to a growing reliance on debt, both on balance sheet and off, circular finance and accounting gimmickry. It looks like a throwback may be afoot to the telecommunications and fiber-optic cable boom and to earlier capital cycle bubbles. As with every transformative capital cycle, be it canals, railroads, electricity or the internet, while society may benefit in the end, early investors? Not so much. This one is apt to end badly.

Speaking of ending, we have come to the end of an era. Berkshire Hathaway’s CEO announced on May 3, 2025, at the close of Berkshire’s Annual General Meeting of the shareholders, that he was stepping down at the end of the year. As of January 1, 2026, the company is now in the able hands of Greg Abel. Greg has overseen all of Berkshire’s non-insurance businesses since 2018. He’s more active than Warren was in oversight and has Warren and the board’s complete confidence. Between Greg managing the company and allocating its capital, Ajit Jain overseeing what is by far the best insurance operation in the world, and Berkshire’s roster of outstanding managers, the company is in excellent hands.

Warren will stay on as Chairman indefinitely and will be in the office daily! Slowing at 95, particularly with reading, no doubt stepping down from the day to day must be bittersweet. I’m sure Warren always believed he would go out in the proverbial pine box, just as Charlie did at age 99 in late November 2023, just 34 days shy of his 100th birthday. But what a legacy the two have left behind. You will read about a number of truly remarkable statistics regarding “The Buffett Scorecard” in the familiar Berkshire Hathaway section of the letter. Albert Einstein famously identified compound interest as the eighth wonder of the world. I contend that if Einstein was correct, then by extension, Warren is the human embodiment of the eighth wonder. The Berkshire section continues with a bit of a tribute, not about the track record, but about how Warren did it. Whether guiding his partnerships in the early years, or leading Berkshire for the last 61, Warren led with integrity and morality. His shareholders were his partners. Accounting was never to be abused. His word was his honor. He gave freely of himself as a teacher and a mentor to so many. His lessons are worthy of study and will stand the test of time.

The Berkshire section continues with thoughts on succession and naturally concludes by recapping the year and the businesses of Berkshire. I look forward to seeing everyone in Omaha on the first Saturday this May. Warren will be in the front row with the directors. It will be exciting to be on hand for the next chapter.

In the Letter

Intrinsic Value Update – Value at a Secular Plateau contrasts an undervalued, actively-managed Semper portfolio with the capitalization-weighted S&P 500, increasingly overvalued and concentrated in a shrinking number of highly priced shares like never before. We find ourselves likely at a secular peak rivaling the one so dangerous when we launched the firm at the height of the tech bubble in the late 1990s. The Semper portfolio returned a net 41.4% in 2025 while firm assets crossed \$1 billion for the first time (in the right direction). Despite the gains, growth in underlying business value and our active management combined to keep the portfolio both relatively and absolutely undervalued.

Never Make Forecasts, Especially About the Future compares and contrasts today's stock market and various economic yardsticks with secular peaks over the past 100 years. This section of the letter looks at investment returns over very long periods of time, particularly the glory of investing closer to secular troughs and the hazards of buying near peaks. Some simply say, "Buy Low, Sell High."

Great Expectations reexamines our five-factor investment return attribution work in evaluating past investment returns and cautions on underwhelming prospective expectations for the capitalization-weighted U.S. stock market. Despite only two of what have become fashionably known as The Magnificent Seven beating the S&P 500's 17.9% total investment return in 2025, the two that did so drove the collective group to an even greater record concentration than existed a year ago. The summary statistics are eye-popping.

Artificial Intelligence – It's Cloud Delusions, I Recall examines our take, on what is perhaps obvious to many, a classic capital cycle bubble. The section is broken down into five distinct subsections beginning with a short review of past capital cycle excesses – canals, railroads, automobiles, electricity and finally telecommunications equipment and fiber optics. Next, we look at the improbability of earning acceptable (or any) investment returns on the mammoth sums being spent on data centers and chips. Formerly capital-lite and hugely profitable tech companies are in an arms race that is gobbling up resources and leveraging formerly pristine balance sheets. That gets us to the use of creative financing and accounting, never a good combination. The energy demands and infrastructure required to fulfill ballooning capital budgets is pushing the laws of physics and the reality of how quickly, rather how slowly, new incremental power can be brought online. The section concludes with observations on one of the players committed to spending \$1.4 trillion on AI, money that it doesn't presently have and won't earn. The money it is getting is coming in unusually creative ways.

And Then There Were Two expands on the two prior sections, using our five-factor methodology applied to a very expensive corner of the investment world. Only two of the Magnificent Seven beat the S&P 500 in 2025, yet their concentration at the top of the market swelled to another record proportion. The breakdown of all seven in early 2026 indicates concerns about the arms race underway in AI. Mr. Market rewards past success to an extreme. When growth slows and margins contract, things get ugly. The end of a capital cycle is rarely good for the obvious winners, particularly for those spending the capital.

The letter's traditional book and music recommendations return in a section creatively named *Books and Music*.

Our ongoing analysis of Berkshire Hathaway can be found in the letter's customary final section, *Berkshire Hathaway: Going Out on Top*. It's meaningful that so many of our clients and countless Berkshire watchers find our work on the company useful. We are grateful to so many of you who express your appreciation for our sharing the letter each year. Through it all, having analyzed the company since 1996, and owned it since 2000, instead of the hours spent on analysis and digging into the nuances of the

operation, we could have just as easily relied on Warren's message to the uninitiated or financially unsophisticated shareholder.

I was asked separately two questions last year. First, why spend so much time writing about what's going to be released in Berkshire's annual report a few days after publishing the Semper letter. Second, why write such a long letter? The answer to both is that the process makes me think. Manually working up minute details about each Berkshire subsidiary makes me think closely about each of those unique entities. Likewise, writing about financial history, or economics, or AI makes me think more deeply about each than I otherwise would. ChatGPT or Gemini could likely give you a nice overview about our portfolio, or about Berkshire, in a more concise, better-written style (though not as funny). But I'm quite certain that *I* wouldn't be better off, nor would our clients. There's a lot to be said about Charlie's comment about preferring old-fashioned intelligence.

Warren reflected at length recently about the importance of kindness and of trust, neither of which requires money. Warren said both he and Charlie liked to be trusted, that this desire drove the way they ran Berkshire and encouraged them to do it for so long. We have an extraordinary team at Semper who feel the same way. Early clients have been with us for 27 years, and in my case, some for 35 years. Many are great friends. We have a debt of gratitude and also a lifelong obligation of responsibility. I like being trusted, as does Chad. As does management at Berkshire, we'd never run the company or our clients' investment capital in a way that permanent harm could come to it.

Just as Warren succumbed to failing eyesight and finding difficulty in reading, so too did Kate Welling. Kate sadly retired in 2025 for difficulty in reading on screens, doing so far sooner than she expected or wanted. If you cut your teeth in the investing game when I did, and certainly for those who did so before me, you know Kate Welling, who spent years at Barron's sitting at the right hand of Alan Abelson (she delivered Alan's eulogy). She helped in the creation of the Roundtable. But what she really did was brilliant investigative financial journalism, uncovering and exposing myriad frauds and charlatans. She also conducted countless investor interviews, which on leaving Barron's to hang her own shingle, she did at a frenetic clip for three decades. Kate interviewed *everybody* worth hearing from, publishing deep-dive interviews and including tons of bonus content under the ultimate banner, *Welling on Wall Street*. Your author may have played a not insignificant part in the creation of the name. It's a debated subject to these many years removed. Kate was, *and is*, simply the best financial journalist of any era. If Warren is the GOAT of investing, Kate is the equivalent in her field. I don't know what she will do with the treasure trove of interviews and content, but if she makes them available (wink), or if you can get your hands on them, many are timeless and full of not only wisdom but great humor and wit.

Finally, many of you know, or know of, my good friend and fellow Berkshire aficionado, Guy Spier. I believed like Warren and Charlie, and the way we feel here at Semper, that Guy was going to do what we do forever. Guy has been in a helluva fight with brain cancer. When we spent time with him last year in Omaha, and later in Zurich, he appeared to be in the clear. He couldn't make it to St. Louis in November for a small event I annually host for a few friends and colleagues. Unfortunately, the cancer is back, and Guy has made what is the unbearably difficult decision to close his investment firm to focus on his health and his family. It's the right decision, but not the one I'm sure he ever contemplated having to make. Please take a moment, and in whatever way you pray, send your positive thoughts and energy to Guy and to his wonderful family. I hope and pray they have him for a very long time.

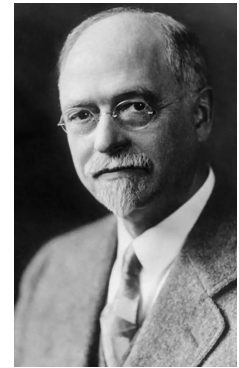
INTRINSIC VALUE UPDATE – VALUE AT A SECULAR PLATEAU

“There may be a recession in stock prices, but not anything in the nature of a crash.” – Irving Fisher, September 1929

“Stock prices have reached what looks like a permanently high plateau. I do not feel there will be soon if ever a 50- or 60-point break from present levels, such as bears have predicted. I expect to see the stock market a good deal higher within a few months.” – Irving Fisher, October 15, 1929

“The nation is marching along a permanently high plateau of prosperity.” – Irving Fisher, October 24, 1929, Black Thursday, five days before Black Tuesday

“The end of the decline of the stock market will probably not be long, only a few days more at most.” – Irving Fisher, November 14, 1929



Note to self: Never, ever use the word, “plateau.”

Four Years Beyond a Secular Peak?

Semper earned a 41.4% net total return in 2025 following 7.0% in 2024, 10.8% the year prior and 1.0% the year prior to that. The latter scant 1.0% return was earned in 2022, the year following our suggestion that 2021 likely marked a secular peak in the capitalization-weighted U.S. stock market. Most stock markets and even credit markets were hammered in 2022. Losing less (or even better – making money, even a pittance) during a market rout necessarily keeps more capital intact for ongoing compounding. Over the four years subsequent to our defined secular peak, Semper’s composite of client portfolios, including cash reserves across all accounts and net of fees paid earned 69.4%, or 14.1% annually versus 11.1% per year for the S&P 500.

For our full 27-year history, Semper’s equities with no cash and before fees returned 12.4% annually, 10.8% including cash in client accounts, and 9.8% net of cash and fees paid. The S&P 500 returned 8.5% and the MSCI All-Country World Index earned 7.5%.

The S&P 500 required a 26.3% rebound in 2023 to simply move just past breakeven from its 18.1% loss in 2022, producing a 3.4% cumulative return two years beyond our defined year-end 2021 secular peak. Tacking on 25.0% in 2024 and 17.9% in 2025, the index is now up 52.4% over the four years, or 11.1% annualized.

By earning roughly its very long-run average over the past four years, it may be semantics as to whether an S&P 500 secular peak was reached at year-end 2021 versus today, much as debating as to whether 1966 or 1968 marked a peak from which the market would drift sideways for 16 ½ years (from 1966). Perhaps the correct lexicon is to call the past four years a secular plateau. The S&P 500 now trades for 26x current earnings against the second highest profit margin in the history of the stock market. That’s against all stock markets. Anywhere in the world. Ever. High prices mixed with high margins are typically a recipe for mediocre future returns – or worse.

2022, 2023, 2024, 2025 and Four-Year SAI, Index and Magnificent Seven Returns

	2022 Total Return	2023 Total Return	2024 Total Return	2025 Total Return	Cumulative 2-Year 2022-2023	Cumulative 4-Year 2022-2025	Annualized 4-Year 2022-2025
Semper Augustus Net	1.0%	10.8%	7.0%	41.4%	11.9%	69.4%	14.1%
Mag 7 Dominated Indices							
S&P 500	(18.1%)	26.3%	25.0%	17.9%	3.4%	52.4%	11.1%
S&P 500 Equal Weighted	(11.5%)	13.9%	13.0%	11.4%	0.8%	27.0%	6.2%
S&P 100	(20.9%)	32.9%	31.0%	20.1%	5.1%	65.4%	13.4%
Nasdaq Composite	(32.5%)	44.6%	29.6%	21.1%	(2.4%)	53.2%	11.3%
Nasdaq 100	(32.4%)	55.1%	25.9%	21.0%	4.9%	59.8%	12.4%
Russell 3000 Growth	(29.0%)	41.2%	32.5%	18.2%	0.3%	57.0%	11.9%
No Mag 7 Indices							
Russell 3000 Value	(8.0%)	11.7%	14.0%	15.7%	2.7%	35.5%	7.9%
Russell 2000	(20.4%)	16.9%	11.5%	12.8%	(7.0%)	17.1%	4.0%
S&P 600 Small Cap	(16.1%)	16.1%	8.7%	6.0%	(2.6%)	12.2%	2.9%
MSCI ACWI Ex-USA	(15.6%)	16.2%	6.1%	33.1%	(1.9%)	38.6%	8.5%
Magnificent 7							
Nvidia	(50.3%)	239.0%	171.2%	38.9%	68.6%	534.8%	58.7%
Apple	(26.4%)	49.0%	30.7%	9.1%	9.7%	56.4%	11.8%
Microsoft	(28.0%)	58.2%	12.9%	15.6%	13.9%	48.7%	10.4%
Alphabet/Google	(39.1%)	58.3%	36.0%	66.0%	(3.6%)	117.7%	21.5%
Amazon	(49.6%)	80.9%	44.4%	5.2%	(8.9%)	38.5%	8.5%
Meta Platforms/Facebook	(64.2%)	194.1%	66.0%	13.1%	5.2%	97.7%	18.6%
Tesla	(65.0%)	101.7%	62.5%	11.4%	(29.5%)	27.8%	6.3%

Total return calculates dividends reinvested in security or index.

*Equal-weighted positions are 0.2% so a 1.4% weight for the Mag 7.

Source: Bloomberg, Y Charts; Semper Augustus

The oft-discussed Magnificent Seven were uniformly hammered in 2022, uniformly surged over the next two years, and moved with no uniformity in 2025. Two of the seven, Apple and Amazon, returned only single digits in 2025 and fully five of the seven lagged the S&P 500's 17.9% total return. Carrying the weight, Google led the bunch in 2025 with a 66.0% total return. Runner-up NVIDIA lagged Google, earning "only" 38.9% for the year, but its sprint over the past four years has been nothing shy of breathtaking. A 58.7% annual return over four years is 534.8% cumulatively. That's earning 6.35x in four years, more than sextupling (what a word) its market capitalization from roughly \$700 billion to \$4.5 trillion.

In the shock and awe department, NVIDIA's market cap was merely \$100 billion seven years ago, or roughly 50 basis points of a then \$21 trillion S&P 500. Fast forward and the additional \$4.4 trillion (that's 44x) of value perches the company atop the \$58.4 trillion index, with a record 7.7% share of the total.

But back to the four years after our defined 2021 secular peak. Those U.S. indices that include the gang of seven on a capitalization-weighted basis just dusted the indices lacking them. The heavy lifting was

largely done by three of the seven – Nvidia, Google and Meta. On the other hand, three others trailed the S&P 500 – Apple, Amazon and Tesla. Microsoft was slightly ahead of the index for the four years.

The four indices arranged in the table under the header “No Mag 7 Indices” are the Russell 3000 Value, Russell 2000 (the 2,000 smaller U.S. stocks after the 1,000 largest), S&P 600 Small Cap and MSCI ACWI Ex-USA. These indices contain *none* of the Mag 7 stocks, which we find very expensive as a group and now comprise an enormous proportion of the stock market. The U.S. indices without the Mag 7 earned low-to-mid-single-digit annualized returns over the last four years, reflective of much of the U.S. stock market outside of the biggest U.S. stocks.

All but one of the table’s indices that include the Mag 7 are capitalization weighted, which exaggerates the dominant impact of the Mag 7 stocks themselves. The result is that the capitalization-weighted S&P 500 nearly doubled the return of the equal-weighted index of the same 500 stocks over the last four years. To illustrate, the equal-weighted S&P 500 index has a 0.2% weighting in Nvidia while the capitalization-weighted S&P 500 index had a 7.7% weighting on December 31, 2025. The Mag 7 (or any combination of seven stocks) in an equal-weighted index of 500 companies will comprise 1.4% of the index, while they are roughly 37% of the cap-weighted S&P 500. The S&P 100 consists of the largest 100 components, which naturally include the Magnificent 7 of the 500 in an even greater concentration than in the S&P 500 and has just crushed other stock market indices during the last four years. The valuation of the largest 100 stocks in the U.S. market is arguably at the highest level in the entire history of the U.S. market. Perhaps only the peak in 2000 was fundamentally more expensive.

Meanwhile, across the ponds, international stocks finally enjoyed a year in the sun. Last year we noted:

Much of the global stock market reflects underlying pressure on profits and a compression in valuation, making numerous markets and individual stocks fundamentally cheap, both absolutely and certainly relative to the S&P 500 and its handful of larger components.

The MSCI ACWI Ex-USA is a worldwide capitalization-weighted index that excludes U.S. companies, which have ballooned to two-thirds of the full MSCI ASWI index from 43% in 2010. This Ex-USA index roughly doubled the S&P 500’s 2025 return, the first time in what seems like an eternity that international indices beat their U.S. capitalization-weighted brethren. The international constituents returned 33.1% in 2025 while the full ACWI returned 22.9% (not shown in the table). MSCI also publishes an emerging markets index which is not included in the table. Its returns have been miserable for years, but returned 34.4% last year, matching the larger-cap non-U.S. international stocks in the larger ACWI.

Further illustrating the dominance of the U.S. capitalization weighted indices, for the past ten years the S&P 500 returned 14.8% versus 12.3% for the ACWI (which, again, includes what’s now a two-thirds U.S. weight). The ACWI Ex-U.S. returned 9.0% while the ACWI Emerging Markets index returned 8.9%. Semper’s equities returned 16.7% over the ten years.

Mr. Market and the Semper Portfolio

The active, value-oriented investor should have prospective advantages over the broad stock market at secular peaks (and secular plateaus!) and certainly against capitalization-weighted stock indices trading at lofty valuations. Indeed, the bursting of the late 1990s dotcom and communications bubble proved a terrific time to launch Semper Augustus. We presume similar advantages will inure to the active, conscientious value investor from the current peak, whether defined at year-end 2021 or today.

Semper was founded at the end of 1998. Over the 27 years our stocks returned 2,229% cumulatively, or 12.4% per year on average (portfolio inception February 28, 1999). The S&P 500 earned 803%, or 8.5% per year over the same period while the MSCI ACWI only gained 7.5% annually. A disparity of just a few percentage points of return over many years becomes a huge gap. Each \$1 million grows to \$23.3 million at 12.4% but only to \$9.0 million at the lesser 8.5%.

We suggested a year ago that for the three years 2022 through 2024 the intrinsic value of the Semper portfolio had compounded far more than the portfolio had returned. If we've learned anything over our 27 years and my 35 years investing professionally it's that you don't know when value will outpace price and *vice-versa*. In the long-run, Mr. Market tends to get it right. Prices tend not to stay irrationally high or low indefinitely relative to fundamentals. Returning 41.4% net in 2025, our returns certainly outpaced value, but not to the degree one might expect.

The S&P declined in 6 of the 27 years Semper has stewarded your capital. In all six down years we outperformed, earning positive returns in three of the six. It was looking like four of seven when the S&P was down 15% in early April of 2025, and we were up about 10% for the year. Believe it or not it's more satisfying earning a positive return of any magnitude when the market loses double digits than earning more than 40% in a year when the market earns 17.9%. But then we are unusual in our preference for seeing lots of red on the screen versus green. Declining prices and volatility bring opportunity. We think price and business quality matter.

The Semper portfolio closed 2025 valued at approximately 12.2x earnings, meaning an 8.2% earnings yield. The portfolio traded a year ago for 10.3x earnings, or a 9.7% earnings yield. The S&P 500 saw its P/E multiple climb from 25.2x to 26.0x during 2025. The index multiple and 3.9% earnings yield are extreme in any historical context, especially when earnings are not depressed. Index earnings climbed an estimated 12.8% per share in 2025 while sales grew by only 4.7% per share, elevating the profit margin to 12.8%, not much shy of 2021's record 13.3%, a level we predicted would never be seen again. We may be proven wrong, even as early as this year, but my sense is that several high-earning tech bellwethers may face margin pressure in the not-too-distant future. The pressure will be of their own doing. More on this later in the letter.

The disparity between rising and declining stocks over the past several years is as wide as we can recall since the late 1990s when launching Semper. Businesses missing Wall Street earnings estimates see big percentage share price declines. We've taken advantage of declines with portfolio activity, trimming the most fully valued positions and adding to the most undervalued. The active process served us well in 2025 and over the past quarter century. We expect it will as well over the coming quarter century. With the capitalization-weighted "market" at fundamental levels suggesting a secular peak, we are very comfortable with the positioning of the Semper portfolio, albeit not quite as cheap as a year ago.

Underlying business economics will translate to investment returns over sufficiently long holding periods – Ben Graham's weighing machine. Short- and intermediate-term share-price volatility in excess of underlying changes in business value affords tremendous opportunity to trim or sell the dear and purchase the cheap, whether a new position entirely or adding to the undervalued opportunistically.

The Semper investment process is a repeatable one. In a typical year we'll bring on one to four new companies into the fold on average with no requirement to eliminate a like number. Our core holdings have consistently numbered 25 or so positions. Given initial position sizing, approximately a third of our annual activity is used in adding new or selling entire positions. Twice as much, or two-thirds of turnover on average, involves trading around our positions. We added one small new position in Five Below to the portfolio in 2024, materially adding to it at lower prices when the White House launched its tariff war in early 2025. Tariff announcements and anxiety throughout the year created tremendous volatility. We

likewise added another new company, Deckers Outdoor, to the portfolio in 2025, gradually at first and then suddenly. The company's shares were the fourth worst performing S&P 500 component of the year, down 49%. Buying initially near the low, and then meaningfully nearly at the low, our sizable investment earned us a positive 5.6% for the year.

Semper and the S&P – A Wide Disparity in Leverage and Valuation

Grouping Semper's equity holdings as though they are a single business is a useful method for assessing portfolio fundamentals and valuation. Positions are consolidated using common-size balance sheet and income statement figures, leverage and profitability ratios and some valuation measures. Our aggregated "company" then stacks up against the S&P 500, similarly grouped as though all 500 businesses were likewise a single very large business. The common-size method references all measures against a unitized \$100 in sales, allowing for meaningful comparative margin, leverage and profitability analysis.

All income statement and balance sheet figures in the upper blue section of the table below are in proportion to \$100 in constant sales. Valuation measures in the lower, purple-shaded portion are multiples and yields. A progression of yearly common-size periods illustrates the impact of stock prices relative to business fundamentals and allows for ease of margin analysis by eliminating annual sales volatility.

The year 2021 perhaps marked a secular peak (or more likely a plateau) in U.S. capitalization-weighted stocks. If correct, margins and valuations will recede from peak levels, consistent with past downturns. Indeed, 2022 saw both margins and valuations crushed, inflicting an 18.1% total return loss on the S&P 500. The Nasdaq was bruised that year by 32.5%. Margins regained much of their decline over the subsequent three years through 2025 and, including price gains, today's valuations match, and in some cases, exceed those in 2021. As was the case in 2021, we find both valuations and margins similarly unsustainably high today. Those unwilling or incapable of contemplating the prospective effects of a market revaluing are often those who suffer most on the backside of a peak.

The table below dates to 2019, immediately preceding the distorted period of the pandemic, which plunged much of the global economy into a recessionary lockdown. Certain businesses and industries benefitted while most were harmed. Industries experienced a boomerang effect, where profound weakness (or strength) was, in short order, followed by the opposite, a regular occurrence during and after recessions. For comparative purposes, business analysis should look back to the period prior to distortion, in this case 2019. The effects of the pandemic make 2020 vs 2019 or 2021 vs 2020 comparisons distortedly meaningless. Now being sufficiently removed from the extremes allows for a comparison of 2025 against the prior couple of years and against a more "normal" 2019.

Despite our 41.4% net total return in 2025, the Semper portfolio remains undervalued, both absolutely and certainly relative to the capitalization-weighted stock market. The aggregate price-to-earnings multiple on the Semper portfolio rose 18.5% from 10.3x to 12.2x in 2025, roughly in line with where it's been on average for our 27-year existence.

Key Common-Size Figures for the Semper Portfolio and S&P 500

	2025		2024		2023		2022		2021		2020		2019	
Income Statement Figures	S&P 500	SAI	S&P 500	SAI	S&P 500	SAI	S&P 500	SAI	S&P 500	SAI	S&P 500	SAI	S&P 500	SAI
Sales	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100	\$100
EBIT	18.4	13.0	17.1	11.6	16.5	12.8	16.1	14.4	17.7	16.3	12.7	15.5	15.9	17.5
Interest Paid	2.2	1.0	2.2	1.0	2.1	1.0	2.1	0.9	1.6	0.8	1.7	1.6	2.4	1.3
Pre-Tax Profit	16.2	12.0	14.9	10.6	14.4	11.8	14.0	13.5	16.1	15.5	11.0	13.9	13.5	16.1
Tax Rate	21.0%	20.8%	20.8%	20.3%	20.5%	20.8%	19.7%	21.0%	17.5%	22.8%	18.5%	21.6%	17.5%	20.0%
After-Tax Profit	12.8	9.5	11.8	8.5	11.4	9.3	11.2	10.6	13.3	12.0	9.0	10.9	11.1	12.9
Dividends	3.9	1.5	3.9	1.5	3.8	1.7	3.9	1.8	4.0	2.2	4.4	2.4	4.2	2.4
Retained Earnings	8.9	8.0	7.9	7.0	7.7	7.6	7.3	8.8	9.3	9.8	4.6	8.5	6.9	10.5
Balance Sheet Figures														
Equity (Book Value)	\$61.9	\$48.3	\$59.5	\$51.2	\$57.0	\$57.5	\$58.4	\$63.1	\$64.7	\$75.7	\$66.9	\$82.4	\$64.1	\$101.2
Debt	73.6	33.9	72.5	33.7	70.4	32.5	71.4	31.0	78.1	38.8	86.4	47.6	79.0	43.7
Cash	19.3	27.5	22.7	21.4	23.1	24.3	18.3	25.9	25.3	31.3	29.2	51.3	19.1	28.5
Net Debt	54.3	6.4	49.8	12.3	47.3	8.2	53.2	5.1	52.8	7.5	57.1	-3.7	59.8	15.3
Total Capital	116.2	54.7	109.3	63.5	104.3	65.7	111.6	68.2	117.5	83.3	124.1	78.7	123.9	116.4
Leverage Ratios														
Debt / Equity	118.8%	70.2%	121.9%	65.8%	123.5%	56.6%	122.3%	49.1%	120.7%	51.2%	129.1%	57.7%	123.2%	43.3%
Net Debt / Equity	87.7%	13.2%	83.7%	24.0%	83.0%	14.3%	91.1%	8.1%	81.6%	9.9%	85.4%	-4.5%	93.4%	15.1%
Net Debt / Total Capital	46.7%	11.7%	45.6%	19.4%	45.4%	12.5%	47.7%	7.5%	44.9%	9.0%	46.1%	-4.7%	48.3%	13.1%
Profitability Ratios														
EBIT / Total Capital	15.8%	23.8%	15.6%	18.3%	15.8%	19.4%	14.5%	21.1%	15.1%	19.6%	10.2%	19.6%	12.7%	15.0%
Return on Equity	20.6%	19.6%	19.9%	16.6%	20.0%	16.2%	19.2%	16.9%	20.6%	15.9%	13.5%	13.2%	17.3%	12.8%
Return on Total Capital	12.5%	18.8%	12.4%	14.6%	12.5%	15.5%	11.6%	16.7%	12.4%	15.1%	8.3%	15.4%	10.5%	12.0%
Key Valuation Figures														
Price (Market Value)	\$332	\$116	\$298	\$87	\$255	\$96	\$219	\$101	\$304	\$128	\$279	\$136	\$232	\$174
Price / Sales	3.32	1.16	2.98	0.87	2.55	0.96	2.19	1.01	3.04	1.28	2.79	1.36	2.32	1.74
Price / Book Value	5.4	2.4	5.0	1.7	4.5	1.7	3.8	1.6	4.7	1.7	4.2	1.7	3.6	1.7
Price / Earnings	26.0	12.2	25.2	10.3	22.3	10.3	19.5	9.5	22.9	10.7	31.0	12.5	20.9	13.5
Earnings Yield (E/P)	3.9%	8.2%	4.0%	9.7%	4.5%	9.7%	5.1%	10.6%	4.4%	9.3%	3.2%	8.0%	4.8%	7.4%
Dividend Yield	1.2%	1.3%	1.3%	1.7%	1.5%	1.7%	1.8%	1.8%	1.3%	1.7%	1.6%	1.8%	1.8%	1.4%
Retained Earnings Yield	2.7%	6.9%	2.7%	8.0%	3.0%	8.0%	3.3%	8.8%	3.1%	7.6%	1.6%	6.3%	3.0%	6.0%
Dividend Payout Ratio	30.7%	15.6%	33.0%	17.5%	33.3%	17.5%	34.8%	17.0%	30.2%	18.3%	48.9%	21.9%	37.9%	18.6%
Enterprise Value / EBIT	21.0	9.4	20.4	8.5	18.3	8.2	16.9	7.4	20.2	8.3	26.5	8.5	18.4	10.9

Figures are rounded and may not sum precisely; Index data are estimates for 2025 and updated for 2024 final.

Sources: Semper Augustus; Standard & Poor's; Bloomberg

The index's 26.0x price-to-earnings multiple is 3.2% higher than at 25.2x a year ago, 16.6% higher than at year-end 2023 and 33.3% above its 19.5x multiple in 2022. With earnings per share growing 12.8% in 2025 while sales per share only grew 4.7% (see table below), net margins soared to 12.8% but remain below 2021's 13.3% record (table above).

Let's put our common-size analysis in perspective using the S&P 500's per-share sales and earnings figures. Common-size analysis, shown above, holds sales at a constant. Growth in sales was far from linear during and immediately after 2020's pandemic. Dollar sales growth correlates to growth in nominal GDP. Both declined in 2020. Operating leverage worked in reverse, sending that year's earnings per share for the index down 22.1% while sales dropped 3.7% per share, compressing the profit margin from 11.1% in 2019 to 9.0% a year later.

S&P 500 Sales, Earnings and Margin Figures

Year	Sales Per Share	Growth	Earnings Per Share	Growth	Profit Margin	Total Return
2017	1,231.57	7.0%	124.51	17.2%	10.1%	21.8%
2018	1,343.00	9.0%	151.60	21.8%	11.3%	-4.4%
2019	1,415.01	5.4%	157.12	3.6%	11.1%	31.5%
2020	1,362.39	-3.7%	122.37	-22.1%	9.0%	18.4%
2021	1,566.80	15.0%	208.21	70.1%	13.3%	28.7%
2022	1,752.90	11.9%	196.95	-5.4%	11.2%	-18.1%
2023	1,872.30	6.8%	213.53	8.4%	11.4%	26.3%
2024	1,970.60	5.3%	233.36	9.3%	11.8%	25.0%
2025*	2,062.55	4.7%	263.28	12.8%	12.8%	17.9%

*Estimates for 2025

Sales snapped back in 2021, growing 15.0% per share. However, sales growth per share ground downward over the next four years, growing only 4.7% in 2025. Per-share earnings grew faster than sales over the past three years, bringing the margin in 2025 nearly back to 2021's peak.

Net profit margins are unlikely to return to 2021's 13.3%. Wall Street's always ebullient bunch suggests otherwise. Let's presume that sales growth continues by 2025's 4.7% cadence this year. Wall Street analysts project S&P 500 earnings per share at \$310.84, a whopping 18.1% gain over 2025. The net margin at the two respective growth rates would yield a 14.4% profit margin. I'll take the under. Ping me if Polymarket offers up this line. Unless margins are at recessionary lows, Wall Street analysts, both top-down and bottom-up, invariably shave their overly Pollyannaish forecasts throughout each year.

If the Street is correct and I'm wrong, then high-margin software and data will continue growing disproportionately, continuously capturing a larger share of economic output. In this scenario, the hundreds of billions (soon trillions) spent on artificial intelligence-related capital investment will come with commensurate adequate returns. More realistically, the spending numbers are too large and will likely come with margin disappointment.

Semper and the S&P – Behind the Numbers

The Semper portfolio is undervalued both relative to the capitalization-weighted S&P 500 and absolutely. The common size analysis is a phenomenal tool revealing both valuation and business quality advantages against the stock market. It further demonstrates advantages of active value management. Trimming more fully valued positions to shift investment capital either to new portfolio holdings or to increase position sizes in more undervalued holdings defines an investment process revolving around dual margins of safety in price and business quality.

Glancing across the row for Price (Market Value) and observing a steady decline in the Semper portfolio from \$174 in 2019 to \$116 in 2025, the reader might conclude that the portfolio declined in price by a third over the past six years. Fortunately, that's not the way the table works. Our stocks returned 155% over these six-years, or 16.9% per year. How does price fall 33% in the table yet returns are up 155%? Remember, this is a common-size analysis, and we are *active* investors.

Portfolio activity serves to maintain a low portfolio price relative to earnings and thus a high earnings yield over time. Portfolio turnover averaged a low 15% annually over 27 years. Modest activity adds considerably to returns and is an integral component of the investment process. While time is typically

required for share prices to reflect underlying business fundamentals, Mr. Market ultimately, but invariably, gets it correct (yet gets it wrong, often enough and wide enough for us to take periodic advantage).

To illustrate active management, observe what appears as a fairly steady decline in Semper's aggregate profit margin. The profit margin appears as "After-Tax Profit" near the top of the Key Common-Size Figures table above. In our common size analysis, a decline from \$12.90 to \$9.50 in earnings per \$100 of sales means a 26% decline in the profit margin ($9.50/12.90$). Are profits in the portfolio dropping? Why yes, they are – as a percentage of sales. A declining profit margin can signal trouble in the case of a single company or an industry. But ours is an *actively managed* portfolio of companies lumped together, and the composition of companies dictates the margin structure. You've likely heard us say a million times that profitability is properly measured against the capital of the business, not against sales. Over the same six years, the portfolio return on capital rose from 12.0% to 18.8% and over time generally averaged a mid-teens percentage. Even more importantly, the price paid, and the price at present, against the capital of our aggregation of businesses is quite low.

We increased our investment in retailers over the two years ended 2024 and further increased our holdings in the group last year on the spring tariff fireworks. Retailing is typically not a high profit margin business. The merchant sells goods at a modest markup from cost. Absorbing fixed and variable overhead (selling, general and administrative expenses, interest and taxes) generally leaves a few cents for each dollar of revenue. It's the frequent turning of inventory across assets (land, building, equipment) and management of working capital that combine to produce a return on total capital employed. Costco, as an example, has seen its net profit margin rise from 1.7% to 2.9% over the last twenty years. Sounds low, except the absolute level of margin does not indicate the degree of profitability (the rising margin is healthy and a function of Costco's scale economies shared). The business, despite an apparent low margin, earns over 20% returns on its capital.

Our concentration in our handful of retailers, predominantly dollar stores, contributed meaningfully to our 41.9% net total return in 2025. Our retailers earn very good returns on capital but have scant profit margins relative to the margins at the Magnificent Seven and other high-margin industries such as pharmaceuticals.

Our combined investment in three retailers, Dollar General, Dollar Tree and Five Below, totaled 17.1% of our invested capital heading into 2025 and closed the year totaling 25.9% of our holdings. We added to the Five Below position near the yearly lows. The shares of the trio of dollar stores, including Five Below, saw substantial price gains, thus increasing our allocation to retailers even more and creating a big downward impact on the *portfolio* profit margin. Our estimate for the combined retailers' profit margin is roughly half of the overall portfolio's. As stated last year:

If we were to again purchase Costco for the portfolio, one of our favorite companies, at its prevailing 53x multiple to earnings, we'd see a further reduction in the portfolio margin as Costco earns a lower net margin than the current retailers in the portfolio. Of course, we'd be paying a sky-high price for a great company, and likely demonstrate the maxim that even the wonderful business at the wrong price can make for a terrible investment.

Despite the investment gains of the retailers, the portfolio profit margin increased from 8.5% to 9.5% during 2025. How? First, our new sizable investment in Deckers Outdoor brought a company with a high-teens margin into the portfolio. Another key driver to the portfolio margin increase was the huge returns enjoyed by our two gold mining companies, Kinross Gold and Newmont. Despite materially trimming Kinross during the year as the price rose 204% to finance the purchase of other positions, the surge in the gold price is driving mining profitability through the roof. While we always try to be conservative in

estimating normalized mid-cycle margins for commodity cyclical businesses, we are allowing for a higher long-term mid-cycle margin with these two. We are constructive on the long-term price of gold (for myriad unfortunate reasons). But even estimating normal margins far below those being earned today, the surge in profitability is stunning. Both companies have all-in-sustaining costs to mine and to replace reserves around \$1,600 per ounce (50% higher than just a few years ago). However, with gold reaching \$5,000 per ounce, cash profits are robust. Kinross' net margin surged from 8% in 2022 to likely 33% at present. Newmont's net margin grew over the same interval from 12% to 32%. The balance sheets are in terrific shape with an unbelievable net cash position. Returns on conservatively accounted for equity and capital are in the mid-20% range. Again, our normal estimates of profitability are far below current levels, but even so, our modest long-term mid-cycle estimate increase and the surging shares helped push the overall portfolio margin (and return on capital) higher over 2025.

Balance sheet financial leverage for the S&P 500 index remains at record levels only manageable in a world of extremely low interest rates. Net debt to total capital, seen in the Leverage Ratios section of the Key Common-Size Figures table, consistently hovered at the mid-forty-percent level in recent years, ending 2025 at 46.7%. Net debt remains at just under half of total capital, meaning debt and equity are equally employed in the capital structure when including cash in the mix. Over the past two decades, lower interest rates contributed roughly half of the doubling in the index profit margin to 2021's 13.3% peak despite record levels of debt relative to total capital, revenues and cash flow.

The side-by-side comparison of fundamental measures demonstrates the degree of valuation disparity and capitalization strength in the Semper portfolio against the index. Semper's 8.2% earnings yield, albeit lower than a year ago, is more than double the index's 3.9% yield. Of our 8.2% earnings yield, 1.3% is paid to us as dividends. The 6.9% balance is retained by our aggregate portfolio companies and invested largely for our benefit. Semper's businesses are reinvesting today at an aggregate 19.6% return on equity, up from 16.6% last year and 12.8% before the pandemic. With only 11.7% of net debt employed as a proportion of total capital (versus 46.7% for the index), our businesses earn 18.8% on total capital – nearly as much as on equity (the larger the debt in the capital structure, the lower the return on capital relative to the return on equity – the business with zero net debt earns returns on equity equal to those on capital). By contrast, the *much* lower 3.9% S&P 500 index earnings yield produces a lower 1.2% dividend yield with only 2.7% left for company reinvestment compared to our 6.9%. The differential works to our advantage over time, particularly considering what our companies do with their retained earnings versus what is done by the aggregate of the S&P 500. Our present level of high profitability on equity and on total capital is the highest in our 27-year history. Price matters, and so does capital allocation.

The overwhelming majority of aggregate earnings produced by our portfolio companies are *not* paid to us as dividends, but rather reinvested at good returns on retained capital. The portfolio receives a slight 15.6% of profits earned by our companies as dividends. Our large investment in Berkshire skews the payout lower, as it pays no dividend. The balance of profits is reliably being reinvested at the portfolio's 19.6% return on equity. Extremely important to our investment approach is determining how well company managements reinvest profits. The fact that portfolio businesses use so little debt means a substantial proportion of our 19.6% return on equity is on a *largely net unleveraged* basis. Compare again the difference here with the index.

The S&P 500's 30.7% dividend payout as a proportion of profits is nearly *double* Semper's but produces a lower 1.2% dividend yield versus our 1.3%. Our dividend yield had been 1.7% to 1.8% for the prior five years. Returns among many of our low-dividend-payout companies, combined with allocation to faster-growing businesses that retain earnings, blended to lower our yield by year-end 2025. The S&P's 1.2% (rounded from 1.18%) dividend yield is approaching a record low and down from 1.8% in recent years. Higher stock prices equate to lower yields. Lower prices yield higher yields.

From the table, the index does have a higher 20.6% return on equity than Semper's 19.6%. However, index companies in aggregate employ substantially more debt than ours to achieve that higher return. It takes nearly as much net debt (debt minus cash) as equity in the index companies' capital structure to produce a 1.0% higher return on equity than ours. However, with materially less debt employed, Semper's companies earn 18.8% on capital whereas the index companies only earn 12.5%. Return on capital is a far more important measure than return on equity, particularly when large amounts of debt are employed. High amounts of leverage often appear to be sustainable by high expected cash flows. But bad times translate to shrinking cash flows. The bankruptcy junkyard is littered with businesses that at one time could service their debts. You don't often see bankrupt companies with little or no debt.

The index's 20.6% return on equity overstates economic reality by a significant degree as a result of book values (or equity) being significantly understated for much of the S&P 500. Write-offs and write-downs over time shaved 15% of operating earnings on average each year since the mid-1980s, driving asset carrying values and book equity lower. In addition, share repurchases at larger and larger premiums to book value, made with more than half of cash flow from operations, decimate the equity balance. Finally, many companies in the index have very old and fully depreciated assets on their books. Replacement of those assets in inflationary times becomes an increasingly large expense, as inflation contributes to an understatement of depreciation expense and of replacement cost. This is a hugely important point in an inflationary world. The analyst should always be skeptical of stated book values and returns on equity.

This brings to mind an anecdote from Warren Buffett's experience on Solomon Brothers' investment committee, outlined in Roger Lowenstein's terrific book, *Buffett: The Making of an American Capitalist*. Warren always asked for the return on TOTAL capital invested in leveraged buyouts. He wasn't opposed to all LBOs but wanted to know the underlying unleveraged return. *What is this business earning on the money actually used to run it, before you start playing with the debt structure?* Do we get a 20% IRR from leverage on a 15% ROIC business or on a 4% ROIC business? Warren famously said in his 1989 Chairman's letter regarding the LBO era: *"It is not a sin to use a little leverage...but it is a sin to use it on a business that doesn't earn its keep."* I'm sure the Solomon folks loved Warren's opinion of EBITDA.

The price paid for each dollar of Semper equity (book value) is 2.4x, a higher level than over the past five years pulled higher thanks to last year's high investment return. However, the index investor is paying a record 5.4x for each dollar of book value, against 3.6x just six years ago. Paying more than twice as much as Semper for each dollar of book value to earn 20.6% instead of 19.6% on equity, but to also earn only 12.5% on total capital versus our 18.8% is illogical. Our aggregate business earns significantly more on capital employed and uses far less debt in the capital structure.

For the math nerds out there, a little algebraic dexterity demonstrates the interconnectedness of how to think about profitability and price: The return on equity as a multiple of the price-to-book ratio is another expression of the earnings yield. A 20% return on equity divided by a 5.0x multiple to book (equity) yields 4.0%. This math presently closely applies to the index – a 20.6% return on equity divided by a 5.4x multiple to book gets you the 3.9% earnings yield (for those doing the math, the difference is rounding). The 3.9% earnings yield also happens to be the inverse of the index's 26x P/E multiple. Semper's 19.6% return on equity divided by its lower 2.4x multiple to book gets us to our 8.2% earnings yield, which is the inverse of our 12.2x multiple to earnings. It all gets us to the same place. **We are getting far more earnings for a far lower price with far less debt.** Price is what you pay; value is what you get; and by avoiding excessive leverage, what you get is what you keep, not to mention some very good sleep. This is a pretty good line.

Algebra similarly derives the earnings yield (E/P) via the profit margin and multiple paid to sales. The profit margin is net income as a percentage of sales. The profit margin divided by the multiple to sales, or the price-to-sales ratio, likewise is the earnings yield. Using Semper's figures, our 9.5% profit margin

divided by our 1.16x multiple to sales is 8.2%, which is also our earnings yield. The inverse of the earnings yield, or 1/8.2 is our 12.2x P/E multiple. Beyond having a little fun with numbers, I will note how important it's been to me as an investor to think structurally about the earnings yield and how it relates to investment return.

Share Repurchases, Meet Capital Expenditures

After nearly a third of profits are sent to S&P 500 index shareholders as dividends, in many years *more than 100%* of the retained balance is used repurchasing shares to merely offset dilution created in giving 2% of the index's ownership to insiders each year, paid as options and restricted shares. Despite an enormous proportion of cash flows from operations being spent on share repurchases, the overall share count is now higher by 3.3% since June 2020 and down only 2.5% cumulatively over the past decade. It's shocking that since the turn of the century, 25 years to those counting, the share count is 1.8% higher despite massive giveaways to insiders.

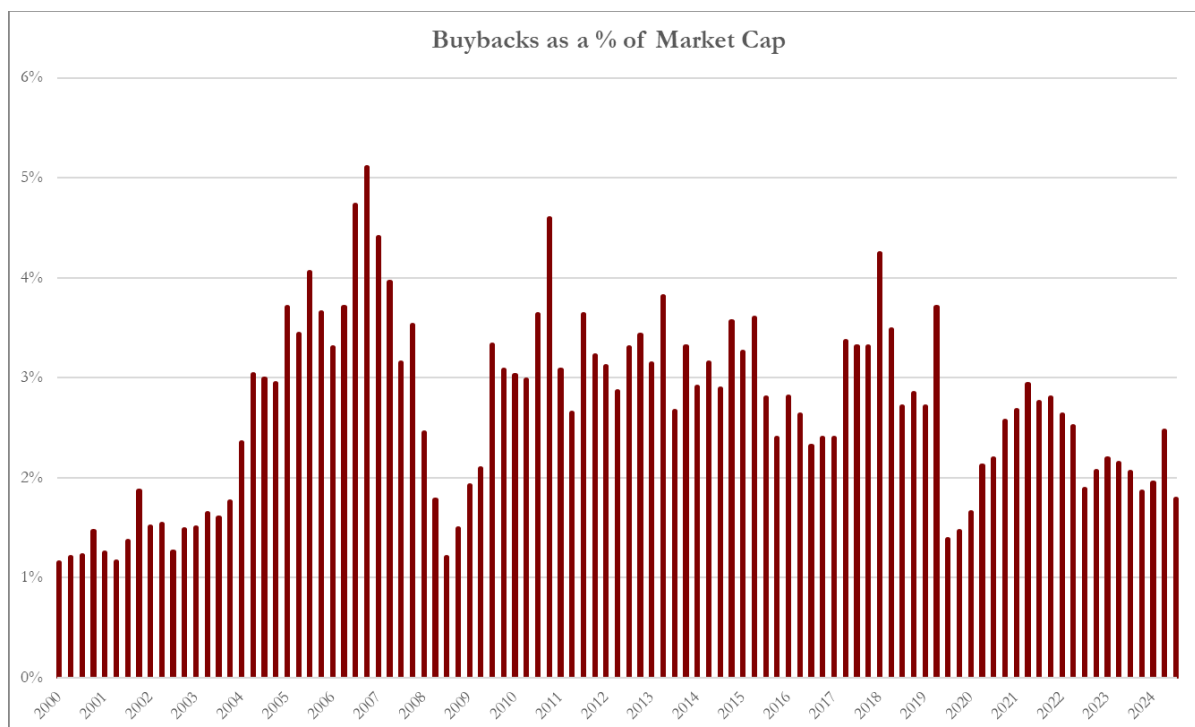
Share reduction of the index companies was a modest 0.3% per annum for the past decade. Said differently, index companies spent roughly two-thirds of profits purchasing 2.7% of their market capitalization each year, yet only reduced the share count by 0.3% annually. Retained earnings for the index are NOT reinvested at the return on equity but are spent repurchasing expensive shares. Repurchasing shares at high prices destroys capital. Shares bought at today's 26.0x P/E earn 3.9% for shareholders, not the index's 20.6% return on equity that one might expect. If no profits are left after paying dividends and repurchasing shares, what's left to finance growth capital expenditures and growth research and development? With the arms race in AI, gigantic outlays for land, data centers, chips and equipment command a growing and now majority of cash flow from operations among the big tech giants. Capex and share repos can't both exceed operating cash flow without one thing. Oh, and dividends. You got it. Leverage.

S&P 500 combined share repurchases, once reported for 2025, are likely to exceed \$1 trillion for the first time and will surpass 2024's record \$943 billion. Despite the headline figure, repurchases over the past two decades equate to roughly half of net income. The problem with this constant is that, though the growth in repurchases matches earnings growth, the repurchases are buying back a smaller and smaller proportion of overall market capitalization. Why? Simple. Stock market valuations in recent years soared faster than underlying profits. Said even more simply, multiples are higher, meaning ongoing repurchases are at likewise higher and higher prices. You can buy a heckuva lot more shares at a 10x multiple to earnings than at 30x.

Spending more than half of profits and purchasing 2.7% of market capitalization, on average, and not shrinking the share count a whit for a quarter century is mind blowing. The reality is that managements who buy back shares are typically price insensitive. The motivation is largely to offset the dilution from paying themselves in shares. Further, in recessions or during crises, the mantra is to preserve capital. That's when shares are typically the cheapest and most attractive. It's a buy-high, sell-low mentality. Not great for shareholders.

2025 S&P 500 earnings per share of \$263.28 equate to \$2.25 trillion. Repurchasing just north of \$1 trillion, repurchases will total 44.5% of earnings, a lower proportion of income spent buying shares compared to that during the last couple decades. Repurchases decline in recessions when profits fall. They plummet during crises. They fell off a cliff during the pandemic and in the 2008-2009 global financial crisis (which happened to be the moments when shares were in the tank and fundamentally attractive – the very buy-high, sell-low behavior noted above). It's likely that the decline in repurchases as a percentage of profit (and of cash flow from operations) is not because managements are all of a sudden value investors. Rather, 20 companies account for more than half the repurchases. Among the 20 largest,

those building data centers and purchasing Nvidia's chips are diverting a growing proportion of cash flows from repurchases to capital expense. Specific to 2025, repurchases in the second quarter declined 20% from the first quarter and 0.6% year over year likely due to tariff uncertainty.



Source: Standard & Poor's; Semper Augustus

Investors unfamiliar with the statement of cash flows are highly encouraged to ramp up. The investor needs to understand sources of cash and uses of cash. If profits weaken and needs for cash balloon, the common-size analysis discussed above will prove its importance.

Expected Returns

The Semper investment process centers on evaluating ongoing competitive positions of companies we own and the durability and predictability of their future earnings. Once an estimate of intrinsic value is established, we have the luxury of only buying or selling when prices deviate from intrinsic value, and we can shift capital among businesses in the portfolio or into new holdings where more opportunity exists relative to risk.

Provided that assessments of *economic* profitability prove durable, we should earn at minimum the earnings yield on the portfolio, today at 8.2%. Additional returns above the earnings yield are expected and can be articulated two ways. First, to the extent that process and discipline allow us to occasionally purchase businesses for less than they are worth (during Mr. Market's depressive phase), then accretion to fair value is added to the earnings yield over some period of time. Paying 75 cents on the dollar of intrinsic value, an additional 33% ($100/75=1.33$ or 33% increase) is expected. From two-thirds of value we'd expect an accretion of 50% ($100/66.67$). Buying an asset at half of intrinsic value yields a double ($100/50$). A disciplined process produces the expected return over time. For much of Semper's tenure investing your capital, the portfolio traded at a low-double-digit multiple to earnings, often at a 7% to 9% earnings yield. At a typical purchase discount of a third to a quarter of value, we've seen a "bonus" 2% to 4% additional annualized return over time on top of the earnings yield, so a 9% to 13% return on the

stock portfolio before any drag from cash (or additive return from cash when equity portfolio returns are below Treasury-bill interest rates) in client portfolios and before management fees.

The second and perhaps better way to articulate expected return is to again begin with the base earnings yield and then add the aggregate return our businesses earn by investing retained earnings (the portion of profits not paid to us as cash). Expected return *begins* with the earnings yield and *trends* to the underlying return on equity over time. This dynamic holds over long time periods.

This example will likely be repeated in ongoing annual letters. We are durable-earning-power investors. The profits generated by our portfolio companies are the base from which returns are derived. Much effort is spent assessing the durability of current and future profitability. Understanding how profits inure to the benefit of shareholders is critical. The earnings yield consists of two components – the dividend yield and what I refer to as the retained earnings yield.

$$D + RE = E$$

$$DY + REY = EY$$

Where:

D = Dividends
DY = Dividend Yield

RE = Retained Earnings
REY = Retained Earnings Yield

E = Earnings or Net Income
EY = Earnings Yield

Illustrating the derivation of return, begin with the Semper portfolio's aggregate 12.2x P/E multiple. The inverse of the P/E multiple is the earnings yield, so E/P is 8.2%. It is the earnings produced by a dollar of current market value (or price). At the current portfolio multiple to earnings, each \$1 million of invested assets produces \$82,000 in profit, an 8.2% earnings yield. Just as the inverse of the P/E ratio is the earnings yield, the inverse of the Price/Dividends is the dividend yield, 1.3% at yearend. The remainder of profits not paid as dividends are retained earnings. The earnings yield minus the dividend yield is what we call the retained earnings yield, 6.9%. It's how the 6.9% retained earnings yield, or \$69,000 per \$1 million of market value, is spent or allocated that drives incremental return. Closing the circle on the math, the dividend payout ratio can be determined as the dividend yield divided by the earnings yield, so $(1.3/8.2) = 15.6\%$ with some slight rounding.

Profitability is properly measured not so much at the margin level (though changing margins can be telling) but against the equity capital and total capital invested to produce it. Profit must be measured not only against equity and total capital already employed but also against the incremental portion of profits not paid as dividends. Some companies have abundant opportunities for reinvestment while others do not. One of the most critical aspects of our research is determining those opportunities, or lack of them, and then measuring returns on any retained earnings.

Semper's businesses earn 19.6% on equity capital and 18.8% on total capital. The return on capital is not far below the return on equity, given the lack of net debt on the collective balance sheet. Many portfolio companies use no net debt or have more cash on the balance sheet than debt. Expected returns begin with the present 8.2% earnings yield and trend toward the 19.6% return on equity over time. Our 41.4% net total investment return in 2025 naturally drove the portfolio P/E multiple higher, thus driving our earnings yield and our base earnings expectation modestly lower.

A quick note: The earnings yield (or inverse of the P/E multiple), as well as the dividend yield, is a point-in-time measure based on current stock prices. Returns on equity and on capital measure profitability against balance sheet figures. If we woke up tomorrow and our stock prices all doubled, the Semper portfolio P/E would likewise double to 24.4x, meaning the earnings yield would be halved to 4.1%.

Returns on equity and on capital would be unchanged. Remarkable that, on a doubling of our stock prices (and following a 41.4% net total return in 2025), the portfolio's valuation at 24.4x would remain lower than the S&P's 26.0x multiple. We don't intrinsically value the portfolio as high as 24.4x, and we certainly don't think the S&P is worth its present 26.0x multiple. Said more clearly, we think our aggregate portfolio is worth more than 12.2x to earnings, while the index is worth much less than 26.0x.

It's always worth repeating comments on what amounts to always paying "premiums" when investing in common stocks. From several past letters:

Any new or incremental Semper investments deploying proceeds from dividends, new capital (deposits) and proceeds from portfolio sales and trims generally suffer the fate of a drag against returns if the earnings yield at purchase is lower than the return on equity of new shares acquired. In our experience this is typically the case. I've attempted explaining this in past letters and don't think it's been well described. Perhaps the best example is with the return experienced by a fixed-income investor. Presume the purchase of a 30-year bond at par paying a 5% annual coupon. The investor that happens to reinvest all annual coupon payments at the like 5% initial yield will earn 5% over the life of the bond. However, if interest rates permanently fall below 5%, then all reinvested coupons necessarily mean the investor's total return is less than 5%. Something similar would be true if higher subsequent rates prevail and the investor will earn more than 5%.

In the world of stocks (at least as we approach it), we frequently purchase shares with high-single-digit earnings yields (low teens P/Es). If the initial earnings yield averages 8% AND our companies earn 8% on current equity and future retained earnings, then we are likely to earn about 8% over time. You can have interim changes in multiples to earnings and to equity but the investor in stocks is generally going to earn the return on equity over very long periods of time. You can find a section on this subject in our 2018 annual letter in a section titled, "The ROE You Will Not See." The gist of the section discusses the payment of premiums at the outset of purchase concept and delves into why long-term equity investors have not earned the very long-term 13% or so return on equity. Think write-offs, write-downs, bankruptcies, recapitalizations, overpaying in share repurchases....Just know that it's only the long-term investor in businesses (not stocks as trading vehicles) that can expect to see an initial earnings yield drift toward the return on equity of the business over time. Why are banks typically horrible investments over decades? They earn a crappy long-term return on equity because they have to recapitalize at every crisis. Why have Chinese stocks performed terribly over decades? Well, lots of reasons, but Chinese companies rarely run their operations with a return-on-capital motivation. Many are state-controlled and invest not for profit but for growth, or for graft...

Portfolio activity must add enough value to overcome the drag of always having to pay the multiple to earnings with the proceeds from any portfolio sales (and that's without considering taxation). I think we do this well, but it's very difficult for most active investors to do so. In my experience, few investors even contemplate or understand this hurdle when selling a position. Opportunity cost, remember? There exists the alternative to not sell. It's this understanding that contributes to Semper's generally low but opportunistic portfolio turnover.

Unlike the majority of publicly traded companies, most of our portfolio businesses have opportunity sets to invest retained earnings at mid-teens to high-teens returns on equity. Berkshire Hathaway retains all

profit and conservatively (and very predictably) earns on average 11-12% on equity capital. Others can reinvest some but not all profit and so distribute the balance to shareholders as dividends.

A few portfolio companies have little to no opportunity set to invest retained earnings, which is where capital allocation skill and awareness of circle of competence and opportunity cost comes into play. In these cases, paying large portions of all profits as dividends often makes the most sense. When share prices are sufficiently cheap, then share repurchases with most or all profits may make the most sense, particularly in the absence of other more attractive opportunities.

Owning a portfolio of companies armed with opportunity sets for incrementally attractive investment of retained earnings is a huge advantage, in our opinion, compared to what takes place among the aggregate of the S&P 500. Spending the majority of S&P profits not paid as dividends at decreasingly low earnings yields (on share repurchases) is far from reinvesting at stated returns on equity. To have spent vast sums of earnings on repurchases and not have reduced the aggregate net share count over a quarter century has proven an extraordinary destruction of capital. The harm was masked by driving prices to record multiples of all fundamental measures of value. When asset prices revert to value, only then will the giant transfer of wealth to insiders be apparent to most, and will we see who's been swimming naked.

S&P Expectations – Don't Expect Much

The S&P 500 is valued to produce disappointing returns over the coming decade and beyond. Fundamental yardsticks are stretched to levels consistent with the great secular peaks across time. The expectation is not so much by what percentage the market will decline over a short period of time, but rather that current valuations suggest future returns well below long-run averages.

Our estimate of intrinsic value for the S&P 500 is \$3,949, based on the very long-run 15x multiple to earnings capitalized on an estimated \$263.28 operating earnings for 2025. The value estimate sits 42.3% below 2025's \$6,846 closing price.

[I often refer to net income and net earnings. These are one and the same and as a percentage of sales are interchangeably net margin or after-tax margin. Standard & Poor's reports two sets of net income – "operating" profit and "reported" profit. "Operating" in S&P's lexicon refers to net income *before* write-offs and write-downs, where "reported" is *after* write-offs and write-downs. None of these are to be confused with operating earnings or operating margin, which is classically earnings before interest and tax, or EBIT. Further confusing the use of "operating," the statement of cash flows presents cash flow from operations, which begins with net income and adds various non-cash expenses such as depreciation and amortization, stock-based compensation and changes in non-cash working capital. Net income can be higher or lower or in some cases closely match cash from operations. We'll spare more of the tutorial for another day.]

We believed stocks were at a secular peak in March 2000, certainly in the capitalization-weighted S&P 500 that grew to be dominated by several incredibly overvalued technology, media, telecommunications and dot-com companies. We were correct. The index spent much of the next 15 years underwater and to this day its returns are far below the long-run return from stocks and only a tiny fraction of expectations at that time. We also believed that despite the S&P perched at what proved to be its March 2000 secular peak, there were a growing number of genuine bargains that would allow an intelligently invested portfolio to outperform the index over the coming decades. We were correct then and share the same belief today.

The S&P 500 compounded with dividends at 20.2% from its prior secular low in August 1982 to the March 2000 secular top. The price alone of the index rose nearly 15x, from 102 to 1,527. During the final

ascent, tech stocks displaced what had been overvalued blue chips in 1998 and the world clamored for everything internet and communications. Value investors generally lagged and, in many cases, had legions of clients and investors flee for what was hot. The Nasdaq 100 surged 102% in 1999 alone. Semper's stocks managed a 29% return that year, our first as a firm, but to the maddening crowd this was considered a failure. Using the rear-view mirror as a guide, both individual investors and sophisticated professional investors expected 16% to 20% annual long-term returns when polled in 1999 and early 2000. Instead, they got an 8.0% annual total return for the next quarter century, presuming they didn't sell at the lows in 2002 or 2008-2009.

We created the first Semper Augustus Intrinsic Value Report on March 31, 2000. If you didn't own tech and communications, you were out of touch. It became imperative to demonstrate the degree to which the tech-heavy S&P 500 was dangerously overvalued while the Semper portfolio was decidedly not. The pressure to chase the tech bubble for those not dancing was quite real. Using the same aggregation method as today, the Semper portfolio traded at 15.7x to earnings, a 6.4% earnings yield (as of March 31, 2000). Our report valued the portfolio at 83% of intrinsic value, giving it 20% upside over some period. By contrast the S&P traded at 28.4x and a miniscule 3.5% earnings yield. The multiple was closer to 40x per our math at the time when adjusting for the necessary expensing of stock option compensation, write-offs and write-downs, and unfunded and aggressively accounted-for defined-benefit pension plans.

The inaugural Semper report pegged intrinsic value for the index at \$590, 61% below the index's March-end \$1,499 closing price. The report suggested three possible outcomes: (1) a quick, painful decline to fair value; (2) grindingly, not making any money for a long, long time; or (3) some painful, grinding combination of the first two.

The index investor suffered with all three outcomes. By October 2002 the S&P had dropped in price by nearly half, to \$777. The Bernanke Fed then eased aggressively and subsequently held short-term interest rates far too low for far too long, thus sending the index back to its previous secular peak by 2007 and fostering a coincident housing bubble. Enter the Global Financial Crisis, sending the S&P down 57% to \$666 in March 2009. Nine years had passed since we'd calculated the S&P's value at \$590 in March 2000. Considering that the economy and profits grew meaningfully over those nine years, the original \$590 estimate was spot on.

The Intrinsic Value Report has proven a valuable tool for approximating absolute and relative valuations. It couldn't have been more useful when we first ran it to help keep expectations rational and to keep some from chasing "certain" quick riches. From March 31, 2000, the S&P produced an 8.0% annual return through 2025. Most of the past quarter century saw the annualized index return *below* 8.0%. Except for a very brief daily burst during the rush to the 2007 peak, the index would remain below (meaning underwater) its 2000 peak until 2013, thirteen years later. The first decade of the 21st century saw a negative total return. It's taken the surge in the index to either 2021 or to today (a pick 'em line) to reach the 8.0% over 25+ years. The setup for the coming quarter century appears quite similar.

Semper and the S&P – The Power of Compound Interest

"In the middle of difficulty lies opportunity," so said Albert Einstein. Had the great physicist been a value investor (and been born a few generations later), he too might have launched an investment firm near the height of the tech bubble. Like today, value investing was left for dead in the late 1990s. When the opportunity to hang a shingle arose, we didn't pause to consider that tech investing was where it was at. It turned out to be a wonderful time to launch Semper.

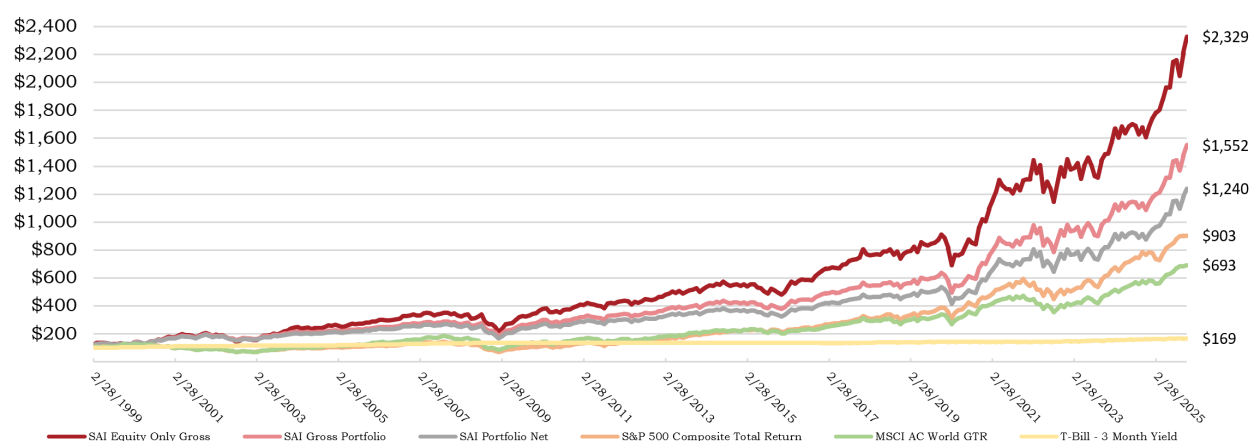
We managed to outpace the S&P 500 in our first year, 1999, our stocks returning 29.1% while the index returned 19.9%. But value was dead and even the S&P 500 was too pedestrian for most. Tech and Nasdaq

were where the big money was being made. The Nasdaq returned 85.6% in 1999 and had grown fivefold over only four years. The Nasdaq 100 doubled in 1999 alone, posting 102.0% for the year.

The secular bull market and tech bubble would peak on March 10, 2000. Not knowing the top had occurred only a few weeks prior, we assembled for our nervous clients (nervous about not making more than their neighbor the dentist who was killing it in Lucent and Cisco) our first Intrinsic Value Report on March 31, 2000. We needed a tool to demonstrate our rational approach, and to show the degree to which the Semper portfolio was undervalued while the major stock indices had never in history been more expensive and dangerous. From the date of our first report, from which the S&P 500 compounded by its 8.1% a year through year-end 2025, Semper's equities returned 11.5%.

Going back to our February 1999 inception, Semper's equities earned 12.4% annually versus the S&P 500's 8.5% annual return. Nearly 4% above the index is nice but immaterial over short or even intermediate-term intervals. Over enough time, however, it's meaningful. None other than our theoretical physicist, Einstein, is widely attributed to saying, "Compound interest is the eighth wonder of the world. He who understands it, earns it; he who doesn't, pays it." Clipping along at 12.4% for 27 years grows each \$1 million to \$23.3 million (one year ago, at the 26-year mark, we'd grown at a lesser 11.3%, turning each \$1 million into \$16.1million. Over enough years it becomes increasingly difficult to move the annual average by more than a few basis points. It took our 44.9% 2025 return on our equities to increase the long-run average by 100 basis points.

Meanwhile, from our inception the S&P's 8.5% annual total return grew \$1 million to only \$9.0 million through 2025. Throwing what's been a declining mix of international stocks into the S&P's constituents, the MSCI All-Country World Index compounded by only 7.5%, increasing \$1 million to \$6.9 million. I don't think Einstein coined the phrase that cash is trash or that credit is, well, less trashy than cash (actually the latter half of that is mine just now) but over 27 years bonds (referencing the Bloomberg Barclays U.S. Intermediate Total Return Index) earned 3.5% while the risk-free, or rather, return-free U.S. T-bills earned 2.0%, roughly matching inflation. Each \$1 million in bonds and in bills grew to \$2.5 million and \$1.7 million respectively.



Sometimes cash and credit aren't so trashy. Bonds outperformed the S&P 500 for 13 years in the wake of the tech bubble from 1999-2012, in part because the index spent 11 years earning next to nothing but also thanks to higher initial bond yields and falling interest rates, which pushed bond prices higher. But even cash beat the S&P through late 2012. You can find our detailed returns in the appendix. We calculate forward and backward compound annual growth rates for the delineations of our returns and also for the S&P 500 and the ACWI. Scroll your finger down the rightmost column on the last page of the appendix. The stock indices were very low returning for most of the last 27 years. The best it's been is the current

8.5% annual return. It was 5% only ten years ago. To beat a presumed dead horse sufficiently to ensure it's dead, again, the moral of the story is to be careful investing at or around secular peaks. Or plateaus.

The Opportunity Cost of Holding Cash

This brief section is largely a reproduction from last year's letter, with updated figures through 2025. I've had more worthwhile discussions this past year than I can count about the simplest table I've ever assembled, about the hazards of holding cash for too long and the near-impossibility of ever recovering enough ground versus long-duration assets, stocks in particular. Einstein would approve. The table is reproduced immediately below.

Cash becomes a toxic asset if held for too long. Until the wizards at the Federal Reserve and their foreign central bank cousins elected to suppress interest rates beginning with the dot-com bubble bursting through the Global Financial Crisis and the pandemic, U.S. Treasury bill yields approximated the inflation rate, meaning your purchasing power stood still, before taxes. Over the past two decades, yields wallowed below inflation. Either way, cash is nearly always a lousy long-term or permanent investment, despite reasons mandating or dictating its ownership.

U.S. Treasury bills cumulatively earned 69% over the last 27 years, 2% annually. The consumer price index gobbled up 2.6% of annual purchasing power. In nominal terms, \$1 million at 2% grew to \$1.7 million. The "investor" in bills needed \$1.98 million to maintain purchasing power, again, before tax. A not insignificant proportion of cash across some of Semper's client portfolios shaves the annualized return by 1.6% down to 10.8% (from a gross of cash 12.4%), which doesn't sound like much of a drag, but over 27 years, 10.8% only grows the original \$1 million to \$16.1 million, not to the \$23.3 million earned on our stocks with no cash.

Incidentally, the penalty for holding a similar portion in cash and the balance in the S&P 500 wasn't as severe. Why? The drag on earning only 2% in T-bills while the index earned 8.5% is way less of a drag when earning the bill return against Semper's 12.4% return from our stocks. There is a **HUGE** lesson here about the demerits of owning cash as a long-term allocation in an investment portfolio. Management fees similarly are a reduction from gross returns but significantly less of a drag than having cash reserves at a high enough level over time. There are myriad reasons for holding cash reserves and in most cases the allocation is warranted based on the investor's situation. We've just seen however that permanently holding cash because it's a "safe" investment when it's not required to meet spending needs or by regulation (think insurance reserves) is a poor choice.

The table below illustrates what can be the severe opportunity cost of holding cash reserves as an allocation of long-term investment capital for too long. Compare returns on stocks growing linearly at 10% per year versus cash earning the historic 3% inflation rate in one case and nothing in the other. Rates in the United States were very low for much of the past 15 years and for decades in Japan. Earning 10% in stocks linearly is not how it works – returns and intervals are more erratic – but the point is the impact that compounding achieves over even short and intermediate periods among assets producing different returns. It doesn't take many years of sacrificing the higher return earned by owning businesses before the necessary drawdown to breakeven requires losses on par with the most severe routs in stock market history.

*****THE MONEY TABLE*****

Growth of \$100 in Stocks and Cash – Required Decline to Breakeven

Year	Stocks at 10%	Cash at 3%	Required Decline	Cash at 0%	Required Decline
1	\$110.00	\$103.00	-6.4%	\$100.00	-9.1%
2	121.00	106.09	-12.3%	100.00	-17.4%
3	133.10	109.27	-17.9%	100.00	-24.9%
4	146.41	112.55	-23.1%	100.00	-31.7%
5	161.05	115.93	-28.0%	100.00	-37.9%
6	177.16	119.41	-32.6%	100.00	-43.6%
7	194.87	122.99	-36.9%	100.00	-48.7%
8	214.36	126.68	-40.9%	100.00	-53.3%
9	235.79	130.48	-44.7%	100.00	-57.6%
10	259.37	134.39	-48.2%	100.00	-61.4%

At a 10% annual return over ten years, each \$100 in stocks compounds to \$259.37. Meanwhile, cash held in reserve earning 3%, “dry powder for a better buying opportunity” as I’ve heard a gazillion times, grows to \$134.39. Presuming the dexterity required to go all in at the requisite low, to catch up requires buying after 10 years at the bottom of a 48.2% dip. As you will see in the next section, there are only TWO bear markets in U.S. stock market history in which, on a total return basis, the S&P 500 reached a 48.2% loss (with dividends offsetting absolute price declines). The Dotcom bust? Nope. The 1973-1974 Nifty Fifty bear market? Nope. You will find most recently during the 2007-2009 Global Financial Crisis that the S&P 500 lost 55.2% (from a daily high to a daily low on a total return basis); and from 1929’s stock market crash to the depths of the Great Depression three years later, stocks crashed 83.7%. These declines are again measured from daily peak to trough. Who goes to cash at the top tick of the market and catches the ultimate low? One fellow comes to mind who darn near did it, but even Semper’s first client was early on raising cash and watched the market nearly double before crashing 89% in price from 1929 to 1932.

Bear in mind the above critical point that many stocks pay dividends. When calculating the damage done by bears, don’t neglect the dividends earned, which are often in excess of the yield earned on cash. The S&P 500 peaked at \$94 in 1966 and troughed at \$102, 16 ½ years later. That’s an 8.5% cumulative price gain, or only 0.5% per year, yet the index averaged 4.7% annually by total return. The difference is dividends, from which the yield rose as prices (and thus multiples) compressed over the long stretch. The dividend yield rose from 2.9% in 1966 to 6.1% by 1982. Similarly, the P/E multiple collapsed from 18x (then considered expensive, LOL) to 8x. The 8x P/E multiple at the low was applied against a 4.0% net profit margin, thus the index at the trough was valued at 32% of sales (8x4).

A familiar note here on the nuances of portfolio management. Investors come in two varieties when it comes to portfolio implementation, each with different wants and needs. Some (institutions largely) prefer to be fully invested quickly, both at the outset of a new investment relationship and with ongoing deposits. To the extent they have cash, it’s held among their allocations to multiple investment managers. At our portfolio level we don’t have cash and frankly don’t want it. Other clients prefer a more methodical cadence for deploying capital, only buying individual positions when fundamentally undervalued. Here we can be fully invested either very quickly or more methodically.

Mr. Market will spend long periods offering up little in the way of opportunity and then appear all of a sudden with bargain after bargain. It's times of duress and falling prices that present terrific opportunity. You don't know when they're coming, but when they do you take advantage. That said, once we are more fully invested, we prefer to remain so. Once invested, when we are buying a position or adding to a position, we are also selling what we believe to be more fully valued to raise the needed cash. It's the cycle of buy low, sell high that's largely treated us well over the years. We'll always sell something to finance a purchase. Occasionally, we will sell or trim a position and in cases where the sale is the impetus for a trade we will hold the cash proceeds for a bit.

Expectations and Outcome

Expected returns couple the earnings yield with the purchase of stocks at a discount (or premium) to intrinsic value. Accretion of the discount over some period plus the earnings yield equals the expected return. The process seems to stand the test of time. Since running the Intrinsic Value Report for the first time in 2000, the portfolio earnings yield averaged 8.1%, or 12.4x earnings. At an average 75 cents on the dollar of intrinsic value over the years, the presumed 33% accretion to value earned over a period of years should add perhaps 2% to 3% to the earnings yield. A 10.1% to 11.1% expected return range compared to an 12.4% average actual return over 27 years is in the ballpark. We presume the fact that returns were 1% to 2% higher than expected is attributed to our active management approach (offset by the inevitable mistakes) and long holding periods where returns trend to the portfolio return on equity. Expectations match results, which is what we'd hope for over time. As for expecting history to repeat and actual results to beat expectations, modest premium returns realized over the full period may simply reflect much stronger than expected returns on average in recent years.

The purpose of the table below is to compare the beginning earnings yield every year over the past 27 years against the subsequent long-term return realized from that point. A lower initial earnings yield (higher P/E multiple) should portend a lower subsequent compound return and vice versa. The hypothesis tends to bear out. For example, at the outset of 2007 a low (by our history) 7% earnings yield resulted in only a 10.8% compound annual return. Just the opposite, a high 10% initial earnings yield at the outset of 2009 (deep in the Financial Crisis) resulted in a 13.6% return from that point through the end of 2025. Periods beginning with higher earnings yields generally corresponded with higher subsequent cumulative returns. The shorter time series toward the lower portion of the table are impacted by near-term returns, which can be all over the map. In other words, don't expect a return over the next one-year interval to match expectation. The voting machine wins in the short term.

Einstein's eighth wonder can be seen thanks to Semper's 44.9% equity return in 2025. The large single-year return had a dramatic impact on shorter intervals, seen in ascending order in the CAGR from 2025 column (third from the left). While the return increased the 27-year annual compound return by one percentage point from 11.4% to 12.4% (hard to do over 27 years), the impact on more recent return intervals is profound. Semper's stocks averaged over 20% annually for the last two and three years, despite returns of 12.1% and 8.2% in 2023 and 2024, respectively. Intervals from four years to ten years are mid-to-high teen annual compound returns. These returns are higher than our earnings yield math would suggest. But then again, the portfolio was spring-loaded following only a 2.1% return in 2022 while growing company fundamentals and active management set up 2025 with a 10.3x starting multiple.

Year	SAI Equities Only	CAGR from 2025	CAGR from 1999	Beginning Earnings Yield	Beginning P/E Ratio
1999	29.1%	12.4%	29.1%	7.7%	13.0
2000	30.7%	11.8%	33.1%	6.4%	15.6
2001	23.1%	11.1%	29.4%	6.6%	15.2
2002	-22.0%	10.6%	13.4%	7.4%	13.5
2003	38.2%	12.3%	18.2%	7.9%	12.7
2004	16.3%	11.2%	17.9%	7.7%	13.0
2005	7.4%	11.0%	16.3%	8.2%	12.2
2006	18.4%	11.2%	16.5%	7.3%	13.7
2007	3.1%	10.8%	14.9%	7.0%	14.3
2008	-21.6%	11.2%	10.5%	7.5%	13.3
2009	27.9%	13.6%	12.0%	10.0%	10.0
2010	14.4%	12.7%	12.2%	8.4%	11.9
2011	7.1%	12.6%	11.8%	8.3%	12.0
2012	6.8%	13.0%	11.5%	8.7%	11.5
2013	17.3%	13.5%	11.8%	8.9%	11.2
2014	5.2%	13.2%	11.4%	8.0%	12.5
2015	-10.3%	13.9%	10.0%	7.7%	13.0
2016	27.7%	16.7%	10.9%	8.1%	12.3
2017	18.0%	15.5%	11.3%	7.6%	13.2
2018	-1.4%	15.2%	10.6%	7.2%	13.9
2019	23.6%	17.8%	11.2%	8.2%	12.2
2020	11.9%	16.9%	11.2%	7.4%	13.5
2021	27.3%	17.9%	11.9%	8.0%	12.5
2022	2.1%	15.7%	11.5%	9.3%	10.7
2023	12.1%	20.6%	11.5%	10.5%	9.5
2024	8.2%	25.2%	11.3%	9.7%	10.3
2025	44.9%	44.9%	12.4%	8.2%	12.2

Inception Date 2/28/1999

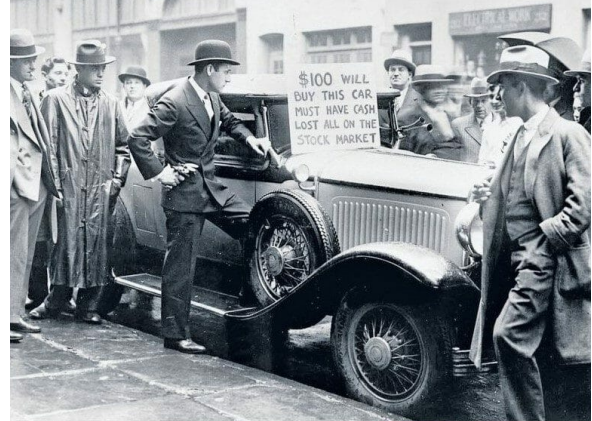
Entering 2026, the portfolio's 12.2x P/E is higher than 10.3x of both one and two years ago. Those two valuations were lower than at the outset of all but two years over our history. Neither would suggest a 41.4% net total return in 2025, but the valuation was so low as to afford a significant outsized expected return. Sometimes you get a bunch of the expectation in a shorter window than reason would expect. The multiple entering 2026 suggests we earn our 8.2% earnings yield and some bonus level of accretion as the undervalued portfolio holdings migrate upward to their respective intrinsic values. With an historically low-ish earnings yield, and with most of our profits retained by companies that are largely capable of reinvesting in their businesses at the portfolio 19.6% return on equity, we really like how we are positioned, even coming off a year with a large return. We'll make mistakes for sure, but as we scroll through the roster of our companies and the folks running them, we like what we own. It's a good thing because we and our companies will invariably face extraordinarily difficult headwinds in the years to come. That's the nature of capitalism, overlaid with elected and appointed officials in government and running central banks who seldom possess the virtues of wisdom, integrity and responsibility. Heck, most lack any of the virtues. Except hope. They all seem to have that one in spades.

NEVER MAKE FORECASTS, ESPECIALLY ABOUT THE FUTURE

“The impression has built up that the stock market is the cause of booms and busts. Actually, it is the thermometer – not the fever.” – Bernard Baruch

“Bull markets and bear markets last long enough so that the average trader is likely to forget by the time the climax is approaching that any sort of movement is possible.” – Philip Carret

“The only significance of stock market gyrations to the true investor is that they give him an opportunity to buy good common stocks when they are cheap – or at least reasonably priced – and at times offer him an invitation to sell out at temptingly high levels.” – Benjamin Graham



Credit for the title of this section remarkably goes not to the great St. Louisan, Yogi Berra, but to the equally quotable Hollywood producer, Samuel Goldwyn. Yogi did -ism something nearly identical, but let's move on and into predicting whether the next contemporary secular peak is, or has been, upon us.

Comparing the Semper portfolio to the S&P 500, as we did in the prior section, demonstrates fundamental valuation advantages we believe are in our favor, just as they were at the last secular stock market peak in the late 1990s. The disparity does not ensure we will produce similar returns over the coming 27 years as to our first. This section will attempt to show immense differences in stock market valuation and economic factors at each major secular peak and trough over the past century in the United States.

The Semper 2021 annual letter, published in February 2022, suggested that the U.S. capitalization-weighted stock market (read: the S&P 500) had reached a secular peak that would rival the prior great secular tops – 2000, 1966 and 1929. Right out of the gate, the S&P 500 tumbled 18.1% in 2022, making the forecast look prescient. The next three years witnessed economic growth, more than a tad of inflation, and ongoing dominance of a handful of technology bellwethers. Here at year-end 2025, the index is again at a record high price. By fundamental measures, the S&P 500 is back to levels matching, and in many cases exceeding, where we stood in 2021. Whence the peak? In the words of Michael Burry, “I may be early, but I’m not wrong.”

Changes in profit margins, often a key component in earnings growth, can be a big driver of valuation change. The net profit margin for the S&P 500 fell from a record 13.3% in 2021 to 11.5% a year later. The multiple paid to earnings likewise declined from 22.9x to 19.5x. The double whammy of hits to margins and to multiples combined to drive the market lower. Over the next three years, 2023 through 2025, the net margin has largely recovered, now at 12.8%, and the multiple at 26.0x is significantly higher than in 2021.

Despite margins not having fully retraced to 2021's record 13.3%, 2025's 12.8% margin capitalized at 26.0x makes the price-to-sales ratio 3.32x, above 2021's 3.06x. The multiple to book value sits higher at 5.4x versus 4.7x in 2021. Nominal GDP is 27.4% above that of 2021, and the total market value of the U.S. stock market is now at a record 216% of GDP, above 197% in 2021. **Folks, please allow me to introduce you to the most expensive stock market in U.S. history.**

Following the S&P 500's 18.1% total return loss in 2022, three subsequent strong years allowed the index to average 11.1% for the four years combined to 2025, incrementally above the 10.5% 100-year Ibbotson defined long-run average return. By all rights the market at 2025's closing bell is even more expensive than in 2021. The reality is, whether 2021 or 2025 winds up being considered a secular peak, history teaches that investors owning the broad stock market at these levels wind up earning returns far below the long-run average, often for decades. For shorter intervals, they typically suffer losses, spending considerable time with stock prices and the index below where they stood at the peak. Even if the capitalization-weighted market is not yet at its ultimate secular zenith, odds are that longish-term returns from today, or even from 2021, stand to be very disappointing for the vast majority of investors.

If prospects for the S&P 500 are as grim as I portray, what is an investor to do? If you read the prior section on the opportunity cost of holding cash, you should know that cash held for too long becomes a liability in a sense, sacrificing too much ground to justify its ownership. If the opportunity set at year-end 2021 had been to own cash or to own the S&P 500, I would have elected the cash. Ideally, I would have deployed it, or at least a bunch of it, during 2022's decline. Earning 11.1% per year for four years, the S&P 500 holder cumulatively earned 52.4%. The cash holder, rolling bills over the entire four-year duration earned 4.1% annually, or 17.2% cumulatively, requiring a 23.1% decline in the S&P now to call the heat a dead one. I suggest that the S&P 500 investor in 2021 who held on was bailed out with a market returning to, and even surpassing, where it had been fundamentally. Said investor perhaps now has a second chance to do something other than to sit in the dangerously expensive index and hope I'm wrong.

Of course, the investor in 2021 could have hired Semper and thus owned good, undervalued, and in some cases cyclical, businesses. After Semper had traded modestly around the portfolio and brought the occasional new position on board, this investor would have enjoyed 14.1% net annually, or 69.4% cumulatively for the four years. There are plenty of other avenues in the global stock market not as expensively valued as the S&P 500, but then the S&P contains what have been the best companies in the world and have had their share prices rewarded for it. Likely too much reward, but also to a degree justifiably so. The point here is buyer beware: The world is full of "cheap stocks." Many are cheap because they deserve to be cheap. The world is also dominated by an enormous cluster of U.S. stocks not only priced to perfection, but priced such that they are almost certain to disappoint over the coming years.

A secular stock market peak can be characterized as the high point immediately preceding either a durably long loss of value or extremely subpar returns. The annual letter often references the holy grail of stock market returns as the Ibbotson series from 1925, concluding stocks earn about 10.5% annually, on average, over the very long haul, defined from a specific moment which happened to be 100 years ago – Happy Centennial! Outlier returns to the sacrosanct Ibbotson 10.5% occur when initiated at or near secular peaks or troughs. Subpar returns follow peak periods, and glorious returns are earned from the ashes surrounding troughs.

Investment Returns from Peaks and Troughs – With Yet Better Data at the Ibbotson Centennial

We created two tables last year illustrating five sets of S&P 500 cumulative and annualized total returns over important historical intervals:

- 1) From each secular peak to the subsequent trough
- 2) From each secular trough to the subsequent peak
- 3) From each secular peak to 2024
- 4) From each secular trough to 2024
- 5) The long-run Ibbotson return earned from December 1925 to December 2024

The calculations and results in the tables were eye-popping and informative, yet disappointing at the same time. I say disappointing because we lacked data for older time series that included dividends earned on a daily basis. We know the closing highs and lows for the market for each day for the past 100 years and we also have good *monthly* dividend data. We lacked intra-month dividends, so acknowledged the limitation and ran our total return data series (price and dividend return) from the month end closest to each trough or peak price. The results got into the ballpark, but I knew that the degree to which *price can and did change* from month-end intervals to each actual daily high or low was material in many cases.

One year onward and we are here to report good news. We spent some time with this during the year and developed a method to calculate each time series interval using the actual daily highs and lows, not from the closest month end. We also created a methodology to capture intra-month return from dividends. Naturally, the total return series is now more extreme (and accurate) in all cases. The two new and improved tables are presented below, now using actual daily peaks and troughs and updated through 2025. Last year's tables are not reprinted, but for those interested in a side-by-side comparison, the old data using the monthly closing prices and through 2024 can be found on pages 41 and 42 in last year's 2024 annual letter. For those really digging into the weeds, you can find our methodology incorporating intra-month dividend return in the appendix to this letter. I'll add that I don't think you will find a more accurate calculation of total returns over the older time series.

S&P 500 Total Returns at Intervals from Peaks to Troughs and Troughs to Peaks

Peaks and Troughs	Cumulative Return	Annualized Return
9/1929 Peak to 6/1932 Trough	-83.7%	-48.8%
6/1932 Trough to 3/1937 Peak	442.1	42.5
3/1937 Peak to 4/1942 Trough	-45.6	-11.2
4/1942 Trough to 2/1966 Peak	3,752	16.6
2/1966 Peak to 8/1982 Trough	112.9	4.7
8/1982 Trough to 3/2000 Peak	2,474	20.2
3/2000 Peak to 10/2002 Trough	-47.4	-22.3
10/2002 Trough to 10/2007 Peak	120.7	17.1
10/2007 Peak to 3/2009 Trough	-55.2	-43.3
3/2009 Trough to 12/2021 Peak	817.9	18.9
12/2021 Peak to 10/2022 "Low"	-24.4	-30.0
10/2022 "Low" to 12/31/25	100.6	24.1

Total returns include dividends reinvested in the index

Source: Semper Augustus

We concluded earlier that holding cash for too long is generally a very costly proposition, as the necessary market decline to make the decision economically viable becomes increasingly unrealistic with the passage of time. I further don't endorse the short-term buying and selling of the broad stock market based on technical analysis, economic forecasting or witchcraft. That's market timing and I don't know anybody that got rich practicing what in modern times is called day-trading. I know plenty of both rich people that trade and poor people that trade, but the rich ones didn't get rich that way. Some of the poor ones did get so that way, having formerly been rich.

This overall discussion is on identifying secular extremes in valuations and acting accordingly. Holding temporary cash positions as part of the investment process, which we do at Semper when selling or trimming a position and not forcing an offsetting buy, is another topic altogether. Here we are discussing being a passive investor in the capitalization-weighted market or being out of it (or more intelligently doing something by which you won't get massacred and still earn adequate or even good returns).

Ben Graham suggested there are times when the stock market is fundamentally overvalued by established measures and that, absent the ability to find individual securities opportunistically, perhaps it can be best to sit aside. My message today is in reference to the S&P 500. The same logic would apply to Japan, circa 1989. There are times like 2000 and today that the U.S. large-cap, cap-weighted index investor with meaningful capital invested will suffer mightily, whether quickly or over a very long period. Either way, it pays to understand the impact on the compounding series when starting with a materially overvalued or undervalued price. There is no code here for identifying the day of the peak and selling – or going all in at a secular low. Rather, it pays to know if you are dancing on the top of a mountain or at the depths of a deep valley.

Focus on the annualized return for each interval in the table above. Suffice it to say that earning 16.6% annually from April 1942, the low point in World War II when things looked most grim, over the next nearly 24 years to February 1966 was far superior to the experience of the subsequent 16 ½ years. At 16.6%, each \$100 in 1942 grew to \$3,852, a 38.5x gain. Meanwhile, \$100 in 1966 grew only 4.7% annually to \$213 in August 1982, a 2.13x gain before inflation. After inflation you had less than the original \$100.

[Timeout for a sidebar refresher on working with cumulative percentage returns over time. From elementary school, guessing fourth or fifth grade from memory, the student learns conversion from percentages to decimals and vice versa. Any investor understands that a 100% return is a doubling of your money. Not as intuitive is that a 200% return is a tripling and that a 900% return is a ten-bagger. It's too easy to presume a 10x return is a 1,000% return. It's not. I've always found that the easiest dollar amount to use as an example in a compound return series is \$100. Why? You are adding 100 to the percent gain to allow for the movement of the decimal by two places. A 100% return on one dollar is two dollars. That's \$2.00 with the decimal having moved two places to the left. A 900% return on \$1 million is \$10 million. But what is a 2,124,708% return on \$1 million? It's \$21,248,080,000. You are essentially adding 100 to the percent return and then applying that figure as a decimal figure) to the dollar gain from \$1 million. It's correct and easy but less intuitive and requires a second of thought. If instead you use a base \$100, then you are simply just adding 100 to the percentage return to yield the dollar return. Thus, a 456% return on \$100 is \$556. The good news is converting percentage *losses* on any dollar amount is capped at 100%, collateral considerations excluded. If I didn't make this simple for those to whom it's not intuitive then one of us needs to go back to school. I miss gym class and recess the most. Just not gym class on frickin' parachute day.]

Each of the intervals in the table above, from peaks to troughs and subsequent troughs to peaks, cover differing lengths of time. 1966 to 1982 was 16 ½ years. Earning 113% cumulatively sounds great until factoring in time (the investor only turned \$100 into \$213). To state the intuitively obvious, a 4.7% annual return from stocks over that duration is not good. And that's *before* inflation. Earning 4.7% annualized, less than half of the Ibbotson number over more than a decade and a half, while the inflation rate exceeded the nominal return, was the equivalent of lighting money on fire. The long-term investor lost money. Purchasing power is money. For a more recent and memorable example, cash held in a bank account earning 0% over two decades when inflation is 2% is losing money.

The Very Long Term?

Our second new and improved table illustrates the compounding result cumulatively and on an annualized basis of investing at a peak or at a trough and holding through 2025.

S&P 500 Total Returns at Intervals from Peaks and Troughs to December 31, 2025

Peaks and Troughs to 2025	Cumulative Return	Annualized Return
From 12/31/1925 Ibbotson	2,124,708%	10.5%
9/16/1929 Peak to 12/31/2025	723,120	9.7
6/1/1932 Trough to 12/31/2025	4,455,021	12.1
3/10/1937 Peak to 12/31/2025	824,927	10.7
4/28/1942 Trough to 12/31/2025	1,517,222	12.2
2/9/1966 Peak to 12/31/2025	39,296	10.5
8/12/1982 Trough to 12/31/2025	18,500	12.8
3/24/2000 Peak to 12/31/2025	622.7	8.0
10/9/2002 Trough to 12/31/2025	1,274	11.9
10/9/2007 Peak to 12/31/2025	523.0	10.5
3/9/2009 Trough to 12/31/2025	1,291	16.9
12/29/2021 Peak to 12/31/2025	51.6	10.9
10/12/2022 "Low" to 12/31/2025	100.6	24.1

Total returns include dividends reinvested in the index

Source: Semper Augustus

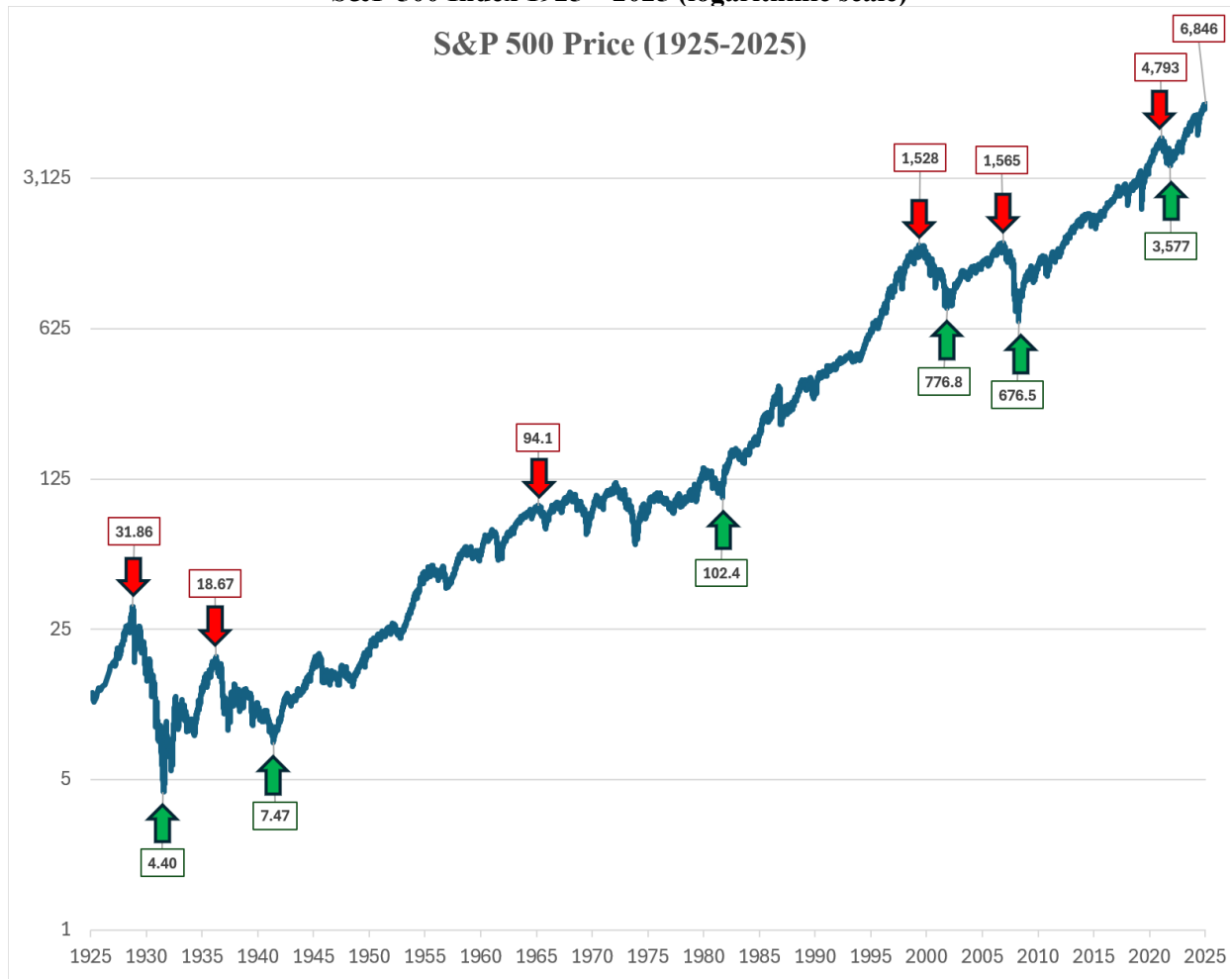
Bear in mind Ibbotson's 10.5% per-year long-run average in mind (found in the top row of the table above) when reviewing the returns for each interval. A seemingly immaterial 1% or 2% deviation on either side of the 10.5% figure sounds innocuous. However, over longer time periods the power of Einstein's eighth wonder of the world is powerfully stunning.

Owning stocks from 1929's peak, the investor earned 9.7% annually. Not bad you say? Only 80 basis points per year under Ibbotson you say? Consider instead beginning the subsequent time series three years later in the depths of the Great Depression, as our anchor client Mr. Smith did in 1932. Earning 12.1% annually is 1.6% better than Ibbotson and 2.4% better than the speculator's return from the 1929 peak. Each \$100 invested in 1929 grew to \$723,220 while the value investor buying three years later turned each \$100 into \$4,455,121, more than six times as much money earned over three fewer years. The difference roughly reflects the 83.7% total return loss from 1929 to 1932 seen in the first table above.

Riddle Me This: What Can Lose 99% of its Value – Twice – and Still Beat the Market?

If you could pick the single best moment in the entire history of the S&P 500 to invest, what day would you select? The correct answer is June 1, 1932. That was the secular low following an 86.2% price decline in the S&P 500 over the prior nearly three years from 1929's September peak. With the long-term compounding charts nearby, this seems the perfect spot to introduce a most extraordinary calculation and comparison.

S&P 500 Index 1925 – 2025 (logarithmic scale)



This example will illustrate the immense power of Einstein's eighth wonder over long periods of time. To wit, which of the following investments would produce the better result with \$100 invested at two different points in time. The first option would be to place your dough at the stock market low in 1932, following the 86.2% price decline (the Dow Jones Industrials more famously declined 89%), and stay invested until year-end 2025. You would be buying the S&P 500 at \$4.40, earning all dividends tax free and reinvesting all dividends immediately in the index at the moment you received them. No bid/ask spreads. No waiting a day to reinvest the cash received. No taxes on spinoffs received. Cost-free inclusion of index additions with no commissions or frictional costs. An impossibility in practice but that's how index returns are calculated.

The second pony in the race would earn literally nothing with your \$100 for the next 32 1/3rd years. Call it cash under the mattress, losing to the inflation rate every day. Slow out of the gate, you place your \$100 bet on September 30, 1964, investing in a single company at the close of its fiscal year in a company to be officially acquired by Warren Buffett in May 1965 (Berkshire's performance record under Warren dates to the outset of the fiscal year he took over as Chairman following a proxy fight).

Before answering, know that \$100 invested in the index at the June 1, 1932, closing low compounded at 15.2% annually to the date Warren's Berkshire record commenced. The \$100 in the index grew to \$9,716, or a cumulative 9,616%. The bet is thus: Would you rather be worth just shy of \$10,000 and keep your

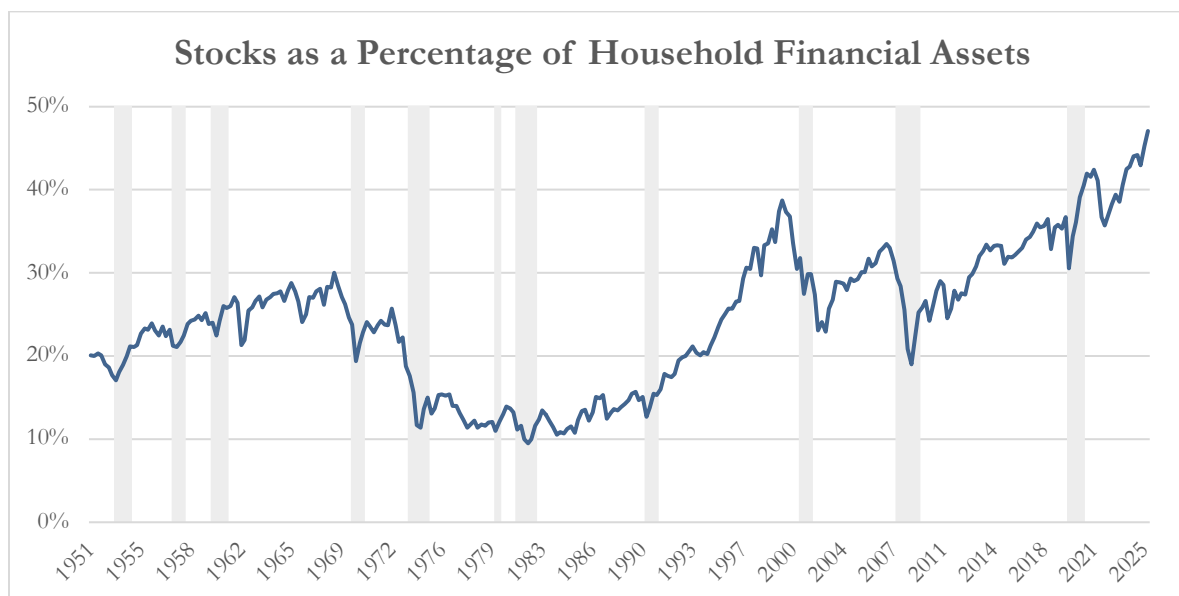
winnings invested in the S&P 500, or to light virtually 99% of your money on fire, all but \$100, and invest your remaining \$100 in Berkshire Hathaway? From the way I introduced the question, you can likely guess the answer! Berkshire Hathaway under Warren Buffett's guidance earned more in six decades than the stock market did if bought more than 32 years earlier at the literal 1932 secular low. Buffett and Berkshire compounded at 19.7% for more than 61 years. The S&P 500 compounded at 12.1% for more than 93 years. The \$100 in Berkshire grew more than 6 million percent to \$6,099,393 while the index grew, from our table, more than 4 million percent to \$4,455,121. Einstein was wrong. Warren Buffett is the eighth wonder of the world.

The above statistic and story are repeated in the Berkshire section of the letter with more detail, accompanied by charts and several other remarkable statistics highlighting the Buffett Scorecard.

[Trivia sidebar: Students of financial history, present company included, typically refer to July 8, 1932, as the Great Depression secular low. July 8 was the low on the Dow Jones Industrial Average. The S&P was a penny higher, at \$4.41 versus \$4.40 on June 1.]

[Sidebar deux: Roger Ibbotson and Rex Sinquefeld; *Stocks, Bonds, Bills and Inflation* selected calendar year 1926 as the starting point in calculating long-term returns on several asset classes. The S&P Composite was a 90-stock index comprised of the largest stocks in the United States until March 1957 when Standard & Poor's prospectively changed the index to the 500 largest companies. I've read multiple editions of the book and don't recall why December 31, 1925, was selected. I believe it would be the earliest date that dividends earned could be calculated correctly and included as part of total return on a *month-end basis*. The date makes logical sense as it was roughly halfway between 1920's secular low and the 1929 peak, thus returns were calculated from neither a peak nor a trough but presumably from an average valuation.]

Everyone should realize the impossibility of selling a secular peak or buying a secular low with all of your money at the moment of climax. The key is to not own the secular peak, at or around the secular peak, with what comprises the secular peak. Find a way instead to invest in assets with superior prospects based on price and value. Better yet, hope to find the next Warren Buffett and Berkshire to buy with just a portion of your capital at the next 1964, which happened to be quite near a secular peak!



Source: Federal Reserve Bank of St. Louis; Households and Nonprofit Organizations

Semantics

We've now discussed at length that year-end 2021 would likely mark one of the great secular peaks in the capitalization-weighted U.S. stock market, rivaling 1929, 1966 and 2000. To reiterate, the 18.1% decline in the S&P 500 had the call looking prescient. Following three strong subsequent years, the index averaged 11.1% now over the four full years through 2025. A strong case can be made that valuations here at year-end 2025 are more elevated than in 2021. I'm inclined to stick with 2021 as the peak, particularly if the S&P materially weakens from here over the coming years. That said, by most fundamental yardsticks the market is even more stretched at year-end 2025.

This table below is a fixture to the annual letter. The original construct took some time assembling the relevant and correct figures. It's useful as a barometer of valuation extremes and economic conditions at the five greatest secular peaks and five correspondent troughs over the past century.

The most recent secular trough occurred in 2009 at the end of the 2007-2009 Global Financial Crisis. Year-end 2021 saw valuations as stretched as at any of the prior great peaks (shaded red – for caution). Hence our having presumed the likely top, which is more likely today or whenever valuations peak in the near to intermediate future. Figures remain in the table for 2022 (and the arrows for 2021 and 2022 in the price chart above) to illustrate the degree to which valuations had fallen that year when the index lost 18.1%. 2022 will not be defined as a secular trough! Whether history defines 2021, 2025 or some implausible future high as the latest secular peak remains to be seen. We all know Keynes is presumed to have quipped about “the market's ability to stay irrational longer than you can stay solvent.” Whether he was the one who originated the expression is debatable. If he was indeed responsible for the quote, based on the unmitigated disaster of his theories on monetary and fiscal policy, the addicted day-trader was probably teetering on one of his three near-bankrupting margin calls when he said it. The Dude unfathomably rolled a gutter ball betting on the German Mark in 1920, then lost 80% of his substantial net worth speculating on rubber and wheat in 1928 and early 1929. Not having had enough, he then went on to get blasted in the 1929 stock market crash and three-year decline. He only lost half again in 1937's secular decline. Just imagine the damage the genius economist could have done with a Robinhood account. Central bankers should definitely still listen to this guy. But I digress.

A secular peak is followed by a trough which is followed by a peak. Only with the passage of time are the dates crystallized. No doubt that if the bull market calved in the drought of 2009 rages further from here, eventually the old boy will succumb to the matador. Or to a clown – lots of those to be found of late. Once the secular top is in place, the majority of investors will suffer until the next trough is reached. If the secular peak is not yet at hand, then we will soon observe fundamental valuations unknown to rational students of financial history.

The rightmost column is for data at year-end 2025. As we said above, the figures for 2022 remain, as that was essentially the “low” following the 2021 high. It's not shaded green like the secular lows in the table for what should be obvious reasons on inspection of the data. An 18.1% loss in a single year is not the stuff of a secular bear market. In fact, fundamentals following the 2022 loss remained at levels consistent with past secular peaks. Believe it or not, even following the brutal 50% bear market from 2000-2002, valuations at that “low” were not yet washed out enough to match more severe points of undervaluation like 1932, 1942 and 1982. Regardless, with market fundamentals today as expensive as at any time in history, now is a time for caution for investors in the index or in index lookalikes.

A Century of Secular Peaks and Troughs – Rarified Air

	9/29 Peak	6/32 Low	3/37 Peak	4/42 Low	2/66 Peak	8/82 Low	3/00 Peak	10/02 Low	10/07 Peak	3/09 Low	12/21 Peak	12/22 No	12/25 Peak?
S&P 500	32	4	19	7	94	102*	1527	777	1565	666	4793	3577	6845
After-Tax Profit Margin	8.9%	-3.2%	6.4%	6.6%	6.7%	4.0%	7.6%	5.8%	9.4%	-0.1%	13.3%	11.5%	12.8%
Price to Op Earnings (TTM)	26x	NMF	8x	7x	18x	8x	29x	19x	22x	NMF	23x	20x	26x
Price to Earnings (CAPE)	30x	4x	23x	9x	25x	7x	44x	23x	28x	15x	38x	29x	40x
Price to Sales	2.31x	0.48x	0.51x	0.46x	1.20x	0.32x	2.13x	1.11x	1.57x	.666	3.06x	2.19x	3.32x
Price to Book Value	3.0x	0.3x	2.2x	0.8x	2.4x	0.9x	5.2x	2.3x	3.0x	1.5x	4.7x	3.8x	5.4x
Dividend Yield	3.0%	17.5%	3.7%	8.7%	2.9%	6.1%	1.0%	2.0%	1.7%	4.0%	1.3%	1.8%	1.18%
Market Cap All Stocks	93.3B	15.3B	66.2B	32.4B	624B	1.1T	14.0T	7.0T	15.9T	7.0T	48.8T	38.9T	68.2T
GDP	103.7B	58.8B	91.9B	162B	789B	3.3T	9.9T	11.0T	14.6T	14.4T	24.8T	26.7T	31.6T
Market Cap to GDP	90%	26%	72%	20%	79%	33%	141%	64%	109%	49%	197%	146%	216%
Exports / GDP	5.7%	3.3%	4.3%	2.6%	5.0%	8.5%	10.7%	9.1%	11.5%	10.9%	10.8%	11.6%	10.8%
Imports / GDP	5.3%	3.2%	4.3%	2.8%	4.6%	9.1%	14.4%	13.2%	16.5%	13.8%	14.4%	15.3%	13.3%
Net Exports / GDP	0.4%	0.1%	0.0%	-0.2%	0.4%	-0.6%	-3.7%	-4.1%	-5.0%	-2.9%	-3.6%	-3.7%	-2.5%
Total Credit Market Debt	175B	150B	159B	227B	1.12T	5.2T	26.7T	32.2T	51.2T	54.6T	89.2T	94.0T	106.0T
Total Credit Mkt Debt / GDP	169%	255%	173%	140%	142%	158%	270%	293%	352%	380%	360%	352%	335%
U.S. Government Bond Yield	3.4%	3.5%	2.6%	1.9%	4.6%	14.6%	5.9%	4.7%	4.9%	3.5%	1.9%	4.0%	4.8%
U.S. Discount Rate	6.0%	2.5%	1.5%	1.0%	4.5%	10.75%	5.5%	1.25%	5.0%	0.75%	0.25%	4.5%	3.75%
Inflation (CPI)	0.6%	-9.9%	3.6%	10.9%	3.7%	11.0%	3.4%	1.6%	2.9%	-0.4%	7.0%	6.5%	2.7%
Unemployment Rate	2.3%	24.9%	11.7%	4.9%	4.2%	10.8%	3.9%	6.0%	5.0%	9.9%	3.9%	3.5%	4.6%

*A peak price can approximate the subsequent trough price following 17 years, especially when marked by high inflation.

Source: *Semper Augustus*, Federal Reserve Bank of St. Louis, Bureau of Economic Analysis, Bureau of Labor Statistics, Standard & Poor's, U.S. Treasury

Observers of financial history might not choose to describe 1966 as a secular peak, but rather 1968 or 1972 instead since both immediately preceded nasty bear markets, and both had fully recovered the price decline from 1966 (and in both cases had even made new price highs). However, inflation then resembled that of our most recent four-year period. While the S&P 500 earned 52.4% cumulatively in the four years 2022-2025 including dividends, 11.1% on average, inflation eroded 16.3% of purchasing power, averaging 3.9% per year. In other words, inflation gobbled up 35% of the annualized index return from year-end 2021 to year-end 2025.

During 100 years of the Ibbotson series, inflation cumulatively destroyed 1,740% of value, 3% per year. It now takes \$18.40 to purchase what cost \$1.00 at the outset of 1926. If the long-run Ibbotson return is 10.5% per year, a 3% annual shave from inflation reduces the real return by 28.6% or from 10.5% nominal to 7.5% real over those 100 years. And the market's annual return was reduced 35% by inflation over the last four years, from 11.1% nominal to 7.2% real. Said more plainly, the inflation-adjusted (real) annual return for the index over the past four years is lower than its 100-year average despite a modestly higher nominal return because inflation was higher than its historical average over the past four years.

Let's compare fundamental valuations between 2021 and 2025 and then across previous secular peaks. Many of the gauges over time require some adjustments and explanation.

In lining up fundamentals, 2025 is clearly more expensive than 2021. Price measured against trailing 10-year Cyclically Adjusted Price to Earnings (CAPE) closed 2025 at 40x versus 38x four years ago. The 40x multiple today was only exceeded at the March 2000 top when it reached 44x. The index earned a negative total return over the subsequent decade.

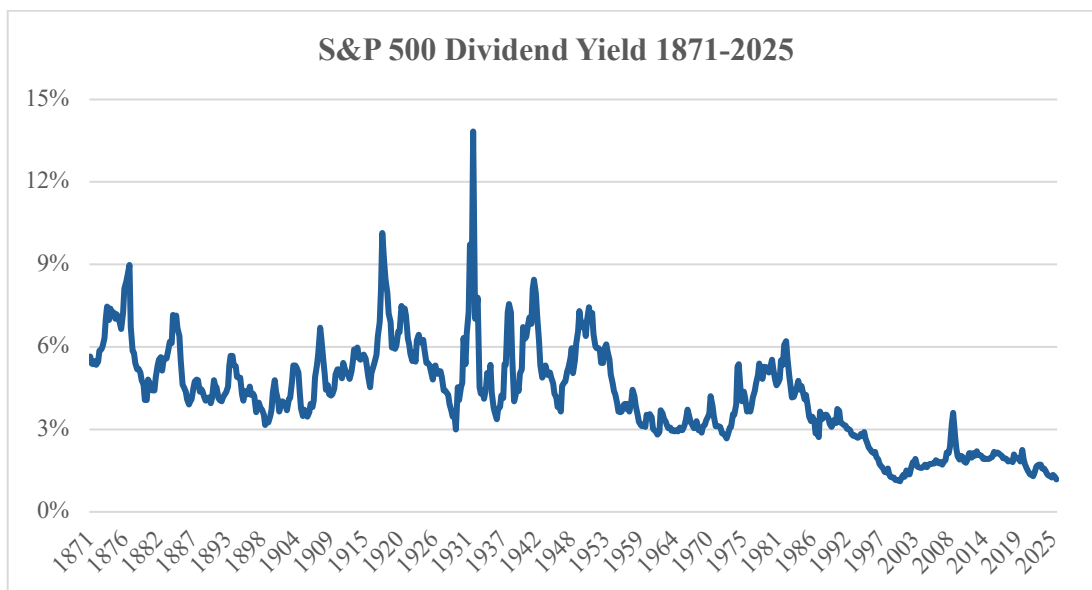
The CAPE measure was devised as a method to normalize for short-term volatility in multiples, the volatility often a byproduct of volatility in profit margins. As an example, stocks were pummeled in the 2007-2009 Global Financial Crisis, but so were profits. Index earnings per share declined 57% from June 2007 to September 2009. A 27x P/E multiple in September 2009 would be considered dangerously high by historical standards (even higher than today's 26x). However, the high multiple was against earnings that had been crushed and would return to new per-share highs two years later in 2011. Using CAPE, a 10-year average of trailing earnings serves to smooth out wild swings. It's far from a perfect measure and depends on the absolute level and the volatility over the immediately preceding ten years. I remember pundits asserting stocks were still expensive in early 2009 because the P/E was still high. For a couple of quarters in mid-2009 the multiple was 120x against reported earnings because index earnings were trending to net losses.

The current 26.0x P/E multiple is 13.5% higher than 2021's 22.9x. As discussed earlier, the current multiple is against a somewhat lower profit margin: 12.8% against 2021's record 13.3%. With margins only 3.8% lower than in 2021, the much higher multiple necessarily makes the index more expensive than four years ago, as does the CAPE measure.

Multiples are largely a function of the level of interest rates and expected growth rates. It is frequently argued that because margins are higher now than in past decades that multiples deserve to be higher as well. I don't buy this argument. If returns on equity and on capital were sustainably higher now than in the past, or aggregate growth rates were similarly sustainably higher, then a case could be made for higher multiples. Neither is the case, particularly when adjusting for the understatement of book values.

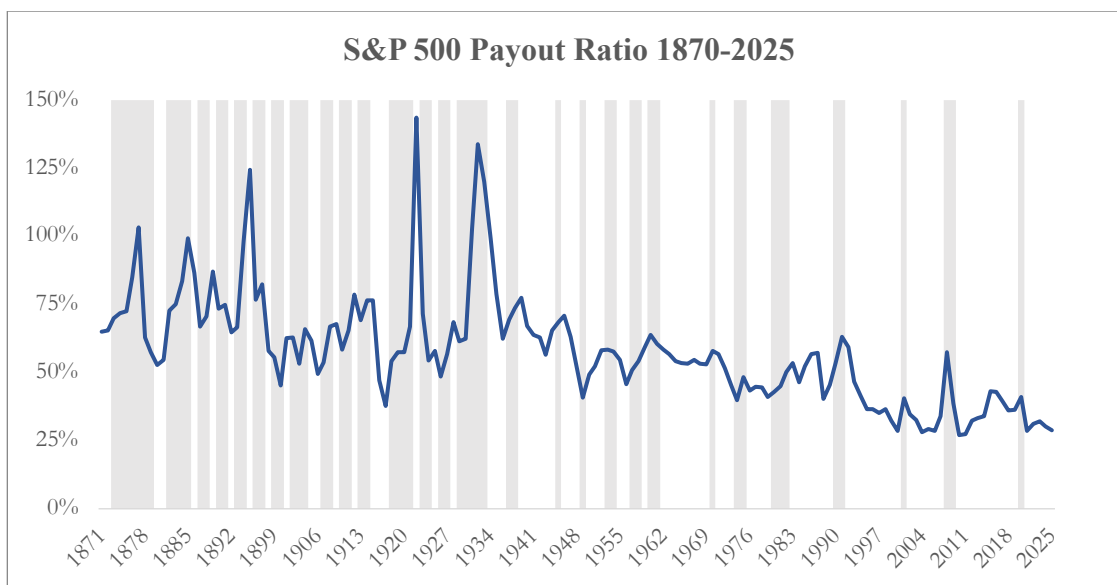
Price to book value in 2025 is also at a record 5.4x, 14.9% above 2021's 4.7x and even now exceeds the tech-bubble peak reading of 5.2x in 2000 by 3.9%. Write-offs and write-downs of assets and of equity translate to a higher price to book value and to higher returns on equity, again holding multiples to earnings constant for the latter. Share repurchases made at premiums to book value also reduce book value as well as book value on a per-share basis. The larger the premium, the more book value is eroded. The combination of write-offs and repurchases have rendered book value largely meaningless for many companies and overstate returns on equity, often dramatically. Perhaps if I say this enough...

Today's 1.18% dividend yield is slightly lower than in 2021 and wallows near the all-time low 1.0% yield recorded in 2000. Know that the low yield is not a function of a paltry payout of dividends as a percentage of earnings. No. Instead, dividend payout rates have consistently averaged about one-third of earnings for the last five decades. The low yield is a byproduct of high prices. However, worth watching is the ongoing payout ratio. If capital expenditures for AI and related data centers screams higher as predicted by many, then the money for building needs to come from somewhere. The dividend payout ratio had indeed declined over the past three years as the capital expenditures party took off. The payout ratio is at a record low 30.7% in 2025, down from 34.8% at year-end 2022.



Source: (1870-1959) Robert Shiller; (1960-1987) NYU; (1988-2025) Semper Augustus, Standard & Poor's

To illustrate dividend yields, presume two companies, A and B, both earning \$3 and paying \$1 of the \$3 in dividends. Both have 33% payout rates. If company A trades for \$30 per share, it has a 10x price-to-earnings ratio and a 3.33% dividend yield. Its earnings yield is simply the inverse of the P/E so 10%. If company B, meanwhile, trades for \$100 per share, it sports a 33.3x P/E multiple (3.0% earnings yield) and a 1.0% dividend yield. A and B can be the same company as well, only at different points in time. If a company earning \$3 and paying \$1 in dividends suffers a 70% share price decline from \$100 to \$30 for some reason, its dividend yield will skyrocket from 1.0% to 3.33% (assuming no change in its \$3 in earnings). Management did not instantly become munificent – the stock price merely went down. Any time you read about a company's "generous" dividend yield, always double check the payout rate and the valuation. A stock price rising faster than earnings and dividends results in multiple expansion and a reduction in yields.



Source: (1870-1959) Robert Shiller; (1960-1987) NYU; (1988-2024) Semper Augustus, Standard & Poor's

Market cap to GDP at 216% in 2025 is 9.6% higher than the 197% level four years ago and like other yardsticks is also at another new record high. It reached what was then a record 141% at the 2000 peak. Similarly, the price-to-sales multiple also reached a new record 3.32x in 2025, 8.5% higher than 2021's 3.06x, compared to only 2.13x in 2000. The 2000 secular peak was the granddaddy of bubble tops, so why were these two yardsticks so much lower than now? The nuances of comparing certain ratios over time is often made without consideration of critical adjustments:

Comparison of certain fundamental measures of value over the past century is not necessarily on an apples-to-apples basis. Price-to-sales and market-cap-to-GDP ratios both require brief discussion. Warren Buffett discussed profit margins in a November 22, 1999, Fortune article, *Mr. Buffett on the Stock Market*, as most likely rangebound between 4.0% and 6.5%. The article was a distillation of four speeches given by Warren throughout 1999. The point of the article was to suggest that investors were overly optimistic about future stock market returns. Without calling a secular peak, he was doing just that – but in classic Buffett fashion. 2000 marked the peak and investors earned subsequent returns of a mere fraction of their collective expectations. The S&P 500 since 1999 produced an 8.1% total annual return. Nearly the entire period was spent with a lower return than that, and only for the surge to 2021 (or 2025) did returns rise to 8.1%.

While he was correct on the dim prospects for stocks (at least for the S&P 500), Mr. Buffett was ultimately completely wrong regarding profit margins, which would eventually climb far higher and drive both price-to-sales and market-cap-to-GDP measures logically higher over time. But in the moment, after-tax profit margins reached 7.6% for the S&P 500 in 2000, a full percent above the top of the range that Buffett suggested. He proved correct in his warning about equity valuations when the S&P 500 plummeted from 1,527 in March 2000 to 777 in October 2002, a 49% price decline (the Nasdaq shed 80%). Margins indeed then mean-reverted, shrinking from the seven-decade peak at 7.6% in 2000 to 5.8% by late 2002, a 24% decline. To that point he was correct. Investors don't like falling profits, so they sent prices down at a faster clip. You get to a halving in prices by also hammering the P/E multiple from 29x to 19x, a 34% decline. Revenue growth offset a little of the carnage, so despite margins and multiples down 24% and 34% respectively, prices merely halved. Merely.

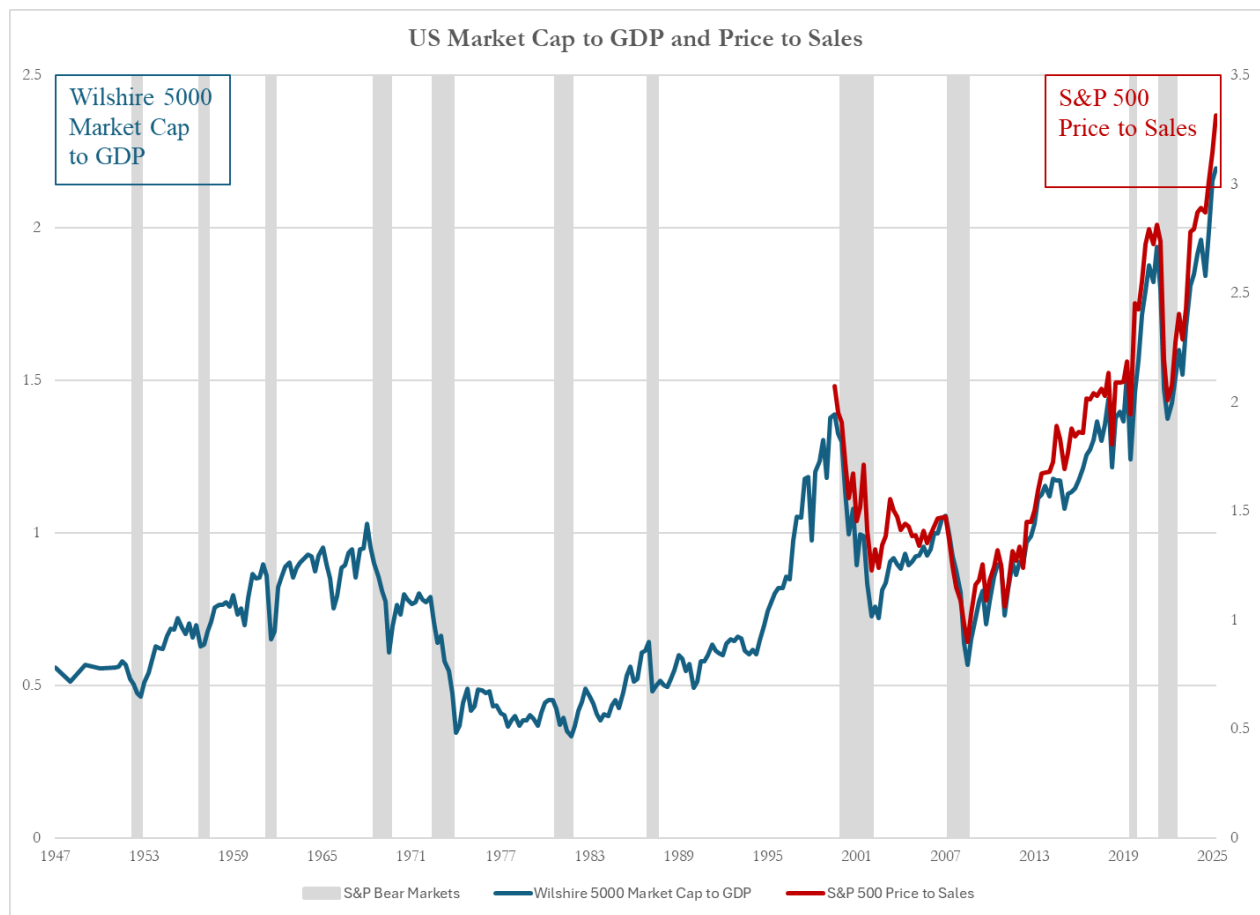
Warren didn't see the coming dominance of a handful of capital-lite software and information-technology behemoths and their very high profit margins relative to historical norms across industries. Those few that may have seen what was coming had little regard for stock prices. Microsoft, for example, fell 75% over the ensuing nine years. I also don't think he contemplated the degree to which interest rates would decline, lowering interest expense despite rising corporate financial leverage. Index profit margins would rise from 2002's 5.8% low to a 13.3% peak in 2021, roughly double the upper bound hypothesized in Buffett's 1999 Fortune article. It was more so the decline from a record 29x multiple to earnings that led to miserable returns from 2000's secular peak, price mattering after all. Price was the problem, not then-high margins. Price matters. A too-high price can prove lethal, even if interest rates decline.

A rising profit margin will necessarily translate to a rising market-cap-to-GDP ratio and similarly to a rising price-to-sales ratio at an equal price-to-earnings multiple.

The market-cap-to-GDP measure is now popularly known as the Buffett Indicator. Today's 216% surpasses 2000's then 141% record by 53%. Factoring in that today's 12.8% net profit margin is 68% higher than 2000's 7.6%, the case remains plausible that despite my hyperbole, the 2000 secular peak was fundamentally higher than today's rarified level. For the moment at least. Looked at another way, paying a 29x multiple for earnings in 2000 may not have been so absurd after considering that the net profit margin would go on to grow 68% in the subsequent 25+ years. Perhaps. That we are now more than a quarter century beyond the 2000 bubble, and with the multiple at 26x today only modestly lower, is how

you get a total return of only 8.1% per annum. **You don't make Ibbotson-beating returns investing at a secular peak, even if the terminal bracket is at a subsequent secular peak.**

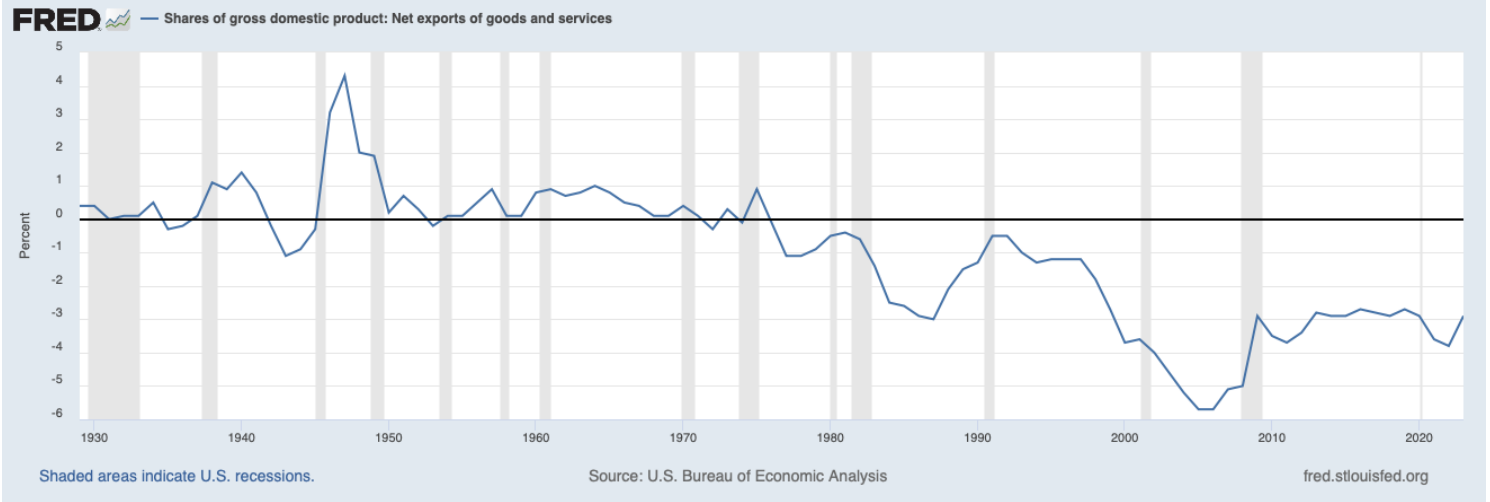
Beyond the rise in margins, the current market-cap-to-GDP level also can't be compared to the 90% of GDP seen at the 1929 peak or 79% in 1966 for several additional important reasons. First, a century ago, most business was not conducted by publicly traded companies. Business was largely private enterprise – that's mom, pop and farmers. When the industrial revolution got going in the U.S. around 1870, much of the population remained on farms through the 1920s. The 1920 U.S. Census was a landmark moment in history. For the first time, more than half of the U.S. population lived in and around cities rather than on farms or in rural villages. The 1920s marked the death of the Jeffersonian ideal of a nation of small farms, modern-day communists and Marxists, dimwits and morons all, be damned. Remind me to tell you about my experience of inadvertently walking into a Communist Workers' (itself an oxymoron) Party of England rally one fine day in London. Back to the point, the proportion of business conducted, and aggregate profit earned, by public companies was much smaller in earlier decades than today by a wide margin.



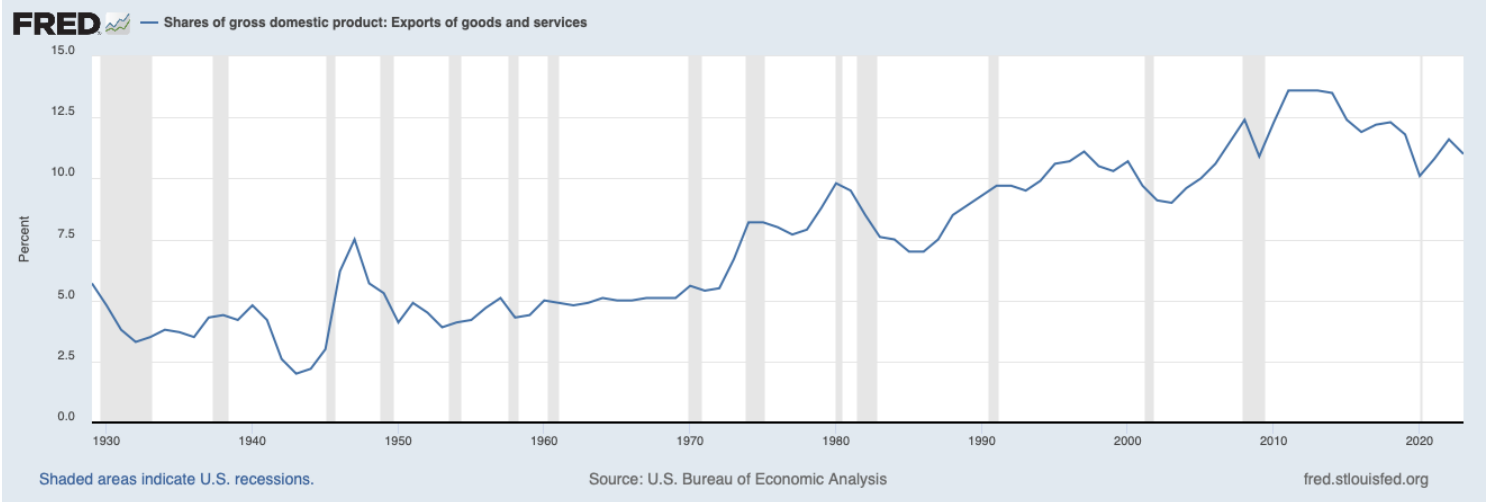
Source: FRED, S&P, Long-term Trends, Semper Augustus

Second, the economy of the 1920s was largely domestic. Trade was important but represented a much smaller share of U.S. and global GDP. Our country is a net importer now, with imports comprising 13.3% of GDP while exports are 10.8%. We thus run a 2.5% of GDP trade deficit (down from 3.2% a year ago). In 1929, even with industrialization well under way, the U.S. ran a 0.4% trade surplus and on a much smaller scale relative to the present. Exports were 5.7% of 1929 GDP while imports totaled 5.3%.

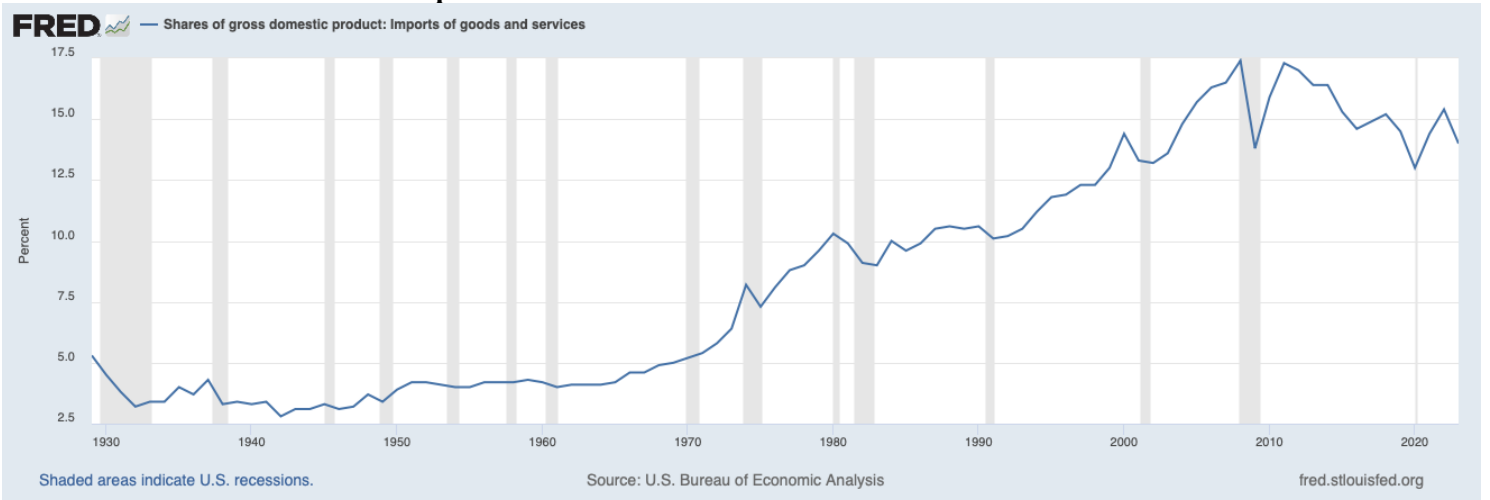
Net Exports of Goods and Services as a Percent of GDP: Trade Deficit/Surplus



Exports of Goods and Services as a Percent of GDP



Imports of Goods and Services as a Percent of GDP



Net exports peaked at 4.3% of GDP in 1947 while *net* imports peaked at 5.7% in 2005 and 2006. “Net” refers to a trade deficit or surplus. The absolute growth of trade after World War II pushed market capitalizations higher as business saw its share of sales and profits earned abroad likewise grow upward.

At its peak less than two decades ago, aggregate trade was nearly triple the share of GDP from the 1920s. More trade means more business is conducted outside the United States. Public companies likewise conduct a growing share of trade. Market cap is a domestic measure, and with companies in the S&P 500 in aggregate earning more than half of profits outside the U.S., market caps reflect and are capitalized against global earnings and not solely domestic earnings. Thus, the market-cap-to-GDP measure naturally grew over time. The measure *is* mean-reverting; it’s just mean-reverting in what’s been a perpetually upward-sloping trend channel.

Last year’s letter touched on the possibility that the proportion of global GDP conducted via trade may be in decline. It is, in fact, in decline and shrank even more in 2025, with both imports and exports as a percent of GDP again falling for the year. The United States has been a perpetual net importer since 1975, exports peaking from 2011-2013 at 13.6% of GDP and imports peaking in 2008 at 17.4%. Exports are now 10.8%, down 20.6% from their peak as a proportion of economic output while imports are 13.3%, which is a whopping 23.6% below their peak. Food for thought: If global trade peaked and will decline to some level over time, then perhaps the market-cap-to-GDP and price-to-sales trend channels will now flatten and even shift downward. Flattening the public/private share of profit trend channel for sure is the idea that at some point, no more room exists for public companies to take further share from the private economy. 100% would be the upper bound, minus Semper’s resolve to never sell the firm or go public, being a private firm and all.

Lots of moving parts to the metric – margins, net trade and the amount of business done by publicly traded companies versus the private sector. Some will observe that tariff policy in 2025 led to a closing of the trade deficit. Yes, but if absolute trade is in decline, both exports and imports, the overall effect on *global* GDP becomes a headwind.

Growth and the Price Paid for It

The median P/E multiple paid for the S&P 500 over the years, as far back as 1881, is 15x. The arithmetic average is pulled higher to somewhere between 16x and 17x by an increasing number of years since 1990 in which the multiple was higher. The logic behind a higher multiple since the early 1980s is a combination of lower interest rates and the increasing capitalization share of the big and very profitable tech companies in the past three decades.

The correct multiple to pay today for the entire tail of future earnings should be a combination of where longer-dated interest rates are headed (not where they’ve been) and how fast the economy, business revenues and profits will grow. These are unknowns. I’d argue that once total credit market debt reached 250% of GDP in 2000, and as government debt comprised a growing proportion of all debt outstanding, GDP growth slowed. Warren Buffett famously talks about the American tailwind he enjoyed throughout his investing lifetime, whereby real GDP growth per capita grew by more than 2% annually.

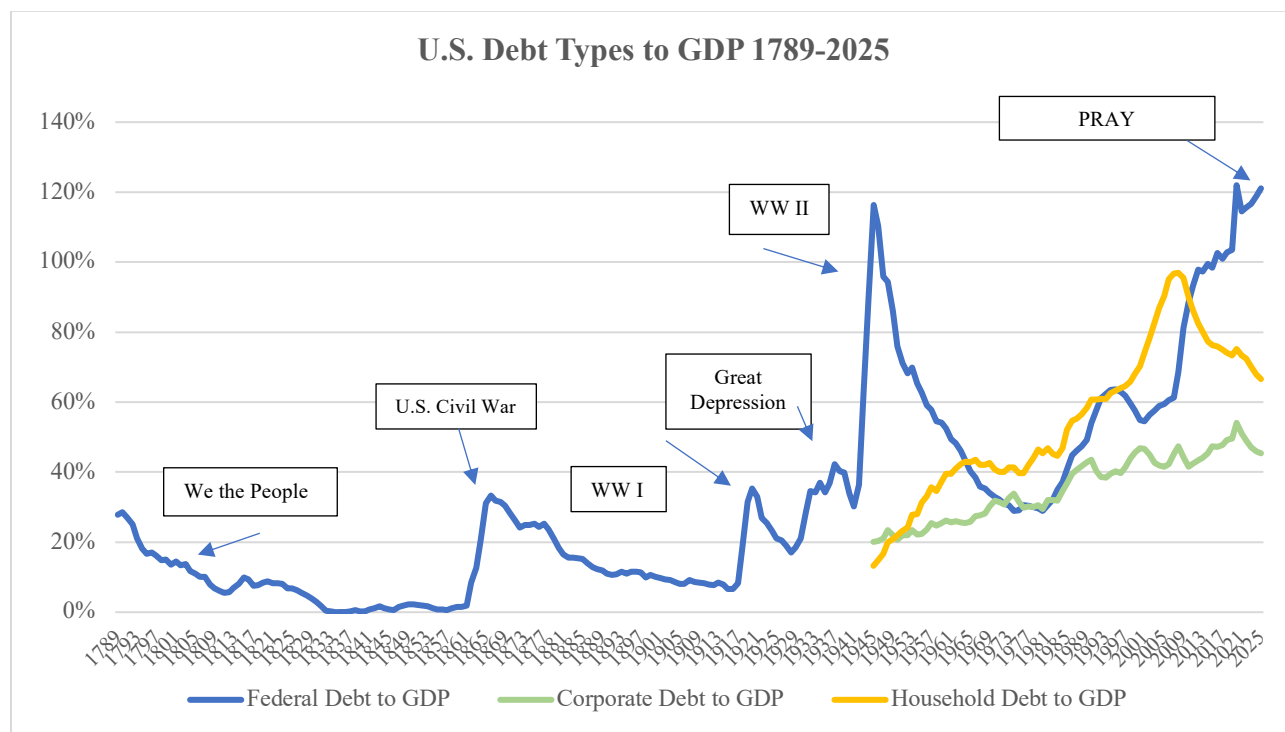
An onerous combination of slowing population growth, burdensome debt levels and recently higher inflation worked to drag down economic growth adjusted for population growth and inflation to well under 2% per annum since the turn of this century, the moment credit market debt reached 250%.

Population growth is typically good for economic growth. A growing U.S. headcount averaging roughly 1.2% over the last six decades of the 20th century contributed an extraordinary economic tailwind.

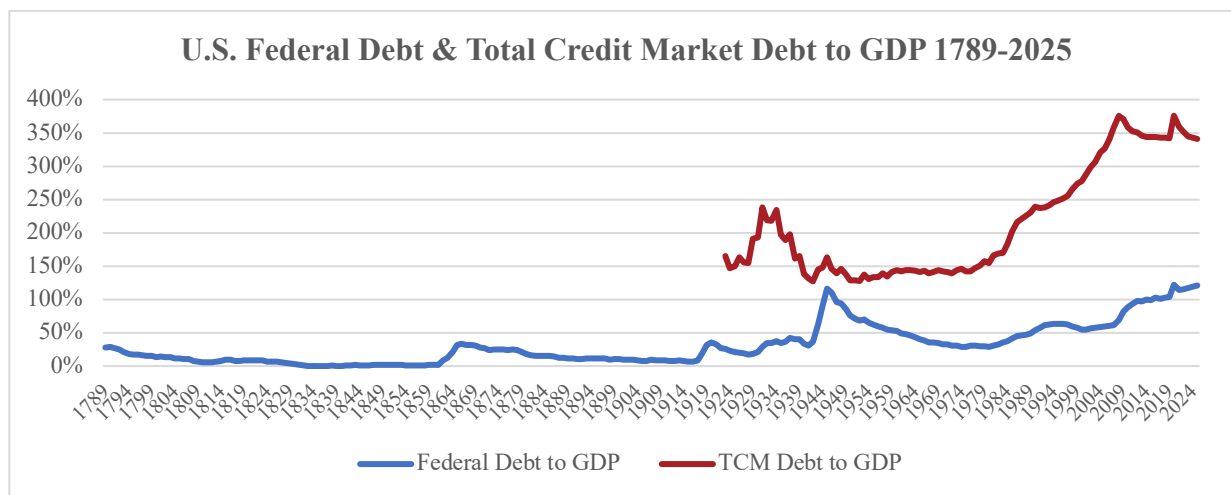
Subsequent slower population growth in the 2010s and the first six years of the 2020s to 0.8% shifted growth to a lower gear. But it's not simply a slower-growing population that weighs on output.

Consider now the degree to which excessive leverage becomes a drag on economic growth – the law of diminishing returns at work.

U.S. Federal, Corporate and Household Debt to GDP

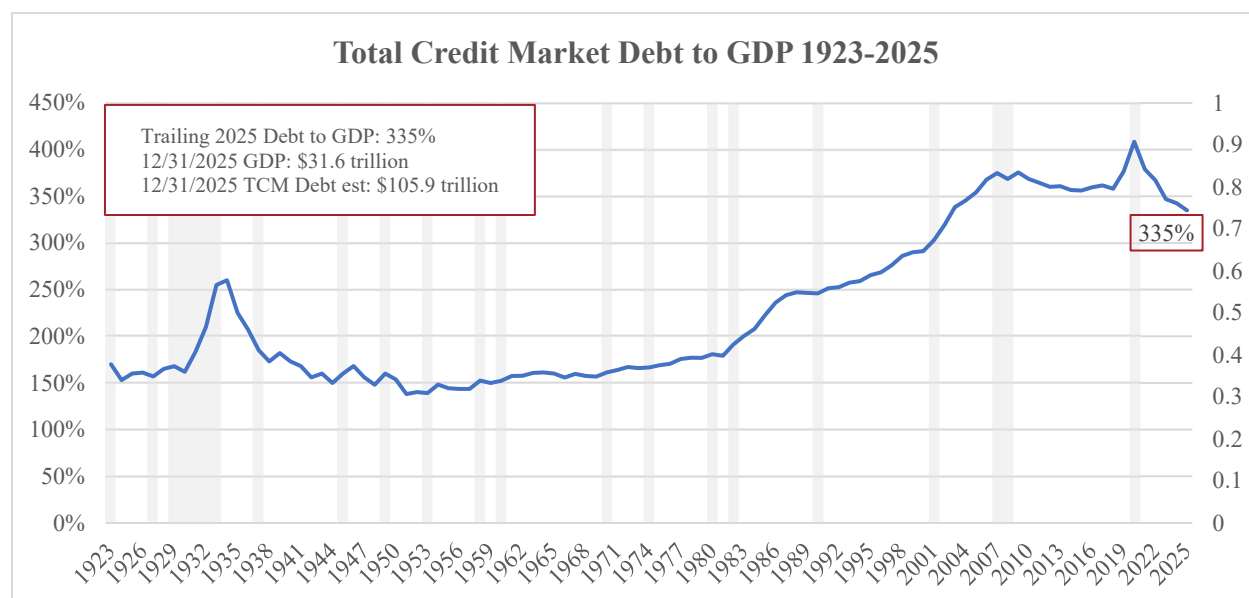


Source: FRED; U.S. Treasury (Historical Debt Outstanding), 1790-2000 (GDP); Semper Augustus



Source: U.S. Treasury (Historical Debt Outstanding), 1790-2000 CBO (Nominal GDP) 1923-1944: Annual interpolated GDP (including estimates prior to 1929) used prior to 1946. Domestic nonfinancial Debt used prior to 1946. As of December 1946, Domestic Nonfinancial Debt represented 99.4% of Total Credit Market Data 1945 to 2024: St. Louis Federal Reserve; FRED; Semper Augustus

A robust body of academic work suggests that once government debt exceeds a certain high level, economic growth subsequently slows dramatically. The excellent work of Carmen Reinhart and Kenneth Rogoff suggests that threshold at 90% Federal debt to GDP which the United States reached in the Global Financial Crisis. Total credit market debt likewise reached levels to GDP that muted economic growth on the Fed's easing of monetary policy accompanied by rising deficits as the tech bubble burst. Population growth slowed to less than 1%, further pushing downward on economic output. Real GDP per capita in the first quarter of the 21st century grew at less than half the rate of the prior sixty years.



Source: 1923-1944: Annual interpolated GDP (including estimates prior to 1929) used prior to 1946. Domestic nonfinancial Debt used prior to 1946. As of December 1946, Domestic Nonfinancial Debt represented 99.4% of Total Credit Market Data 1945 to 2022: St. Louis Federal Reserve; FRED

Real GDP Per Capita by the Decade – Hitting the Wall at the Millennium?

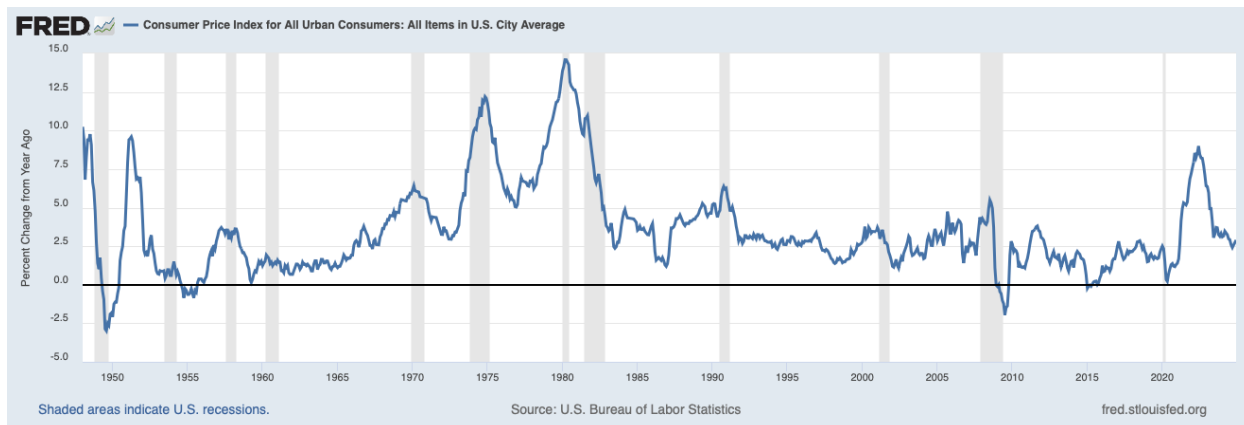
	Nominal GDP	U.S. Population (millions)	10-Year Nominal GDP Growth	Population 10-Year Growth	Average Inflation Rate	Real GDP Per Capita Growth	Average Total Credit Market Debt to GDP**
1940s ^	\$280.8 B	157.3	7.7%	1.4%	2.1%	4.2%	160%
1950s	\$542.6 B	179.3	6.8%	1.3%	3.8%	1.7%	145%
1960s	\$1.05 T	203.3	6.8%	1.3%	2.1%	3.4%	158%
1970s	\$2.8	226.5	10.2%	1.1%	6.9%	2.2%	169%
1980s	\$5.9	248.7	7.7%	1.0%	4.5%	2.2%	216%
1990s	\$10.0	281.4	5.5%	1.2%	2.0%	2.3%	265%
2000s	\$14.7	308.3	3.9%	0.9%	2.2%	0.8%	344%
2010s	\$21.7	328.2	4.0%	0.6%	1.9%	1.5%	362%
2025 6-yr	\$31.6*	343.3*	6.5%	0.8%	4.0%	1.7%	335%

*estimated

Source: St. Louis Federal Reserve; BEA; U.S. Census Bureau; Semper Augustus

**At decade end, so 1949, 1959, 1969, 1979, 1989, 1999, 2009, 2019 and 6-year average to 2025

^4Q 1939 GDP \$92.2 billion; 12/31/1939 population 132.1 million



On the question of the correct P/E multiple to pay for the S&P 500, consider that if real GDP growth per capita remains lower than in the prior century, then perhaps the long-run *current and future* multiple should in fact be *lower* than the historical multiple. Indeed, if profit margins have perhaps recently also reached an unsustainably high level and if unmanageable and growing Federal budget deficits result in higher long-term interest rates, then the tailwinds of the 20th century and the first quarter century of the 21st may and should become headwinds. If this winds up being the case, then this is the most important paragraph of this overly loquacious letter. If not, then chalk it up to the wisdom of never making forecasts, especially about the future.

One thing seems certain, to Semper at least – the present 26x multiple on the present 12.8% net profit margin are, in combination, way too high. Higher margins or lower margins to come? That is the question. Either way, the multiple on near-record margins is too high. On a multiple contraction alone, a 25% decline from 26x to 19.5x (conveniently, the multiple as of year-end 2022, how soon we forget) becomes a 25% price decline. If the long-run median 15x is the number, that's a 42% decline. If, due to lower population-adjusted real growth results in 13x is on the table for discussion, that's a 50% decline. Throw in lower margins and things get ugly.

Summary

The S&P 500 is dangerously elevated above levels seen at every secular peak in the last century. Most fundamental yardsticks of value are at records, even when adjusting for necessary factors. Debt, particularly federal debt, is extraordinarily large relative to GDP and at levels that inhibit real economic growth. Rising deficits likely will result in higher-than-target inflation and hence longer-term interest rates. Multiples and margins are simultaneously near records. The combination, when high, has proven to assure mediocre future returns, at best. If it's not a secular peak, it's most certainly not a secular trough, and any further appreciation exceeding fundamentals will only make what we believe is a bubble more extreme. There are plenty of conservative avenues for deployment of capital. Investing in the S&P 500 anywhere near current levels is not it. "Long-term investor" beware.

The next section quantifies expected returns in what will be, for regular readers of the letter, the interplay of five factors comprising stock market returns. The S&P and many of its largest overvalued constituents stand to produce mediocre to awful returns over the next 10 to 15 years. Prospects for multiples, margins, sales growth, share count reduction, and returns from today's near-record-low dividend yield are all subpar. You don't get rich by overpaying or by owning excessively overvalued assets at or near a secular peak. We are delighted to own individual undervalued securities and not overvalued indices.

GREAT EXPECTATIONS

“There was a long hard time when I kept far from me the remembrance of what I had thrown away when I was quite ignorant of its worth.” – Charles Dickens

“Ask no questions, and you’ll be told no lies.” – Charles Dickens

“In a word, I was too cowardly to do what I knew to be right, as I had been too cowardly to avoid doing what I knew to be wrong.” – Charles Dickens

“Suffering has been stronger than all other teaching and has taught me to understand what your heart used to be. I have been bent and broken, but – I hope – into a better shape.” – Charles Dickens



Investors, pros and Joes alike, surveyed in late 1999 and early 2000 believed stocks would compound over the coming decade at annualized rates of return ranging from 16% to 20%. The S&P 500 had compounded at a high-teens annual rate for the prior 17 years. Just put a ruler on it. Of course, their expectations were a wee bit ahead of the coming reality. The index posted a total return loss over the next ten years and returned 7.7% over a quarter century. By the market secular low in 2002, after the index had declined 49% in price, future expectations were for a 6% annual return. From that 2002 low the index averaged 11.9%. Most investors behave like toddlers on a seesaw, expecting their recent elevation to continue indefinitely.

Defined benefit plan return expectations were set using the same bipolar mentality. At the secular stock market low in 1982, stock prices had been flat for 16 ½ years and returned 4.7% annually, nearly all from dividends. Pension plan long-term expected return assumptions averaged 6%. On the day of the market low stocks traded for an 8x multiple on a 4% net profit margin, or 32% of sales. Oh, and the pension plan could also have bought a long-term U.S. government bond yielding 14.6%. Yet they expected 6%. Fast forward to the 2000 secular peak. Stocks traded for 29x on a 7.6% net margin. The long bond was down to 5.9%. Defined benefit return expectations had climbed with stock and bond prices. At the secular peak, pension plan return expectations were no longer 6% but 10% on average. Return expectations are set in the rear-view mirror.

On a related front, Vanguard publishes both a year-end outlook piece and a Capital Markets Model forecast each January forecasting 10-year expected returns for various asset classes. This year’s projection is a bit perplexing. A year ago, we noted by Vanguard’s math, U.S. stocks were forecast to return between 2.8% and 4.8% per year over the ensuing decade. Fast forward to this year’s projection and they upped their target to a range of 3.9% to 5.9%, tacking on an additional 1.1% expected annual return to either side of the range. Nowhere in the piece do they explain why they raised the target following a year when the S&P 500 returned 17.9%, or 13.1% above their highest expectation. One might think that an outsized return might *lower* the subsequent forecasted range, not raise it particularly given fundamental valuations by nearly all measures are more elevated than a year ago. Maybe the brass there in Malvern aren’t so keen on their own strategists telling their clients, who happen to have trillions of dollars parked in their index funds, that they will earn peanuts.

The Vanguard forecast, although illogically higher than a year ago, is refreshingly conservative and more realistic than most. In fact, Vanguard has a valuation matrix measuring “Valuation percentile to fair value.” The dot for U.S. equities is again at the 99th percentile, meaning a requisite fall of 49.5% to reach “fairly valued.” I’m guessing few of the index fund giant’s customers read this stuff.

Four years ago, this letter urged professional and individual investors alike to examine what drove stock prices to dangerously expensive levels over the prior decade. It challenged them to make assumptions about five variables impacting stock prices, whether an index or an individual stock. By Semper's reasoning, the S&P 500 was poised to underwhelm over the coming decade and beyond.

The warning appeared timely as the index lost 18.1% in 2022 by total return. Following three strong years after 2022's loss, the four-year annual return is now 11.1%. By most measures the index is now even more fundamentally overvalued than at year-end 2021. When measured four years ago, the S&P had compounded over the prior decade at 16.6%. The trailing ten-year return is now 14.8%. We expect the ten-year trailing return series to materially drift further downward.

Regular readers of the annual letter will be familiar with our five-factor methodology which is useful in understanding how investment returns are derived. Five factors combine algebraically to determine total investment returns in common stocks:

- Dollar sales growth
- Changes in profit margins
- Changes in the multiple paid to earnings
- Changes in shares outstanding
- Dividend yields

The multiplicative and additive interplay among these five factors of investment return is useful for assessing attribution of past returns. Their interplay is equally useful in helping project future returns. Discounted-cash-flow analysis gets the investor to the same place. I find that spending time analyzing the impacts on and sources of sales growth, and how and why profit margins changed or may change, is far more meaningful than debating a terminal growth rate beginning a decade or more from now or considering beta as a component of measuring the cost of equity capital.

The future direction and rate of change of the five factors is critically important at secular peaks and troughs. It's equally essential in the analysis and valuation of businesses. Most investors use past investment returns and extrapolate them as expected. Allocations to, and ownership of, stocks are highest at secular peaks and lowest at troughs. The extremes are wild. Spend too little or no time at all thinking through the factors and, well, good luck. The 1999-era investor expecting 16% or more returns would have relied on impossibilities among our five factors in justifying their expectations. Today's investor expecting 16% or even the Ibbotson 10.5% is certainly entitled to their belief. However, plug any combination of expectations for our factors into the formula and see what you come up with. Unprecedentedly high profit margins or multiples to earnings are not impossible. Nor would be high sales growth, although it would likely be a byproduct of inflation. Companies are no less generous in giving shares to insiders. High stock prices inhibit the ability to materially shrink shares outstanding. The formerly capital-lite tech giants are generally now capital heavy. We don't expect much in the way of share count reduction. Although we fully expect ongoing materially large portions of operating cash flows to be spent on share repurchases, the repurchases are buying less market capitalization and recently shrinking as capital expenditures for AI balloon and consume an overwhelming portion of cash flow from operations for several big technology names.

The balance of this section updates our five-factor analysis from the 2021 letter. Ongoing feedback regarding our work on this subject is quite positive, with numerous requests that it be regularly updated. We'll look at which of the five investing factors contributed to gains in 2025 for the S&P 500 and for its Magnificent Seven drivers of return. The impact of these seven stocks on the index has been profound. The five factors do not bode very well for the index and for some of the large tech bellwethers.

Five-Factor Math

The total return from common stocks, whether the entire market, an index or an individual stock, derives from our five factors but begins by breaking return down into three base components – growth in earnings per share, change in the P/E multiple, and return from dividends. Total return is easily calculated by multiplying the change in EPS by multiple growth and adding the dividend yield:

$$\text{Total Return} = (\text{EPS Growth} \times \text{Change in P/E Multiple}) + \text{Dividend Yield}$$

Growth in earnings per share can be further derived from change in the net margin and change in sales per share:

$$\text{EPS Growth} = \text{Sales Per Share Growth} * \text{Margin Growth}$$

Too little consideration is applied to an understanding of how a change in shares outstanding impacts return. Specifically, how much sales growth in dollar terms is diluted from an accreted share count or increased thanks to a reduction in shares outstanding? In the analysis below, growth over a time period is not simply a compound figure but a measure of the rate of dilution or accretion. We've received *lots* of questions asking for clarity on how the dilution factor is calculated. The other factors (other than dividend yield) are simply the rate of growth from the beginning of a time period to the terminal point. With the share count, any increase in shares outstanding is dilutive and harms return. A reduction in the share count is accretive to return (we are leaving out whether the price paid for shares or received by the company are deviant from intrinsic value). For those reconciling or following the math, note for "Growth %" when measuring change in the share count, for that one figure you are really measuring annual dilution or ownership increase (a reduction in share count proportionally increases the remaining shareholders' ownership interests):

$$\text{Sales Per Share Growth} = \text{Dollar Sales Growth} / \text{Share Count Growth}$$

As a quick illustration for calculating the return from changes in share count, if a company has 100 shares outstanding and grows the count to 125, the change is obviously 25%. However, the original owners of the 100 shares no longer own 100% of the company but 80% making their dilution 20%. The 20% is a reduction of return over time. Conversely, if the share count drops from 100 to 75, that's a 25% shrink but an increase in ownership of 33% for continuing shareholders. The 33% is added to return over time as a compound annual return increase over whatever time period is involved in increasing ownership by 33%. Over ten years, 2.919% would be the compound annual "growth rate" accounting for the 33% ownership increase due to the 25% reduction in share count.

Calculation of annual price return (PR below or Price Return) broken down by the full set of variables (again, other than dividend yield) is a multiplicative function of each component. Formulaically, the amount of "1" is added to the percent growth rate for each component, with the amount of "1" then subtracted after the multiplicative function to arrive at a percent return.

$$((1 + \text{EPS}) * (1 + \text{PE})) - 1 = \text{PR}$$

$$((1 + \text{SS}) * (1 + \text{MG}) * (1 + \text{PE})) - 1 = \text{PR}$$

$$\left(\frac{1 + \text{DS}}{1 + \text{SC}} * (1 + \text{MG}) * (1 + \text{PE}) \right) - 1 = \text{PR}$$

And, for Total Return (TR), we add the Dividend Yield (DY) to Price Return (PR):

$$\left(\frac{1 + DS}{1 + SC} * (1 + MG) * (1 + PE) \right) - 1 + DY = TR$$

For the above formulas, the variables are:

SS = Sales per Share Growth

DS = Dollar Sales Growth

MG = Margin Growth

PE = PE Multiple Growth

SC = Share Count Growth

EPS = Earnings Per Share Growth

DY = % Dividend Yield

PR = % Price Return

TR = % Total Return

Growth rates *approximate* the proportion of return attributed to each factor but are not precisely mathematically correct. A proper attribution of return from the factors would allow for an *additive* function of each variable to reconcile to the multiplicative derivation applied to each growth factor. Attribution numbers presented in the 2021 letter were largely correct but require distribution for precision. For ease of math and use for those interested in utilizing the five factors, we are content with the math being roughly right. As it is, the growth factor for each variable found in the bottom row in each table correlates closely to total return, with the five **bolded** variables being the utilized ones in our five-factor analysis.

In Practice

Numerous investors have let us know how appreciative they are that we share our five-factor methodology. It's being incorporated in more and more investment processes. If you do utilize it, be sure and read the above paragraphs on the mathematics of calculating return attribution from a changing share count. That's the step on which we field the most questions.

I thought it would be fun to see how well ChatGPT (call him Chatty) would explain it and run some examples. Sam A's LLM began with an explanation of the academic Fama French Five-Factor Asset Pricing Model incorporating market risk, company size, value, profitability, and investment patterns. Evidently the professors improved upon an earlier three-factor model by adding profitability and investment patterns to better capture market returns and enhance portfolio performance. Chatty agreed with me that the academic model seemed a bit nebulous. After establishing that I meant the Semper Augustus Five-Factor model the old chap did a remarkable job describing the math and summarizing my ongoing text.

Then we tried an example to infer how accurately Chatty could attribute returns for Walmart for the last ten years. Prompting me for a clarification on the exact dates to inspect was a promising start. The results appeared remarkably quickly; except they were immediately obviously remarkably wrong. Instead of treating all but dividends multiplicatively, the LLM merely added up the growth rates for each factor. On pointing out the error, I was congratulated with a "Good catch." Correctly next multiplying the factors, Walmart's share count decline was treated as a negative return factor. Again, suggesting an error, I was rewarded with, "That's another really good catch." Three more failed attempts and I concluded Sam and OpenAI just might need to spend the promised \$1.4 trillion before getting the math correct. Perhaps Chatty would be less chatty and more correct, had Fama and French invented a six-factor model, adding "not hallucinating too much" as a key to asset pricing.

Five Factors at Work – Past, Present and Future S&P 500 Scenarios

Semper's Five-Factor work was first shared in our 2021 letter suggesting the S&P 500 was valued consistent with past grand secular peaks. At that time, the trailing ten-year average annual total return had reached 16.6%, a level from which dramatically lower returns had always proceeded over the subsequent decade. It's a trailing return associated with secular tops. Repeating returns anywhere near its trailing 16.6% would have been nearly *impossible*, barring a hyperinflation.

10-Year S&P 500 Return 2011 to 2021

10 Years 2011-2021	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	96.44	29.12	1,052.83	9,531.2	9,052.93	9.2%	13.0	2.3%	1,257.60	
12/31/2021	208.21	63.12	1,566.80	13,266.5	8,467.26	13.3%	22.9	1.3%	4,766.18	
Growth %	115.9%	116.8%	48.8%	39.2%	6.9%	45.1%	75.5%	-42.8%	279.0%	362.6%
Annual Avg	8.0%	8.0%	4.1%	3.4%	0.7%	3.8%	5.8%	2.3%	14.3%	16.6%

The two largest return drivers over the decade to 2021 were massive expansion in the P/E multiple from 13.0x to 22.9x and likewise in the profit margin, from 9.2% to 13.3%. These two factors contributed the majority of the return earned by the index. Dollar sales compounded by 3.4%, dividends added 2.3% and a net reduction in the share count added 0.7% to return. Remember, the derivation of return is a multiplicative function of the table's first four factors (shown in bold, above) with the (bolded) dividend yield additive. Simply totaling the percent change in each component gets close to the total return but is not additively precise (meaning you can't simply add up the annual average change for each of the five factors).

Revisiting 2022 is worthwhile as the S&P 500 lost 18.1%. The harm came mostly in the form of a hammering in both margins and the P/E multiple. Margins declined 15.5% from 13.3% to 11.2% and the P/E multiple contracted 14.8% from 22.9x to 19.5x. Recall the year was highly inflationary. Helping returns, dollar sales grew by 10.6%. A 1.2% share count reduction and 1.3% earned from dividends further offset a portion of the damage inflicted by crashing margins and multiples.

1-Year S&P 500 Return 2022

1 Year 2022	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	208.21	63.12	1,566.80	13,266.5	8,467.3	13.3%	22.9	1.3%	4,766.18	
12/31/2022	196.95	69.56	1,752.90	14,670.1	8,369.0	11.2%	19.5	1.8%	3,839.50	
Growth %	-5.4%	10.2%	11.9%	10.6%	1.2%	-15.5%	-14.8%	36.8%	-19.4%	-18.1%
Annual Avg	-5.4%	10.2%	11.9%	10.6%	1.2%	-15.5%	-14.8%	1.3%	-19.4%	-18.1%

1-Year S&P 500 Return 2025

1 Year 2025	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	233.36	79.24	1,970.60	16,686.8	8,467.89	11.8%	25.2	1.3%	5,881.62	
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
Growth %	12.8%	2.2%	4.7%	5.5%	-0.8%	7.8%	3.2%	-12.2%	16.4%	17.9%
Annual Avg	12.8%	2.2%	4.7%	5.5%	-0.8%	7.8%	3.2%	1.5%	16.4%	17.9%

*Estimate

The market in 2023 recovered essentially back to where it began 2022 with a 26.3% total return and added 25.0% in 2024 and 17.9% in 2025. The index cumulatively returned 52.4% over the four years, or 11.1% annually. Margins have mostly recovered, now back to 12.8% and only costing about 1.0% of return per year (see table below). The P/E multiple is remarkably higher than 2021's 22.9x and is now at a historically very elevated 26.0x, particularly with margins near their record high. Dollar sales growth slowed during each of the three years following 2022's inflation-aided surge and contributed the majority, about 7.3%, of return to the 11.1% annual 4-year total. The share count is on the rise over the past 4 years as cash flows are diverted to capex-related AI spending (and despite over \$1 trillion of share repurchases in 2025 alone). Dividends added 1.6% of return, and because multiples are again elevated, the current dividend yield is a scant 1.18%.

4-Year S&P 500 Return 2022 to 2025

4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	208.21	63.13	1,566.80	13,266.5	8,467.26	13.3%	22.9	1.3%	4,766.19	
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
Growth %	26.4%	28.3%	31.6%	32.7%	-0.8%	-3.9%	13.6%	-10.7%	43.6%	52.4%
Annual Avg	6.0%	6.4%	7.1%	7.3%	-0.2%	-1.0%	3.2%	1.6%	9.5%	11.1%

*Estimate

Revisiting the Tech Bubble and Aftermath

Before addressing a few prospective scenarios from today's extreme overvaluation, let's first pause to consider the downside from a secular peak.

The 1982-to-2000 bull market culminated with the tech bubble and its subsequent popping. At the late 1990s and early 2000 peak, stocks were priced to produce abysmal returns for a long time. They did. If we are correct about the present being a secular peak, index investors are perhaps again poised to experience something resembling the decade (negative 0.9% total return per year) and quarter-century (positive 7.7% per year) post-1999.

Fundamentals are stretched at year-end 2025 just as they were entering the 21st century. The P/E multiple in the decade to 1999 doubled from 14.5x to 28.4x. The margin grew 49%, or 4.1% per year while dollar sales clipped ahead by 6.0% annually. Dividends kicked in 2.9% on average. The only negative factor was 25% growth in shares outstanding, robbing non-insider owners of 20%, a harmful 2.2% net annual dilution. In total, the index investor earned 18.2% annually through 1999 for the decade.

Back-to-Back 10-Year S&P 500 Returns

10 Years 1989-1999	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/1989	24.32	11.45	452.90	3,033.4	6,697.81	5.4%	14.5	3.2%	353.40	
12/31/1999	51.68	16.20	646.95	5,422.6	8,381.82	8.0%	28.4	1.1%	1,469.25	
Growth %	112.5%	41.5%	42.8%	78.8%	-20.1%	48.8%	95.6%	-66.0%	315.7%	432.9%
Annual Avg	7.8%	3.5%	3.6%	6.0%	-2.2%	4.1%	6.9%	2.9%	15.3%	18.2%

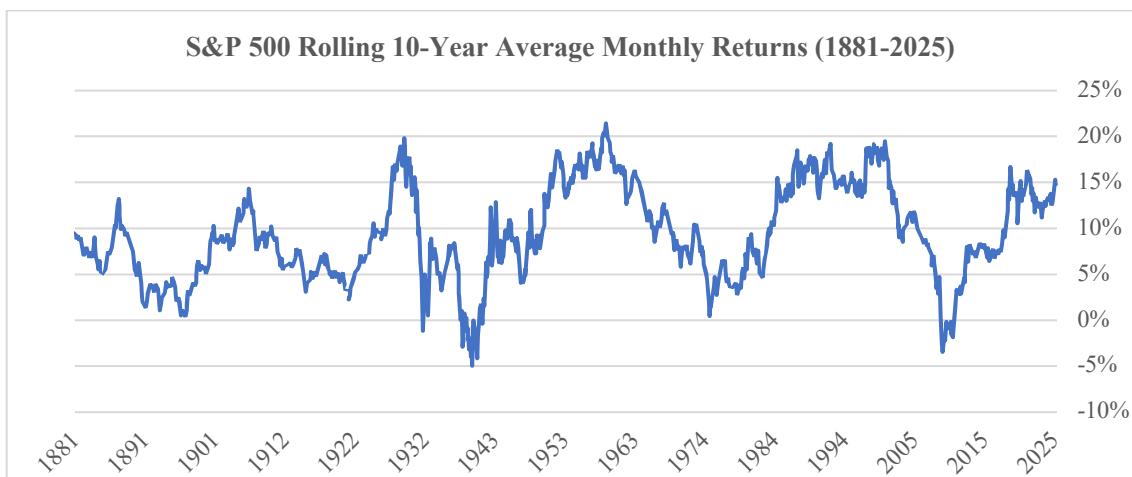
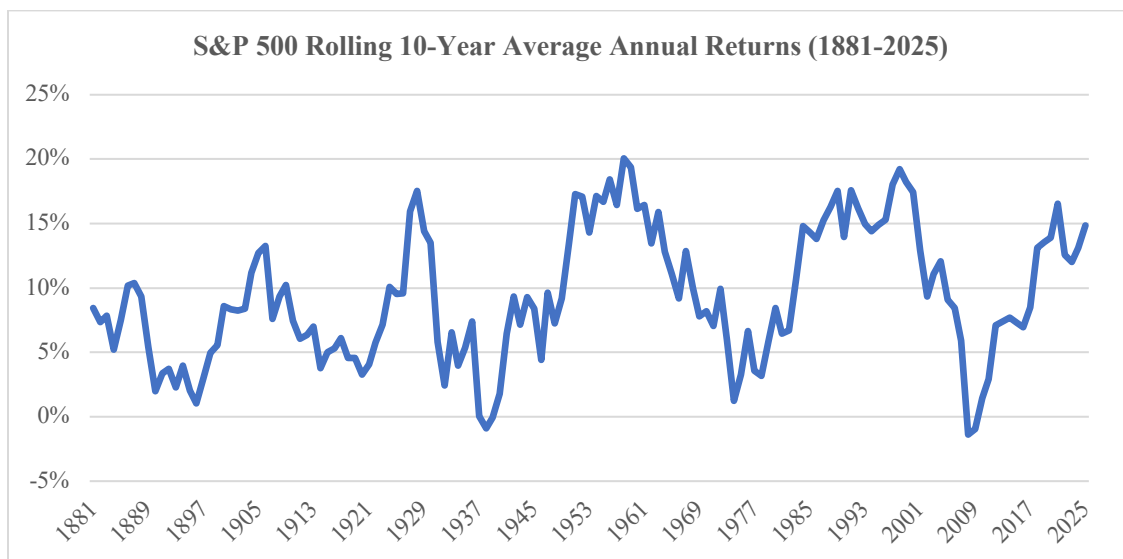
10 Years 1999-2009	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/1999	51.68	16.20	646.95	5,422.6	8,381.82	8.0%	28.4	1.1%	1,469.25	
12/31/2009	56.86	22.64	908.40	8,087.3	8,902.83	6.3%	19.6	2.0%	1,115.10	
Growth %	10.0%	39.8%	40.4%	49.1%	-5.9%	-21.6%	-31.0%	84.1%	-24.1%	-9.1%
Annual Avg	1.0%	3.4%	3.5%	4.1%	-0.6%	-2.4%	-3.6%	1.8%	-2.7%	-0.9%

Irrationally high expectations for ongoing gains in the subsequent decade were met with a 9.1% cumulative loss, or negative 0.9% annualized. Margins and multiples collapsed. Stocks ended 2009 trading at 19.6x earnings on a 6.3% profit margin. Sales in dollars grew a respectable 4.1% on average per year while dividends kicked in 1.8%. Stock prices were simply sky high at the year-end 1999 peak.

You won't find Wall Street research reports from 1999 forecasting declining margins and P/E multiples over the coming decade – and certainly not projecting that index investors would lose money for ten years. You won't find them today either. A least not on Wall Street.

Rolling 10s

Measuring returns over rolling ten-year periods is a useful exercise revealing mean-reverting characteristics. Ten-year periods of returns outpacing business fundamentals are followed by much weaker ten-year intervals and vice versa. If we call Ibbotson's 10.5% long-term return reasonable, the pull from extremes is obvious:



Source: Robert Shiller, *Semper Augustus*

Decade-long returns only exceeded 15% on four occasions. The late 1920s and late 1990s are examples. Washouts are equally telling. There are precisely five calendar-year intervals when trailing ten-year returns were zero or negative. When? 1937 (0.0%), 1938 (-0.9%) and 1939 (-0.1%), which followed 1929's stock market bubble and the Great Depression when stocks declined 89% peak to trough; and only again in 2008 (-1.4%) and 2009 (-1.0%), the Global Financial Crisis, which followed the tech bubble ten years prior. The S&P 500 troughed 57% below its 2000 peak nine years later. That's despite eight years of economic growth in the interim. The pattern is simple: Historically low 10-year returns tend to follow historically high valuation levels.

The highest ten-year annual return was oddly recorded in 1958 at 20.1%. The market was far from a secular peak, but the decade of terrific returns ended shortly after a quarter century that saw stocks remain far below the 1929 peak despite underlying business growth following the Great Depression. Ultimately stocks caught up with fundamentals and by 1966 were back at a secular peak.

While our Secular Peaks and Troughs table elsewhere in this letter begins with 1929's peak, there is no doubt that 1906 was likewise a secular top. Stocks returned 13.0% annually for the prior ten years (and following the Panic of 1893). The secular peak in 1906 was followed by 1907's Panic and Depression, which led to the subsequent decade of stocks averaging 4.5% per year. By 1921, a trough, the index rolling ten-year was 2.3%, setting up the Roaring '20s culminating with 1929's secular peak.

I find the likelihood extremely high that when we update our rolling 10s somewhere between 2031 and 2035, it will plot a heckuva lot closer to a 0% trailing return than the 16.6% seen four years ago or today's 14.8%.

Forecasts About the Future

Day After Day

Let's now apply our five factors prospectively to a range of decade-long scenarios ranging from very bullish to very bearish.

Begin with a fairly bullish scenario holding the profit margin and P/E multiple constant at 2025 year-end levels. Presume dollar sales grow 3.4% annually and a 0.7% annual "benefit" from a declining share count, both matching the decade ended 2021. Note that the share count is *higher* over the last four years through 2025 as well as over the century to date. But we'll generously assume the longer-term dilution will abate and companies will again reduce shares outstanding in the aggregate. By holding the profit margin at 12.8% and an extremely rich (and unlikely) 26.0x multiple constant, the index investor gets 4.1% annual sales growth per share and 1.2% from dividends holding the dividend payout constant. Put it all together and the index returns an underwhelming 5.3% per year.

The armchair modeler can use any inputs they choose in any of these scenarios. I'd suggest that a higher rate of inflation would likely correlate with higher growth in sales but lower profit margins. The years 2021 through 2025 *did* see more rapid sales growth, courtesy of a snap back from a revenue hit in 2020 but also due to high inflation, where higher costs of goods sold and labor expense were passed through to the customer. I'd also suggest that the capital expenditure frenzy for AI will negatively impact margins in the coming years.

10-Year S&P 500 Return 2025 to 2035

Constant 2025 Margin & Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	394.51	121.37	3,082.14	24,598.0	7,980.82	12.8%	26.0	1.2%	10,257.35	
Growth %	49.8%	49.8%	49.4%	39.7%	7.0%	0.3%	0.0%	0.0%	49.8%	67.8%
Annual Avg	4.1%	4.1%	4.1%	3.4%	0.7%	0.0%	0.0%	1.2%	4.1%	5.3%

*Estimate

Impossible Dreamer

An even more bullish scenario would return the index profit margin fully back to 2021's peak 13.3%, which is not far above today's 12.8%. Let's also hold the multiple at the present very high 26.0x. As with the prior scenario, running sales growth and repurchases at matching rates for the decade ended 2021, and this "bull case" produces a 5.7% annual total return, slightly higher than in the prior scenario.

10-Year S&P 500 Return 2025 to 2035

2021 Peak Margin; 2025 Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	409.92	126.12	3,082.14	24,598.0	7,980.82	13.3%	26.0	1.2%	10,658.02	
Growth %	55.7%	55.7%	49.4%	39.7%	7.0%	4.2%	0.0%	0.0%	55.7%	74.2%
Annual Avg	4.5%	4.5%	4.1%	3.4%	0.7%	0.4%	0.0%	1.2%	4.5%	5.7%

*Estimate

Blue

How about a little ice water for that empty glass? Sometimes, new eras aren't eras. Contemplate if you dare a more bearish scenario where both margins and multiples contract. Gasp. Suppose the profit margin declines from 12.8% to 8.0%, a level considered very high by historical standards, and which would essentially reverse the benefit of historically low interest rates (the ability for companies to borrow heavily and pay little in interest expense for the privilege). Inflation would be a culprit in tandem. Imagine at the same time the P/E multiple collapses all the way back to 15x, its average over the last century. Investors tend not to like earnings misses on the downside and really don't like big declines in margins.

Inflation running durably hotter than Bernanke's prescribed 2% target would "help" sales growth so let's assume 6% annual top-line growth, matching the decade ended 1999, and apart from the last four inflationary years coming out of the pandemic, roughly 1.5% per year *higher* sales growth than the experience since the turn of the century. If inflation averages 4% over the coming decade, growth in annual sales at 2% above inflation seems reasonable. Margins are most assured to decline in a higher inflationary period – it's tough to pass along higher costs, and the corporate world has a debt mountain maturing that will require retiring or refinancing at what would then be higher interest rates. Lower margins also leave less for share repurchases, so hold share count flat.

Running these identical assumptions a year ago produced a negative 1.5% annual total return for a decade. But last year's 17.9% index total return reduces subzero to arctic. More precisely, the investor would lose 23.4% cumulatively in the upcoming decade or 2.6% per year, on average, some years being better, some worse. Incidentally, over much of the past century, if offered 6% annual revenue growth for a decade and a terminal 15x multiple on an 8% profit margin, most would have taken it in a heartbeat.

10-Year S&P 500 Return 2025 to 2035

8% Margin & 15x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28	81.00	2,062.55	17,607.3	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	295.50	90.91	3,693.71	31,532.1	8,536.69	8.0%	15.0	2.1%	4,432.46	
Growth %	12.2%	12.2%	79.1%	79.1%	0.0%	-37.3%	-42.3%	73.3%	-35.3%	-23.4%
Annual Avg	1.2%	1.2%	6.0%	6.0%	0.0%	-4.6%	-5.4%	1.6%	-4.3%	-2.6%
*Estimate										

Blow the Candles Out

Suppose investors in the capitalization-weighted U.S. stock market decide they don't love stocks the way they did in 2021 or 2025? Perhaps profit margins falling to 8% from 12.8% today and 13.3% at 2021's record. Maybe paying 15x earnings, to repeat the average over time, is too much. Maybe higher inflation offers higher interest rates, the risk-free back in fashion. Pin the terminal multiple at 10x against an 8% margin, 6.0% sales growth, no benefit from net share repurchases (but rather modest dilution as companies raise needed capital) and thanks to falling prices the highest dividend yield in a decade at 3.1%. In this grisly, unimaginable, impossible scenario the investor loses 48.8% over a decade, bleeding out by 6.5% per year. The upshot to being mauled is that the decade post-2035 tees up nicely for the reemergent bulls.

10-Year S&P 500 Return 2025 to 2035

8% Margin & 10x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28	81.00	2,062.55	17,607.3	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	278.34	85.63	3,479.23	31,532.1	9,062.94	8.0%	10.0	3.1%	2,783.39	
Growth %	5.7%	5.7%	68.7%	79.1%	-5.8%	-37.3%	-61.5%	160.0%	-59.3%	-48.8%
Annual Avg	0.6%	0.6%	5.4%	6.0%	-0.6%	-4.6%	-9.1%	2.1%	-8.6%	-6.5%
*Estimate										

So a summary of the foregoing scenarios looks something like the following table. Readers can probability-weight the scenarios as they see fit, but a simple average approach indicates expectations should be no higher than 0.5% per year for the next decade (with the Semper bias on the downside of that). And, with the (theoretical) "risk free" 10-year U.S. Treasury rate at about quadruple the level (or more), one might even query the purpose of investing in a broad index. Selection matters. And don't forget, these are compounded returns below, making the potential mediocrity or wealth destruction that much more painful.

Day After Day	Impossible Dreamer	Blue	Blow the Candles Out	Simple Avg
5.3%	5.7%	(2.6%)	(6.5%)	0.48%

Don't Interrupt the Sorrow

Most secular bear markets have a proper name. Some are so long and painful the name is never uttered. A depressing scenario would return valuations to 1982 secular-low levels – an 8x multiple capitalized on a similarly depressed 4% profit margin. That's 32% of sales, incidentally. The 1982 low marked the end of a 16 1/2-year secular bear market. One would only contemplate profits declining to that degree from today's 12.8% in the event of very high inflation and deep recessions like we saw through the 1970s, culminating in the early 1980s.

A scenario sending margins to 4% is nearly unfathomable (although margins approached zero in the 2008-2009 Global Financial Crisis). Acknowledging a perhaps permanently higher normal margin plateau, ahem structure, to our economy, let's run a similar 16.5-year scenario with margins dropping not to 4% but to 8% with the multiple falling to 8x. Both measures are presumed sent lower by high inflation so assume high dollar sales growth at 8.9% annually. Holding share count steady, the index investor earns a 19.3% cumulative total return, or a scant 1.1% per year.

The possibility of the margin falling to 8% is in the realm, as is an 8x multiple to earnings. That gets the price-to-sales relationship to 64%. Coupled with an inflationary high 8.9% annual growth in sales, the total return is essentially flat. Note the dividend yield in June 2042 is more than triple today's despite holding the payout rate flat as a percentage of earnings. Not benevolence, just lower prices relative to earnings and dividends.

A scenario like this, where the investor suffers a flattish nominal return and loses significant purchasing power to inflation over 16 ½ years, is in the realm of possibilities. The S&P 500 rose from 94 in February 1966 to 102 in August 1982. Even worse, the market required 25 years to recover its 1929 price high in 1954. Worse still, Japan's Nikkei only two years ago regained its 1989 high, a span of 35 years. As John Connor said of Judgement Day, "We still have to figure out how to stop it all from happening. Right?"

16.5-Year S&P 500 Return, end-2025 to mid-2042

16.5 Years 8% Margin 8x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
6/30/2042	673.68	207.26	8,421.02	71,887.6	8,536.69	8.0%	8.0	3.8%	5,389.45	
Growth %	155.9%	155.9%	308.3%	308.3%	0.0%	-37.3%	-69.2%	225.0%	-21.3%	19.3%
Annual Avg	5.9%	5.9%	8.9%	8.9%	0.0%	-2.8%	-6.9%	2.5%	-1.4%	1.1%
*Estimate										

To Ibbotson or Bust

O.K., Chris. It seems like all your scenarios are bearish for the index. You can't be correct. The market should easily earn at least the historic Ibbotson 10.5% over the next decade. We have AI and massive productivity coming. The United States has the best companies in the world. The government will get deficits under control. Inflation won't be a problem so our big tech companies will continue to eat the world. Margins will keep growing and so will multiples.

Fine. What will it take for the S&P 500 to average a 10.5% annual total return over the coming decade? Let's start with our base 3.4%-dollar sales growth, matching much of the past two decades. Forget about the rising share count in recent years. Assume we get back to shrinking shares outstanding by 0.7% annually. Beginning with today's near-record-low 1.18% dividend yield, presume today's payout rate will remain at 31%. Getting to 10.5% per year will require some combination of margins and multiples rising further from their already lofty heights to never-before-seen records.

First, let's get there with all margin expansion.

10-Year S&P 500 Return 2025 to 2035

10.5% Return: Margin Expansion	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	639.86	196.86	3,091.13	24,598.0	7,957.60	20.7%	26.0	1.2%	16,637.00	
Growth %	143.0%	143.0%	49.9%	39.7%	7.3%	62.2%	0.0%	0.0%	143.0%	170.7%
Annual Avg	9.3%	9.3%	4.1%	3.4%	0.7%	5.0%	0.0%	1.2%	9.3%	10.5%
*Estimate										

This is a 20.7% net profit margin capitalized at 26.0x earnings. Okay. Alternatively, let's get there with all multiple expansion.

10-Year S&P 500 Return 2025 to 2035

10.5% Return: Multiple Expansion	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	395.66	121.73	3,091.13	24,598.0	7,957.60	12.8%	43.0	0.7%	16,997.36	
Growth %	50.3%	50.3%	49.9%	39.7%	7.3%	0.3%	65.2%	-39.5%	148.3%	170.7%
Annual Avg	4.2%	4.2%	4.1%	3.4%	0.7%	0.0%	5.1%	0.9%	9.5%	10.5%

This is a 43x P/E multiple on a 12.8% profit margin. LOL. Finally, let's split the difference and examine the degree to which both margins and multiples need to expand to contribute equally.

10-Year S&P 500 Return 2025 to 2035

10.5% Annual Return: Margin and Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%	26.0	1.2%	6,845.50	
12/31/2035	505.40	155.49	3,091.13	24,598.0	7,957.60	16.4%	33.3	0.9%	16,834.87	
Growth %	92.0%	92.0%	49.9%	39.7%	7.3%	28.1%	28.1%	-21.9%	145.9%	170.7%
Annual Avg	6.7%	6.7%	4.1%	3.4%	0.7%	2.5%	2.5%	1.1%	9.4%	10.5%
*Estimate										

Here the index trades for a 33.3x multiple on a 16.4% profit margin. In the words of George H.W. Bush, "Not gonna do it." Of course, we could reduce the requirement to have impossible margins or multiples ten years hence by assuming that dollar sales will grow by a lot more than 3.4% per year and/or assuming a much higher rate of share repurchases resulting in a shrinking share count (those two don't necessarily go hand in hand, just ask the insiders). I'd say the only way to get to a 10.5% annual total return over the next ten years would not be a combination of record multiples and margins but a combination of very rapid inflation and/or a heavy dose of psychedelics. Anyone seen Timothy Leary lately? Kidding aside, an inflationary-induced surge in revenues would most likely be accompanied with collapsing profit margins, with multiples falling not far behind. A hyperinflation would absolutely come with rapidly rising stock prices, but then the conversation about returns gets properly real. As the kids say, "For reals."

Help Me

Back to reality. Those believing the market will earn 10.5% annually from year-end 2025 are on more hallucinogens than ChatGPT. Market fundamentals suggest that if we are not at a secular peak then we're in the ballpark. Recall from earlier in the section that the S&P 500 lost 0.9% annually in the first decade of this century, not even from the day of the peak. It's taken a surge to then unfathomable margins and a

ballooning of P/E multiple almost back to 2000's record high for the market to earn 8.1% annually since the turn of the century (up from 7.7% a year ago, 7.0% two years ago and 6.3% as of year-end 2022). The 26-year return at 8.1% is the best it's been from the outset of 2000. Much of the first 13 years of the century were spent underwater. Investing \$1 million grows to just shy of \$7.6 million at 8.1% over 26 years. It grows to \$13.1 million at Ibbotson's 10.5%. Semper's equities at 12.4% grew to \$23.3 million. Secular peaks produce bad outcomes for those invested in the *assets comprising the bubble*.

26-Year S&P 500 Return 1999 to 2025

26 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/1999	51.68	16.21	646.95	5,422.6	8,381.82	8.0%	28.4	1.1%	1,469.25	
12/31/2025	263.28*	81.00	2,062.55*	17,607.3*	8,536.69	12.8%*	26.0	1.2%	6,845.50	
Growth %	409.4%	399.6%	218.8%	224.7%	-1.8%	59.8%	-8.5%	7.2%	365.9%	653.0%
Annual Avg	6.5%	6.4%	4.6%	4.6%	-0.1%	1.8%	-0.3%	2.0%	6.1%	8.1%

*Estimate

We believed the late 1990s was a bubble and a secular peak for the S&P 500, then dominated by a small handful of tech stocks. Semper was a huge beneficiary of recognizing the bubble and having the resolve to hew to value. We believe today is also a bubble and a secular peak for the S&P 500, dominated by a small handful of tech stocks.

Go back to the investors surveyed expecting 16% to 20% yearly S&P 500 returns in 1999. Suppose you had the power to grant them a quarter-century *guarantee* of:

- low inflation
- 4.6% annual sales growth, more than a tripling of sales dollars
- a 60% *increase* in the profit margin from a then record 8.0% to 12.8%
- Virtually no more dilution (the share count rose 25% cumulatively in the prior decade)
- A 2% average dividend yield, nearly double the yield in 1999

You would think anybody would leap at that guarantee in a heartbeat, taking the 16%+ expectation to the bank. Even if you said, "Look, the tradeoff to all of the above is that you will see a decline in the market P/E multiple from 28.4x to 26.0x." That's historically nosebleed elevation. But when you put the math together with our five factors, instead of earning the expected sweet sixteen annually, the index investor got 8.1%. And that's as good as it's been for the entire period since 1999.

Today's investors expecting 16%, or even the long-term 10.5%, stand to wind up as disappointed as their 1999 forebears. Apply any of your own assumptions to our five factors. There are no others required. Just pick five numbers and see what you get. Ideally you can support your figures. The coming decade and quarter century stand to be a wet blanket on investor expectations. The next section is our attempt at putting the AI arms race underway in the context of the classic capital cycle. From there we'll come back to more five-factor discussion, segregating the Magnificent Seven from the remaining 493 S&P 500 components. With most of the Magnificents involved as hyperscalers or at present beneficiaries of the capital arms race underway, coming back to the seven after the following discussion made sense.

ARTIFICIAL INTELLIGENCE – IT’S CLOUD DELUSIONS, I RECALL

“I like the idea of using artificial intelligence because we’re so short of the real thing.” – Charlie Munger

“I’m personally skeptical of some of the hype that has gone into artificial intelligence. I think old-fashioned intelligence works pretty well.” – Charlie Munger

“We will quickly lose even the social permission to take something like energy, which is a scarce resource, and use it to generate these tokens...if these tokens are not improving health outcomes, education outcomes, public sector efficiency, private sector competitiveness across all sectors, small and large. For this not to be a bubble, by definition, the benefits need to be spread much more evenly – Satya Nadella at the World Economic Forum January 2026

“I’m sorry, Dave. I’m afraid I can’t do that.” – HAL, 2001: A Space Odyssey

“Defense network computers. New. Powerful. Hooked into everything. Trusted to run it all. They say it got smart, a new order of intelligence.” – Kyle Reese, The Terminator, 1984



Get Moore Fiber in Your Diet

The late 1990s technology bubble is remembered for Pets.com and the dot-com crash, and people continue to draw parallels to the current artificial intelligence (AI) frenzy. But the truth is that the real speculative froth and ensuing carnage back then existed more in a telecommunications bubble than a technology bubble. Between 1996 and 2001, U.S. telecom companies raised roughly \$1.3 trillion in new equity and debt capital. While internet startups burned *millions* of dollars of venture capital, the telecoms – companies like Global Crossing, WorldCom and 360networks – burned *billions* of dollars of debt capital to lay millions of miles of fiber optic cable across the planet. By 2002, the market capitalization of the telecom sector had plunged by more than \$2 trillion, more than the losses in the internet sector (\$2 trillion was a lot of money in 2002, as the entire value of the U.S. stock market was halved from \$14 trillion at the peak in 2000 to \$7 trillion by the 2002 secular trough).

The telecom and fiber bubbles were fueled by a massive miscalculation of the amount of equipment and fiber optic cable needed for the internet to change the world. Cisco, Lucent and Nortel were the Nvidias of the late 1990s. They couldn’t make routers and switches fast enough (eventually they couldn’t hide them in customer warehouses to avoid calling them inventory fast enough, but that’s another tale). Lucent, at a point, was the most widely held stock in the world. Meanwhile, the data centers of the day were the fiber guys – Williams Companies, Level 3, Qwest and dozens of others believing internet traffic was doubling every 100 days. I sat in on a Williams Communications presentation in Tampa and listened to the sermon. Ironically, while the preachers even allowed for Moore’s Law and its exponential capacity gains, they also projected parallel *price declines*, they were staunch believers regardless. Can I get an “AMEN!” They actually called it Keck’s Law, which was simply the “optical version” of Moore’s Law, with fiber optic capacity doubling *only* every nine months while internet traffic doubled every three months. To keep up with infinite demand projections, they laid enough fiber to wrap the planet thousands of times over. By 2001, only 3% to 5% of the dark fiber buried in the ground was being lit (read: used). Supply meet demand. Enjoy the ride together.

There was a silver lining to the fiber bust. While the *investors (speculators, to be fair)* were destroyed, the *infrastructure* remained. Because the fiber was already in the ground (and sold in bankruptcy for pennies on the dollar), it ultimately became very cheap to move data. Cheap bandwidth enabled the next

quarter century of tech. YouTube, Netflix and even early iterations of AI wouldn't have been possible without the glut of fiber buried in the boom.

As you read this section, bear in mind that I am far from an AI expert. The subject has lately been widely analyzed and discussed, which was not the case during the fiber boom. Far fewer observers then doubted what we believed were flawed economics. A survey of anyone paying attention today will yield a likely majority believing a bubble is at hand. The bear case revolving around a capital cycle mania is much more understood today. I can assure you this section will contain errors, and any projections may miss the intended mark by miles. But having seen this movie once already, we at Semper think we know how it ends.

History Rhymes

AI-related capital expenditure outlays are enormous, amounting to multiples of the revenues produced from newly installed infrastructure (let alone enough, or any, profit required to satisfy a return on the capital spent). Data centers and chips are to AI as telecom equipment and fiber optic cable were to the internet. That is *not* a bullish pronouncement. Perhaps the diagram below can help bring some clarity to this analogy:

	Infrastructure Function	
	Control	Capacity
Internet	Routers, Switches	Fiber Optics
AI	Chips	Data Centers

Financing the spending are largely a handful of very profitable technology companies rich with cash flows produced in other areas, some related and some not. The capital outlays represent a rapidly growing percentage of cash flow earned by these profitable behemoths. The cycle is at or approaching the point for each company where capex consumes most or all of cash from operations, either leaving less for share repurchases (used to offset compensation paid in shares), or for dividends. There is an apparent fear among those laying out capital of being left behind. If Google is doing it I can't afford not to.

Alongside the tech giants plowing capital into AI infrastructure are a number of upstarts, some already publicly traded, vigorously raising more and more new capital to likewise plow into AI. Much of this new capital is coming from the tech giants themselves, which are making various forms of investment and business transactions.

The capital spending frenzy is beginning to be incrementally financed with varying forms of debt and accounting tricks. The combination of net new debt and the capital expenditures introduce rising interest and depreciation expenses, respectively. Businesses with pristine balance sheets are shockingly fast becoming capital-intensive EBITDA ("bullshit," as Charlie Munger would say) stories. Margins, returns on equity and returns on capital are at risk, which is another way of saying inflated stock valuations are at risk. Debt is now growing, and cash is flying out the door, both faster than any revenues being generated. And profits? In the words of Steven Tyler, dream on.

The Infrastructure Capital Cycle

The historical archive is replete with examples of new, disruptive and transformative technologies requiring the buildout of massive infrastructure. These are major productivity-enhancing innovations such as new forms of communication, new energy sources or generation methods, and new forms of transportation. The current AI and data center boom is an arms race mirroring prior infrastructure surges

in canals, steam power, railroads, electricity, automobiles and the aforementioned fiber optics. All followed a pattern of massive capital investment, overinvestment, overcapacity and eventual bust. The AI boom stands to repeat history, and time will tell where we now are in the cycle. The dollars involved are enormous.

AI and Past Capital Cycles

Era	Period	Infrastructure	Peak Capex / GDP	Primary Capital Source
Canals	1820s-1830s	Erie Canal and Regional Canals	~1-2%	State Governments / Bonds
Railroads	1870s-1880s	160,000+ Track Miles	~6.0%	Foreign Debt / Land Grants
Auto / Electric	1920s-1930s	Power Grids and Paved Roads	~3-4%	Public Markets / Installment Credit
Fiber / Telecom	1990s	Fiber and Equipment	~1.0%	Junk Bonds / Vendor Financing
AI	2023-?	Chips and Data Centers	~1.3 - ?*	Operating Cash Flow (at first...)

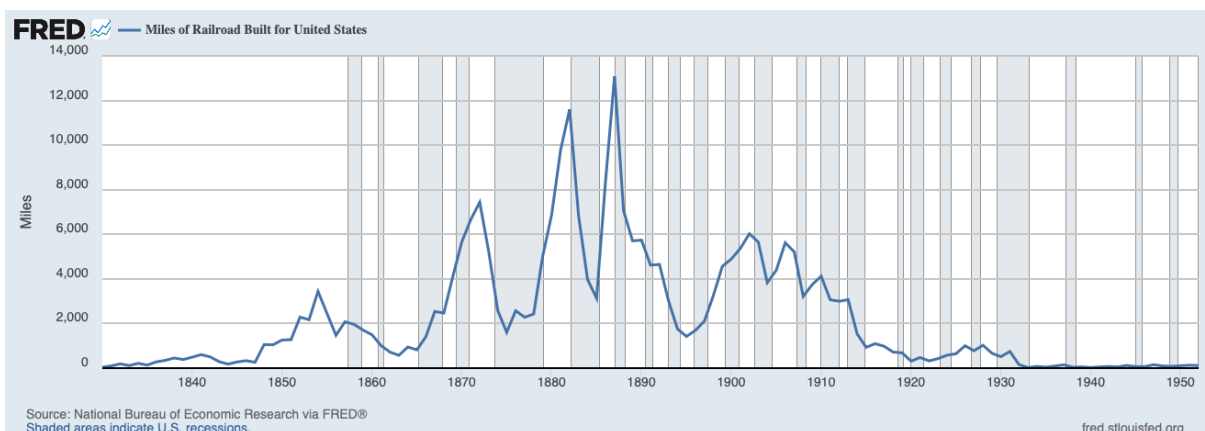
**Current estimates 1.2% for 2025 and 2.5% for 2026. If projections for 2030 hold, this approaches Railroad's 5%+*

AI-related capital expenditures totaled roughly \$400 billion in 2025 and are expected to grow to more than \$700 billion this year and perhaps \$2.5 trillion to \$3 trillion cumulatively by 2030. Said differently, \$2.5 trillion implies a 44% 2025-2030 compound annual growth rate, and \$3 trillion implies a 50% 2025-2030 growth clip. Does anyone understand the magnitude of those numbers? Paraphrasing Professor Einstein, the most powerful force known to man is not atomic energy, it's compound interest!

The capital expenditures are a staggering 1.3% of 2025 U.S. GDP and 2.5% of 2026 GDP; If spending projections hold the proportion of GDP will rival the greatest capital cycles (for the moment the current iteration is contributing to GDP growth). By comparison, the railroad mania consumed roughly 6% of GDP. The telecommunications and fiber boom in the late 1990s consumed only about 1% of GDP. Public works in the Great Depression reached 7.7% of a depressed GDP. AI has already surpassed the fiber boom of the dotcom and tech bubble period, relative to GDP. It would need to roughly *triple* in relative proportion to match the railroad mania. That is the current capital expectation.

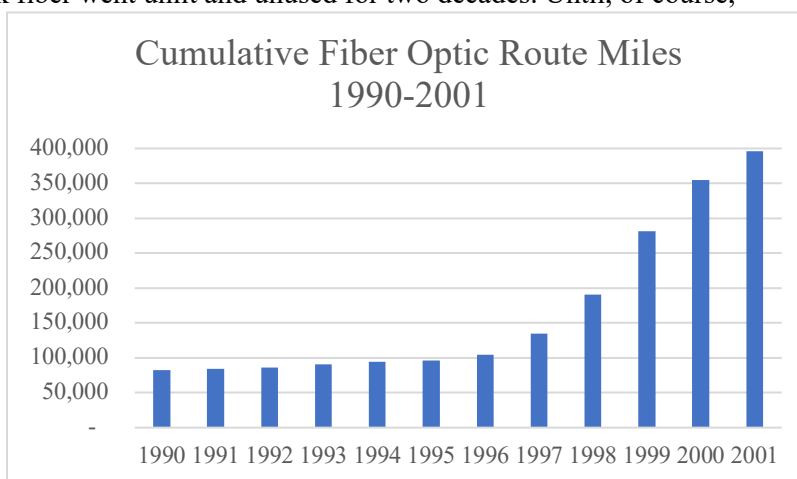
The most significant difference between AI and prior booms is the source of capital. Canal capex, spent by startups and speculators, came from state governments and bonds. A century later, via government spending, the public unwittingly financed the electric grid and paved roads. The fiber optic cable boom involved startups, legacy communications companies, and energy pipelines with rights of way. All used massive amounts of leverage. Demand was invariably slow to develop and thus a redundancy and oversupply forced price competition for the little demand that did immediately appear. Bankruptcies, lots of them, ensued

The U.S. railroad expansion was financed with a combination of government land grants and debt, much of it foreign. Jay Cooke & Co., a bank that lent to many railroads, failed in September 1873. Roughly



25% of the then 364 railroad companies likewise went bankrupt, and by 1876 U.S. unemployment reached 14%. Expansion continued into the 20th century with cumulative track miles reaching 254,000 in 1916. The United States today has 140,000 freight route miles, per the Federal Railroad Administration.

In that 1990s fiber boom, companies laid thousands of miles of dark fiber, even with an understanding that Moore's (Keck's) Law meant incremental capacity would be met with an exponentially collapsing price per unit of fiber lit. Most of the dark fiber went unlit and unused for two decades. Until, of course, Netflix and YouTube arrived. But between here and there *everyone* went bankrupt. The same trajectory and dynamics are perhaps underway with GPUs and data centers. A massive glut of computing power may make the artificial variety of intelligence incredibly cheap for the next generation of startups, even if the current giants see their margins compressed. Or the benefits will all inure for the benefit of one or a few of the already-dominant tech firms, but at dramatically compressed margins and returns on capital deployed.



Profitability, Capital Intensity, Depreciation and Return on Capital

Unlike canal, railroad and fiber infrastructure built in the past, AI assets have a rapid half-life, call it a depreciation rate. As discussed below, these recent assets are also financed with an advantage compared to past cycles (via operating cash flow versus third-party financing). A railroad track laid in 1880 was useful for 50 or even 100 years. Warren Buffett mentioned the trillions it would cost to build (unnecessarily) our railroad infrastructure today. A GPU bought in 2025 is often obsolete or diminished in utility and value by 2028. This creates a permanence to the high-capex cycle rather than a build-it-one-time asset. I've heard of buy-now-pay-later, but this is pay-now-pay-later. Wickedly higher revenues and, ultimately, profits will be required to perpetuate the spending cycle. We are far from adequate revenues, let alone profits, which are nowhere to be found so far.

A widely followed ongoing debate involves the degree of appropriateness in the lengthening of depreciation schedules for the useful lives of GPUs and servers, from 3-4 years to 5-6 years. Employing financial accounting changes, a longer depreciation schedule lowers annual depreciation expense, raising reported income and thus return on capital. The unconcerned suggest that chips can be multipurposed, and at the end of what would be a three-year useful life, remain active in functions like inference rather than training for another 2-3 years. OK fine. But that's not the real problem or issue at hand. The 800-pound gorilla in the room is *the existence of the depreciation expense itself*, regardless of the aggressiveness or conservatism of the number of years of useful life selected.

To explore this issue further, we decided to think through the implied financial performance required from the projected AI-related capital expenditures. 2025 AI-related capex totaled ~\$400 billion with chips accounting for about half of the total. If GPUs and servers do have a six-year life rather than three, and fixtures are obsolete in say six to ten years, with buildings lasting longer and land even longer, let's say all-in depreciation is over an eight-year useful life (I think we'll find it's lower, but let's go with eight for the sake of easy math). Let's also think about the required return on capital, gross and net profit margins, and implied revenue required for said capital expenditures to make economic sense.

\$400 billion depreciated over eight years is \$50 billion of annual straight-line depreciation expense on the income statement. Non-cash expense, yes, but the assets must be *replaced quickly* as technology and capacities improve. 2025 associated *revenues* total somewhere between only \$30 billion and \$50 billion, depending on who you listen to. Some may call this a mismatch! ChatGPT, Gemini, Grok and most LLMs are either free or bear little cost to the user, especially the non-enterprise user. At a hypothetically illustrative 50% gross margin, covering a \$50 billion depreciation expense alone requires revenues of \$100 billion. A 25% gross margin requires double that revenue, or \$200 billion. But again, revenues in 2025 totaled somewhere between only \$30 and \$50 billion.

Heretofore we are just illustrating covering depreciation expense with revenues at a gross margin level. Nasty operating expenses further down the income statement such as sales, general and administrative charges are unavoidable, and that's just to get to an operating profit line before considering interest, taxes, depreciation or amortization charges, fashionably EBITDA to the debt lovers out there. But what about profitability? With capital intensity, return on capital is the necessary measure. Capital spending is spending on capital assets (that's how it got its name). A 10% return on \$400 billion of capital spent, ignoring financial leverage for the moment, requires a \$40 billion profit. That's roughly 2025 AI-related revenues. At a 10% net profit margin, revenues need to match the \$400 billion of capital spent. At a higher 20% net profit margin, required revenues are half of that, or \$200 billion.

A 30% return on \$400 billion of capital is \$120 billion. At a 20% net profit margin, revenues need to be five times that, or \$600 billion. AI-associated revenues, again, were apparently \$30 billion to \$50 billion in 2025, kicking the dead horse again to ensure it's dead.

As noted earlier, it's essential to understand that AI capital requirements are *ongoing*. This is not the game of building a railroad and then maintaining it. This is continuously replacing rapidly depreciating assets. It's been suggested that more capital-intensive LLM one-time training will be replaced by less capital-intensive and presumably less-expensive inference (although once the models are finished training, all of the expense will be inference-related, making the latter more expensive over a lifecycle). Fine. But suppose by 2030 cumulative capital expenditures total \$2.5 trillion (CEO Sam Altman expects OpenAI alone to spend \$1.4 trillion by then). On an eight-year useful life that's over \$300 billion in annual depreciation expense. A 15% return on capital, a satisfactory profit for many, would be \$375 billion cumulative. At a 20% net profit margin, \$1.875 trillion of revenue would be required for the cumulative six years 2025-2030 to produce profits totaling \$375 million. Microsoft's trailing 12-month revenues were \$305 billion on December 31, 2025. That's more than six *incremental* Microsoft revenue totals needed from AI investments alone by 2030. It's right to point out that while \$2.5 trillion of capital may be spent, by 2030 a good portion will already be depreciated so the carrying value of capital (and thus of equity) will be lower than the gross figure. Revenues, profits and cash earned from operations across the firms' entire businesses will also be higher. But then each year's spending needs will presumably grow rapidly as well. The point is that the capital spending sums are so vast that expecting an adequate return on capital is a very high bar, particularly on the incremental AI-related capex.

Now consider current levels of returns on capital and on equity at the big hyperscalers. They are wicked high, much higher than the 15% return presented in the paragraph above.

Suppose 15% winds up being the return on all of this incremental capital spending toward AI. Much higher returns on current capital will incrementally decline on then-total capital, albeit on a rapidly growing capital base. Profit margins, likewise, are also very high for the hyperscalers at present. Entering the world of capital intensity comes with price competition, lower margins and lower returns on capital. Capital spending at present and projected scale will harm margins and earnings well before it becomes an earnings driver.

Hyperscalers Individual and Aggregate Summary Figures (billions of dollars)

AMZN					MSFT				
	2023	2024	2025	2026 (e)		2023	2024	2025	2026 (e)
Revenues	574.8	638.0	716.9	805.7	Revenues	227.6	261.8	305.5	393.8
OCF	84.9	115.9	139.5	182.9	OCF	102.6	125.6	160.5	203.6
Capex	52.7	83.0	131.8	200.0	Capex	35.2	55.6	83.1	175 - 185
Depreciation	30.2	32.1	41.9	85.3	Depreciation	14.2	20.9	30.1	45.3
Capex/Revenues	9.2%	13.0%	18.4%	24.8%	Capex/Revenues	15.5%	21.2%	27.2%	45.7%
Depreciation/OCF	35.6%	27.7%	30.0%	46.7%	Depreciation/OCF	13.8%	16.6%	18.8%	22.2%
Capex/OCF	62.1%	71.6%	94.5%	109.4%	Capex/OCF	34.3%	44.3%	51.8%	88.4%
ROE	17.5%	24.3%	22.3%	18.6%	ROE	39.2%	34.3%	34.4%	28.0%
ROC	10.0%	15.5%	15.7%	12.6%	ROC	27.7%	25.1%	26.4%	19.8%
GOOGL					META				
	2023	2024	2025	2026 (e)		2023	2024	2025	2026 (e)
Revenues	307.4	350.0	402.8	460.0	Revenues	134.9	164.5	201.0	250.4
OCF	101.7	125.3	164.7	216.2	OCF	71.1	91.3	115.8	131.3
Capex	32.3	52.5	91.4	175 - 185	Capex	27.3	37.3	69.7	115 - 135
Depreciation	11.9	15.3	21.1	32.2	Depreciation	11.0	15.3	18.0	29.7
Capex/Revenues	10.5%	15.0%	22.7%	39.1%	Capex/Revenues	20.2%	22.7%	34.7%	49.9%
Depreciation/OCF	11.7%	12.2%	12.8%	14.9%	Depreciation/OCF	15.5%	16.8%	15.5%	22.6%
Capex/OCF	31.8%	41.9%	55.5%	83.3%	Capex/OCF	38.4%	40.9%	60.2%	95.2%
ROE	27.4%	32.9%	35.7%	37.9%	ROE	28.0%	37.1%	30.2%	29.8%
ROC	24.8%	30.3%	32.0%	32.1%	ROC	22.9%	29.8%	22.9%	21.8%
ORCL					It's Cloud Delusions, I Recall				
	2023	2024	2025	2026 (e)		2023	2024	2025	2026 (e)
Revenues	51.6	54.9	61.0	96.0	Revenues	1,296.3	1,469.2	1,687.2	2,005.9
OCF	17.0	20.3	22.3	33.6	OCF	377.3	478.4	602.8	767.6
Capex	6.9	10.7	35.5	45 - 50	Capex	154.4	239.1	411.6	710 - 755
Depreciation	2.9	3.3	5.2	7.7	Depreciation	70.2	86.9	116.3	200.2
Capex/Revenues	13.4%	19.6%	58.2%	49.5%	Capex/Revenues	11.9%	16.3%	24.4%	36.5%
Depreciation/OCF	17.0%	16.4%	23.4%	23.0%	Depreciation/OCF	18.6%	18.2%	19.3%	26.1%
Capex/OCF	40.8%	52.9%	159.2%	141.6%	Capex/OCF	40.9%	50.0%	68.3%	95.4%
ROE	NMF	132.0%	70.6%	39.3%	ROE*	28.7%	32.1%	31.7%	29.8%
ROC	15.2%	15.0%	14.6%	7.3%	ROC**	21.9%	25.1%	25.1%	22.2%

Source: Semper Augustus; SEC Filings; Company Earnings Calls

*Group ROE & ROC weighted by market cap. ROE excludes Oracle

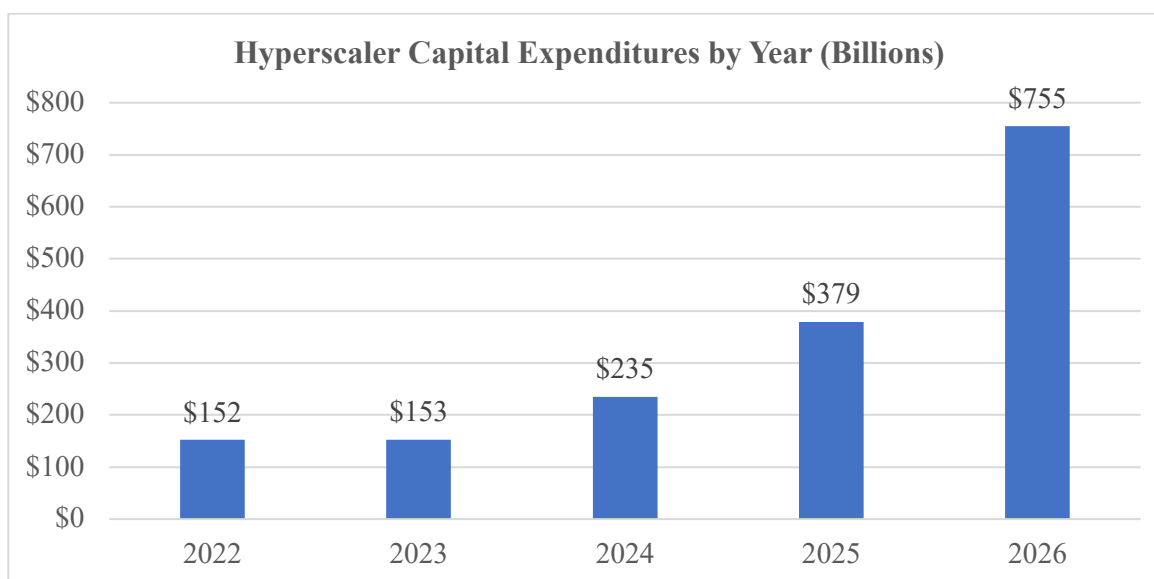
** Oracle repurchased so many shares (debt financed) that its book value was recently negative. ROE figures in the aggregate table thus exclude Oracle. ROC calculated using weighted market caps of all five companies.

The explosion of capital expenditures is clear in these summary financials. No doubt not all of the capex is not for data centers and AI, particularly at Amazon. But the spending as a proportion of revenues and cash flows from operations is staggering, rising for the group of five from 11.9% of revenues in 2023 to 36.5% in 2026 based on current spending projections. Likewise, capex will consume roughly 95% of operating cash flows this year, up from 40.9% in 2023.

Parabolic growth in capex will come with parabolic growth in depreciation expense, but with a lag. And this is where investors should be concerned. Outside of Amazon, which favorably skews the aggregate summary table, take note of the rise in depreciation expense as a percentage of operating cash flows. If depreciation schedules were more conservatively stated and had not been extended, depreciation would be higher than reported. Also note that the figures for each company and in the aggregate summary table are for *reported* capital expenditures and depreciation expense. Excluded are lease expense for real estate and all of the very real costs hidden via off-balance activity like the use of SPVs, vendor financing and circular financing. Outlays are higher, but hidden, and profits are lower, and overstated. Regardless of the aggressive accounting and dealmaking, with capital expenditures and depreciation expense rising, in the absence of equivalent profit, margins are under pressure and thus are returns on equity and returns on capital as well. Something's going to give.

Investors hate margin compression. Apparently, the concern is real because as I write this all of the hyperscaler stocks are in the red for the year to date (as are all of the Magnificent Seven's shares).

Interestingly, Apple is not among the hyperscaler group, and so far, they're not engaged in the capital expenditures arms race. The company may be content to sit back and say, "You know what, y'all fight it out. Last man standing come on over we'll make a place for you in the app store and take our pound of flesh that way." Apple has already done it with Google, with one ironic twist. While Google has famously paid Apple billions for decades to be the default search engine, a January 2026 deal actually flips the script – Apple is the one paying Google. Apple and Google officially confirmed a multi-year partnership to integrate a Gemini model into the core of "Apple Intelligence" and the next generation of Siri. Apple is reportedly paying Google approximately \$1 billion per year to essentially lease Google's Gemini 3, to date Google's most advanced model. Unlike a standard cloud deal, Apple is running this custom Gemini model on its own private cloud infrastructure. Apple thus maintains its privacy barrier with no user data sent to Google's servers for processing or training. The deal is a drop in the bucket compared to the existing search default agreement, which remains the most lucrative partnership in tech history.



Includes AMZN, GOOG, MSFT, META, ORCL

Source: Company SEC Filings, Company Earnings Calls, Analyst Estimates

Give Up the Funk: Leverage On BS; Leverage Off BS; Circular Finance

Microsoft, Google, Meta and Amazon's AWS are extremely profitable businesses, previously requiring little in the way of capital. The hyperscaler segments of their businesses dedicated to the cloud operate extensive data center infrastructures designed for rapid, automated and almost limitless scaling of computing power and storage. Oracle's recent AI initiatives place it in the hyperscaler camp and firmly in the capital expenditure arms race, though unlike its peers the Oracle balance sheet is already laden with net debt of \$105 billion at November 30, 2025 (and rising fast), mostly taken on over recent years to repurchase shares in large part to offset dilution from stock-based compensation. Already at four turns of debt to EBITDA, in the words of Parliament, they plan to tear the roof off the sucker. Buckle up, says Larry.

Historically, bubbles popped when *banks* stopped lending. Today, the four big hyperscalers (ex-Oracle) are so profitable that they have essentially been their own banks, and banks to others in their ecosystem, notably both customers and suppliers. As long as Windows and Azure, Google Search and YouTube,

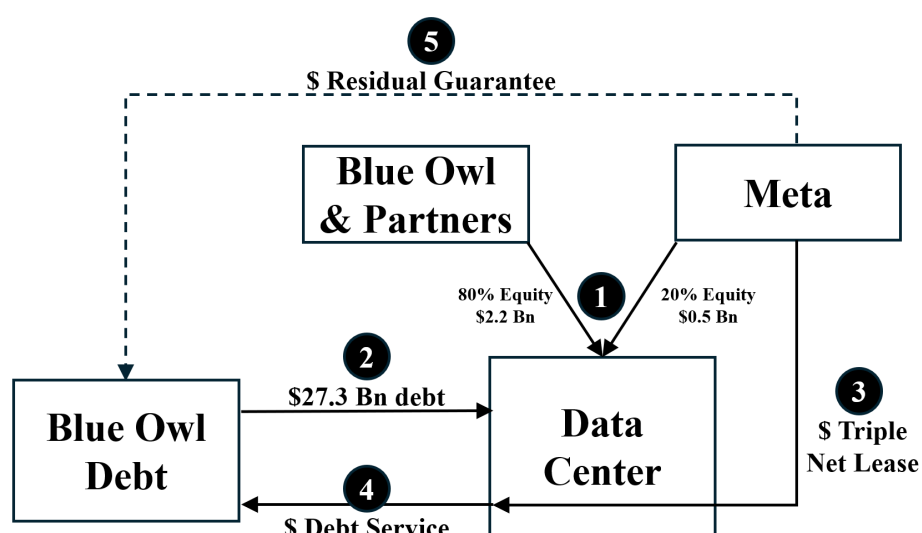
AWS and Facebook continue to print cash, the AI capex build could continue even if the AI itself isn't yet profitable. But at a point, even vast cash earned in operations is insufficient to finance the capital boom. Share repurchases are already being crowded out, and we are seeing the businesses quickly flip from net cash on the balance sheets to net debt. A reminder that "hyperscalers" is one-third "hype" and two-thirds "rscalers."

Including and beyond the hyperscalers, net borrowings incurred for AI-related spending is surging. \$15 billion of new debt was created in 2023, doubling in 2024 when new borrowings totaled \$30 billion. Warmup pitches. New debt exploded exponentially (like an exploding fastball) in 2025 when nearly \$200 billion was borrowed. The number will be *way bigger* in 2026. And this is just debt *on the balance sheet*.

The larger issue in financing is shifting from cash-rich balance sheets to a complex web of structured finance. On the order of \$120 billion in AI-related infrastructure spending has been moved off-balance sheets to preserve credit ratings and finance the tidal wave of capital expenditures. Three primary mechanisms are used –special purpose vehicles (SPVs) with private credit backing, circular customer and vendor finance, and interlocking equity "investments."

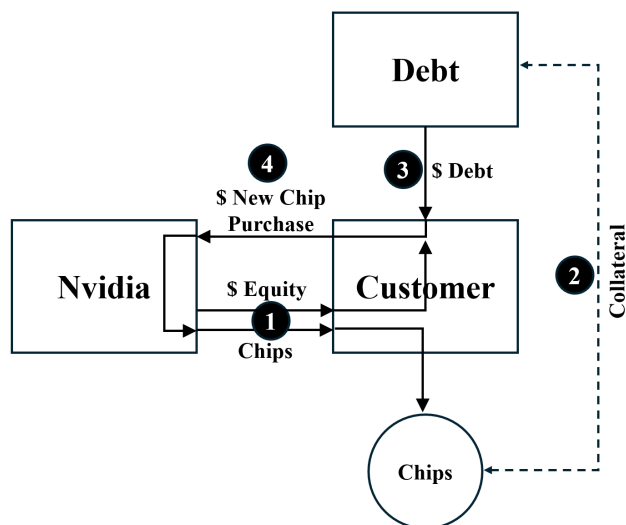
Mechanism 1: SPVs are independent legal entities used to employ debt and keep it off the consolidated balance sheet of the associated enterprise. Companies employing them historically were none other than Enron, Lehman Brothers and Parmalat. Terrific cluster (I was going to say terrific company). More recently, auto parts supplier First Brands put SPVs to good use. Then failed like the others.

The current iteration of SPVs own data centers and the chips, funded by publicly traded private credit giants such as Blue Owl Capital, BlackRock and PIMCO (acquired by Allianz in 2000). An example is a huge \$30 billion deal that Meta and Blue Owl did late last year for a 5-gigawatt data center campus in



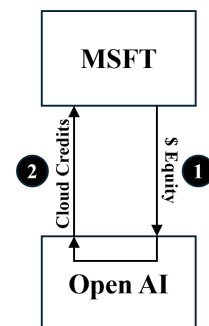
Louisiana called Project Hyperion (illustrated below). Meta capitalized the Data Center entity with 20% of the equity, with Blue Owl and its partners owning the majority 80% (Step 1). Because Meta as 20% owner doesn't control the entity, the \$27.3 billion debt provided by Blue Owl (Step 2) used to finance it doesn't appear as a liability on Meta's consolidated balance sheet. It's essentially a lease (under U.S. GAAP ASC 842) amortizing to 2049 with Meta making triple-net lease payments (Step 3). These net lease payments fund the Data Center's debt service on its Blue Owl borrowings (Step 4). However, whereas operating and capital leases are normally capitalized and carried on balance sheets under GAAP accounting, this deal is not treated that way because of the joint venture's proportional ownership mix. Meta provides a residual value guarantee (Step 5) and is thus obligated to cover losses if the data center's value drops too fast – effectively retaining the risk, but not the debt, on Meta's books. The guarantee allows for a high credit rating on the SPV's debt. But to be clear, this is debt and "all roads lead to Meta." Look for an avalanche of this type of structure throughout the year. And read the footnotes.

Mechanism 2: A significant portion of AI revenue is circular, where the seller of chips is also the financier of the chip buyer. This was a pervasive technique in the late 1990s fiber bubble. In the current iteration (illustrated in the diagram following this paragraph), NVIDIA invested billions into neocloud



(GPU as a service – or better – renting chips by the hour) companies like CoreWeave and Lambda Labs, giving these startups priority access to chips and direct equity investments (Step 1). The startups then used the chips as collateral (Step 2) to take out massive loans (Step 3). CoreWeave recently secured a debt facility north of \$10 billion. The startups then used the freshly borrowed money to buy even *more* chips from NVIDIA, which then reported a high-margin chip sale even though the money originally circulated from its own ecosystem’s credit capacity (Step 4). Think of this “tangled web we weave” as money laundering in reverse. The diagram is a basic attempt to illustrate this self-serving circularity.

Mechanism 3: Another doozy of an example is Microsoft’s relationship with, and multi-billion dollar “investment,” in Sama’s OpenAI, much in the form of environmentally-friendly-sounding “cloud credits” (again, illustrated below). Microsoft invests equity capital in OpenAI (Step 1) that is then spent paying for Microsoft’s Azure servers (Step 2). OpenAI committed to purchasing \$250 billion in Azure services through 2032, creating phantom revenue that looks like growth but is essentially an internal transfer.



Microsoft just reported December quarter earnings and noted that OpenAI now represents 45% of Microsoft’s total commercial cloud backlog, \$281 billion out of \$625 billion in total. Again, for reference, Microsoft’s 2025 calendar-year revenues totaled \$305 billion. The relationship with OpenAI exposes a deep, mutual dependency: Microsoft provides the financing and cloud while OpenAI provides the sales “demand.”

OpenAI flipped from a not-for-profit to a capped-profit model and finally to a full for-profit enterprise late last year. Microsoft currently owns 27% of the new OpenAI. On full conversion as common stock, it’s roughly \$135 billion on the latest \$500 billion OpenAI funding round valuation, soon to be higher. Microsoft owns a tiered share of any profits, reportedly up to 75% until its initial \$13 billion equity investment is repaid, after which it fully owns its 27% equity share. Importantly, Microsoft is a non-voting board member but owns *permanent* IP rights to OpenAI’s models through 2032 – even those developed *after* artificial general intelligence (AGI) is achieved. Don’t hold your breath on that. The key here is if OpenAI fails (or finds a cheaper compute provider), Microsoft’s projected \$250 billion future revenue from OpenAI vanishes overnight. But Microsoft owns the IP (through 2032). The partnership and revenue-sharing agreement expire if OpenAI happens to achieve AGI. However, in the 2025 renegotiation, an independent expert panel was established to “verify” AGI, and Microsoft successfully extended its IP rights to include post-AGI models, ensuring they aren’t economically harmed if the

software becomes self-aware. John Connor would be proud of Microsoft's negotiating acumen. "Easy money!"

Beyond software and chips, Microsoft and OpenAI are collaborating on Project Stargate, a \$500 billion supercomputer initiative. Microsoft is expected to provide the bulk of the capital for project data centers, while OpenAI is the anchor tenant. To keep this massive spending off its balance sheet, Microsoft is increasingly using SPVs discussed earlier, partnering with private equity firms MGX and SoftBank to own the physical buildings while OpenAI commits to the leases.

Finally, ala Lucent, Nortel, Cisco and the gang, vendor finance is back, baby, via GPU collateralization. There is now a \$15 to \$20 billion shadow market for GPU-backed debt. NVIDIA's H100 and B200 chips are so liquid and in demand that lenders treat them like gold bars, which at \$5,000 an ounce is saying something. While a Microsoft can borrow at say 5%, these off-balance sheet SPVs often bear 12-14% interest, reflecting the true risk of the AI boom masked from the apparent Ft. Knox balance sheets of the hyperscaler giant tech firms. Maybe Arnold was actually referencing vendor financing when he said, "I'll be back" and... "Hasta la vista, baby."

The Keiretsu-style interconnectedness of leverage and business indicates that if one part of the chain (read: OpenAI) fails to meet expectations, the "domino effect" drowns the neoclouds (who can't pay their debt), which hits the hyperscalers (who lose their tenants), and finally NVIDIA (whose circular revenue and investments in its customers go bye-bye). In the immortal words of Van Morrison, *oh-oh-oh, Domino*.

Start Me Up

The U.S. power landscape is undergoing its most significant shift in decades. After nearly two decades of flattish demand, accelerating demand is driven primarily by the AI data center boom and to a lesser extent the onshoring of industrial manufacturing. For most of the last decade, total annual U.S. electricity consumption hovered around 4,000 Terawatt-hours (TWh). Efficiency gains in lighting and appliances effectively cancelled out population and economic growth until about 2021. In its *2025 Outlook*, the U.S. Energy Information Administration (EIA) projects annual electricity generation growing 18% to 4,840 TWh (or 4,840,000 GWh) from 2024 to 2030.

[First, a tangent to help clarify power terms. Energy terminology is confusing because of the difference between power (how fast it flows) and energy (how much is used over time). Think of electricity like water flowing through a hose into a swimming pool. My pool happens to be heated intermittently by solar and natural gas. I'm still working on the wind turbine to replace the high-carbon gas, but my neighbors are pretty ugly about it. Quite sure they hate the planet.

- Capacity (Gigawatts - GW): This is the size of the hose. It tells you the maximum amount of water (in our analogy) that *could* flow through at any single moment. If 41 GW of solar power were built in 2025, that means that if the sun is perfectly overhead and the sky is clear, those solar panels can produce 41 billion watts of power at that exact second.
- Generation (Terawatt-hours - TWh): This is the total water in the pool at the end of the year. It's a measure of the total volume of work done over 8,760 hours (the number of hours in a year).

1 Terawatt (TW) = 1,000 Gigawatts (GW)

1 Gigawatt (GW) = 1,000 Megawatts (MW)

One large nuclear reactor produces 1 gigawatt of power. A 1-gigawatt nuclear plant and a 1-gigawatt solar farm have the same capacity (hose size), but they put vastly different amounts of energy (water) into the pool because of how often they run. At year-end 2025, at least five different U.S. data centers have

become gigawatt sites, meaning five single buildings or campuses each now require the dedicated output of an entire large nuclear power plant (we're not talking small modular reactors, here) just to stay online.

Nuclear has a ~92% capacity factor because it runs almost 24/7. It's always on except for maintenance. Natural gas' capacity factor is ~55% as it only runs when needed (it can be turned up or down). Wind and solar are 35% and 25%, respectively, because of their intermittency.

Power in Context

Unit	Measures	Context
Watt (W)	Instant Power	A single LED lightbulb (10W; 40W)
Kilowatt (kW)	Instant Power	A home's peak demand (~5–10kW)
Megawatt (MW)	Instant Power	A large factory or 100k – 200k homes (300 MW)
Gigawatt (GW)	Instant Power	A large power plant or city's peak demand (1 GW)
Terawatt-hour (TWh)	Total Energy	The entire U.S. annual consumption (~4,000 TWh)

Due to the above capacity factors, to get the same amount of actual energy (TWh) as is produced by a 1 GW nuclear plant, you would need to build about four 1 GW solar farms. This is why you see massive numbers for solar construction (like 41 GW in 2025) as capacity needs to be overbuilt to make up for the fact that the sun isn't always shining. Solar and wind also require backup natural gas to ensure constant supply to the grid. But enough terminology.]

Over the next 5 years, demand is projected to grow by 1.5% to 3% annually, a rate not seen since the 1990s. By 2030, total annual consumption is expected to approach 4,700 to 5,000 TWh. Data centers currently account for about 6.8% of U.S. electricity use (roughly 270 TWh). By 2030, assuming the AI-related capital expenditure boom continues, this is projected to jump to 9% to 16%, or roughly 420 to 750TWh. Grid expansion alone is expected to cumulatively cost \$800 billion by 2030 at a 2.6% annual growth rate, three to four times the rate of population growth.

For perspective, a single AI-focused data center can require as much power as 100,000 homes. In regions like Northern Virginia, data centers are more than 25% of demand and growing so fast that electricity bills may rise by 25% or more due to the strain they put on the grid.

To meet the surge in demand, developers are planning massive power capacity additions. However, there is a mismatch between the carbon-free goals of tech giants and the reliability needs of the grid. Renewables and battery storage will make up more than half of new capacity in 2026. Roughly 35–45 GW of utility-scale solar is expected to be added annually. Growth in wind energy has slowed slightly due to permitting but may still add 10 to 15 GW annually. While many want a green grid, utilities are increasingly proposing new gas plants to handle the 24/7 baseload requirements of data centers. Adding capacity entirely with renewables is an *impossibility*. About 4–6 GW of new gas capacity is added annually, often to replace retiring coal plants.

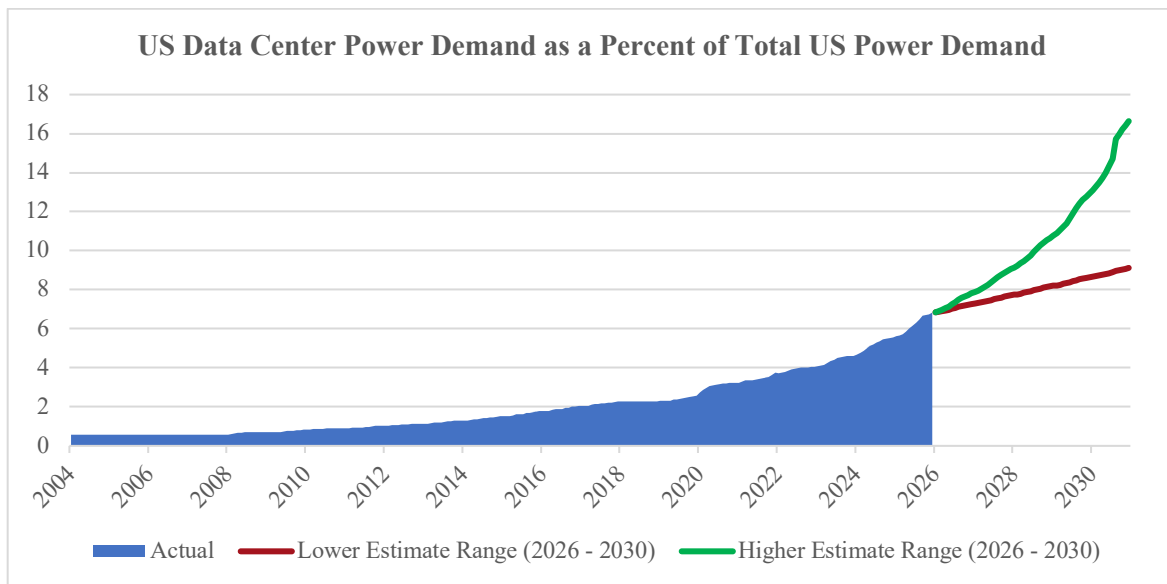
Expected U.S. Electricity Capacity Additions to 2030

Year	Total (GWh)	Solar (GWh)	Wind (GWh)	Natural Gas (GWh)	Nuclear (GWh)	Battery Storage (GWh)
2024 (actual)	4,097,000	304,000	476,000	1,770,000	800,000	15,000
2025	4,260,000	350,000	490,000	1,700,000	810,000	25,000
2026	4,305,000	400,000	510,000	1,710,000	820,000	35,000
2027	4,420,000	450,000	530,000	1,720,000	830,000	45,000
2028	4,550,000	510,000	560,000	1,740,000	840,000	65,000
2029	4,690,000	580,000	600,000	1,760,000	850,000	85,000
2030	4,840,000	660,000	650,000	1,780,000	860,000	115,000

Source: EIA

On nuclear, the tech companies are signing deals to keep old plants open, such as Microsoft reopening Three Mile Island. Others are buying power directly from existing plants. Small modular nuclear reactors may ultimately be viable for data centers but won't be at grid scale until after 2030.

These EIA projections on coming power supply reflect the maximum cadence at which capacity can be built. AI-related forecasts project more power will be available sooner. Some don't consider it, much like you don't think about plugging in your phone to charge. **For the first time since the electrification boom of the 1920s, the limit isn't money but physics.** The primary constraint on AI capex in 2026 isn't the cost or availability of chips, but the ability of the electrical grid to expand quickly enough to power rapidly growing demand from data centers.



Source: EIA

To secure their futures, tech companies are submitting requests to power providers for 10x more electricity than they actually need to ensure they get *some* of it. This has bloated utility waitlists to more than four years in many regions.

A material impropriety exists in terms of who will pay for new power supply coming online. In the U.S. electricity market, there is a significant price disparity based on how much power a customer buys and how steady that demand is. Generally, the more electricity you buy, the less you pay per unit (kWh). Households pay at the highest rate, an average 17.9 cents per kWh across the United States. Loads are small and unpredictable (weather) and are high cost to the local utilities for local wires and billing. Commercial office and retail pay 14.1 cents per kWh, given steady daytime use and far less electricity used overnight. Factories and industrial users pay an average 8.4 cents per kWh consuming high volumes at higher voltages. Data centers pay on average only 5 to 9 cents per kWh. They are high-volume users at steady 24/7 loads and are generally billed favorably as wholesale bulk buyers.

The disparity among electricity rates is a growing and important public policy issue. A typical homeowner pays roughly at least double what a data center pays per unit of electricity, yet the homeowner is often subsidizing the infrastructure needed to support data center growth. The hyperscalers don't just pay a standard utility bill like households do. They often sign power purchase agreements directly with wind or solar developers for around 3 to 5 cents per kWh. They do have to pay wheeling charges (fees to move power across the grid), bringing their effective cost to roughly 6 to 8

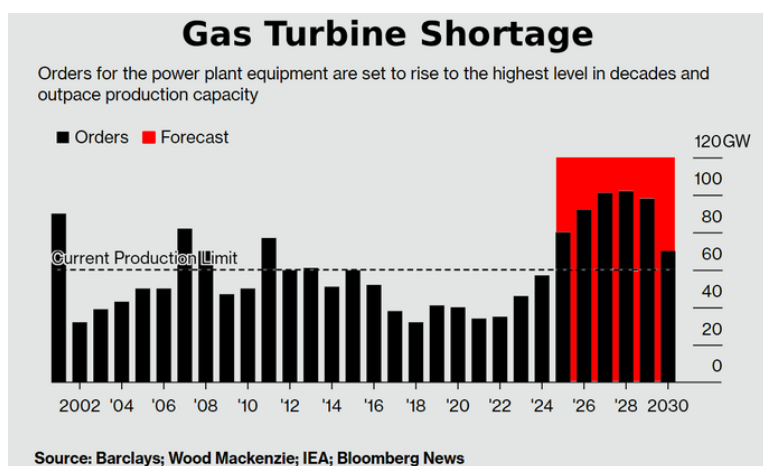
cents per kWh. In states with specialized data center subsidies or cheap hydropower, data centers can sometimes secure rates as low as 4 to 5 cents per kWh.

There is a debate about who should pay for the new power. To connect a new AI data center to the grid, a utility might need to build a \$500 million high-voltage transmission line. In many states (like data-center-friendly Virginia and Ohio), the cost of the new line is shared by everyone on the grid. Even though the data center pays a lower rate per kWh, the household residential bill increases just to pay for the new line connecting the data center to the grid.

In addition to household electricity bills rising to foot the bill for the AI-complex—getting a rise out of homeowners—there is a very real risk that we wind up with a surplus of energy capacity if demand projections for power prove too high. This becomes a stranded cost issue much like we had with nuclear in the 1980s and 90s. If the AI boom turns out to be a bubble, or if software becomes so efficient that data centers don't need all of the power being developed, utilities may be left with billions of dollars in power plants and transmission lines that no one is using.

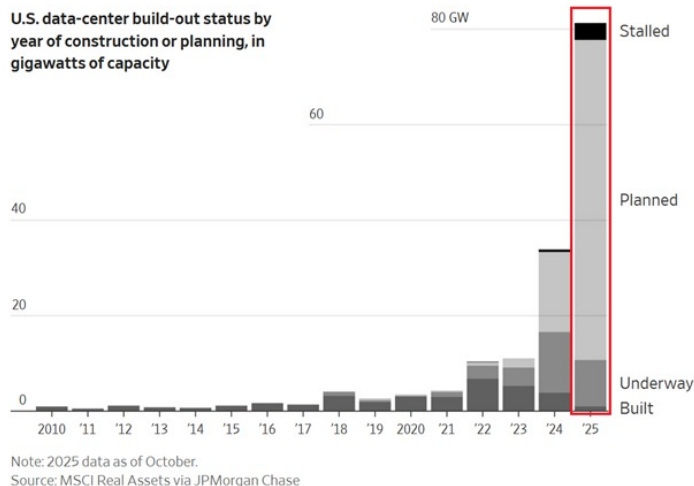
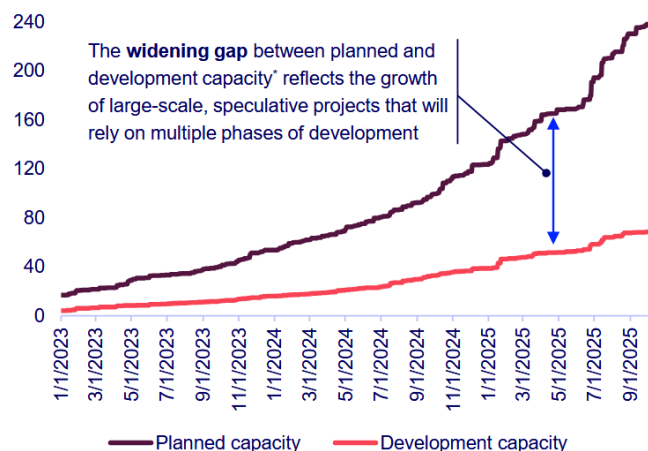
Who pays for stranded power costs? Yep. Under the current regulatory compact, the answer is almost always the residential ratepayer. Utilities generally recover their costs by adding them to the rate base. If an investment is deemed “prudent” at the time it was made, a utility is legally allowed to charge all its customers to recover that cost plus a regulated return, around 9% to 10% in today's rate environment. If a data center developer cancels a project after the utility has already started building a substation for them, for example, the utility doesn't just lose that money – they typically appeal to their state public utility commission to spread that loss across every customer's bill.

To prevent residential customers from paying for AI-related stranded costs, several states (like Ohio and Virginia again) and grid operators (like PJM) are implementing new rules. Many utilities now require data centers to sign 10-15-year take-or-pay contracts where they must pay for a minimum amount of power (often 85-90% of their requested capacity) even if they don't use it. Some regulators now require AI companies to put up a letter of credit or a massive cash deposit (up to 50% of the total infrastructure cost) before any ground is broken. This ensures that if the AI company goes bankrupt or leaves, the collateral is in hand. Also, early-exit clauses are being written into contracts that can charge a data center hundreds of millions of dollars if they shut down before the infrastructure has been paid off by their monthly bills.



Consumer advocates argue that because data centers are mobile, able to move servers to a different state or region, where conversely power infrastructure is immobile and built to last decades, it is imprudent for a utility to build for AI without making the AI company sign a long-term guarantee. If a public utility commission decides a utility was reckless in its forecasting, it can deny the utility the right to recover those costs from the consumer. In that case, the utility and its shareholders eat the loss.

Cumulative data center pipeline capacity by disclosure date



Only a small percentage of the committed data center buildouts are actually underway. Data centers are already waiting years for grid access. Gas turbine backlogs are beyond production capacity through the end of the decade. In fact, data centers are looking at diesel generators to supply power. New transmission lines take years to build. The hyperscalers, REITs and private capital can build all the data centers they want, but they won't run without necessary power and new grid infrastructure. Just compare the above projections for new power growth rates with projected capital spending by the key players in AI. A staggering 180GW chasm (see chart at right) exists between planned data center capacity and actual development capacity. AI wants 240 GW but only a quarter of that is currently developable. Infrastructure takes time. Something will give. It's a funny thing. Some think we have infinite demand. Some believe demand projections are absurd.

Feel the Burn Rate

Not long ago the betting markets considered OpenAI and its ChatGPT generative large language model chatbot the gold standard in AI and presumed it would dominate the field for decades. Those observing its evolution using pedestrian human intelligence might conclude that what it does best is raise money at increasingly fanciful "valuations" and then burn through the money at speed of light.

From an initial \$1 billion 2015 grant led by a Silicon Valley island-hopping triumvirate named Musk, Thiel and Hoffman, OpenAI has raised an impressive \$73 billion across at least 16 funding rounds. To date, it has burned through perhaps \$50 billion of that. Revenues of a mere \$28 million (with an "m") were first reported in 2022. They grew to \$1.6 billion in 2023, \$3.7 billion in 2024 and \$12.7 billion last year. CEO Sam Altman, who goes by Sama, clarifies that 2025 revenues are \$20 billion but prefers multiplying the most recent quarter by four. They call that a red flag in auto racing. Using the additive property of addition (presuming zeroes for 2015-2021) it appears the company's cumulative revenues total \$18 billion. Plus \$28 million.

The company's subsequent funding rounds are a progression from reasonable to Alice in Wonderland. Microsoft invested \$1 billion in a 2019 Series D round when OpenAI launched ChatGPT. Redmond then came in again in 2023 with an additional \$10 billion Series E investment at a \$29 billion valuation. To the uninitiated value investor, it seems capital contributed should be proportional to valuation. It doesn't seem Microsoft was taking hallucinogenics when investing in these two rounds. \$11 billion in for \$29 billion of estimated value? We're not VCs but OK. The capital committed in subsequent funding rounds received a wee bit less of the total valuation.

Fast forward a year to October 2024 and things begin to get a bit wacky. Spending as fast as humanly possible, OpenAI bolted on a Series E2 capital raise of \$6.6 billion at an eye-popping \$157 billion valuation. That's two thirds of what Microsoft invested the prior year but now at a 5.4x higher valuation. Oh, and Microsoft wasn't part of the investor group in this one. The lead investors in the E2 were Thrive Capital, Softbank and none other than NVIDIA, the no longer little chip company selling GPUs to OpenAI—now with NVIDIA's investment. But \$6.6 billion doesn't go far when an annual burn rate is three times that amount.

Only six months after the E2 round, a Series F round raised a more impressive (and necessary) \$40 billion at a \$300 billion valuation, nearly double from six months prior. Lead investors here were SoftBank and Dragonair. SoftBank, incidentally, is headed by Masayoshi Son, famous for never finding a check he wasn't willing to write. Check, please!

Zip ahead yet another six months and the next funding round ballooned the valuation from \$300 billion to \$500 billion, up 66.66%, devilishly clever. This round was noteworthy because OpenAI didn't yet need more capital. Instead, this was a *secondary sale* in which employees *sold* \$6.6 billion, presumably because they needed to make car payments (to Elon Musk?). Pretty smart if you own a said percentage and you're in position to put a big number on the valuation when you sell your proportion. We've long committed to never selling Semper, but I'd probably sell you 1% of my stake at a \$500 billion valuation. Well maybe. Call me.

At this writing, cash is flying out the door and the OpenAI bank account is getting low. Sama is back out, hat in hand, drumming up more fuel for the furnace. Having predicted he would spend \$1.4 trillion (with a "t") before he could be content, he's on the hunt for \$100 billion of new capital at a fresh \$830 billion valuation. If the CEO ate at McDonald's, he'd surely supersize his meals, chips included. Bet you can't eat just one. To refresh, this would be an \$830 billion valuation for a company with \$18.028 billion of cumulative revenues and \$12.7 billion 2025 revenues. That's 65x 2025 sales and 41.5x run-rate sales for a company burning through at least \$17 billion per year. Internal OpenAI documents suggest the company will not see an "adjusted" (naturally) profit until 2029, with cumulative losses of at least \$115 billion. Hinting at a Q4 2026 IPO, the CEO sees 2029 sales at \$100 billion. What could go wrong?

Let's treat that last question not as idiomatic sarcasm, but brainstorm what could actually go wrong. Starting with today's news, NVIDIA head Jensen Huang made clear that a rumored \$100 billion proposed investment in OpenAI was, "never a commitment." Could be that NVIDIA's shareholders may be catching on to the concept that NVIDIA "investing" in OpenAI (again) is just NVIDIA giving OpenAI a gift card to buy more NVIDIA chips. Not that there's anything wrong with that. Cue Billy Preston's *"Will It Go Round in Circles."*

Sama vowed at the \$1 billion 2015 grant that the organization would remain a nonprofit (it may remain profitless but not in the charitable sense). He changed his mind. The CEO then vowed the company would remain a capped-profit enterprise. He again changed his mind and OpenAI is now fully a for-profit corporation in every sense but having profit. The CEO also insisted the company would *never, ever* advertise. Whoops. Ads incoming in 3...2...1...

Where ChatGPT enjoyed first-mover advantage, its share of global AI web traffic dropped from 86% in 2025 to 64% here in early 2026 and is shrinking fast. Models are commoditizing, and both OpenAI's individual and corporate enterprise users are switching to Google Gemini and Anthropic's Claude. Meta's Llama free models have reached GPT-4 levels of performance. OpenAI is losing enterprise pricing power. Further, Meta's Advantage+ AI ad tool is already generating substantial sales. Google and Meta already have massive existing ad sales, scale and very high profitability. They have deep advertiser ecosystems, drawing from search, browsing, video, social media and messaging. Microsoft likewise enjoys structural

advantages over OpenAI with deep enterprise trust, compliance and security and vertical integration across the tech stack. Good luck winning the war against the guys who can bundle AI into their operating systems and clouds. OpenAI demonstrated the technology was possible, but value will inure to the businesses owning hardware and distribution.

OpenAI doesn't own its chips. It's dependent on NVIDIA for hardware and on Microsoft for Azure's cloud. It has negative unit economics, losing money on every query. ChatGPT is merely a plugin app in Apple's ecosystem where Apple uses Google Gemini and now its own models.

Model training involves theft of intellectual property. As the first mover with an, ahem, unlikeable-to-some CEO, OpenAI bears the brunt of copyright lawsuits and regulation in the United States and especially in Europe. A U.S. federal judge just ordered OpenAI to produce 20 million complete logs in a copyright infringement lawsuit. We'll find out soon whether training LLMs on copyrighted data is protected by fair use. A negative outcome could be crippling for not only OpenAI but the entire industry. The Europeans are pursuing this even harder than regulators and the courts here in the United States, with fines and requirements to pay for licensing content already having been ruled upon.

On the legal front, lawsuits filed by Elon Musk regarding OpenAI's shift to a for-profit structure could force a massive restructuring. Elon claims unspecified damages based on his early \$38 million investment at OpenAI's initial founding. The ultimate ask will be in a denomination beginning with a "b."

OpenAI is also suffering a huge exodus of talent, with founders Ilya Sutskever and John Schulman leaving to join Anthropic. Founder Andrej Karpathy also bolted. CTO Mira Murati, key in developing ChatGPT, Dall-E and Sora, left in September 2024. The list of key departures is long and suggests something is rotten in Denmark.

The primary bull case for OpenAI is winning the race to achieving artificial general intelligence (AGI) before anyone else and monopolizing on doing so. There is nothing to indicate that OpenAI is any closer to achieving AGI than any in the field chasing the Ark of the Covenant. There is really no indication that anyone will cross the tape, and certainly no time soon. It depends on the geometric growth rate, I suppose, if there is one. OpenAI had the first-mover advantage, but its lead is likely gone and its now-lagging position is rapidly evaporating. Or evaporated. Google and those with deep pockets can outspend everyone. Microsoft, Apple, Amazon, Google and Meta each have cash flows from operations exceeding \$100 billion and intend to spend it all. Ask why Sama is begging for \$100 billion right now. Even with the new capital there is a good case OpenAI is not gonna make it, NGMI to the kids, much like so many who perished when the fiber boom, or the railroad boom, or the canal boom went bust. Selling what is becoming a commodity in oversupply with no moat is a terrible business strategy. They may make it at the end of the day, but the odds are long. Imagine being in a position where you need \$100 billion of new money right now just to stay alive. Investing at an \$830 billion valuation? You may not make it either. Just as history rhymes, bust a-rhymes.

Summary

I never imagined that we'd see another infrastructure boom like the fiber bonanza in the late 1990s where massive capital expenditures dwarf revenues, and profits are but a hallucination. Now we have incredibly profitable huge tech companies committing to spend more than their \$100+ billion cash flows building datacenters and buying chips because each of their competitors are doing it. The notion of goliath capital-lite money-printing machines becoming EBITDA stories seemingly overnight is something out of the Twilight Zone. Leverage is building, and if the arms race persists for years, will become an anchor on profitability. The longer it goes, the larger the margin compression and earnings misses. Fancy multiples become less fancy. Perhaps the music stops soon enough, and they all simply write off the unproductive

assets and equity. Either way, messing around in the space with valuations priced for perfection is a dangerous way to go about investing. As George W. Bush said, “This sucker could go down.” It’s not so much *could*, but *when*.

Postscript

I have a feeling this section could be an ongoing story thread as the AI capital cycle unfolds in real time. As we go to press, Blue Owl just permanently halted retail redemptions on its retail private credit fund OBDC II. Management had assured investors there was “no meaningful pressure” on their assets. They attempted merging the private fund at a 20% discount to stated net asset value into a publicly traded fund. That idea flopped so investors now may get 30% of their stated value (Blue Owl’s valuation) via quarterly distributions, but only when management decides is appropriate. Meanwhile, management had pledged \$1.9 billion of Blue Owl shares as collateral for personal loans. They bought the Tampa Bay Lightning with the dough.

I remember when Citigroup borrowed \$12.5 billion from Saudi Prince Alwaleed bin Talal and friends in early 2008 at 7% convertible at a 20% premium. Global Systemically Important Financial Institutions don’t borrow at twice the risk-free rate. Citi CEO Chuck Prince, infamous for admonishing, “As long as the music is playing, you’ve got to get up and dance,” resigned at that moment. This also reminds me of the June 2007 collapse of three Bear Stearns “high-grade” structured credit funds. Or who can forget Lehman Brothers using repurchase transactions to mask valuation declines in internal global high yield and structured credit funds.

And just now, Open AI just announced they would burn through twice as much cash through 2030 than previously projected. But the good news is despite losing money on every generative search, they would make it up with 27% higher revenues. Not sure if Sam means revenue or annualized revenue.

Stay tuned.

AND THEN THERE WERE TWO

“Two roads diverged in a wood and I – I took the one less traveled by, and that has made all the difference.” – Robert Frost

“If it’s your job to eat a frog, it’s best to do it first thing in the morning. And If it’s your job to eat two frogs, it’s best to eat the biggest one first.” – Mark Twain



Seven stocks comprising Apple, Microsoft, Google, Amazon, Meta, Tesla and Nvidia so thoroughly dominated in recent years that they are recently fashionably known as the Magnificent Seven. Mr. Market is always correct in the long run, and even in the short run can get it right. To date, the old boy’s gotten it right. The stocks of these seven companies were rewarded for underlying business success and are capitalized on *both* past growth *and* optimistic expectations for future growth. Regarding past growth, the collection grew from 8.3% of the S&P 500’s capitalization-weighted market valuation in 2011 to a stunning, record 36.5% at year-end 2025.

The group’s proportion of market capitalization earlier reached 29.2% in 2021 but fell to 21.5% in the single year 2022 when the group lost 40.2% on a total return basis while the S&P 500 gave up a lesser 18.1%. The seven collectively then outperformed the index over the next three years, winding up at the aforementioned 36.5% of total capitalization heading into 2026.

Back in 2011, when the seven stocks comprised only 8.3% of index market value, their sales and profits amounted to 3.1% and 7.6% of the total for the 500 companies in the index. With the proportion of index market capitalization at 36.5% at year-end 2025, group sales are now 13.3% of the total while profits account for 26.8% of the index total. The market rewarded rapid sales growth and even faster profit growth, which is margin expansion. The difference between commanding 36.5% of index market cap versus 26.8% of aggregate profits reflects the seven stocks as a group trading for a higher 35.5x multiple to earnings versus 26.0x for the S&P. The 493 remaining non-magnificent trade at a still high 22.5x multiple.

Incredibly, despite five of the seven stocks underperforming the S&P 500 in 2025, the group’s proportion of market share managed to grow from 35.3% at year-end 2024 to 36.5% as profits rose from 25.0% of the total to 26.8%.

Google was the performance star of the seven in 2025 with a 66.0% total return. Nvidia produced a 38.9% total return. The five remaining all trailed the S&P 500’s 17.9% total return, yet the group of seven accounted for an unbelievable 43.4% of the index’s change in market cap during 2025. The group likewise contributed to 40.0% of index profit growth and a lesser 33.5% of sales growth. Nvidia alone accounted for 14.4% of the index’s change in market cap, 9.0% of sales growth and 15.5% of profit growth.

The remainder of this section consists largely of tables with modest narrative. Presented are a segregation of S&P returns using our five-factor attribution tables, broken down by the Magnificent Seven and remaining 493 index constituents, over three distinct time periods: The single one-year return in 2025; the 4 years from 2021 to 2025; and finally, the 14 years from 2011 to 2025. The section will then present our five-factor attribution tables over the same three intervals individually for each of the seven stocks.

A common thread regarding the seven stocks, and for the S&P 500 for that matter, is that they were rewarded for *prior* business success and past growth. Where Mr. Market can get it wrong, and importantly wrong at unfortunate times for investors, is when unsustainably high profitability combines

with expensive share prices which then face results that fall short of lofty expectations. Mr. Market *hates* it when sales and profit growth unexpectedly slow or decline. High margins and high multiples are a dangerous combination when expectations are high. Low margins and low multiples are what you get during periods of economic weakness. You definitely get the combination on the low side when a capital cycle turns downward and ends.

This section of the letter follows the overview of AI because four of the Magnificent Seven are among the AI hyperscalers. One, Nvidia, is selling most of the chips and enjoying, for the moment, unprecedented sales growth and what would normally be considered *unsustainably high profit margins*. If the combatants in the capital expenditure arms race tire of burning capital and lay down their weapons, or if Schumpeter appears on the scene and does his capital destruction thing, the ride downward may be swift and painful. The process may be underway here in late February. Or not.

1-Year Return Attribution 2025---S&P 500, Mag 7, S&P 493

S&P 500 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	233.36	79.24	1,970.60	16,686.8	8,467.89	11.8%	25.2	1.3%	5,881.62	
12/31/2025	263.28	81.00	2,062.55	17,607.3	8,536.69	12.8%	26.0	1.2%	6,845.50	
Growth %	12.8%	2.2%	4.7%	5.5%	-0.8%	7.8%	3.2%	-12.2%	16.4%	17.9%
Annual Avg	12.8%	2.2%	4.7%	5.5%	-0.8%	7.8%	3.2%	1.5%	16.4%	17.9%

Mag 7 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	562.78	58.19	2,324.82	2,038.2	876.72	24.2%	35.7	0.3%	20,080.84	
12/31/2025	689.43	65.12	2,688.05	2,346.6	872.96	25.6%	35.5	0.3%	24,455.37	
Growth %	22.5%	11.9%	15.6%	15.1%	0.4%	6.0%	-0.6%	-8.1%	21.8%	22.1%
Annual Avg	22.5%	11.9%	15.6%	15.1%	0.4%	6.0%	-0.6%	0.3%	21.8%	22.1%

S&P 493 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	1,548.98	647.72	15,303.73	14,648.6	957.19	10.1%	21.7	1.9%	33,639.70	
12/31/2025	1,701.92	656.31	15,782.13	15,260.8	966.97	10.8%	22.5	1.7%	38,356.45	
Growth %	9.9%	1.3%	3.1%	4.2%	-1.0%	6.5%	3.8%	-11.1%	14.0%	15.7%
Annual Avg	9.9%	1.3%	3.1%	4.2%	-1.0%	6.5%	3.8%	1.7%	14.0%	15.7%

Both margins and multiples should give investors pause in not only the Magnificent Seven but in the capitalization-weighted 493 members of the S&P 500 club. Unless history is proven wrong, this is the stuff of secular peaks.

A look at the four years 2021 to 2025 is equally telling. Recall we thought year-end 2021 might mark a secular peak. While margins are way down for the 493 from that point, the multiple at 22.5x is dangerously high unless margins are set to move higher. Margins exploded for the Mag 7, which combined with 12.0% annual sales growth drove a 17.6% annual return for the group despite the group multiple declining from 38.4x to 35.5x.

4-Year Return Attribution 2021 to 2025---S&P 500, Mag 7, S&P 493

S&P 500 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	208.21	63.13	1,566.80	13,266.5	8,467.26	13.3%	22.9	1.3%	4,766.19	
12/31/2025	263.28	81.00	2,062.55	17,607.3	8,536.69	12.8%	26.0	1.2%	6,845.50	
Growth %	26.4%	28.3%	31.6%	32.7%	-0.8%	-3.9%	13.6%	-10.7%	43.6%	52.4%
Annual Avg	6.0%	6.4%	7.1%	7.3%	-0.2%	-1.0%	3.2%	1.6%	9.5%	11.1%

Mag 7 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	337.49	35.43	1,637.11	1,489.4	909.74	20.6%	38.4	0.3%	12,959.77	
12/31/2025	689.43	65.12	2,688.05	2,346.6	872.96	25.6%	35.5	0.3%	24,455.37	
Growth %	104.3%	83.8%	64.2%	57.6%	4.2%	24.4%	-7.6%	-2.6%	88.7%	91.5%
Annual Avg	19.6%	16.4%	13.2%	12.0%	1.0%	5.6%	-2.0%	0.4%	17.2%	17.6%

S&P 493 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	1,536.50	530.13	12,428.80	11,777.2	947.57	12.4%	19.6	1.8%	30,147.17	
12/31/2025	1,701.92	656.31	15,782.13	15,260.8	966.97	10.8%	22.5	1.7%	38,356.45	
Growth %	10.8%	23.8%	27.0%	29.6%	-2.0%	-12.8%	14.9%	-2.7%	27.2%	37.1%
Annual Avg	2.6%	5.5%	6.2%	6.7%	-0.5%	-3.4%	3.5%	2.0%	6.2%	8.2%

The 14-year story for the Magnificent Seven is otherworldly, though as previously mentioned and seen in an upcoming table, the group was rewarded for incredible sales growth and robust margin expansion. You can be almost sure that sales growth will prove slower over the coming 10 or 14 years and margins may similarly prove unsustainably high. The group traded for a 14.2x P/E multiple in 2011. Ben Graham would not consider today's 35.5x multiple a margin of safety, and definitely not against a 25.6% profit margin, particularly if the expectation is that sales growth will slow, and margin compression is coming. Think back to our AI section and the discussion about depreciation expense, interest expense *and uncounted hidden expenses*.

14-Year Return Attribution 2011 to 2025---S&P 500, Mag 7, S&P 493

S&P 500 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	96.44	29.11	1,052.83	9,531.2	9,052.93	9.2%	13.0	2.3%	1,257.60	
12/31/2025	263.28	81.00	2,062.55	17,607.3	8,536.69	12.8%	26.0	1.2%	6,845.50	
Growth %	173.0%	178.2%	95.9%	84.7%	6.0%	39.4%	99.4%	-48.9%	444.3%	605.0%
Annual Avg	7.4%	7.6%	4.9%	4.5%	0.4%	2.4%	5.1%	2.1%	12.9%	15.0%

Mag 7 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	66.54	6.04	293.79	293.8	1,000.00	22.6%	14.2	0.6%	946.27	
12/31/2025	689.43	65.12	2,688.05	2,346.6	872.96	25.6%	35.5	0.3%	24,455.37	
Growth %	936.2%	979.0%	815.0%	698.7%	14.6%	13.2%	149.4%	-58.2%	2,484.4%	2,696.7%
Annual Avg	18.2%	18.5%	17.1%	16.0%	1.0%	0.9%	6.7%	0.7%	26.1%	26.9%

S&P 493 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	806.53	257.51	9,237.45	9,237.4	1,000.00	8.7%	12.9	2.5%	10,438.69	
12/31/2025	1,701.92	656.31	15,782.13	15,260.8	966.97	10.8%	22.5	1.7%	38,356.45	
Growth %	111.0%	154.9%	70.8%	65.2%	3.4%	23.5%	74.1%	-30.6%	267.4%	383.8%
Annual Avg	5.5%	6.9%	3.9%	3.7%	0.2%	1.5%	4.0%	2.2%	9.7%	11.9%

Perhaps the best way of demonstrating the remarkable outperformance of the Mag 7 is by assessing their proportionate share of growth. The figures in the table below were discussed in the opening paragraphs to this section. The sales and profit figures are aggregates for the S&P 500 and broken out for the seven stocks and remaining 493. The contribution of seven stocks to the aggregate capitalization-weighted U.S. stock market is unprecedented. The market was violently concentrated in 1929, the late 1960s through the peaking of the Nifty Fifty in 1972, and then of course in 2000. The current iteration is by far the most extreme.

Magnificent Seven and S&P 493 Share of S&P 500; 2011-2025

(Dollars in Billions)

	Market Cap	Proportion of Market Cap	Sales	Proportion of Sales	Profit	Proportion of Profit	Profit Margin
2011							
S&P 500	\$ 11,385		\$ 9,531		\$ 873		9.2%
S&P 493	10,439	91.7%	9,237	96.9%	807	92.4%	8.7%
MAG 7	946	8.3%	294	3.1%	67	7.6%	22.6%
2021							
S&P 500	40,357		13,267		1,763		13.3%
S&P 493	28,567	70.8%	11,777	88.8%	1,456	82.6%	12.4%
MAG 7	11,790	29.2%	1,489	11.2%	307	17.4%	20.6%
2022							
S&P 500	32,133		14,670		1,648		11.2%
S&P 493	25,230	78.5%	13,057	89.0%	1,370	83.1%	10.5%
MAG 7	6,903	21.5%	1,613	11.0%	279	16.9%	17.3%
2023							
S&P 500	40,038		15,716		1,792		11.4%
S&P 493	28,031	70.0%	13,928	88.6%	1,423	79.4%	10.2%
MAG 7	12,008	30.0%	1,788	11.4%	370	20.6%	20.7%
2024							
S&P 500	49,805		16,687		1,976		11.8%
S&P 493	32,200	64.7%	14,649	87.8%	1,483	75.0%	10.1%
MAG 7	17,605	35.3%	2,038	12.2%	493	25.0%	24.2%
2025							
S&P 500	58,438		17,607		2,248		12.8%
S&P 493	37,089	63.5%	15,261	86.7%	1,646	73.2%	10.8%
MAG 7	21,348	36.5%	2,347	13.3%	602	26.8%	25.6%

Source: Semper Augustus, Company Filings

Market capitalization is not float adjusted. Undiluted shares outstanding. Year-end figures.

The next table summarizes the proportion of S&P 500 *change* in market cap, sales and profit gained by the Mag 7 and S&P 493. The three periods presented match the five-factor tables above as well as the ones upcoming for the seven stocks individually.

The Mag 7 accounted for a whopping 43.4% of the entire S&P 500's change in market cap in 2025 and for 43.4% of the market cap gain over 14 years. Both statistics are amazing, but again, reflect a very similar proportion of their overall contribution to the index's total profit growth. It's hard to comprehend

that seven companies could account for 38.9% of the index's profit growth over a 14-year period when the other 493 companies' stocks earned an average 11.9% total return. Take note of the difference in per-share earnings growth, however, and you will see it: 5.5% annual EPS growth for the 493 from 2011 to 2025 versus 18.2% per year for the Magnificent Seven. My.

Magnificent Seven and S&P 493 Proportionate Share of S&P 500 Gains; 2011-2025

(Dollars in Billions)

	Percent Change in Market Cap	Dollar Change in Market Cap	Proportion of Change in Market Cap	Percent Change in Sales	Dollar Change in Sales	Proportion of Change in Sales	Percent Change in Profit	Dollar Change in Profit	Proportion of Change in Profit
2025									
S&P 500	17.3%	\$ 8,633		5.5%	\$ 921		13.7%	\$ 271	
S&P 493	15.2%	4,890	56.6%	4.2%	612	66.5%	11.0%	163	60.0%
MAG 7	21.3%	3,743	43.4%	15.1%	308	33.5%	22.0%	109	40.0%
Dec 2021 - Dec 2025									
S&P 500	44.8%	18,081		32.7%	4,341		27.5%	485	
S&P 493	29.8%	8,523	47.1%	29.6%	3,484	80.3%	13.0%	190	39.2%
MAG 7	81.1%	9,558	52.9%	57.6%	857	19.7%	96.0%	295	60.8%
Dec 2011 - Dec 2025									
S&P 500	413.3%	47,053		84.7%	8,076		157.4%	1,374	
S&P 493	255.3%	26,651	56.6%	65.2%	6,023	74.6%	104.0%	839	61.1%
MAG 7	2156.1%	20,402	43.4%	698.7%	2,053	25.4%	804.5%	535	38.9%

Finally, the following tables present our five-factor attribution analysis for each of the Magnificent Seven individually over the same three intervals: have a bite of the Apple and blitz through attribution tables for the Mag 7 components.

The Seven

Semper's five-factor return tables are presented for each of the Magnificent Seven component companies over three time periods:

- 2025
- Four years 2021 to 2025
- Fourteen years 2011 to 2025

The tables are presented without narrative but for reference and education. 2025 may wind up going down as a pivotal year for the seven, and for the market. With only two of the seven beating the S&P 500's total return in 2025 and all lagging here in late year-to-date in late February, our individual five-factor variables will be keys to who wins and who loses the battle for investment survival during the AI capital cycle.

Apple

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Apple

AAPL 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	6.97	0.99	26.31	395,760.0	15,040.73	26.5%	35.9	0.4%	250.42	
12/31/2025	7.91	1.03	29.63	435,617.0	14,702.70	26.7%	34.4	0.4%	271.86	
Growth %	13.5%	4.0%	12.6%	10.1%	2.3%	0.8%	-4.3%	-4.2%	8.6%	9.1%
Annual Avg	13.5%	4.0%	12.6%	10.1%	2.3%	0.8%	-4.3%	0.5%	8.6%	9.1%

AAPL 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	6.04	0.87	23.15	378,323.0	16,340.85	26.1%	29.4	0.5%	177.57	
12/31/2025	7.91	1.03	29.63	435,617.0	14,702.70	26.7%	34.4	0.4%	271.86	
Growth %	31.1%	19.1%	28.0%	15.1%	11.1%	2.4%	16.8%	-22.2%	53.1%	56.3%
Annual Avg	7.0%	4.5%	6.4%	3.6%	2.7%	0.6%	4.0%	0.6%	11.2%	11.8%

AAPL 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	1.25	0.00	4.90	127,841.0	26,101.99	25.6%	11.5	0.0%	14.46	
12/31/2025	7.91	1.03	29.63	435,617.0	14,702.70	26.7%	34.4	0.4%	271.86	
Growth %	530.8%	0.0%	504.9%	240.7%	77.5%	4.3%	198.0%	0.0%	1,779.5%	2,138.2%
Annual Avg	14.1%	0.0%	13.7%	9.2%	4.2%	0.3%	8.1%	1.5%	23.3%	24.9%

Microsoft

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Microsoft

MSFT 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	12.46	3.08	35.21	261,802.0	7,435.00	35.4%	33.8	0.7%	421.50	
12/31/2025	15.00	3.48	41.12	305,453.0	7,429.00	36.5%	32.2	0.7%	483.62	
Growth %	20.3%	13.0%	16.8%	16.7%	0.1%	3.1%	-4.7%	-1.5%	14.7%	15.6%
Annual Avg	20.3%	13.0%	16.8%	16.7%	0.1%	3.1%	-4.7%	0.8%	14.7%	15.6%

MSFT 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	8.74	2.36	24.65	184,903.0	7,500.00	35.5%	38.5	0.7%	336.32	
12/31/2025	15.00	3.48	41.12	305,453.0	7,429.00	36.5%	32.2	0.7%	483.62	
Growth %	71.6%	47.5%	66.8%	65.2%	1.0%	2.9%	-16.2%	2.5%	43.8%	48.6%
Annual Avg	14.5%	10.2%	13.6%	13.4%	0.2%	0.7%	-4.3%	0.9%	9.5%	10.4%

MSFT 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	2.67	0.72	8.60	72,052.0	8,382.00	31.0%	9.7	2.8%	25.96	
12/31/2025	15.00	3.48	41.12	305,453.0	7,429.00	36.5%	32.2	0.7%	483.62	
Growth %	462.7%	383.3%	378.3%	323.9%	12.8%	17.6%	231.1%	-74.1%	1,762.9%	2,278.7%
Annual Avg	13.1%	11.9%	11.8%	10.9%	0.9%	1.2%	8.9%	2.2%	23.2%	25.4%

Google/Alphabet

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Google/Alphabet

GOOGL 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	7.91	0.60	28.66	350,018.0	12,211.00	27.6%	23.9	0.3%	189.30	
12/31/2025	9.22	0.83	32.99	402,836.0	12,211.00	27.9%	33.9	0.3%	313.00	
Growth %	16.5%	38.3%	15.1%	15.1%	0.0%	1.2%	41.9%	-16.3%	65.3%	66.0%
Annual Avg	16.5%	38.3%	15.1%	15.1%	0.0%	1.2%	41.9%	0.6%	65.3%	66.0%
GOOGL 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	5.03	0.00	19.46	257,637.0	13,242.42	25.8%	28.8	0.0%	144.85	
12/31/2025	9.22	0.83	32.99	402,836.0	12,211.00	27.9%	33.9	0.3%	313.00	
Growth %	83.5%	0.0%	69.6%	56.4%	8.4%	8.2%	17.8%	0.0%	116.1%	117.7%
Annual Avg	16.4%	0.0%	14.1%	11.8%	2.0%	2.0%	4.2%	0.2%	21.2%	21.5%
GOOGL 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	0.76	0.00	2.92	37,905.0	12,995.80	26.1%	21.2	0.0%	16.16	
12/31/2025	9.22	0.83	32.99	402,836.0	12,211.00	27.9%	33.9	0.3%	313.00	
Growth %	1,110.5%	0.0%	1,031.1%	962.8%	6.4%	7.0%	60.0%	0.0%	1,836.5%	1,851.1%
Annual Avg	19.5%	0.0%	18.9%	18.4%	0.4%	0.5%	3.4%	0.1%	23.6%	23.6%

Amazon

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Amazon

AMZN 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	5.62	0.00	60.22	637,959.0	10,593.00	9.3%	39.0	0.0%	219.39	
12/31/2025	6.99	0.00	66.81	716,924.0	10,731.00	10.5%	33.0	0.0%	230.82	
Growth %	24.3%	0.0%	10.9%	12.4%	-1.3%	12.0%	-15.3%	0.0%	5.2%	5.2%
Annual Avg	24.3%	0.0%	10.9%	12.4%	-1.3%	12.0%	-15.3%	0.0%	5.2%	5.2%
AMZN 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	2.33	0.00	46.15	469,822.0	10,180.00	5.0%	71.5	0.0%	166.72	
12/31/2025	6.99	0.00	66.81	716,924.0	10,731.00	10.5%	33.0	0.0%	230.82	
Growth %	199.9%	0.0%	44.8%	52.6%	-5.1%	107.2%	-53.8%	0.0%	38.5%	38.5%
Annual Avg	31.6%	0.0%	9.7%	11.1%	-1.3%	20.0%	-17.6%	0.0%	8.5%	8.5%
AMZN 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	0.07	0.00	5.28	48,077.0	9,100.00	1.3%	126.9	0.0%	8.66	
12/31/2025	6.99	0.00	66.81	716,924.0	10,731.00	10.5%	33.0	0.0%	230.82	
Growth %	10,149.3%	0.0%	1,164.6%	1,391.2%	-15.2%	710.5%	-74.0%	0.0%	2,566.9%	2,566.9%
Annual Avg	39.2%	0.0%	19.9%	21.3%	-1.2%	16.1%	-9.2%	0.0%	26.4%	26.4%

Facebook/Meta

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Facebook/Meta

META 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	23.98	2.00	64.92	164,501.0	2,534.00	36.9%	24.4	0.3%	585.51	
12/31/2025	29.26	2.10	79.43	200,965.0	2,530.00	36.8%	22.6	0.3%	660.09	
Growth %	22.0%	5.0%	22.4%	22.2%	0.2%	-0.3%	-7.6%	-6.9%	12.7%	13.1%
Annual Avg	22.0%	5.0%	22.4%	22.2%	0.2%	-0.3%	-7.6%	0.4%	12.7%	13.1%

META 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	13.71	0.00	43.02	117,929.0	2,741.00	31.9%	24.5	0.0%	336.35	
12/31/2025	29.26	2.10	79.43	200,965.0	2,530.00	36.8%	22.6	0.3%	660.09	
Growth %	113.5%	0.0%	84.6%	70.4%	8.3%	15.6%	-8.1%	0.0%	96.3%	97.6%
Annual Avg	20.9%	0.0%	16.6%	14.3%	2.0%	3.7%	-2.1%	0.2%	18.4%	18.6%

META 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	0.46	0.00	2.79	3,711.0	1,330.00	16.5%	83.1	0.0%	38.23	
12/31/2025	29.26	2.10	79.43	200,965.0	2,530.00	36.8%	22.6	0.3%	660.09	
Growth %	6,260.9%	0.0%	2,746.8%	5,315.4%	-47.4%	123.4%	-72.9%	0.0%	1,626.6%	1,638.5%
Annual Avg	34.5%	0.0%	27.0%	33.0%	-4.5%	5.9%	-8.9%	0.1%	22.6%	22.6%

Tesla

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Tesla

TSLA 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	2.19	0.00	30.38	97,690.0	3,216.00	7.2%	184.0	0.0%	403.84	
12/31/2025	1.21	0.00	25.28	94,827.0	3,751.00	4.8%	371.7	0.0%	449.72	
Growth %	-44.9%	0.0%	-16.8%	-2.9%	-14.3%	-33.7%	102.0%	0.0%	11.4%	11.4%
Annual Avg	-44.9%	0.0%	-16.8%	-2.9%	-14.3%	-33.7%	102.0%	0.0%	11.4%	11.4%

TSLA 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	1.62	0.00	17.37	53,823.0	3,099.00	9.3%	217.4	0.0%	352.26	
12/31/2025	1.21	0.00	25.28	94,827.0	3,751.00	4.8%	371.7	0.0%	449.72	
Growth %	-25.3%	0.0%	45.6%	76.2%	-17.4%	-48.7%	71.0%	0.0%	27.7%	27.7%
Annual Avg	-7.0%	0.0%	9.8%	15.2%	-4.7%	-15.4%	14.4%	0.0%	6.3%	6.3%

TSLA 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	-0.17	0.00	0.13	204.2	1,567.95	-129.5%	-11.3	0.0%	1.90	
12/31/2025	1.21	0.00	25.28	94,827.0	3,751.00	4.8%	371.7	0.0%	449.72	
Growth %	-817.2%	0.0%	19,307.7%	46,328.7%	-58.2%	-103.7%	-3,393.1%	0.0%	23,519.8%	23,519.8%
Annual Avg	0.0%	0.0%	45.7%	55.1%	-6.0%	0.0%	0.0%	0.0%	47.7%	47.7%

Nvidia

Return Attribution: 2025; 2021 to 2025; 2011 to 2025---Nvidia

NVDA 1 Year	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2024	2.93	0.03	5.33	130,497.0	24,477.00	55.0%	45.8	0.0%	134.29	
12/31/2025	4.69	0.04	8.78	213,494.1	24,305.00	53.4%	39.8	0.0%	186.50	
Growth %	59.8%	17.6%	64.8%	63.6%	0.7%	-3.0%	-13.1%	-15.3%	38.9%	38.9%
Annual Avg	59.8%	17.6%	64.8%	63.6%	0.7%	-3.0%	-13.1%	0.0%	38.9%	38.9%
NVDA 4 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2021	0.40	0.02	1.07	26,914.0	25,060.00	37.1%	73.9	0.1%	29.41	
12/31/2025	4.69	0.04	8.78	213,494.1	24,305.00	53.4%	39.8	0.0%	186.50	
Growth %	1,078.1%	150.0%	717.9%	693.2%	3.1%	44.0%	-46.2%	-60.6%	534.1%	535.3%
Annual Avg	85.3%	25.7%	69.1%	67.8%	0.8%	9.6%	-14.3%	0.1%	58.7%	58.8%
NVDA 14 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2011	0.02	0.00	0.16	3,997.9	24,487.66	14.9%	14.2	0.0%	0.35	
12/31/2025	4.69	0.04	8.78	213,494.1	24,305.00	53.4%	39.8	0.0%	186.50	
Growth %	19,121.3%	0.0%	5,280.2%	5,240.1%	0.8%	257.3%	180.0%	0.0%	53,724.0%	58,603.7%
Annual Avg	45.6%	0.0%	32.9%	32.9%	0.1%	9.5%	7.6%	1.0%	56.7%	57.7%

Note that the stock return figures are as of December 31 in each interval for all of the companies and groups. Nvidia is on a January yearend, so its business figures are actual for past years and estimates for January 31, 2026.

As promised, two bonus tables are included for Nvidia. The first illustrates the incredible proportion of change in market capitalization, sales and profitability contributed by Nvidia alone to the S&P 500 over the three time intervals presented in the five-factor tables. The second table does the same over the same time periods, depicting the proportion of Mag 7 gains in market cap, sales and profits attributed to Nvidia.

Nvidia posted a 38.9% total return in 2025. The stock accounted for 14.4% of the S&P 500's 2025 change in market capitalization and 15.5% of profit growth. You won't see it in the tables, but the stock returned an amazing 171.2% in 2024 and contributed 21.2% of the S&P 500's 24.4% dollar increase in market cap that year. Also in 2024, its 112.5% sales growth accounted for 7.0% of total revenue growth while a 143.7% surge in profit contributed 23.2% to the index's 10.2% rise in dollar profits.

Even more wild is Nvidia's proportionate share of gains since 2011. The company's market cap grew 53,323% and contributed 9.6% of the entire gain in the S&P 500's market cap over 14 years. Sales growth accounted for 2.6% of the index's total while an 18,903% surge in profits contributed 8.3% of all index profit gains over the 14-year duration. The investment world never saw anything like this, culminating with Nvidia rising to the largest company in the world by market valuation, reaching over \$5 trillion at its 2025 high.

Nvidia's Proportionate Share of S&P 500 Gains; 2011 -2025

	Percent Change in Market Cap	Dollar Change in Market Cap	Proportion of Change in Market Cap	Percent Change in Sales	Dollar Change in Sales	Proportion of Change in Sales	Percent Change in Profit	Dollar Change in Profit	Proportion of Change in Profit
2025									
S&P 500	17.3%	\$ 8,633		5.5%	\$ 921		13.7%	\$ 271	
Nvidia	37.9%	1,246	14.4%	63.6%	83	9.0%	57.8%	42	15.5%
Dec 2021 - Dec 2025									
S&P 500	44.8%	18,081		32.7%	4,341		27.5%	485	
Nvidia	515.0%	3,796	21.0%	693.2%	187	4.3%	1038.6%	105	21.6%
Dec 2011 - Dec 2025									
S&P 500	413.3%	47,053		84.7%	8,076		157.4%	1,374	
Nvidia	53,322.5%	4,524	9.6%	5,240.1%	209	2.6%	18,902.6%	114	8.3%

Nvidia's contribution to the incredible rise in the Mag 7's market cap, sales and profits is equally remarkable next to what it singlehandedly did for the S&P 500. Nvidia's market cap gain was 33.3% of the Mag 7's in 2025, 39.7% over the last four years and 22.2% over the past 14 years.

The company's surging sales and profits were rewarded by the market for sure. The stock is capitalized at a 39.8x P/E multiple on a 53.4% net margin. Numerous scenarios may evolve as to how the AI capital cycle plays out, many of them potentially very bad. Recall how Mr. Market feels about slowing growth and margin compression. But in the meantime, with hyperscaler budgets only headed skyward for now, who knows for how long the music will play. The CEO formerly known as (Chuck) Prince would be dancing.

Nvidia's Proportionate Share of Mag7 Gains; 2011 -2025

	Percent Change in Market Cap	Dollar Change in Market Cap	Proportion of Change in Market Cap	Percent Change in Sales	Dollar Change in Sales	Proportion of Change in Sales	Percent Change in Profit	Dollar Change in Profit	Proportion of Change in Profit
2025									
Mag 7	21.3%	\$ 3,743		15.1%	\$ 308		22.0%	\$ 109	
Nvidia	37.9%	1,246	33.3%	63.6%	83	26.9%	57.8%	42	38.8%
Dec 2021 - Dec 2025									
Mag 7	81.1%	9,558		57.6%	857		96.0%	295	
Nvidia	515.0%	3,796	39.7%	693.2%	187	21.8%	1038.6%	105	35.5%
Dec 2011 - Dec 2025									
Mag 7	2,156.1%	20,402		698.7%	2,053		804.5%	535	
Nvidia	53,322.5%	4,524	22.2%	5,240.1%	209	10.2%	18,902.6%	114	21.3%

BOOKS AND MUSIC

"I'm walkin', yes, indeed and I'm talkin' 'bout you and me..." – Antoine "Fats" Domino, 1957

"But I would walk five hundred miles, and I would walk five hundred more, just to be the man who walked a thousand miles..." – The Proclaimers, 1987

The walking journey continues. According to the inefficient (but free) step tracker on my phone, I log an average 20,500 steps per day, which is 11 miles, including strolling around the office, house, and airports. That's 4,015 miles per year and 11,041 since I first hit the pavement 2 ¾ years ago. They say New York to LA is 2,790 miles and the circumference of the earth is 24,901 miles. At this point I'm nearing the Himalayas where I thought I'd see the Dalai Lama, but evidently he's no longer home. I'm due back in St. Louis in time to fly to Berkshire's 2029 annual meeting. The Proclaimers got nothing on me...Relieved of the notion that athletes don't walk when the necessity of replacing three of four joints became a reality and my running days being no more, I needed to get back in shape to make two hip replacements in 18 months easy recoveries. I'm certain that without being in shape, the recoveries from the two surgeries (plus a bonus third surgery in September to replace part of the new joint and to remedy two variants of staph infection) wouldn't have been so easy. One knee to go and I'm Steve Austin – not stone cold but the colonel one.

Marching around for at least two hours a day consumes a considerable amount of time. I've learned to listen to far more earnings calls as opposed to just reading the transcripts, as well as listening to more investing-related podcasts. The earnings calls are starting to drive me insane. Why is it that 99% of CEOs and CFOs have been trained by their investor relations teams to be pollyannish cheerleaders. Gimme a G. Gimme an R. I've taken to avoiding walking over high bridges when listening to how great the quarter was. *Every* quarter is great. Congratulations on it. The transcripts are bad enough, but listening is bloody murder. And there are only so many podcasts, so typically I find music or old Berkshire meetings for the final meditative stretch.

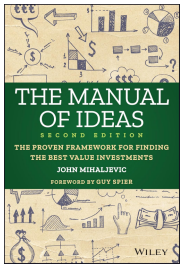
The problem with walking and reading for work the rest of the waking hours is that I find I'm not reading as many books over the last three years. I've learned how to put a book down if it doesn't click, to skim or to just stop when you've gotten enough out of it. Then there are the great reads that you can't put down. Regardless, I'm resolved to increase my book intake by augmenting the current regimen with audio books. My wife has done so for years, and it's been life changing. She *always* had earbuds in, which *for sure* has its pros, but also its cons, particularly when I need something. I hope to report next year that I love listening to books and consumed more. Books that is.

In the meantime, here are some that I've enjoyed in physical form over the last year and am happy to recommend. I also recommend that if you get a new hip or knee, don't get a staph infection. Do get some HOKAs for walking, however. It's the best shoe around and owned by Semper's newly added portfolio company, Deckers Outdoor (ticker: DECK). I'll also mention some music enjoyed while marching or writing this not-brief annual letter.



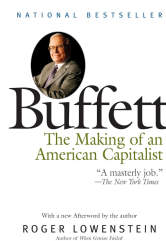
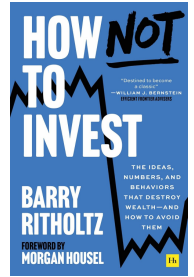
Apple in China was recommended by the brilliant Paul Isaac, who I'm certain has read every book in the Library of Congress (and remembers each word). This is a phenomenal read, chronicling Apple's near-death experience to the evolution of their reliance on contract manufacturing. From product design to teaching their suppliers how to build, and ultimately compete with Apple, the story ends with a relationship with, and reliance on, China that can't be walked back. A brilliantly researched book and a great look into the people, from Steve Jobs to Jony Ive to Tim Cook at Apple to Terry Gou at Foxconn. This book was hard to put down.

Barry Ritholtz dreamed up the perfect concept and wrote the perfect book to suit it, mimicking Charlie Munger's admonition to "Invert, always invert." Instead of another how-to lesson book, *How Not to Invest* inverts the typical and instead gives you a great rundown on the errors and pitfalls that blow up capital and how to avoid them.



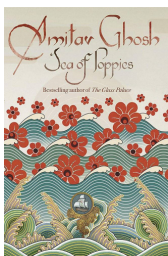
Great friend John Mihaljevic outdid himself and released a second edition of his terrific, *The Manual of Ideas*, a superb read on investment idea generation, things to look for, tools, philosophies and mental framework. John draws on a phenomenal community of investors, thinkers and kind people.

Another great friend in Daniel Gladiš just released *Hidden Investment Treasures: How to Find Great Stock Investments as the Investment World Goes Passive*, a marvelously educational series of 16 business and investing case studies. It's required reading for any investor determined to improve their own analytical process.



The letter references Roger Lowenstein's *Buffett – The Making of an American Capitalist*. When I was first getting up to speed on Berkshire Hathaway in 1996, the year the company issued its class B shares, I read Graham's *The Intelligent Investor* (the best *investing* book ever) twice, three years of Berkshire annual reports and then all of the Chairman's letters from 1977. I then read Roger's book, which had just been written in 1995. To this day, if there's one book about Warren Buffett to read, this is it. I haven't read it again since 1996 but will make it my first audio book, commemorating the passage of 30 years as a pupil of the GOAT.

I've read no fiction (with the exception of sell-side research and fantasy buy-side puff-piece reports about Tesla) since Tom Clancy's classics more than 30 years ago. I'm honored to recommend the debut novel from one of my best friends since the third grade. Kirsten Shuford spent a career with the CIA, FBI, NSA, Department of Defense War and the U.S. Navy. Fluent in Russian (and pretty much everything), to say she's one of the smartest people I know would be an understatement. *Damage Control* is a suspenseful tale of espionage and betrayal. Not only did Kirsten serve the country in ways we'll never know, but the cute girl with piggy tails can write.



A friend surprised me with a set of historical novels by Amitav Ghosh. The incredibly well-researched first book of *The Ibis Trilogy* is set in 1838 at the outset of the First Opium War. *Sea of Poppies* explores the machinery of the British colonial opium trade, indentured labor, caste systems and the economic exploitation of nineteenth-century India. Trading houses featured are Jardine, Matheson and The East India Company. While a bit heavy on the fiction side, it's a great read.



Many thanks to those who sent books my way last year. I hope to work through my stacks and bookshelves, as well as the inflow, yet remain a serial book buyer. Audio books may cure this in part. Thanks also for all of the great music recommendations, not only during the annual letter process but throughout the year.

New artists (to me) that I've enjoyed include the Paper Kites, Bear's Den, Phosphorescent and fellow St. Louisan Angel Olsen. From the past, I'd forgotten how prolific and wide-ranging Joe Jackson and Bryan Adams were. Hearing a duet with Bryan Adams and Luciano Pavarotti was surprising. Chad and I knew Big Head Todd and the Monsters when they got their start in Boulder. They are making new music and touring, and very much worth a listen. *Sister Sweetly* is their best album, but that could be bias from being there in the early days.

As always, any suggestions on the reading or music fronts, I'd love it if you would send them my way.

BERKSHIRE HATHAWAY: GOING OUT ON TOP

"I think the time has arrived where Greg should become the chief executive officer of the company at year-end. I want to spring that on the directors effectively and then give that as my recommendation...I would add this – the decision to keep every share is an economic decision because I think the prospects of Berkshire will be better under Greg's management than mine. There may come a time when we get a chance to invest a lot of money, and if that time comes, I think it may be helpful with the Board that they know I've got all my money in the company, and I think it's smart. And I've seen what Greg has done. So that's the news hook for the day. And thanks for coming."

Followed by a moving, incredibly long-lasting standing ovation, and then this:

The enthusiasm shown by the audience's response can be interpreted in two ways. But I'll take it as positive. Thank you. – Warren Buffett; 2025 Annual General Meeting of Shareholders



The Year at Berkshire

Berkshire Hathaway's "A" shares returned 10.9% in 2025 and is likely to report a nearly identical 11.0% increase in book value on Saturday morning. Because the company repurchased none of its outstanding shares during the year, per-share book value is also expected to have gained 11.0%. Semper's estimate of intrinsic value per share grew a slightly lesser 9.3% over 2025. Our estimate is more conservatively measured today than in recent years for several reasons. Contributing to the discrepancy between per-share gains in book value and intrinsic value was an even larger annual return on Berkshire's stock portfolio, driven mostly by multiple expansion. Berkshire again reduced the common stock portfolio held by its vast insurance operation, further materially trimming its largest, and still in our opinion most overvalued, component. Equity portfolio sales and a larger-than-normal cash position make for a more conservatively stated book value and intrinsic value. Berkshire's shares are no longer as undervalued as in recent years. Yet a nice discount at 88% of intrinsic value remains, lending a margin of safety to Semper's ongoing investment. Oh, and the CEO retired.

The headlines will again trumpet Berkshire's cash hoard, expected to total more than \$372 billion at year-end 2025, 16% higher than a year ago. Cash as a percent of total firm assets is expected to total 30%, up from 28% at year-end 2024. The 30% figure is more than double Berkshire's 14% historic average proportion of assets held as cash since Berkshire acquired General Re in 1998. The headlines regarding Berkshire's cash holdings are typically hyperbolic, not recognizing cash and fixed-income capital needs in insurance underwriting and reserving. However, the cash position beyond insurance needs is very large today, and we expect Berkshire's new CEO, Greg Abel, to take big swings with it during the next deep recession or crisis, or when the rare elephant opportunistically crosses the path.

A housekeeping note on Berkshire's cash. Berkshire's stock portfolio is nearly all owned by its vast insurance operation with positions allocated separately among its various insurers. Huge sales of Berkshire's Apple position (and other stocks on a net basis) added materially to the overall cash position. Last year's letter estimated the insurance operation would own \$277 billion between cash and Treasury-bills while the holding company would end 2024 with \$13.9 billion. As it turned out, a significant portion of cash was moved to the holding company, presumably as a non-taxable intercompany dividend. The company reported that at year-end 2024 the insurance operation held only \$212.6 billion while the holding company owned \$89.5 billion, up from \$21.5 billion in 2023. Further, each year most of Berkshire's Manufacturing, Retail and Service subsidiaries send their cash profits to the holding company. In the weeds for sure, but the big transfer of cash from the insurance group a year ago was surprising. Look for cash at the holding company to total \$93.5 billion for 2025 and cash at the insurers of

about \$251 billion when Berkshire releases its annual report this Saturday. The balance of cash not held at the insurers or holding company is at the MSR group and lesser amounts at BHE and BNSF.

The company is likely to report \$86.7 billion in pre-tax GAAP earnings. After-tax net income attributable to shareholders is expected to be \$70.7 billion after deducting a small portion of earnings attributable to non-controlling interests. Berkshire followers know, however, to take reported results with a grain of salt. Since 2018, companies are required to report all changes in market values of investment securities, whether realized or unrealized, as gains or losses in the statement of earnings. Previously, only realized gains and losses were included in the income statement, while both realized and unrealized changes flowed through the balance sheet. Berkshire's stock portfolio, owned mostly within its unparalleled, world-class insurance operation, likely earned a 13.7% total return during 2025 with strong contributions from its holdings in five Japanese trading companies.

The portfolio added \$36 billion in market value gain in 2025 plus an additional \$4 billion of dividends. Whatever Berkshire *realizes* as capital gain (an unprecedentedly very large number in 2024 and lesser but still large in 2025), that portion of the investment return plus the dividends would have hit the income statement prior to 2018, just as it does now. But after the passage of the Tax Cuts and Jobs Act (TCJA) in late 2017, effective January 1, 2018, all capital gain is counted as profit on the income statement, whether realized or not.

Berkshire has now been a net seller of common stocks for three years running, paring a net \$24 billion in 2023, a whopping net \$132 billion in 2024 and an estimated nearly \$16 billion through year-end 2025. Despite the net sales, the equity portfolio is roughly the same dollar size at year-end 2025 as it was three years prior thanks to an average 19.7% annual total return over the three years.

Never keen to sell key investments and incur sizable taxes on realized capital gains, Berkshire's stock market sales, led in large part by materially shrinking its hugely successful Apple investment, witnessed a monumental pivot. The net sales of \$172 billion over the past three years came with a hefty price tag by realizing a \$128 billion capital gain. Over the prior three decades Berkshire's cumulative realized gains on equity sales totaled just over \$37 billion. At a 21% corporate tax rate on the three-year \$128 billion realized gain, Uncle Sam surely sent Omaha a thank-you note for the \$27 billion in taxes received just from the equity sales.

Berkshire's \$128 billion realized gain over three years is *larger than all cumulative realized gains over the entire six decades since 1965 prior to 2023*. I wouldn't be surprised to see further modest portfolio net sales into 2026.

As it is, even if Berkshire *never* realized capital gains on the preponderance of the stock portfolio, all changes in market value each quarter are now included in income and taxed for GAAP purposes (but not paid as cash taxes) on the income statement with the unrealized gain offset by a 21% federal tax rate deferred liability on the balance sheet.

Far more important than short-term swings in stock prices is growth in *intrinsic value* per share and how Berkshire invests its capital. By Semper's math, 2025 intrinsic value grew 9.3% from \$1.126 trillion to \$1.230 trillion, or in per-share terms *to \$855,396 per A share and \$570 per B share*. Berkshire's estimated intrinsic value first crossed \$1 trillion in 2023 using an average of Semper's four valuation methods. Berkshire's shares advanced 10.9% in 2025 and closed the year at 88% of our appraisal of intrinsic value, up from 87% of intrinsic value at year-end 2024 and 75% the prior year. Two years ago (at 75% of intrinsic value), the stock was priced for 33% upside (100/75) plus annual growth. Because the shares outpaced underlying growth in intrinsic value by gaining 25.5% in 2024 and 10.9% last year, the

upside is now a lower 14% plus annual growth. Annual gains in intrinsic value will correlate to Berkshire's conservatively measured more-than-10%-return on unleveraged equity capital.

I mentioned that Semper's appraisal of intrinsic value is likely more conservatively stated today than in recent years. A handful of factors account for that. First, it's likely that Berkshire under Greg Abel's leadership will commit a large portion of today's outsized cash reserves at materially higher returns than are presently being earned on U.S. Treasury. We account for some of this with a normalization process, but anticipate Greg moving fairly quickly, particularly if the stock market declines meaningfully from current levels.

We also remove realized and unrealized investment gains or losses from income and replace them by assuming Berkshire will earn its pro rata portion of stock market earnings of its investees not paid as dividends. In other words, we assume Berkshire will earn the earnings yield on the portfolio, not just dividends. The portfolio P/E multiple drifted up to 19.8x at year-end 2025, meaning an earnings yield just over 5%. If you believe the portfolio will earn more than 5% per year over time, then our earnings estimates are low. Assuming a 10% long-term investment return adds roughly \$14.5 billion to Berkshire's current \$61.7 billion of economic earnings.

Third, BNSF and BHE are underearning by perhaps as much as \$2 billion annually between the two. We make no upward adjustment for normalized earnings with these two key subsidiaries. By contrast, the insurance operation is enjoying a series of aberrantly profitable years. Our process strips cyclically high or low underwriting profits and replaces them with a conservative 5% normalized pre-tax underwriting margin. Said differently, we already make a downward adjustment to unsustainable underwriting profits but make no offsetting upward adjustment reflecting improvable profitability at the railroad and energy operations.

The balance sheet is more conservatively capitalized today than at any time in six decades. Upside optionality exists in many corners. Using our most conservative appraisal of earning power, in aggregate, Berkshire is earning about \$62 billion on an expected \$721 billion of shareholders' equity, for an 8.6% return on equity. It's highly implausible that profitability relative to equity will earn less than 10% on average over the coming decade or more. Our calculated return on equity is consistently lower than subsequent actual compounding in book value per share. A huge reason for the disparity is conservatively assuming the stock portfolio will only earn its earnings yield.

Capital allocation and Berkshire go hand in hand. We'll spend time on the details of Berkshire's capital allocation levers shortly. As a summary, 2025 was a very quiet year on the capital allocation front except for ongoing equity portfolio sales and a small \$9.7 billion acquisition of Occidental Petroleum's chemicals business (which closed January 2, 2026).

Berkshire continued investing in its energy business with sizable investments in wind and solar energy production and distribution. The energy group augments retained net income with a like amount of leverage, earning billions of dollars in tax credits. The credits may abate, and we'll elaborate on this in more detail in the BHE discussion. We'll also discuss regulatory and legal challenges faced by BHE.

The company repurchased no shares in 2025 and hasn't bought back stock since the first quarter of 2024. Since Berkshire's current iteration of share repurchases began in 2018, the company spent \$78 billion cumulatively buying back 207,238 A share equivalents, or 12.6% of its outstanding shares. On average, those shares were purchased for \$375,900 each – less than half the going rate at year-end 2025. We don't expect to see that shares were acquired in 2025's fourth quarter.

Firmwide, assets are expected to total roughly \$1.254 trillion in total on the balance sheet at yearend, 8.7% higher over the past year. Berkshire has more tangible assets than any non-bank company in the world. That's an extraordinary thing given that the company operates with an expected \$245 billion in *net cash* on the balance sheet, meaning it holds more cash than debt.

The impact of changes in Berkshire's investment portfolio can be seen in our expected results for 2025 and its final quarter in the table below (the stock portfolio earned an estimated 13.7% total return in 2025, following 2024's 21.4% return). There are any number of variables that may lead to a lower (or higher) actual earnings figure. The most likely variable would be fourth quarter underwriting results that are materially higher or lower than our \$1.9 billion net-of-tax projection, which would bring the yearly tally to roughly \$7.6 billion. GEICO, largely fixed, and the reinsurance operations have been cyclically unsustainably profitable. I wouldn't be surprised to see worse-than-expected fourth quarter insurance results. Loss reserve development is a further wildcard to estimating underwriting results, especially in the short term.

I'm looking forward to seeing where this year's forecast is off. The bulk of work on Berkshire is not on figuring out what Berkshire will report but rather on adjustments made to the reported results in arriving at an ongoing estimate of economic earning power, then assessing the durability of earnings and how fast they will or won't grow. I was asked last year why I labor to estimate Berkshire's year-end financial figures in such detail, albeit with remarkable accuracy, and why not just wait for the company to report results and then drop the actual numbers into my models and spreadsheets. The answer is that in laboring so beforehand, with Berkshire and all of our companies, the process makes me think. I want to think about the details about what's going on with each moving part of the company. With the onslaught of AI, I fear fewer and fewer will understand the importance of doing so with the passage of time. Why read every Value Line page each week? Similarly, people ask me why I write such a voluminous annual letter (I sometimes ask myself that very question). The answer is that, again, the process makes me think, which leads to a better understanding of Berkshire and our other portfolio holdings.

We expect to see perhaps \$70.7 billion of GAAP net income when Berkshire reports 2025 results. The 18.1% expected tax rate is below the 21% U.S. corporate rate, largely given BHE's sizable negative tax rate due to tax credits earned on its renewable energy investments. There are a ton of tax nuances to how each subsidiary and type of investment asset are taxed. A point-in-time snapshot with a company like Berkshire is somewhat pointless, other than to have a baseline as a starting point for analysis.

Expected 2024 Fourth Quarter and Full Year Results

(In millions of USD)	First 9 months	SAI Q4 Est.	SAI 2025 Est.
Change in Investment Portfolio (Ex KHC/OXY) *	\$21,868	\$14,749	\$36,317
Derivative Contract gains (losses)	0	0	0
Operating Earnings Before Tax (Incl Equity Method)	36,135	13,920	50,055
Earnings Before Tax	58,003	28,669	86,672
GAAP Income Tax	10,010	5,673	15,683
Effective Tax Rate	17.3%	19.8%	18.1%
Net Income **	47,993	22,996	70,989
Earnings Attributable to Noncontrolling Interests	224	68	292
Net Income Attributable to BRK Shareholders #	\$47,769	\$22,928	\$70,697

*Includes gain/loss on fixed income and OXY Pfd Divs.

**Includes amortization of identifiable intangible assets net of tax of \$470 million to 9/30, \$156 million in 4Q and \$626 million FY expected. Also includes foreign currency exchange loss (yen, euro, pound sterling) related to non-U.S. Dollar denominated debt net of tax of \$1.3 billion to 9/30 and a gain of \$653 million expected in 4Q, thus a \$647 million loss expected FY.

May not sum due to rounding.

The inclusion of all investment gains and losses in the income statement makes use of the published financials nearly useless to most investors. Clients and readers familiar with our work on Berkshire know we make numerous changes to allow for an estimate of Berkshire's ongoing durable economic earning power. You can read about the nuances in a bit. Below is a table demonstrating the wide annual disparity between reported net income and our adjusted net income.

Semper's adjusted net income calculations remove considerable non-economic reporting volatility, and allow for a reasoned expectation of future earning power. Good luck figuring out the irregularity of reported GAAP numbers. Despite a near-linear progression in Berkshire's economic earning power over time, even Semper's normalization methods don't smooth several material nuances that are distorting current earning power. Two of Berkshire's key drivers of profitability have been relatively weak in recent years.

Berkshire Net Earnings 2018 – 2025 (dollars in billions)

	2025 (E)	2024	2023	2022	2021	2020	2019	2018
GAAP Reported Net Earnings	\$70.7	\$89.0	\$96.2	(\$22.8)	\$89.8	\$42.5	\$81.4	\$4.0
Semper Adjusted Net Earnings	61.7	\$61.4	\$53.8	\$52.5	\$46.9	\$41.1	\$42.1	\$36.4
Net Earnings Per Avg A Share Out GAAP	\$49,156	\$61,900	\$66,412	(\$15,535)	\$59,460	\$26,668	\$49,828	\$2,446
Net Earnings Per Avg A Share Out Semper Adjusted	\$42,900	\$42,707	\$37,132	\$35,774	\$31,056	\$25,777	\$25,765	\$22,144
Average Equivalent A Shares Outstanding	1,438,223	1,437,720	1,448,880	1,468,876	1,510,180	1,594,469	1,633,946	1,643,795
Annual Growth in Semper Adjusted EPS	0.5%	15.0%	3.8%	15.2%	20.5%	0.1%	16.4%	14.5%*

*2017 SAI EPS \$19,336 Post-TCJA

BNSF, the railroad under Berkshire's umbrella since 2010, has suffered weak volumes for the better part of eight years, in part due to less use of coal. The railroad has also struggled with overhead and operational issues, and finally seems to have rounded the corner in 2025 with modestly improved margins. However, the railroad is still underearning by perhaps \$1.2 billion against normal earnings closer to \$7 billion and we hope ongoing underearning is not the new normal. We do not include an upward adjustment for normalizing railroad profits. It will be interesting to see what BNSF reports on Saturday. Its North American Class I competitors managed to stabilize or grow earnings despite stagnant revenues and carloadings; their cost discipline and precision scheduled railroading (PSR) led to improving operating ratios. BNSF is the only rail not to adopt PSR but is committed to workforce and asset productivity by moving freight faster with longer train length, lowering cost per mile. We hope to see continued improvement from the railroad.

A huge development in the Class I railroad industry occurred in July 2025 when Union Pacific and Norfolk Southern announced a merger, creating the first true transcontinental railroad in the United States. I never fathomed a merger like this one, and odds of STB and FTC regulatory approval are surely long. Only under the current administration would this merger be contemplated. In response to the announcement, in August BNSF and CSX announced an unprecedented coast-to-coast "partnership" with the same transcontinental benefits as the Union Pacific and Norfolk Southern deal but without the same regulatory hurdle. The joint venture creates new intermodal lanes and service between Southern California and the Southeastern U.S. (Charlotte and Jacksonville). The deal also creates a new service between Phoenix and Atlanta that converts over-the-road truck freight to rail. BNSF committed to building two new 10,000-foot sidings between Phoenix and Flagstaff to handle increased cross-country volumes. Direct services connecting the ports of New York, New Jersey and Norfolk to Kansas City.

Berkshire's energy operation, BH Energy, will also likely report modestly weak profitability in 2025 with rising interest costs, ongoing PacifiCorp litigation costs related to 2020 fires (albeit smaller cash settlements in 2025) and a higher tax rate (meaning fewer production tax credits from wind-powered electricity generation). More on these issues in the BHE overview.

Berkshire's insurance operation will again report excellent underwriting results following a record year in 2024. We expect \$7.6 billion of underwriting profits in 2025, down from \$9.0 billion in 2024. The past three years have been terrific due to discipline, very healthy pricing, favorable loss experience and positive reserve development (in part from past underwriting conservatism). Over the three years, the insurance underwriting operation will earn \$22 billion on \$261 billion in premiums earned. Four years ago, the insurance group posted a small underwriting loss and GEICO lost \$1.9 billion. Price and operations are dramatically improved at the auto insurer. Ongoing results will not be this good. High industry profitability attracts new, undisciplined capital and competition. In regulated lines like private passenger auto, no insurance commission will grant price increases when the industry is overearning. Loss inflation will eat away current margins. Count on it. However, you can do your part for GEICO by spending 15 minutes and getting yourself a bid. You too can save 15% or more on car insurance. Mr. Buffett would smile to read that, if he enjoyed novels.

The reinsurance business assumed sizable catastrophe exposure in 2023 and 2024 when pricing finally became attractive. The company minted money, thanks to few catastrophe losses. Pricing was great across most property lines. That's changed. Pricing plateaued in late 2024, declined during 2025 and is headed further downward throughout 2026. Berkshire being Berkshire, unattractive pricing warrants writing less volume, which is exactly what Berkshire did with reinsurance property lines throughout 2025. Too much capacity remains today, so expect Berkshire to play defense. Despite lower premium volumes, profits remain above normal.

The Buffett Scorecard – The Eighth Wonder of the World

Berkshire's A shares closed the Friday May 2, 2025, trading day at a record \$809,350. Warren Buffett presided over the annual meeting the following day, as he had done for decades. As the meeting wound to an end, the CEO announced his retirement, officially confirming that Greg Abel would formally take over as CEO at yearend.

When Warren announced his retirement, Berkshire's shares had advanced 18.9% for the year to date. They had grown 25.5% in 2024 and 15.8% the year before that. When Berkshire reached its high in May, the S&P 500's total return was negative 2.9% for the year. Over the remaining eight months of 2025, Berkshire would decline 6.7% from its May 2 record high close, ending 2025 up 10.9% for the year. The index rallied to finish the year with a 17.9% total return. Many in the media and elsewhere suggested Berkshire's 6.7% plunge from the annual meeting was due to the evaporation of "The Buffett Premium."

The reality is that any premium valuation in Berkshire's shares ended in June 1998 when Berkshire announced it would use its shares, then trading at nearly three times book value, to purchase General Re. The deal immediately diversified Berkshire's investment assets away from overvalued common stocks and into fixed-income securities, essentially cutting the stock portfolio as a percentage of assets in half and paying no capital gains taxes in doing so. When Berkshire announced the General Re acquisition on June 19, 1998, Berkshire's shares closed the prior day at \$79,000, up 71.7% from the start of the year. The shares traded up to \$81,500 on the news of the deal, the market cheering the strategic scale of tripling Berkshire's insurance float. General Re contributed 45% of the combined firm assets (not even counting the goodwill created). However, General Re only received 18% of the combined company. Berkshire's shares would reach \$84,000 on June 22 that year. Yes, at a valuation of nearly three times book value, a

Buffett premium certainly existed then. Since Warren took control of Berkshire in 1965, its shares had compounded by 30% per year through mid-1998 versus a 12.1% total return for the S&P 500.

Berkshire's shares declined to \$70,000 by year-end 1998, at that point with "only" a 52.2% gain for the year. Incidentally, year-end 1998 was the precise moment Semper was setting up shop. Not being an internet company or a communications business laying dark fiber, but an insurance company, Berkshire's stock was shunned in 1999, declining 19.9%, when the world chased technology, media and telecom darlings. The shares culminated their 51.5% plunge during the first 2 ½ months of 2000, falling to a \$40,800 low on Friday March 10, 2000, ironically (even deliciously) the same day the Nasdaq peaked at an intraday high of 5,133. Semper acquired our initial position in late February 2000 at \$43,707 per share, not far from the eventual bottom. The stock traded at 105% of book value, a far cry from 3x less than two years earlier. By this point, the "Buffett Premium" was long gone.

No Buffett premium existed for the next quarter century. From the date the General Re merger was announced, Berkshire's shares compounded by 8.5% per year to year-end 2025. Remarkably, despite seeing the multiple to book value halved from 300% at the 1998 peak to 151% at year-end 2025, thanks to book value per share growing more than 1% per year faster, at 10.1%, Berkshire's shares still outperformed the S&P 500, which compounded by 8.5% on a total return basis from the end of 1998.

It just so happened that as Berkshire's shares approached their May 2, 2025, all-time high, on the heels of one of the strongest insurance underwriting cycles in decades, did Berkshire's stock price exceed Semper's appraisal of intrinsic value for the first time since owning the shares from February 2000. Our appraisal of Berkshire's intrinsic value at year-end 2024 was \$782,951 per A share, or \$1.126 trillion. When Warren announced he was stepping down, the shares were valued at 103.4% of our year-end intrinsic value estimate. Allowing for 9.3% growth during 2025, at the May high the shares were remarkably, roughly, precisely, fairly valued. Best to be roughly right than precisely wrong, fair to say?

The point of that loquacious background is to note that Warren stepped aside at the moment the stock was neither overvalued nor undervalued. Closing his 61-year run at Berkshire with the stock at intrinsic value, the extraordinary scorecard is worthy of inspection. Begin with some incredible, albeit algebraically simple, statistics.

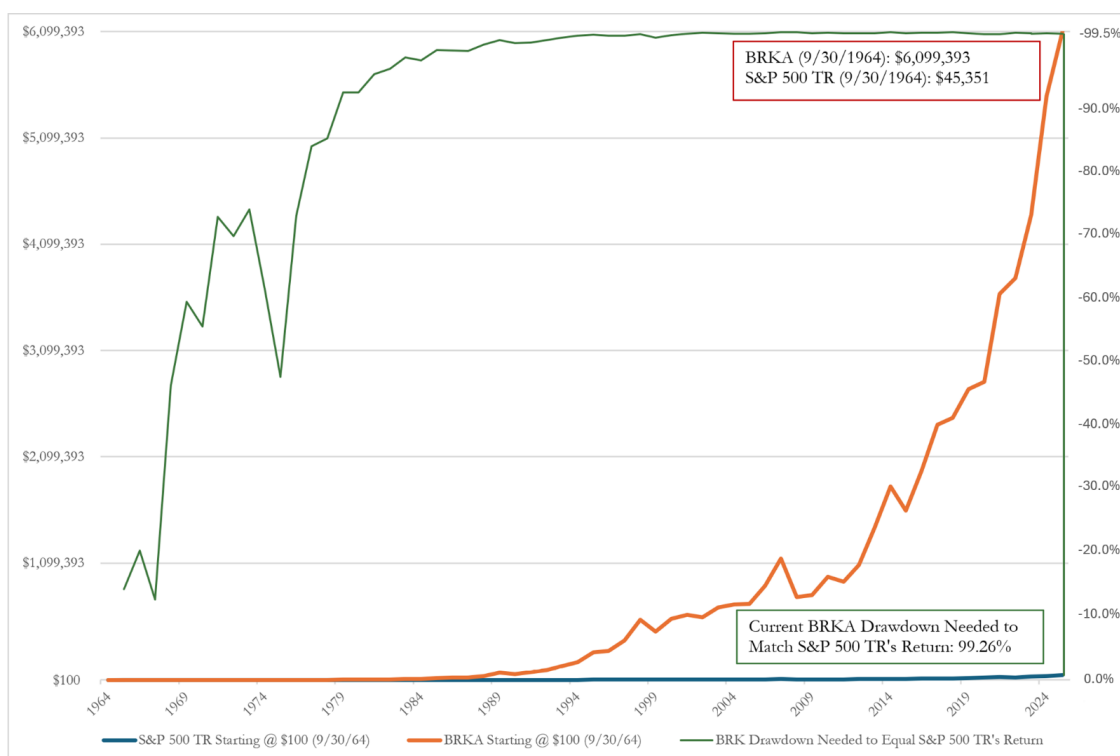
Just Simple Compound Interest

The introduction to Semper's 25th anniversary 2023 annual letter, honoring the passing of Charlie, began:

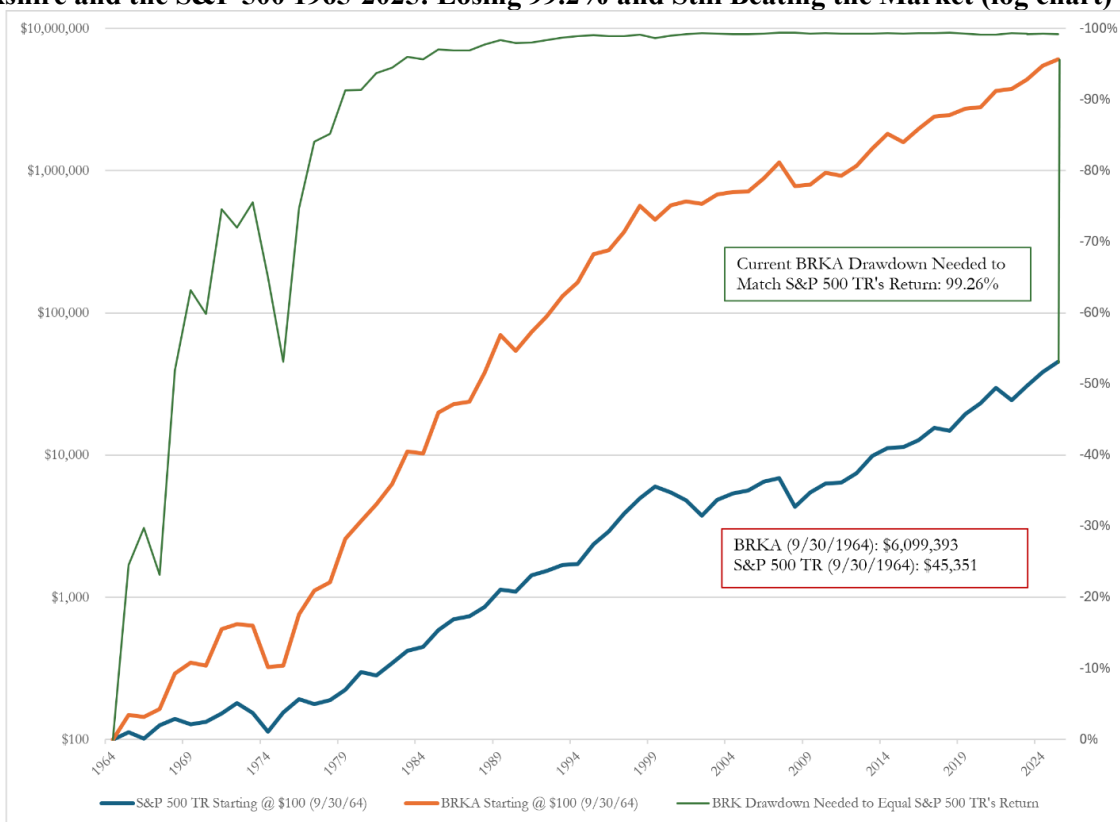
Several years ago, in an exchange of letters with Warren Buffett, I mentioned having calculated a startling truth that Berkshire Hathaway could lose 99.3% of its market value and still have outperformed the S&P 500 from when he took over in 1964 to that point. Warren responded, "I'm sure Ben (Graham) would be proud and call it a margin of safety, but let's not put it to the test." Later in the same year, in a conversation with Charlie Munger at a Wesco meeting, I mentioned the same remarkable statistic. Charlie's instant reply, following a glare into my soul, and then a harrumph, "*Well of course, Chris, that's just simple compound interest.*"

Charlie was hard to impress. Warren at least pretended to be impressed with the math. The next two charts depict the degree of outperformance (and ability to fall more than 99.2% and still have beat the market). The two charts depict the same thing. One is presented linearly and the other logarithmically. You have to squint to see the blue line representing the S&P 500 in the linear chart, the disparity being so massive (yet mathematically simple). Ben Graham would be proud.

Berkshire and the S&P 500 1965-2025: Losing 99.2% and Still Beating the Market (linear chart)



Berkshire and the S&P 500 1965-2025: Losing 99.2% and Still Beating the Market (log chart)



Source: Berkshire Hathaway; Semper Augustus

Charlie Would Be Impressed

In thinking about Berkshire's unbelievable success over more than six decades under Warren's stewardship, I came up with a statistic when working on this letter that even Charlie might find fascinating. The next four paragraphs are repeated from the "Never Make Forecasts, Especially about the Future" section of the letter for the three of you that only read up to the Berkshire section and for the other four of you that only read the Berkshire section.

If you could pick the single best moment in the entire history of the S&P 500 to invest, what day would you select? The correct answer is June 1, 1932. That was the secular low following an 86.2% decline in the S&P 500 (the Dow Jones Industrial Average more famously fell 89%) over the prior nearly three years from 1929's September peak.

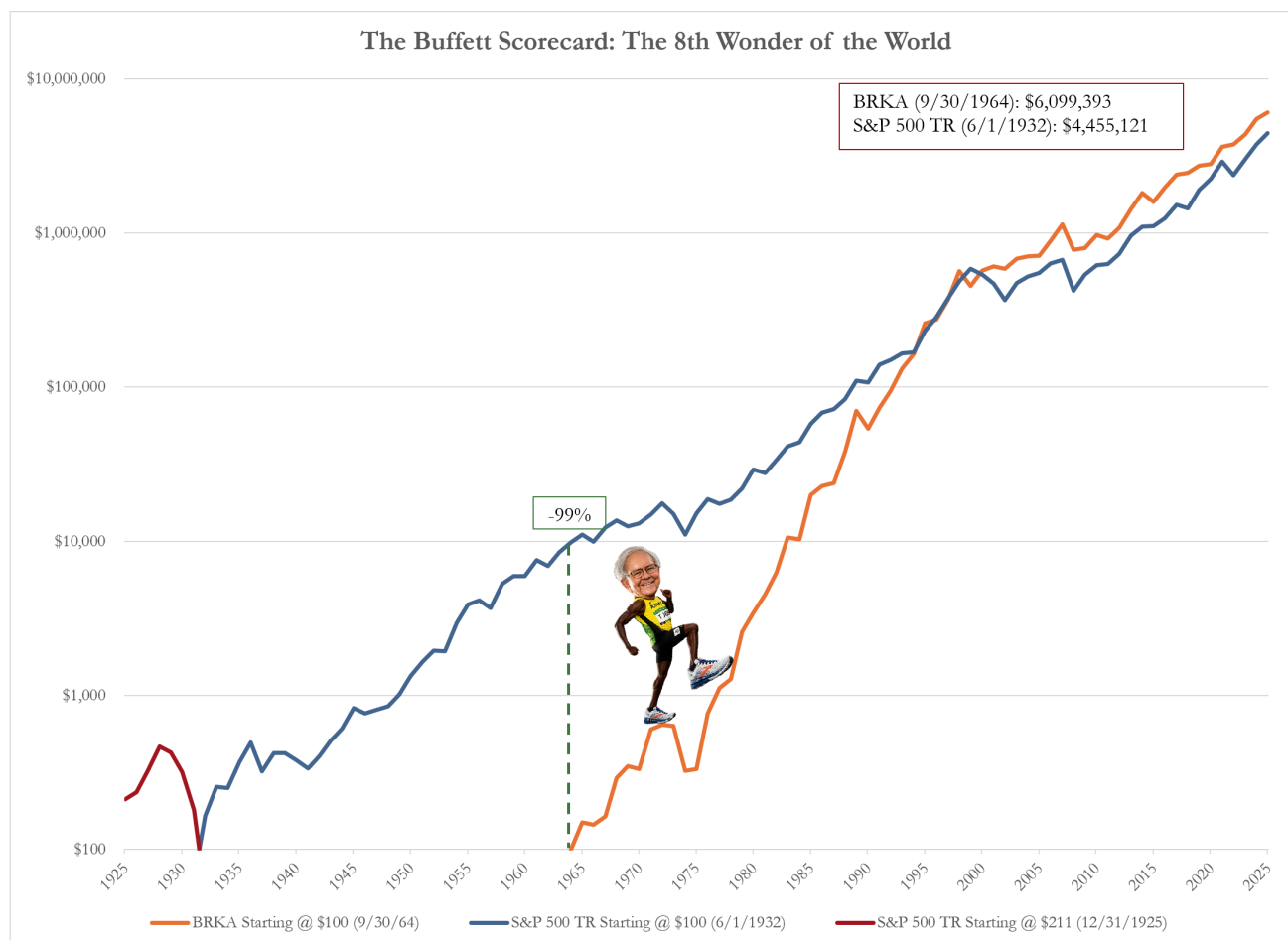


An example will illustrate the immense power of Einstein's eighth wonder over long periods of time. To wit, which of the following investments would produce the better result with \$100 invested at two different points in time. The first horse in the race is a wager at the stock market low on June 1, 1932, which remains invested until year-end 2025. A classic "Benign Neglect" investment strategy, now more commonly known as HODL (hold on for dear life) investing. You would be buying the S&P 500 at \$4.40 (today's *quarterly dividend* per share is \$19.73), earning all dividends tax free and reinvesting all dividends immediately in the index at the moment you receive them. No bid/ask spreads. No waiting a day to reinvest the cash received. No taxes on spinoffs received. Cost-free inclusion of index additions with no commissions or frictional costs. *An impossibility in practice*, but that's how index returns are calculated.

The second pony in the race earns literally nothing with your \$100 for the next 32 1/3rd years. Call it cash under the mattress, losing to the inflation rate every day. Slow out of the gate, you put your \$100 down on September 30, 1964, investing in a single company at the close of its fiscal year. The company would be officially acquired by Warren Buffett in May 1965 (Berkshire's performance record under Warren dates to the outset of the fiscal year he took over as Chairman following a proxy fight). Incidentally, Baby Warren was one year and nine months old at the 1932 low.

Before answering, know that \$100 invested in the index at the June 1, 1932, closing low compounded at 15.2% annually to the date Warren's Berkshire record commenced. The \$100 in the index grew to \$9,685, or a cumulative 9,585%. The bet is thus would you rather be worth just shy of \$10,000 and keep your winnings invested in the S&P 500, or to light virtually 99% of your money on fire, all but \$100, and invest your remaining \$100 in Berkshire Hathaway? From the way I introduced the question, you can likely guess the answer! Berkshire Hathaway under Warren Buffett's guidance earned more in six decades than the stock market did if bought more than 32 years earlier at the literal 1932 secular low. Buffett and Berkshire compounded at 19.7% for more than 61 years. The S&P 500 compounded at 12.1% for more than 93 years. The \$100 in Berkshire (or 8.1063 shares at \$12.3361 per share) grew more than 6 million percent to \$6,099,393 while the index grew, from our earlier table, more than 4 million percent to \$4,455,121. Einstein was wrong. Warren Buffett is the eighth wonder of the world.

S&P 500 From the Best Day Ever and Berkshire Under Buffett Losing 99% and Still Winning: Round One



The Entire Record

There is another chapter to the Buffett Scorecard that on Warren's retirement is worth a mention – The Buffett Partnership. Most know the history so this will be brief. Following a stint working with Warren's mentor, Benjamin Graham, at Graham Newman in New York, Warren returned to Omaha and in May 1956 formed a partnership, Buffett Associates, with seven partners (family and friends) and \$105,100 of initial capital. The \$100 was Warren's initial investment. New partnerships were created as more additional people invested. The partnerships were run from home with no employees until the hiring of Bill Scott in 1961. Though they were separate partnerships, all investments were bought and sold proportionally. Managing half a dozen different legal entities with different tax years and accounting needs became an administrative nightmare so the partnerships merged into a single entity on January 1, 1962 – the Buffett Partnership, Ltd. (BPL) worth \$7.2 million combined, of which Warren's share was roughly over \$1 million. The business moved out of the house and into an office at Kiewit Plaza, which remains Berkshire's headquarters today.

Investment return and new partners materially grew the capital base. At the 1966 "Go-Go" secular peak, Warren closed the partnership to new investors, noting the universe of cheap stocks was shrinking and that he didn't want to manage so much money that it would dilute results for existing partners. By 1969, Warren thought the market was in a bubble and in May 1969 announced his retirement (for the first time), sending a letter to his partners announcing the dissolution of the partnership. Buffett suggested three alternatives for investing the proceeds: Either invest in municipal bonds; for those wanting to invest in stocks to invest in the Sequoia Fund run by Warren's friend Bill Ruane; or to do what Warren was doing and keep their shares of the textile mill the partnership had acquired control of in 1965. With the benefit of hindsight, one of the three options was a bit better than the others.

Year	Dow Jones Total Returns (%)	S&P 500 Total Returns (%)	Partnership Results (%)	Limited Partners' Results (%)
1957	-8.4%	-10.8%	10.4%	9.3%
1958	38.5%	43.4%	40.9%	32.2%
1959	20.0%	12.0%	25.9%	20.9%
1960	-6.2%	0.4%	22.8%	18.6%
1961	22.4%	26.8%	45.9%	35.9%
1962	-7.6%	-8.7%	13.9%	11.9%
1963	20.6%	22.7%	38.7%	30.5%
1964	18.7%	16.4%	27.8%	22.3%
1965	14.2%	12.4%	47.2%	36.9%
1966	-15.6%	-10.0%	20.4%	16.8%
1967	19.0%	24.0%	35.9%	28.4%
1968	7.7%	11.1%	58.8%	45.6%
1969	-11.6%	-8.5%	6.8%	6.6%
Cumulative Total Return	152.6%	203.0%	2,795%	1,503%
Compounded Annual Rate	7.4%	8.9%	29.5%	23.8%

The partnership returns from 1957 were otherworldly. For fun, I thought seeing what the entire Buffett scorecard looked like from the launching of the partnership through year-end 2025. Recall that Berkshire compounded by 19.7% under Warren's watch from 1965 to 2025, growing each \$100 to 6.1 million. Linking the Partnership era with the Berkshire era (by giving each a 50% return weighting for the five years 1965 to 1969), the compound annual return over the entire 69 years works out to 20.82% per year for the Buffett Partnership / Berkshire combo and to 20.02% for the limited partners who remained in Berkshire after 1969, the difference being the not inconsequential fees paid to Warren as general partner during the BPL years. Berkshire's shareholders enjoyed him working essentially for free, with his annual \$100,000 salary an operating expense of Berkshire, not a fee taken net of investment return.

Putting the linked return series in perspective, compounding over the 69 years 1957-2025, earning 20.82% grew each \$100 to \$46,612,734. By comparison, the S&P 500 produced a 10.6% annual total return, growing \$100 to “only” \$107,447, meaning the combination of the Buffett Partnership and Berkshire could decline 99.77% and still have outperformed the S&P 500. That’s like turning \$1 million into \$2,300.

Going Out on Top

For our final chapter on The Buffett Scorecard, for years we’ve seen certain journalists and numerous critics point to a time interval and “prove” that Warren had lost it and was underperforming. The criticism always goes something like this, “Berkshire trailed the market by ‘pick a percentage’ so far this year and has trailed for the last five and fourteen years.” The longer time-series used to demonstrate underperformance invariably begins *following* a long stretch where Berkshire had dramatically outperformed. “He’s old. The best days are behind him. He doesn’t understand technology. He got lucky with Apple. He sold Apple too soon. Look at all the bad businesses he owns. He bought airlines. He sold airlines too low. He needs to pay a dividend. He needs to retire.” I’d better quit while I’m ahead or I may find myself writing for a certain weekly investing magazine for the next 25 years.

Berkshire and Buffett denigrators invariably cherry pick either of the two, or more often than not both, sides of the bracketed time series used in comparison with the S&P 500, or a group of tech stocks, or Bitcoin. Start with a period of prior Berkshire outperformance or end with a period where Berkshire trailed, find interim intervals to complement the range for your example, write the article, throw a blistering headline on it, and fire it out to your disappearing readership. And be sure to say something nice about the long-term record or the man himself, on the unlikely chance you might get to interview him.

Allow me to introduce a time interval to dispel the impugners. How about a time period that starts at the beginning and concludes at the end. Rolling with the logic that the “Buffett Premium” came to an end the day Warren announced his retirement, a review of the record is revealing. The table below illustrates the trailing returns for annual intervals as of Friday May 2, 2025. The retirement was announced the next afternoon at the close of Berkshire’s annual meeting. The table is meant to be read from the bottom, so Berkshire’s stock returned 33.5% for the one-year ended May 2, 2025, while the S&P 500 posted a 13.8% total return. The second column from the left identifies each yearly interval back to the year ending May 2, 1989 (as far back as we have daily Berkshire share price data). Thus, for the five years starting on May 3, 2020, and ending on May 2, 2025, Berkshire returned an average 24.8% versus 16.7% for the index. Over ten years Berkshire’s stock averaged 13.9% versus 12.4%.

You won’t find a single interval in which Berkshire did not beat the S&P 500, and in most of the yearly periods, ending the compounded annual difference is quite wide. Anytime someone suggests how Warren performed over the last ten years, twenty years – pick a number – send a copy of this table in their direction. Now in fairness, some will say that choosing the date of Berkshire’s all-time-high share price (to date) is cherry picking. Well, it is, except it’s the date of Warren’s retirement announcement and the date so many said the stock and the company were finished. Indeed, from that point, Berkshire’s shares declined 6.7% (measured from the high close) over the balance of 2025, from up 18.9% for the year on May 2 to closing up 10.9% in total at yearend. Meanwhile, while the index had been down 2.9% for the year on May 2, it rallied to finish 2025 with a 17.9% total return. In the full 61-year return table found later in the letter, the modest decline in Berkshire since Warren’s announcement, combined with the big move up to close the year for the S&P 500 will reveal a number of annual intervals using December 31, 2025, as the end bracket in which Berkshire trails the index. That’s the nature of (and the importance) of which endpoints are used to measure relative investment return. I happen to favor this series ending the day Warren announced he was calling it a day.

The Buffett Era Scorecard: BERKSHIRE vs. S&P 500 Total Return
Warren Buffett's Retirement Announcement; May 2, 2025
(the final trading day before announcing retirement)

Year-Ending May 2		BRK Share Price From 2025	S&P 500 Total Return From 2025	Difference
1989	37yrs	15.7%	11.0%	4.7%
1990	36yrs	14.5%	10.7%	3.8%
1991	35yrs	14.6%	10.7%	3.9%
1992	34yrs	14.5%	10.4%	4.1%
1993	33yrs	14.6%	10.4%	4.2%
1994	32yrs	13.8%	10.4%	3.4%
1995	31yrs	13.4%	10.6%	2.8%
1996	30yrs	12.6%	10.4%	2.2%
1997	29yrs	11.6%	9.8%	1.8%
1998	28yrs	11.5%	9.2%	2.3%
1999	27yrs	9.5%	8.2%	1.3%
2000	26yrs	9.5%	7.6%	1.9%
2001	25yrs	11.4%	7.6%	3.8%
2002	24yrs	10.9%	8.5%	2.4%
2003	23yrs	11.0%	9.6%	1.4%
2004	22yrs	11.7%	10.7%	1.0%
2005	21yrs	10.9%	10.2%	0.7%
2006	20yrs	11.9%	10.4%	1.5%
2007	19yrs	12.3%	10.1%	2.2%
2008	18yrs	11.8%	9.8%	2.0%
2009	17yrs	11.2%	10.7%	0.5%
2010	16yrs	14.4%	14.3%	0.1%
2011	15yrs	13.7%	13.0%	0.7%
2012	14yrs	14.4%	12.9%	1.5%
2013	13yrs	15.7%	13.5%	2.2%
2014	12yrs	14.4%	13.2%	1.2%
2015	11yrs	14.0%	12.6%	1.4%
2016	10yrs	13.9%	12.4%	1.5%
2017	9yrs	15.6%	13.8%	1.8%
2018	8yrs	15.9%	13.4%	2.5%
2019	7yrs	15.8%	13.5%	2.3%
2020	6yrs	16.5%	13.6%	2.9%
2021	5yrs	24.8%	16.7%	8.1%
2022	4yrs	17.8%	9.6%	8.2%
2023	3yrs	19.2%	12.8%	6.4%
2024	2yrs	28.0%	19.2%	8.8%
2025	1yrs	33.5%	13.8%	19.7%

*Annual intervals from May 2, 1988 to May 2, 2025; S&P 500 total returns calculated at identical May 2 dates
Daily price data only available beginning 1989; All longer comparisons grow even wider in Berkshire's advantage*

The Real Buffett Scorecard

The legacy of Warren Buffett is far beyond the investment record. While the world likely wouldn't know Warren without the investment record and Berkshire Hathaway's mammoth success over his more than six decades of stewardship, it's the way the scorecard was created that is so important. His positive impact on so many people around the world is testament to who he is as a teacher, a mentor and a role model.

Countless kind words have been said and written about Warren Buffett since announcing his retirement, and deservedly so. His positive impact on so many cannot be adequately described. His impact on me as an investor and as a human being is as profound as the relationship I had with our first client, Mr. Smith. Rather than penning a lengthy tribute over several pages, I'd like to share a few anecdotes.

It's hard to believe I could study finance and spend five years professionally managing money as a "value investor," while other than for the occasional newspaper story I knew literally nothing of the man nor his Omaha company. I recall reading about Berkshire's acquisition of all of GEICO in 1995. GEICO had its name on a round office building in the Denver suburbs in the 1970s, which I would pass on the way to football and baseball games. By 1995 I knew GEICO was an auto insurance company because they had been advertising for a couple of years. Berkshire also had bought Helzberg Diamonds, which was in Kansas City, where I worked at the time. But it was only when Berkshire offered its "B" shares to the public in 1996 that I really began learning about Warren Buffett. My now business partner Chad, and my then father-in-law Gary, RIP, suggested I look at the public offering. The large midwestern bank trust company for which I worked as a portfolio manager and analyst didn't have a file on the company. It had a file in a massive room for *every* company. Just not Berkshire. I found and dialed the phone number for headquarters and requested the offering prospectus plus three of the most recent years' annual and quarterly reports. The chance is not zero that Warren fielded the call. Likely zero but not zero.

Since the Berkshire reports wouldn't arrive for several days, I remembered I had purchased my first copy of Ben Graham's 1973 fourth edition of *The Intelligent Investor*, which I hadn't even read yet. The table of contents looked generic, and I was in the mode of looking at every company I could. I did know Warren E. Buffett had written on the front cover of the jacket that the book was, "By far the best book on investing ever written." This Buffett guy, who was the CEO of Berkshire, had also written the book's introduction and appendix, Warren's *The Superinvestors of Graham-and-Doddsville*. So, I read the book and didn't put it down. I read all night. When I finished, I read it again. I'm pretty sure I slept, and it must have been a weekend, but I didn't sleep much until I'd read it twice. Buffett was correct, by the way.

The reports arrived from Omaha. The first thing you couldn't miss was the most unusual prominent language in a statement on the literal cover of the prospectus:

WARREN BUFFETT, AS BERKSHIRE'S CHAIRMAN, AND CHARLES MUNGER, AS BERKSHIRE'S VICE CHAIRMAN, WANT YOU TO KNOW THE FOLLOWING (AND URGE YOU TO IGNORE ANYONE TELLING YOU THAT THESE STATEMENTS ARE "BOILERPLATE" OR UNIMPORTANT):

- 1. Mr. Buffett and Mr. Munger believe that Berkshire's Class A Common Stock is not undervalued at the market price stated above. Neither Mr. Buffett nor Mr. Munger would currently buy Berkshire shares at that price, nor would they recommend that their families or friends do so.*
- 2. Berkshire's historical rate of growth in per-share book value is NOT indicative of possible future growth. Because of the large size of Berkshire's capital base (approximately \$17 billion at December 31, 1995), Berkshire's book value per share cannot increase in the future at a rate even close to its past rate.*

3. *In recent years the market price of Berkshire shares has increased at a rate exceeding the growth in per-share intrinsic value. Market overperformance of that kind cannot persist indefinitely. Inevitably, there will also occur periods of underperformance, perhaps substantial in degree.*
4. *Berkshire has attempted to assess the current demand for Class B shares and has tailored the size of this offering to fully satisfy that demand. Therefore, buyers hoping to capture quick profits are almost certain to be disappointed. Shares should be purchased only by investors who expect to remain holders for many years.*

Who does this? By the time I'd read the proxy, financial statements and annual reports, I understood Berkshire wasn't like a regular insurance company, and I was determined to learn more. I wrote up Berkshire (not well, I'm quite certain) and suggested we add the stock to our large working list of companies we followed. My recommendation was rejected, "Berkshire is nothing more than a glorified mutual fund." Fine.

My whole world had changed, however, in reading the 1993-1995 Chairman's Letters to the Shareholders of Berkshire Hathaway, Inc. I learned more about investing in those three letters than I'd learned studying finance in school, in three years of studying for the CFA examination and over five years working as a "professional investor." The logic behind acquisitions, the aversion to debt, the impact of taxation, accounting nuances, insurance underwriting, the cost of float, corporate governance, per-share intrinsic value, capital allocation, executive compensation, charitable giving, praise for others, and even advice on investing in common stocks, which was my gig. I mean, damn! What a gift! From the 1993 Chairman's letter:

In our opinion, the real risk that an investor must assess is whether his aggregate after-tax receipts from an investment (including those he receives on sale) will, over his prospective holding period, give him at least as much purchasing power as he had to begin with, plus a modest rate of interest on that initial stake. Though this risk cannot be calculated with engineering precision, it can in some cases be judged with a degree of accuracy that is useful. The primary factors bearing upon this evaluation are:

- 1) *The certainty with which the long-term economic characteristics of the business can be evaluated;*
- 2) *The certainty with which management can be evaluated, both as to its ability to realize the full potential of the business and to wisely employ its cash flows;*
- 3) *The certainty with which management can be counted on to channel the rewards from the business to the shareholders rather than to itself;*
- 4) *The purchase price of the business;*
- 5) *The levels of taxation and inflation that will be experienced and that will determine the degree by which an investor's purchasing-power return is reduced from his gross return.*

These factors will probably strike many analysts as unbearably fuzzy, since they cannot be extracted from a data base of any kind. But the difficulty of precisely quantifying these matters does not negate their importance nor is it insuperable. Just as Justice Stewart found it impossible to formulate a test for obscenity but nevertheless asserted, "I know it when I see it," so also can investors – in an inexact but useful way – "see" the risks inherent in certain investments without reference to complex equations or price histories.

By the time Semper invested in Berkshire for the first time in February 2000, I'd read all of the Chairman's letters back to 1977 multiple times and as many old Berkshire annual reports as I could get my hands on. I'd researched dozens of insurance competitors. I think we had a pretty good idea of how Berkshire worked and how to value it by then. But that was but a fraction of what was genuinely important.

Through Warren's Chairman's letters, you learned not of the importance of making money but on the way to make it – with integrity and honesty. The shareholder is a partner, not an entity to abuse. You learn about having conviction in investing, but also needing the intellectual flexibility to change your mind. You learn how not to be steered by the crowd and to be decisive, to use judgment and to be able to act under extreme uncertainty. You learn what risk is, and what it is not. Importantly, you learn the importance of common sense and of maintaining a philosophy, even if at times it appears not to work.

And then came the Berkshire annual meetings, always the first Saturday in May, unless of course the following day is Mother's Day, then back to the last Saturday in April. The meeting is an annual reminder to not do dumb things with capital. Over the years the importance of the weekend in Omaha became community. Something draws north of 40,000 per year to a corporate annual meeting. It's bizarre, unless you are there. For years known at Woodstock for Capitalists, it's not. It's Woodstock for Conscious Capital. It's a common belief in the role of integrity and honor and humility and character. It's the role of humor and friendship. You saw Warren and Charlie. They taught and gave freely of their wisdom. They even took their teaching to the classroom, sharing with the young and impressionable.

As the years drew on, Warren became more and more reflective in his teaching. Praise by name, criticize by category, is always his mantra. Giving praise became a fixture in the Chairman's letter and also at the annual meeting. He also spoke and wrote increasingly about the importance of being kind. It's a message that resonates, and all that hear it from Warren benefit from it.

I hope Warren has lots of continuing years as Chairman and as witness to the durability of what he built. Not only did he build a business that will last, but he also built a culture that will endure. That the culture is not copied by other businesses is unsurprising. If the choice is long-term stewardship or short-term incentives, few outside of Berkshire choose the former.

I don't know how to properly say thank you other than to conclude that everyone I know that has been touched by Warren, his teaching and his wisdom, is better for it. I'm grateful for the mentorship, in business and in life.

Succession

The issue of who would replace Warren Buffett as Berkshire's CEO has been belabored at length for at least as long as Semper has been a shareholder. There is zero chance the subject has been discussed more at, or about, any other business across all of time.

Warren's May 3 announcement at the annual meeting, that Greg Abel would succeed him, was an excellent way to pass the torch, affirming unquestioned support for Greg's talent and character. Greg has functionally acted in many ways as CEO since his January 2018 elevation to Vice Chairman of Berkshire – Non-Insurance Operations. He's spent eight years getting to know and working with every operating subsidiary. Feedback among Berkshire's managers is nothing short of terrific. Warren wouldn't sing his praises and certainly wouldn't have placed him in charge if he wasn't confident in Greg's abilities. His background is perfectly suited to the CEO role.

Greg grew up in Edmonton, Alberta, and upon graduation from the University of Alberta in 1984 worked as an accountant at PricewaterhouseCoopers. He joined CalEnergy in 1992, a geothermal power producer then run by David Sokol. CalEnergy acquired MidAmerican Energy in 1999, and Berkshire bought control of the company later that year. Greg worked as President of MidAmerican from 1999 to 2008 and then as its CEO until rising to Berkshire Vice Chairman in 2018. At MidAmerican he led numerous utility and distribution deals as well as BHE's buildout in wind, solar and the grid.

Moving to the Vice Chairman role, Greg assumed responsibility for oversight and direct reporting from all of Berkshire's businesses other than insurance. In addition to BHE, Greg had oversight of BNSF and all of Berkshire's manufacturing, service and retail businesses. He's proved to be far more hands on than Warren, something many of Berkshire's subsidiaries wanted and needed.

During the 2021 Berkshire annual meeting, Charlie Munger let slip that, "Greg will keep the culture," after Buffett is gone. Shortly after, Buffett officially confirmed that Greg was the designated successor.

While Greg is a proven manager and dealmaker, some questioned his responsibility for Berkshire's overall portfolio of common stocks, largely held in the insurance operation. My sense is that given Berkshire's size, its universe of investable publicly traded companies' shares is limited. The 100th largest market capitalization stock in the S&P 500 has a \$113 billion value. Berkshire has roughly \$270 billion of its cash reserves available to deploy, plus an additional roughly \$40 billion per year earned as cash across Berkshire's subsidiaries and not retained by the subs. There are perhaps two or three dozen private businesses that would move the needle for Berkshire today, as did its \$33 billion 2009 acquisition of BNSF. Greg also has Ted Weschler on hand managing the day-to-day smaller positions, some of which may become candidates for takeover.

I think Berkshire's shareholders will find Greg fully up to the task of running Berkshire and allocating its capital.

When Berkshire named Greg Vice Chairman of Non-Insurance in 2018, Ajit Jain was likewise named Vice Chairman of Berkshire's vast insurance operation. Warren and Charlie said for years that the eventual succession plan for replacing Ajit (now age 74) is every bit as important to Berkshire as Greg replacing Warren. Ajit's role is critical to maintaining Berkshire's underwriting discipline. Warren has famously remarked at the annual meeting that if he, Charlie and Ajit were in a sinking boat and you could only save one, you should "swim to Ajit."

Ajit was born in Odisha, India, in 1951 and studied mechanical engineering at the Indian Institute of Technology Kharagpur. He worked in sales at IBM India, and when IBM left India for ownership regulations, he moved to the United States and earned a Harvard MBA in 1978. He worked for Michael Goldberg at McKinsey, who left McKinsey in 1982 to work with Berkshire's then fledgling insurance operation. Goldberg asked Ajit to meet Warren Buffett in Omaha in 1986, where Warren asked Ajit what he knew about insurance. On Ajit's reply of "nothing," Warren reportedly responded, "Nobody's perfect. Let's start." Warren had realized immediately that Ajit had a mind for understanding the probabilities of

rare, massive catastrophes. Perhaps ironically, from the moment Ajit joined Berkshire in 1986, National Indemnity intentionally shrank volume for 13 years due to unacceptable industry pricing and overcapacity (see adjacent table from Berkshire's 2004 annual report). Take note of the years 1986 to 1999 when

written premiums declined 77%, headcount fell by a lesser 45% and the business maintained an underwriting profit every year. Capacity left the industry and Ajit and National Indemnity then stepped on the gas in 2000, growing written premiums more than tenfold in five short years.

Ajit worked as a super-catastrophe insurance underwriter, became executive VP of National Indemnity in 1996 and later oversaw the entire reinsurance group following Berkshire's 1998 General Re acquisition. Once named Vice Chairman in 2018, he's overseen the entire insurance operation, including the recent turnaround at GEICO.

Portrait of a Disciplined Underwriter *National Indemnity Company*

<i>Year</i>	<i>Written Premium (In \$ millions)</i>	<i>No. of Employees at Year-End</i>	<i>Ratio of Operating Expenses to Written Premium</i>	<i>Underwriting Profit (Loss) as a Per- centage of Premiums (Calculated as of year end 2004)*</i>
1980	\$79.6	372	32.3%	8.2%
1981	59.9	353	36.1%	(.8%)
1982	52.5	323	36.7%	(15.3%)
1983	58.2	308	35.6%	(18.7%)
1984	62.2	342	35.5%	(17.0%)
1985	160.7	380	28.0%	1.9%
1986	366.2	403	25.9%	30.7%
1987	232.3	368	29.5%	27.3%
1988	139.9	347	31.7%	24.8%
1989	98.4	320	35.9%	14.8%
1990	87.8	289	37.4%	7.0%
1991	88.3	284	35.7%	13.0%
1992	82.7	277	37.9%	5.2%
1993	86.8	279	36.1%	11.3%
1994	85.9	263	34.6%	4.6%
1995	78.0	258	36.6%	9.2%
1996	74.0	243	36.5%	6.8%
1997	65.3	240	40.4%	6.2%
1998	56.8	231	40.4%	9.4%
1999	54.5	222	41.2%	4.5%
2000	68.1	230	38.4%	2.9%
2001	161.3	254	28.8%	(11.6%)
2002	343.5	313	24.0%	16.8%
2003	594.5	337	22.2%	18.1%
2004	605.6	340	22.5%	5.1%

Ajit noted at Berkshire's 2024 annual meeting that a well-thought-out succession plan was in place for the insurance operation if something happened to him. I hope Ajit's runway with Berkshire remains long. I have a short list of five insurance executives in Berkshire's insurance operation, each of whom would be capable of heading insurance in Ajit's absence.

Kara Raiguel, CEO at General Re, is in my opinion easily the likely lock to lead Berkshire's insurance operation when Ajit does step aside. She's 53 with a long horizon to continue Ajit's monumental contribution to Berkshire (Ajit was in his mid-30s when Warren hired him). Kara worked initially at CIGNA and then moved to Berkshire, first spending 15 years working at National Indemnity, the last seven of those up to 2016 working closely with Ajit and serving as his "secret weapon." Educated as an actuary, Kara led National Indemnity's workers' compensation business in California's brutal marketplace. She then headed Berkshire's Indian reinsurance market and oversaw the creation of Berkshire's municipal bond insurer. She worked closely with Ajit in underwriting Berkshire's misunderstood but hugely successful large retroactive reinsurance transactions. Ajit appointed her as General Re's CEO on Tad Montross' retirement in 2016. Over the last nine years she has improved General Re's culture and moved its competitiveness in the reinsurance market, including withdrawing from life reinsurance and enhancing the momentous policy/holdings group, which benefits the risk the firm insures. Before her move to General Re, the reinsurance subsidiary averaged a 98.5% combined ratio for several years and was rightfully criticized for high overhead costs and legacy issues. Kara immediately pared staff and reduced or eliminated low-margin business, improving the combined ratio to an average 96.6% from 2016 to 2018. By 2024 General Re's property/casualty business achieved its best underwriting results in decades, running a combined ratio between 88% and 92%.

I liken Kara's relationship with Ajit to the one Ajit shared with Warren over four decades. For many years Ajit and Warren talked daily. If I'm wrong on Kara as the heir apparent--and I think she's likely it, given her quarter-century at Berkshire including 17 years working closely with Ajit in varying impressive roles--a deep bench exists amongst its myriad insurance subsidiaries. Four among several others stand out.

Don Wurster has been a huge asset to Berkshire for decades. He's been CEO at National Indemnity since 1989. If not for National Indemnity, Berkshire would not have become today's Berkshire. Don's reputation in the insurance industry is unrivaled, as is his willingness to not only accept volume declines but to maintain as much staffing as possible even during periods where significantly less business is being written. Nobody else does this. Don is only about a year younger than Ajit. If he's up for running Berkshire's vast insurance empire for another couple decades, he'd be the natural selection to lead. If the logic is to appoint someone with a much longer runway, then Kara remains the logical choice.

Peter Eastwood headed AIG's property/casualty business in the Americas as well as its Lexington subsidiary. Berkshire hired Peter and his team away from AIG in 2013 to build a specialty commercial insurance operation on a de novo basis, from the ground up. It's grown like a weed, always a concern if volume goals exceed ultimate profit. Thirteen years in, Peter's BH Specialty business has been nothing short of phenomenal. His very profitable group is now a major force in specialty insurance. I'd not be surprised at all to see Peter leading Berkshire's insurance operation at some point.

Interestingly, Warren dismissed the third contender, Joe Brandon, as Gen Re's CEO in the wake of a government contention that Berkshire had written a large retroactive contract with AIG with no conveyance of risk during the 2008 Global Financial Crisis. The government wanted a head on a plate, and it wound up getting Joe's. Prosecutors and the government were ultimately wrong, but Joe found himself out of a job. He was then hired by Alleghany to lend expertise to the company's insurance group. Weston Hicks built Alleghany over two decades into an insurance and capital allocation powerhouse. Upon Weston's 2021 retirement, Joe was appointed CEO and initiated the \$11.7 billion sale of Alleghany to Berkshire in 2022. Joe remains CEO of Alleghany, overseeing the three insurers acquired by Berkshire in the deal – Trans Re, RSUI and Cap Specialty. In total, the three account for 10% of Berkshire's combined \$90 billion insurance premium volume. Trans Re wrote \$6 billion of premium volume in 2024 and is a significant player in reinsurance.

Nancy Pierce was appointed CEO at GEICO in December 2025 upon Todd Combs' departure from Berkshire. Nancy had spent her entire 39-year career at GEICO, starting in 1986 as a claims associate. She's done it all at the auto insurer – VP of Underwriting, Director of Telephone Sales, Claims Supervisor, Head of West Coast Operations, Head of Claims, Oversight of Motorcycle Operations; and as Chief Operating Officer from 2024 until her appointment to CEO by Ajit. While she is qualified to run GEICO, she lacks experience in reinsurance and so is less likely a realistic candidate to replace Ajit in the near term.

Ajit is often credited by Warren for adding immense value in incredibly creative corners, always miles ahead of the competition and always with laser focus on understanding and managing risk. Berkshire is so dominant in property/casualty insurance and reinsurance that in the decades to come the preservation of culture and underwriting discipline is the key factor in overseeing the insurance group. Berkshire's reinsurance group alone has roughly \$300 billion of surplus, staggeringly nearly half of the capital of the entire global reinsurance industry, yet it writes less than 10% of worldwide reinsurance premium volume. Berkshire's advantages are vast. Ensuring that Berkshire maintains its underwriting discipline in insurance will be the key for Ajit's successor. Whether it's Kara, any of the other four on my short list, or any others from Berkshire's wide and deep bench of insurance managers and experts, I'm confident Berkshire's insurance bench and leadership will remain impressive no matter who eventually replaces

Ajit. “Just don’t screw it up” will be Warren’s charge as non-CEO Chairman and from the grave for decades. The folks running Berkshire will heed the ultimatum.

Finally on succession and the transition to Berkshire under Greg, the company announced a number of leadership changes on December 8. Having overseen all of Berkshire’s non-insurance operations for eight years, Greg is clearly creating an internal structure to ensure he can be most effective leading the business over the coming decades.

Adam Johnson was appointed to a “Mini-Greg” role created to oversee Berkshire’s Consumer Products, Service and Retailing businesses. Adam’s assumption of oversight over these 32 subsidiaries relieves Greg of a significant amount of direct responsibility and time commitment. Adam will continue in his role as CEO of NetJets, where he has done a stellar job improving the business.

Todd Combs’ departure from Berkshire to JPMorganChase was not necessarily a surprise. His prior role with the Amazon / Berkshire Hathaway / JPMorganChase healthcare consortium, his having sat on JPMorgan Chase’s board since 2016, and most recently his leadership at GEICO indicated that his role had diminished in managing the smaller portion of Berkshire’s equity portfolio with Ted Weschler. Warren made it clear that Greg Abel would be responsible for overall capital allocation, including meaningful investments in publicly traded public equities. The opportunity cost of buying entire businesses, whether public or private, must be assessed against potential stock market investments. Todd may have aspired to managing more or all of the portfolio, which wasn’t going to happen. Nor do I think he was a realistic candidate to ultimately succeed Ajit Jain in overseeing Berkshire’s vast insurance operation, particularly lacking experience in reinsurance.

Incidentally, it would not be inconceivable to see Ted Weschler oversee a larger portion of Berkshire’s equity portfolio and serve as a sounding board in collaboration with Greg on materially large investments. At a minimum, it wouldn’t be a surprise for him to take over the portion of the portfolio managed by Todd. That change may already have taken place.

Also announced was Marc Hamburg’s retirement as Berkshire’s CFO in June 2027. In the meantime, he will work on a transition to Charles Chang as CFO over the course of a full year starting this coming June, when Charles moves from his role as BH Energy’s CFO to CFO of the holding company. It looks like Charles will work with his successor at BHE over this first five months of 2026 before moving to the holding company. Marc has been Berkshire’s CFO since 1992. He’s 75. While young in the Berkshire world, the CFO role is detail oriented. I for one wouldn’t find the idea of working as a CFO until the age of 95 as appealing as allocating capital. But that’s me. Warren praised Marc exhaustively over the years. A CFO retiring at 76 or 77 is perfectly understandable. That he will work with Charles for a full year is a testament to his commitment to Berkshire and its longevity. It’s likely Marc continued in his capacity as CFO out of loyalty to Berkshire and to Warren, and also because Berkshire is not a place where one retires at 65!

It’s interesting but not surprising to see the appointment of a full-time in-house general counsel, Michael O’Sullivan. Berkshire for years used Munger, Tolles & Olson as external counsel. Ron Olson recently retired from Berkshire’s board. With ongoing M&A, litigation and governance, having O’Sullivan in house to coordinate legal matters with external counsel can only be a plus. Ron would have served in that capacity informally in his role as director. O’Sullivan previously worked at Munger, Tolles & Olson prior to joining Snap as in-house counsel in 2017.

In summary, while fairly material news, the personnel changes are more importantly indicative that the transition from Warren to Greg has been well thought out. Greg knows where he needs more formal assistance in his new role as CEO and has had the better part of eight years to realize what’s required to

be most effective leading Berkshire in the decades to come. Announcing the changes in early December prior to Warren's formal retirement is yet further endorsement by Warren that Berkshire is in very good hands. Nowhere in the news was the creation of committees or large human resources departments. You can be certain that no high-priced consultants were engaged in the decision making! It will be fun in the months and years to come, as Berkshire's shares reach new heights, to see the media declare the existence of the Abel Premium.

Berkshire Hathaway Energy Under Fire

Berkshire Hathaway's energy operation is dealing with a number of difficult issues.

Semper's estimate of BHE's value is \$86 to \$91 billion, essentially unchanged for four years. Our appraisal was validated in June 2022 when Berkshire purchased Greg Abel's 1% position in BHE for \$870 million, implying an \$87 billion total valuation for BHE. Shortly after receiving cash, Greg began buying Berkshire shares on the open market to align his net worth with the company he would eventually lead. Berkshire doesn't do dilutive compensation in options or restricted shares.

Walter Scott, longtime director and great friend of Warren, passed away in 2021. The Scott estate, family and foundation owned 8% of BHE, which Berkshire purchased for roughly \$4 billion in October 2024. BHE paid \$2.37 billion in cash and issued a \$600 million note that was payable in one year at an interest rate then equal to the one-year Treasury-bill rate. In a separate transaction, Berkshire Hathaway acquired 1,601,258 shares of BHE common stock for "an equivalent value in shares of Berkshire Hathaway Inc. Class B common stock." Berkshire's Class B shares closed at \$460.26 on September 30, 2024. Assuming a valuation of \$650 per share of BHE common stock, the transaction value was \$1.04 billion and was funded with the issuance of 2,261,369 Berkshire B shares.

Summarizing the math of BHE and Berkshire's purchase of Walter Scott's 8% interest in BHE, the roughly \$4 billion purchase price valued BHE at \$50 billion, or 57.5% of its \$87 billion value at the time Berkshire bought Greg's 1% interest. \$50 billion also represented BHE's book value.

A small portion of the reason for the discount would have been the issuance of roughly \$1 billion of Berkshire shares at what would have been a discount to Warren's estimate of intrinsic value. When certain parties to Berkshire's purchase of Alleghany requested Berkshire shares in part because of tax basis reasons, Warren indicated his purchase price would need to be lower. I presume some portion of the Scott estate was not left to the Scott foundation but to his heirs, most likely in a generation-skipping trust, which would not have received a cost-basis step-up at death.

The primary reason for the discount is the overhang and unknown future liability associated with litigation related to a series of September 2020 fires in BHE's electric utility subsidiary PacifiCorp's Oregon and Northern California territories. I proposed these two explanations to a journalist who dismissed them in favor of Warren being a shrewd negotiator and having taken advantage of the family of a dear friend. He ran with his version and published it. Regardless, litigation regarding the fires presents a huge overhang and potential liability.

The fires destroyed more than 2,000 structures and killed several individuals. The utility's equipment was not found to have started any of the fires. Per standard industry protocol in practice over a century, PacifiCorp elected to keep electricity on to help first responders, hospitals and others that would be harmed by loss of power.

PacifiCorp to date has recorded an estimated \$2.85 billion in pre-tax losses for the wildfire litigation, of which \$1.4 billion has been paid. Thus, unpaid liabilities total \$1.45 billion. Insurance recoveries offset \$530 million of the losses, but with no more expected.

Amounts sought in complaints in Oregon and Northern California total approximately \$55 billion on September 30, 2025, up from \$46 billion at the same time the prior year. The demands exclude any doubling or trebling of damages or punitive damages. Of the \$55 billion, \$52 billion relates to economic and non-economic damages in the James case, a single Oregon class action. Damages for non-economic losses include mental distress, emotional suffering, personal injury and loss of life, as well as punitive damages and attorney's fees.

For perspective, BHE's entire book value is estimated to be \$53.4 billion (net of non-controlling interests) at year-end 2025. Berkshire paid \$5.1 billion for PacifiCorp in 2005 and with retained earnings and ongoing capital investment has roughly \$9 billion in equity today.

The company believes it will successfully defend against demands beyond economic damages. However, populism develops not just from regulation but from activist lawyers and juries. It's stunning to believe that, after following protocol and not starting fires, a company can be held liable for damages that would eliminate it.

Electric utilities exist for the public good as monopolies, tightly regulated as to the rates they are permitted to charge their customers against their rate base. Returns on equity capital are established with a modest cap. With no profit motive, no private-sector utility would exist. Some believe a public-owned model to be preferable. We don't. Utilities are also responsible for environmental cleanup. For example, when public policy mandates the elimination of coal as a power source, the cost of cleanup should properly be recovered by rate. On losses and costs, regulators must ensure damages be limited unless a utility is found to have behaved recklessly, which PacifiCorp did not. Perhaps a mistake was made buying a utility in markets leaning anti-capitalist. Warren was asked this question about regulatory relations at Berkshire's 2000 meeting of shareholders after buying MidAmerican Energy in Iowa, their first in a series of utility acquisitions. He replied that perhaps Charlie should answer the question, as he lived in California, a state not known for kindness to capital.

Greg observed during Berkshire's 2024 annual general meeting that by rolling up its MidAmerican, PacifiCorp, and NV Energy regulated utilities into BHE, Berkshire accidentally allowed the liabilities of one (specifically PacifiCorp's wildfire legal claims) to potentially affect the credit and capital of the others. The acknowledged mistake was in not ring-fencing each utility and subsidiary into separate legal entities. BHE has 10 separate utilities operating in 11 distinct states, each with its own regulations. PacifiCorp alone, through its two subsidiaries – Pacific Power and Rocky Mountain Power – operates in six western states.

To the extent ring-fencing the energy subsidiaries is not possible, we'll likely see Berkshire sell portions of its energy operation, either to competitors or directly to the states in which they operate.

Greg noted that Berkshire's losses regarding the fires will be manageable relative to its capital. I have not discounted Semper's BHE appraisal other than to not increase it, despite book value and asset growth. Also, why provide fodder for trial lawyers. I'd reasonably expect any excessive non-economic legal losses would be recoverable through the rate base. But then I don't live in a socialist state. A potential \$55 billion against \$9 billion of subsidiary book value or \$53.4 billion of BHE parent book value is insane. In a worst-case scenario, recall BHE and its subsidiary's debts are not guaranteed by Berkshire. You throw the car keys to the regulator and let them efficiently operate complicated utility assets and spend their own money building a very expensive renewables portfolio. In the event of a public policy shift away

from private-sector monopolies producing electricity, and toward public power producers, it seems likely governments would compensate utility shareholders fairly, or at least reasonably.

Moving on, if dealing with wildfire litigation where the company was not at fault for the fires wasn't enough, an enormous benefit to Berkshire's ownership of BHE's electric utility operations may be under threat on another front.

Unlike most electric utilities that distribute most profit to shareholders as dividends, since Berkshire purchased MidAmerican in 2000, BHE has retained nearly all profit. With the proceeds, augmented with debt, BHE has spent \$112 billion on capital expenditures against only \$48 billion of depreciation expense through year-end 2025. The capital expenditures spent on renewables and grid expansion are economically attractive due to evolving iterations of large tax credits. The credits are likely changing, at least for now. The One Big Beautiful Bill (OBBB), signed in July 2025, significantly altered the timeline for the renewable energy tax credits that BHE relies on to fund its massive renewables expansion. The bill pulls forward expiration dates for wind and solar credits. Under the bill, eligibility windows for the Clean Electricity Production Tax Credits and the Investment Tax Credits have been shortened. To receive the credits, wind and solar projects must be placed in service by December 31, 2027. If a project is not completed by the end of 2027, it can only qualify for these credits if it officially began construction by July 4, 2026.

BHE has not stated the degree to which it will be impacted. Note though, that we expect BHE to have spent \$10.8 billion on capital expenditures in 2025, up 20% from \$9.0 billion in 2024. If the loss of credits makes spending on renewables and the grid economically unattractive, then a home for a large portion of Berkshire's ongoing capital allocation will be diminished. It's going to wind up being a very good thing that Greg spent most of his career in the utility and energy world.

One area not impacted by the OBBB expiration of tax credits is investment in grid infrastructure. The grid itself remains economic because it is a regulated asset-base investment. Even if solar panels or wind turbines aren't subsidized, the lines that carry the power earn a guaranteed return approved by state regulators. Much of the grid is old and needs replacement, and to the extent the AI boom continues unabated, at least for the time being, BHE won't be without a home for growth capital expenditures entirely.

[Closing note: On February 17, 2026, PacifiCorp announced it was selling its Washington state utility operation to Portland General Electric for \$1.9 billion. PacifiCorp noted that diverging policies among states have created "extraordinary pressure affecting the company's ability to meet demand reliably and at the lowest cost to customers."]

Six Decades of Compounding

Berkshire's stock returned 10.9% in 2025 versus a 17.9% total return for the S&P 500. Recent sizable outperformance or underperformance will have a material impact on short- and intermediate-term compound annual return series. The last three years combined are a case in point in favor of the index. Berkshire's shares rose 4.0% in 2022 while the S&P 500's total return was negative 18.1%. Over the subsequent three years 2023 through 2025 the index total return averaged 23.0% while Berkshire averaged "only" 17.2%. Therefore, when comparing Berkshire to the index over numerous yearly intervals, the S&P 500 is ahead. Recall from *The Buffett Scorecard* discussion a few pages back that as of May 2, 2025, the last trading day before Warren Buffett retired, there were zero yearly CAGR intervals in which Berkshire was not ahead.

Measuring with Berkshire's former preferred yardstick, per-share book value, yields consistent growth over time. Berkshire's growth in book value per share includes returns on the stock portfolio on an after-tax basis, versus the untaxed basis applied to the S&P 500. Unrealized gains are offset with a correspondent deferred-tax liability. Only one interval exists over the last 61 years, when compounding backward from 2025 to 1965, in which Berkshire's compounded annual book value per share growth got a low as 10.0%, narrowly escaping single-digit status. The three-year compound growth in book value per share averaged 15.0% over the past three years. Berkshire's stock advanced 17.2% annually over the three years, the higher return for the stock indicative of an expanding multiple to book value per share.

Semper's decision to buy Berkshire in February 2000 was a good one. The stock had fallen by half from 1998 and the multiple to book had receded from 3.0x to 1.05x. Berkshire returned 10.5% from year-end 1999 while the index earned 8.1%. Our experience with Berkshire is even better, thanks to the price we paid in February 2000. Our shares were bought at \$43,007 (seven dollars per share being the commission), when the stock was down 22% from the beginning of 2000 and by roughly half from when it acquired General Re in 1998. While Semper's stocks returned more than our shares in Berkshire from the time of our initial acquisition, there are plenty of times when Berkshire has helped our overall returns more than it has hindered. Semper's 41.4% net investment return in 2025 against Berkshire's 10.9% return dramatically skews our short- and intermediate-term returns in our favor and adds more than 1% to our annual long-term relative advantage. From the outset of 1999 our equities returned 12.4% annually versus 9.2% for Berkshire's annual stock market return, 10.1% for Berkshire's annual gain in book value per share, and 8.5% for the S&P 500. The point being that recent returns can wildly skew relative advantage or disadvantage. Berkshire's 25.5% return on the stock in 2024 was way ahead of our 8.2% return on equities.

Berkshire's Performance page presents annual percentage change for three measures – book value per share, market value per share and S&P 500 total return. The figures are augmented with compound growth series from 1965 and backward from 2025. Hence, the 1-year, 2-year, all the way to 61-year, returns are all easily ascertained.

Interpreting the table is straightforward. The three components, change in book value per share and total returns for Berkshire's shares and for the S&P 500, have three columns associated with each. Compare the first column in each set of three columns with the first column for the others, then compare the middle columns with the middle columns and the third columns with the third columns. The first column in each set of three is the annual percentage change. Thus, for 2025 Berkshire's book value gained an expected 11.0%, the stock price gained 10.9% and the S&P 500 earned 17.9%.

The next, or middle column for each set, is the reverse compound annual return series. These figures are *italicized* and show the 1-year compound annual return, 2-year return, 3-year return and so forth, all the way up the page to the 61-year return. We added the second column showing the *1yr, 2yrs, ...* in the table

to make it easier to locate the yearly compound returns from each other. Now if you want the *40yrs* return, it's easy to identify as 1986 and you are comparing the three columns of italicized figures.

To illustrate, using the row for 2006, Berkshire's *20yrs* compound annual change in book value per share (from 2025) is 11.3%, the stock averaged an identical 11.3% while the index gained 11.0% per year. The italicized figure at the top of the table in each column labeled "CAGR from 2025" thus is the annualized return from the outset. So, Berkshire compounded book value by 18.0% for 61 years as the stock averaged 19.7% against only 10.5% for the index.

These three italicized figures for year 1965 at the top of the page match exactly the bottom "CAGR from 1965" numbers seen in the third of each of the three columns. This third column begins with 1965's return and shows the compound annual return for each yearly period beginning at the outset. Thus, at the end of 1998 (underlined), book value per share had compounded by 24.7%, the stock averaged 28.7% and the S&P returned only 12.1%.

The row for 1998 is underlined to denote the peak of Berkshire's compounded growth in per share book value and market value. The line under 1998 also emphasizes Berkshire's pivot away from its extremely overvalued stock portfolio. Acquiring General Re in 1998 and their enormous fixed-income portfolio reduced the stock portfolio concentration from 115% of book value and 65% of assets to 65% of book value and 30% of assets. The pivot allowed Berkshire to divert material proportionate surplus capital away from common stocks, toward wholly owned businesses like BHE and BNSF. BHE was acquired one year after the General Re purchase. From that point, book value per share compounded *faster* than Berkshire's stock, which itself compounded *faster* than the stock portfolio, which in turn *outperformed* the S&P 500. By my math, had Berkshire not acquired General Re using its stock as currency in the deal, Berkshire would be worth roughly half of its current value. Using Berkshire's shares as currency at 3x book value was genius, evidenced simply by its 1.5x multiple at year-end 2025.

Since the table illustrates both forward and backward compound returns, the 10.9% stock price return for 2025 matches the *1yr* 10.9% annual return in the second Berkshire stock price column. Logically, Berkshire's 49.5% gain in 1965 becomes the one-year return in the "CAGR from 1965" third column.

Berkshire, like any company, should see total returns from the stock match fundamental returns from the business on a per share basis over time. Berkshire pays no dividend, so its returns are all derived via the stock price. The 1.7% annual disparity between Berkshire's 61-year 18.0% compound gain in book value per share and its 19.7% stock market return is largely the expansion of the stock trading at 63.6% of book value in September 1964 and ending closer to 151% of book at year-end 2025, more than doubling the multiple to book value over 61 years, or 133% of premium return in the stock versus book value. Book value per share was \$19.46 at the outset of fiscal year 1965 while the stock traded for ~\$12.37 as I estimate it. Plug and play these beginning values into any subsequent time series and the results are impressive. Over decades the results are staggering.

Berkshire's Performance vs. the S&P 500: Annual Returns + Growth Rates Forward & Backward

Year		Book Value per Share*	CAGR From 2025	CAGR From 1965	Market Value per Share	CAGR From 2025	CAGR From 1965	S&P 500 with Dividends Included	CAGR From 2025	CAGR From 1965
1965	61yrs	23.8%	18.0%	23.8%	49.5%	19.7%	49.5%	10.0%	10.5%	10.0%
1966	60yrs	20.3%	17.9%	22.0%	-3.4%	19.3%	20.2%	-11.7%	10.5%	-1.4%
1967	59yrs	11.0%	17.9%	16.7%	13.3%	19.7%	16.4%	30.9%	10.9%	7.7%
1968	58yrs	19.0%	18.1%	17.3%	77.8%	19.9%	28.6%	11.0%	10.7%	8.4%
1969	57yrs	16.2%	18.1%	17.1%	19.4%	19.1%	26.8%	-8.4%	10.7%	5.0%
1970	56yrs	12.0%	18.1%	16.2%	-4.6%	19.1%	21.1%	3.9%	11.0%	4.8%
1971	55yrs	16.4%	18.2%	16.3%	80.5%	19.5%	28.0%	14.6%	11.2%	6.1%
1972	54yrs	21.7%	18.3%	16.9%	8.1%	18.6%	25.4%	18.9%	11.1%	7.6%
1973	53yrs	4.7%	18.2%	15.5%	-2.5%	18.8%	22.0%	-14.8%	11.0%	4.9%
1974	52yrs	5.5%	18.5%	14.5%	-48.7%	19.3%	12.1%	-26.4%	11.5%	1.4%
1975	51yrs	21.9%	18.8%	15.1%	2.5%	21.3%	11.2%	37.2%	12.4%	4.1%
1976	50yrs	59.3%	18.7%	18.2%	129.3%	21.7%	18.0%	23.6%	12.0%	5.6%
1977	49yrs	31.9%	18.0%	19.2%	46.8%	20.1%	20.0%	-7.4%	11.8%	4.5%
1978	48yrs	24.0%	17.7%	19.5%	14.5%	19.6%	19.6%	6.4%	12.2%	4.7%
1979	47yrs	35.7%	17.6%	20.5%	102.5%	19.7%	23.8%	18.2%	12.3%	5.5%
1980	46yrs	19.3%	17.2%	20.5%	32.8%	18.4%	24.3%	32.3%	12.2%	7.0%
1981	45yrs	31.4%	17.2%	21.1%	31.8%	18.1%	24.7%	-5.0%	11.8%	6.3%
1982	44yrs	40.0%	16.9%	22.0%	38.4%	17.8%	25.5%	21.4%	12.2%	7.0%
1983	43yrs	32.3%	16.4%	22.6%	69.0%	17.3%	27.4%	22.4%	12.0%	7.8%
1984	42yrs	13.6%	16.0%	22.1%	-2.7%	16.3%	25.7%	6.1%	11.8%	7.7%
1985	41yrs	48.2%	16.1%	23.2%	93.7%	16.8%	28.3%	31.6%	11.9%	8.7%
1986	40yrs	26.1%	15.4%	23.3%	14.2%	15.4%	27.6%	18.6%	11.5%	9.1%
1987	39yrs	19.5%	15.1%	23.2%	4.6%	15.4%	26.5%	5.1%	11.3%	9.0%
1988	38yrs	20.1%	15.0%	23.0%	59.3%	15.7%	27.8%	16.6%	11.5%	9.3%
1989	37yrs	44.4%	14.9%	23.8%	84.6%	14.7%	29.6%	31.7%	11.3%	10.1%
1990	36yrs	7.4%	14.1%	23.2%	-23.1%	13.2%	27.1%	-3.1%	10.8%	9.6%
1991	35yrs	39.6%	14.3%	23.7%	35.6%	14.5%	27.4%	30.5%	11.2%	10.3%
1992	34yrs	20.3%	13.7%	23.6%	29.8%	13.9%	27.5%	7.6%	10.7%	10.2%
1993	33yrs	14.3%	13.5%	23.3%	38.9%	13.4%	27.8%	10.1%	10.8%	10.2%
1994	32yrs	13.9%	13.5%	22.9%	25.0%	12.7%	27.7%	1.3%	10.8%	9.9%
1995	31yrs	43.1%	13.4%	23.5%	57.4%	12.3%	28.6%	37.6%	11.2%	10.6%
1996	30yrs	31.8%	12.6%	23.8%	6.2%	11.1%	27.8%	23.0%	10.4%	11.0%
1997	29yrs	34.1%	12.0%	24.1%	34.9%	11.3%	28.0%	33.4%	10.0%	11.6%
1998	28yrs	48.3%	11.2%	24.7%	52.2%	10.5%	28.7%	28.6%	9.2%	12.1%
1999	27yrs	0.5%	10.1%	24.0%	-19.9%	9.2%	27.0%	21.1%	8.5%	12.3%
2000	26yrs	6.5%	10.4%	23.5%	26.6%	10.5%	27.0%	-9.1%	8.1%	11.7%
2001	25yrs	-6.2%	10.6%	22.6%	6.5%	9.9%	26.4%	-11.9%	8.8%	11.0%
2002	24yrs	10.0%	11.4%	22.2%	-3.8%	10.1%	25.5%	-22.1%	9.8%	10.0%
2003	23yrs	21.0%	11.4%	22.2%	15.8%	10.7%	25.2%	28.7%	11.4%	10.4%
2004	22yrs	10.5%	11.0%	21.9%	4.3%	10.5%	24.6%	10.9%	10.7%	10.4%
2005	21yrs	6.4%	11.0%	21.5%	0.8%	10.8%	24.0%	4.9%	10.7%	10.3%
2006	20yrs	18.4%	11.3%	21.4%	24.1%	11.3%	24.0%	15.8%	11.0%	10.4%
2007	19yrs	11.0%	10.9%	21.1%	28.7%	10.7%	24.1%	5.5%	10.8%	10.3%
2008	18yrs	-9.6%	10.9%	20.3%	-31.8%	9.7%	22.4%	-37.0%	11.1%	8.9%
2009	17yrs	19.8%	12.2%	20.3%	2.7%	12.9%	22.0%	26.5%	14.8%	9.3%
2010	16yrs	13.0%	11.8%	20.2%	21.4%	13.5%	22.0%	15.1%	14.1%	9.4%
2011	15yrs	4.6%	11.7%	19.8%	-4.7%	13.0%	21.3%	2.1%	14.1%	9.2%
2012	14yrs	14.4%	12.2%	19.7%	16.8%	14.4%	21.2%	16.0%	15.0%	9.4%
2013	13yrs	18.2%	12.1%	19.7%	32.7%	14.2%	21.5%	32.4%	14.9%	9.8%
2014	12yrs	8.3%	11.6%	19.4%	27.0%	12.8%	21.6%	13.7%	13.5%	9.9%
2015	11yrs	6.4%	11.9%	19.2%	-12.5%	11.6%	20.8%	1.4%	13.5%	9.7%
2016	10yrs	10.7%	12.4%	19.0%	23.4%	14.3%	20.8%	12.0%	14.8%	9.7%
2017	9yrs	23.0%	12.6%	19.1%	21.9%	13.4%	20.9%	21.8%	15.1%	9.9%
2018	8yrs	0.4%	11.4%	18.7%	2.8%	12.3%	20.5%	-4.4%	14.3%	9.7%
2019	7yrs	23.0%	13.1%	18.8%	11.0%	13.8%	20.3%	31.5%	17.3%	10.0%
2020	6yrs	9.8%	11.5%	18.6%	2.4%	14.2%	20.0%	18.4%	15.1%	10.2%
2021	5yrs	19.5%	11.8%	18.6%	29.6%	16.8%	20.1%	28.7%	14.4%	10.5%
2022	4yrs	-3.7%	10.0%	18.2%	4.0%	13.8%	19.8%	-18.1%	11.1%	9.9%
2023	3yrs	18.0%	15.0%	18.2%	15.8%	17.2%	19.8%	26.3%	23.0%	10.2%
2024	2yrs	16.0%	13.5%	18.2%	25.5%	17.9%	19.9%	25.0%	21.4%	10.4%
2025	1yr	11.0%	11.0%	18.0%	10.9%	10.9%	19.7%	17.9%	17.9%	10.5%

*Internally estimated BRK BVPS

Fiscal years 1965 and 1966 end September 30. 1967 is five quarters ended December 31. S&P 500 returns are likewise adjusted.

A tight correlation between growth in book value per share and market value per share (no dividends save the single quarterly dime paid in 1967) can be seen in the table below.

10-Years Ended	Avg. Book Value per Share Growth	Avg. Market Value per Share Growth	Avg. S&P 500 Total Return
1985	33.0%	50.7%	14.1%
1995	24.3%	29.2%	14.9%
2005	15.2%	10.7%	9.1%
2015	10.1%	8.3%	7.3%
2025	12.4%	14.3%	14.8%

From 2025	Book Value per Share Growth	Market Value per Share Growth	S&P 500 Total Return
10-year CAGR	12.4%	14.3%	14.8%
20-year CAGR	11.3%	11.3%	11.0%
30-year CAGR	12.6%	11.1%	10.4%
40-year CAGR	15.4%	15.4%	11.5%
50-year CAGR	18.7%	21.7%	12.0%
60-year CAGR	18.0%	19.7%	10.5%

Provided book value per share continues as a meaningful measure, changes in book value per share and in the stock price over time will correlate to Berkshire's growth in per-share earning power. Deriving how much Berkshire earns in economic terms is a process which requires effort. I like to think our clients and readers of this annual letter are given a framework for understanding the sources of Berkshire's earnings and how it goes about reinvesting those earnings.

The Tools of Capital Allocation

“Through chances various, through all vicissitudes, we make our way....” – Epigraph introducing Benjamin Graham’s Intelligent Investor, from Virgil’s Aeneid

“The key to investing is not assessing how much an industry is going to affect society, or how much it will grow, but rather determining the competitive advantage of any given company and, above all, the durability of that advantage.” – Warren Buffett

“Beware the investment activity that produces applause; the great moves are usually greeted by yawns.” – Warren Buffett

“Cash combined with courage in a time of crisis is priceless.” – Warren Buffett

“No matter how great the talent or efforts, some things just take time. You can’t produce a baby in one month by getting nine women pregnant.” – Warren Buffett



Aeneas and Turnus - Luca Giordano

Warren Buffett will be remembered for the investment track record, likely never to be outdone. But the aspect of Warren that *should be studied* is how he did it. Specifically, how, when and why did he employ the tools of capital allocation? There are only a finite number of proverbial arrows in the quiver available to company managements. Berkshire employed every one of them masterfully over 61 years under the stewardship of its chairman and recently retired CEO. Never underestimate the man with two swords. Or six.

Capital allocation is not just putting money to work but acting decisively when past capital investments were not only mistakes but could inflict harm, even of the terminal variety. Berkshire shifts capital from the weak to the strong. Three of Berkshire’s early large investments all essentially went to zero, including the failing textile operation acquired in 1965 and completely shuttered 20 years later. Berkshire made two additional early investments besides the textile business – forming Diversified Retailing and later buying Blue Chip Stamps. Both were flops and were extremely large investments relative to Berkshire’s size at the time. In both cases, Berkshire realized its mistakes and shifted capital opportunistically from the failing to superior assets. Had any of the three been fed limitless capital infusions while on life support, Berkshire itself could have perished.

Between the original acquisition of Berkshire Hathaway and investments in Diversified Retailing and Blue Chip Stamps, Berkshire bought National Indemnity in 1967. The then small Omaha insurance company would become the cornerstone of Berkshire and the largest reinsurer in the world by capital (not by premium volume). It took nearly 20 years, however, for Berkshire to really commit to reinsurance.

While acquiring other companies, Berkshire has issued fully valued or overvalued shares. It has bought back shares when undervalued and no better opportunity was available. Berkshire uses debt, but only when appropriate and never to excess. Investing in common stocks served Berkshire extremely well, and over time outperformed the stock market by miles. It has walked away from overvalued large stock holdings – Apple most recently via huge market sales and indirectly (via its Gen Re purchase) with Coca-Cola in 1998. The use of insurance float amplifies returns and generally comes at a negative cost.

One tool Berkshire does not employ is payment of a dividend. It paid one \$0.10 quarterly dividend and realized it was better retaining all profits and reinvesting like it knew how. Berkshire had precisely one

million shares outstanding in 1967 (only 43% higher today, the increase from acquisitions using mostly expensive Berkshire shares as currency and the issuance of the “B” shares in 1996). The dime dividend therefore cost Berkshire \$100,000 in 1967. Shareholders’ equity would be higher today by \$2.7 billion had they not paid it. Berkshire would be worth a fraction of what it’s worth today had they adopted a conventional strategy of distributing some percentage of profits as dividends every year.

Berkshire occasionally uses its shares as currency in making acquisitions but has not done so since partially financing its 2010 purchase of BNSF with stock. It acquired General Re using \$22 billion worth of Berkshire shares trading for nearly three times book value in 1998. The stock traded for north of two times book value during the 1990s and Berkshire spent it buying five businesses before it bought General Re: Dexter Shoe, Helzberg Diamonds, R.C. Willey, FlightSafety and Dairy Queen. After buying General Re it also acquired Executive Jet, U.S. Liability and Shaw through 2002 using shares, with the stock at sizable premiums to book value. Anybody in a position of allocating capital, particularly executive management and boards of directors, would be wise to study the history of acquisitions made by Berkshire, particularly how they were financed, what Berkshire was worth at the time, what they got, what they gave up especially as related to intrinsic value, and how the deals fared over time.

The Tools of Capital Allocation Available to Management

- Internal Spending: Capex, R&D, Advertising
- Dividends: Pay / Increase or Reduce / Suspend
- Debt: Pay Down or Take on New, Including Shifting Terms
- Acquisitions: Using Company Stock, Cash, Debt, or a Combination
- Repurchase Shares: Open Market and Via Tender Offer
- Issue Shares: Sell to Raise New Capital; Issue to Executives (a C-Suite Favorite)

Berkshire allocates cash earned from its operations (or the portion of economic profit earned as cash) in four primary activities.

1. Share Repurchases: Over the past five years Berkshire has repurchased its shares at material discounts to intrinsic value (it spends shares on acquisitions but only when the stock isn’t undervalued);
2. Net Purchases of Common Stocks: Using Berkshire’s growing insurance reserves and surplus capital in the insurance operation;
3. Acquisitions: It acquires entire businesses or partial controlling interests in entire businesses. Some deals are substantial while some are smaller bolt-on acquisitions for its myriad operating subsidiaries; and
4. Fixed Assets – Growth Capital Expenditures: Finally, Berkshire invests capital in fixed assets to grow its energy operation and elsewhere beyond maintenance requirements. The energy business *retains nearly all profit* and on a roughly dollar-for-dollar basis augments all retained earnings with a like amount of debt. The combination of equal portions equity and debt capital finance expansion of power generation and distribution on a regulated return basis, much of which is heavily subsidized with tax credits and incentives for capital spending.

Cash flow from operating activities is expected to total nearly \$46 billion in 2025. From that figure will be subtracted roughly \$11.7 billion of depreciation expense to arrive at investable cash flow. While depreciation is a non-cash expense, every bit of it is real in Berkshire’s case. I generally assume maintenance capital expense at Berkshire roughly matches depreciation expense, a relationship that has held over time. However, given higher inflation over the last several years, the cost of maintenance capital expenditures is now higher than depreciation expense because depreciation is calculated on the historic cost of assets, versus maintenance capex that must be paid in the future. This is a pervasive issue in recent years little recognized by investors and by too many managements. More resources diverted to

maintenance capex (and growth capex among the AI hyperscalers) means fewer resources for things like share repurchases. The only item *never* on the chopping block at said hyperscalers is executive compensation.

You won't find regular charges against assets, equity and earnings at Berkshire. Where S&P 500 companies wrote off 15% of operating earnings since the mid-1980s, they are extremely rare at Berkshire. Maintenance capital must be spent from operating cash flow and is thus removed from discretionary spending as we think about it, and we show it as such in the table below. An estimated \$45.8 billion in operating cash flow for 2025 is reduced by an estimated \$11.7 billion in depreciation expense, leaving \$34.1 billion for capital allocation (plus perhaps \$270 billion or so of Berkshire's cash reserves). Per the comments above on inflation, some portion of the estimated \$8.9 billion shown for growth capex is realistically an obligation directed to maintenance.

It's reasonable to think about investable cash at the current rate of approximately \$10 billion per quarter, holding debt outstanding and cash balances constant. More cash went out the door to pay taxes on realized capital gains over the past three years than would normally be the case, understating investable cash flow in the table. On cash balances, there are moments like now where Berkshire's reserves will ultimately lead to it spending far more than investable cash flow in a given year or over a few years. Cash tends to rise when Berkshire sells net stocks and vice versa. The tremendous sales of Apple stock in 2024 were a dramatic illustration of this. Those who read this section last year saw our estimate for cash flow from operations was materially higher than reported. I'd assumed most of the taxes paid on realized stock market gains would be paid in the subsequent year. I was wrong. Given ongoing net sales of common stocks, reported operating cash flow is lower in 2024 and 2025 than would be reported in the absence of large tax payments on gains.

Berkshire Hathaway Investable Cash Flow and Capital Allocation 2018-2025; Dollars in Billions

	Past 8 years	Average	2025(e)	2024	2023	2022	2021	2020	2019	2018
Cash Flow from Operations	318.1	39.8	45.8	30.6	49.2	37.2	39.4	39.8	38.7	37.4
Depreciation/Maintenance Capex	79.1	9.9	11.7	11.1	10.7	9.7	9.5	9.3	8.7	8.4
Investable Cash Flow	239.0	29.9	34.1	19.5	38.5	27.5	29.9	30.5	30.0	29.0
Capital Allocation	42.8	5.3	3.0	-120.9	2.4	58.6	24.0	22.3	18.1	35.2
Berkshire Share Buybacks	78.0	9.8	0.0	2.9	9.2	7.9	27.1	24.7	4.9	1.3
Growth Capex	52.4	6.5	8.9	7.9	8.8	5.8	3.8	3.7	7.2	6.2
Acquisitions of Businesses	37.3	4.7	9.7*	0.4	8.6	10.6	0.5	2.5	1.7	3.3
Net Purchases of Common Stocks	-124.9	-15.6	-15.6	-132.1	-24.2	34.3	-7.4	-8.6	4.3	24.4
Other	-40.6	-5.1	-19.7	-9.1	-4.1	-4.8	-3.3	4.7	1.9	-6.2
Net Proceeds from Debt	19.9	2.5	0.5	4.3	-1.1	8.2	-0.8	6.8	6.1	-4.1
Net Change in Cash	256.7	32.1	51.2	153.8	39.1	-18.1	8.4	10.3	16.1	-4.1

*Acquisition of OxyChem closed January 2, 2026. Source: Berkshire Hathaway 10-K filings; Semper Augustus calculations

The Investable Cash Flow and Capital Allocation table dates to 2018 when Berkshire started buying back shares (during this latest cycle). Berkshire is opportunistic and there is hence a lumpiness to when Berkshire lays out cash (or hauls it in) in certain areas and in any individual year. The table presents the last eight years in aggregate and as an average. Berkshire spent far more than investable cash flow in

2022 (meaning cash balances were drawn down). Growth capex consistently grows with little volatility. Share repurchases are opportunistic and we expect none in 2025. The big swing factor over the past three years was net purchases of common stocks. Berkshire bought a net \$34.3 billion in 2022 when the market was routed (hence helping absorb more than investable cash flow). It then sold a net \$24.2 billion in 2023, a huge net \$132.1 billion in 2024 and an estimated net \$15.6 billion in 2025 as stocks rose. The timing of when Berkshire is active in the stock market is uncanny. They tend to buy low and sell high.

Berkshire produced \$318.1 billion in cash flow from operations over the past eight years. Maintenance capital expense viewed as depreciation expense totaled \$79.1 billion, leaving about \$239 billion remaining of investable cash flow for capital allocation. Excluding the net \$172 billion in stocks sold over the last three years, during the last eight years it spent \$78.0 billion on share buybacks, \$52.4 billion on growth capex and \$37.3 billion on business acquisitions. Those three categories totaled \$167.7 billion over eight years, or \$21.0 billion per year. I expect at the next recession or crisis we'll see Berkshire's vast cash reserves put to work and our capital allocation figure surge beyond investable cash flow once again.

Share Buybacks

Share buybacks slowed in 2022 and 2023, turned down in 2024, and were likely nonexistent in 2025. The stock was fundamentally cheaper in 2020 and 2021 when Berkshire spent a combined \$51.8 billion or 86% of investable cash flow, purchasing shares. Over the last eight years the company spent \$78 billion on buybacks, consuming nearly one-third of investable cash flow, which is, again, after depreciation expense. Our next section forecasting the next ten years of returns features a table illustrating how the stock will fare under multiple scenarios of profitability, in all cases spending half of economic earnings repurchasing shares. Perhaps the best way to view Berkshire's share repurchases is as a proportion of investable cash flow. Semper's estimation of economic earnings correlates to cash flow from operations. As Berkshire grows and the opportunity set diminishes simply for size, provided Berkshire's shares occasionally trade at sizable discounts to intrinsic value, expect sizable repurchases relative to either economic earnings or investable cash flow.

Berkshire is simply more intelligent in repurchasing shares compared with, well, everyone. Berkshire's share repurchases retired 12.6% of outstanding shares since 2018, 1.6% of their outstanding shares per year. The aggregate of the S&P 500 spends a far larger proportion of cash from operations purchasing shares. Over the past decade they have retired 0.5% of outstanding shares. Over the past quarter century, despite spending more than half of cash flow from operations on share repurchases, they didn't dent the share count. Stated more clearly, Berkshire spent a fraction of investable cash flow versus the index companies and bought back nearly three times as much of its outstanding shares.

A key question is how aggressive Greg will be in repurchasing shares when they are sufficiently cheap. My sense is he will be more aggressive than Warren was. Repurchasing undervalued shares is a terrific use of capital, and Greg is most certainly aware of the mountain of it lying around.

Growth Capex

Berkshire spent \$131.4 billion on total capital expenditures over the last eight years. Maintenance capex (depreciation) expense totaled \$79.1 billion, suggesting expenditures on growth initiatives totaled about \$52.4 billion (minus perhaps \$2 to \$3 billion for inflationary-induced maintenance), or \$6.6 billion per year. Growth capex at BHE consumed more than two-thirds of the total over the eight years.

The energy operation consists of three electric utilities and a wide-spanning network of energy pipelines and other distribution assets. Rapid expansion of wind and solar generating capacity and the new electric

grid needed to send power from remote locations to where it is needed is consuming large amounts of capital at good regulated and predictable returns. Total expected BHE growth capex of \$10.8 billion in 2025 exceeded its depreciation charges by \$6.5 billion.

A table in the appendix tracks capital expenditures, depreciation and the difference between the two since 2004 for BHE alone, BNSF alone, BHE and BNSF combined, and for all of Berkshire. BHE and BNSF spend most of the capex at Berkshire. Over the past 22 years, roughly 41% of Berkshire's total capex was spent in the energy operation, 70% of which was growth capex.

Berkshire's conventional energy assets are properly maintained with maintenance capital expenditures, but it's the retention of earnings and ongoing investment in heavily subsidized and regulated power creation assets that has made BHE Berkshire's third-largest operation. I say this with a caveat. Renewable energy is intermittent and inefficient. Concerns of climate change in Europe and North America made increasing renewable power a public policy mandate, with much of the bill financed by taxpayers. In addition to being inefficient, it's expensive. *It's also hypocritical in that China is not remotely held to environmental standards.* See the section on energy in Semper's 2021 annual letter, *Brown Sugar*. Power prices are materially higher in the West. Germany closed all 17 of its nuclear plants. There is an underswell of pushback against the race to a carbon-free or carbon-neutral power infrastructure, certainly on prescribed timelines. The point is that although BHE's outlays for wind, solar and the grid absorb a substantial sum that comes with a decently profitable regulated but predictable return, public policy appears to be shifting away from investing in renewables. Last year we noted:

A risk exists that tax credits abate. In that event, Berkshire's utilities will still earn decent returns on invested capital but the ability to continue investing at present rates may disappear. Stay tuned as the political winds appear to be shifting.

The winds are shifting. Please see the earlier discussion on BHE Under Fire. Other than grid expansion, some of which is needed to accommodate data center growth, tax credits for renewables are phasing out. If the after-tax viability of investing in renewables deteriorates, BHE will send dividends to Omaha in lieu of investing much beyond maintenance. It would move to shrink its footprint in electric utilities as well. Hostile regulation and legislation don't help on this front.

Additional growth capital expenditures were spent in the immediate years following Berkshire's purchase of BNSF in 2010. Adding capacity to its network, expanding tunnels to accommodate dual-stacked intermodal traffic and adding multiple rails of track in heavily traversed corridors greatly improved the capacity and efficiency of the railroad. From 2011 to 2015 the railroad spent roughly \$2.60 in capital expenditures for each dollar of depreciation. The rail is now spending only 35% on average above depreciation. There is little more that the railroad can do on the growth front. Expenditures will be flat when reported for 2025 versus 2024, with \$3.7 billion of capex on \$2.7 billion in depreciation expense. Maintenance capex will always run somewhat higher than depreciation in railroads. Growth capex at the railroad will *decline* by perhaps 10% in 2025 and decline for two years running. BNSF economically earns more than 13% on equity capital when profits are not depressed, as they are at present. Equity includes \$15.4 billion in goodwill from the acquisition. The railroad would not be nearly as profitable without Berkshire having committed as much growth capex in its early years of ownership. No longer, however, will the rail be a big source of accretive capital allocation.

The balance of growth capex is spent among Berkshire's myriad manufacturing and service businesses. The leasing operation provides a terrific use of capital. Total firmwide capital expenditures should total \$20.6 billion when reported for 2025, up 8.9% above 2024. Growth-related capex will total \$8.9 billion of the \$20.6 billion.

Net Purchases of Common Stocks

Net portfolio sales of common stocks totaled \$172 billion for the three years 2023-2025. Berkshire was a sizable buyer in 2022, spending a net \$34.3 billion as the stock market declined during the year. Over the last eight years it liquidated a net \$125 billion. Berkshire net purchased \$40 billion from 1997 to 2022. However, sales of Apple and other positions dramatically shifted this to a cumulative \$108 billion in *net sales* over the full period from 1997 through year-end 2025.

Sales of Apple and other stock positions amazingly tilted portfolio activity from \$40 billion in net purchases from 1997 to 2022 to a cumulative \$108 billion net sales from the same 1997 starting point through year-end 2025.

Berkshire was a net seller in five of the last eight years. Years involving large net purchases were 2018 and 2022, which happen to be the two years when both the stock portfolio and the stock market declined in value. The portfolio traded for 12.4x earnings at the end of 2018 and 19.8x at year-end 2025. It's no coincidence that Berkshire was a net seller of stocks in 2020 and 2021, the two years when it was the largest net buyer of its own stock.

Progression of Berkshire Stock Portfolio as a Percent of Book Value and Assets

Year	Stocks	Cost Basis	Unrealized Gain/Loss	Realized Gain	Net Purchases	Net as % of Avg	Equity	Stocks as % of Equity	Total Assets	Stocks as % of Assets
1997	\$36,248	\$7,207	\$29,041	\$1,106	-\$1,302	-4.1%	\$31,455	115%	\$56,110	65%
1998	37,265	7,044	30,221	2,415	-2,823	-7.7%	57,403	65%	122,237	30%
1999	37,008	8,203	28,805	1,247	-691	-1.9%	57,761	64%	131,416	28%
2000	37,619	10,402	27,217	4,499	-2,725	-7.3%	61,742	61%	135,792	28%
2001	28,675	8,543	20,132	1,488	-2,806	-8.5%	57,950	49%	162,752	18%
2002	28,363	9,164	19,199	918	416	1.5%	64,037	44%	169,544	17%
2003	35,287	8,515	26,772	4,129	6,765	21.3%	77,596	45%	180,559	20%
2004	37,717	9,056	28,661	3,471	-578	-1.6%	85,900	44%	188,874	20%
2005	46,721	15,947	30,774	5,408	6,392	15.1%	91,484	51%	198,325	24%
2006	61,533	22,995	38,538	2,635	5,395	10.0%	108,419	57%	248,437	25%
2007	74,999	39,252	35,747	5,509	11,057	16.2%	120,733	62%	273,160	27%
2008	49,073	37,135	11,938	-7,461	3,300	5.3%	109,267	45%	267,399	18%
2009	59,034	34,646	24,388	787	-1,056	-2.0%	131,102	45%	297,119	20%
2010	61,513	33,733	27,780	2,346	-1,621	-2.7%	157,318	39%	372,229	17%
2011	76,991	48,209	28,782	-830	1,497	2.2%	164,850	47%	392,647	20%
2012	87,662	49,796	37,866	3,425	-712	-0.9%	187,647	47%	427,452	21%
2013	117,505	56,581	60,924	6,673	4,689	4.6%	220,959	53%	484,624	24%
2014	117,470	55,056	62,414	4,081	1,118	1.0%	239,239	49%	525,867	22%
2015	136,017	68,412	67,605	10,347	1,473	1.2%	254,619	53%	552,257	25%
2016	150,432	75,628	74,804	8,304	-11,596	-8.1%	282,070	53%	620,854	24%
2017	195,840	84,476	111,364	2,128	814	0.5%	348,296	56%	702,095	28%
2018	186,764	112,667	74,097	3,300	24,427	12.8%	348,703	54%	707,794	26%
2019	258,527	120,140	138,387	3,200	4,306	1.9%	424,791	61%	817,729	32%
2020	292,257	118,420	173,837	6,200	-8,595	-3.1%	443,164	66%	873,729	33%
2021	363,779	114,405	249,374	3,600	-7,401	-2.3%	506,199	72%	958,784	38%
2022	322,117	143,116	179,001	769	34,266	10.0%	472,360	68%	948,452	34%
2023	380,429	129,216	251,213	5,000	-24,169	-7.0%	561,273	65%	1,069,978	34%
2024	294,635	99,806	194,829	101,100	-132,122	-40.0%	649,368	57%	1,153,881	26%
2025 (est)	316,683	103,477	213,206	21,700	-15,599	-3.1%	720,740	55%	1,253,854	25%

Source: Berkshire Hathaway; Semper Augustus Calculations; Stocks include Kraft Heinz, Occidental common, preferreds and warrants.

Net stock sales over the last three years contributed to building Berkshire's cash position as a percentage of TOTAL assets to 30% at year-end 2025, the highest on record. One might assume that the stock

portfolio, conversely, would be at its lowest proportion of firm assets ever, but that is not the case. The stock portfolio will total about 25% of firm assets at year-end, precisely the average since 1998 when Berkshire bought General Re and materially diluted its overvalued stock portfolio downward. Stocks were as low as 17% of firm assets in 2002 and also in 2010. At 55% of firm book value, stocks are likewise firmly in line with their average since 1998.

Following a few comments on the remainder of capital allocation tools utilized by Berkshire, don't miss the section on how Berkshire handled a concentrated and overvalued investment in Coca-Cola in 1998 and how that episode compares and contrasts with Berkshire's sales of Apple in recent years.

Acquisitions of Businesses

Berkshire spent \$37.3 billion over the eight years under review making a few bolt-on acquisitions. The only acquisition Berkshire made in 2025 was a \$9.7 billion cash purchase of Occidental Petroleum's chemical business, OxyChem. The acquisition closed on January 2, 2026, but we include it in our capital allocation table as of 2025. We like the deal for Berkshire quite a bit. OxyChem is a competitor of Olin, which is one of Semper's largest holdings. OxyChem is in the chlor-alkali business, which uses electricity to convert salt to chlorine and caustic soda. The company is integrated deeply into vinyls and specialty chemicals. While Olin is the lowest-cost producer of chlor-alkali in the world, OxyChem is a very well-run business. My understanding is the assets are well-maintained assets. Legacy environmental liabilities were ring-fenced and cannot be an obligation of Berkshire. Berkshire is essentially paying about 10x mid-cycle free cash flow for OxyChem. It is unlikely the currently depressed industry will add capacity. Maintenance capital expenditures are modest, so free cash flow will be sent to Omaha for investment elsewhere. There is little use for retained income in OxyChem's business, making it a classic Berkshire purchase.

Berkshire remains Occidental's largest shareholder with 26.9% ownership as well as a remaining \$8.5 billion preferred stock bearing 8% interest redeemable in 2029 at 105% of liquidation value. The preferred was initially \$10 billion, with Occidental having redeemed \$1.5 billion. Berkshire also owns warrants on Occidental with the right to purchase up to 83.9 million Occidental shares at \$59.59 until one year after the preferred stock is fully redeemed. Berkshire's purchase of OxyChem does not affect its ownership of Occidental. Occidental used \$6.5 billion of the \$9.7 billion sale proceeds largely to pay down debt taken on in a 2024 acquisition of CrownRock.

The deal category was largely devoid of activity in 2024 apart from buying the 8% of BHE owned by Walter Scott (not included in the table since Berkshire issued \$1 billion of its shares while BHE laid out the larger portion as cash). The largest recent acquisition prior to the OxyChem purchase was 2022's acquisition of insurance competitor Alleghany for \$11.6 billion cash, smallish as well in the grand scheme of Berkshire but meaningful to the insurance operation and what Berkshire can do with Alleghany's three insurers, other assets, and its leadership.

A \$100 billion acquisition at Berkshire's present size would be on par with its \$33 billion purchase of BNSF in 2010. Firm assets have more than tripled while shareholder equity is nearly five times as great. Given Berkshire's roughly \$372 billion cash position expected at year-end 2025, Greg has lots of dry powder at his disposal.

An insane mountain of private equity and venture money is in competition to put money to work. Berkshire also has the issue of size. There aren't many \$100 billion elephants roaming around. Given investable cash flow pushing \$40 billion today, Berkshire doesn't require elephants. Bagging one would be nice but blocking and tackling serves the company just fine. Berkshire invests in businesses with understandable and consistently reliable earning power, but only does so when the price is right. When

faced with control premiums allowing for mid-to-low-single-digit earnings yields, opportunity cost would suggest buying common stocks when on sale at high-single-digit earnings yields (or more) or repurchasing Berkshire itself when on sale. Berkshire ran this playbook for 61 years under Warren and will do it for years to come under Greg and his successors to come. The occasional elephant will invariably cross the path as well. The gun is armed.

Other

The eight-year capital allocation table contains a fifth component, “Other.” It’s a smallish leg that allows cash flow from operations to reconcile with Berkshire’s capital allocation and net changes to debt and to cash. Included here are purchases and collections of loans and finance receivables.

Net Change in Cash Balance and Net Change in Debt Outstanding

Berkshire uses debt judiciously throughout various of its operations, mostly in the railroad and energy businesses. Over the past eight years Berkshire increased net debt by a smallish \$19.9 billion. Equity is roughly matched with debt at BHE, customary in the industry. Too little debt and regulators think utilities are underspending. Too much debt and the company has gone wild. BHE pays no dividends, and retained earnings are augmented with debt financing growth capital expenditures.

Debt is also utilized to finance certain investments. Nearly \$15 billion of Berkshire’s debt is denominated in yen, which financed its investments in five Japanese trading companies. See the “Fun Facts” section of our 2023 letter for a discussion of this investment. Who knew Warren had a yen for debt?

Berkshire’s aggregate \$127.2 billion in borrowings bears a 4.1% average interest rate, which crept up from 3.6% in 2022. Management of debt outstanding gets little notice but is done exceedingly well at Berkshire. The expected \$372 billion cash balance dwarfs debt outstanding by \$245 billion. Maybe Greg will join the ranks of the hyperscalers and lay in some data centers.

Berkshire’s net change in cash increased \$256.7 billion since 2018. Cash comes in via profits from operations, interest and dividends, proceeds from debt raised (which doesn’t sit as cash long), and proceeds from investment sales, maturities, and other sources. It goes out via each of the capital allocation levers discussed in this section. At the current 3.7% yield on U.S. three-month Treasury Bills, Berkshire pockets \$13.8 billion of interest on its \$372 billion cash on hand. The yield was higher before the Fed began trimming rates in 2024.

A sizable portion of Berkshire’s mountain of cash on hand came courtesy of recent sales of its investment in common shares of Apple. Read on about how Warren navigated capital allocation with two huge and quite overvalued investments.

A Tale of Two Stocks

For those who consider Berkshire's investment in Apple to be Warren Buffett's best common stock investment, it's not, and not even close. This section expands on capital allocation at Berkshire, including that related to several firm-wide size metrics, to examine commonalities and differences between Berkshire's earlier investment in Coca-Cola and its more recent investment in Apple. How Berkshire dealt differently with two positions that had successfully grown into potential problems illustrates that Warren is indeed the GOAT of capital allocation.

Got Coke?

Berkshire started building a \$1.3 billion position at cost in Coca-Cola shortly after the 1987 stock market crash, buying shares from early 1988 through 1989, and then a smaller addition in 1994. The Coke position was acquired at about a 15x multiple to earnings.

Berkshire's 37.5-Year Ownership of Coca-Cola (1988 – 2025)

Date	Shares (millions)	Cost Basis (millions of USD)	Cost Basis per Share	Market Value (millions of USD)	Market Value per Share
12/31/1988*	226.8	\$593	\$2.61	\$632	\$2.79
12/31/1989**	373.6	1,024	2.74	1,804	4.83
12/31/1994***	400.0	1,299	3.25	5,150	12.88
06/19/1998****	400.0	1,299	3.25	16,076	40.19
12/31/2025	400.0	1,299	3.25	27,964	69.91

*Initial buy (14.1725m shares)

**Second buy (9.1775m shares)

***Third buy (1.65m split-adjusted shares)

****June 19, 1998: General Re Merger Announced

2-for-1 splits in 1990, 1992, 1996 and 2012

Source: Berkshire Hathaway; *Semper Augustus*

Berkshire spent \$1.024 billion in 1988 and 1989 buying Coke shares. By reference, the total investment portfolio ended 1987 at \$4.2 billion, 1988 at \$5.4 billion and 1989 at \$7.7 billion. Total firm assets and shareholders' equity totaled \$6.8 billion and \$3.4 billion respectively at year-end 1988. Assets and equity totaled \$9.5 billion and \$4.9 billion respectively at year-end 1989. Warren essentially invested about 20% of the investment portfolio, 23% of firm book value and 15% of firm assets in Coke shares during 1988 and 1989. The stock portfolio was larger than Berkshire's total firm equity, so the Coke purchase at cost consumed a larger proportion of book value than it did the investment portfolio. The final 1994 buy was much smaller but at a not-much-higher price per share. Berkshire and the investment portfolio had grown, so Warren was just trying to keep up the then-undervalued Coca-Cola position size. Capital allocation.

If you want to understand Berkshire's success, the Coca-Cola investment, and ultimately what Warren did with it, epitomizes it.

The Coke position grew more than 13-fold by market value from its \$1.3 billion cost basis to \$17.3 billion on June 30, 1998, about a decade later (the purchase was largely made over two years). The return was closer to 18-fold on a total return basis. The entire stock portfolio ended 1997 totaling \$36.2 billion and ended 1998 at \$37.3 billion (Berkshire sold a net \$2.8 billion of stocks during 1998). The stock portfolio was 115% of book value and 65% of total firm assets likewise at the outset of 1998. Coca-Cola's shares began the year at roughly \$33.50 per share, making Berkshire's position worth \$13.4 billion, 37% of the stock portfolio, 43% of book value and 24% of firm assets. By June 1998 Coke's

shares were up nearly 30% for the year, and Coca-Cola approached half of the stock portfolio, 55% of firm book value and nearly 30% of total firm assets.

Not only were Coca-Cola's shares on fire but the company itself flourished during the first decade Berkshire owned it (its "independent" bottlers not so much, but that's another story). From year-end 1988 to June 1998 Coca-Cola would grow sales by 9.2% per year and expand its profit margin by 57%, from 12.1% to 19.0%. Earnings per share grew 16.2% per year. Investors rewarded strong revenue and margin growth with massive multiple expansion. The P/E multiple expanded over the 9.5 years from 15.7x at year-end 1988 to a surreal 58.5x by June 30, 1998. The position exploded to nearly half of the stock portfolio. Omaha, we have a problem. Solving what morphed from a stellar investment to what became a problem required deft capital allocation.

Coca-Cola 9.5-Year Return December 1988 to June 1998

KO 9.5 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/1988	0.18	0.08	1.47	8,345	5,676.6	12.1%	15.7	2.7%	2.79	
6/30/1998	0.74	0.29	3.89	19,194	4,934.1	19.0%	58.5	0.7%	43.30	
Growth %	315.5%	287%	164.6%	130.0%	15.0%	57.0%	273.6%	-75.1%	1,452.5%	1,690.3%
Annual Avg	16.2%	15.3%	10.8%	9.2%	1.5%	4.9%	14.9%	2.0%	33.5%	35.5%

Selling the Coca-Cola position would have been the logical decision. Warren later admitted he should have done so. However, the corporate tax rate on income (and likewise on realized capital gains) was 35% in 1998. The corporate tax rate wouldn't change to 21% until 2017's Tax Cuts and Jobs Act. A 35% tax on roughly a \$16 billion gain would have been \$5.6 billion, nearly 18% of Berkshire's 1997 year-end book value. What to do with an overvalued stock portfolio, harboring a clearly overvalued Coca-Cola's shares then trading at least twice any reasonable appraisal of value? Sell and pay a 35% capital gains tax on the gain? With a very low-cost basis, the master of opportunity cost would rather do anything other than send a monster check to Uncle Sam. Berkshire was not known for incurring large, realized capital gains. Instead, Warren found creative non-taxable asset swaps. But he had to do something.

Instead of selling Coca-Cola, Warren executed one of the greatest pivots in investing history – made via a very large deal. At nearly the exact moment both Coca-Cola and the shares of Berkshire itself reached maximum overvaluation, Berkshire struck an agreement to acquire another insurance company. The genius move was a pivot *from* insurance – *to yet more* insurance. It wasn't new premium volume Mr. Buffett was after. No, he was on the hunt for bonds. Yes, bonds (and insurance float).

Just as Coca-Cola, the entire stock portfolio and Berkshire's shares were all expensive, so too was the capitalization-weighted stock market. Instead of selling down the nosebleed Coca-Cola position, Berkshire announced on June 19, 1998, that it was paying \$22 billion in *Berkshire stock* to acquire General Reinsurance. An incredible \$14.5 billion of the purchase price would be goodwill, a heavy premium to the tangible equity of an insurance company. But was it heavy? Berkshire issued General Re shareholders 272,200 shares of equivalent A shares at \$80,882 per share, 2.9x Berkshire's book value at March 31, 1998. The beauty of the deal was that Berkshire's per-share intrinsic value was only about half that price, meaning that Berkshire was essentially acquiring General Re for a little more than \$11 billion, not the \$22 billion headline price tag.

The use of its overvalued stock as currency was but one important aspect of the deal. Fully 75% of Berkshire's \$47.5 billion *investment portfolio* at this time was invested in very highly appreciated, fundamentally overvalued common stocks. It wasn't just the grand slam of Coca-Cola, but American Express, Gillette and Wells Fargo had been significant investment home runs as well. Against a cost basis

of \$7.2 billion, the entire *stock portfolio's market value* reached \$36.2 billion at year-end 1997, and more than \$40 billion when the mid-1998 deal was announced. The stock portfolio at year-end 1997 comprised a larger 115% of Berkshire's entire book value.

Prior to the acquisition, 90% of Gen Re's investment portfolio was invested in fixed-income securities, typical of most insurers' invested assets. When the portfolios were consolidated, stocks combined at only half of the overall investment mix at year-end 1998, down from a 75% weighting in Berkshire's portfolio prior to the deal. Berkshire either had General Re liquidate its smaller stock portfolio prior to the merger's closing or did so itself immediately afterward. Consolidated equities closed 1998 at \$37.3 billion, only \$1 billion more than Berkshire alone had owned prior to the deal. The fixed-income balance, however, swelled to \$31.2 billion, up from \$10.3 billion the year before.

Buying General Re *tripled* the size of Berkshire's insurance float, General Re's \$14.9 billion float being twice as large as Berkshire's \$7.4 billion going into the merger. Combined float totaled \$22.7 billion post close and increased invested assets at Berkshire by more than 50%, adding fully \$25 billion of investment assets to the portfolio. It was an astounding transaction, paying \$22 billion in stock which was worth only about half that and adding \$14.9 billion in float, which financed an additional \$25 billion in investment assets.

By design, in my opinion, *stocks as a percentage of Berkshire's book value declined from 115% to only 65%*, and as a percentage of firmwide assets fell from 65% to 30% after the merger. Berkshire executed a massive derisking reallocation without paying a dime in capital gains taxes at the then 35% corporate tax rate.

Berkshire's shares outstanding increased in the all-stock deal by 23% while total firm assets increased 75%, *excluding goodwill*. General Re brought 43% of the assets to the party yet received only 18% of the consolidated entity. Yes, paying \$22 billion for General Re's \$8.5 billion shareholders' equity meant that Berkshire paid close to 2.6x book value in the deal, but adjusting for the valuation premium in Berkshire's stock meant that Berkshire really paid only 1.3x book value on an apples-to-apples basis. How 'bout them apples? And the apples weren't really comparable, since Berkshire quickly put the combined cash and fixed-income holdings to good use, diverting into assets that would produce far higher subsequent returns than would the stock portfolio, and certainly far higher than would the Coca-Cola position.

The Aftermath

The Berkshire stock portfolio subsequent to its 1998 merger with General Re earned far less through 2002 than Berkshire's gain in book value per share and growth in market value. The anchor of what was still an overvalued stock portfolio, headed by Coca-Cola, only dragged on a mere 30% of assets and 65% of book value instead of 65% and 115%, respectively, prior to the merger. It took time and declining stock prices to work off overvaluation in both the stock portfolio and in Coca-Cola. overvaluation. In the first four years after the merger, Berkshire's stock portfolio produced a *negative* 2.1% annual return. The S&P 500 produced a much worse *negative* 6.8% annual total return over those same four years, 1999-2002.

In the meantime, the 70% of Berkshire's assets not dragged under by multiple compression produced far higher returns than Coca-Cola and the entire stock portfolio. Had Berkshire not "diversified" away from stocks by buying a bond portfolio (effectively at 50 cents on the dollar thanks to the use of its overvalued shares as currency), it would not have had the degree of liquid, surplus capital it had in the insurance operation to quickly purchase MidAmerican Energy in 1999 and the BNSF railroad ten years later.

Had Berkshire not done the General Re deal, resulting in a diversification away from common stocks, ongoing overall portfolio returns would have been much more heavily weighed down by the greatly overvalued stock portfolio. For the 27 years from year-end 1998 to year-end 2025, Berkshire's stock portfolio total return compounded at 9.2% while book value per share advanced by 11.2%. The differential can be seen in the table below, as well as comparisons to Berkshire's gain in market value and the S&P 500's total return. Make note that gains in Berkshire's stock portfolio are listed below on a *pre-tax* basis. Accretion in book value is accounted for on an *after-tax* basis. How important was the flipping of stocks as a percentage of total firm assets from 65% to 30% in one fell swoop, freeing up capital to divert to businesses earning more than 11.2% on equity? Huge. Gains in Berkshire's book value *include* stock portfolio returns as well, so the difference is more in favor of all assets other than the stock portfolio.

The comparative returns in the table below are from the end of 1998, the year *after* Berkshire acquired General Re using Berkshire's shares as currency in the deal.

Berkshire *After* General Re
27 Years 12/31/1998 to 12/31/2025

Gain in Book Value Per Share	11.2%
Gain in Berkshire Hathaway Stock	10.5%
Berkshire Hathaway Portfolio of Stocks Total Return*	9.2%
S&P 500 Total Return	8.5%

**Total return Semper estimated 13F and Non-13F holdings
Bloomberg and Semper Augustus calculations*

Berkshire's issuance of 272,200 shares at 2.9x book value to acquire General Re in 1998 contributed to the majority of Berkshire's 48.3% gain in book value per share during that year of the merger. Had the deal not been done, book value per share would have advanced 8.64% during 1998, the share count would have remained at 1.234 million outstanding, and with stocks still at 115% of book value, subsequent returns would have been more dominated by the expensive stock portfolio and not by Berkshire's other assets, including subsequent acquisitions, which likely could not have taken place. The comparative returns in the table below are from year-end 1997, before the General Re merger. The gain in book value per share *includes* 1998's 48.3% gain. Had the merger not taken place, per-share book value would have only grown 8.64% in 1998. The 28-year compounded gain in book value per share would have been approximately 1.5% lower per year. Berkshire's shares would likely have returned approximately the same 1.5% less. That's 28 years of compounding.

Berkshire *Before* General Re
28 Years 12/31/1997 to 12/31/2025

Gain in Book Value Per Share	12.0%
Gain in Berkshire Hathaway Stock	11.3%
Berkshire Hathaway Portfolio of Stocks Total Return*	9.3%
S&P 500 Total Return	9.2%

**Total return Semper estimated 13F and Non-13F holdings
Bloomberg and Semper Augustus calculations*

If you think I'm wrong, consider the fate of Coca-Cola after Berkshire cut the General Re deal. Having compounded at 35.5% for the first decade up to the 1998 merger announcement, at what would you suspect Coke compounded on a total return basis in the subsequent 27.5 years? Anyone? Anyone? Bueller? You know because I'm asking that it ain't pretty. Try 4.6% annually on for size.

Coca-Cola and the Terrible Horrible No Good Very Bad 27.5 Years – June 1998 to December 2025

KO 27.5 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
6/30/1998	0.74	0.29	3.89	19,194	4,934.1	19.0%	58.5	0.7%	43.30	
12/31/2025	2.96	2.02	11.08	47,649	4,302.0	26.7%	23.6	2.9%	69.91	
Growth %	299.9%	595%	184.7%	148.3%	14.7%	40.5%	-59.6%	330.4%	61.5%	241.2%
Annual Avg	5.2%	7.3%	3.9%	3.4%	0.5%	1.2%	-3.2%	2.8%	1.8%	4.6%

For perspective, prior to the merger Coke was roughly 30% of firm assets. Following the merger, the Coke position was diluted to just under 14% of firm assets (presuming the same stock price and market value). To this day, Berkshire has *never* sold a share of its Coca-Cola position. At year-end 2025, the market value of the Coke position is now just shy of \$28 billion, or 2.2% of total firm assets. In fairness, Coke pays a dividend on what has been a steadily increasing payout ratio. But regardless, it's been a *miserable* holding subsequent to the Gen Re merger which brilliantly materially lessened the impact of both Coca-Cola's shares working down the multiple as well as the decay of its business. Where dollar sales rose 9.2% during Berkshire's first decade owning the stock, dollar sales grew only 3.4% per year over the subsequent 27.5 years. Ironically (and sadly), the company repurchased the same 15% of its shares during the hot decade as they did over the next nearly three decades. That tells me they were buying the heck out of the stock when it was expensive. Even Warren lauded Coke's late 1990's share repurchases despite the high share price. He sat on Coca-Cola's board from 1989 to 2006.

Berkshire's long-duration ownership decayed from glorious to just ok. Earning a 4.6% annual total return since the General Re merger shriveled Berkshire's compounded return on the Coca-Cola investment from 35.5% over the first decade to 11.7% over its entire 37-year holding period. The S&P 500 meanwhile clocked an 11.3% annual total return.

Coca-Cola 37-Year Return December 1988 to December 2025

KO 37 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/1988	0.18	0.08	1.47	8,345	5,676.6	12.1%	15.7	2.7%	2.79	
12/31/2025	2.96	2.02	11.08	47,649	4,302.0	26.7%	23.6	2.9%	69.91	
Growth %	1,561.7%	2587%	653.5%	471.0%	32.0%	120.5%	50.8%	7.2%	2,406.6%	5,927.7%
Annual Avg	7.9%	9.3%	5.6%	4.8%	0.8%	2.2%	1.1%	2.6%	9.1%	11.7%

In my opinion, had Berkshire not purchased General Re and structured the deal as it did, Berkshire's book value per share would have compounded at a rate not much higher than the 9.2% gain in the stock portfolio over the next 27 years. As stated, book value per share gained 48.3% in 1998. Most of that gain was due to the issuance of shares at 2.9 times book value. I estimate that Berkshire's stock portfolio earned a 9.9% price return and 11.4% total return during 1998. Operating earnings per share in 1998 were \$474.45 per share. Adding pre-tax investment gain of \$2,913.23 per share and taxing the total at 35% means book value per share would have grown to \$28,016 at the end of 1998 with 1.234 million shares outstanding. By issuing shares at such a premium to book value, 1998 year-end book value per share was actually \$37,801 with 1.519 million shares outstanding.

Presuming that Berkshire's book value per share would have subsequently compounded at 1.5% per year lower from its lower base, exclusive of the accretion from the General Re merger, today's book value would be about half of 2025's estimated \$501,132 per share, or a dollar book value of \$720.7 billion. Similarly, Berkshire's share price and market value would be worth half as much today had Warren not bought General Reinsurance in 1998. Now that's a pivot.

It's impossible to presume how Berkshire would have evolved had Warren not bought General Re but instead sold Coca-Cola and paid the 35% tax. It would have been left with half of the stock portfolio remaining overvalued and a loss of a huge amount of the Coca-Cola sale proceeds sent to Washington. Had Berkshire simply held the Coca-Cola and not bought Gen Re, its subsequent 4.6% annual return would have dragged for 28 years on double the share of total firm assets and equity. Berkshire would have been without General Re's contribution of nearly half of combined assets, comprised of the cash and fixed income used to buy permanent assets. Berkshire would be a shadow of what it is now, and I wouldn't be writing this.

Berkshire's initial Coca-Cola investment was phenomenal and hugely impactful in the history of Berkshire Hathaway and its 61-year success under Warren Buffett. Warren may have seen the 9% annual sales growth that would come for the next decade. He may have anticipated the margin enhancement that indeed evolved. But I don't think he ever would have predicted that the stock would trade at 58.5 times earnings and that the position size would grow from \$1.3 billion to more than \$17 billion, excluding dividends, in ten short years. Faced with the high-class problem of having a hugely successful investment that worked out better than anticipated and having an aversion to paying taxes at high rates, Warren doing what he did via General Re was a capital allocation masterstroke. It goes to show that extraordinary skill and a little bit of luck combined to reward Berkshire's shareholders with unbelievable success in the 1990s. Dealing with an overvalued Coca-Cola, an overvalued stock portfolio, and overvalued Berkshire shares, Warren's capital allocation was the stuff of genius.

Won't Get Coked Again – A Bite of the Apple

The success of Berkshire's investment in Apple has similarities to its Coca-Cola investment. Both were made in very understandable companies with long histories. Both would enjoy strong dollar sales growth and margin expansion for several years after each were purchased. Berkshire and each company's shareholders were rewarded with extraordinary multiple expansion. Coca-Cola's shares produced a 35.5% annual total return for Berkshire in the approximately ten years post purchase. Likewise, Apple's shares have compounded by 29.4% for nine years following Berkshire's initial 2016 investment. Most of the Coca-Cola position was built over two years while Berkshire spent nearly three years acquiring its Apple shares. Coca-Cola was a better, more successful investment and had a far greater positive contribution to Berkshire. Coca-Cola delivered a 1,690% total return for Berkshire over 9.5 years from December 31, 1988 to June 30, 1998. Apple returned 918% over the nine years 2016 to 2025.

9-Year Apple Return 2016 to 2025

AAPL 9 Years	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2016	2.09	0.56	10.38	218,118.0	21,021.69	20.1%	13.9	1.9%	28.96	
12/31/2025	7.91	1.03	29.63	435,617.0	14,702.70	26.7%	34.4	0.4%	271.86	
Growth %	278.7%	84.8%	185.6%	99.7%	43.0%	32.6%	147.9%	-80.3%	838.9%	918.4%
Annual Avg	15.9%	7.1%	12.4%	8.0%	4.1%	3.2%	10.6%	1.2%	28.3%	29.4%

The Coca-Cola investment was also much larger as a proportion of Berkshire's stock portfolio. Because Berkshire was more concentrated in insurance, the Coca-Cola investment was ever far larger relative to Berkshire's firm book value and total assets. Coca-Cola at cost was a 20% allocation to the stock portfolio and 23% of firm book value. Apple, while certainly nearly infinitely larger by nominal dollars, was similarly about 19% of the 2018 stock portfolio when purchased. However, because Berkshire evolved away from insurance (in large part thanks to the General Re purchase, go figure), the \$36 billion investment at its highest cost basis was a much lesser 10% of Berkshire's firm book value.

Both Coca-Cola and Apple compounded so quickly and were so large at cost that each grew to nearly half of Berkshire's stock portfolio. Both were likewise dramatically more fully priced when they reached half of the portfolio total. Warren acted to meaningfully reduce both but did so in dramatically different fashions.

Acknowledging the mistake of not selling Coca-Cola in 1998, Berkshire faced a similar dilemma given the success of its more recent Apple investment. However, with the exception of the weeks leading up to Warren's May 3, 2025, retirement announcement, Berkshire's shares had been undervalued and certainly trading nowhere near 3x to book value or double intrinsic value, as they did when Berkshire bought General Re. Today, Berkshire is the 800-pound gorilla in the global insurance industry and also the 10th largest company in the world by market capitalization. There is also no insurance company that Berkshire could buy with its expensive shares and nearly double its assets and triple its insurance float. At year-end 2025 the stock trades at roughly 90% of Semper's intrinsic value appraisal versus 200% in June 1998 when Berkshire announced the General Re deal. And with a current 21% corporate tax rate, not 35%, the calculus is different when contemplating paying some taxes on the sale of a less-appreciated overvalued position that comprises a much smaller proportion of firm assets and equity.

In short, while Apple became very expensive, like Coca-Cola did by 1998, Berkshire's shares weren't likewise expensive, making a stock-financed merger impossible. Not to mention there was no logical candidate to merge with even if Berkshire wanted to do so. While its Apple shares weren't as expensive as Coca-Cola's, the position was so large and fully valued that with a lower tax rate the intelligent course of capital allocation was to start selling the stock. We'd hoped Berkshire would sell down Apple and elaborated on our thoughts beginning with our 2021 annual letter.

Berkshire's Ten-Year Ownership of Apple (2016-2025)

Date	Shares (millions)	Cost Basis (millions of USD)	Basis per Share	Market Value (millions of USD)	Market Value per Share
Q1 2016	39.2	\$1,000	\$25.48	\$1,069	\$27.25
Q4 2016	245.0	6,747	27.54	7,093	28.95
Q4 2017	666.9	20,961	31.43	28,213	42.31
Q4 2018	1021.2	36,044	35.30	40,271	39.43
Q4 2019	1003.5	35,287	35.17	73,667	73.41
Q4 2020 *	907.6	31,089	34.25	120,424	132.68
Q4 2021	907.6	31,089	34.25	161,155	177.56
Q1 2022	911.4	31,756	34.84	159,137	174.61
Q2 2022	915.3	32,360	35.36	125,135	136.72
Q4 2022 **	915.6	32,404	35.39	118,964	129.93
Q4 2023 **	905.6	32,050	35.39	174,355	192.53
Q1 2024 **	789.4	27,938	35.39	135,368	171.48
Q2 2024 **	400.0	14,156	35.39	84,256	210.62
Q3 2024 **	300.0	10,617	35.39	69,900	233.00
Q4 2024 **	300.0	10,617	35.39	75,126	250.42
Q1 2025 **	300.0	10,617	35.39	66,639	222.13
Q2 2025 **	280.0	9,910	35.39	57,448	205.17
Q3 2025 **	238.2	8,430	35.39	60,653	254.63
Q4 2025 **	227.9	8,066	35.39	61,962	271.86

*All shares adjusted 2020 for 4-for-1 split

**New basis calculated using average cost method

Apple grew to half of Berkshire's stock portfolio by year-end 2023. From our 2023 letter (released in 2024):

Apple is clearly expensive, and I hope the position gets trimmed materially. However, with Apple at 30x to earnings the other half of the portfolio trades for 13.6x. Three of the four largest positions after Apple trade for low multiples. Perhaps Bank of America and Chevron won't trade for much higher valuations and American Express is only modestly undervalued so who knows. As long as earning power for the half of the portfolio that's not Apple is durable, predictable and growing, and it is on all three counts, then an aggregate 13.6x multiple and commensurate 7.4% earnings yield is most likely undervalued. The nosebleed section of the market rests in a handful of companies. Apple happens to be one of them.

We got our wish when Berkshire unloaded two-thirds of its Apple stake during 2024. The Apple investment began with an early \$1 billion purchase in 2016's first quarter. Ongoing purchases swelled the investment to a more than 1 billion-share position by the end of 2018 with a \$36 billion cost basis. The position by that time had been acquired at an average \$35.30 cost per share, roughly a 10x multiple to earnings net of cash in the business. The \$36 billion investment roughly tripled in value by 2020 including dividends and Berkshire trimmed about 10% of its position, selling about 100 million shares that year.

Following the 2020 trim, both Warren and Charlie said the sale was a mistake and suggested the remainder of the investment would essentially be permanent. Apple's shares marched higher and as we noted at the time were *very* expensive. The stock climbed further in 2024, rising 31% in price over the year, closing the year trading for more than 35x to earnings. Nobody understands the relationship between price and value more than Warren Buffett. The then 93-year-old capital allocator changed his mind on Apple's permanence and sold 600 million shares in 2024 for well over \$100 billion, reducing the holding to 300 million shares. The position closed 2024 at \$75 billion, still Berkshire's largest common stock market holding, but materially downsized. The stock continued higher, and Berkshire continued paring the position, selling an additional 72 million shares in 2025. In total Berkshire has sold 793 million shares, 77.7% of its holdings held at year-end 2018. The stock closed 2025 at \$271.86 per share, making Berkshire's position a still consequential \$62 billion in size. The holding is about 20% of the stock portfolio total value but only 8.6% of firm book value and 5.0% of total assets.

Should Apple fare as well (or poorly rather) as Coca-Cola did in the ensuing years after Berkshire diversified by buying General Re, it will have a far less deleterious impact on the economics of Berkshire in the coming decade and beyond. As the Apple stake is still meaningful, below are three scenarios illustrating how Apple's shares may fare over the next ten years, ranging from bearish to bullish. I won't elaborate on the metrics.

Apple 10-Year Bear Case 2025 - 2035

5% Sales 26.5% Margin 15x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	7.91	1.03	29.63	435,617	14,702.7	26.7%	34.4	0.4%	271.86	
12/31/2035	18.26	2.38	68.92	709,574	10,296.0	26.5%	15.0	1.0%	273.95	
Growth %	130.9%	130.9%	132.6%	62.9%	42.8%	-0.7%	-56.4%	163.9%	0.8%	7.9%
Annual Avg	8.7%	8.7%	8.8%	5.0%	3.5%	-0.1%	-8.0%	0.7%	0.1%	0.8%

Apple 10-Year Base Case 2025 - 2035

6% Sales 27.5% Margin 20x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	7.91	1.03	29.63	435,617	14,702.7	26.7%	34.4	0.4%	271.86	
12/31/2035	19.79	2.58	71.95	780,124	10,842.1	27.5%	20.0	0.7%	395.74	
Growth %	150.2%	150.2%	142.9%	79.1%	35.6%	3.0%	-41.8%	84.8%	45.6%	53.3%
Annual Avg	9.6%	9.6%	9.3%	6.0%	3.0%	0.3%	-5.3%	0.5%	3.8%	4.4%

Apple 10-Year Bull Case 2025 – 2035

7.0% Sales 28.5% Margin 25x Multiple	EPS	DPS	Sales Per Share	Sales in Dollars	Share Count	Margin	P/E Multiple	Yield	Price	Total Return
12/31/2025	7.91	1.03	29.63	435,617	14,702.7	26.7%	34.4	0.4%	271.86	
12/31/2035	21.40	2.79	75.08	856,925	11,414.1	28.5%	25.0	0.6%	534.91	
Growth %	170.5%	170.5%	153.4%	96.7%	28.8%	6.8%	-27.3%	58.4%	96.8%	105.9%
Annual Avg	10.5%	10.5%	9.7%	7.0%	2.5%	0.7%	-3.1%	0.5%	7.0%	7.5%

It's worth noting that had Berkshire not sold a single share, its peak 1.021 billion share investment would be worth \$277.6 billion, nearly as large as the entire stock portfolio. Berkshire clearly prefers more cash than more Apple these days. We are elated with the size and cadence of the selling and look forward to seeing how Greg and Company allocate the proceeds.

Berkshire Hathaway: Ten-Year Expected Return

Beginning with Semper's 2015 annual letter, *Party Like it's 1999*, we've shared our work on economic profitability at Berkshire and projections for expected returns over ten-year intervals. Here finally at the ten-year mark we can test the efficacy of the projection for 2025 from the 2015 letter. Our target suggested a \$1.17 trillion market capitalization on \$65 billion of economic earnings. At the ten-year buzzer at year-end 2025, Berkshire's market capitalization is \$1.087 trillion on \$62 billion of economic earnings. Not bad, eh? Ten years ago, at year-end 2015, Berkshire's market capitalization was \$325 billion on \$25 billion of economic earnings. Berkshire's shares returned 14.3% annually for the ten years while book value per share compounded by 12.4%, meaning Berkshire's multiple to book expanded from 127.2% to 150.6%.

Berkshire actually performed better than expected. I hadn't contemplated Berkshire repurchasing 12.6% of its shares for a cumulative \$77.9 billion, which it did from 2018 through 2024's first quarter. Had Berkshire instead retained all earnings and not repurchased shares, its assets, shareholders' equity and likely market capitalization (all in dollar terms) would be higher today, but not necessarily on a *per-share* basis.

Mr. Market assigns crazy valuations at times, but the average of randomness gets to the right place over the long haul. Unlike the share prices of many companies, Berkshire's shares tend to deviate less from its underlying fundamentals. The shares were no doubt expensive during the 1990s and extremely overvalued in 1998. Management knew and acted accordingly. They were intermittently cheap at times over the past decade. Management knew as well. There are clearly times when the shares are more or less attractively priced relative to earning power and intrinsic value than others. Best to get it roughly right than precisely wrong. None of our projections (or the product of our assessment of economic profitability) are meant to imply precision. I think you will find our work on Berkshire gets it roughly right, which has meant we've earned about what we'd expect to earn as owners of what's been our largest position for most of the last quarter century.

Overlaying price relative to value, our experience in Berkshire's shares is likely better than most because we've been disciplined about the price we pay. Like Berkshire, Semper always has cash coming in the door – from client deposits, from dividends and from the proceeds of portfolio activity. The price paid relative to value dictates a sizable portion of return if you get it right or get it wrong. Revisiting earlier projections and expectations is a necessary part of the investment process. We like companies whose managements conduct their affairs the same way. We can make a bad investment, or a business can do the same. Either entity can reflect on what went wrong and learn from it or brush it under the rug. We strive for the former. Great companies do as well. Others? Not so much...

Berkshire's shares delivered 10.9% in 2025, by chance within the range of long-run expectations. Berkshire's shares returned 25.5% and 15.8% returns in 2024 and 2023, respectively, outpacing our expectation for the long-run growth rate of the business' fundamentals and intrinsic value. Our work gets to perhaps 10% to 12% on average over time with Berkshire. Much of the long-run expected return begins with the valuation at the outset. The shares rose only 4% in 2022 (handily beating the S&P 500's 18.1% total return loss). We find Berkshire's shares only modestly undervalued today. Current economic earnings are modestly depressed at the railroad and energy operations and at a handful of Berkshire's MSR businesses. We don't presume a major expansion in price relative to economic earning power; and we don't find Berkshire's stock portfolio undervalued.

Paying no dividend, Berkshire's share price will roughly match its return on equity over time, plus or minus any expansion or contraction in its valuation multiple. If the multiple to book value holds constant

over the next decade, the investor will earn Berkshire's return on equity. Book value does lose some efficacy as a proxy for value over time, particularly when Berkshire repurchases large amounts of stock at high multiples to book value, or if inflation erodes the carrying value of current assets. Many Berkshire assets are carried on its balance sheet at carrying values extremely below today's replacement value.

The same correlation with return on equity equates with an expectation of price roughly matching earning power over time. For the past 20 years the stock gained 11.3% annually while book value per share grew 11.3%. The correlation with our measure of economic earnings and shareholder return is tight as well. Based on current economic earnings and Berkshire's valuation, I'd be very surprised if Berkshire compounds by less than 10% per annum. To do so would mean Berkshire earns on the low side of a 10% to 12% range of return on equity and the multiple to book value or price to intrinsic value decline from here. That's in the realm of possibilities. A meaningful contraction in valuation would see Berkshire's stock return perhaps as little as 8% annually for the next ten years. Having returned 14.3% annually since 2015, the stock is unlikely to reach the return of the last decade as the valuation is somewhat higher today than ten years ago and the stock portfolio is more fully valued.

The following table was first included in the Semper 2015 annual letter and has been updated annually. From year-end 2015 to 2025, our estimate of Berkshire's economic earning power grew 9.5% per year, growing 147% over ten years from \$25.0 billion to \$61.7 billion. Over the same stretch, Berkshire's market cap expanded from \$325 billion to \$1,087 billion, or 12.8% annually, yet the stock compounded at 14.3% per year, 1.5% greater. Berkshire's market cap growth outpaced that of profitability because the multiple paid for our measure of economic earnings expanded from 13.0x to 17.6x. The share price growth, however exceeded the growth in market capitalization due to Berkshire's repurchase of its shares outstanding beginning in 2018.

Annual Progression of Berkshire's Market Cap, Profit, Multiple and Stock Price Change

	2014	2015	2016	2017	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
					@new tax									At Int Val
Market Cap	\$371 B	\$325 B	\$401 B	\$489 B	\$489 B	\$502 B	\$552 B	\$537 B	\$665 B	\$685 B	\$782 B	\$979 B	\$1,087B	\$1,222B
Net Income	\$23 B	\$25 B	\$27.5 B	\$29.1 B	\$31.8B (H)	\$36.4 B	\$42.1B	\$41.1 B*	\$46.9 B	\$52.5 B	\$53.8 B	\$61.1B	\$61.7 B	\$67.9 B
								add \$2.9 B						
P/E	16.1x	13.0x	14.6x	16.8x	15.4x	13.8x	13.1x	13.1x	14.2x	13.0x	14.5x	16.0x	17.6x	18.0x
Earnings Yield	6.2%	7.7%	6.9%	6.0%	6.5%	7.3%	7.6%	7.7%	7.1%	7.7%	6.9%	6.2%	5.7%	5.6%
Gain in Stock Price		-12.5%	23.4%	21.9%	21.9%	2.8%	11.0%	2.4%	29.6%	4.0%	15.8%	25.5%	10.9%	12.4%

Source: Berkshire Hathaway; Semper Augustus

The rate at which Berkshire buys back its own shares will dictate how *large* Berkshire becomes. The greater the repurchases, the less retained earnings reinvested, and the slower Berkshire grows. If Berkshire repurchases no additional shares and earns an average 10% return on equity (on current equity *and* on incremental equity), then Berkshire should double in size over seven years with no change in valuation multiple. Assuming an extreme repurchase program consuming 100% of profit, Berkshire only grows organically and not at all from reinvested earnings. The more shares Berkshire buys as a proportion of cash earned from operations, the less Berkshire will grow by dollar size. Fewer repurchases mean more retained capital for growth via investment.

Berkshire can no longer compound at its rate of growth from 1965 to 1998. Even adjusting for Berkshire trading at twice intrinsic value in 1998, growth was going to slow. Return on equity, which has been the same as change in book value per share, averaged between 10.1% and 12.6% compounded annually (excluding very recent intervals which can be more greatly influenced by movement of Berkshire's stock portfolio) since Berkshire acquired General Re in 1998. It took but two years following the acquisition for

the multiple to book to fall from 2.9x in mid-1998 to 1.05x in February 2000, when Semper bought Berkshire for the first time. Berkshire's share price declined by half in the 18 months post-1998 from its use of the shares in the General Re purchase while book value itself grew. The stock was expensive when I first began working on it during the issuance of the B shares in 1996. It was materially overvalued in 1998 when they bought General Re. It was undervalued when we bought it in 2000.

A 12% return on equity assumption for Berkshire may sound aggressive but know that my GAAP-adjusted earnings assume Berkshire *only* earns the earnings yield on the equity portfolio. At today's 19.8x P/E and 5.05% earnings yield, should the stock portfolio instead earn 10.0% annually, 4.95% above the earnings yield, that adds \$14.4 billion pretax to today's \$61.7 billion economic earnings. Berkshire's GAAP earnings *will* exceed the earnings yield over time, assuming retained earnings at its common stock portfolio companies are reinvested reasonably well and each dollar of retained earnings translates into a dollar of market value over time. However, for the same reasons we find the S&P 500 overvalued today, the Berkshire portfolio is far from cheap, and we don't expect it to earn 10% annually from today's level. A game changer will be watching Berkshire invest its surplus cash. Done opportunistically as it has done for sixty years, a higher return than is expected today is on the table. We're rooting for Greg, Ted and whomever pitches in with the common stock allocation on the stock portfolio. If you know a good shaman who can drum up some rain, let us know.

Results in the table presume Berkshire invests precisely half of economic earnings repurchasing shares every year. Reality will not match expectation year to year but could over time. Easy to adjust upward or downward by year. The projection is meant to illustrate the impact of repurchasing shares at varying prices relative to book value.

The higher 12% return on equity case is shaded in green, with profit represented by the assumed 12% return on equity. If the company spends half of its profit repurchasing shares and retains half, then book value will grow by 6% per year, as will profits, albeit with a catch. In 2025, with several of Berkshire's subsidiaries underearning (the Rail and various MSR businesses), Berkshire earned 8.6% on year-end equity. The more proper measure of return on equity is as a percentage of *average* equity over the year, in which case Berkshire earned 9.0% in 2025. For the purpose of compounding profits, year one, 2026 in this case, uses profits as a percentage of *trailing* book value, which we expect to be roughly \$721 billion in 2025. All are free to build their own model using any array of assumptions. In ours, beginning at a 9.0% ROE and then jumping to a 12% return in 2026 is a big leap. Remember we are only compounding earnings at *half* of the ROE because we are assuming half of profit each year retires shares. Economic earnings in this case (Net Income in the table) grows to \$148.4 billion by year-end 2035. That's a 9.2% annual rate of growth, not half of our assumed 12% ROE because the scenario assumes immediate ROE expansion. Against the expected \$148.4 billion net income we use four terminal multiples to earnings: 13x, 15x, 18x and 20x. For each scenario we present the annual stock price change cumulatively and annualized, the percent share count reduction and annual percent share count reduction.

It will be clear when spending time with the table the degree to which price paid matters. We further demonstrate five scenarios at varying prices paid to book value: 50%, 100%, 120%, 150% and 200%. In the 1960s and 1970s Berkshire was buying shares back at half of book value. At the same time, the likelihood of Berkshire paying 200% of book value buying shares is as remotely unlikely, though the historic range of price to book is as wide on the downside and wider on the upside.

The 10% return on equity case also has a slight accretion in profitability above 5% (half of the ROE) accounting for accretion from 2025's 9.0% to 10% in 2026. Here, earnings grow to \$113.5 billion in 2035. The same 13x to 20x range is used for terminal multiple as well as the 50% to 200% range for multiple to book value paid. The column shaded salmon reflects the stock at 18x economic earnings at

year 10 for a 10% ROE. The 18x multiple reconciles to the various methods we use in calculating intrinsic value at Berkshire.

The worst-case scenario once assembling all of the variables has Berkshire's shares compounding at 5.8%. That extreme is shown in the lower left scenario where Berkshire earns 10% on equity, spends half of annual income buying shares at 200% of book value and trades for 13x terminal earnings. At the other extreme seen in the upper right, Berkshire earns 12% on equity, spends half of profit buying shares at half of book and the stock trades for 20x. Shares outstanding decline 73% and the shareholder makes 26.1% a year. Neither will happen, although in many aspects the latter *is* what happened during the first 33 years under Warren's, and later both Warren's and Charlie's, stewardship. Berkshire *was* buying shares at half of book value at times. The business *was* earning high-20s returns on equity and the stock became very expensive by 1998. A repeat would be superb but with \$721 billion in shareholder's equity and nearly \$1.25 trillion of firmwide assets, that won't happen.

The main table falls on the next page. The summary appears immediately below to save a page. Lord knows we're adept at tree killing around here. The short summary table is extracted from the larger one to follow. The summary focuses on the more logical (and likely) middle of the expectation table.

The Heart of the Ten-Year Expected Return Table:

		10% ROE Table				12% ROE Table			
Berkshire PE Multiple -->		13x	15x	18x	20x	13x	15x	18x	20x
Book Value of Repurchase	50%	14.6%	16.2%	18.4%	19.6%	20.8%	22.6%	24.8%	26.1%
	100%	8.5%	10.1%	12.1%	13.3%	12.7%	14.3%	16.4%	17.6%
	120%	7.6%	9.2%	11.2%	12.3%	11.5%	13.1%	15.2%	16.4%
	150%	6.7%	8.2%	10.2%	11.4%	10.3%	11.9%	14.0%	15.2%
	200%	5.8%	7.3%	9.3%	10.4%	9.2%	10.8%	12.8%	14.0%
		Shaded Average = 9.7%				Shaded Average = 13.5%			

Source: *Semper Augustus*

If we had to bet, and with \$213 million invested in the company you could say we are, the middle of the page is where our expectation falls. Berkshire likely earns between 10% and 12% on equity and repurchases some meaningful number of shares between 120% and 150% of book value. If the stock trades at a multiple close to today's 17.6x, the investor gets a low-double-digit return, or somewhere matching the return on equity. It's almost as simple as if the business earns 11%; with no valuation change the shareholder makes 11%.

**Ten-Year Expected Return at Year-End 2035 With ROE at 10% and 12%
Share Repurchases With 50% of Normalized Annual Profits Illustrated
2025 Initial Valuation: 9.0% Return on Average Equity, 17.6x P/E, 1.51x P/B**

Repurchase with 50% of profits at 50% of BV					Repurchase with 50% of profits at 50% of BV					
10-Year: 2035 10% ROE (\$61.7B base)					10-Year: 2035 12% ROE (\$61.7B base)					
13x15x18x20x					13x15x18x20x					
Repurchase with 50% of profits at 50% of BV	Market Cap	1,476	1,703	2,044	2,271	Market Cap	1,929	2,226	2,671	2,967
	Net Income	113.5	113.5	113.5	113.5	Net Income	148.4	148.4	148.4	148.4
	Share count	501	501	501	501	Share count	386	386	386	386
	P/E	13	15	18	20	P/E	13	15	18	20
	Earnings Yield	7.7%	6.7%	5.6%	5.0%	Earnings Yield	7.7%	6.7%	5.6%	5.0%
	Stock Price Change	290%	350%	440%	500%	Stock Price Change	563%	665%	818%	919%
	Annual Gain Per Year	14.6%	16.2%	18.4%	19.6%	Annual Gain Per Year	20.8%	22.6%	24.8%	26.1%
	Share Count Reduction	65%	65%	65%	65%	Share Count Reduction	73%	73%	73%	73%
	Annual Share Reduction	10.0%	10.0%	10.0%	10.0%	Annual Share Reduction	12.3%	12.3%	12.3%	12.3%
	Repurchase with 50% of profits at 100% of BV					Repurchase with 50% of profits at 100% of BV				
10-Year: 2035 10% ROE (\$61.7B base)					10-Year: 2035 12% ROE (\$61.7B base)					
13x15x18x20x					13x15x18x20x					
Repurchase with 50% of profits at 100% of BV	Market Cap	1,476	1,703	2,044	2,271	Market Cap	1,929	2,226	2,671	2,967
	Net Income	113.5	113.5	113.5	113.5	Net Income	148.4	148.4	148.4	148.4
	Share count	861	861	861	861	Share count	775	775	775	775
	P/E	13	15	18	20	P/E	13	15	18	20
	Earnings Yield	7.7%	6.7%	5.6%	5.0%	Earnings Yield	7.7%	6.7%	5.6%	5.0%
	Stock Price Change	127%	162%	214%	249%	Stock Price Change	230%	281%	357%	408%
	Annual Gain Per Year	8.5%	10.1%	12.1%	13.3%	Annual Gain Per Year	12.7%	14.3%	16.4%	17.6%
	Share Count Reduction	40%	40%	40%	40%	Share Count Reduction	46%	46%	46%	46%
	Annual Share Reduction	5.0%	5.0%	5.0%	5.0%	Annual Share Reduction	6.0%	6.0%	6.0%	6.0%
	Repurchase with 50% of profits at 120% of BV					Repurchase with 50% of profits at 120% of BV				
10-Year: 2035 10% ROE (\$61.7B base)					10-Year: 2035 12% ROE (\$61.7B base)					
13x15x18x20x					13x15x18x20x					
Repurchase with 50% of profits at 120% of BV	Market Cap	1,476	1,703	2,044	2,271	Market Cap	1,929	2,226	2,671	2,967
	Net Income	113.5	113.5	113.5	113.5	Net Income	148.4	148.4	148.4	148.4
	Share count	940	940	940	940	Share count	861	861	861	861
	P/E	13	15	18	20	P/E	13	15	18	20
	Earnings Yield	7.7%	6.7%	5.6%	5.0%	Earnings Yield	7.7%	6.7%	5.6%	5.0%
	Stock Price Change	108%	140%	188%	220%	Stock Price Change	197%	242%	311%	357%
	Annual Gain Per Year	7.6%	9.2%	11.2%	12.3%	Annual Gain Per Year	11.5%	13.1%	15.2%	16.4%
	Share Count Reduction	35%	35%	35%	35%	Share Count Reduction	40%	40%	40%	40%
	Annual Share Reduction	4.2%	4.2%	4.2%	4.2%	Annual Share Reduction	5.0%	5.0%	5.0%	5.0%
	Repurchase with 50% of profits at 150% of BV					Repurchase with 50% of profits at 150% of BV				
10-Year: 2035 10% ROE (\$61.7B base)					10-Year: 2035 12% ROE (\$61.7B base)					
13x15x18x20x					13x15x18x20x					
Repurchase with 50% of profits at 150% of BV	Market Cap (billions)	1,476	1,703	2,044	2,271	Market Cap	1,929	2,226	2,671	2,967
	Net Income	113.5	113.5	113.5	113.5	Net Income	148.4	148.4	148.4	148.4
	Share count	1,025	1,025	1,025	1,025	Share count	956	956	956	956
	P/E	13	15	18	20	P/E	13	15	18	20
	Earnings Yield	7.7%	6.7%	5.6%	5.0%	Earnings Yield	7.7%	6.7%	5.6%	5.0%
	Stock Price Change	91%	120%	164%	194%	Stock Price Change	167%	208%	270%	311%
	Annual Gain Per Year	6.7%	8.2%	10.2%	11.4%	Annual Gain Per Year	10.3%	11.9%	14.0%	15.2%
	Share Count Reduction	29%	29%	29%	29%	Share Count Reduction	34%	34%	34%	34%
	Annual Share Reduction	3.3%	3.3%	3.3%	3.3%	Annual Share Reduction	4.0%	4.0%	4.0%	4.0%
	Repurchase with 50% of profits at 200% of BV					Repurchase with 50% of profits at 200% of BV				
10-Year: 2035 10% ROE (\$61.7B base)					10-Year: 2035 12% ROE (\$61.7B base)					
13x15x18x20x					13x15x18x20x					
Repurchase with 50% of profits at 200% of BV	Market Cap	1,476	1,703	2,044	2,271	Market Cap	1,929	2,226	2,671	2,967
	Net Income	113.5	113.5	113.5	113.5	Net Income	148.4	148.4	148.4	148.4
	Share count	1,117	1,117	1,117	1,117	Share count	1,061	1,061	1,061	1,061
	P/E	13	15	18	20	P/E	13	15	18	20
	Earnings Yield	7.7%	6.7%	5.6%	5.0%	Earnings Yield	7.7%	6.7%	5.6%	5.0%
	Stock Price Change	75%	102%	142%	169%	Stock Price Change	141%	178%	234%	271%
	Annual Gain Per Year	5.8%	7.3%	9.3%	10.4%	Annual Gain Per Year	9.2%	10.8%	12.8%	14.0%
	Share Count Reduction	22%	22%	22%	22%	Share Count Reduction	26%	26%	26%	26%
	Annual Share Reduction	2.5%	2.5%	2.5%	2.5%	Annual Share Reduction	3.0%	3.0%	3.0%	3.0%

The Stock Portfolio

Berkshire's stock portfolio earned an estimated 13.7% in 2025 and for the past three years averaged 19.7% annually, all including dividends.

Over the nine years presented in the table below the portfolio total return averaged 13.8% and grew in dollar size from \$150 billion (at year-end 2016) to \$313 billion. During the eight years through 2025 Berkshire sold a net \$125 billion, more than \$132 billion occurring in 2024 alone.



Berkshire's Apple sales reduced the position trading for 34x earnings by 75% (by shares held) over the past two years, yet the portfolio P/E rose from 18.7x in 2023 to 19.8x at year-end 2025. The multiple was only 13.6x at year-end 2022 following a 15.2% total return loss that year. Despite cutting 75% of Apple shares held, the position size only declined by 40% in market value, and from 50% of the portfolio to about 20%, meaning Apple's rising price outpaced the overall portfolio by a degree.

Berkshire's Stock Market Investments, Dividends and Retained Earnings

	12/31/17	12/31/18	12/31/19	12/31/20	12/31/21	12/31/22	12/31/23	12/31/24	12/31/25e
Market Value *	\$196 B	\$187 B	\$259 B	\$292 B	\$351 B	\$316 B	\$370 B	\$285 B	\$313B
Earnings	\$11.0 B	\$15.1 B	\$15.9 B	\$15.1 B	\$19.1 B	\$23.2 B	\$19.8 B	\$14.6 B	\$15.8 B
Dividends	\$4.3 B	\$4.1 B	\$4.9 B	\$4.4 B	\$5.2 B	\$5.5 B	\$5.4 B	\$3.7 B	\$4.0 B
Retained Earnings of Investees **	\$6.7 B	\$11.0 B	\$11.0 B	\$10.8 B	\$14.0 B	\$17.7 B	\$14.4 B	\$10.9 B	\$11.8 B
Price to Earnings (P/E)	17.8x	12.4x	16.3x	19.3x	18.4x	13.6x	18.7x	19.5x	19.8x
Earnings Yield (E/P)	5.6%	8.1%	6.1%	5.2%	5.4%	7.3%	5.3%	5.13%	5.05%
Dividend Yield	2.2%	2.2%	1.9%	1.5%	1.5%	1.7%	1.5%	1.3%	1.27%
Retained Earnings Yield **	3.4%	5.9%	4.2%	3.7%	4.0%	5.6%	3.9%	3.8%	3.78%
Dividend Payout Ratio	39%	28%	31%	29%	28%	24%	27%	25%	25%
Estimated Portfolio Total Return	15.9%	(13.6%)	39.2%	22.2%	29.2%	(15.2%)	24.1%	21.4%	13.7%
Net Purchases/Avg Stockholdings	0.5%	12.8%	1.9%	(3.1%)	(2.3%)	10.0%	(7.0%)	(39.1%)	(5.1%)

*Includes all publicly traded stocks; Excludes non-marketable preferreds and warrants

** May not sum due to rounding

Source: *Semper Augustus*; Berkshire Hathaway

The table above is modified from 2022 onward, with changes mostly immaterial. Accounting rules force Berkshire to use the equity method of accounting in its consolidated financial statements for its positions in Kraft Heinz and Occidental Petroleum common stocks and hence *excludes* them when reporting consolidated common stock holdings on the balance sheet. Even more confusing, it *includes* Occidental preferred and warrant shares, which are not marketable. The accounting treatment for equity method investments is economically logical in that the investor includes a proportionate share of the company's profits in earnings, thus increasing the cost basis and reducing the basis for any dividends received. The method eliminates the need for look-through accounting. However, the method is extremely flawed in that when the investor ultimately sells a position, any gain or loss against cash cost will force an accounting charge against the equity method cost basis (which had been changing quarterly in arrears when KHC and OXY for example reported earnings).

On Kraft Heinz

Berkshire wrote down its investment in Kraft in August 2025 by \$5 billion, or \$3.76 billion after tax. The write-down made headlines, and is indeed indicative of a lousy investment, but it's not as bad as was

reported. The Kraft investment was made in two parts. Berkshire first teamed with 3G to acquire all of Heinz in 2013 for roughly \$28 billion (including debt), taking it private. Berkshire paid \$4.25 billion for half of the common equity and invested \$8 billion in a 9% preferred. Heinz then merged with publicly traded Kraft in 2015. Berkshire and 3G each put up another \$10 billion (\$5.2 billion from Berkshire) to pay a one-time \$16.50 per share cash dividend to Kraft's shareholders. Berkshire's 9% preferred was ultimately redeemed.

Berkshire's total cash investment accounting for all of the transactions came to \$9.8 billion for its current 325.6 million shares of Kraft Heinz. As the investment has been accounted for using the equity method of accounting, Berkshire's cost basis increased to \$13.6 billion reflecting its proportionate share of Kraft Heinz minus dividends received. The \$5 billion write-down reduced Berkshire's carrying value from \$13.6 billion to \$8.6 billion. Again, Berkshire's cash cost is about \$9.8 billion, or \$30.10 per share. The stock closed 2025 at a \$24.25 share price, making Berkshire's investment worth \$7.9 billion at market value. The price is certainly down accounted for on a cash basis, but offsetting the price decline, Kraft Heinz paid a cumulative \$18.15 per share in dividends since the 2015 merger, meaning Berkshire's investment is not the \$5 billion headline-making write-down but a whopping 15.6% cumulative gain, or \$4.70 per share, all unadjusted for time. The result is terrible for sure, but not as bad as publicized. It's really bad in the context that Berkshire and 3G had the business nearly merged with much larger Unilever in 2017 when Kraft Heinz was trading closer to its high at \$96 per share. Kraft Heinz shares are down 75% from that point, while Unilever has gained about 32% by price, no lollapalooza result itself, as Charlie would say, but better than we got.

Berkshire vacated its board position in Kraft Heinz at the time of the write-down. Kraft Heinz more recently proposed splitting back into two companies. Berkshire thinks it's a bad idea and registered its willingness to sell its 27.5% ownership position in the company – a Greg move. The only way to make the whole thing work out splendidly in the end is for all of us to eat a *lot* more Velveeta.

Back to the Show

Prior iterations of this table would exclude the common stock positions in the public companies. The table is now revised to include these common stock positions and exclude the preferreds and warrants. This is a cleaner presentation of Berkshire's common stock investments but don't expect it to reconcile to reported GAAP financials. Our estimate of portfolio total returns consistently includes returns from the KHC and OXY positions and not from the preferreds.

Earnings from the stock portfolio include dividends. The 5.05% earnings yield equates to \$11.8 billion of investee retained earnings at year-end 2025 and now comprises only 19% of Berkshire's \$61.7 billion economic profit. Only \$4.0 billion of dividends at the current run rate are included in cash flow from operations. Those ignoring the \$11.8 billion in earnings retained by Berkshire's portfolio companies as not inuring to Berkshire's benefit will materially undervalue Berkshire's intrinsic value using reported earnings or operating earnings. Further, if the stock portfolio earns more than today's 5.05% earnings yield over time, one can add significant additional return to Berkshire's economic earnings. Any premium gain is excluded from our GAAP adjusted earnings. The unrealized gains, which sit with a deferred tax liability on Berkshire's balance sheet, are not imaginary. Berkshire did not get to where it is by not benefiting from investment gains *above* dividends received and importantly *above* the earnings yield. Berkshire watchers know to include look-through earnings. However, look-through earnings only combine with dividends to get to the earnings yield. Stocks tend to produce more total return over time than the earnings yield. Berkshire's earnings yield averaged 5.9% over the nine years presented in the table. Its stocks returned 13.8% over the nine years. I don't have Berkshire's portfolio fundamentals tracked over all of time but by reference, Semper's earnings yield averaged 8.1% over the past 27 years,

the inverse of our average 12.4x multiple to earnings. Our stocks earned 12.4% annually for the 27 years, gross of cash and fees.

Valuing Berkshire by measuring its entire market valuation against earnings, counting only dividends and not retained earnings from its stock portfolio, is an insane way to measure Berkshire's worth. You will see this in Saturday's stories after the annual report is out.

From the end of 1998, Berkshire's stocks compounded at 9.2%, beating the S&P's 8.5%. Recall our Coca-Cola and General Re discussion. Berkshire's stock portfolio and the index were both overvalued in the late 1990s. Even from very high P/E multiples and low earnings yields, stocks beat earnings yields, in part because companies retain a proportion of profits and invest the proceeds. A significant portion of long-term return is dependent on the investment return on reinvested profits.

Berkshire Hathaway Stock Portfolio

Year		Berkshire 13F Portfolio Total Return	CAGR from 2025	CAGR from 1999	Berkshire Portfolio Total Return	CAGR from 2025	CAGR from 1999	S&P 500 Total Return	CAGR from 2025	CAGR from 1999
1999*	27yrs	2.0%	8.6%	2.0%	2.0%	9.2%	2.0%	21.1%	8.5%	21.1%
2000	26yrs	8.6%	8.8%	5.2%	8.6%	9.5%	5.2%	-9.1%	8.1%	4.9%
2001	25yrs	-17.4%	8.8%	-2.9%	-17.4%	9.6%	-2.9%	-11.9%	8.8%	-1.0%
2002	24yrs	0.2%	10.1%	-2.1%	0.2%	10.9%	-2.1%	-22.1%	9.8%	-6.8%
2003	23yrs	27.5%	10.5%	3.2%	30.7%	11.3%	3.7%	28.7%	11.4%	-0.6%
2004	22yrs	5.6%	9.8%	3.6%	5.5%	10.5%	4.0%	10.9%	10.7%	1.3%
2005	21yrs	6.0%	10.0%	3.9%	8.0%	10.8%	4.5%	4.9%	10.7%	1.8%
2006	20yrs	18.5%	10.2%	5.6%	21.7%	10.9%	6.6%	15.8%	11.0%	3.4%
2007	19yrs	1.3%	9.8%	5.1%	7.2%	10.4%	6.6%	5.5%	10.8%	3.7%
2008	18yrs	-24.4%	10.3%	1.7%	-24.3%	10.6%	3.0%	-37.0%	11.1%	-1.4%
2009	17yrs	19.6%	12.8%	3.2%	22.6%	13.0%	4.7%	26.5%	14.8%	0.9%
2010	16yrs	15.0%	12.4%	4.2%	13.1%	12.5%	5.4%	15.1%	14.1%	2.0%
2011	15yrs	6.5%	12.2%	4.3%	5.1%	12.4%	5.3%	2.1%	14.1%	2.0%
2012	14yrs	14.7%	12.6%	5.1%	15.0%	13.0%	6.0%	16.0%	15.0%	2.9%
2013	13yrs	28.8%	12.5%	6.5%	29.0%	12.8%	7.4%	32.4%	14.9%	4.7%
2014	12yrs	7.7%	11.2%	6.6%	7.3%	11.6%	7.4%	13.7%	13.5%	5.2%
2015	11yrs	-4.5%	11.5%	5.9%	-4.1%	12.0%	6.7%	1.4%	13.5%	5.0%
2016	10yrs	13.1%	13.3%	6.3%	12.9%	13.7%	7.0%	12.0%	14.8%	5.4%
2017	9yrs	15.3%	13.3%	6.7%	15.9%	13.8%	7.5%	21.8%	15.1%	6.2%
2018	8yrs	-13.6%	13.0%	5.6%	-13.6%	13.5%	6.3%	-4.4%	14.3%	5.6%
2019	7yrs	39.8%	17.5%	7.0%	39.2%	18.1%	7.7%	31.5%	17.3%	6.7%
2020	6yrs	20.7%	14.1%	7.6%	22.2%	14.8%	8.3%	18.4%	15.1%	7.2%
2021	5yrs	29.3%	12.8%	8.5%	29.2%	13.4%	9.1%	28.7%	14.4%	8.1%
2022	4yrs	-15.8%	9.1%	7.3%	-15.2%	9.8%	8.0%	-18.1%	11.1%	6.9%
2023	3yrs	23.5%	18.9%	7.9%	24.1%	19.7%	8.6%	26.3%	23.0%	7.6%
2024	2yrs	21.9%	16.6%	8.4%	21.4%	17.5%	9.1%	25.0%	21.4%	8.2%
2025**	1yr	11.6%	11.6%	8.6%	13.7%	13.7%	9.2%	17.9%	17.9%	8.5%

*Internally estimated BRK portfolio return

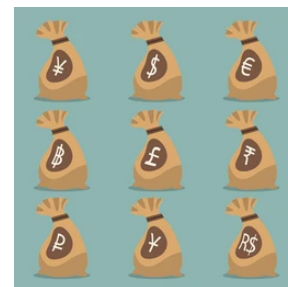
**Holdings as of 12/31/25

Source: Berkshire Hathaway; Semper Augustus Calculations; Bloomberg Data

The table above includes returns from Berkshire's non-13F holdings that we have been able to identify. Precise sales proceeds can only be estimated as the method defaults to the market value at the prior quarter end before the position was known to be sold. Our return presentation for Berkshire's common

stock portfolio in past letters and appearing in the left portion of the table was derived from Berkshire's SEC form 13F filings. There are nuances to the 13F that don't paint a complete picture of Berkshire's total portfolio.

Berkshire controls a number of entities that it isn't required to disclose in its quarterly 13F filings. A primary difference involves the requirement to disclose only securities listed and traded on U.S. stock exchanges. The Semper portfolio, for example, owns ten internationally headquartered companies, but we are only required to disclose three of them. Berkshire, likewise, owns and has owned a number of positions not requiring disclosure. Today these include five Japanese trading companies: Itochu, Mitsubishi, Mitsui, Sumitomo and Marubeni. Berkshire still owns a small position in Australian insurer IAG. I believe policy renewals compel Berkshire to own a position. An IAG quota-share agreement was renewed in 2023 and expires again in 2029. A long-held undisclosed position in Diageo is now included in Berkshire's 13F filing. Berkshire sold its final shares of BYD in 2025's first quarter. The BYD investment had been held inside BH Energy. Recall the original BYD investment in 2008 was 225 million shares for \$230 million. I'm not sure they saw the position growing to more than \$8 billion at its peak!



Since 2003, Berkshire formerly owned shares in PetroChina, POSCO, Tesco, Sanofi, Swiss Re and Munich Re. We track Berkshire's non-13F holdings as a separate portfolio and adjust holdings as we learn of any additions or deletions, either in whole positions or in portions. Over the last 27 years, Berkshire's 13F holdings returned 8.6% per year on average. Including its non-13F positions the portfolio returned 9.2%, adding 60 basis points of annual return. Over the same period the S&P 500 averaged 8.5%. Some of these international investments were home runs. PetroChina and most recently BYD and the Japanese trading companies materially added to overall return. Berkshire's 13F disclosed holdings likely earned about 11.6% in 2025, while the Japanese holding companies led Berkshire's non-13F international positions to a 38.9% annual total return. The non-13F holdings total \$34.8 billion at year-end 2025, 11% of the equity portfolio.

Identifying Berkshire's largest non-13F holdings (and keeping track of cost basis on the big positions) is now more difficult. Regular readers of the Chairman's letter found conspicuously absent from the 2022 letter the longstanding table of top equity holdings with their respective shares outstanding, market values and cost basis. There are nuances to the 13F. Berkshire has reporting entities, Mr. Buffett's personal holdings for example, small as they might be relative to the portfolio, that are included in the filing. New England Asset Management holdings appear as well as some pension and rabbi trust assets at BHE. Often the holdings are the same but there are occasionally slight nuances between the SEC filing and Berkshire's much-appreciated formerly disclosed table.

Berkshire's common stock portfolio is far too large to run circles against the S&P 500 anymore. If the occasional Apple or Coca-Cola come along, then fantastic. The advantage to the stock portfolio is not because it will beat some index anymore, though it has and often by quite a bit. The advantage of the stock portfolio is because it *is* a stock portfolio. The degree of overcapitalization in Berkshire's insurance operation (and a friendly home state regulator) allows for ownership of a much larger allocation to common equities than other insurers. Most own bonds. Because Berkshire buys durable and growing earning power and does not generally overpay, the earnings yield on the stock portfolio is often higher than yields on bonds. Bonds pay interest and don't reinvest retained earnings. If stocks return more than bonds over time, then Berkshire's dominance of, and one of its competitive advantages over, the insurance industry only grows.

Approximately 65% of Berkshire's stock portfolio is concentrated in its five largest positions, down from 71% a year ago and 80% two years ago. As go the largest holdings – Apple, American Express, Bank of

America, Coca-Cola and Chevron – so goes the portfolio. Each of the investments were acquired at terrific prices and at great moments. Will they collectively or individually beat the S&P 500? Coca-Cola certainly has not since the General Re Deal. It really doesn't matter. I'd guess from year-end 2025 prices, Berkshire may have a modest advantage thanks to a lower relative valuation. Four of the top five holdings have enormous embedded long-term capital gains. Returns on the stock portfolio prospectively are not why Berkshire is likely to outperform over the next decade and beyond.

[This paragraph will appear annually as the easiest place for me to search throughout the year as to how property casualty insurers are taxed on dividends received. I often can't precisely recall the varying rates at which the dividend received deduction applies. Instead of searching Google, if you ever want the quick answer, just reach for your copy of the latest Semper letter and flip to the stock portfolio section. Fun reading here: Dividends received by corporations from other U.S. companies receive a 50% dividend received deduction on holdings *less than* 20% owned. Thus, at the 21% Federal tax rate, corporations pay a 10.5% rate on any such dividends received. For businesses *more than* 20% owned, the deduction is 65%, making the rate 7.35%. However, for property and casualty companies, 25% of the deduction on holdings *less than* 20% owned is disallowed under a proration rule. Thus, 62.5% of dividends received by P/C companies, and not 50% received, are taxed at 21%, making the tax rate on dividends from U.S. companies *less than* 20% owned 13.125%. Dividends are already taxed by the distributing company, hence the deduction. Mr. Buffett has mentioned that Berkshire's blended tax rate on dividends received is about 13% from all sources.]

Berkshire Hathaway Intrinsic Value Update

Berkshire grew per-share intrinsic value by 9.3% in 2025, 10.5% in 2024 and 11.3% in 2023. The stock returned 10.9%, 25.5% and 15.8% over the three years, respectively. The stock also rose to 90% of intrinsic value in 2025 up from 87% and 77% in 2024 and 2023, respectively. Over time, market value and intrinsic value will grow together but over short intervals will see wide disparities. That's the beauty of the stock market.



The shares are less undervalued heading into 2026 than they have been in quite a while. We expect to earn Berkshire's economic earnings over time. As long as book value retains viability then we likewise expect to earn Berkshire's return on equity over time. If the valuation gap to intrinsic value closes, we make more. If the valuation gap widens, we make less. Against a S&P 500 trading at 26.0x earnings capitalized on a high 12.8% margin, we like Berkshire at 17.6x our measure of economic earnings. We liked it more at lower multiples.

Ongoing analysis of Berkshire involves several methods, refined each year. I've followed the company closely since 1996, the year B shares were offered to the public. Semper first acquired shares of Berkshire in February 2000, after the stock was cut in half following its purchase of General Re during the tech and telecom bubble. We bought our initial large position for \$43,707 per A share, or 105% of per-share book value. Semper's understanding of Berkshire grows each year when I take the better part of a week during the January and February letter-writing process to update my models and think about valuation. I'm relieved that after countless hours across the years reconciling and assigning myriad data points it now allows for what I believe is a fairly accurate depiction of where capital exists among the major groups and the portion of normalized profit derived from each.

The balance of this section will be somewhat repetitive for regular readers of our annual letter. Those less familiar with the letter or who are interested in Berkshire's key subsidiaries and groups of assets may find the detail interesting. I am beyond pleased each year with the feedback, particularly from those who learn a bit about accounting, tax or just about how Berkshire is constructed and operated. Warren and Charlie said many times over the years that Berkshire evolved to what it was as a fluke. Had Mr. Buffett not acquired control of Berkshire in 1965, he could have bought National Indemnity for himself and his limited partners in 1967. He didn't, and the entire shareholder base is eternally grateful for it.

Warren ran Berkshire as the managing partner, and now Greg will do the same. We own the finest insurance operation in the world and a collection of durably profitable enterprises collected over time. To the uninitiated Berkshire is complicated and therefore often undervalued. The combination is favorable for Semper because we always have cash to work with and are occasionally looking to increase our ownership. The combination of a deep understanding of Berkshire's construction and our ongoing reconfiguration of its arcane prescribed accounting presentation allows for an assessment of economic earning power. Applying our understanding of earning power, its durability and its predictability allows for an appraisal of Berkshire's intrinsic value. Our understanding of Berkshire, its earnings power and valuation allows us to worry about most anything *other* than what happens at Berkshire throughout the year. Derailing the business can't be done overnight and if we are approaching a turn at too-high speed, we should know it far in advance.

Berkshire's consolidated financial statements include two primary segments: (1) Insurance and Other and (2) Railroad, Utilities and Energy. Insurance and Other consists of Berkshire's entire insurance operation including GEICO, Berkshire Hathaway Reinsurance (a combination of National Indemnity and its

affiliated subsidiaries along with General Re, purchased in 1998, and TransRe, a subsidiary of Alleghany which was acquired in 2022, and a variety of primary insurers writing commercial business lines). The insurance operation is among the world's largest insurers by premiums but by far the largest by capital. As crazy as it may sound, in addition to the vast insurance operation, the "Other" in Insurance and Other includes a collection of dozens of wholly owned operating companies under a "Manufacturing, Service and Retail" umbrella, plus the roll-in of a smaller but hugely profitable group of leasing and finance companies. If the MSR group were a stand-alone company and not part of Berkshire, it would be the 25th largest company by sales in the world, up from 44th a year ago. It would rank as the 15th largest in the United States, up from 20th last year. Why the dramatic increase in 2025? Berkshire acquired all of Pilot in 2024, and after accounting for it using the equity-method of accounting moved it into the MSR group in 2024, restating consolidated financial statements back to 2023. Pilot is a major North American chain of highway service centers for truckers and travelers. It sells diesel and gasoline and operates with huge revenues and razor-thin margins. Its inclusion in the MSR group adds roughly \$50 billion revenue to the group's estimated \$216 billion total for 2025. Likewise, Berkshire acquired McLane, a high-volume, low-margin business from Walmart in 2003. McLane will contribute more than \$50 billion revenue to the group in 2025. Between Pilot and McLane's roughly \$100 billion revenue, they earn a combined net profit not much more than \$1 billion. Insurance and Other finally includes a constantly evolving number of assets and liabilities held at the holding company level.

The second group, Railroad, Utilities and Energy is a bit more straightforward. It includes the Burlington Northern Santa Fe Railroad (BNSF) which operates one of the largest railroad systems in North America with over 32,500 route miles of track in 28 states. The reporting group also consists of Berkshire Hathaway Energy (BHE), which operates three domestic regulated utilities – PacifiCorp, MidAmerican Energy and NV Energy. BHE also owns regulated electricity distribution businesses in Great Britain and Canada. Natural gas pipelines consist of five domestic regulated interstate natural gas pipeline systems with 21,100 miles of pipeline with capacity of 21 billion cubic feet of natural gas per day. Other assets include independent power projects, a partial interest in a liquefied natural gas export/import and storage facility which is operated and consolidated for reporting purposes (now 75% owned, up from 50% as of 2023, with Brookfield Infrastructure Partners owning the remaining 25%). BHE also owns the largest residential real estate brokerage firm in the U.S. plus one of the largest residential real estate brokerage franchise networks in the country. Berkshire bought the remaining 8% of BHE it didn't previously own in 2024.

Among the two groups' myriad collection of subsidiaries, a vast array of deferred tax assets and liabilities are created. These are consolidated as a stand-alone line item, "Income taxes, principally deferred," on Berkshire's consolidated balance sheet. An analytical framework attempting to identify each primary group's profitability measured against the capital employed in each group is faced with quite a challenge.

Berkshire made the task manageable from 2003 to 2016 when the Chairman's letter included an extremely useful supplemental financial presentation of Berkshire's main subsidiaries. This presentation disappeared from the 2017 annual report and more granular data was distributed among the MD&A, the footnotes to the financial statements, supplemental segment reporting of a handful of measures and finally a summary financial statement of holding company figures not directly allocated to the subsidiaries.

Berkshire did expand its segment reporting in much greater detail with its 2024 annual report. The consolidation of Pilot into the MSR group likely led to the enhanced disclosure. Don't miss the Business Segment Data footnote in Saturday's 10-K filing, likely footnote 26. The added detail is greatly appreciated.

The combining of insurance and holding company assets and liabilities with Berkshire's Manufacturing, Service and Retail group makes for a complicated analysis. The analytical task grew ever more

complicated in 2018 when what was a separately reported finance operation rolled into the MSR group. Several investments in common stocks are not held by the insurers and over time exist at different subsidiaries. Other investments in common stocks, now Kraft Heinz and Occidental Petroleum, are accounted for using the equity method of accounting. Minutia for sure but assessing Berkshire's MSR group is an extremely important component to understanding where profitability waned for a number of years and is relatively healthier today.

Returns on equity within the MSR group ground downward from nearly 10% in the mid-2000s to 6.2% in 2016, the final year group financials were presented. Equity of the MSR group totaled \$56.8 billion in 2015. Paying \$37.2 billion including debt for Precision Castparts made the new subsidiary a material piece of MSR. The new equity balance in MSR was presumably north of \$90 billion but no longer singly identified. Immediate weakness in PCC's turbine business, already strained pre-merger, negatively impacted the MSR group's return on equity, which declined from 8% to an inadequate 6%. Subsequent inclusion of the finance group likely masked deterioration among much of Berkshire's MSR group. Clayton Homes in particular knocked the cover off the ball for years and grew into one of Berkshire's more profitable and important non-stand-alone subsidiaries. Returns on equity grew to 9.1% in 2022 but declined modestly recently along with much of global manufacturing and retail.

The Semper letter includes an annual summary financial statement for the MSR group, despite known data shortcomings. Isolating cash, debt, other intangibles, and deferred-tax liabilities, which are reported unassigned to any group as a standalone item on Berkshire's consolidated balance sheet, made the job of getting the numbers correct very difficult. It's still no walk in the park and requires numerous assumptions and prorations involving reported segment figures. The presentation table you will find in this section is finally close to what Berkshire would see internally and allows for a better reconciliation across all key groups. The very good news is by 2021 the MSR group was earning far healthier returns than it was in 2018 and 2019. High inflation in 2022 and into 2024 caused volume declines and margin declines among many MSR companies. The group's aggregate profitability remains well above trough levels in 2017. Our consolidated presentation of the MSR group's summary financials now includes Pilot and is restated back to 2023. If you spend time with the summary page upcoming, don't be alarmed at the material decline in margins from 2023 onward.

I remain embarrassed for having criticized Berkshire's lack of adequate disclosure years ago. More diligence on my part and the puzzle pieces were largely there all along, if not with precision. Enough data existed to make reasonable assumptions as to assignment of key figures. Earlier attempts weren't far off but without specific data points I lacked a filter and chose criticism when none was warranted. As Berkshire grows, more and more granular data will roll into the segments for reporting purposes. Sharp-eyed readers will note ongoing revisions to the MSR presentation. What may look like erosion in profitability may only be due to errors in analysis, or to the evolving mix of businesses included in the group. Sigh. I envy Warren and Greg for seeing firsthand financials from each subsidiary. While not necessary to our overall analysis of the entirety of Berkshire or of its valuation, but the data would be phenomenal for geeks.

Methods Employed in Assessing Intrinsic Value

Berkshire followers often conflate earnings power and balance sheet nuances by double counting or under counting in places. Our analysis reconciles across methods. Measurement of economic earning power is preferred, primarily our GAAP adjusted financials and sum of the parts approaches. Both favored methods are joined at the hip, requiring adjustments to the published financial statements. The balance, simple book value per share and the classic two-pronged methods, are reconciling tools, and are also more impacted in the short term by swings in the publicly traded stock portfolio, more than 99% of which is now held in Berkshire's overcapitalized insurance group (excluding equity method positions).

Net Income Basis

Net Income Basis – 2025 Year-End Estimated (dollars in billions)

	Pre-Tax Income	After-Tax Net Income
Operating Groups		
Berkshire Hathaway Energy	\$2.5	\$4.8
BNSF (depressed by \$1.4B net)	7.1	5.8
Manufacturing, Service, Retail, with Finance and Pilot	17.6	13.6
Pilot Travel Centers	To MSR	To MSR
Operating Group Subtotal	<u>\$27.2</u>	<u>\$24.2</u>
Insurance and Investment Income		
Insurance Underwriting Normalized Gain	\$6.2	\$4.9
Insurance Investment Income	32.3	27.8
Holding Company Income	6.2	4.9
Normalized Pension Expense	-0.0	-0.0
Insurance and Investment Income Subtotal	<u>\$44.7</u>	<u>\$37.4</u>
Totals	<u>\$71.9</u>	<u>\$61.9</u>

Source: Semper Augustus; Totals may not sum due to rounding

Profit figures for Berkshire's primary operating groups are derived in concert with our sum of the parts analysis and the normalization of GAAP earnings approach utilized to remove certain aspects of volatility from reported results. Not captured is the degree any subsidiary or group is over or under earning.

The Manufacturing, Service and Retail group, now includes the former Finance and Financial products (leasing mostly) group and Pilot Travel Centers. Sales and restructuring of some underperforming subsidiaries combined with a robust recovery and operating efficiencies drove group profits to records in 2022. The group is expected to report pre-tax and after-tax profits of \$17.6 and \$13.6 billion in 2025. Any analysis beginning with depressed figures in 2020 and certainly now as of 2022 due to the restated inclusion of Pilot will make objects in the mirror appear larger than in real life. We find measuring profits across Semper's holdings from at least as far back as 2019 to the present most useful and conservative. You can now augment profitability by margin more easily thanks to improved segment reporting in 2024. Berkshire's subsidiaries in its MSR group send the vast majority of profits to Omaha for capital allocation elsewhere. Recognize that growth in this collection of businesses largely comes with no reinvested capital and is thus organic. I'm not alone in my hope that Greg encourages more subsidiaries to retain income if they have intelligent places to deploy it. My understanding is that two very highly talented managers recently left Berkshire because they wanted more authority to reinvest in their business instead of mailing it all in.

BNSF's weakness over several years continues, although improvement was made in 2024 and even more so in 2025. Reported rail profits should rise 5.3% in 2025 from 2024 but remain perhaps \$1.2 billion below a normalized state. Total carloadings will likely rise 2% in 2025, although improved, remain weak. Lower coal shipments from the Powder River Basin are only partly to blame. Until very recently most commodity groups shipped lower volumes. Decent strength in consumer products and agriculture and energy products were positives in 2025.

We adjust economic net earnings \$300 million above GAAP reported net income reflecting cash profits benefitting from the use of accelerated depreciation on capital spending. Sizable "growth" capital improvement took place from 2010 to 2016 after Berkshire bought the railroad. Recently the degree to which capital spending outpaces depreciation charges is slowing, necessitating a reduction in the ongoing benefit. Our figure is now lower by \$500 million than it was in recent years, reflecting the lack of opportunity to "grow" the rail. The railroad is unlikely to add to track miles. It does have room to add

significant volumes, and we'd expect higher profitability in coming years. It's position in the western U.S. is favorable. Population growth in the Western U.S. and Asian trade are an advantage to the western Class 1 rails in North America.

BH Energy continues to earn okay, regulated returns in its electric utility and distribution assets. Already discussed was the enormous capital opportunity in the utility and energy businesses and the caveat of a public policy shifting away from renewables, or at least a slowdown in the cadence of converting to more renewables. Retaining capital instead of paying dividends to Omaha and having a bounty of greenfield and expansionary projects producing attractive, regulated returns is a major source of value creation. Much of BHE's spending on capital projects is tax incentivized, and there is no better group of businesses to seize the opportunity to expand. Tax credits for wind and solar provide so much benefit to have driven the tax rate downward to where it is remarkably deeply negative. We may see a negative 66% tax rate in 2025, providing \$1.7 billion in tax benefit, down from a \$2 billion net benefit in 2024. How many businesses do you see where net income is larger than pre-tax income, let alone \$1.7 billion larger? The allowed use of accelerated depreciation for tax purposes by regulators further rewards spending of capital beyond maintenance levels for the benefit of society. Accelerated depreciation further drives the Semper-adjusted cash tax rate well below the GAAP-reported tax rate. The deferred-tax liability balance for PP&E is \$16.0 billion at BHE and \$34 billion for all of Berkshire. Both should climb higher in the years to come. We'll keep an eye on the regulatory climate, particularly on the phaseout of tax credits under 2025's OBBB. Please see the earlier discussion in the letter about threats facing BHE, *Berkshire Hathaway Energy Under Fire*. An updated reconciliation between cash taxes and GAAP taxes is again included in the appendix.

For the time being, the capability of spending enormous sums on renewables and the building of the grid has been a huge competitive advantage for the group. Should the benefit persist, BH Energy will surpass BNSF as Berkshire's second most valuable group next to insurance in the coming years. If the legal and regulatory environment in some of BHE's operating geographies persist, coupled with phaseouts on tax credits, the energy group may not only not grow but may become much smaller, or disappear altogether as a key Berkshire subsidiary. Stay tuned. It's a big deal.

Our Net Income Basis presentation above shows a normalized \$6.2 billion pre-tax and \$4.9 billion after-tax underwriting gain for 2025. Our method for measuring insurance underwriting assumes an average 5% pre-tax underwriting profit over time. We also exclude loss accruals on retroactive insurance and periodic payment annuity business. Large premiums are booked up front, and losses develop and are paid slowly. Berkshire is ahead of projections in both lines and regardless of accounting treatment should be very profitable. They have the use of the float for a long time, but loss accruals mask underlying profitability of these lines. Berkshire's insurance operation produced large underwriting profits over the last three years following losses in 2022 due to catastrophe and other losses from Hurricane Ian and elsewhere, plus high inflationary loss costs repairing cars and people at GEICO. Strong pricing and operational improvement at GEICO sent underwriting profits above our estimate of normal and to records. Acceptance of large catastrophe volumes for the first time in years in 2023 and a quiet storm season combined to send underwriting profits deeply into the black. While premium growth having moderated in 2024 and turning down in 2025, profit remains high, albeit unsustainably so. Our method strips volatile underwriting results, just like we strip quarterly and annual gains on marketable securities. Both are replaced with a more normalized estimate for profitability expected to be earned over a number of years. The analyst not agreeing with an assumed 5% pre-tax underwriting profit and our exclusion of retroactive reinsurance and periodic payment annuity accruals can plug in whatever estimate they choose or stick with the lumpy reported results. I find capitalizing lumpiness to be very difficult. Understanding insurance cyclicalities has served Semper very well over the past quarter century.

Other Methods for Valuing Berkshire

Below is a summary table for our intrinsic valuation by market capitalization and by price per share for 2024 and our expectations for 2025.

2024 Intrinsic Value by Market Cap and Per Share:

	Market Capitalization	Price Per A Share	Price Per B Share
Sum of the Parts Basis	\$1,122 billion	\$780,463	\$520
GAAP-Adjusted Financials	1,089 billion	757,508	505
Simple Price to GAAP Book Value	1,130 billion	785,965	524
Two-Pronged Approach (Ours)	1,161 billion	807,869	539
Simple Average	\$1,126 billion	\$782,951	\$522
Annual Percent Change	10.2%	10.5%	10.5%

Source: Semper Augustus

2025 Intrinsic Value by Market Cap and Per Share: EXPECTED

	Market Capitalization	Price Per A Share	Price Per B Share
Sum of the Parts Basis	\$1,208 billion	\$839,925	\$560
GAAP-Adjusted Financials	1,200 billion	834,363	556
Simple Price to GAAP Book Value	1,261 billion	876,776	585
Two-Pronged Approach (Ours)	1,252 billion	870,519	580
Simple Average	\$1,230 billion	\$855,396	\$570
Annual Percent Change	9.3%	9.3%	9.3%

Source: Semper Augustus

A simple average of our four valuation methodologies values Berkshire at \$1.126 trillion, up \$104 billion over the estimate a year ago. Intrinsic value grew 9.3% in both per-share terms and in dollar terms because Berkshire bought back none of its outstanding shares in 2025 (assuming none bought during the fourth quarter). The cadence of share repurchases declined dramatically in 2023 and ended with 2024's first quarter. An equal weighting of our four measures gets us to our intrinsic valuation for 2024.

Some methods are more conservative at times and less so at others. The Two-Pronged Approach, used intermittently by Berkshire and with changing methods since 2005 makes no judgment about the degree to which the stock portfolio is under or over-valued. It likewise makes no determination if operating earnings are likewise deviant from “normalized” levels. Several years ago, the method understated intrinsic value. It no longer does.

Use of a Simple Price to GAAP Book Value methodology will also lose efficacy over time as share repurchases made above book value will shrink book value per share proportionally more than book value itself. Also, many assets are fully depreciated or carried at values well below a conservative assessment of replacement cost. Today's book value is a better book value in our opinion by having a proportionately higher amount of cash and a now-reduced overvalued Apple position. Cash has optionality to the upside. Apple, not so much.

Semper's methods of valuation are described *briefly* below. Past letters delve into more detail of each. In total, Berkshire trades at a considerable discount to intrinsic value. The A and B shares closed 2025 at \$754,800 and \$502.65 respectively, up from \$680,920 and \$453.28 in 2024. Using the average of our intrinsic methods, at \$855,396 and \$570 per share, Berkshire's shares trade at 90% of intrinsic value,

giving us 11% upside value plus any growth in the business. The shares trade at 17.6x our estimate of economic earning power.

Of the four methods for valuing Berkshire, the Sum of the Parts Basis and GAAP Adjusted Financials approach should generally be more heavily emphasized. Some assumptions and adjustments made top-down in the GAAP Adjusted Method are likewise incorporated at the group level. When earnings are neither depressed nor above normal profitability, the two approaches should yield similar results. We are not normalizing for depressed or excessive profitability in the operating companies. We do with underwriting results, but in aggregate those are less than 10% of Berkshire's overall profitability. Any valuation figures are not meant to imply precision. The methods are assumption based and modeled to yield a normalized, smoothed result such that when profits or investments bounce around with significant volatility, our figures will move with less deviation. As a simple example, an investment earning 7% made with cash earning nothing will have nearly zero impact on our profitability assessment. With T-bills now yielding 4.3%, investments today similarly have little impact on normalized profitability. More on why this is the case to come.

Sum of the Parts Basis

Sum of the Parts Valuation (dollars in billions)

Operating Groups	2019	2020	2021	2022	2023	2024	2025 (e)
Berkshire Hathaway Energy	\$50 - 58	\$62 - 72	\$75 - 86	\$81-86	\$81-86	\$86-91	\$86-91
BNSF	100 - 110	100 - 110	115 - 135	117-137	120-140	120-140	120-140
Manufacturing, Service and Retail	170 - 180	170 - 180	200 - 210	228-241	230-244	230-244	245-275
Finance and Financial Products	In MSR	In MSR	In MSR	In MSR	In MSR	In MSR	In MSR
Pilot Travel Centers					12-14	12-14	In MSR
Operating Group Subtotal	\$320 - 348	\$332 - 362	\$390 - 431	\$426-464	\$443-484	\$448-489	\$451-506
Underwriting Norm Capitalized Value	36	39	41	49	65	71	74
Operating Group and Underwriting	\$356 - 384	\$371 - 401	\$431 - 472	\$475-513	\$508-549	\$519-560	\$525-580
Investments							
Insurance Investments	\$330	\$372	\$453	\$415	\$492	\$565	\$567
Investments Premium/Discount	-19	-39	-50	None	None	None	None
Holding Co Investments (Net of debt)	34	32	28	19	27	17	89
Investments (Insurance/HoldCo) Total	\$345	\$365	\$431	\$434	\$519	\$517	\$656
TOTAL VALUATION	\$701 - 729	\$736 - 766	\$862 - 903	\$909 - 947	\$1,027 - 1,068	\$1,101 - 1,142	\$1,181 - 1,236

*Excludes Investments and Cash in Operating Groups

Source: *Semper Augustus*

Valuing Berkshire through a sum-of-the-parts assessment is the best approach to understanding the company. Four primary operating groups – Berkshire Hathaway Energy, BNSF, a collection of businesses under the Manufacturing, Service, Retail and Finance umbrella, and the greatest collection of property/casualty insurance and reinsurance companies in the world – are each among the largest businesses in the world on a standalone basis. Berkshire's holding company also owns a collection of investments and liabilities not specifically assigned or owned by the subsidiaries.

Profits at the railroad and most MSR businesses are sent to Omaha for reinvestment elsewhere. Some of these businesses have slight opportunities to reinvest incremental capital. However, if good returns on equity capital can be maintained, even with no or little growth, these businesses serve their purpose of

creating free cash above Berkshire's cost of capital. Surplus capital accumulated by the insurance operation over the years financed nearly everything at Berkshire outside of insurance. The energy businesses are growing in value and have retained all profits since Berkshire bought MidAmerican Energy in 1999, its first controlling investment in the energy and utility industry. Retained earnings are matched with traditional gearing, growing Berkshire's far faster than most in the creation and distribution of power.

Berkshire Hathaway Energy

Berkshire Hathaway Energy (BHE) is a collection of three Western U.S. regulated electric utilities and distribution assets throughout the U.S. as well as Alberta and Great Britain. The regulated utilities, MidAmerican Energy, Nevada Energy and PacifiCorp (Pacific Power and Rocky Mountain Power) serve more than 13 million customers and end users in Iowa, Nevada, Oregon, Washington, Northern California, Utah, Wyoming, and Idaho, with growing renewable energy production assets in a growing roster of additional states. The territories served by Berkshire grow faster than the overall U.S. population. The group produces more than 34,000 megawatts of power per year providing energy substantially below the U.S. national average cost and far cheaper in markets with direct competition. Distribution assets include more than 21,000 miles of natural gas pipelines transporting 15% of natural gas consumed in the U.S. An ongoing \$18 billion investment is modernizing and building electrical grid capacity in the Western U.S. and Canada. Combined, BHE's businesses are the largest in the U.S. among investor-owned utilities with clean power in operation.

Half of BHE's owned and contracted generating capacity comes from renewables, a figure that will grow materially higher. Cumulative renewables investments should total nearly \$45 billion by year-end 2025. Wind and solar production assets are built in geographically disparate locations where much of the grid does not exist.

BHE will report lower earnings in 2025 due to higher interest expense and ongoing litigation charges due to large accruals in prior periods for legal liabilities related to 2020's fires in Oregon and Northern California. Electric utility net margins likely improved in 2025. The fires and legal loss accruals as well as the phasing out of tax credits were discussed in detail in the "Berkshire Hathaway Energy Under Fire" section earlier in the Berkshire section of the letter.

Including fire loss accruals in 2025, the energy group likely earned \$2.5 billion in pre-tax income and \$4.2 billion after taxes and non-controlled interest for Berkshire's benefit. The larger net figure is not a typo. BHE's tax rate will run negative 66% this year, or thereabouts, earning about \$1.7 billion of production and investment tax credits which help Berkshire in whole. Use of accelerated depreciation also drives the current tax rate downwards. Since the acquisition of MidAmerican in 1999, Berkshire's growing roster of energy businesses have *never* sent a dime of profit to Omaha, instead retaining all profit to grow the asset base. For the last 20 years, BHE spent an estimated \$111.8 billion in capital

Berkshire Hathaway Energy (100.0% owned in 2024)	
Revenues Total	\$26.4 B
Energy Operating Revenue	\$21.9 B
Real Estate Operating Revenue	\$4.3 B
Other Income (Loss)	\$0.13 B
Pre-tax Income (Excludes gain/loss BYD and invest.)	\$2.5 B
Income Tax Expense (Benefit)	\$-1.7 B
Net Income (GAAP)	\$4.2 B
Non-Controlling Interests of BHE Subs	\$0.146 B
Net Earnings Attributable to BHE	\$4.03 B
Non-Controlling Interests (n/a after 2024)	\$0.0 B
Preferred Stock Dividend to BRK	\$0 B
Net Earnings Attributable to BRK	\$4.03 B
Net Earnings Attributable to BRK and BHE (Adjusted for cash tax)	\$4.53 B
 Net Earnings Adjust PacifiCorp Wildfires 0.4B pretax	 \$4.8 B
Reported Tax Rate (Derived MD&A-not cash adjusted)	-66.0%
Cash Tax Rate (Deferred taxes exceed reported tax)	-88.3%
Goodwill (From BHE 10-Q, 10-K)	\$11.8 B
Deferred Tax Liability (Including investments)	\$12.8 B
Amortization of Intangibles	\$0.257 B
Depreciation	\$4.0 B
Capital Expenditures	\$10.8 B
BYD (Sold Remainder 1Q25; \$232m to \$7.5B)	\$0.0 B
Equity (Including Non-Controlling Interests)	\$54.7 B
BHE Non-Controlling Int (75% Cove, 50% Iroquois and ETT)	\$1.256 B
Equity Net of BHE Non-Controlling Interests	\$53.4 B
Total Assets	\$146.1 B
Debt	\$58.1 B
Cash	\$2.2 B
Interest	\$2.8 B
After-Tax Interest	\$2.219 B
ROE GAAP w/ % DTL; Includes Goodwill)	7.9%
ROE (Adjusted for cash taxes)	9.0%
ROC Net of Cash	6.2%
Estimated Value; No Additional Wildfire Liability Assigned	\$86-91 B
Implied P/E	19-20

expenditures against only \$48.4 in depreciation charges. Capex at BHE will total \$10.8 billion in 2025 and likely rise to \$12 billion and growing over the next two years at least. Beyond that will be determined by how the coming expiration of tax credits impacts BHE's willingness to spend. The same can be said on the regulatory and legislative front.

A table breaking down annual and cumulative capex and depreciation for BHE, BNSF and the whole of Berkshire can be found in the appendix. Where Berkshire's energy operation retains all profit and adds a like amount of debt to finance growth, competitors send 75% of profits, on average, to shareholders as dividends. To the extent competitors want to grow, they must find new capital to replace funds sent out the door. The difference is a huge competitive advantage in Berkshire's favor, as is Berkshire's willingness to spend massive sums growing the energy operation.

BHE has \$53.4 billion in equity capital net of non-controlling interests. Equity capital will more than double in size over the next decade presuming public policy continues encouraging or mandating shifting power production to renewables. BHE has \$1.3 billion of non-controlling assets as a result of a number of natural gas distribution assets, including the Cove Point LNG export terminal and storage assets acquired from Dominion three years ago. BHE now owns 75% of Cove Point LNG, up from 50%. Brookfield owns the other 25%. It has a 50% interest in Electric Transmission Texas with American Electric Power owning the other half. ETT assets total about \$3.8 billion across power lines and substations.

Separately, Berkshire acquired the 8% of BHE it didn't own from the heirs, estate and foundation of Walter Scott in 2024. As a result, Berkshire owns 100% of BHE net of BHE's \$1.3 billion of remaining non-controlling interests.

\$146 billion total BHE assets comprise 11.7% of Berkshire total assets.

Coal is being deemphasized outside of China and India, putting BHE far ahead of the curve in the transition of the grid to renewables. Only 5% of BHE net property and equipment was related to coal generation. The three regulated utilities closed 16 coal-fired plants from 2006 to 2021, will close another 16 by 2030 and phase out its final 14 by 2049. 22 of the remaining coal units are owned by PacifiCorp. BHE further intends to retire all of natural gas-fired production units by 2050. Our infrastructure growth, here and abroad, cannot be fueled exclusively with alternatives, making Berkshire's energy assets in the U.S., Canada and the U.K. increasingly valuable in a world inclined to not make large investments in "dirty" assets. Underinvestment alongside a growing population will make evident the attractiveness of this terrific group. You should expect to see the utility and energy businesses grow and grow in importance to Berkshire's shareholders. The collection of assets will generate particularly good returns in a world of low to moderate interest rates for years to come.

An oddity of Berkshire's structure is within which subsidiaries various investments are made. Two such creatures exist within BHE. In addition to the energy operation, MidAmerican energy houses what is now the country's largest residential real estate brokerage firm and equally large brokerage franchisee networks. Home Services of America (or BHHS as it's known in the industry) is rolling up many of the nation's major metro market high-end residential brokerages. Some are formally rebranded as BHHS while others retain their original branding. Huge by revenues but skinny by margin, the real estate business will do \$4.3 billion in revenues (16% of BHE total) on more than \$125 billion in sales volume. Volumes and profits are way down with higher mortgage rates and very little refinancing activity. The real estate brokerage business is capital-lite, with huge volumes and top-line revenues. Rising interest rates from the second half of 2021 through 2024 crushed demand for mortgage refinance activity and volume, and thus profits. Mortgage rates rising from less than 3% to as high as 8%, coupled with what was rapidly rising housing prices made housing affordability quite poor. The Fed began trimming its Fed Funds rate in 2024, but mortgage rates subsequently rose and remain near 6%. Demand has materially

softened, and many recently hot markets have large supply overhangs. Home prices are falling in several markets. Mortgage rates will need to move lower for those “stuck” in low-interest rate loans to be incentivized to move. If your interest rate matters, you don’t swap from 2.625% to 6%.

We value BHE between 19x and 20x earnings. Again, see the “BHE Under Fire” for a more detailed discussion. We haven’t shaved our valuation for potential legal liabilities at PacifiCorp in the letter but it’s a real risk. The value of BHE is no doubt diminished. The multiple will move lower if earnings move appreciably higher. Debt cost of capital is 4.4% pretax. Utilities in recent years were typically valued at higher multiples and lack the opportunity set BHE possesses to reinvest profit. Industry market valuations weakened with rising interest rates. On a GAAP basis BHE earned 7.9% on equity in 2025, including goodwill, and 6.2% on capital. We estimate profitability higher for the economic use of accelerated depreciation, a 9.0% adjusted return on equity. Utilities are not allowed to include goodwill in the rate base. BHE has \$11.8 billion of goodwill, making its return on equity closer to 10.1%. The goodwill was created as Berkshire and BHE made acquisitions. To my mind the only return that matters is against what you paid for an asset. Equity has grown materially due to retained earnings and ongoing capital expenditures.

BNSF

Berkshire acquired the 77.5% of BNSF it didn’t already own in 2009. The deal cost Berkshire \$34.5 billion, for which it paid \$15.9 billion cash, \$10.6 billion in Berkshire shares trading for 1.3x book value and assumed \$8 billion debt. The equity piece of the purchase was \$34 billion, which was marked up for tax purposes to reflect a \$1.1 billion on the original \$6.6 billion investment that was worth \$7.7 billion at the valuation of the deal. Berkshire “really” paid \$33 billion. The acquisition added \$15 billion in goodwill to the BNSF balance sheet. Regardless, since BNSF joined Berkshire in February 2010, *most* profits earned by the railroad were and are sent to Omaha. The rail retained no profit for more than a decade, and our valuation of the business is in a range of \$120 to \$140 billion. With 32,500 route miles of track in 28 western states, the railroad is closely comparable in size to Union Pacific, which presently has more than a \$150 billion market cap. Revenues and profit are very similar between BNSF and Union Pacific. Comps can be dangerous with Mr. Market doing his thing. Equity is \$51.6 billion, only \$16.6 billion higher than at year-end 2010. The rail will earn a very depressed 10.6% on equity, 11.4% with our shrinking tax adjustment, and 9.1% on capital. Our higher normalized returns are listed in the table.

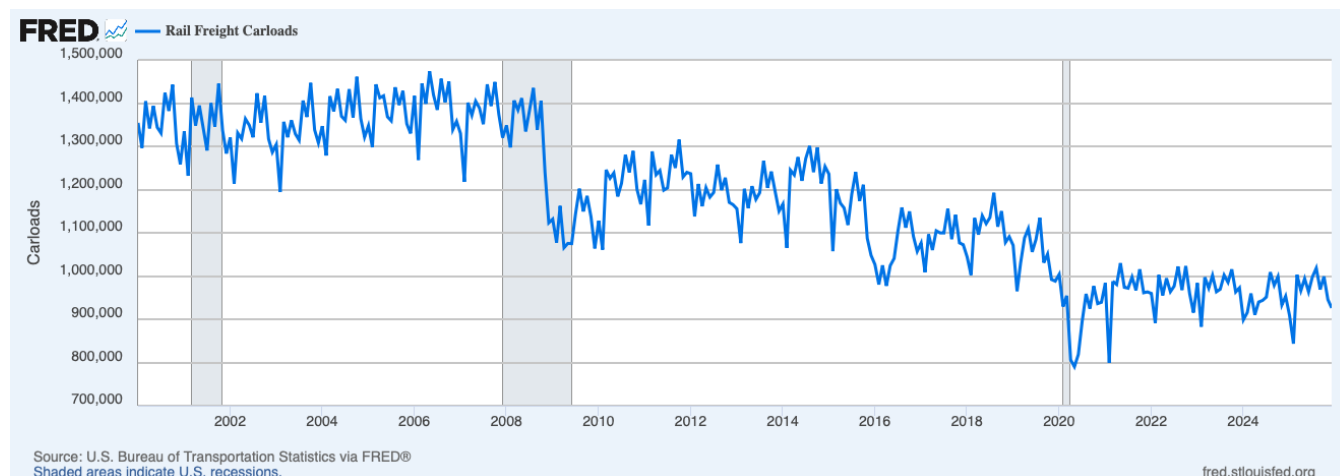
BNSF	
Revenues	\$23.6 B
EBIT	\$8.1 B
Pre-tax Income	\$7.1B
Net Income (Tax Rate now 22.8.0%)	\$5.3 B
Net Income (cash tax adjusted)	\$5.8 B
Normalized Net Income	\$7.0 B
Goodwill (BNSF SEC and STB filings)	\$15.4 B
Equity (GAAP filings)	\$51.6 B
Total Assets	\$96.9 B
Debt (with operating lease liability)	\$24.2 B
Cash	\$2.0 B
Interest	\$1.096 B
After-Tax Interest	\$0.865 B
Deferred Tax Liability	\$16.0 B
Depreciation and Amortization	\$2.7 B
Capital Expenditures	\$3.7 B
ROE GAAP Net Income	10.6%
ROE Adjusted for Cash Taxes 13.0% Normalized	11.4%
ROC 11.1% Normalized	9.1%
Estimated Value	\$120-140 B
Implied P/E (on net adjusted for cash taxes)	17-20

BNSF is likely to report \$5.3 billion in GAAP income on \$23.6 billion in revenues for 2025. Profitability has improved over the past two years as management has focused on overhead efficiency.

Like BHE, a portion of capital expenditures at the railroad benefit from use of accelerated depreciation, creating a large deferred-tax liability (estimating \$16.0 billion now). On a cash tax basis, BNSF earns closer to \$5.8 billion and on normalized earnings nets \$7.0 billion. As stated earlier, the degree to which capex exceeds depreciation is in decline. You can’t add track miles to a mature network, and much of the improvements in additional track in high-traffic corridors and tunnel expansion to accommodate

intermodal's double stacking of containers has largely run its course. We'll see where this heads prospectively. Freight trains can be four times more fuel efficient than trucks.

Operating revenues across all mixes of freight shipped were mixed in 2024. Consumer products volumes shipped will rise perhaps 4%, offset by lower average revenue per railcar. Volumes likewise rose modestly in agriculture products shipped, likely up about 1% for the year. Industrial products and coal volumes likely shrank 2% each for the year. Coal continues to plague railroads with lower volumes and declines in revenue per car. Low natural gas prices drives switching from coal in co-generation plants. If only the railroad had a coal shipping monopoly in China. Coal shipments have been in decline for fifteen years.



Despite perhaps fewer avenues for growth capex at BNSF, modernization in network and assets continues, and like the energy businesses, the rail benefits from its location in the faster growing west.

BNSF is naturally hostage to economic growth but has also been late to adopt logistical efficiencies that its peers already implemented or are in the process of doing so. Specifically, all the major Class 1 rails except BNSF adopted "Precision Scheduled Railroading" which in a nutshell runs trains on a fixed schedule between points on the network (similar to the way Southwest Airlines operates), regardless of number of cars, or units. It essentially replaces a hub and spoke method of delivering freight. Observing operating ratio improvement at the competition will likely compel BNSF to adopt PSR despite the growing pains that would come with any major logistical change. It's likely a more difficult logistical tool to implement in a more geographically distributed footprint, but cost and efficiency benefits are likely to compel adoption.

Manufacturing, Service, Retailing and Finance

Global manufacturing is weak. Much of retail is weak. Despite that, several of Berkshire's numerous businesses in its MSR group saw improvement in 2025 as efficiencies made over the last eight years under Greg Abel's oversight pay off. The group

MSR Businesses + Finance & Financial Products + Pilot + McLane	
Revenues	\$216.1 B
Pre-Tax Income (Includes MSR Intangibles Amortization)	\$17.6 B
Pre-tax Margin	8.2%
Net Income at 23.4% assumed tax rate	\$13.64 B
Profit margin	6.3%
Goodwill (Net of 2020 PCP \$10B Write-down)	\$40.9 B
Other Intangibles	\$31.7 B
Total Assets (Identifiable + Intangibles)	\$236.1 B
Equity	\$158.7 B
DTL (Unallocated estimate)	\$9.0 B
Depreciation of Tangible Assets	\$4.642 B
Capital Expenditures	\$4.875 B
Total Debt	\$23.1B
Cash	\$17.8 B
Interest	\$1.376 B
After-Tax Interest	\$1.087 B
ROE	8.6%
ROTE (Excluding Goodwill & Other Intangibles)	15.8%
ROC Net of Cash	8.9%
Estimated Value	\$245-275 B
Implied P/E	18-19

should report \$216.1 billion in revenues for 2025, barely above 2024. See the earlier discussion about Pilot Travel Services being added to the MSR group beginning with Berkshire's 2024 annual report with comparative restatement back to 2023. You won't miss the changes as of 2023 if you spend time with our summary financial statement. Note Semper's familiar summary financials for the MSR group are moving to the appendix for space sake. Instead of reducing the font size to illegibility turning the spreadsheet on its side to landscape seems long overdue.

Net income of \$13.6 billion is expected in 2025, 5.7% above 2024. The group typically grows in line with GDP. Many of the businesses here are mature and don't see much more than modest price and volume increases over time. Some are in decline. A focus on cost and operational execution has improved group profitability significantly from 2017. Most subsidiaries retain no or little earnings, sending profits to Omaha for allocation elsewhere. Most top-line growth is therefore organic.

For those who follow our work in the weeds, you will see an addition of loans and finance receivables to group balance sheet assets as of 2024 and liabilities for aircraft repurchase and unearned lease liabilities with figures back to 2018 when the finance group was consolidated with the MSR group. The assets added are larger than the liabilities, thus returns on equity and on capital are reported as lower for the last several years. Don't take this as a sudden loss of profitability. Rather, take it as an oversight by your author.

The MSR group operates with no or very little net debt, so returns are unleveraged. The group will report a 7.9% return on equity in 2025, down from 8.0% in 2024 and 8.4% in 2023. 2022's 9.1% was the highest since 2007. Return on capital is typically similar to return on equity given low debt outstanding and Berkshire's extremely low cost of debt.

We presume much of the net income benefit resulting from a lower tax rate has been competed away. Recall 2017's tax code change which lowered the corporate federal tax rate from 35% to 21%, an immediate 21.5% boost to the bottom line, presuming an increased level of profitability is durable and not subject to being competed away. The benefit stuck for some, but where competition is fierce it tends to disappear. We are going to skip a subsidiary review of the MSR group this year. Volumes across many of the businesses are weak. Precision Castparts is dramatically improved. All in, this is a decent collection of businesses that with proper focus earn good but not great returns. Private equity would have a field day with many of these as Berkshire runs the group generally with no or little net leverage.

Insurance

Berkshire's insurance operation is the best in the world. There isn't a close second. Its assembly of insurers underwrites property/casualty insurance and reinsurance through three groups and collectively is the highest rated insurance operation in the world. GEICO underwrites directly marketed private passenger auto insurance and is the third largest auto underwriter in the U.S. with 11.6% market share by premiums written. The Berkshire Hathaway Primary Group includes an assortment of commercial insurers writing medical malpractice, workers' compensation, auto, general liability, and several property and specialty coverages for businesses of all sizes. The Berkshire Hathaway Reinsurance Group writes excess-of-loss and quota-share coverages through National Indemnity since 1967, and General Reinsurance since 1998. The reinsurance group also underwrites life and health reinsurance coverages. The reinsurance group is the fourth largest reinsurance operation in the world by premiums written but by far the largest by surplus, or book value. Berkshire acquired Alleghany in October 2022. Alleghany operated Trans Re, a \$5 billion premium volume reinsurer, and RSUI and CapSpecialty who wrote \$2 billion in combined specialty premium volume at the time of purchase.

GEICO

The private passenger auto insurance industry experienced the most unusual six-year period. The pandemic took cars off the road for a year. Fewer drivers mean fewer accidents, so claims frequencies were far below historical and actuarially assumed levels. Offsetting fewer claims was an increase in severities. Fewer cars on the roads, and the perception of fewer ticket-writing police, encouraged speeding and reckless driving, hence more expensive claims paid to fix cars and people. With a welcome surprise of far lower frequencies of claims, GEICO initiated a “giveback” program whereby policyholders were credited with discounts on renewals. Some insurers simply cut checks as refunds to policyholders. Auto insurance is written on an admitted basis, whereby underwriters file rate applications with each state insurance commission for approval. Regulators were not going to let the industry reap a huge one-time economic benefit at the expense of drivers on the roads for fewer miles than presumed.

Refunds and credits drove reported written and earned premiums downward for the duration they were in place, reducing premiums by \$2.9 billion. In GEICO’s case the givebacks ran through a portion of the fourth quarter in 2020. Once clear of the givebacks, premiums earned rose 18% over 2020 through 2021. Underwriting results in 2021 produced a satisfactory 96.7% combined ratio (losses and underwriting expenses combined as a percentage of premiums earned – essentially a profit margin). Not unexpectedly, claims frequencies rose in tandem and by the second half of 2021 severities rose substantially again. Competitors likewise saw a deterioration in margins due to the same inflationary factors. Inflation in auto repair and medical expenses can devastate profitability when relying on historic costs to guide premium pricing. Both rose very quickly and eviscerated private passenger auto underwriters in 2022. The industry bled money, exacerbated by capital hits from both declining bond and stock prices.

As is typical in private passenger auto insurance, when industrywide profitability suffers due to high loss costs, it gets price. It got it sporadically in 2022 and 2023. Certain markets like California were slow to award sufficient price to insurers and many lost money for longer in the state than in others. 2023 saw a reversal of that lag and insurers in most markets were extremely profitable in 2023 and 2024. GEICO flipped from a \$1.9 billion pre-tax underwriting loss on \$39 billion in premium earned in 2022 to \$3 billion on similar premiums earned in 2023, a 90.7% pre-tax underwriting margin. Profits surged in 2024 when GEICO reported \$7.8 billion of pre-tax underwriting profit, an incredibly high and unsustainable 81.5% combined ratio, on 7.6% growth in premium earned to \$42.3 billion. Premium growth slowed in 2025, and profitability began its inevitable, slow slide to more normal underwriting conditions. We expect \$7.6 billion of pre-tax underwriting profit in 2025 when Berkshire reports on Saturday, a still high and unsustainable 83% combined ratio on 5.3% growth in premium earned to \$44.5 billion.

GEICO and Progressive target a 4% underwriting margin, on average. A certain mutual fund manager believes Tesla can underwrite and sell insurance at a 40% margin. I’ll repeat this line until they do.

GEICO and Progressive are both taking market share from State Farm, who not long ago had 25% of the auto market in the U.S. Both companies are likely to pass State Farm’s 18.9% share in the coming years. GEICO operates largely with no agents or brokers involved in distribution. Paying a gecko is cheaper than paying commissions, thus GEICO’s underwriting expenses are at a far lower portion of premiums earned than the competition. For this cost advantage, they tend to incur higher losses.

Nancy Pierce was appointed CEO at GEICO in December 2025 upon Todd Combs’ departure from Berkshire. Nancy has spent her entire 39-year career at GEICO, starting in 1986 as a claims associate. She’s done it all at the auto insurer – VP of Underwriting, Director of Telephone Sales, Claims Supervisor, Head of West Coast Operations, Head of Claims, Oversight of Motorcycle Operations; and as Chief Operating Officer from 2024 until her appointment to CEO by Ajit.

Ajit reported at Berkshire's 2025 annual meeting that GEICO closed much of the gap with Progressive in using technology in underwriting and claims management. Progressive leads in telematics, or the use of GPS in monitoring cars and driving habits to help properly rate risk and in setting premium. While the gap may have closed, Progressive has been more profitably gobbling up market share and passed GEICO in 2022 as the second largest private passenger auto insurer in the U.S. GEICO maintains a huge cost advantage over the industry but has a long way to go to catch Progressive. The key, however, is the advantage over the *industry*.

Private Passenger Auto U.S. Market Share

Year	State Farm	Progressive	GEICO
2021	15.9%	13.7%	14.3%
2022	16.8%	14.1%	13.8%
2023	17.5%	15.1%	12.5%
2024	18.2%	15.2%	11.9%
2025	18.9%	16.7%	11.6%

Source: NAIC, AM Best

The good news about auto insurance is that it's very short tail in nature. Premiums are reset every six or twelve months and losses develop quickly. Roughly 60% of losses are settled in the first year subsequent to a claim being filed. Nearly 100% of losses are developed and paid by five years. Inflation in auto parts, vehicle replacement, medical costs and litigation expenses ran at very high levels. GEICO and its competitors are still benefiting from several rounds of price increases granted by most state insurance commissioners during 2022 through early 2024. Again, in states and markets where regulators were slow to award price, the industry got even through 2025. Price tends to fix problems quickly, but it will take great ongoing effort on GEICO's part to regain its low-cost provider position versus Progressive. Progressive tends to lead when filing for rate increases. There exists a natural lag in profitability between the two. It will take more than a bunch of rate hikes to fix GEICO's loss of competitive advantage. Making a bunch of money in 2023 and 2024 eased the pain.

The downside to having made so much money in 2024 and 2025 is it can't last. The entire private passenger auto industry is enjoying record, albeit now declining, margins. Having granted price to the industry when it was hemorrhaging, now that it's fat and profitable there is no insurance commission in the U.S. that will accept a price increase until loss inflation works combined ratios closer to breakeven. The grind could take years, or it could be sudden. There is no doubt, however, that margins are headed in one direction for the time being. The direction ain't skyward.

I believe GEICO played their hand well during the tumultuous last six years. When states like California, New York, New Jersey and others were slow or unwilling to award premium price increases despite industry losses, GEICO dramatically cut advertising spending, most likely in target geographies where business would be unprofitable. Policies-in-force naturally declined, and GEICO's market share tumbled. Progressive also cut advertising spend but managed to hold market share and increase policy counts. GEICO acted according to the Berkshire insurance mantra – we'd rather lose market share than lose money. GEICO policy counts stabilized in the first half of 2024 and rose through 2025. We'll likely see a further gain in policies-in-force in the fourth quarter and into 2026. Advertising, and thus underwriting expenses are way up. That's the good news. Fortunately for Berkshire it owns all of GEICO and combined insurance group normalized premiums are a relatively small 7.9% of Berkshire's overall economic profits. The shares of too many publicly traded insurance companies are priced today as though the good times will persist forever.

BH Primary

Berkshire's Primary Group includes its long-held Homestate Companies, MedPro, GUARD, National Indemnity Primary, U.S. Liability, Central States Indemnity and MLMIC. The largest company in the mix is Berkshire Hathaway Specialty which Berkshire seeded on a de novo basis (started from the ground up) in 2013 with a management team hired away from AIG, specifically Lexington Insurance, AIG's excess and surplus division. It quickly became the largest company in the Primary group of commercial insurers.

BH Primary stumbled a bit in 2024 when its pre-tax combined ratio fell to 95.4% from 92.0% in 2023. The decline was due to adverse reserve development at GUARD a collection of five companies writing commercial insurance to more than 200,000 small-to-medium sized businesses. The issue, resulting in Berkshire replacing management, was discussed in last year's Semper annual letter in the "Beyond Populism – Gaffes in Insurance" section of the letter. Beyond prior-year reserve strengthening at GUARD, several other businesses writing medical professional liability and commercial liability covers succumbed to inflationary losses, particularly with increased jury awards and the costs of litigation.

The good news is the problems appear to be behind the Primary group. We expect a combined ratio closer to 94% for 2025 on flat premiums earned totaling about \$18.8 billion in 2025. Premiums declined 34.6 % through 2025's third quarter at GUARD, RSUI and BH Specialty. Not unlike the private passenger auto market, many specialty commercial lines were very profitable for the industry over the past two years. The industry writes on a non-admitted basis, meaning competition and not insurance commissions dictate price. Loads of price competition compelled Berkshire to do what it does best, and that's walk away from mispriced risk.

In the years following Berkshire's seeding of BH Specialty in 2013 we've cautioned, "It's always worth keeping an eye on new insurers charging ahead in the capture of market share." The problems recently manifested at GUARD and elsewhere may be due to unforeseeable social inflation trends or may be a function of emphasizing growth over profit. Premiums earned at the entire BH Primary Group were \$4.4 billion in 2014, the year after launching BH Specialty. In the subsequent ten years, premiums earned grew five-fold to more than \$20 billion in 2024, nearly 17% annual growth, before flatlining in 2025. In fairness, at least 10% of 2024's premium growth came via RSUI and CapSpecialty, acquired as part of the Alleghany purchase. It's worth watching this space. The history of Berkshire's insurance operation is not marred by adverse reserve development. The collection of insurers in the BH Primary group write large amounts of medical malpractice, general liability and workers' compensation business. These lines have long, extended claim-tails. What appears as sustained profits over many years can disappear, and badly. Inflation is hell on long-tail insurance liabilities, especially following a long peace.

Reinsurance

Berkshire insures and reinsures against a large and diverse number of loss events. The global reinsurance industry suffered catastrophe losses from the pandemic and a series of natural disasters in 2020 and 2021. In response, rates materially hardened for the years 2021 through 2023 and plateaued (that word again) in 2024. Few catastrophes and high industry profits bring competition and capital, and through 2025 into 2026 there is too much of both. As at BH Primary, Berkshire is doing what it does best and that's retreating from bad business. Premiums earned at Berkshire's property/casualty reinsurance group will likely fall nearly 6% to \$20.9 billion in 2025 and are apt to shrink further in 2026. Pre-tax underwriting earnings will likewise decline, but at very attractive margins. Barring any announcement of adverse prior-year reserve development, which we don't expect, pre-tax underwriting profit should total around \$4 billion for 2025 at a combined ratio in a mid 80% range.

The reinsurance group also writes a smaller amount of life and health reinsurance, likely about \$5.4 billion of premium volume earned and decent 4% pre-tax underwriting margin in 2025. A substantial portion of the life and health business came with the General Re acquisition. The life and health group includes Berkshire's retroactive reinsurance and periodic payment annuity businesses. Accounting nuances with these two businesses masks underlying group profitability. The accounting detail is discussed later in our GAAP-adjusted economic earnings section.

Berkshire maintains a stronger capital base than any in the reinsurance industry and is massive in scale. Berkshire's combined statutory surplus (conservatively defined as equity or book value) against which it writes business dwarfs all players. Expect Berkshire's statutory surplus to total \$353 billion at year-end 2025, up from \$310 billion at year-end 2024, \$303 billion in 2023 and \$272 billion in 2022. We had expected a \$348 billion surplus in 2024 but recall our earlier discussion about Berkshire's insurance group moving on the order of more than \$50 billion cash to the holding company in 2024's fourth quarter.

GEICO writes more premium volume than any of Berkshire's insurance companies, an expected \$44.5 billion in 2025 (roughly half of the insurance group's total premium), but requires by far the least amount of capital, no more than \$15 billion. Private passenger auto insurers write on an admitted basis and can write \$3 in premiums for every \$1 in statutory surplus. GEICO *could* write current volume with only \$14.8 billion in capital. They more likely assign \$25 to \$30 billion to GEICO, thus write at 1.5x or less, leaving loads of surplus capital.

BH Primary will write roughly \$18.9 billion of premiums in 2025. This group of insurers requires more capital per dollar of business written than in auto, estimated at about one dollar of capital for every dollar of premium, so \$18.9 billion of capital. The primary group will write 21% of total insurance group premiums in 2025 but requires perhaps 7.5% of Berkshire's combined insurance capital. Primary could write current volume with \$20 billion in statutory surplus, but for conservatism's sake, assign it \$30 billion, thus writing roughly 63 cents of premium per dollar of capital.

The reinsurance operation at Berkshire, National Indemnity (including retroactive reinsurance and periodic payment annuity), General Reinsurance and now Alleghany's TransRe holds and requires most of the insurance capital. Berkshire Hathaway Reinsurance Group, as the combined entity is now known, likely wrote \$26.3 billion in premiums during 2025, \$20.9 billion in property/casualty and \$5.4 billion of life/health. Surplus in the reinsurance group is approximately \$300 billion of the entire group's \$356 billion (ascribing more capital to GEICO and the primary group than is needed). Thus, the reinsurance group (including life-health) wrote perhaps 8.8 cents of premium for each dollar of statutory capital on the books.

One item to look for in Berkshire's annual report is whether the insurance group sends cash again to the holding company in 2025's fourth quarter, as it did last year. At a time where Berkshire is shrinking its footprint across several key insurance lines due to competition and poor pricing, less capital is required to write less business. We are looking for roughly \$93.5 billion of cash at the holding company alone at year-end. Should the insurance group again send surplus capital Omaha's way, the holding company may have over \$100 billion cash. That would be something, though it would likely go undetected by most.

By comparison, the entire global reinsurance industry has a \$735 billion combined surplus at June 30, 2025 including \$121 billion in alternative capital – catastrophe bonds and insurance-linked securities. The industry wrote an expected roughly \$430 billion in total written premiums in 2025. **Berkshire wrote about 6% of combined reinsurance industry premium volume (down from 7% in 2024) but has HALF of industry traditional equity capital and 41% when including alternative capital. Excluding Berkshire Reinsurance, the industry wrote an expected \$404 billion in premium against \$435 billion in capital (including alternative capital), 93 cents per dollar of capital. A year ago, the industry**

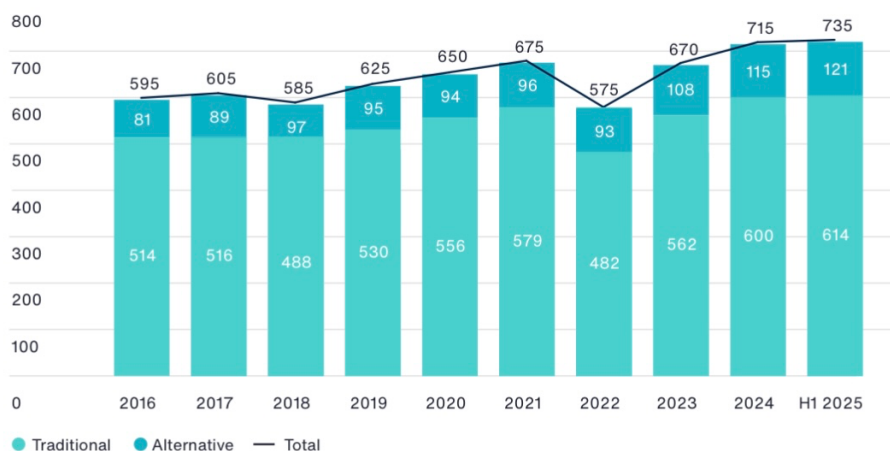
wrote 87 cents per dollar of capital, excluding Berkshire. Six versus 93! There is an expression of awe that comes to mind here, but this is a G-rated letter. Hint, George Carlin described a number of ways to use the word in question which was one of seven words you couldn't say on television. Without using it, if anybody wonders how Berkshire can have so much of its insurance companies' investments in common stocks instead of fixed-income securities, look no further. By the way, the reinsurance industry writing 93 cents on each dollar of capital (outside of Berkshire) should scare the bejesus out of insurance investors.

Reinsurance industry capital recovered from the beating it took in 2022. A pummeling of most investment asset classes in a year with bad catastrophes is a bad combination. Healing in 2023 and 2024 came from retained earnings, improved bond and stock prices and the arrival of new alternative capital. The industry faced inflation levels not seen in four decades which pushed interest rates upward (and bond prices downward). A deteriorating global economy compelled a widening of credit spreads. Real estate prices plateaued and fell in some markets. Total industry capital plummeted 15% in 2022 to \$575 billion before recovering 16.5% in 2023 and another 6.7% in 2024. Capital rose 2.8% over the first half of 2025. With many insurers writing maximum business that capital would allow, pricing could only go one way, hence, pricing was strong during 2024 and early 2025.

Renewals and pricing in property lines are now in decline as too much capital vies for market share. However, casualty reinsurance is seeing double-digit price increases as reinsurers are terrified of "social inflation," the trend of skyrocketing jury awards and litigation costs.

Berkshire is playing defense. Unlike most in the industry, you will *never* hear Berkshire say they wrote the *maximum* business that capital would allow. Expect more caution from Berkshire given ongoing growth of industry capital.

Exhibit 1: Global Reinsurer Capital (\$ billions)



Underwriting requires reserves to cover losses. Equities are a risk asset and count much less than fixed income as capital supporting underwriting. North American reinsurers excluding Berkshire allocate more than two-thirds of invested assets to investment grade fixed-income and nearly 10% to cash. Risk assets comprise less than a

quarter and in addition to common stocks of public companies include non-investment grade bonds and alternatives such as private equity, real estate, venture capital and hedge funds.

The two largest insurers in the world by premium written are Swiss Re and Munich Re. Where Berkshire's reinsurers write less than 10 cents per dollar of capital, Swiss Re and Munich Re typically writes a dollar or more. Equities have essentially disappeared from the investment portfolios of each. These are leveraged bond portfolios requiring new capital at every major catastrophe. Both earned nice underlying profits in the last two years and their stocks reacted as though they have competitive advantages. I will say both companies have superb signage on buildings throughout Switzerland and

Germany, just like seeing Berkshire Hathaway emblazoned on the top of worldwide headquarters in Omaha.

Berkshire's insurance operation will likely end 2025 with about \$292 billion invested in equity securities, 51.5% of its \$567 billion investment portfolio. A year ago, stocks totaled \$263 billion, 53% of \$497 billion in insurance investment assets. Total insurance group premiums earned for all of Berkshire's insurers will total \$89.6 billion in 2025, or 27% of average statutory capital over the course of 2025. You won't see this small relationship of premium volume to surplus anywhere in the insurance industry.

The more I think of it the more likely it is that Berkshire will report that it pulled more capital from the insurance group, sending perhaps \$30 billion to \$40 billion to Omaha. This is not reflected on our summary figures below, but I have a hunch.

Insurance Operations - Estimated at December 31, 2025		Insurance Investments (December 31, 2025 estimated)	
Premiums Earned (Excludes Retroactive Premiums Earned)	\$89.6 B	Equity Securities (Includes \$8.5B OXY Pfd's was 10.0B and 1.306B Warrants)	\$291.8 B
Statutory Surplus (Insurance Equity)	\$353 B	Fixed Income Securities	\$17.7 B
Book Value GAAP Equity	\$356 B	Cash	\$252.1B
Float	\$178 B	Other (\$0 was \$0.850 BHE Pfd; Was 3.75, 1.45 paid 21, 800 paid 22; Seritage Term Loan)	\$5.1 B
Losses Paid	\$56.6 B	Total Investment Assets	\$566.7 B
Expected After-Tax Underwriting Gain 2025	\$7.6 B	<u>Investment Income and Earnings (to reconcile)</u>	
Normalized Underwriting Margin: 5% Pre-tax (Ex Retro and PPA Amortization)	\$4.5 B	Dividends (Annualized at 12/31; Excludes OXY Pfd) Tax at 13.125% for less than 20% owned	\$3.680 B (1.27% div yield)
Normalized Retroactive and Periodic Payment Annuity Margin Adjustment	\$1.67 B	Retained Earnings of Common Stocks; Tax at 3%	<u>\$11.056 B (3.78% REY)</u>
Combined Normalized Pre-tax Underwriting Profit	\$6.2B	Total Earnings of Common Stocks	\$14.736 B (19.8x P/E; 5.05% EY)
Normalized Underwriting Net Profit	\$4.9 B	Hypothetical Earnings of Stocks at 10% Annual Total Return; 1.8% DY; 8.2% EY	\$29.180 B
Goodwill (Includes \$3.1 B from Alleghany)	\$16.6 B	Divs on OXY Preferred (Recently paid as cash)	\$0.680
Other Intangibles (All from Alleghany \$2.659 Initially)	\$2.526 B	Interest on Fixed Income and Cash; Tax at 21%	\$10.5 B
DTL (Investment Gain+Def Charges Reins-Unpaid Losses/LAE-Unearned Premiums)	\$53.2B		
Insurance Estimated Value		Total Pre-Tax Earnings of Investments	\$25.916 B
Total Investment Assets	\$566.7 B	Optionality of Cash > One-Year Losses Paid #	\$6.354 B
Stocks premium/discount	\$0 B	Pre-tax Earnings with Optionality of Surplus Cash **	\$32.270 B
Capitalized Value from Underwriting	\$73.5 B	Paid and Hypothetical Taxes (11.0% blended; RE of stocks 3%)	\$4.447 B
Estimated Value; Implied P/E 20.75x	\$640 B	Investment Net Income	\$27.8 B

Berkshire's insurance group's intrinsic value at year-end 2025 is estimated at \$640 billion. Semper's estimate of Berkshire's insurance valuation is 52% of Berkshire's total intrinsic value per our valuation of the entire business. After-tax normalized underwriting profit is capitalized at only 15x earnings, or \$73.5 billion. It's the highest proportion of intrinsic value in several years. Excess capital (lots of it to go around) is occasionally upstreamed to Omaha as dividends periodically for empire building elsewhere. The appraisal of Berkshire's insurance operation presumes a 5% pre-tax underwriting profit, so \$4.5 billion on \$89.6 billion of earned premium in 2025. As discussed, we also exclude loss accruals for retroactive reinsurance and periodic payment annuity business for its unique accounting treatment where on a GAAP reported basis, yearly reported losses will nearly always pull downward overall underwriting margins, even if over time the benefit of the use of float greatly exceeds actual losses paid. Excluding loss accruals for retroactive reinsurance and periodic payment annuity adds \$1.67 billion to pre-tax underwriting profit. Losses are capped as well, and our method ignores any upfront profitability from premiums earned. We formerly did not exclude the loss accruals but found ourselves explaining why Berkshire's overall reported insurance profitability wasn't higher. Now it's in.

Those doing their own work can use whatever assumptions they like for underwriting profitability. In aggregate, our capitalized value for insurance underwriting is small relative to earning power from the insurance investment portfolio and absolutely small relative to all of Berkshire. Whether Berkshire underwrites at a pre-tax 5%, or at breakeven, really doesn't matter. Where underwriting drives the profitability bus at most insurers, investments drive it at Berkshire's massively overcapitalized insurance operation. Underwriting finances its growth for free or less than free.

Finally, when assessing the earning power of the insurance enterprise, annualized investment income at year-end 2025 consists of interest and dividends received totaling \$14.7 billion pretax (including \$680 million in dividends on an Occidental preferred). The balance comes from ignoring unrealized gains and losses and recognizing retained earnings of the stock market holdings, totaling \$11.1 billion today. Adding \$3.7 billion of dividends from the stock portfolio to just over \$11.0 billion in retained earnings totals more than \$14.7 billion of earnings on the stock portfolio. The 5.05% earnings yield is the only amount derived in the appraisal of group earnings from the stock portfolio. If the portfolio earns more than its 5.05% over time, then the appraisal is conservative. A 10.0% return on Berkshire's stocks adds an additional \$14.4 billion to earning power above the earnings yield on the portfolio. I have a separate presentation demonstrating this but with the stock portfolio on the fully valued side I don't include it here. Regardless, no wonder everyone in the insurance game wants to be Berkshire.

Pilot Travel Services

Pilot Flying J is a travel center business with more than 650 travel centers and 75 fuel-only locations across the US and Canada. The business will generate \$41 billion in 2025 revenues, down from nearly \$47 billion in 2024 and \$51.7 billion in 2023. The business operates on razor-thin margins. The declines are attributable to significantly lower volumes from bulk fuel sales and fuel trading activities, as well as lower average fuel prices.

Pilot is opening new locations financed internally with retained cash flow. Most are smaller format centers located away from the interstate highway system. When you are out and about on the nation's highways, be sure to stop for fuel, grab a bite and get a shower. Support your brands.

Berkshire originally invested \$2.8 billion for 38.6% of the company in 2017 and bought its next 41.4% in January 2023 for \$8.2 billion (the entire business wasn't for sale in 2017). I estimated at the time of the 2017 acquisition that the entirety of Pilot Flying J was valued at \$7.2 billion. The company retained earnings to expand its footprint. The remaining 20% of Pilot Travel Centers acquired in January 2024 for \$2.6 billion, increasing Berkshire's ownership to 100%.

Between the initial investment, Pilot retained a portion of income to build out its network of truck stops. Berkshire wound up likely overpaying, certainly for the final two pieces, and contested what seemed unethical actions taken prior to the final valuation by the seller. A recap of some of the ugliness surrounding Berkshire's purchase of the remaining 20% can be found in the "Fun Facts" section of our 2023 letter. Asked about settling the dispute during 2024's annual meeting of shareholders, Mr. Buffet summarized, "All's well that ends."

Berkshire rolled Pilot into its MSR group in the 2024 annual report. The annual now has far better segment reporting for the MSR group with enhanced detail broken out separately for the Manufacturing group, the Service and Retailing Group, with separate detail for each Pilot and McLane as well. As discussed earlier, the breakout is likely due to Pilot's and McLane's huge individual revenues and tiny net margins.

Holding Company Assets and Liabilities

Berkshire controls several assets and houses certain liabilities at the holding company level that don't get assigned to the subsidiaries. Assets include a sizable portion of cash and Berkshire's interest in any partially owned companies not assigned by subsidiaries where Berkshire owns more than 20% and is deemed in a control position. This latter group are carried with accounting treatment known as the equity method, which essentially adds pro rata profit to cost basis and likewise subtracts any portion of profits received as dividends. The holding company discloses separate summary condensed financial statements which include Berkshire's equity method investment in Kraft Heinz. I include their equity method position in Occidental here as well, though it's not included in Berkshire's parent balance sheet. Berkshire owns Occidental preferred stock and warrants to buy Occidental common stock that are held in the insurance group. However, I can't reconcile insurance investments to include the equity method investment which is also included in the SEC 13F filings. It needs to be included so I include with holding company assets.

The Semper Sum of the Parts method for valuing Berkshire uses the holding company group as a reconciling catch-all when we can't assign certain items directly to the subsidiaries (see immediately above).

Cash at the holding company is expected to total \$93.5 billion at year-end 2025. Cash grows from distributions received by subsidiaries, primarily BNSF, the MSR group and the occasional large dividend from the insurance group. Following a \$5 billion write-down of Kraft Heinz (discussed earlier), carrying value is expected at just under \$8.7 billion. Holding company debt is expected at \$22.5 billion and \$1 billion of Berkshire's deferred-tax liabilities are carried there.

The net equity balance thus sums to \$89.3 billion. The holding company is estimated to earn \$4.9 billion of Berkshire's \$61.7 billion normalized profit for the year.

Equity Method Investments

Kraft Heinz

Kraft Heinz's common share price declined 21% in 2025, excluding dividends. As an equity method investment, the decline isn't reflected in Berkshire's financial statements. Berkshire owns 325.6 million shares of Kraft Heinz, 27.5% of the outstanding shares. The cash cost basis is \$9.8 billion. Carrying value under the equity method reflects a tax value markup (non-cash) when Heinz bought Kraft, with book carrying value increased quarterly for Berkshire's proportionate share of reported earnings minus dividends received. Kraft Heinz has also taken write-downs, which Berkshire proportionally reflected. On December 31, 2025, equity method carrying value will be \$8.7 billion and the market value of the common stock position was \$7.9 billion. Carrying value was written down by \$5 billion pre-tax in 2025

HoldCo	
KHC 27.5%; 325,635m shares (MV \$7.897 B 2025; cash cost \$9.8 B)	\$8.674
KHC Market Value Adjustment (After \$5.0B Write-off 2Q25)	-\$0.777
Additional KHC Deferred Tax Liability/Asset not on BS	\$0
OXY 26.2% common; 264.94m shares (MV \$10.894; cash cost \$14.5B)	\$17.265
OXY Market Value Adjustment	-\$6.371
Additional OXY Deferred Tax Liability/Asset not on BS	\$0
Other Equity Method (Berkadia, ETT(in BHE))	\$0.451
Cash	\$93.532
TOTAL HOLDCO ASSETS	\$112.774
Debt	\$22.500
Additional HoldCo Deferred Tax Liability (All balance to MSR)	<u>\$1.000</u>
HOLDCO NET ASSETS	\$89.274
KHC Eq Method Earnings (increase cost basis; (e) full 21% tax difference)	\$0.369
Divs KHC (\$520m; Reduce basis; Not an offset to Income)	\$0
OXY Equity Method Earnings (Increase cost basis; (e) full 21% tax difference)	\$0.299
Divs OXY (\$206m; Reduce basis; Not an offset to Income)	\$0
Other Equity Method Earnings	\$0.086
Distributions Received Other Eq Method (\$56m; Reduce basis; Not an offset)	\$0
Intangible Amortization of Non-MSR Subs Taxed at 21%	\$0.875
Interest Income; tax 21%	\$3.507
Optionality of Holdco Cash with \$30B permanent: \$63.5B @ 7.0% - 3.75%; tax 21'	\$2.065
Interest Expense (Not allocated to subs; 1.45% interest rate!!!)	-\$0.636
G&A (Not allocated to subs)	-\$0.326
Forex gains/losses on non-US denominated debt (E \$0.653 B 2025 net loss)	\$0.000
Normalizing Net Pension Expense for GAAP Adjustment (Expect Fully Fd 2023)	-\$0.001
Net Investment Income Pre-Tax	\$6.238
Net Investment Income After-Tax	\$4.928
Estimated Value (Investments - HoldCo Debt)	\$89.3

(see earlier discussion). Carrying value includes Berkshire's proportional share of Kraft's earnings, even if retained by Kraft, and are added to cost basis. Basis is reduced by cash dividends received, \$520 million pretax in 2025. Our holding company value includes a mark-to-market adjustment reflective of market value. Effectively, equity method accounting is a decent proxy for the way we value Berkshire's profits. By stripping market value movement but picking up dividends and retained earnings by the investee, you get to a similar place. No deferred-tax liability is created on unrealized gains using the equity method.

Occidental Petroleum

As mentioned above, Berkshire began accumulating common stock shares of Occidental during the first six months of 2022. During 2023 and 2024 Berkshire acquired additional shares pushing ownership of Occidental voting rights above 20%. Berkshire thus adopted equity method treatment of the common stock position as of August 4, 2022, and included the investment as an equity method holding on September 30, 2022. Semper journaled the position from an insurance investment to the holding company where we house all equity method investments. Berkshire owned 264.9 million common shares of Occidental at yearend with a \$10.9 billion market value. We estimate cash cost at \$14.5 billion. Because Berkshire is picking up their pro rata share of Occidental's net income, basis is \$17.3 billion which was reduced during 2025 by \$299 million pretax for dividends received on the common shares.

We moved ETT to BHE from the holding company for Semper's records. Right or wrong, we treat equity method income at the holding company level. For those reconciling Berkshire's stock market investments to its quarterly SEC 13F filings, know that the Kraft Heinz and Occidental common stock positions remain publicly traded. Our holding company assets include a quarterly mark-to-market adjustment to reflect the current market price.

Berkadia

Berkshire owns what began as a 50% interest in a commercial real estate loan servicer with Jefferies as the partner and operator. Long-standing clients will remember we had owned Leucadia, run by two outstanding investors, Ian Cumming and Joe Steinberg. The duo had no succession plan, so they bought Jefferies, making the investment bank's CEO Dick Handler the succession plan. Berkadia purchased Capmark Financial Group's mortgage loan and servicing business for \$437 million in 2009. Over the years, Berkshire provided a secured commercial paper credit facility of \$1 billion, later increased to \$1.5 billion, to fund mortgage loans, servicer advances, purchase servicing rights and to fund working capital. We rounded up summary figures from Leucadia and then Jefferies for Berkshire's share of carrying values

and earnings to infer Berkshire's piece. Initially Berkadia was structured at a 50/50 joint venture. When Berkshire provided the commercial paper facility, its proportional share of rights to net income and distributions increased. Despite reporting their ownership of Berkadia as 50% in Berkshire's financial statements, Berkshire's share increased to 55% from 2020-2022 and to 56.4% in 2023. We are not certain that equity matches income rights. It makes sense that it would. However, until we are more confident the table does not have a roll forward of Berkshire's equity piece. With Pilot wholly owned, Berkadia, Occidental and Kraft Heinz are now the only equity method investments (excluding those at BHE).

Year	Berkadia Net Income	Berkadia Distributions	Carrying amount of Equity and Loans
2009	\$20.8	\$0.0	\$240.0
2010	\$16.2	\$29.0	\$475.1
2011	\$29.0	\$23.6	\$193.5
2012	\$38.0	\$37.6	\$172.9
2013	\$84.7	\$69.0	\$182.6
2014	\$101.2	\$72.9	\$208.5
2015	\$78.1	\$89.6	\$191.0
2016	\$94.2	\$100.8	\$184.4
2017	\$93.8	\$67.4	\$210.6
2018	\$80.1	\$41.0	\$245.2
2019	\$88.2	\$65.1	\$268.9
2020	\$0.0	\$0.0	\$301.2
2021	\$0.0	\$0.0	\$373.4
2022	\$0.0	\$0.0	\$425.9
2023	\$0.0	\$0.0	\$400.9
2024*	\$0.0	\$0.0	\$452.0
2025*	\$127.8	\$125.3	\$451.0

*Sourced from Jefferies. 2024 carrying value only forward from Berkshire footnotes

Accordingly, Berkshire's equity carrying value of Berkadia is an expected \$451 million at year-end 2025. Since we are down to but one material equity method investment excluding Kraft Heinz and Occidental, we now include Berkshire's carrying amount of equity and loans here instead of in the appendix.

BHE Equity Method Investments

Berkshire indirectly owns several equity method investments that are likewise equity method investments at BH Energy, carried on BHE's financial statements at just under \$1.3 billion. These are pipelines, storage facilities and BHE's now 75% interest in the Cove Point LNG terminal. These are not considered Berkshire holding company equity method investments but are so at BHE.

In addition to Cove Point, equity method assets owned by BHE include 50% of Electric Transmission Texas which owns and operates electric transmission assets in the Electric Reliability Council of Texas footprint and 50% of Iroquois, which owns and operates an interstate natural gas pipeline in New York and Connecticut.

BHE subsidiaries also have roughly \$4 billion (net of depreciation) of jointly owned facilities, common among electric utilities and pipelines. It's nice seeing a few production assets at MidAmerican named for Walter Scott – the Walter Scott, Jr. No. 3 and No. 4.

The valuations for each operating group are included in the Net Income Basis table seen at the beginning of this section. More granular data for each reporting group is in the appendix.

Simple Price to GAAP Book Value Basis

Simple Per-Share Price to Book Value Basis- "A" Share Data										
	BVPS	Avg BVPS	1x BVPS	1.2x BVPS*	1.75x BVPS	2x BVPS	High	Low	Range vs.	Avg
1994	10,083	9,469	10,083	12,100	17,645	20,166	20,800	15,150		
1995	14,426	12,255	14,426	17,311	25,246	28,852	30,600	20,250	250%	165%
1996	19,011	16,719	19,011	22,813	33,269	38,022	38,000	31,000	227%	185%
1997	25,488	22,250	25,488	30,586	44,604	50,976	48,600	33,000	218%	148%
1998	37,801	31,645	37,801	45,361	66,152	75,602	84,000	45,700	265%	144%
1999	37,987	37,894	37,987	45,584	66,477	75,974	81,100	52,000	214%	137%
2000	40,442	39,215	40,442	48,530	70,774	80,884	71,300	40,800	182%	104%
2001	37,920	39,181	37,920	45,504	66,360	75,840	75,600	59,000	193%	151%
2002	41,727	39,824	41,727	50,072	73,022	83,454	78,500	59,600	197%	150%
2003	50,498	46,113	50,498	60,598	88,372	100,996	84,700	60,600	184%	131%
2004	55,824	53,161	55,824	66,989	97,692	111,648	95,700	81,150	180%	153%
2005	59,337	57,581	59,337	71,204	103,840	118,674	92,000	78,800	160%	137%
2006	70,281	64,809	70,281	84,337	122,992	140,562	114,500	85,400	177%	132%
2007	78,008	74,145	78,008	93,610	136,514	156,016	151,650	103,800	205%	140%
2008	70,530	74,269	70,530	84,636	123,428	141,060	147,000	74,100	198%	100%
2009	84,487	77,509	84,487	101,384	147,852	168,974	108,450	70,050	140%	90%
2010	95,453	89,970	95,453	114,544	167,043	190,906	128,730	97,205	143%	108%
2011	99,860	97,657	99,860	119,832	174,755	199,720	131,463	98,952	135%	101%
2012	114,214	107,037	114,214	137,057	199,875	228,428	136,345	113,855	127%	106%
2013	134,407	124,311	134,407	161,288	235,212	268,814	178,900	136,850	144%	110%
2014	145,619	140,013	145,619	174,743	254,833	291,238	229,374	163,039	164%	116%
2015	154,935	150,277	154,935	185,922	271,136	309,870	227,500	190,007	151%	126%
2016	171,542	163,239	171,542	205,850	300,199	343,084	249,711	187,001	153%	115%
2017	211,750	191,646	211,750	254,100	370,563	423,500	299,360	238,100	156%	124%
2018	212,503	212,127	212,503	255,004	371,880	425,006	335,900	279,410	158%	132%
2019	261,417	236,960	261,417	313,700	457,480	522,834	341,785	287,000	144%	121%
2020*	287,031	249,767	287,031	344,437	502,304	574,062	352,450	239,440	141%	96%
2021	342,622	302,020	342,622	411,146	599,589	685,244	454,550	341,820	151%	113%
2022	329,979	308,505	329,979	395,975	577,463	659,958	544,389	393,012	176%	127%
2023	389,372	365,997	396,193	467,246	681,401	778,744	563,073	442,765	154%	121%
2024	451,507	390,743	396,193	541,808	790,137	903,014	737,301	543,236	189%	139%
2025e	501,132	445,252	396,193	601,358	876,981	1,002,264	809,350	692,600	182%	156%

Source: Semper Augustus; Berkshire Hathaway

Berkshire's shares closed 2025 trading at 150.6% of expected year-end book value versus a nearly identical 150.8% a year ago and 139% in 2023. Per a simple price-to-book value relationship, the stock valued in line with where it was a year ago. The stock returned 10.9% in 2025 with book value per share growing 11.0%.

There are times when book value per share is a better proxy of valuation than others. Said better, book value per share does not move in lock step with intrinsic value, nor does the stock price. If Berkshire's stock portfolio rises dramatically and becomes overvalued, book value may likewise be overvalued relative to intrinsic value. At times where the stock portfolio is cheap, so too may be book value. Any time the stock rises faster than book value and intrinsic value, the stock becomes more expensive relative to value and vice versa. Anybody suggesting that Berkshire's price-to-book multiple is such and such a percent may not consider whether book value contains overvalued, fairly valued or undervalued assets and equity. Today's margin of safety matches a year ago with one exception. While the stock matched book value growth and the stock portfolio is similarly valued year over year, cash is a larger portion of firm assets and book value. Stocks are smaller. Thus, even if the stock portfolio is fully valued, cash gives Berkshire optionality on its deployment.

The shares traded in a range of 156% to 182% of *average* book value during 2025. The shares traded in a range from 0.5x to 3.0x book value over the past 61 years. In its earlier years, the lower end of the range more closely approximated intrinsic value at the time, while three times book value in 1998 most certainly did not. A 1.75x multiple has approximated fair value in recent years. By simple algebra, a 10.29% return on equity capitalized at a 1.75x multiple to equity equals an 18x price to earnings.

Beyond volatility in the stock portfolio, book value can get distorted at times such as year-end 2017 when the new marginal tax rate saw deferred-tax liabilities rerated downward and deferred tax assets revalued upward. Berkshire properly points out that if it is going to become a large repurchaser of its shares at premiums to book value, then book value and book value per share will decline. Subsequent repurchases at increasing premiums will further and more quickly erode book value. We previously discussed assets carried at historical cost below replacement value may also understate book value.

In a normalized steady state Berkshire conservatively earns at least 10% on unleveraged net equity. Thanks to the durability and knowability of the earning power we are comfortable with a 75% premium to book as a reasonable valuation. The multiple should be higher when book value is understated. If the sustainable return on equity as projected changes, upward or downward, the valuation would be affected. Likewise, if book value becomes so diminished, it will properly be eliminated as a valuation proxy, looking to ongoing absolute profitability relative to retained and past profit.

Two-Pronged Approach

	Two-Pronged Basis # (dollars in millions)																	5% UW Capped	Add Cap UW
	Per-Share Pre-Tax Earnings						Per-Share Investments	Per-Share Investments + Capitalized Pre-Tax Earnings				Market Cap Intrinsic Value							
		10x	12x	13.5x	15.4x ^	plus 10x		plus 12x	plus 13.5x	plus 15.4x^	shares out M	at 10x	at 12x	at 13.5x	at 15.4x^				
2005	2,441	24,410	29,292	32,954	37,591	74,129	98,539	103,421	107,083	111,720	1.541	151,849	159,372	165,014	172,161	10,998	176,012		
2006	3,625	36,250	43,500	48,938	55,825	80,636	116,886	124,136	129,574	136,461	1.543	180,355	191,542	199,932	210,559	11,982	211,914		
2007	8	80	96	108	123	90,343	90,423	90,439	90,451	90,466	1.548	139,975	140,000	140,018	140,042	15,891	155,909		
2008	3,921	39,210	47,052	52,934	60,383	77,793	117,003	124,845	130,727	138,176	1.549	181,238	193,385	202,495	214,035	12,763	215,258		
2009	2,250	22,500	27,000	30,375	34,650	90,885	113,385	117,885	121,260	125,535	1.552	175,974	182,958	188,196	194,830	13,942	202,138		
2010	5,926	59,260	71,112	80,002	91,261	94,730	153,990	165,842	174,732	185,991	1.648	253,776	273,308	287,958	306,513	15,375	303,333		
2011	6,990	69,900	83,880	94,365	107,646	98,366	168,266	182,246	192,731	206,012	1.651	277,807	300,888	318,199	340,126	16,038	334,237		
2012	8,085	80,850	97,020	109,148	124,509	113,786	194,636	210,806	222,934	238,295	1.643	319,787	346,354	366,280	391,519	17,273	383,553		
2013	9,116	91,160	109,392	123,066	140,386	129,253	220,413	238,645	252,319	269,639	1.644	362,359	392,332	414,812	443,287	18,342	433,154		
2014	10,847	108,470	130,164	146,435	167,044	140,123	248,593	270,287	286,558	307,167	1.643	408,438	444,082	470,814	504,675	20,627	491,441		
2015(S)	11,562	115,620	138,744	156,087	178,055	148,675	264,295	287,419	304,762	326,730	1.643	434,237	472,229	500,724	536,817	20,647	521,371		
2015(B)	11,186	111,860	134,232	151,011	172,264	159,237	271,097	293,469	310,248	331,501	1.643	445,412	482,170	509,737	544,657				
2016(S)	10,421	104,210	125,052	140,684	160,483	168,902	273,112	293,954	309,586	329,385	1.643	448,723	482,966	508,649	541,180	22,941	531,590		
2016(B)	11,718	117,180	140,616	158,193	180,457	186,520	303,700	327,136	344,713	366,977	1.643	498,979	537,484	566,363	602,944				
2017(S)	11,123	111,230	133,476	150,161	171,294	190,161	301,391	323,637	340,322	361,455	1.644	495,427	531,995	559,420	594,160	25,199	584,619		
2017 (B)	15,002	150,020	180,024	202,527	231,031	202,322	352,342	382,346	404,849	433,353	1.644	579,180	628,500	665,491	712,345				
2018(S)	13,037	130,370	156,444	176,000	200,770	174,846	305,216	331,290	350,846	375,616	1.641	500,838	543,623	575,713	616,359	33,000	649,359		
2018(B)	14,697	146,970	176,364	198,410	226,334	188,626	335,596	364,990	387,036	414,960	1.641	550,689	598,923	635,098	680,920				
2019(S)	14,052	140,520	168,624	189,702	216,401	235,822	376,342	404,446	425,524	452,223	1.625	611,540	657,208	691,459	734,843	36,000	770,843		
2020(B)	14,309	143,090	171,708	193,172	220,359	253,676	396,766	425,384	446,848	474,035	1.625	644,728	691,231	726,108	770,286				
2020(S)	13,399	133,990	160,788	180,887	206,345	297,636	431,626	458,424	478,523	503,981	1.544	666,413	707,788	738,820	778,126	39,000	817,126		
2020(B)	13,924	139,240	167,088	187,974	214,430	314,600	453,840	481,688	502,574	529,030	1.544	700,711	743,707	775,954	816,801				
2021(S)	18,011	180,110	216,132	243,149	277,369	333,785	513,895	549,917	576,934	611,154	1.475	758,227	811,376	851,238	901,729	41,000	942,729		
2021(B)	18,127	181,270	217,524	244,715	279,156	347,815	529,085	565,339	592,530	626,971	1.475	780,640	834,131	874,249	925,065				
2022	22,826	228,260	273,912	308,151	351,520	336,059	564,319	609,971	644,210	687,579	1.460	823,755	890,395	940,375	1,003,682	-	1,003,682		
2023	23,257	232,570	279,084	313,970	358,158	398,414	630,984	677,498	712,384	756,572	1.441	909,372	976,408	1,026,685	1,090,369	-	1,090,369		
2024	23,571	235,710	282,852	318,209	362,993	444,658	680,368	727,510	762,867	807,651	1.438	978,521	1,046,322	1,097,172	1,161,583	-	1,161,583		
2025 est	24,356	243,560	292,272	328,806	375,082	495,669	739,229	787,941	824,475	870,751	1.438	1,063,176	1,133,235	1,185,779	1,252,335	-	1,252,335		

Source: Semper Augustus; Berkshire Hathaway

A change in the table for 2022 and beyond was made largely for the sake of simplification and saving time (mine). No longer are both the Semper and Berkshire methods separately calculated for estimating intrinsic value using the Two-Pronged Approach. The approach begins with two simple figures, per-share pre-tax earnings of all subsidiaries excluding gains and income from marketable securities and a per-share value for all marketable securities. It serves as an extremely useful, albeit simple, method for estimating Berkshire's value by capitalizing earnings excluding any from marketable securities and then separately providing (and adding) aggregate marketable securities held at all subsidiaries at market value.

Berkshire provided the two per-share figures for the better part of two decades to help investors assess fair value. The figures disappeared from the Chairman's letter for five years and then reappeared. The

method proves durable but requires some understanding and adjustment of certain data points. The method was covered in detail in our 2016 letter and in the appendix to the 2017 letter. Our method differed from the one used by Berkshire and altered over the years. Berkshire's method included underwriting gains and losses, then did not, and then did again. Ours eliminated current underwriting from operating earnings but then substituted a capitalized value to a normalized underwriting profit margin. Now, we are including our *normalized* estimated underwriting profit in pre-tax operating earnings and no longer capitalizing at a different rate. Those using their own version of this method can use actual underwriting results but will find much more volatility to progression of intrinsic value.

Berkshire's method included cash held at non-insurance subsidiaries. Ours did not. The single method now used *includes all cash* held across Berkshire. We also use market values for Kraft Heinz and Occidental Petroleum instead of their equity method carrying values. It was nice to have a reconciling tool given occasionally changing Berkshire methods at various times requiring alteration to its original presentation beginning in 1995. It's a simple tool that happens to still get in the ballpark.

GAAP Adjusted Financials Approach

The GAAP or IFRS statement of earnings can only be a starting point for the investor seeking to measure economic profitability and the capital required to produce it. Reported profits only ever approximate economic profitability by coincidence at Berkshire. At some companies reported profits more closely align with genuine profitability. The majority of companies strive to cast their condition in the most favorable light, often distorting economic reality. Berkshire's financial reporting and the derivation of economic earning power proves a wonderful case study in how useless financial statements can be without diving deep into the footnotes and into the moving parts of the business. Berkshire's require so many adjustments that any student of investing should endeavor to understand the steps required in doing so. A great project for a summer intern would place a stack of Berkshire annual reports in front of the mentee and tell them to figure out what the company is worth. The uninitiated would require steady guidance, but what a teaching tool (just don't give them the Semper letter in advance). Our adjustments are by no means authoritative, and each can be debated as to merit. Much of the process serves to smooth volatility – distorting aspects that make Berkshire's GAAP consolidated financial statements, particularly the statement of income, of little utility.

Primary adjustments to the GAAP Statement of Earnings:

- Remove realized (and now unrealized) gains and losses on the investment portfolio of the insurance companies and other groups.
- Remove derivative contract gains and losses.
- Add retained earnings of equity investees in the investment portfolio (this is the offset to the removal of realized and unrealized gains and losses). It is a normalizing factor that assumes retained earnings will translate into at least an equal dollar of market value.
- Remove underwriting gains and losses.
- Add a normalized underwriting profit margin, now including loss accruals for retroactive reinsurance and periodic payment annuity accounting treatment.
- Add income for deferred-tax liabilities that are created with property, plant and equipment capital expenditures, reflecting the degree to which cash taxes paid are less than reported GAAP taxes.
- Add a portion of any amortization charges against intangible assets created in acquisitions not reflective of economic decay.
- Add the present value of an optionality premium to the portion of cash balances likely to be invested at higher yields in the near to intermediate future.
- Reduce net income to reflect a higher normalized pension expense and cash outlay than assumed.

- Other adjustments that are one-off are made as needed (the above are more recurring in nature).
 - 2020 saw a \$10.6 billion pre-tax and \$10.4 billion after-tax write-down of Precision Castparts. \$10 billion of the charge was a non-tax-deductible reduction of goodwill. The analyst should not be fooled by apparently higher future return on equity by ignoring the charge.
 - 2017 required a \$28.2 billion non-taxable downward adjustment to restate net deferred-tax liabilities, which increased taxable income by the same non-taxable amount.
 - The equity method treatment of Kraft Heinz required a one-time 2017 downward income adjustment of \$2.9 billion pre-tax, \$1.2 billion after-tax, reflecting investee Kraft Heinz's similar non-cash gain in net income for revaluation of net deferred-tax liabilities.
 - 2023, 2024 and 2025 exclude \$1.9 billion, \$346 million and \$150 million pretax and reinsurance recoverable for wildfire litigation loss accruals during the three years. To date \$1.4 billion has been paid as cash settlements. The remainder will likely be paid as cash, a very real diminution of loss of assets and value but should be excluded from any normalization of value exercise.

Balance sheet adjustments for things such as overvaluation or undervaluation in the common stock portfolio are separate from these adjustments to earnings. I can't tell you how many times analysts conflate things such as float with investment assets and earning power. Float is a *net* insurance liability. Investment returns are not earned on float. Liabilities must be paid but are not an offset to economic earning power.

The balance of this section is repetitive from last year's letter with updated figures for each 2025 adjustment. Consider it my contribution to little-changing footnote disclosures. The analyst can save time with a redline comparison!

Remove Realized and Unrealized Investment Gains and Losses

FASB rule ASU 2016-1 required the income statement under GAAP accounting to include unrealized gains and losses each quarter in the income statement beginning in 2018. Previously only realized gains and losses were included in income. Unrealized gains and losses were recognized on the balance sheet, net of a deferred-tax liability for taxes to be paid if, or when, holdings are sold. Unrealized gains and losses naturally remain a balance sheet item. In periods of price declines, as in 2018, the first quarter of 2020 and all of 2022, declines are offset by a correspondent reduction of the portion of deferred taxes no longer carried as a liability. These unrealized gains and losses are taxed as deferred at 21%, where prior to the 2017 TCJA tax change were taxed at 35%. In other words, investment securities move up and down in price, and the movement in either direction is offset by a 21% deferred tax liability now, with the net amount impacting shareholder's equity only by the net amount. Deferred taxes mute the impact of stock volatility on the balance sheet.

We remove a not insignificant \$36.3 billion pre-tax gain, \$28.7 billion after the 21% tax rate, from the projected 2025 income statement for gains in Berkshire's investment portfolio, which included both realized gains and unrealized gains. The gain would typically contribute \$7.6 billion to Berkshire's aggregate deferred tax liability on the balance sheet. However, thanks to Berkshire's sale of a portion of Apple and others (where cash taxes are paid), the total deferred tax liability will rise by a lesser amount during 2025. Approximately \$7.6 billion was sold from the equity portfolio in the fourth quarter. Net sales were \$5.1 billion. We estimate perhaps \$4 billion will be realized gain. Regardless, the entire investment gain is removed from our GAAP adjustment of income.

Our treatment always removed *realized* gains and losses from the income statement. Their timing can be arbitrary and controlled by management. It's not uncommon to see a management book gains to mask a

decline in profitability. Numerous companies mastered this trick over the years. Prior to the tax code change, realized gains always helped the reported result. Portfolios could decline in value and managements had the discretion to realize gains large enough to offset or more than offset any unrealized losses. Alternatively, you see subsidiaries or assets sold or accounted for as to be sold and excluded from “adjusted” results. The most redeeming aspect of marking to market unrealized gains and losses for income statement purposes was to limit the shenanigans of selecting gains in an investment portfolio to augment results. Companies would book gains and write checks for taxes just to boost short-term profits. There is zero history of Berkshire having done this. Rather, Berkshire historically goes out of its way to avoid paying cash taxes, the large, realized gains from 2023 to 2025 being exceptions.

Including both realized and unrealized gains and losses in the income statement *is* more economically correct than excluding them as irregular. It’s just that inclusion is correct but comes with volatility that can distort operating results. If stock prices reflect the earning power of the business over time, then inclusion of gains and losses, whether realized or unrealized, will be correct – over time. It’s “over time” that’s the problem. To satisfy the logic for removal, eliminating short-term price volatility, we must offset the removal with a better proxy for tracking economic gains and losses. To serve that purpose, we add the retained earnings not paid as dividends by Berkshire’s investees in common stocks.

Add Retained Earnings of Holdings

Offsetting the removal of realized and unrealized gains, add back the portion of profits earned by Berkshire’s publicly traded investees not paid as dividends. For 2025 we added back \$10.7 billion, which is net of assumed taxes paid at 3%. The de minimis 3% rate is used in recognition that taxes owed on realized gains will be paid *later* and probably many years in the future, (it’s discounting for the time value of the 21% tax rate). The deferred-tax liability assumes immediate liquidation of the portfolio, taxed at 21%. Berkshire minimizes realized gains paid as cash, and the present value aspect accounts for the difference in our assumption

The removal of gains and losses as irregular and unpredictable, whether realized or unrealized, requires an offset when assessing earnings power. The offset is the addition to reported earnings of the retained earnings of publicly traded companies not paid to Berkshire as dividends. Profits retained should (and need to) inure for the ultimate benefit of the shareholder. It is simply a reinvestment of shareholder profits, a choice made by others if you happen to not be in control. This is a normalizing factor that assumes retained earnings will ultimately translate into at least an equal dollar of market value. At Berkshire, these retained earnings are a significant component of Berkshire’s overall profitability. The stock portfolio will likely total 25% of Berkshire’s total assets at yearend, down from 26% in 2024. As a percentage of overall Semper-derived economic earnings, \$10.7 billion net of tax in retained earnings represents 17% total normalized economic profit for 2025 at Berkshire.

Remove Derivative Contract Gains and Losses

This adjustment disappeared by the close of 2023’s first quarter. Realized and unrealized gains and losses on derivative contracts were removed from GAAP earnings along with those on investment securities. Berkshire wrote a series of put option contracts from 2004 to early 2008, just prior to the financial crisis, with several life insurance companies as counterparties. Last year’s letter contained a lengthy discussion of these brilliantly profitable transactions and how they were largely misunderstood. Those reading the letter from an educational perspective are encouraged to read the discussion in this same location in the 2023 Semper letter, *Dirty Deeds Done Dirt Cheap*. In summary, Berkshire pocketed \$4.9 billion of option premium and enjoyed investment use of the capital for nearly two decades. Not a dime of losses was paid.

Adjust Earnings to Reflect Accelerated Depreciation Tax Treatment for Capital Expenditures

Berkshire spends enormous sums on capital expenditures, much of which takes place in its energy and railroad businesses. Deferred-tax liabilities are created on qualifying investments in property, plant, and equipment. Companies like railroads and utilities are incentivized to make infrastructure investments for the public good. The use of accelerated depreciation for tax purposes arises from higher depreciation of fixed assets allowed for tax purposes in the early years of amortizing an asset's life, made up for with lower tax-deductible depreciation expense in later years. The higher early depreciation results in lower taxes paid in the early years and consequently higher taxes in later years. The future higher taxes are carried on the balance sheet as a deferred liability. It's a present value benefit, and we adjust net income upward reflecting the benefit.

The 2017 TCJA tax code change more broadly expanded the allowed use of accelerated depreciation to most industries, instead of limited to those such as rails and regulated utilities. The code change allowed for depreciable assets (excluding structures) to be expensed in one year instead of being amortized over many years, effectively accelerated depreciation on steroids for many businesses. Equipment must have been purchased after September 27, 2017, and by December 31, 2022 (with an additional year for longer production property and certain aircraft). The immediate 100% expensing was reduced by 20% annually beginning in 2023 and is to be phased out entirely after 2026. Regulated *public* utilities were largely excluded from the new benefit, having already applied the tax treatment, albeit over more years. With the change in the tax rate to 21% from 35%, regulators logically made downward adjustments to customer electricity rates or to the rate base to maintain allowed returns on equity. Said differently, the tail of lower future depreciation expense had been determined using a 35% rate. The new lower rate would have unfairly benefited a utility at the expense of the customer.

The latest election brings proposals to alter or extend aspects of the tax changes introduced by TCJA. An early end of accelerated depreciation for non-rail and utility industries may or may not transpire. We don't expect a change to current treatment for utilities (who already used the tax method but were compelled to refund or lower prospective rates due to the change in the tax rate applied to the carried deferred-tax liability).

For 2023 to 2025 after-tax net GAAP income is increased by \$1.1 billion, down from a \$1.6 billion adjustment in 2022 and \$1.7 billion in from 2018 to 2020. The lower \$1.1 billion reflects growing investment at BHE more than offset by lower amounts of growth capital expenditures at BNSF. The deferred-tax liability for property, plant and equipment is expected to be \$34.0 billion when reported for 2024.

Over the last eight years since TCJA, the use of accelerated depreciation benefitted not only the railroad, but also Berkshire's other non-regulated businesses that in many cases are also now enjoying the tax benefit of accelerated depreciation where previously they weren't. Berkshire's non-rail and energy businesses spent \$34 billion on capital expenditures from 2018 to 2025, with much of that qualifying for one-year expensing. As assets depreciate over their actual useful lives, approximated by depreciation charges in the GAAP income statement, the beneficial tax benefit eventually runs its course, and in the later years of an asset's useful life, an even higher effective tax rate than the marginal rate will be applied for the tax books. Total capital expenditures will be \$20.6 billion in 2025 against \$13.2 billion GAAP depreciation expense. BH Energy and BNSF will spend \$10.8 billion and \$3.7 billion respectively, \$7.0 billion above combined depreciation expense. Some of the capex is genuinely spent on maintenance, but in the case of the energy businesses, growth capex largely increases the rate base, against which regulated utilities are allowed to earn up to an established return on equity.

Berkshire will continue spending large amounts on capital expenditures, much of which drives down the current cash tax bill. The appetite for capital expenditures above maintenance outside of the rail and energy businesses is likely to wane over the course of the phaseout beginning this year. For the balance of 2025 we should see large expenditures barring any unexpected passage of unfavorable tax legislation.

Remove Underwriting Gains and Losses; Add a Normalized 5% Underwriting Profit

Underwriting profits can be extremely volatile from year-to-year, not unlike stock prices. Our method for valuing Berkshire's insurance operations removes reported underwriting profits and replaces them with a normalized 5% pre-tax underwriting profit on premiums earned. It's a similar approach to removing investment gains and losses and replacing them with the retained earnings of the stock market holdings. The volatility of the underwriting cycle is stripped in favor of estimating what we think is a sustainable and achievable profit earned *over time*. Our 5% pre-tax underwriting estimate is a blended rate across all of Berkshire's insurers and types of business written *over time*. Over time is emphasized via an example. Catastrophe reinsurance can produce large underwriting gains for many years. A single year of large losses producing an underwriting loss must be averaged among the majority of years with gains.

A low-interest rate environment makes underwriting at a profit imperative. Berkshire enjoys unusual advantages thanks to surplus capital built over the years. It can retain more business than its competitors and maintain much larger allocations to common stocks. Surplus capital derived from best-in-class underwriting and higher returns from longer duration investment assets allows dividend and capital distributions to the holding company and into its non-insurance businesses. We closely watch developments like GEICO's competitive position and the progress (and speedbumps) of the specialty business and various longer-tail businesses. We may well alter our profit assumption. A more conservative approach would assume breakeven underwriting over time, which strips \$73.5 billion from the 2025 capitalized value of underwriting profit that's included in our appraisal of Berkshire's intrinsic value.

Berkshire had a history of including, then excluding, then including then dropping altogether underwriting profit in their dual yardstick method of calculating intrinsic value from 1995 to 2015. Our method of removing volatility and replacing it with what we think Berkshire will earn on underwriting allows us to determine the worth of the insurers, and the business at large, without having to think about the degree to which insurance profits are under or over a "normal" level of underwriting for a year or period of years.

When we analyze property casualty insurers and reinsurers, we spend a lot of effort trying to determine sustainable underwriting margins, which can be positive or negative depending on the type of insurance written and the economic climate, particularly with interest rates, inflation, capital required and competitive capacity.

The first step of normalizing 2025 underwriting profit eliminates an estimated after-tax \$7.6 billion gain from GAAP earnings. The next step adds \$4.9 billion after tax of our 5% normalized pre-tax underwriting profit as well as net of tax of reported "losses" for retroactive and periodic payment annuity business written in the past. The latter, \$1.7 billion pretax for 2025, are recorded as losses as an accounting treatment. They two lines should produce profits over time.

Add a Portion of Intangibles Amortization Expense to Income

Economic earnings are increased by \$1.7 billion to reflect the amortization of intangibles created in acquisitions that do not economically decay. Berkshire recognizes a portion of this reality each year, formerly in a supplemental presentation in the Chairman's letter and beginning two years ago in the

MD&A segment presentation of the Manufacturing, Service and Retail group in the 10-K. Unlike many public companies, Berkshire does not present a pro-forma or supplemental set of financials excluding various expenses. The goodwill and intangibles footnote makes clear the types and amounts of intangibles being amortized in the MSR group. The balance of intangibles being amortized with no economic decay is now much larger and growing. We had been adding back 80% of the amortization charge for intangibles, which resulted in economic earnings being roughly \$600 million higher after-tax than GAAP profits for 2010 to 2015. We are now adding back 90% of the intangibles charge thanks to ongoing amortization and a lack of recent material acquisition activity.

Net intangibles were \$35.1 billion on September 30, 2024, against \$53.5 billion gross. Accumulated amortization is \$18.4 billion. In addition to trademarks and trade names, other intangible assets with indefinite lives such as customer relationships generally lose little, if any, economic value over time. Intangibles such as patents, with defined expirations, do decay.

Add an Optionality Premium to a Portion of Cash Balances

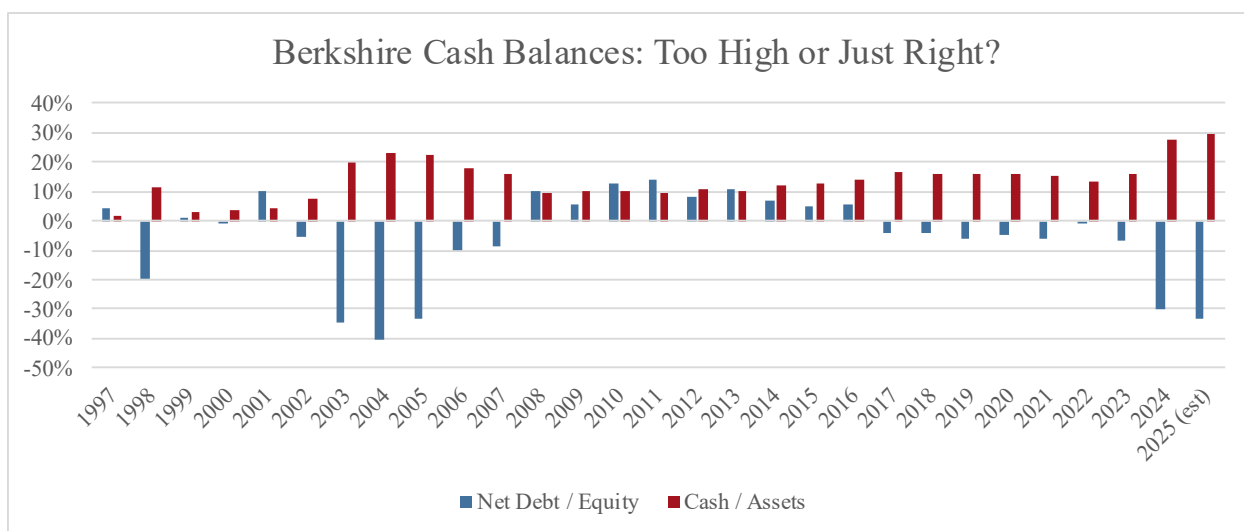
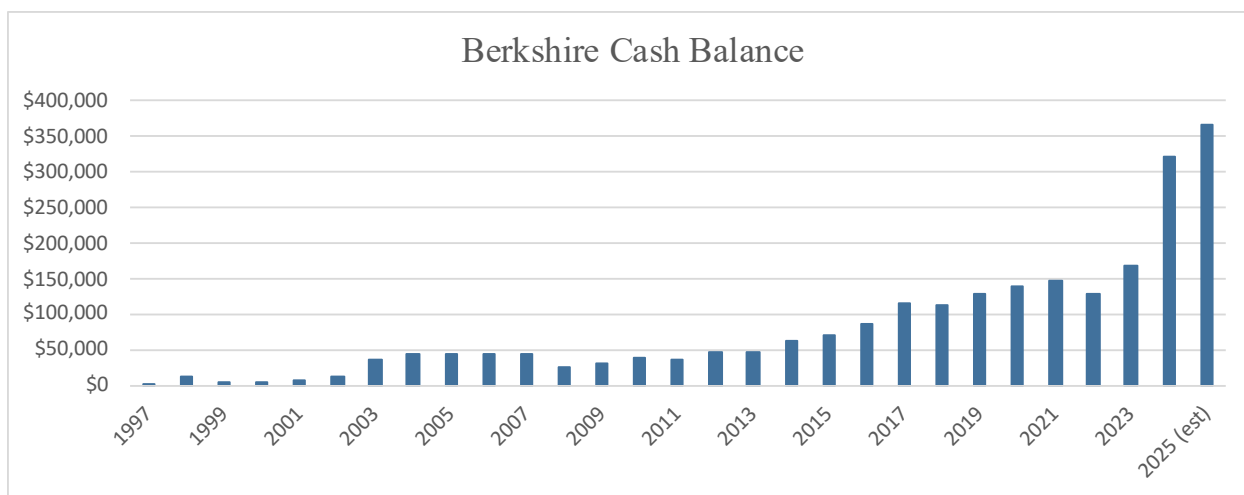
We make a generally material upward adjustment to Berkshire's reported profits that assumes much of Berkshire's cash will be put to good use, and reasonably soon. Specifically, the adjustment assumes Berkshire will earn 7% pretax minus the current yield on U.S. Treasury bills on cash balances in excess of Berkshire's stated \$30 billion minimum cash floor *plus* the amount of cash expected to be paid in a year for claims *paid* in the insurance operation (\$56.6 billion in 2025). Thus, we assume Berkshire's permanent cash reserve is \$86.6 billion. A good way to view this figure is as a proxy for fixed-income and cash required to be held as reserves supporting the aggregate insurance operation. I don't think cash will fall below my combined figure combining management's stated \$30 billion minimum and at least \$50 billion supporting the insurance operation, unless Berkshire buys a boatload of bonds in the insurance operation. Bonds are only a tiny \$17.7 billion in 2024, 3.1% of investment assets in the insurance group.

Cash held at non-insurance subsidiaries are *excluded* from our optionality adjustment. Thus, only cash in the insurance operation and at the holding company receive the adjustment. The adjustment adds \$7.3 billion to 2025 economic earnings, up from \$6.2 billion in 2024. The difference represents 2025's higher cash balance, offset by lower yields on U.S. Treasury bills versus a year ago.

The upward adjustment is earnings based only. It does not double count marketable securities or firm assets in a balance sheet analysis. The base assumption is that a portion of invested assets in cash are earning less than they will over time. Depending on whether higher-yielding investments are made and at what yields makes the adjustment worthy of critique, in whole or in part.

Berkshire's cash position generally gets more media attention than it deserves but is worthy of comment at present large levels. Cash recently earned nearly nothing until the Fed hiked interest rates in 2022. At this writing in early 2026 Treasury bills yield 3.6%, down from more than 5% before the Fed began lowering the Fed Funds rate in 2024. The firmwide cash balance will likely total \$372.6 billion at year-end 2025. Cash is a record 30% of firm assets, up from 28% in 2024 and 16% on December 31, 2023. Cash as a percentage of firm assets reached earlier highs at 23% in 2004 and 2005. It's averaged 14% since purchasing General Re in 1998. Prior to that merger cash totaled a scant 2% of Berkshire's total assets. It grew to 11% upon the merger.

Below is an updated chart of Berkshire's cash position from 1997 through our 2025 estimate. Notice that cash tends to decline during years when stocks (good ones presumably) are on sale and rises when they are not. Today's bar is easy to spot.



Source: Berkshire Hathaway; Semper Augustus

The top chart above takes the shape of a ski jump and then a rocket, causing anxiety among Berkshire watchers. Big numbers make big headlines though. The media should bear in mind total firm assets are \$1.25 trillion.

The blue bars in the lower chart depict Berkshire's net debt to firm shareholders' equity (book value). Net debt is firmwide debt minus cash. When cash exceeds debt, the figure is negative. At year-end 2025 it's very negative. Berkshire typically maintains a net unleveraged but not too-cash-heavy capital structure. Net debt to equity at negative 34% is remarkably not a Berkshire record. It ranged from 33% to 41% over the three years 2003 to 2005. The red bars in the chart represent firmwide cash as a percentage of firm assets. Our chart makes apparent why the brass in Omaha refers to the Fort Knox balance sheet.

It's this historical perspective that allows doubt to creep into the method for assuming a higher return on much of the cash balance. The counterpoint is most of the leverage on the consolidated balance sheet is utilized in the railroad and the energy businesses. The debt in these groups is *not an obligation* of Berkshire – it's standalone to the subsidiary and not hypothecated to the parent. It's also geared at a proper level for those businesses. If you hold those two subsidiaries aside from consideration, then the rest of Berkshire is quite liquid and has room to invest a substantial portion of cash reserves. High cash balances will be put to good use again. See the earlier capital allocation discussion.

Is it aggressive assuming a return that's not being earned currently? We don't think so. When Berkshire invested in Occidental preferreds at 8%, callable later at a premium (plus warrants), there was very little net yield pickup at the time versus what was then our 6.9% optionality premium to T-bills then earning 0.1% (7% minus 0.1%). The optionality premium shrinks as T-bill rates rise. At 3.6% on bills, the optionality premium shrinks to 3.4%. If bills yield 7% there is no optionality premium (and at 7% lots of things will have broken in the meantime and we'd expect less cash). Similarly, when common stocks are purchased, Berkshire picks up the earnings yield, not counting whatever happens to the share price or future growth.

Apple at the time of purchase was trading at 10x earnings net of cash, a 10.0% earnings yield. Of course, the annual gain on the Apple investment *far* exceeded both the earnings yield *and* the Semper opportunity cost yield. With more Apples, or BNSFs, or GEICOs, the Semper 7% looks rather puny. Share repurchases are retired at Berkshire's earnings yield.

The hypothetical "income" picked up with our method breaks down if investable cash lingers permanently, a genuine risk if the two-decade range for cash to assets or net debt to equity are any barometer. In the grand scheme of things, we're talking about roughly three-fourths of current record cash balance genuinely investable. At Berkshire's conservative presumption that cash won't fall below \$30 billion and our addition of one year of insurance losses paid as cash, \$285 billion remains available as dry powder. That's 23% of total firm assets. One final thought: If longer-term yields rise from current levels, it wouldn't be surprising to see Berkshire increase fixed-income holdings in the insurance portfolio and reduce cash there. Maybe.

Reduce Net Income to Reflect Higher Normalized Pension Expense

The pension adjustment methodology we've used for more than a quarter century was covered in past letters. Here we'll just overview the earnings adjustment for Berkshire in 2025 and only for educational purposes. If you own or analyze the shrinking number of companies with large legacy defined benefit plans, I encourage you to read our old letters. In a nutshell, we generally apply a 4% assumed rate of return on the fair value of pension assets versus Berkshire's 5.9% (down from 6.0% in 2023) and run the difference as an annual expense through the income statement. We do the same by amortizing any collective pension benefit obligation (PBO) underfunded status over ten years, assuming a full funding over a decade. The combination using Berkshire's 2023 10-K filing suggested Berkshire would commit an additional \$268 million pre-tax and \$211 million after-tax to its pension funds annually. 2024 and 2025 market gains eliminated any unfunded pension status meaning we assign no charge against normalized earnings. As it is, Berkshire's combined defined pension plans were \$2.4 billion overfunded against its pension benefit obligation at year-end 2024, up from \$612 million the prior year. An overfunded status means no Semper charge and no balance sheet liability. \$3.5 billion of the overfunded status is included in "Other Assets" in the consolidated financial statements. \$1 billion is included in accounts payable and other liabilities. The included assets are not really the property of Berkshire.

This adjustment in Berkshire's case was never material. We don't try to figure out what any charge will look like until release of each year's annual report. Low interest rates combined with rich stock prices made our very long-standing 4% assumed return conservatively realistic when analyzing companies with large defined benefit plans. It's never been meaningful here because Berkshire's pension plans at the subsidiaries are small and it regularly assumes both lower expected investment returns and allocates more to public equities than most.

Our method is *far* from actuarially correct but has proven reliable. What the method has done is kept us out of old businesses where the pension plan rivals the business in size and importance. It captures the

huge one-off funding that takes place periodically, with the CFO suggesting analysts *ignore* the \$4 billion we just borrowed and “invested” in the pension. No, no, no. Rather, \$400 million ought to have been contributed annually for a decade. With many plans failing to achieve their return assumptions for more than 25 years, it’s been a useful tool. Overall, the pension situation improved for investors. The number of companies with defined benefit plans is lower and return assumptions have come down from approximately 9.0% at the turn of the century (when stocks were at a secular peak and interest rates were far below 9%) to 6.5% more recently. With some companies it’s a big deal. When interest rates require a microscope to identify and stock markets are at levels consistent with historical secular peaks, the issue is worth considering for the investor in companies with materially large pension fund obligations. It’s been included in this letter for years and as part of our appraisal process as a teaching tool for young investors.

Other Non-Recurring Adjustments

From time-to-time additional adjustments are necessary. Non-tax adjustments at year-end 2017 for the TCJA can be seen in the summary table below. One adjustment irregularly occurs if the stock portfolio trades at a level we find dramatically overvalued or undervalued, where market value is adjusted with a discount or premium. This adjustment does not impact our earnings-based approach.

2020 required a non-cash adjustment reflecting a non-cash, non-tax-deductible write-down of \$10 billion in goodwill at Precision Castparts, plus another \$400 million *after-tax* charge against other intangibles. These “expenses” were properly dismissed as non-operating but cannot be ignored. The analyst cannot ignore the write-down and apply current and future profitability against a now lower equity balance, crediting the sinning management that overpaid for the assets requiring the charge. “Thou shalt not forget the price paid for an acquisition.” Fortunately, you’d have to look and keep looking for these charges at Berkshire over the 61 years outgoing management ran the place. They don’t exist. “Ignore the charge as non-cash,” suggests the convincing CFO, “but let me show you our return on equity, albeit written down.” Lest you think the charges are immaterial, in 2020 write-offs and write-downs amounted to 23% of operating earnings, shrinking book value of the index by 2.9%. I highly recommend taking a meat cleaver to the 20.6% return on equity of the index in 2025. 2025 write-offs were at a much more modest 8.6%, typical during good times. When charges are low, batten down the hatches for the incoming recession and the big-bath, kitchen-sink write-offs that come with them.

2023 to 2025 require the \$1.3 billion, \$0.3 billion and \$0.2 billion after-tax adjustments for non-tax loss accruals at BH Energy’s PacifiCorp for 2020 wildfires, discussed earlier. Cash approximating the accruals will likely be paid, reducing cash and firm value, but including the accrual in BHE’s current profitability and capitalizing an understated earning power figure will understate firm valuation. Perhaps this is the equivalent of CFOs educating sell-side analysts and eager to “beat-the-number” investors the merits of community-adjusted EBITDA. However, ours is simply trying to get at normalized earning power and how well investments perform. That’s why we will always look to profitability at the MSR group by remembering how much Berkshire paid for Precision Castparts before writing-down \$10.4 billion of the equity. Do this for the S&P and the return on equity ain’t 20%.

Final periodic adjustments, and here they do reflect earning power, are made at the subsidiary level and *not* in our GAAP-adjusted figures. The railroad would be an example today. Even at the railroad we simply note that we believe the business is underearning by \$1.2 billion but we don’t include the upward adjustment in subsidiary earnings. It’s simply noted in the financials and a supplemental return on equity calculation is made to demonstrate profitability at normal earning power.

Summary of GAAP Adjustments to Economic Earnings

After-Tax GAAP Adjustments to Economic Earnings: 2025 Expected (in billions)									
	2017	2018	2019	2020	2021	2022	2023	2024	2025 (e)
Normalized Recurring GAAP Adjustment to Economic Earnings									
Add retained earnings of equity investees, taxed at 3% (1/7th of new 21% federal rate)	5.3	10.0	10.0	10.0	11.8	16.2	13.4	9.2	10.724
Add income for DTL's created with PP&E capex to reflect cash tax<GAAP tax	1.4	1.4	1.7	1.7	1.4	1.6	1.1	1.1	1.1
Add amortization charge for intangibles (was 90% and 80%)	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.6	1.369
Add optionality premium for near/intermediate investments with cash>(1-year insurance losses) + \$30 billion	2.7	2.3	3.8	5.5	3.2	0.2	0.7	6.2	7.318
<u>Reduce net income to reflect higher normalized pension expense</u>	<u>-0.5</u>	<u>-0.5</u>	<u>-0.4</u>	<u>-0.4</u>	<u>-0.4</u>	<u>-0.3</u>	<u>0.0</u>	<u>0.0</u>	<u>-0.001</u>
Normalized Recurring GAAP Adjustment to Economic Earnings (before removing realized g/l)	\$ 9.9	\$ 14.1	\$ 16.0	\$ 17.9	\$ 17.1	\$ 18.7	16.5	18.1	\$ 20.510
Periodic or Irregular in Amount or One-Time Adjustments to GAAP Net Income									
Remove realized and unrealized gains/losses, including from derivative liabilities; 21% tax rate beginning 2018	-1.4	17.7	-57.4	-31.6	-62.3	53.6	-59.1	-41.7	-28.69
Remove reported underwriting gain/loss	2.2	-1.6	-0.3	-0.7	-0.9	0.03	-5.4	-9.0	-7.597
Add normalized underwriting profit, retroactive reinsurance and periodic payment annuity losses	2.1	2.2	2.4	2.6	2.7	2.9	4.3	4.7	4.9
Berkshire TCJA Adjustment one-time non-cash	-28.2								
Kraft Heinz TCJA Adjustment one-time non-cash	-1.7								
Write-down after-tax of PCC 2020 (\$10B goodwill and \$0.4B net intangibles)				10.4					
PacifiCorp Wildfires Loss Accruals							1.3	0.3	0.2
Total Periodic or Irregular in Amount or One-Time Adjustments to GAAP Net Income	\$ (27.0)	\$ 18.3	\$ (55.3)	\$ (19.3)	\$ (60.4)	\$ 56.6	-58.9	-45.8	\$ (31.1)
GAAP Net Earnings (From Income Statement)	\$ 44.9	\$ 4.0	81.4	42.5	89.8	-22.8	96.2	89.0	70.697
Total Adjustment	\$ (17.2)	\$ 32.4	\$ (39.3)	\$ (1.4)	\$ (43.3)	\$ 75.3	-42.5	-27.7	\$ (10.6)
Semper Adjusted Net Income: Economic Earnings ^*	\$ 27.8	\$ 36.4	\$ 42.1	\$ 41.1	\$ 46.5	\$ 52.5	53.8	61.3	\$ 60.069

Source: Semper Augustus; Berkshire Hathaway and Subsidiary SEC Filings

Annual adjustments are all over the map. Big movers are removing year-to-year gains and losses from investments and to a lesser degree short-term underwriting results, replacing each with logical normalization factors. Volatility in marketable securities and underwriting make analyzing the operations of Berkshire's reported results impossible. Assessing economic profitability requires an understanding of accounting strengths and weaknesses. Sometimes GAAP is CRAAP.

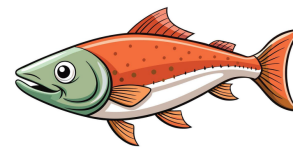
In total, the process eliminates the reported volatility that comes with owning a large portfolio of common stocks as well as the period-to-period swings in underwriting profitability among a diverse group of insurers. We capture the degree to which some intangibles do not decay in value; whether or when Berkshire will invest its cash reserves and into how much incremental earning power; the proper economic versus accounting treatment of insurance "float"; the difference between reported and cash taxes actually paid, now and prospectively. The process gets us to a durable appraisal of earning power.

Methods and granular estimates used in our process are open to debate. Berkshire is so diverse that the number of adjustments required in arriving at an understanding of durable earning power makes for quite an exercise. An equally important method for valuing Berkshire is through an analysis of its individual components, or at least large clusters of groups. A sum-of-the-parts analysis reconciles closely with GAAP adjustments made to the rolled-up consolidated financial statements because adjustments made within the "parts" are also incorporated top down. Accounting adjustments applied to the whole also apply individually to the segments. The analyst can choose to modify assumptions used at each step, adopt some, or dismiss the method entirely. The GAAP adjusted approach reconciling against other methods used discerns what we believe is a conservative appraisal of Berkshire Hathaway's intrinsic value. Following the adjustments allows for a straightforward method of converting GAAP reported quarterly and annual figures to normalized.

It's important that our clients understand how we view measurement of earning power at what has been Semper's largest holding for more than two decades. Any concern that a public presentation of the approach would drive the stock up to fair value and make the shares unbuyable has been proven not a concern. Warren Buffett and Charlie Munger long wondered at Berkshire's annual meeting why so few emulate a system that's worked so well for what's now 61 years. To the extent the shares trade with a sizable and persistent discount to a reasonable appraisal of intrinsic value suits us just fine. Price matters, but only if one appreciates value.

SUMMARY

Property/casualty insurance companies must file their statutory annual statement, known in industry parlance as the “Yellow Book,” by March 1 each year. Yellow denotes the color of the report (blue for life, orange for health, salmon for title insurance). Yes, salmon. Berkshire being the big fish in the property/casualty game, and Berkshire being Berkshire, always files its annual report on the last Saturday morning in February. Semper being Semper, we always try to publish our too-long annual letter, replete with ongoing discussion of Berkshire, in advance of Berkshire releasing its annual report. Last year, the final February Saturday fell on February 22, and we released the Semper letter late on Friday night February 21. Asking ChatGPT four weeks ago when Berkshire would release its annual report this year, the LLM over-hallucinated itself and predicted Saturday February 21, 2026. Ha ha! We knew better, and thus the pressure of an earlier deadline was incorrect.



I can assure you, however, that knowing we had an extra week this year to write did not mean your author meant to again to *not* shrink the letter, as promised to Berkshire’s now-retired CEO four years ago. Not only did the letter not shrink by 2.6 pages this year but grew by 16, or something like that. It just happened. It wasn’t like a Chuck Prince thing about the music still playing. Late in the game, knowing the page count was mounting, I even contemplated not including the “Intrinsic Value Update” section for Berkshire and just inserting our updated tables. But you have my word, this will be the top. Call it the secular peak of the Semper annual letter. Dare I call it the secular plateau? As I’m resolved to keeping this summary to two pages, let’s move on.

As we go to print, not only may our stab at tackling the capital cycle bubble that is AI be timely, but it may also be too late, possibly untimely. Over the past several weeks it seems every day one of the LLMs is going to eviscerate an industry. Down goes enterprise software. Down goes wealth management. Down goes information technology and consulting. Down goes information databases. Down goes Frazier. The list goes on. At the same time, while AI is seemingly and quickly disrupting everything, the stocks of the companies spending the money to build the AI to do the disrupting are themselves getting battered. Every one of the Magnificent Seven are down for the year to date. Five of the seven trailed the S&P 500 in 2025 and all are behind again this year. Who knows where this winds up, but the one thing that *is still going up* is the capital expenditure budgets of the hyperscalers. So far, knock on wood, Semper’s stocks have been spared. It’s hard to see AI disrupting a dollar store in Knob Knoster, Missouri. Or a chlor-alkali plant in Freeport, Texas. Or the manufacturer and retailer of \$40,000 (or more) handmade Swiss watches.

Extreme concentration atop the U.S. stock market occurs at secular peaks, and the U.S. capitalization-weighted stock market has never been more concentrated or more overvalued. The excesses are not just in technology or in seven stocks. Perhaps 60 to 100 of the largest companies have shares priced to perfection. Fortunately, there remains an underbelly of the market rich with undervalued shares. The degree of disruption is happening quickly. Volatility is always our friend. We managed to take advantage of various situations recently, investing a lot of money in good companies at very attractive prices. More than a few rose in price last year, contributing to our 41.4% net investment return.

The portfolio remains in great shape. Even with an outsized gain last year, ongoing business value growth combined with our active management – shifting capital from the dear to the cheap within the portfolio and the occasional new business – the portfolio remains attractive. At a 12.2x multiple to earnings, 47% of the S&P 500’s 26.0x multiple, we enter 2026 both absolutely and relatively undervalued. The portfolio trades for an even lower 44% of the S&P’s multiple to book value and 35% of its multiple to sales, respectively. Our companies have a far healthier collective balance sheet, outstanding managements in place, and generally excellent prospects to reinvest earnings not distributed as dividends. Valuation and business quality combine to hopefully match or surpass investment returns earned over the past 27 years.

Despite sizable gains over the prior two years (and an unusually *normal* return in 2025), Berkshire's shares remain undervalued, albeit not at as wide of a discount to intrinsic value as existed in the intermediate past. Thanks to de-risking the investment portfolio by massively trimming the now expensive Apple investment over the past couple years, Berkshire sits on a mountain of dry powder. The company now under Greg Abel's leadership is poised to take advantage of eventual and certain volatility and disruption. The cash pile is so large today that cash alone is nearly 3x all of the debt used across Berkshire's subsidiaries. You won't find more conservative accounting and outstanding governance anywhere. Having all of these rare qualities in one business suggests reliably predictable returns for years to come. The Berkshire position will *not* be our highest performing. It is, however, our most knowable and predictable. We use the investment as our standard of opportunity cost regarding valuation, business quality and expected return, the ideal hurdle.

The annual letter wouldn't be what it is (for those who like it) without again thanking Lincoln Minor. For many years Linc slogged through difficult-to-read drafts. His editing skill is simply extraordinary. Lincoln retired in early 2025 from a very important position at the USDA. While DOGE most certainly placed the safety of our nation's food supply in harm's way, the Semper letter benefited. Instead of dedicating long weekends and evening hours helping make this document readable, outside of shoveling yards of snow, Linc had much more time this year to toil at his computer. You will see Lincoln often running around Omaha with me. Say hi to him, and if you enjoy the letter, let him know how valuable he is. Thank you again, my friend.

Another dear friend in Frank Manzella returned this year to organize and edit important parts of the letter. While Frank hasn't followed Lincoln into retirement, he managed to spend scarce time adding phenomenal contributions this year. You know Frank is a Georgetown-educated undergrad and JD because he will tell you so (usually a Notre Dame joke). But he knows grammar and logic. I really do know it because he likes to point out that he fixes my use of passive voice. I am still trying to figure it out. Frank was traveling to California for meetings this week or he would have been able to pitch in with this summary.

Semper is blessed with an exceedingly talented team of amazing individuals. They are a *pleasure* to work with. I know that you will *not* find a group of people with a better demeanor and who provide better client service. We will never approach the mission and our duty of caring for your capital with anything short of our undivided focus and fiduciary care. I confidently speak for Chad and the team in saying we like having your trust. As always, we remain humbled by your confidence.

We owe a debt of gratitude to so many of you who devote the time to reading this letter each year. It's a labor of love for me. I always learn during the process, making the effort worthwhile. Delving into subjects beyond day-to-day company and industry analysis forces the mind outside the box. Your commitment to the letter and to understanding the investment process allows for wonderful relationships. We look forward to catching up throughout the rest of the year.

And now I'm headed to the left bank to look for my friend Palmer. He was last seen in 2009 around Margaux but may have found a place nearby that's about 55 degrees. Cheers to another letter. And to Warren. What a ride.

Christopher P. Bloomstran

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APPENDIX

Appendix A: Key Business Segment Information – Berkshire Hathaway 2025 Expected

Berkshire Hathaway Energy (100.0% owned in 2024)		BNSF		HoldCo	
Revenues Total	\$26.4 B	Revenues	\$23.6 B	KHC 27.5%; 325,635m shares (MV \$7.897 B 2025; cash cost \$9.8 B)	\$8.674
Energy Operating Revenue	\$21.9 B	EBIT	\$8.1 B	KHC Market Value Adjustment (After \$5.0B Write-off 2Q25)	-\$0.777
Real Estate Operating Revenue	\$4.3 B	Pre-tax Income	\$7.1B	Additional KHC Deferred Tax Liability/Asset not on BS	\$0
Other Income (Loss)	\$0.13 B	Net Income (Tax Rate now 22.8.0%)	\$5.3 B	OXY 26.2% common; 264.94m shares (MV \$10.894; cash cost \$14.5B)	\$17.265
Pre-tax Income (Excludes gain/loss BYD and invest.)	\$2.5 B	Net Income (cash tax adjusted)	\$5.8 B	OXY Market Value Adjustment	-\$6.371
Income Tax Expense (Benefit)	\$-1.7 B	Normalized Net Income	\$7.0 B	Additional OXY Deferred Tax Liability/Asset not on BS	\$0
Net Income (GAAP)	\$4.2 B	Goodwill (BNSF SEC and STB filings)	\$15.4 B	Other Equity Method (Berkadia, ETT(in BHE))	\$0.451
Non-Controlling Interests of BHE Subs	\$0.146 B	Equity (GAAP filings)	\$51.6 B	Cash	\$93.532
Net Earnings Attributable to BHE	\$4.03 B	Total Assets	\$96.9 B	TOTAL HOLDCO ASSETS	\$112.774
Non-Controlling Interests (n/a after 2024)	\$0.0 B	Debt (with operating lease liability)	\$24.2 B	Debt	\$22.500
Preferred Stock Dividend to BRK	\$0 B	Cash	\$2.0 B	Additional HoldCo Deferred Tax Liability (All balance to MSR)	\$1.000
Net Earnings Attributable to BRK	\$4.03 B	Interest	\$1.096 B	HOLDCO NET ASSETS	\$89.274
Net Earnings Attributable to BRK and BHE (Adjusted for cash tax	\$4.53 B	After-Tax Interest	\$0.865 B	KHC Eq Method Earnings (increase cost basis; (e) full 21% tax difference)	\$0.369
		Deferred Tax Liability	\$16.0 B	Divs KHC (\$520m; Reduce basis; Not an offset to Income)	\$0
		Depreciation and Amortization	\$2.7 B	OXY Equity Method Earnings (Increase cost basis; (e) full 21% tax difference)	\$0.299
		Capital Expenditures	\$3.7 B	Divs OXY (\$206m; Reduce basis; Not an offset to Income)	\$0
		ROE GAAP Net Income	10.6%	Other Equity Method Earnings	\$0.086
		ROE Adjusted for Cash Taxes 13.0% Normalized	11.4%	Distributions Received Other Eq Method (\$56m; Reduce basis; Not an offset)	\$0
		ROC 11.1% Normalized	9.1%	Intangible Amortization of Non-MSR Subs Taxed at 21%	\$0.875
		Estimated Value	\$120-140 B	Interest Income; tax 21%	\$3.507
		Implied P/E (on net adjusted for cash taxes)	17-20	Optionality of Holdco Cash with \$30B permanent: \$63.5B @ 7.0% - 3.75%; tax 21 \$2.065	
Net Earnings Adjust PacifiCorp Wildfires 0.4B pretax	\$4.8 B	MSR Businesses + Finance & Financial Products + Pilot + McLane		Interest Expense (Not allocated to subs; 1.45% interest rate!!!)	-\$0.636
Reported Tax Rate (Derived MD&A-not cash adjusted)	-66.0%	Revenues	\$216.1 B	G&A (Not allocated to subs)	-\$0.326
Cash Tax Rate (Deferred taxes exceed reported tax)	-88.3%	Pre-Tax Income (Includes MSR Intangibles Amortization)	\$17.6 B	Forex gains/losses on non-US denominated debt (E \$0.653 B 2025 net loss)	\$0.000
Goodwill (From BHE 10-Q, 10-K)	\$11.8 B	Pre-tax Margin	8.2%	Normalizing Net Pension Expense for GAAP Adjustment (Expect Fully Fd 2023)	-\$0.001
Deferred Tax Liability (Including investments)	\$12.8 B	Net Income at 23.4% assumed tax rate	\$13.64 B	Net Investment Income Pre-Tax	\$6.238
Amortization of Intangibles	\$0.257 B	Profit margin	6.3%	Net Investment Income After-Tax	\$4.928
Depreciation	\$4.0 B	Goodwill (Net of 2020 PCP \$10B Write-down)	\$40.9 B		
Capital Expenditures	\$10.8 B	Other Intangibles	\$31.7 B	Estimated Value (Investments - HoldCo Debt)	\$89.3
BYD (Sold Remainder 1Q25; \$232m to \$7.5B)	\$0.0 B	Total Assets (Identifiable + Intangibles)	\$236.1 B		
Equity (Including Non-Controlling Interests)	\$54.7 B	Equity	\$158.7 B		
BHE Non-Controlling Int (75% Cove, 50% Iroquois and ETT)	\$1.256 B	DTL (Unallocated estimate)	\$9.0 B		
Equity Net of BHE Non-Controlling Interests	\$53.4 B	Depreciation of Tangible Assets	\$4.642 B		
Total Assets	\$146.1 B	Capital Expenditures	\$4.875 B		
Debt	\$58.1 B	Total Debt	\$23.1B		
Cash	\$2.2 B	Cash	\$17.8 B		
Interest	\$2.8 B	Interest	\$1.376 B		
After-Tax Interest	\$2.219 B	After-Tax Interest	\$1.087 B		
ROE GAAP w/ % DTL; Includes Goodwill)	7.9%	ROE	8.6%		
ROE (Adjusted for cash taxes)	9.0%	ROTE (Excluding Goodwill & Other Intangibles)	15.8%		
ROC Net of Cash	6.2%	ROC Net of Cash	8.9%		
Estimated Value; No Additional Wildfire Liability Assigned	\$86-91 B	Estimated Value	\$245-275 B		
Implied P/E	19-20	Implied P/E	18-19		

Insurance Operations - Estimated at December 31, 2025		Insurance Investments (December 31, 2025 estimated)	
Premiums Earned (Excludes Retroactive Premiums Earned)	\$89.6 B	Equity Securities (Includes \$8.5B OXY Pfd's was 10.0B and 1.306B Warrants)	\$291.8 B
Statutory Surplus (Insurance Equity)	\$353 B	Fixed Income Securities	\$17.7 B
Book Value GAAP Equity	\$356 B	Cash	\$252.1B
Float	\$178 B	Other (\$0 was \$0.850 BHE Pfd: Was 3.75, 1.45 paid 21, 800 paid 22; Seritage Term Loan)	\$5.1 B
Losses Paid	\$56.6 B	Total Investment Assets	\$566.7 B
Expected After-Tax Underwriting Gain 2025	\$7.6 B	<u>Investment Income and Earnings (to reconcile)</u>	
Normalized Underwriting Margin: 5% Pre-tax (Ex Retro and PPA Amortization)	\$4.5 B	Dividends (Annualized at 12/31; Excludes OXY Pfd) Tax at 13.125% for less than 20% owned	\$3.680 B (1.27% div yield)
Normalized Retroactive and Periodic Payment Annuity Margin Adjustment	\$1.67 B	Retained Earnings of Common Stocks; Tax at 3%	\$11.056 B (3.78% REY)
Combined Normalized Pre-tax Underwriting Profit	\$6.2B	Total Earnings of Common Stocks	\$14.736 B (19.8x P/E; 5.05% EY)
Normalized Underwriting Net Profit	\$4.9 B	Hypothetical Earnings of Stocks at 10% Annual Total Return; 1.8% DY; 8.2% EY	\$29.180 B
Goodwill (Includes \$3.1 B from Alleghany)	\$16.6 B	Divs on OXY Preferred (Recently paid as cash)	\$0.680
Other Intangibles (All from Alleghany \$2.659 Initially)	\$2.526 B	Interest on Fixed Income and Cash; Tax at 21%	\$10.5 B
DTL (Investment Gain+Def Charges Reins-Unpaid Losses/LAE-Unearned Premiums)	\$53.2B		
Insurance Estimated Value		Total Pre-Tax Earnings of Investments	\$25.916 B
Total Investment Assets	\$566.7 B	Optionality of Cash > One-Year Losses Paid #	\$6.354 B
Stocks premium/discount	\$0 B	Pre-tax Earnings with Optionality of Surplus Cash **	\$32.270 B
Capitalized Value from Underwriting	\$73.5 B	Paid and Hypothetical Taxes (11.0% blended; RE of stocks 3%)	\$4.447 B
Estimated Value; Implied P/E 20.75x	\$640 B	Investment Net Income	\$27.8 B

Appendix B – Capital Expenditures and Depreciation; Deferred-Tax Liabilities

CAPITAL EXPENDITURES AND DEPRECIATION; DEFERRED TAX LIABILITIES																							
(Dollars in millions)																							
Berkshire Total (All Operating Businesses)																							
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 E	Total
Capital Expenditures	1,278	2,195	4,571	5,373	6,138	4,937	5,980	8,191	9,775	11,087	15,185	16,082	12,954	11,708	14,537	15,979	13,012	13,276	15,464	19,409	18,976	20,633	246,740
Depreciation	941	982	2,066	2,407	2,810	3,127	4,279	4,683	5,146	5,418	6,215	6,673	7,411	7,719	8,386	8,747	9,319	9,465	9,666	10,658	12,208	13,236	141,562
Difference	337	1,213	2,505	2,966	3,328	1,810	1,701	3,508	4,629	5,669	8,970	9,409	5,543	3,989	6,151	7,232	3,693	3,811	5,798	8,751	6,768	7,397	105,178
BHE																							
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (E)	Total
Capital Expenditures			2,423	3,513	3,936	3,413	2,593	2,684	3,380	4,307	6,555	5,876	5,090	4,571	6,241	7,364	6,765	6,611	7,505	9,148	9,013	10,803	111,791
Depreciation			949	1,157	1,128	1,246	1,262	1,333	1,440	1,577	2,177	2,451	2,560	2,548	2,830	2,947	3,376	3,584	3,702	3,913	4,003	4,257	48,440
Difference	-	-	1,474	2,356	2,808	2,167	1,331	1,351	1,940	2,730	4,378	3,425	2,530	2,023	3,411	4,417	3,389	3,027	3,803	5,235	5,010	6,546	63,351
BNSF																							
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (E)	Total
Capital Expenditures							1,829	3,325	3,548	3,918	5,243	5,651	3,819	3,256	3,116	3,608	3,063	2,910	3,532	3,920	3,690	3,697	58,125
Depreciation							1,221	1,480	1,573	1,655	1,804	1,932	2,079	2,304	1,890	2,350	2,423	2,406	2,479	2,581	2,621	2,727	33,525
Difference	-	-	-	-	-	-	608	1,845	1,975	2,263	3,439	3,719	1,740	952	1,226	1,258	640	504	1,053	1,339	1,069	970	24,600
BHE + BNSF																							
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 (E)	Total
Capital Expenditures			2,423	3,513	3,936	3,413	4,422	6,009	6,928	8,225	11,798	11,527	8,909	7,827	9,357	10,972	9,828	9,521	11,037	13,068	12,703	14,500	169,916
Depreciation			949	1,157	1,128	1,246	2,483	2,813	3,013	3,232	3,981	4,383	4,639	4,852	4,720	5,297	5,799	5,990	6,181	6,494	6,624	6,984	81,965
Difference	-	-	1,474	2,356	2,808	2,167	1,939	3,196	3,915	4,993	7,817	7,144	4,270	2,975	4,637	5,675	4,029	3,531	4,856	6,574	6,079	7,516	87,951
DEFERRED TAX LIABILITIES *																							
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 **	2018	2019	2020	2021	2022	2023	2024	2025 (E)	
Investments	11,020	11,882	14,520	13,501	4,805	11,880	13,376	11,404	16,075	25,660	26,633	36,770	27,669	24,251	17,765	32,134	40,181	55,437	41,150	56,766	47,158	53,237	
Def Ch Reinsurance Assumed	955	828	687	1,395	1,373	1,385	1,334	1,449	1,392	1,526	2,721	2,798	2,876	3,226	2,970	2,890	2,613	2,234	2,073	1,994	1,847	1,894	
PP&E	1,201	1,202	4,775	4,890	7,004	8,135	24,746	28,414	29,715	32,409	34,618	36,770	39,345	26,671	28,279	29,388	30,203	31,323	32,080	32,991	33,590	34,000	
Goodwill and Intang												2,770	11,344	7,204	7,199	7,293	6,753	6,748	7,010	7,546	7,498	7,400	
Other	1,174	1,165	2,591	2,743	4,024	4,236	5,108	6,378	6,485	6,278	6,396	4,555	5,550	3,216	3,187	3,144	3,736	4,094	4,695	4,452	5,043	5,200	
Total	14,350	15,077	22,573	22,529	17,206	25,636	44,564	47,645	53,667	65,873	70,368	83,663	86,784	64,568	59,400	74,849	83,486	99,836	87,008	103,749	95,136	101,731	

Source: Semper Augustus

Appendix C – Cash and GAAP Tax Reconciliation

CASH TAXES AND GAAP TAXES																										
	Cumulative	2025 (e)	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003		
Earnings Before Tax	858,730	86,672	110,376	120,166	-	30,500	111,861	55,693	102,696	4,001	23,838	33,667	34,946	28,105	28,796	22,236	15,314	19,051	11,552	7,574	20,161	16,778	12,791	10,936	12,020	
GAAP Taxes **	194,540	15,683	20,815	23,019	-	8,502	20,912	12,440	20,904	-	321	6,685	9,240	10,532	7,935	8,951	6,924	4,568	5,607	3,538	1,978	6,594	5,505	4,159	3,569	3,805
Net Income *	664,190	70,989	89,561	97,147	-	21,998	90,949	43,253	81,792	4,322	17,153	24,427	24,412	20,170	19,845	15,312	10,746	13,494	8,441	4,994	13,213	11,015	8,528	7,308	8,151	
Tax Rate	22.7%	18.1%	18.9%	19.2%	27.9%	18.7%	22.3%	20.4%	-8.0%	28.0%	27.4%	30.1%	28.2%	31.1%	31.1%	29.8%	29.4%	30.6%	26.1%	32.7%	32.8%	32.5%	32.6%	31.7%		
Current Taxes	116,261	10,511	11,568	7,642	4,815	5,326	5,052	5,818	5,176	3,299	6,565	5,426	3,302	5,168	4,711	2,897	3,668	1,619	3,811	5,708	5,030	2,057	3,746	3,346		
Deferred Taxes	77,902	5,172	8,870	15,377	-	13,317	15,586	7,388	15,086	-	5,497	3,386	2,675	5,106	4,633	3,783	2,213	1,671	1,939	1,919	-	1,833	886	475	177	459
Total Tax	194,163	15,683	20,438	23,019	-	8,502	20,912	12,440	20,904	-	321	6,685	9,240	10,532	7,935	8,951	6,924	4,568	5,607	3,538	1,978	6,594	5,505	4,159	3,569	3,805
Current as Percent of Total Tax	59.9%	67.0%	56.6%	33.2%	-56.6%	25.5%	40.6%	27.8%	-1612.5%	49.3%	71.0%	51.5%	41.6%	57.7%	68.0%	63.4%	65.4%	45.8%	192.7%	86.6%	91.4%	49.5%	105.0%	87.9%		
Deferred as Percent of Total Tax	40.1%	33.0%	43.4%	66.8%	156.6%	74.5%	59.4%	72.2%	1712.5%	50.7%	29.0%	48.5%	58.4%	42.3%	32.0%	36.6%	34.6%	54.2%	-92.7%	13.4%	8.6%	50.5%	-5.0%	12.1%		
Current Tax Rate	13.5%	12.1%	10.5%	6.4%	-15.8%	4.8%	9.1%	5.7%	129.4%	13.8%	19.5%	15.5%	11.7%	17.9%	21.2%	18.9%	19.3%	14.0%	50.3%	28.3%	30.0%	16.1%	34.3%	27.8%		
Deferred Tax Rate	9.1%	6.0%	8.0%	12.8%	43.7%	13.9%	13.3%	14.7%	-137.4%	14.2%	7.9%	14.6%	16.5%	13.1%	10.0%	10.9%	10.2%	16.6%	-24.2%	4.4%	2.8%	16.4%	-1.6%	3.8%		
Total Tax Rate	22.6%	18.1%	18.5%	19.2%	27.9%	18.7%	22.3%	20.4%	-8.0%	28.0%	27.4%	30.1%	28.2%	31.1%	31.1%	29.8%	29.4%	30.6%	26.1%	32.7%	32.8%	32.5%	32.6%	31.7%		

Source: Semper Augustus

MANUFACTURING, SERVICE AND RETAIL GROUP SUMMARY FINANCIAL FIGURES 2003 TO 2025

	2025E	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
Assets																							
Cash and equivalents	\$17,849	\$15,553	\$20,571	\$17,813	\$17,863	\$27,830	\$19,547	\$18,313	\$13,519	\$8,073	\$6,807	\$5,765	\$6,625	\$5,338	\$4,241	\$2,673	\$3,018	\$2,497	\$2,080	\$1,543	\$1,004	\$899	\$1,250
Accounts and notes receivable	\$48,938	\$43,887	\$46,261	\$41,181	\$35,388	\$32,681	\$33,711	\$32,332	\$28,081	\$11,183	\$8,886	\$8,264	\$7,749	\$7,382	\$6,584	\$5,396	\$5,066	\$5,047	\$4,488	\$3,793	\$3,287	\$3,074	\$2,796
Loans and Finance Receivables	\$29,327	\$27,798	\$24,681	\$23,208	\$20,751	\$19,201	\$17,327	\$16,280															
Inventory	\$25,319	\$24,008	\$25,856	\$25,366	\$20,954	\$19,208	\$19,852	\$19,069	\$17,366	\$15,727	\$11,916	\$10,236	\$9,945	\$9,675	\$8,975	\$7,101	\$6,147	\$7,500	\$5,793	\$5,257	\$4,143	\$3,842	\$3,656
Other current assets	?	?	?	?	?	?	?	?	?	\$1,039	\$970	\$1,117	\$716	\$734	\$631	\$550	\$625	\$752	\$470	\$363	\$342	\$254	\$262
Total current assets	\$121,433	\$111,246	\$117,369	\$107,568	\$94,956	\$98,920	\$90,637	\$85,994	\$59,766	\$36,022	\$28,379	\$23,582	\$23,035	\$23,129	\$20,431	\$15,720	\$14,856	\$15,796	\$12,831	\$10,956	\$8,776	\$8,069	\$7,964
Goodwill and other intangibles	\$72,561	\$72,541	\$73,787	\$60,919	\$60,422	\$61,358	\$72,219	\$70,611	\$71,503	\$71,473	\$30,289	\$28,107	\$25,617	\$26,017	\$24,755	\$16,976	\$16,499	\$16,515	\$14,201	\$13,314	\$9,260	\$8,362	\$8,351
Fixed assets	\$30,736	\$30,071	\$30,199	\$20,378	\$20,834	\$21,200	\$21,438	\$20,628	\$19,868	\$18,915	\$15,161	\$13,806	\$19,389	\$18,871	\$17,866	\$15,421	\$15,374	\$16,338	\$9,605	\$8,934	\$7,148	\$6,161	\$5,898
Other assets (equipment held for lease)	\$18,250	\$17,828	\$16,947	\$15,584	\$14,918	\$8,360	\$8,215	\$9,307	\$9,391	\$3,183	\$4,445	\$3,793	\$4,274	\$3,416	\$3,661	\$3,029	\$2,070	\$1,248	\$1,685	\$1,168	\$1,021	\$1,044	\$1,054
Total assets	\$242,980	\$231,686	\$238,302	\$204,449	\$191,130	\$189,838	\$192,509	\$186,540	\$160,528	\$129,593	\$78,474	\$71,088	\$74,315	\$71,433	\$66,713	\$51,146	\$48,799	\$49,897	\$38,322	\$34,372	\$26,205	\$23,636	\$23,267
Liabilities and Equity																							
Notes payable	\$1,320	\$1,315	\$1,187	\$1,310	\$342	\$1,062	\$1,472	\$1,857	\$1,832	\$2,054	\$2,135	\$965	\$1,615	\$1,454	\$1,611	\$1,805	\$1,842	\$2,212	\$1,278	\$1,468	\$1,469	\$1,143	\$1,593
Accounts payable	\$38,172	\$37,489	\$36,559	\$33,201	\$30,376	\$29,279	\$27,611	\$31,314	\$26,545	\$12,464	\$10,565	\$9,734	\$8,965	\$8,327	\$15,124	\$8,169	\$7,414	\$8,087	\$7,652	\$6,635	\$5,371	\$4,685	\$4,300
Total current liabilities	\$39,492	\$38,804	\$37,746	\$34,511	\$30,718	\$30,341	\$29,083	\$33,171	\$28,377	\$14,518	\$12,700	\$10,699	\$10,580	\$9,981	\$16,735	\$9,974	\$9,256	\$10,299	\$8,930	\$8,103	\$6,840	\$5,828	\$5,893
Deferred taxes (net)	\$7,996	\$8,996	\$8,574	\$7,608	\$9,756	\$9,900	\$12,325	\$10,100	\$9,550	\$12,044	\$3,649	\$3,801	\$5,184	\$4,907	\$4,661	\$3,001	\$2,834	\$2,786	\$828	\$540	\$338	\$248	\$105
Term debt and other liabilities	\$21,797	\$22,479	\$28,300	\$23,835	\$17,521	\$17,795	\$16,215	\$16,247	\$19,810	\$10,943	\$4,767	\$4,269	\$4,405	\$5,826	\$6,214	\$6,621	\$6,240	\$6,033	\$3,079	\$3,014	\$2,188	\$1,965	\$1,890
Aircraft repurchase / unearned lease	\$10,052	\$9,356	\$8,253	\$6,820	\$5,849	\$5,856	\$5,281	\$4,593															
Total liabilities	\$69,285	\$70,279	\$74,820	\$65,954	\$57,995	\$58,036	\$57,623	\$59,518	\$57,737	\$37,505	\$21,116	\$18,769	\$20,169	\$20,714	\$27,610	\$19,596	\$18,330	\$19,118	\$12,837	\$11,657	\$9,366	\$8,041	\$7,888
Non-controlling interests	\$1,030	\$1,007	\$980	\$729	\$921	\$635	\$607	\$572	\$570	\$579	\$521	\$492	\$456	\$2,062	\$2,410	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Berkshire equity	\$172,665	\$160,400	\$162,502	\$137,766	\$132,214	\$131,167	\$134,279	\$126,450	\$102,221	\$91,509	\$56,837	\$51,827	\$53,690	\$48,657	\$36,693	\$31,550	\$30,469	\$30,779	\$25,485	\$22,715	\$16,839	\$15,595	\$15,379
Equity w/ PCP \$10.6B W/D add back	\$183,265	\$171,000	\$173,102	\$148,366	\$142,814	\$141,767																	
Shareholder Equity Reconcile After Dividend	\$161,831																						
Income Statement																							
Revenues	\$216,077	\$215,903	\$219,747	\$167,293	\$153,012	\$134,097	\$142,675	\$148,809	\$126,533	\$120,059	\$107,825	\$97,689	\$95,291	\$83,255	\$72,406	\$66,610	\$61,665	\$66,099	\$59,100	\$52,660	\$46,896	\$44,142	\$32,106
Operating expenses including Interest	\$198,453	\$199,060	\$202,153	\$150,293	\$137,874	\$122,410	\$129,332	\$128,501	\$117,026	\$111,383	\$100,607	\$90,788	\$88,414	\$76,978	\$67,239	\$62,225	\$59,509	\$61,937	\$55,026	\$49,002	\$44,190	\$41,604	\$29,885
Net interest expense	\$1,376	\$905	\$885	\$781	\$586	\$798	\$416	\$265	\$264	\$214	\$103	\$109	\$135	\$146	\$130	\$111	\$98	\$139	\$127	\$132	\$83	\$57	\$64
Pre-tax income	\$17,624	\$16,843	\$17,589	\$16,219	\$14,552	\$10,889	\$12,365	\$12,308	\$9,243	\$8,462	\$7,115	\$6,792	\$6,742	\$6,131	\$5,037	\$4,274	\$2,058	\$4,023	\$3,947	\$3,526	\$2,623	\$2,481	\$2,157
Non-controlling interest	\$133	\$322	\$116	\$107	\$63	\$63	\$64	\$64	\$61	\$53	\$65	\$64	\$57	\$249	\$310	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Income taxes	\$3,895	\$3,655	\$3,905	\$3,600	\$3,340	\$2,526	\$2,929	\$2,880	\$2,974	\$2,778	\$2,367	\$2,260	\$2,455	\$2,183	\$1,688	\$1,812	\$945	\$1,740	\$1,594	\$1,395	\$977	\$941	\$813
Net Income	\$13,596	\$12,866	\$13,568	\$12,512	\$11,149	\$8,300	\$9,372	\$9,364	\$6,208	\$5,631	\$4,683	\$4,468	\$4,230	\$3,699	\$3,039	\$2,462	\$1,113	\$2,283	\$2,353	\$2,131	\$1,646	\$1,540	\$1,344
Income tax rate	22.1%	21.7%	22.2%	22.2%	23.0%	23.2%	23.7%	23.4%	32.2%	32.8%	33.3%	33.3%	36.4%	35.6%	33.5%	42.4%	45.9%	43.3%	40.4%	39.6%	37.2%	37.9%	37.7%
Profit Margin	6.29%	5.96%	6.17%	7.48%	7.29%	6.19%	6.57%	6.29%	4.91%	4.69%	4.34%	4.57%	4.44%	4.44%	4.20%	3.70%	1.80%	3.45%	3.98%	4.05%	3.51%	3.49%	4.19%
Return on Equity	7.87%	8.02%	8.35%	9.08%	8.43%	6.33%	6.98%	7.41%	6.07%	6.15%	8.24%	8.62%	7.88%	7.60%	8.28%	7.80%	3.65%	7.42%	9.23%	9.38%	9.77%	9.87%	8.74%
Return on Tangible Equity	13.58%	14.64%	15.29%	16.28%	15.53%	11.89%	15.10%	16.77%	20.21%	28.10%	17.64%	18.84%	15.07%	16.34%	25.45%	16.89%	7.97%	16.01%	20.85%	22.67%	21.72%	21.29%	19.12%
Return on Capital	8.48%	8.23%	8.48%	9.24%	8.90%	7.51%	7.47%	7.74%	5.96%	6.19%	8.73%	9.09%	8.48%	7.82%	8.19%	7.25%	3.59%	7.06%	9.36%	9.36%	9.59%	9.59%	8.79%
ROE w/ \$10.6B PCP W/D Added Back	7.42%	7.52%	7.84%	8.43%	7.81%	5.85%																	
Return on Equity 2025 Before Dirs	8.40%																						

Appendix E – Secular Peak and Trough Total Return Tables Dividend Methodology

S&P 500 Peaks & Troughs Dividend Adjusted Methodology

Context: For the 2024 client letter, Semper had a table showing the Cumulative & Annualized returns an investor would receive investing from either a peak to trough or trough to peak over a number of different time series. However, we couldn't get the exact peaks & troughs because we only had month end data for the S&P total return index. We had daily closing prices but lacked intra-month contribution from dividends.

This year, we used the daily price data for the S&P 500 back to 1929 from Trading View. We used this data to get the return strings from the actual peak/trough date to the month end date or vice versa to fill in the gaps. The return series is now a more accurate version of the peaks and troughs. Unfortunately, this return calculation did not include dividend returns in the inter-month periods.

Adding Back Dividends

So as to not neglect days of return from dividends (which over long periods is significant), dividends were added back to the inter-month returns by dividing the dividend yield of the S&P 500 for that month by 365, and then multiplying that percentage by the number of days in that time interval.

Ex: To adjust the return series from 3/10/1937 to 3/31/1937, the following was done:

The dividend yield for March 1937 was 4.15%.

4.15% divided by 365 yields 0.000113699

0.000113699 multiplied by 21 days is 0.24%

Subsequently, the return series from 3/10 to 3/31 was adjusted from:

-0.0402 to -0.0378

Appendix F -- Semper Augustus Investments Group Historical Returns

Composite Performance

Year End	Gross of Fees	Net of Fees	Net of Model Fees*	Gross of Fees Equities Only*	Net of Fees Equities Only*	Net of Model Fees Equities	MSCI All Country World Index	S&P 500
1999**	29.9%	28.8%	28.5%	29.1%	28.1%	27.8%	27.5%	19.9%
2000	26.8%	25.6%	25.2%	30.7%	29.5%	29.1%	-14.0%	-9.1%
2001	20.8%	19.7%	19.3%	23.1%	22.0%	21.5%	-15.9%	-11.9%
2002	-15.5%	-16.2%	-16.5%	-22.0%	-22.7%	-22.9%	-19.0%	-22.1%
2003	21.8%	20.8%	20.3%	38.2%	37.1%	36.5%	34.6%	28.7%
2004	9.2%	8.4%	7.9%	16.3%	15.5%	14.9%	15.8%	10.9%
2005	6.2%	5.4%	4.9%	7.4%	6.6%	6.0%	11.4%	4.9%
2006	14.2%	13.3%	12.8%	18.4%	17.5%	16.9%	21.5%	15.8%
2007	3.8%	3.0%	2.5%	3.1%	2.3%	1.9%	12.2%	5.5%
2008	-20.3%	-21.5%	-21.3%	-21.6%	-22.7%	-22.5%	-41.9%	-37.0%
2009	22.0%	20.8%	20.4%	27.9%	26.7%	26.3%	35.4%	26.5%
2010	12.8%	11.6%	11.4%	14.4%	13.2%	13.0%	13.2%	15.1%
2011	6.9%	6.1%	5.6%	7.1%	6.3%	5.8%	-6.9%	2.1%
2012	6.5%	5.7%	5.2%	6.8%	6.0%	5.5%	16.8%	16.0%
2013	15.5%	14.6%	14.0%	17.3%	16.4%	15.9%	23.4%	32.4%
2014	4.6%	3.8%	3.3%	5.2%	4.4%	3.9%	4.7%	13.7%
2015	-8.7%	-9.4%	-9.8%	-10.3%	-11.0%	-11.4%	-1.8%	1.4%
2016	22.1%	21.2%	20.6%	27.7%	26.8%	26.1%	8.5%	12.0%
2017	13.5%	12.6%	12.0%	18.0%	17.1%	16.5%	24.6%	21.8%
2018	-1.3%	-2.1%	-2.6%	-1.4%	-2.1%	-2.6%	-8.9%	-4.4%
2019	20.4%	19.5%	18.9%	23.6%	22.7%	22.1%	27.3%	31.5%
2020	11.2%	10.4%	9.8%	11.9%	11.1%	10.5%	16.8%	18.4%
2021	24.9%	24.0%	23.4%	27.3%	26.4%	25.7%	19.0%	28.7%
2022	1.9%	1.0%	0.6%	2.1%	1.2%	0.8%	-18.0%	-18.1%
2023	11.7%	10.8%	10.3%	12.1%	11.2%	10.7%	22.8%	26.3%
2024	7.9%	7.0%	6.6%	8.2%	7.3%	6.8%	18.0%	25.0%
2025	42.6%	41.4%	40.8%	44.9%	43.6%	43.1%	22.9%	17.9%

Firm Overview:

Semper Augustus Investments Group, LLC claims compliance with the Global Investment Performance Standards (GIPS®). For the purpose of complying with GIPS, SAI defines itself as Semper Augustus Investments Group, LLC, an independently registered investment adviser. For purposes of determining firm assets under management, SAI includes all discretionary and non-discretionary assets as well as all fee paying and non-fee paying.

Composite Description:

The Semper Augustus Fundamental Intrinsic Value Equity consists of portfolios managed for Semper Augustus' clients according to the firm's published investment philosophy. Semper Augustus employs a fundamental value investment strategy, identifying companies earning free cash returns in excess of a realistic estimate of the firm's cost of capital. Our firm defines risk as a permanent loss of capital, not as volatility around some mean. Portfolios have generally contained fewer than 30 holdings and are often concentrated in a small handful of businesses with high business quality and share prices at a significant discount to conservative appraisals of intrinsic business value. These dual margins of safety are crucial to the investment process, and lend themselves to generally long holding periods and low portfolio turnover. During periods of high volatility, turnover can be opportunistically higher. Investments are made across all market capitalizations, in both domestic and globally headquartered businesses. Our firm makes international investments in businesses domiciled in industrialized countries where the rule of law is strong and accounting standards are high. We are benchmark agnostic. Industry weightings are not a consideration. The composite includes the income and performance derived from various option-writing strategies in some client accounts. Allocations to cash are a byproduct of the investment process and not a permanent allocation. To be included in the composite, accounts must meet certain thresholds of equity securities purchased by SAI. This method generally excludes accounts that are managed as "balanced" accounts and client accounts that have not met the required threshold for inclusion. Cash and equivalents have been significant holdings at times.

Index Return Information:

The MSCI ACWI returns are gross of any fees required to replicate the index and are also pre-tax. The index is theoretically passive (unmanaged) but in reality, replication requires trading costs and some management fees. Fundamental Intrinsic Value Equity may differ materially from the index as the Fundamental Intrinsic Value Equity owns concentrated positions and the MSCI ACWI has a bias towards large cap stocks. Fundamental Intrinsic Value Equity has included varying investments in small, mid and large cap stocks in addition to investments in cash and short-duration fixed income securities. The MSCI ACWI is broadly used as an investment benchmark. The MSCI ACWI index is the benchmark for Fundamental Intrinsic Value Equity.

The S&P 500 returns are gross of any fees required to replicate the index and are also pre-tax. The index is theoretically passive (unmanaged) but in reality, replication requires trading costs and some management fees. The Fundamental Intrinsic Value Equity may differ materially from the index as the Fundamental Intrinsic Value Equity owns concentrated positions and the S&P 500 has a bias towards large cap stocks and holds only U.S. domiciled companies. Fundamental Intrinsic Value Equity has included varying investments in small, mid and large cap stocks, both foreign and domestic, in addition to investments in cash and fixed income securities. The S&P 500 is broadly used as an investment benchmark and is presented in this document to provide a clear measure of how the strategy did against the general stock market.

Composite Return Details:

Supervised assets are defined as assets acquired by SAI in client accounts based on the discretion granted in client agreements. This process involves the establishment of a model security and the dates whereby the security is held. For securities received into an account prior to or after the model period; directed purchases by a client; or corporate actions arising from non-model securities; these securities have been excluded from the supervised assets. SAI must have initiated the trade or the security was a model security when transferred into an account for its performance to be included in the composite.

Returns are presented both gross of management fee and net of management fees and performance fees and include the reinvestment of all income. The composite was created on March 1, 2018. The U.S. Dollar is the currency used to express performance.

Returns are presented net of all commissions and any margin interest expense incurred in the management of portfolio accounts. Composite management fees have been calculated as if the fees were charged each month based on the actual client contract rate on the month-end composite assets for each client. For family and employee accounts that do not pay a management fee, a fee of 1.25% was included in the composite management fees during the period when the accounts were included in the composite. Actual returns will be reduced by investment advisory fees and any other expenses that may be incurred in the management of the portfolio accounts. The collection of fees produces a compounding effect on the total rate of return net of management fees.

Gross of Fees Equities Only: Represents the actual performance of all equity securities included in the composite, including reinvested dividends. It is a pure equity only return and does not have any cash equivalents or fixed income securities included. Net of Fees Equity Only: Represents Gross of Fees Equities Only reduced by Composite management fees consistent with the net fee adjustment detailed above where Composite management fees have been calculated as if the fees were charged each month based on the actual client contract rate on the month-end composite assets for each client. For family and employee accounts that do not pay a management fee, a fee of 1.25% was included in the composite management fees during the period when the accounts were included in the composite. Net of Model Fees: Represents gross returns less the Firm's standard advisory fee, as disclosed in our Form ADV.

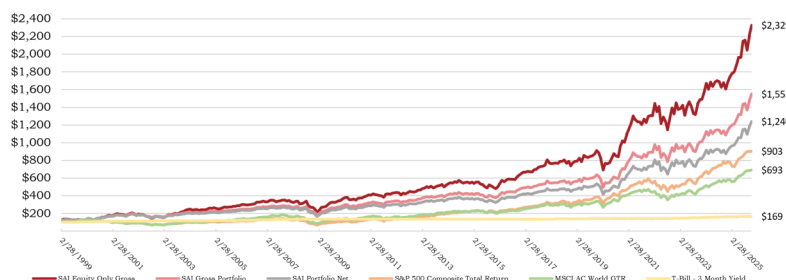
Actual returns will be reduced by investment advisory fees and other expenses that may be incurred in the management of the account. The collection of fees produces a compounding effect on the total rate of return net of management fees. As an example, the effect of investment management fees on the total value of a client's portfolio assuming (a) quarterly fee assessment, (b) \$1,000,000 investment, (c) portfolio return of 8% a year, and (d) 1.00% annual investment advisory fee would be \$10,416 in the first year, and cumulative effects of \$59,816 over five years and \$143,430 over ten years. The annual composite dispersion presented is an asset-weighted standard deviation. To obtain a GIPS Composite Report and/or the firm's list of composite descriptions, please contact Chad Christensen at csa@semperaugustus.com. GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

Past performance is not indicative of future results.

	Gross of Fees	Net of Fees	Net of Model Fees*	Gross of Fees Equities Only*	Net of Fees Equities Only*	Net of Model Fees Equities	MSCI All Country World Index	S&P 500
Cumulative Since Inception**	1451.8%	1139.7%	1009.7%	2228.5%	1759.9%	1564.9%	593.2%	803.0%
Annualized Since Inception**	10.8%	9.8%	9.4%	12.4%	11.5%	11.0%	7.5%	8.5%

* This is supplemental information

** Inception Date 2/28/1999. # Firm Assets at 12/31/2025 is \$982 million, at 12/31/2024 was \$693 million, at 12/31/2023 was \$597 million, at 12/31/2022 was \$477 million, at 12/31/2021 was \$390 million and at 12/31/2020 was \$305 million.



COMPOSITE PERFORMANCE: COMPOUND ANNUAL GROWTH RATES (CAGR)
FROM INCEPTION AND LOOKING BACK TO INCEPTION

Year		Gross Portfolio	Gross Portfolio CAGR from 2025	Gross Portfolio CAGR from 1999	Portfolio Net	Portfolio Net CAGR from 2025	Portfolio Net CAGR from 1999	Portfolio Net Model	Portfolio Net Model CAGR from 2025	Portfolio Net Model CAGR from 1999	Equities Only Gross	Equities Only Gross CAGR from 2025	Equities Only Gross CAGR from 1999	Equities Only Net	Equities Only Net CAGR from 2025	Equities Only Net CAGR from 1999	Equities Only Net Model	Equities Only Net Model CAGR from 2025	Equities Only Net Model CAGR from 1999	MSCI AC World GTR	MSCI AC World GTR CAGR from 2025	MSCI AC World GTR CAGR from 1999	S&P 500 Composite Total Return	S&P 500 CAGR from 2025	S&P 500 CAGR from 1999
1999	27yr	29.9%	10.8%	29.9%	28.8%	9.8%	28.8%	28.5%	9.4%	28.5%	29.1%	12.4%	29.1%	28.1%	11.5%	28.1%	27.8%	11.0%	27.8%	27.5%	7.5%	27.5%	19.9%	8.5%	19.9%
2000	26yr	26.7%	10.0%	31.2%	25.6%	9.1%	30.0%	25.2%	8.6%	29.6%	30.7%	11.8%	33.1%	29.5%	10.8%	31.8%	29.1%	10.4%	31.4%	-13.9%	6.7%	5.2%	-9.1%	8.1%	4.8%
2001	25yr	20.8%	9.4%	27.5%	19.7%	8.5%	26.3%	19.3%	8.0%	25.9%	23.1%	11.1%	29.4%	22.0%	10.2%	28.2%	21.5%	9.7%	27.8%	-15.9%	7.7%	-2.8%	-11.9%	8.8%	-1.4%
2002	24yr	-15.5%	8.9%	14.5%	-16.2%	8.0%	13.5%	-16.5%	7.6%	13.1%	-22.0%	10.6%	13.4%	-22.7%	9.7%	12.4%	-22.9%	9.2%	12.0%	-19.0%	8.8%	-7.3%	-22.1%	9.8%	-7.3%
2003	23yr	21.8%	10.1%	16.0%	20.8%	9.2%	14.9%	20.3%	8.8%	14.6%	38.2%	12.3%	18.2%	37.1%	11.4%	17.1%	36.5%	10.9%	16.7%	34.6%	10.2%	0.1%	28.7%	11.4%	-0.8%
2004	22yr	9.2%	9.6%	14.8%	8.4%	8.7%	13.8%	7.9%	8.3%	13.4%	16.3%	11.2%	17.9%	15.5%	10.3%	16.8%	14.9%	9.8%	16.4%	15.8%	9.2%	2.7%	10.9%	10.7%	1.1%
2005	21yr	6.2%	9.7%	13.5%	5.4%	8.8%	12.5%	4.9%	8.3%	12.1%	7.4%	11.0%	16.3%	6.6%	10.1%	15.3%	6.0%	9.6%	14.8%	11.4%	8.9%	3.9%	4.9%	10.7%	1.7%
2006	20yr	14.2%	9.8%	13.6%	13.3%	8.9%	12.6%	12.8%	8.5%	12.2%	18.4%	11.2%	16.5%	17.5%	10.3%	15.5%	16.9%	9.8%	15.1%	21.5%	8.7%	6.0%	15.8%	11.0%	3.4%
2007	19yr	3.8%	9.6%	12.4%	3.0%	8.7%	11.5%	2.5%	8.2%	11.0%	3.1%	10.8%	14.9%	2.3%	9.9%	14.0%	1.9%	9.4%	13.5%	12.2%	8.1%	6.7%	5.5%	10.8%	3.6%
2008	18yr	-20.3%	9.9%	8.6%	-21.5%	9.0%	7.6%	-21.3%	8.6%	7.2%	-21.6%	11.2%	10.5%	-22.7%	10.3%	9.6%	-22.5%	9.9%	9.2%	-41.8%	7.9%	0.3%	-37.0%	11.1%	-1.5%
2009	17yr	22.0%	12.0%	9.7%	20.8%	11.2%	8.8%	20.4%	10.7%	8.4%	27.9%	13.6%	12.0%	26.7%	12.7%	11.0%	26.3%	12.1%	10.7%	35.4%	11.9%	3.1%	26.5%	14.8%	0.8%
2010	16yr	12.8%	11.5%	10.0%	11.6%	10.6%	9.0%	11.4%	10.1%	8.6%	14.4%	12.7%	12.2%	13.2%	11.8%	11.2%	13.0%	11.3%	10.8%	13.2%	10.5%	3.9%	15.1%	14.1%	1.9%
2011	15yr	6.9%	11.4%	9.8%	6.1%	10.5%	8.8%	5.6%	10.0%	8.4%	7.1%	12.6%	11.8%	6.3%	11.7%	10.8%	5.8%	11.2%	10.4%	-6.9%	10.4%	3.0%	2.1%	14.1%	1.9%
2012	14yr	6.5%	11.7%	9.5%	5.7%	10.8%	8.5%	5.2%	10.3%	8.2%	6.8%	13.0%	11.5%	6.0%	12.1%	10.5%	5.5%	11.6%	10.1%	16.8%	11.7%	4.0%	16.0%	15.0%	2.9%
2013	13yr	15.5%	12.1%	9.9%	14.6%	11.2%	8.9%	14.0%	10.7%	8.5%	17.3%	13.5%	11.8%	16.4%	12.6%	10.9%	15.9%	12.1%	10.5%	23.4%	11.3%	5.2%	32.4%	14.9%	4.7%
2014	12yr	4.6%	11.8%	9.6%	3.8%	11.0%	8.6%	3.3%	10.4%	8.2%	5.2%	13.2%	11.4%	4.4%	12.3%	10.4%	3.9%	11.8%	10.0%	4.7%	10.4%	5.2%	13.7%	13.5%	5.2%
2015	11yr	-8.7%	12.5%	8.4%	-9.4%	11.6%	7.4%	-9.8%	11.1%	7.0%	-10.3%	13.9%	10.0%	-11.0%	13.1%	9.0%	-11.4%	12.5%	8.6%	-1.8%	10.9%	4.7%	1.4%	13.5%	5.0%
2016	10yr	22.1%	14.9%	9.1%	21.2%	14.0%	8.2%	20.6%	13.5%	7.8%	27.7%	16.7%	10.9%	26.8%	15.8%	10.0%	26.1%	15.3%	9.5%	8.5%	12.3%	4.9%	12.0%	14.8%	5.4%
2017	9yr	13.4%	14.1%	9.3%	12.6%	13.2%	8.4%	12.0%	12.7%	8.0%	18.0%	15.5%	11.3%	17.1%	14.6%	10.3%	16.5%	14.1%	9.9%	24.6%	12.7%	5.9%	21.8%	15.1%	6.2%
2018	8yr	-1.3%	14.2%	8.8%	-2.1%	13.3%	7.8%	-2.6%	12.8%	7.4%	-1.4%	15.2%	10.6%	-2.1%	14.3%	9.7%	-2.6%	13.8%	9.2%	-8.9%	11.3%	5.1%	-4.4%	14.3%	5.6%
2019	7yr	20.4%	16.6%	9.3%	19.5%	15.7%	8.4%	18.9%	15.1%	7.9%	23.6%	17.8%	11.2%	22.7%	16.9%	10.3%	22.1%	16.4%	9.8%	27.3%	14.5%	6.1%	31.5%	17.3%	6.7%
2020	6yr	11.2%	16.0%	9.4%	10.4%	15.0%	8.5%	9.8%	14.5%	8.0%	11.9%	16.9%	11.2%	11.1%	16.0%	10.3%	10.5%	15.5%	9.8%	16.8%	12.5%	6.5%	18.4%	15.1%	7.2%
2021	5yr	24.9%	16.9%	10.0%	24.0%	16.0%	9.1%	23.4%	15.5%	8.7%	27.3%	17.9%	11.9%	26.4%	17.0%	11.0%	25.7%	16.5%	10.5%	19.0%	11.7%	7.1%	28.7%	14.4%	8.1%
2022	4yr	1.9%	15.0%	9.7%	1.0%	14.1%	8.8%	0.6%	13.6%	8.3%	2.1%	15.7%	11.5%	1.2%	14.7%	10.5%	0.8%	14.3%	10.1%	-18.0%	9.9%	5.9%	-18.1%	11.1%	6.9%
2023	3yr	11.7%	19.8%	9.8%	10.8%	18.8%	8.8%	10.3%	18.3%	8.4%	12.1%	20.6%	11.5%	11.2%	19.6%	10.6%	10.7%	19.1%	10.1%	22.8%	21.2%	6.5%	26.3%	23.0%	7.6%
2024	2yr	7.9%	24.0%	9.7%	7.0%	23.0%	8.8%	6.6%	22.5%	8.3%	8.2%	25.2%	11.3%	7.3%	24.1%	10.4%	6.8%	23.6%	10.0%	18.0%	20.4%	6.9%	25.0%	21.4%	8.2%
2025	1yr	42.6%	42.6%	10.8%	41.4%	41.4%	9.8%	40.8%	40.8%	9.4%	44.9%	44.9%	12.4%	43.6%	43.6%	11.5%	43.1%	43.1%	11.0%	22.9%	22.9%	7.5%	17.9%	17.9%	8.5%

* Inception Date 2/28/1999.

SEC-registered investment advisory firms are now required to disclose 1-, 5- and 10-year returns, or the time period since performance composite or portfolio inception, if shorter. The new rule seeks to prevent “advertisers” from cherry-picking time periods that make returns appear more favorable. As short- and intermediate-term returns change frequently due to beginning and endpoint sensitivity, we have chosen to disclose *all* yearly intervals from the current 1-year return all the way back to inception. Intra-year periods will likewise be shown annually back to inception. Better, in our opinion, to provide more data than less. We are augmenting the mandated disclosure with the full data set – not to confuse – but if we must provide a few defined numbers, to the extent anybody uses them in decision making, we want you to have the information we’d want if our roles were reversed. The yearly return intervals are *italicized and shaded in blue*.