

FRANK J. GAMBINO, CFA
Chief Equity Strategist & Portfolio Manager

JEREMY R. BAIER, CFA
Senior Equity Analyst & Portfolio Manager

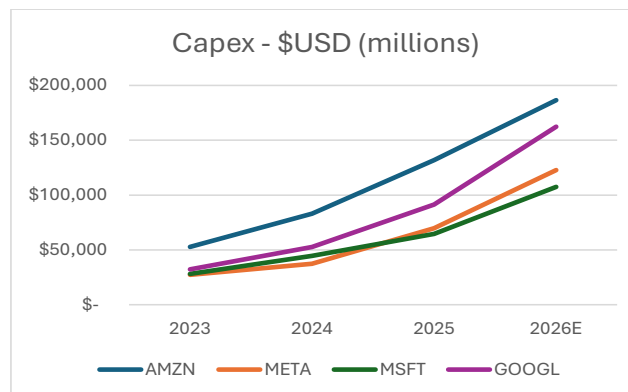
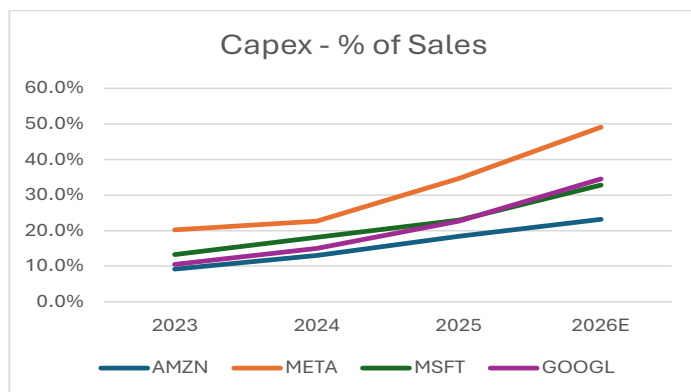
Technology Capital Spending and Its Impact on Discounted Cash Flow-Driven Valuation

Artificial Intelligence investments have resulted in an arms race to build the perceived required infrastructure to compete and win in this next leg of technological innovation. Close to \$1 trillion in spending has been committed by the large hyperscalers and other cloud computing and infrastructure providers for 2026 alone. The question on investors' minds is, "Is this spending going to result in a sufficient ROI?" Related questions we have are:

- If spending remains at peak levels and the forces of competition transpire to stagnate top line growth and margins, what does this mean for valuations?
- If spending remains elevated yet does not fade from peak levels, what sets of assumptions (say, future revenue growth and margins) underpin existing valuations?
- Does economic value destruction set in with elevated spending and top line growth fading?

In this paper we focus on the pivotal assumptions and their directional impacts on quality and valuation amongst the technology heavyweights.

We know it has been oft stated that AI-related capex among the largest companies in the world is going parabolic, but what do the numbers actually say? We decided to start by looking at the Fateful Eight – essentially the more well known "Mag 7" plus Broadcom Inc. (AVGO) to analyze capex at the very top of the market. We quickly found that not all of these companies are caught up in the capex dynamic. First, NVIDIA Corporation (NVDA), Apple Inc. (AAPL), and AVGO are not primarily in the production business and have capex to sales ratios of <5%, so we pulled them from the analysis. Tesla, Inc. (TSLA) is also in the Fateful Eight but has much more idiosyncratic investments that it is making that fall further afield than AI. What is left is a look at four of the biggest companies in the world, all with material exposure to AI and AI-tangent investments: Amazon.com, Inc. (AMZN), Alphabet, Inc. (GOOG and GOOGL), Meta Platforms, Inc. 'A' (META), and Microsoft Corporation (MSFT). The table below shows the material increase in capex at these companies over the last three years along with an additional projection for the next fiscal year for each, using consensus estimates from FactSet.

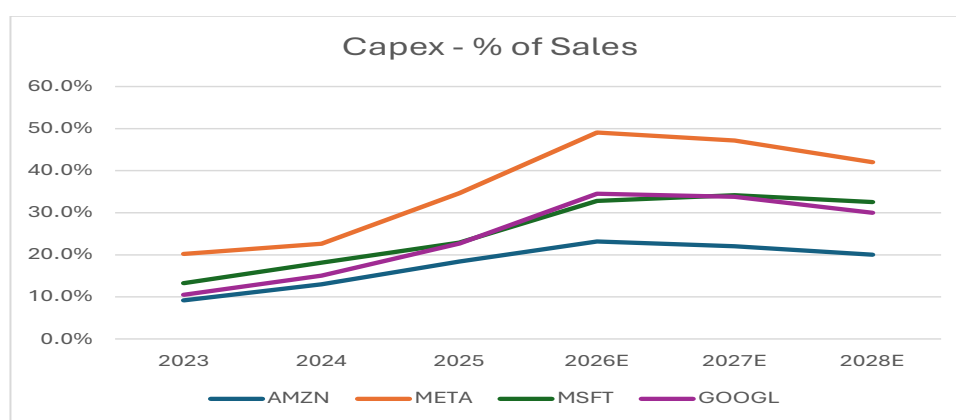


Source: FactSet Research Systems, Inc.



You can see the incredible acceleration in spending. The four companies' collective outlays for capital expenditures increased from \$140 billion in 2023 to \$357.5 billion in 2025, an increase of 155% in just two years. Moreover, another 62% increase is projected by analysts in 2026 to a total of \$579 billion. This would raise the average capex spend, as a percentage of sales, from 13.3% in 2023 to nearly 35% in the upcoming year. This trend spurs many questions but perhaps the most germane to us at Isthmus Partners are these: 1) Is this trend cyclical or secular and 2) if it is the latter, what does it mean for these companies from an equity research perspective? More specifically, what would this secular trend say about valuation and quality?

Using Wall Street consensus as a proxy, there seems to be at least some cohort of the market that believes the capex spend in the next few years will be the peak, or at least a plateau, in terms of actual dollars, leading to a decrease as a percentage of revenue. Using FactSet consensus expectations you can see these forward-looking assumptions in the chart below.



Source: FactSet Research Systems, Inc.

You'll observe that the slope of the lines of capex as a percentage of sales for each of these companies between FY26E and FY28E is negative. Since sell-side expectations likely at least partially inform market prices we could presume that the on some level the shares of these companies embed these expectations. But what if the expectations are wrong? What if capex does not fall as a percentage of revenue but rather stays at these elevated levels? What if it keeps rising? For the purposes of this paper we analyze the first of those two questions. To be clear, this is not explicitly our view and we do not intend to make any sort of call on the topic but rather simply analyze the potential impacts on profitability (through a return on invested capital (ROIC) lens) and equity value if the "market" is wrong on this matter.

To start, we aimed to create discounted cash flow (DCF) valuation models for each of these companies that would spit out an equity value equal to the current share price¹. We anchored a few assumptions to the sell-side (using sell-side assumptions is far from our typical strategy!) including capex, revenue growth, and margin expansion² for the next three years. As you'll recall from above, these assumptions include a decline in capex as a percentage of revenue throughout this early period. Our capex assumptions from that point forward continued the slope of each company's negative FY26E-FY28E trend until the point at which it met the average of the FY28E level and the FY23-FY25 mean, holding it flat thereafter³. At that point, we left margins flat and adjusted the remaining years of our forecast for revenue until we matched the current market price for each security. We call these our "Market Implied" models.

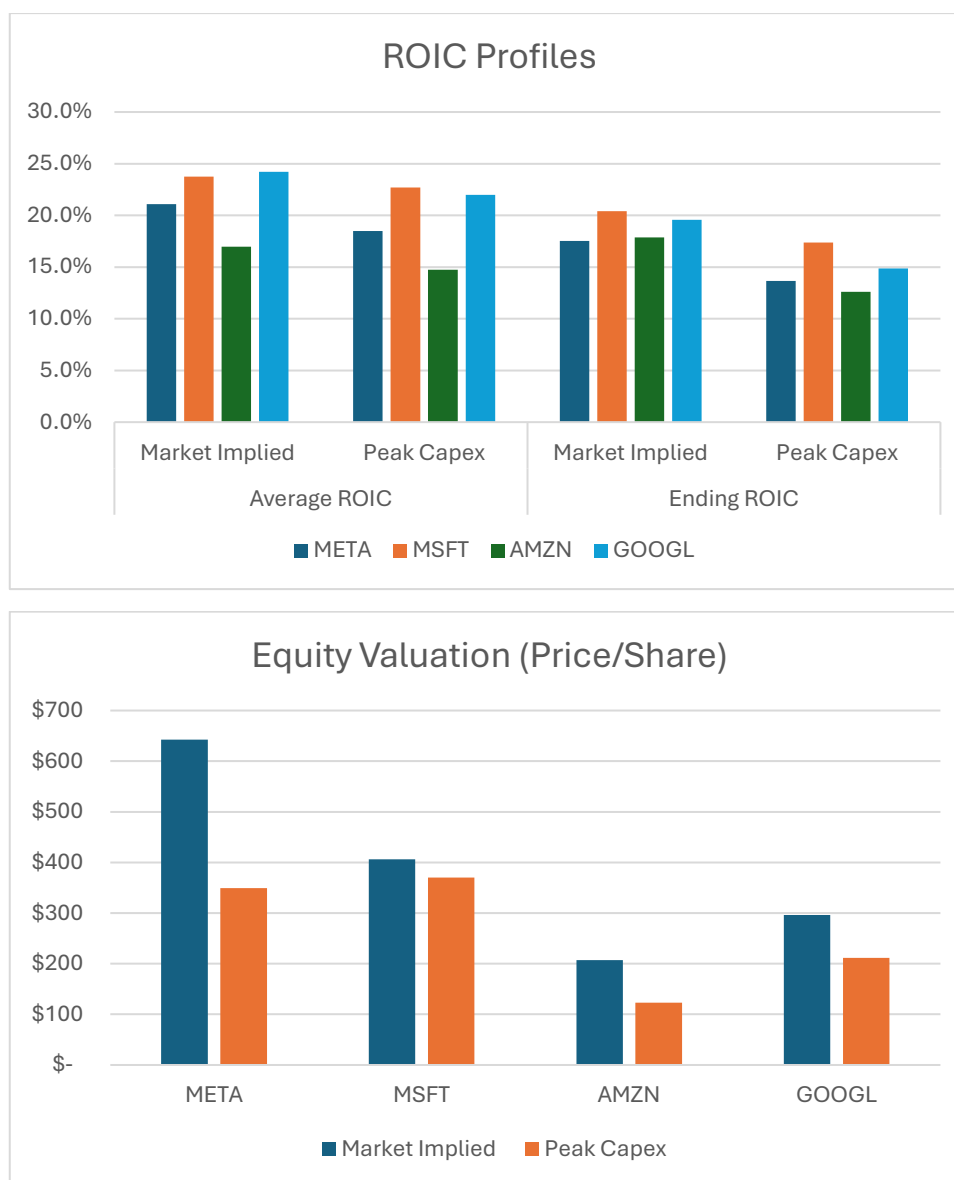
¹We froze this analysis on Friday March 6th, 2026 for share prices, the risk-free rate, sell-side expectations and other assumptions that may change with the passage of time.

²Sell-side margin estimates are, in our experience, most often of the Non-GAAP variety. We prefer to model using GAAP accounting, so we used the trend in analysts' assumptions to inform our margin estimates.

³For MSFT alone, the near-term slope was not steep enough to push capex to the balance point in the model's time horizon so we forced it lower to this value ratably over the forecast period.



With our baselines set, we adjusted each model to create a scenario where capex remains at peak levels throughout the forecast period. We call these our “Peak Capex” models. As capex is a direct outflow of cash (and thus value) in a DCF model, the impacts here may be directionally obvious but the magnitude of the impact on ROIC profiles and equity values for the companies was striking.



Average ROICs throughout the next ten years deteriorated 200 basis points, including an accelerating effect where the ROIC in Year 10 was 420 basis points lower, on average, across the group. We would note, however, that even in this scenario each company did continue to generate positive economic value. That said, the companies’ equity valuations took an average of a 31% haircut with META seeing the largest hit at -46%! Under this scenario, nearly three trillion dollars of equity value for these four companies could collectively evaporate. Holding all else equal, per our calculations the companies may have to generate more than \$3.8T of additional revenue - above and beyond what we have roughly calculated as market implied expectations over the next ten years - to offset this impact. Certainly increased future revenue is at least one of the primary goals of this current bolus of capex; whether it will be money well spent is yet to be determined.



Conclusion

The magnitude and duration of elevated capital spending has seismic implications on valuation and we conclude our analysis by noting the stark dependence on margin preservation and continued revenue acceleration to support current equity values. To put the scope of potential valuation erosion into perspective, should revenues and margins stagnate, the >\$3 trillion cited above currently amounts to a staggering 10% of nominal GDP, underscoring the level of expectations built into current market implied valuation levels. As stated above we do not see an imminent reduction in equity values if companies continue to spend and heightened expectations are not met though our analysis does show this could materialize over time. To the degree that the heavyweights continue to experience some strong revenue growth combined with operating leverage derived from heavily fixed cost bases, current equity values carry a degree of plausibility. All eyes will remain on capex/revenue/margin trajectories, as unexpected changes in any of these factors could have notable reactions from equity investors.