Conviction In AI:
Why We Are Still Early

November 2025

Key Takeaways:

- **Infrastructure demand is increasing and far exceeds supply** – Jevon's Paradox means cheaper tokens are fueling more use cases, not less spending. Reasoning models require at least 20x more compute, and image/video models are even more compute intensive.

- **AI adoption is still in its early innings** – usage, paid adoption, and "killer apps" like AI coding are all inflecting, implying the broader S-curve of adoption is just beginning.

- **The multi-year opportunity is intact** – hyperscaler capex and emerging enterprise use cases point to durable, long-term growth, not an imminent fall off in spend.

- **Valuations remain grounded** – despite headline grabbing stock moves, earnings growth (not hype) has driven returns for AI leaders, keeping multiples reasonable versus historical bubbles.

- **AI is an intelligence buildout.** Opportunities will not run out simply because the market has gotten saturated with hardware (like previous cycles in cell phones and PCs). Use cases will continue to expand.

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Introduction

Artificial intelligence is advancing rapidly, but the data suggests that we remain in the early phases of its adoption cycle. Usage of large language models, their monetization, and specific applications such as AI-assisted coding are only beginning to inflect. At the same time, the infrastructure buildout required to support more compute-intensive reasoning models remains strong, with hyperscaler investment continuing to grow despite greater efficiency gains. Finally, valuations of leading AI companies remain supported by earnings growth rather than speculative multiples, distinguishing today's environment from prior technology bubbles.

Jevon's Paradox: Increased cost efficiency drives more use cases, not cost savings. We see sustained infrastructure spend ahead, not an impending cliff.

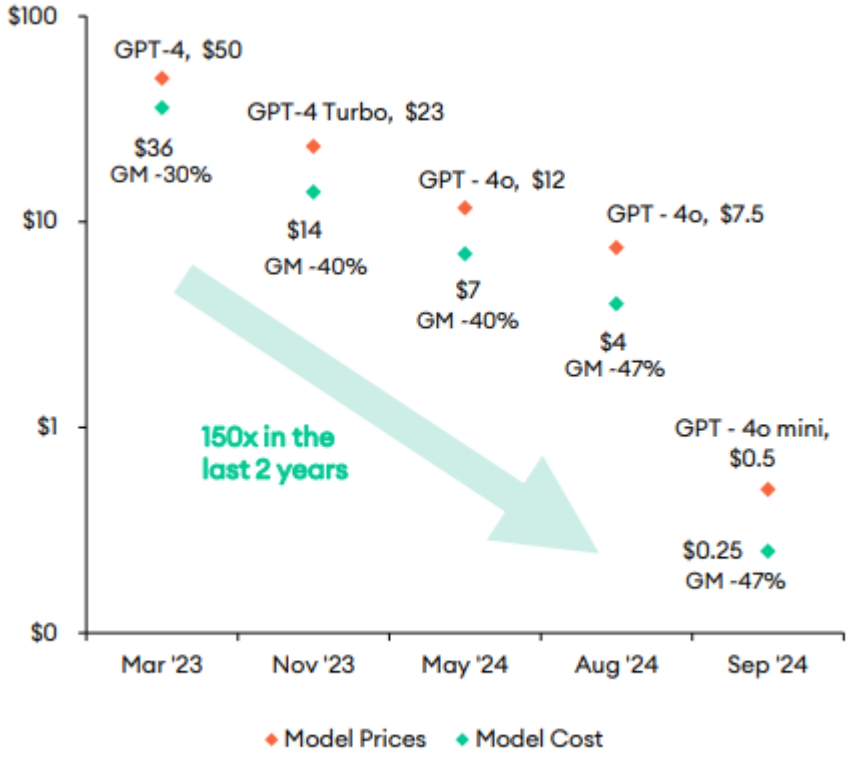
In early 2025, the market was concerned that increased cost efficiency in LLM models would lead to decreased spending. DeepSeek's seeming increased efficiency of spend (appeared to be 10x cheaper to train vs equivalent models) raised concerns about the sustainability of AI spend.

However, we believe DeepSeek, far from showing that the AI trade was over, demonstrated that we are just on the tip of the iceberg of how powerful AI could become.

The token cost curve had been at roughly 150x reduction in 2 years, per New Street (Chart A below) already, and therefore Deepseek's cost savings appeared to be along this curve.

The DSM view has been that increased efficiency would translate to greatly improved models and use cases, with strong spend levels persisting. Just as Moore's law (which forecasts exponential decreases in the cost of a transistor) in semiconductors drove technology innovation from mainframes as the primary computer to a computer in everyone's pocket (iPhone), we believe the declining cost of the token will expand the use cases for AI beyond what we can reasonably imagine today.

Chart A: Token Cost Curve

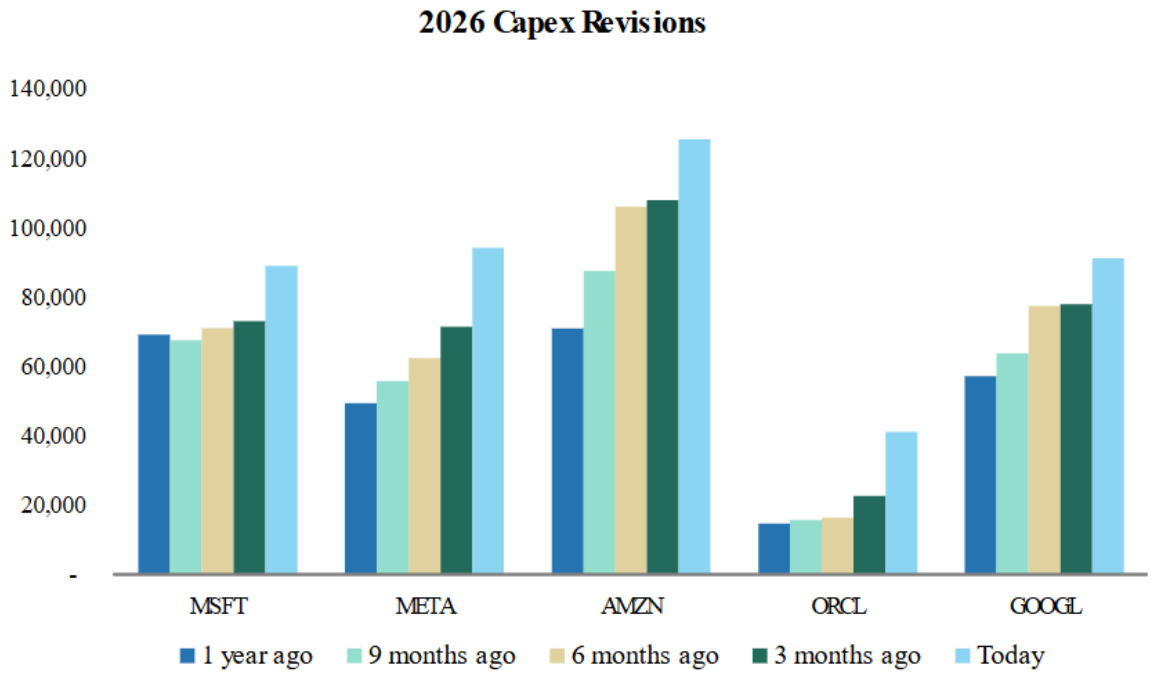


Source: Corporate reports and NSR estimates and analysis.

In Q2, the market came to this view, helped by strong hyperscale spending comments and continued capex raises. At this stage in the AI arms race, investment continues to grow strongly, with top 5 capex growing at over 60% this year and forecast to grow at 27% YoY next year.

Hyperscalers continuing to signal strong levels of investment despite the increases in cost efficiencies show Jevon's paradox at work. (Chart B below)

Chart B: Capex Forecast Revisions



Source: Company filings, Morgan Stanley.

As costs to generate tokens come down, the complexity of AI models increases and consumes exponentially more tokens.

In early 2025, we witnessed an inflection in the adoption of coding in particular and AI use cases more broadly. We would attribute it to the rise of reasoning models, which are models that are able to "think longer" and produce better results.

Reasoning models can require upwards of 20x the tokens of non-reasoning models as they appear to "think" while cycling through multiple iterations before providing an answer.

With the release of GPT5 in July 2025, OpenAI pushed the increased usage of reasoning models by automatically choosing between a "thinking" model vs a faster, "instant" model depending on the complexity of the query. Per Sam Altman, daily adoption rate for reasoning models as a result are up from <1% to 7%, and for paid users, the daily adoption rate jumped from 7% to 24%, as of August. As the cost of the token comes down, we will see increased use of reasoning models as well as video models and deep research, which require an order of magnitude more compute.

Our conclusion is that Jevon's Paradox applied to AI means perpetually cheaper tokens will drive far more powerful use cases, rather than cost savings, and that the demand for AI infrastructure will continue the trajectory upwards.

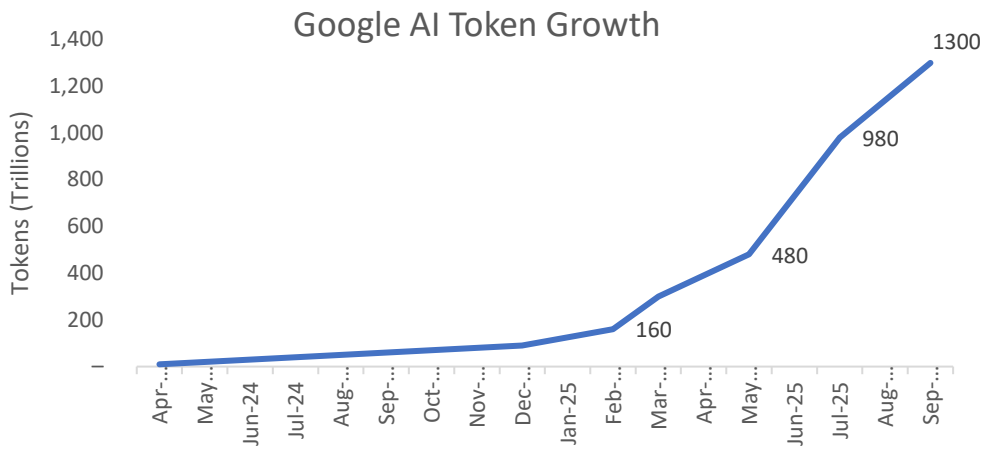
We are still early in AI adoption

Our view has been that we are still early and progressing up the steep part of the S curve of adoption for AI.

Is LLM usage increasing?

First, as one usage example of LLMs, we can evaluate Google's reported AI token growth (Chart C). Tokens are the unit of data processed by LLMs, and Google processed 1.3 quadrillion tokens in September, up ~10x from the start of the year. The drivers of this non-linear growth are increased adoption and usage of LLMs, but also the rise of reasoning models, which utilize more tokens to drive improved results. This creates a virtuous cycle: improved results drive increased adoption which in turn improves results further. The effect is that AI becomes more useful and relied upon over time.

Chart C: Google AI Token Growth

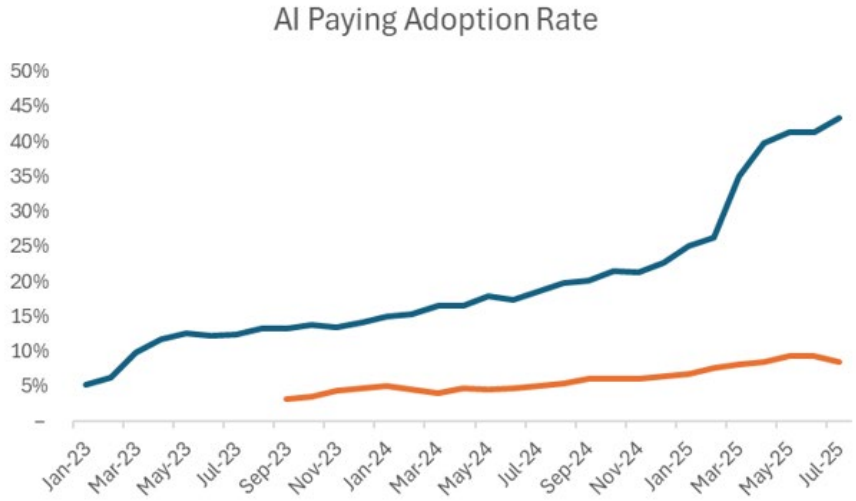


Source: Google.

Is paid AI usage increasing?

Second, on paid adoption of AI, we can evaluate a similar chart which shows paid adoption according to the startup Ramp's credit card data. The "Ramp AI adoption index" depicts the % of US businesses that pay for subscriptions to AI models and tools. This inflected sharply earlier this year and continues to climb. This data does not tell us how much the companies are spending, or how much they are using AI models, but merely the percentage of companies that are paying something for AI. The orange line (Chart D) shows the US Census Bureau reported data by businesses, which suggests we are even earlier in the adoption curve, and yet to hit the steep part of the curve.

Chart D: AI Paying Adoption Rate



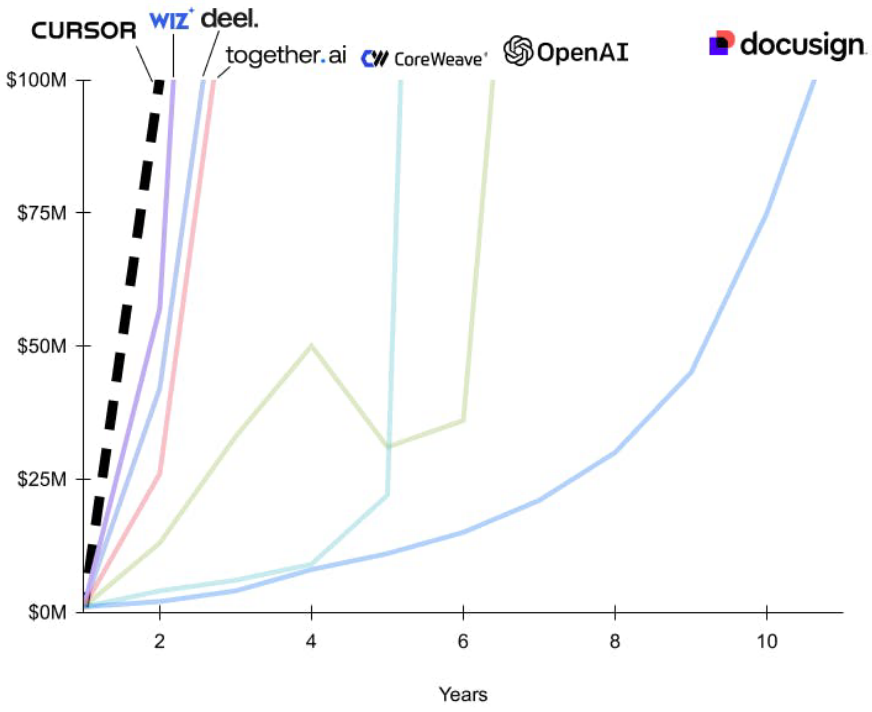
Source: Ramp, US Census.

Are there use cases that are taking off?

Third, we would point to rapid adoption of AI for coding, making code generation the first "killer app" to emerge from LLMs. OpenAI o3 became better than 99.8% of competitive coders in 2025, measured by Codeforces.

We saw very rapid adoption of AI coding tools, with Cursor and Windsurf among the fastest growing businesses in the history of technology.

Chart E: Time to $100MM Annual Recurring Revenue



Source: Sacra.

Microsoft and Amazon both estimated roughly 30% of internal code is now generated by AI, with Salesforce saying AI cuts code coverage time by 85%.

We believe coding is the first of many jobs where AI appears to surpass human ability and watch carefully as a test use case for how AI may enhance and possibly disrupt other roles over time.

Valuations are reasonable for our "AI winners", we are not in bubble territory in public markets.

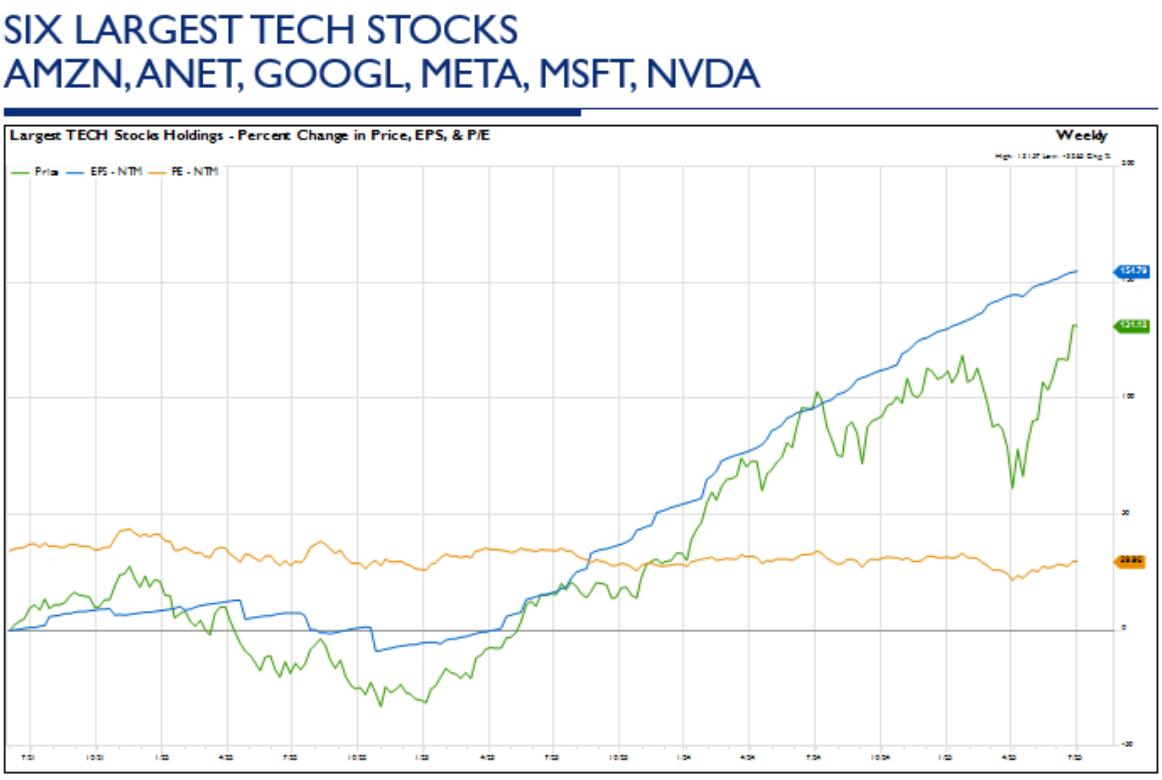
At DSM Capital, we build high conviction, concentrated portfolios of high-quality growth companies that we think are, and will remain, dominant leaders in markets that are growing rapidly. However, relative to other growth managers, our philosophy has also always included a focus on disciplined valuations.

We believe AI is one of the most important technological developments we have experienced in our lifetimes. Given where we are in the S curve of adoption, we want to be long AI winners as we move up the steep part of the curve. However, to reduce risk, we aim to not overpay for this growth.

NVIDIA is a good example of how we have used our valuation philosophy to guide our investment decisions. We have long considered NVIDIA one of the biggest winners in the AI adoption wave, as the clear dominant chip, software, and systems provider to every adopter of AI. We note that from the start of its meteoric rise in the stock price, from a split-adjusted ~$15 on January 1, 2023 to ~$200 today, the PE remains flat at ~32x, meaning the entire ~1,300% move has been driven by earnings growth over that period. Thus, while the perception is that NVDA is "expensive," we continue to view the PE as quite reasonable relative to our view on future growth and their likely continued dominance in AI chips, software and systems. While NVDA remains a large position, we have used our valuation discipline to trim above 40x and add below 30x.

We often receive questions comparing AI adoption to the Internet bubble. We would simply point to Chart F below, that shows that so far in the AI buildout, while stock prices have moved meaningfully, valuations on our major AI related names remain reasonable, with still minimal hype embedded in the names.

Chart F: Six Largest Tech Stocks



Source: FactSet; 31 October 2025. This chart is for informational purposes only. Investing entails risk, including possible loss of principal. The information presented reflects market data for the time-period shown and does not reflect the holdings or performance of any DSM strategy or any account managed by DSM. Please see Important Legal Information at the end of this presentation for additional details.

On the valuation side, we would expect evidence of a bubble to show up in the form of PE expansion, not following or accompanied by meaningful earnings growth, which so far has not been the case for our companies.

On the earnings side, given where we are in the AI investment cycle, where demand growth vastly outstrips supply growth, we see earnings continuing to grow meaningfully and, in some cases, possibly accelerate.

Conclusion

Prior technology cycles have been a buildout of hardware – how many cell phones or PCs do people need? The internet and mobile internet did experience hardware build out and saturation. AI is an information, reasoning, and intelligence buildout. These things do not "saturate" in the same way.

We see exponentially cheaper intelligence driving an abundance of use cases, massive increases in human productivity, and superintelligence that can solve many of humanity's toughest problems.

We continue to believe we are quite early in a multi-year opportunity for equity investors.

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