



*Can the*  
'HYPERSCALERS'  
*keep on SCALING?*



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# Can the 'HYPERSCALERS' keep on SCALING?



*Hyperscalers are powering the artificial intelligence revolution with record-breaking investment—but sustaining their momentum depends on whether AI proves itself as the next transformative technology.*

The artificial intelligence (AI) revolution is reshaping the investment landscape, and nowhere is this more evident than among hyperscalers. Tech giants like Alphabet, Meta Platforms, Amazon, Oracle, and Microsoft are pouring unprecedented capital into data infrastructure (storage/processing/cloud) to meet surging demand for AI computational resources. While the near-term outlook appears sustainable, investors must remain alert to affordability risks, valuation pressures, and the broader question: is this truly the next transformative technology?

## What are the hyperscalers?

Hyperscalers are the tech giants behind the world's largest data centres. Companies like Alphabet, Meta Platforms, Amazon, Oracle, and Microsoft run vast networks of servers that deliver cloud computing services to businesses and consumers globally. These firms already dominate the digital economy and now they're leading the charge in building the infrastructure needed to support artificial intelligence.

## Why hyperscalers are investing so heavily

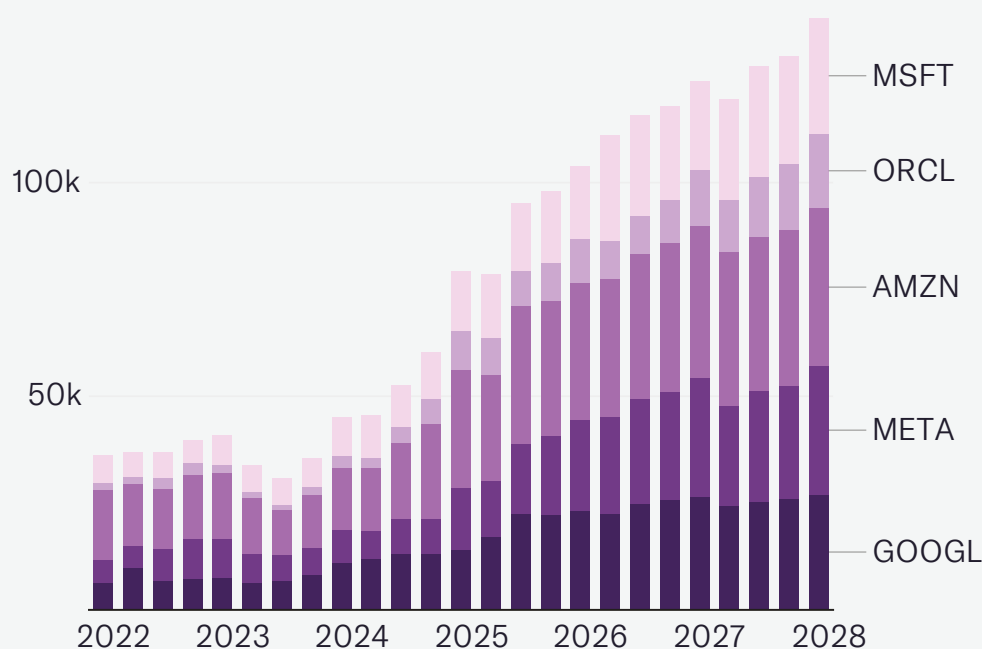
Since the launch of ChatGPT in late 2022, demand for AI computing power has surged. In response, hyperscalers have dramatically increased their investment in physical infrastructure—everything from server farms to energy supply. In 2025, their combined spending on long-term assets (known as capital expenditure, or CapEx) is expected to reach \$365 billion annually<sup>1</sup>. That's nearly half of all investment across the major listed companies in the US.

This marks a major shift in strategy. Within the space of just a few years, these companies have transformed from software platforms to builders of the physical backbone for AI.

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<sup>1</sup>FactSet, *Capital Expenditure Analysis of Hyperscalers*, 17 September 2025

## Hyperscaler quarterly CAPEX (\$, Billions)



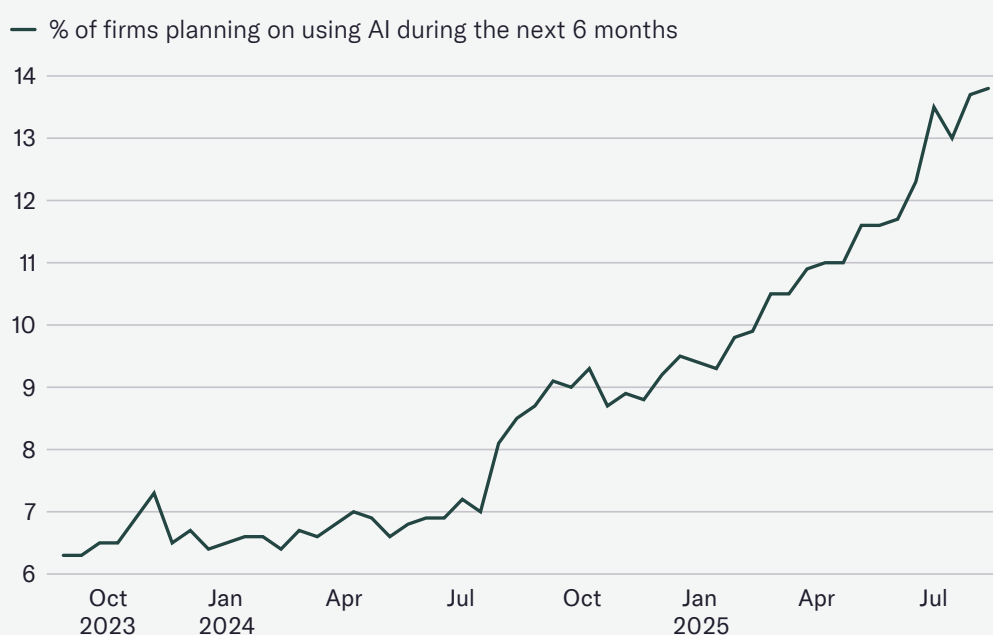
Source: FactSet, Evelyn Partners

The surge in spending by hyperscalers is also being driven by a clear shift in demand. As businesses and consumers increasingly adopt AI tools, the need for more powerful and specialised computing infrastructure has grown rapidly. Traditional cloud services are no longer enough—AI workloads require far greater processing power and energy.

Demand for AI-specific data centre capacity has grown at 98% per year since 2023 with this trend expected to continue into next year<sup>2</sup>. This rampant appetite for AI and its sustained trajectory has justified the considerable CapEx deployed to meet current and future levels of demand.

<sup>2</sup>Goldman Sachs Research, "The Outlook for Power Demand from Data Centers," 9 September 2025

## Business AI plans accelerating



Source: FactSet, Evelyn Partners

So far, these projects are still profitable, and most of the investment is being funded from the companies' own cash flows—not through borrowing or issuing new shares. This points to a disciplined approach and suggests that, for now, the investment cycle is on solid ground.

However, this model depends on continued growth. If AI adoption slows or fails to deliver meaningful productivity gains, the financial case for this level of investment could weaken.

# Risks that could disrupt the story

While the short-term outlook is strong, there are several risks that investors should keep in mind.

## 1. Market Concentration and Earnings Dependence

The five hyperscalers now make up 21% of the total market cap value of the S&P 500 index, even though they represent just 1% of its companies<sup>3</sup>. This outsized influence means that any disappointment in AI-related growth or Big Tech earnings could disproportionately impact overall market performance.

## 2. Rising Energy Costs

AI data centres are extremely energy intensive. By 2027, a single AI server rack, containing 576 Graphics Processing Units (GPUs), roughly the size of a filling cabinet, could use as much electricity as 500 US households<sup>4</sup>. With energy prices already rising, this could squeeze profit margins and contribute to inflation more broadly.

## 3. Lessons from the Past

There are some parallels to the early 2000s tech bubble, when investors embraced the internet as a game-changing force but overlooked the limits of demand. Given the sudden and sharp euphoria over AI any dampening enthusiasm from companies or households could lead to a proportionate cut back in spending.

### *A sustainable cycle - for now*

For now, the hyperscalers appear to be on solid footing. Demand is strong, projects are profitable, and investment is being funded responsibly. However, the long-term outlook depends on a bigger question: will AI truly redefine the way we work, build and innovate? If AI delivers meaningful productivity gains, economic output will expand, and hyperscaler profits will grow. However, if adoption slows or fails to meet expectations, the risks outlined above could materialise quickly.

At Evelyn Partners, we're watching the hyperscaler theme closely, recognising both its disruptive potential and its inherent risks. Our investment philosophy emphasises long-term fundamentals, disciplined risk management, and diversified exposure to structural growth. While AI infrastructure presents compelling opportunities, we remain focused on ensuring portfolios are resilient across a range of outcomes—preparing for both the promise and the pitfalls of this evolving theme.

<sup>3</sup>LSEG Datastream, Evelyn Partners, S&P 500 Market Capitalisation Breakdown, 16 September 2025

<sup>4</sup>Goldman Sachs Global Institute, "AI Requires a New Kind of Data Center," 9 September 2025

