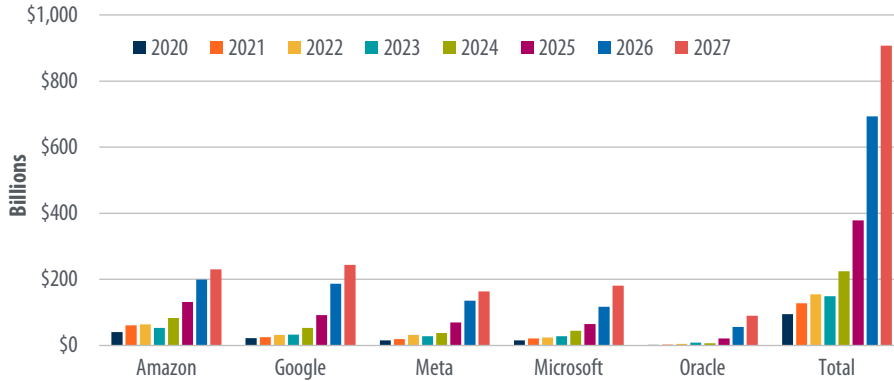


Hyperscalers: Can the AI Buildout Last?

In today's "Three on Thursday," we take a closer look at the rapidly expanding world of hyperscalers—the technology giants that own and operate vast networks of cloud-computing infrastructure and data centers. While companies such as OpenAI and Anthropic develop cutting-edge artificial intelligence (AI) models, they depend heavily on hyperscalers for the computing, storage, and networking capacity required to train and deploy them. To meet surging demand for AI, hyperscalers are investing hundreds of billions of dollars in data centers, advanced semiconductors, and supporting energy infrastructure. As a result, electricity consumption from data centers in the US is expected to grow to 66 gigawatts (GW) in 2027 – up from 31 GW in 2025 – over double the electricity consumption of the entire state of Florida. For more insight into the hyperscalers' central role in the AI ecosystem and the enormous investments they are undertaking, see the three charts below.

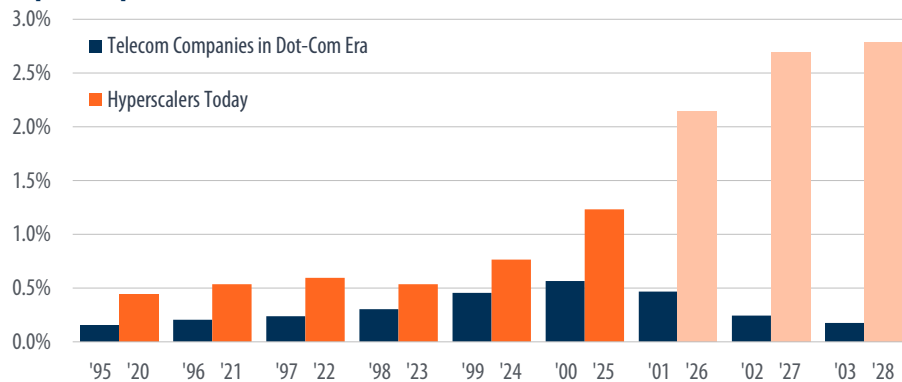
Hyperscaler Capital Expenditures 2020-2027



Source: Bloomberg, First Trust Advisors. Oracle actual capital expenditure recorded for 2026, all other company data for 2026 and 2027 are consensus estimates.

The five largest hyperscalers—Amazon, Google, Meta, Microsoft, and Oracle—are rapidly increasing capital expenditures to meet surging demand for AI computing power. Together, they operate an estimated 48% of global data-center capacity. Amazon currently manages the largest network, with approximately 10.6 GW of installed power capacity, roughly twice that of Microsoft or Google. The spending race is accelerating even faster. Based on the estimates shown, the five companies are projected to invest nearly \$700 billion in 2026, led by Amazon at roughly \$200 billion and Google at \$186 billion. That would represent an almost sevenfold increase from their combined capital spending in 2020. Although not all of this spending is devoted exclusively to data centers, much of the recent increase reflects investments in AI chips, servers, networking equipment, data-center construction, and supporting power infrastructure.

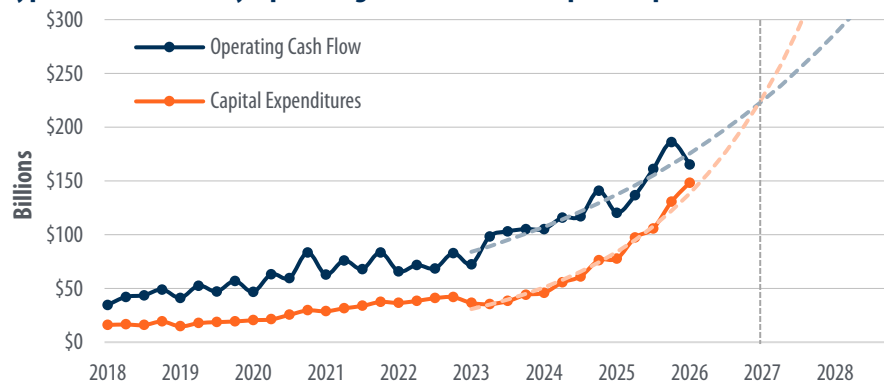
Capital Expenditure Share of GDP



Source: Bloomberg, First Trust Advisors. Hyperscalers include Oracle, Microsoft, Meta, Amazon, and Google. Telecom Companies include Level 3 Communications, WorldCom, Global Crossing, Nortel Networks, Verizon, AT&T, Nokia, Cisco Systems, Williams Companies, and XO Communications. Oracle actual capital expenditures included for 2026, all other company data for 2026-2028 are consensus estimates. There is no guarantee forecasts will be achieved.

During the late-1990s internet buildout, telecom companies invested heavily in fiber networks, expecting demand to rise rapidly. Internet usage did grow, but not fast enough to absorb the enormous amount of capacity built, contributing to falling returns and widespread financial distress. Today, hyperscalers are making a similar bet by spending record sums on data centers, chips, and power infrastructure. If AI investment continues to grow faster than profitable demand, the industry could eventually face excess capacity and a painful shakeout reminiscent of the dot-com era.

Hyperscaler Quarterly Operating Cash Flow and Capital Expenditures



Source: Bloomberg, First Trust Advisors. Hyperscalers include Oracle, Microsoft, Amazon, Meta, and Google. Cash flow from operations and capital expenditure trends calculated from the first quarter of 2023 to the first quarter of 2026. Oracle fiscal quarter mapped forward to closest calendar quarter. There is no guarantee forecasts will be achieved.

The rising cost of data centers and rapid advances in AI are pushing hyperscaler capital spending higher faster than operating cash flow. So far, strong revenues and large cash balances have allowed these companies to fund most investments internally. But sustaining this pace may require greater reliance on debt. Borrowing can finance growth without diluting shareholders, but it also increases interest costs and financial risk. Hyperscaler bond issuance has more than doubled from 2025 levels, raising concerns that profits may not grow quickly enough to meet both corporate and investor expectations.

This report was prepared by First Trust Advisors L.P. and reflects the current opinion of the authors. It is based upon sources and data believed to be accurate and reliable. Opinions and forward looking statements expressed are subject to change without notice. This information does not constitute a solicitation or an offer to buy or sell any security.