Under the Hood Revived (we just HAD to!): What's in Your Index?

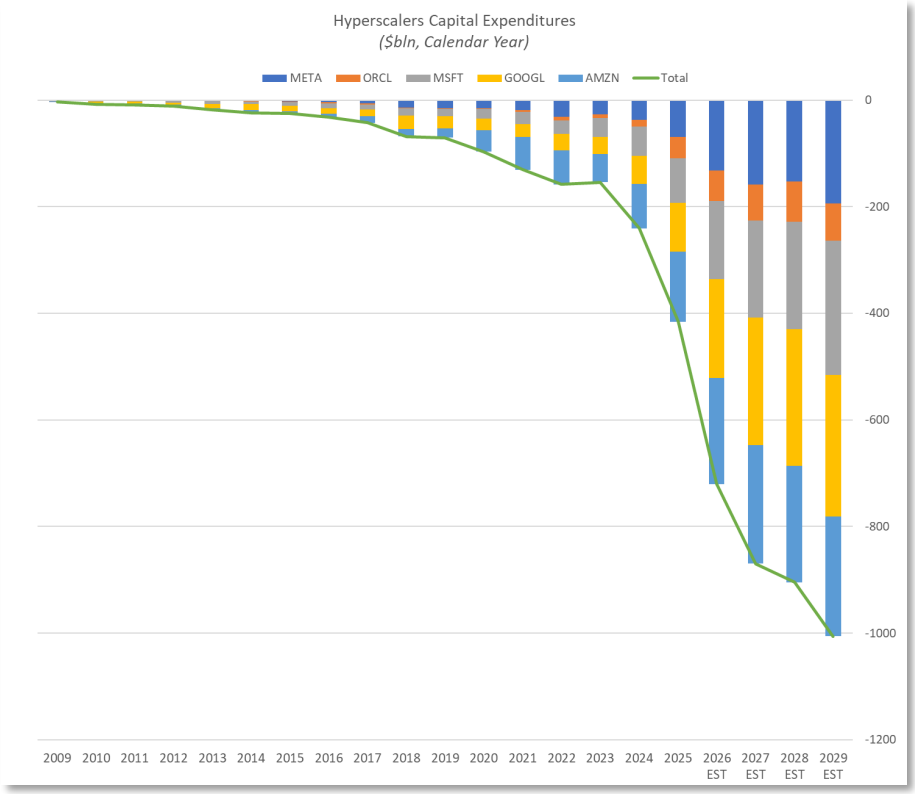
The Metamorphosis of the Mega-Cap IT Company Business Model

Here at Horizon Kinetics, we've spilled plenty of ink on the immense weighting of technology giants in the S&P 500 Index.[1] But there's more to the story. A look under the (index) hood reveals the changing nature of these mega-cap tech giants to "hyperscalers," as they are now required to invest in and operate enormous data centers. Recent data exposes a surge in capital expenditures—for which the consequences are unavoidable.

Hyperscalers Are Sacrificing Their Free Cash Flow for Data Center Growth

Five companies have announced plans to spend a combined $720 billion on such expansion—Amazon ($198 billion); Microsoft ($146 billion), Alphabet ($186 billion); Meta ($132 billion); and Oracle ($56 billion). These 2026 forecasts have been revised upward by more than 25% in just five months.

In just a few weeks following earnings calls, Morgan Stanley analysts already think the cap ex figures need to be revised upward again. They expect the hyperscalers to reach capital expenditures of $805 billion in 2026 and $1.1 *trillion* in 2027. In the latter period, the firm expects Amazon to spend $268 billion, Alphabet $299 billion, Microsoft $276 billion, Meta $165 billion, and Oracle $107 billion.



Source: Factset, Companies' reports

[1] The AMAGF IT/Social Media Stocks – Some Factual Observations (2020), Under the Hood: What's in Your Index? The New, Bigger, Better, Updated IT and AI 2023 Edition! (2023)

These five companies alone account for approximately 18% of the S&P 500 Index and 20% of the NASDAQ 100.[2] The combined capital expenditures projected for 2026 represent approximately a 200% increase over 2024. Furthermore, 2026 will almost certainly not be the peak, since all these firms expect an even higher level of spending in 2027. If the Morgan Stanley figures materialize, the 2027 year-over-year spending expansion will approach 50%.

This is problematic, since the capital expenditures already consume most of the combined operating cash flow generated by these companies. In their most recent quarters, the five firms together reported just $9.5 billion of free cash flow, or $37.8 billion annualized. Amazon and Oracle were already reporting negative free cash flow.

That is a significant deterioration from a combined $158 billion in free cash flow generated by the group over the past twelve months.

This supports a combined market capitalization of nearly $13 trillion, indicating these firms trade at 332x the run-rate free cash flow generated in the most recent quarter. That's a free cash flow yield of 0.30%.

Consequently, with combined trailing cash flow from operating activities of $640 billion, there is a possibility that these firms, in aggregate, will not be free-cash-flow positive in 2026 and 2027. Here is a chart for the10-year evolution of free cash flow and capital expenditures for these companies.

In 2026 or 2027, the free-cash-flow line is approaching zero—with the capex line potentially crossing $800 billion for 2026.

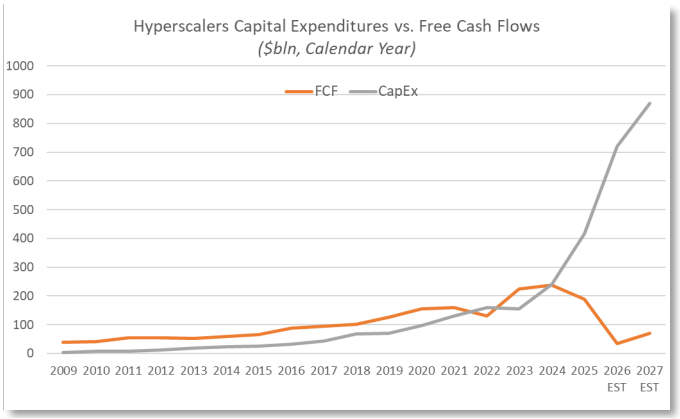
In fact, according to Bank of America, the hyperscalers as a group could generate negative free cash flow in 2027. Their combined free-cash-flow margin would have declined from more than 20% in 2019-2020 to negative 0.8% next year:

TRAILING 12 MO

$BLN	Operating Cash Flow	CapEx	FCF
AMZN	148.53	-151.00	-2.47
GOOGL	174.35	-109.92	64.43
META	124.00	-75.75	48.25
MSFT	170.14	-97.23	72.92
ORCL	23.51	-48.25	-24.74
TOTAL	**640.54**	**-482.15**	**158.39**

LAST QUARTER

$BLN	Operating Cash Flow	CapEx	FCF
AMZN	26.03	-44.20	-18.17
GOOGL	45.79	-35.67	10.12
META	32.23	-19.00	13.23
MSFT	46.68	-30.88	15.80
ORCL	7.15	-18.64	-11.48
TOTAL	**157.88**	**-148.39**	**9.49**



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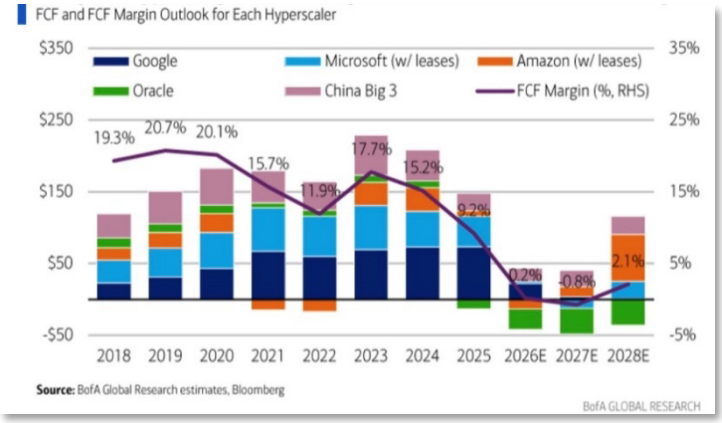


Source: Mitsubishi UFJ Securities Co.

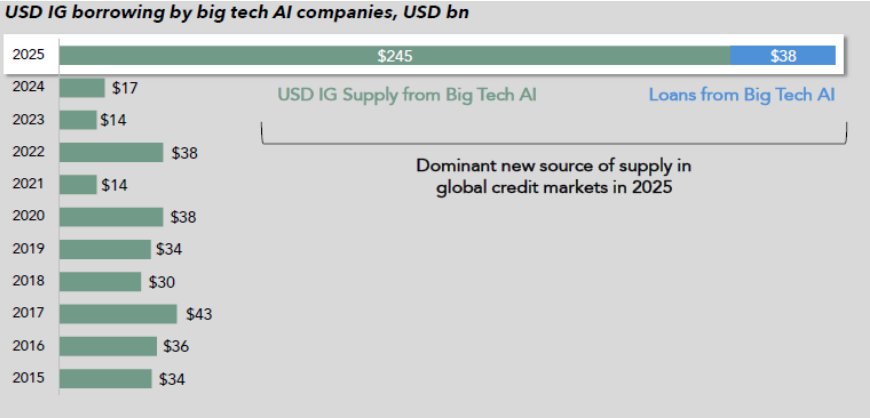
[2] Oracle is not a part of the NASDAQ 100, since it trades on the NYSE.

Data Center Spending Means Tough Trade-Offs for Hyperscalers

The incredible amounts being deployed have forced some hyperscalers to reduce headcount, as well as other operating expenses, to free up capital for their AI data center investments.

Some of these firms appear to be delaying, or abandoning, plans to be carbon neutral by 2030, with Microsoft a recent example.[3] Because data centers need power that is copious, as well as continuous and reliable, wind and solar cannot compete with baseload energy sources like natural gas and nuclear. Buying enough carbon credits to offset the energy needed, which might be tens of terawatt hours annually—think annual electricity consumption of New York City (50-55 TWh) or Chicago (30-35 TWh)—is not economically viable; the cost could be tens of billions of dollars.

The enormous capital needs for data centers and AI have forced technology companies to borrow more than ever. Combined, the five hyperscalers had $597 billion of debt outstanding as of the end of their most recently reported quarters, and $196 billion in net debt (debt minus cash on hand).



One reason for this development is that the growth and presumed high-margin, "asset-light" business model of many large IT companies was actually a benefit of the internet net-neutrality rules, first adopted by the FCC in 2010. The net-neutrality regulation restrained broadband providers from charging content companies for preferential treatment: internet service providers generally cannot block, throttle, or create paid fast lanes for specific websites or apps; large platforms can deliver traffic on standardized terms without paying extra for priority. This helped dominant internet-dependent platforms dramatically increase their scale of operations without meaningful marginal production cost.[4]

This is what allowed a company like Netflix, at its peak, to be 35% of downstream internet traffic without paying much, if anything, to broadband providers like Verizon. Similarly, Google, Amazon, Meta, and Microsoft do not pay any significant amount to the owners of the internet backbone that handles the traffic. That is why companies such as Level 3, CenturyLink (now Lumen), AT&T, and Verizon have been disappointing investments, all trading significantly below their respective 1999 stock price levels. Essentially, *they* funded the growth capital expenditures of the aforementioned IT companies.

Therefore, large internet companies have been able to essentially free-ride on the existing internet backbone infrastructure, expanding services without needing to invest hundreds of billions of dollars to handle the additional traffic. Other companies had to do that, and were not compensated by the internet firms. Consequently, these companies appeared to be relatively capital light in terms of their necessary capital expenditures. At least for these past two decades.

[3] Source: Bloomberg
[4] The AMAGF IT/Social Media Stocks – Some Factual Observations

Emerging Co-Dependence Risk

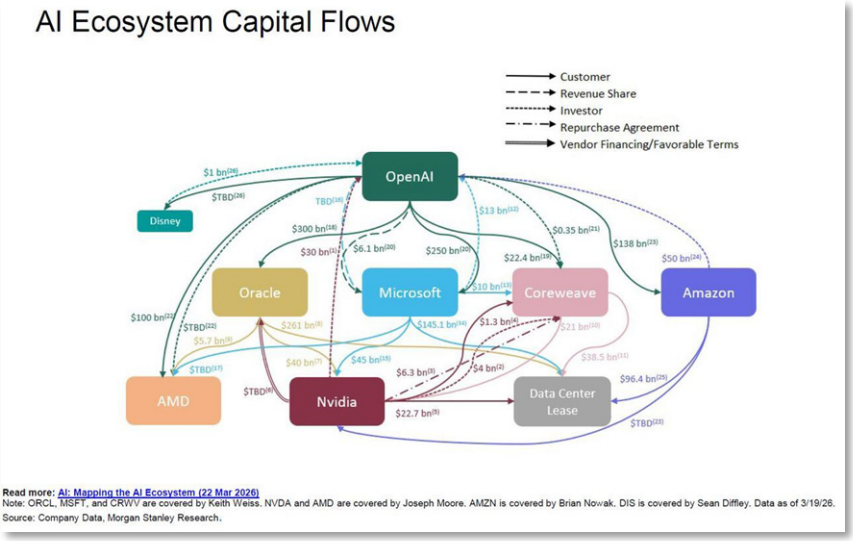
In addition to issuing debt, Google's parent (Alphabet) decided to issue equity for the first time in more than two decades, raising $85 billion in new capital earlier this month. Oracle has raised—or is in the process of raising—$20 billion of equity. Meta has announced that it is considering raising equity capital.

Even NVIDIA, the most valuable company in the world, with free cash flow of almost $120 billion in the past four quarters, just raised $25 billion in debt. Why the company needs this is a question, and perhaps also a concern.

Nvidia said that it intends "to use the net proceeds from this offering for general corporate purposes, including repayment and refinancing of outstanding notes." They're unbelievably profitable but they need to borrow $20 billion for their operations?

The concern is partly due to the complicated relationships between the large AI companies wherein they must, to a great extent, own each other's stock and extend financing to the same companies. By some estimates, there are $1.8 trillion in off-balance sheet liabilities, including long-term purchase commitments and lease commitments, which support the AI buildout.

Vendor financing and repurchase-style arrangements mean a single counterparty's stress can propagate through several balance sheets at once. The vast concentration compounds that stress. The trillions of dollars of remaining performance obligations across major AI companies is built on a handful of very large, long-duration contracts, so the backlog that justifies the spending is also a concentrated counterparty exposure. They're all dependent on each other.



The Next Phase

With this next expansion phase—the AI and datacenter era— it is imperative that the technology companies fund the enormous expenditures themselves. Failing to do so will render them obsolete compared with their competitors. This go-round will be considerably more capital-intensive than the prior one, putting pressure on free cash flow margins, financial flexibility and—ultimately—introducing cyclicality into their business models. It already is beyond meaningful comparison.

AI's creative destruction does not just threaten jobs, it threatens the publicly traded Magnificent Seven, or Mag 7.[5] There is now also a private version: Open AI, Anthropic, xAI, Stripe, Databricks, and Andurill.[6]

[5] The Magnificent Seven is the financial market vernacular for the extraordinarily successful IT/AI companies Alphabet, Amazon, Apple, Meta Platforms, Microsoft, NVIDIA, and Tesla.
[6] Source: https://forgeglobal.com/private-magnificent-7/, xAI acquired by SpaceX in February 2026. Previously included SpaceX, which went public on June 12, 2026.

By definition, these firms are not yet public, but they do trade—on private exchanges. Because of this secondary market, price data is available. SpaceX market capitalization reached approximately $2.1 trillion following its IPO on June 12, 2026. The next largest is OpenAI, at $852 billion.[7] Collectively, the seven are worth more than $3 trillion.[8] If and when—only after the index's one-year IPO "seasoning" requirements—these are included in the S&P 500, the public Mag 7 weightings will have to be proportionately reduced. Once qualified, SpaceX would be in the top-ten, by pure non-float-adjusted market cap, in the S&P 500; OpenAI would be roughly the eleventh-largest, even with the private-market discount that must be in the current valuation.[9]

Such a re-weighting of the index, and the necessary selling pressure on the incumbent Mag 7, is a side note compared to the competitive risks that the private Mag 7 represent to the public Mag 7. As an example, Open AI, which operates ChatGPT, could conceivably provide competition that Alphabet's Google search engine has never had to face. The basic ChatGPT service is free and is not advertiser-based, which is inherently different than Google's business model. Used as a search engine, ChatGPT can avoid the advertiser-directed Google searches.

Time will tell whether these specific threats come to pass or not. The critical observation is that, for 25-odd years, the world's largest companies have been insulated from competitive threats and have managed to record high returns on equity without precedence. Now, competitive forces are being released that have been absent for a very long time. The high valuation multiples partly reflect the relative absence of competition. As competition emerges, those multiples should trend lower in accordance with the more normal historical experience.

How that will impact their stock market valuation remains to be seen. But if there is no cash flow remaining to buy back shares, or pay dividends, or expand the business in other areas than AI/data centers, there is a strong possibility that the $13 trillion valuation of these five companies will contract. Again, they represent almost 20% of the S&P 500 and NASDAQ 100.

Whether the hyperscalers will be able to generate an adequate return on their enormous investment remains to be seen. What appears to be more certain is that they will continue to build an increasing number of data centers—and require ever-more electricity, water, and land. While these firms can be likened to the gold diggers in a gold rush, the companies we own are the resource providers for the necessary and limiting factors for their operation and growth—in terms of the requisite land, water, and power. In other words, as in La Fontaine's fable of the ant and the grasshopper, we prefer to play the role of the ant.

[7] https://openai.com/index/accelerating-the-next-phase-ai/
[8] Source: forgeglobal.com, as of May 21, 2026
[9] Market Cap as of May 20, 2026.

region, or investment techniques. They generally primarily seek capital appreciation with a secondary objective of income.

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