PENN CAPITAL

The Hyperscaler Capex Supercycle:

How AI Infrastructure Spending Is Reshaping Small-Cap Opportunity

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Executive Summary

The five largest publicly traded hyperscalers — Amazon, Alphabet, Microsoft, Meta, and Oracle — are executing likely the most aggressive coordinated private sector capital expenditure (capex) cycle in modern history, expected to total $4.7 trillion between 2025-2030. While this surge is reducing their free cash flow to 2013 levels, it is creating a potential structural, multi-year tailwind for smaller companies that must build, power, and connect the AI economy. Credit markets have so far been willing to finance the buildout, but we believe Oracle's recent credit weakness is a reminder that debt markets can reprice capital intensity quickly and may provide an early warning for equities.

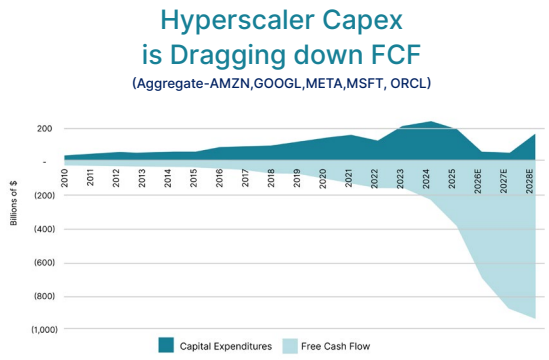
The Scale of the AI Infrastructure Buildout & Historical Comparisons

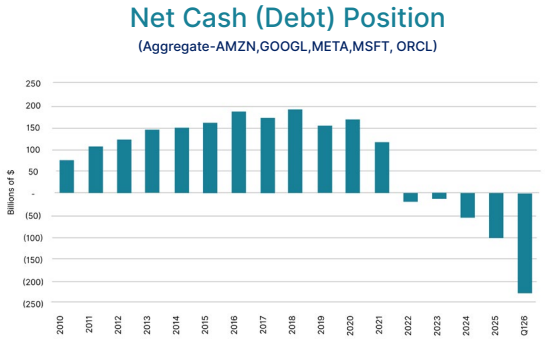
The magnitude of the hyperscaler capex is staggering. Expectations for 2026 are $690 billion, up 207% from 2024 levels. Roughly 75% of that is directly tied to AI infrastructure. Wall Street analyst's projections a total of $4.7 trillion from 2025-2030. These estimates do not include OpenAI, a large private hyperscaler, which has committed to spending $600 billion by 2030, and smaller companies like Anthropic and xAI which have committed to $10s of billions/year.

There are several useful historical comparisons. The ~$7 trillion of U.S. fiscal stimulus during COVID in 2020 and 2021 is similar in magnitude, while the GFC stimulus was smaller at ~$1.3 trillion (both inflation adjusted). The most recent capex cycle was the shale revolution from 2010-2020 which, spurred by developments in fracking technology, led to aggressive spending on capex and negative free cash flow generation, resulting in hundreds of bankruptcies and a negative -63% return from the Russell 2000 Energy Index. The 1990s telecom buildout followed a similar pattern and, ironically, that fiber optic cable is in high demand today. The one major capex cycle that likely still dwarfs this one is the railroad boom of the 1880s, which is estimated to have reached 5-6% of U.S. GDP versus 2% for AI capex. New technologies often attract too much capital too early, as pioneers overestimate future demand and underestimate the pace of productivity gains. That does not mean these AI investments are irrational, but it does mean investors should be aware that even transformative technologies can produce poor equity outcomes if capital intensity outruns returns.

FCF Compression and Leaves No Fuel for the Capital Return Engine

For more than a decade, mega-cap technology companies were known for prolific free cash flow generation and capital return. From 2010 to 2024, the hyperscalers spent 39% of their operating cash flow on capex, leaving 61% available for capital return. That regime has changed, with capex projected to remain above 90% for the next few years, leaving little for shareholder returns without drawing down cash or issuing debt. The hyperscalers doubled their net debt position in 2025 to $102 billion and added another $120+ billion year to date. Additionally, off-balance sheet commitments, mainly leases and chip purchase obligations, are nearly $1 trillion. This does not mean the hyperscalers are impaired, but when capex disconnects from free cash flow, debt issuance, funding gaps, and credit spreads are critical to watch.





Source: Bloomberg Data as of May 2026

A Credit Market Warning: Oracle Case Study Oracle is the clearest example of the financing risk embedded in this cycle. ORCL stock nearly doubled from year end 2024 to its peak in Sept. 2025 as investors celebrated its role in Stargate, Google cloud expansion, and data center power-related agreements. After announcing a $300 billion deal with OpenAI, Oracle raised 2026 capex guidance to $50 billion, creating a funding gap of $27+ billion/year. Credit markets reacted swiftly as ORCL 5yr CDS moved aggressively and ultimately widened 400% to 200 basis points, implying ~ 16% default probability. S&P and Moody's moved to a negative outlook. The stock followed, falling ~60% from its September 2025 peak. The sequence matters: equity markets rewarded ambition, credit markets repriced risk, and then equities caught up.

ORCL 5yr CDS Repricing Risk Ahead of the Stock

Source: Bloomberg Data as of May 2026

Where the Capital Is Going: The Small- and Mid-Cap Beneficiaries

Hyperscaler dollars do not evaporate, they flow through to the physical economy. Morgan Stanley forecasts U.S. data center power demand could reach 74 gigawatts by 2028, resulting in a 49 gigawatts shortfall, implying that massive investment in generation, transmission, and grid infrastructure is not optional. This supply-demand imbalance in creates durable tailwinds across several sectors where smaller companies dominate including 1) telecommunications companies that facilitate the movement of data via fiber optic cables, 2) tech hardware equipment companies that provide tools to increase electrical transmission signals on the fiber optic cables, 3) energy, power & utilities companies providing on-site power generation and long-term power purchase agreements with independent power producers that bypass constrained power grid, 4) industrials & engineering services building the electrical grid, high-voltage transmission, cooling, and data center interconnections, and 5) materials companies producing copper, steel, and transformer-grade electrical steel as critical inputs.

Crucially, much of this spending flows to domestic, smaller businesses which can be seen in the last 12 months performance where small has beaten large and the highlighted sectors have far outpaced their larger market cap peer groups.

Total Return % - Trailing 12 mo as of 5/15/2026			
	Russell 2000	S&P 500	+/-
Index	34.44	27.08	7.36
Comm Services	149.6	47.2	102.4
Energy	71.4	42.5	28.9
Technology	58.0	46.3	11.7
Materials	49.6	19.1	30.5
Healthcare	43.9	14.0	29.9
Industrials	43.8	22.3	21.5
Real Estate	20.1	9.7	10.5
Financials	14.0	1.5	12.6
Utilities	11.3	12.6	(1.3)
Cons Discretionary	5.4	12.9	(7.6)
Cons Staples	(0.6)	10.6	(11.2)

Source: Bloomberg Data as of May 2026

The Small-Cap Investment Thesis and Positioning at Penn Capital

At Penn Capital, we believe this trend has strength and that large tech companies investing to win the AI revolution will benefit smaller companies. Small cap equities enter this cycle with undemanding relative valuations, support from lower interest rates, and favorable credit markets to facilitate refinancing activity.

In our view, our strategies at Penn Capital are positioned to benefit from this environment. We have been, and remain, overweight sectors such as Energy, Communication Services, Industrials, and Materials, where many of our peers are underweight. Many of these companies have complex balance sheets, making our credit expertise especially valuable. We remain vigilant to the risk of the cycle turning as cross-sector correlations rise, and we monitor credit markets closely because they can provide warning signals earlier than equities in downturns driven by leverage, funding stress, or deteriorating liquidity.