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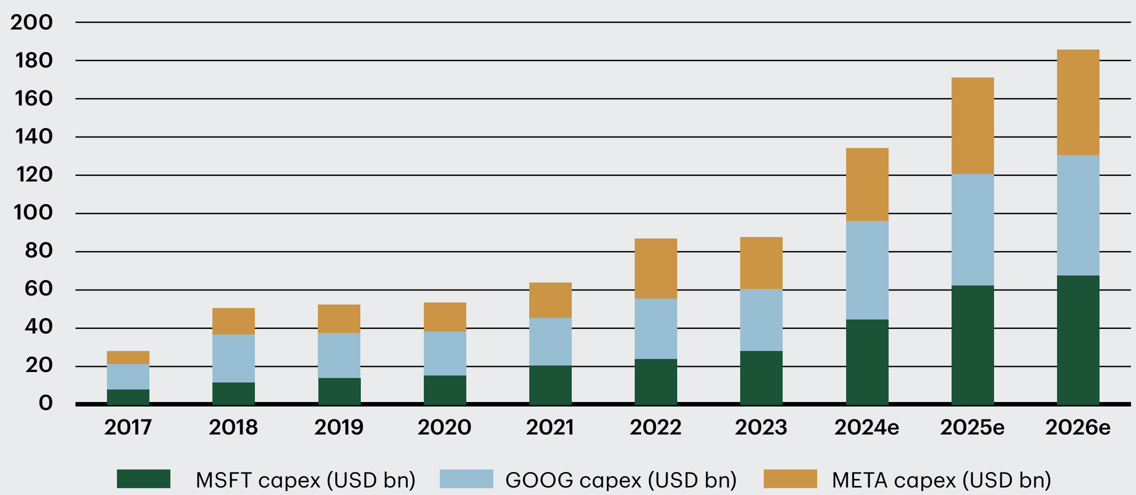
AI and the Tech Boom:
It's Not Yet 1999

ChatGPT was released in late-2022 and almost immediately ignited a capex surge reminiscent of the late-1990s. Spending by the top three hyperscalers had increased steadily from 2017 but then rose by an eye-popping 53% in 2024 with the trio forecasting a 27% increase in 2025 (Figure 1). Similar to the internet boom, capex is soaring even though it is unclear when there will be a return to the massive amounts of capital being invested.

Figure 1: Capital expenditures by the big three hyper-scalers (USD bn)



Source: Bloomberg Finance L.P.

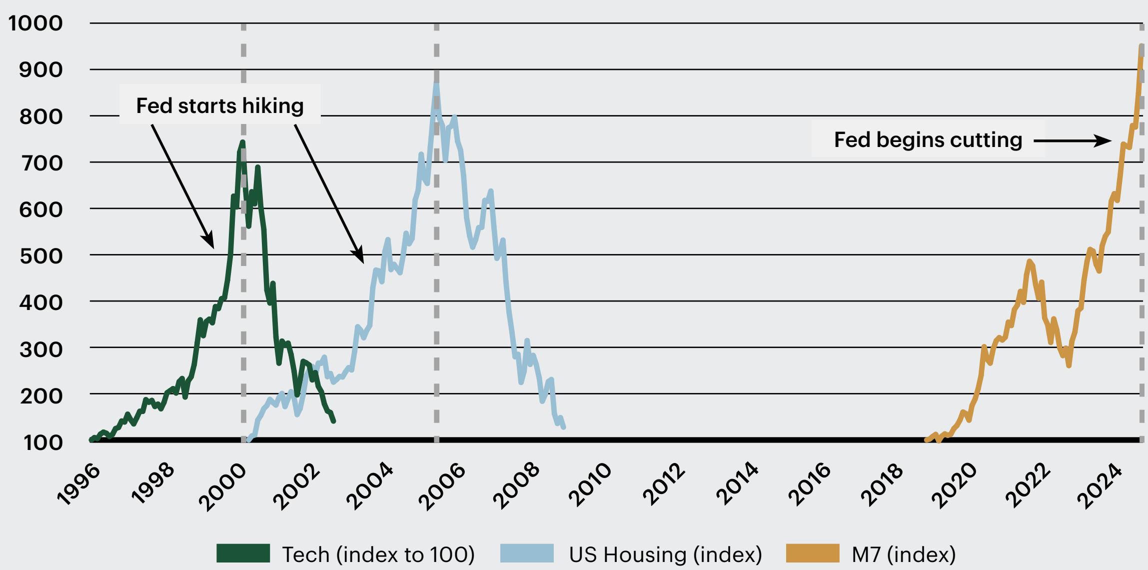
The hyperscalers are fully committed to AI because they rightly view it as a highly disruptive, general-purpose technology that will be the key driver of their free cash flow (FCF) over the next decade. The tech titans also realize they face an existential risk in that falling behind in the AI race means their market leadership is likely to atrophy and they could ultimately go the way of Kodak and Blockbuster. That is, their choice is to spend massively, and to some extent recklessly, or risk fading into obscurity.

Although there are many similarities between today's AI frenzy and the internet boom, there are three reasons why we believe it is not yet 1999. First, investment booms invariably last longer than two years (for example, seven years for the internet and six years for housing in the prolog to 2007). A risk to this view is that we've already reached the end of the AI scaling law (the tendency for models to get markedly better as more data and compute is thrown at them). Alternatively, it might take much longer to develop useful products or killer apps, raising doubts about FCF and return on invested capital (ROIC). Either of these scenarios could precipitate major cutbacks in capex, but we view them both as low probability events.

Second, the Fed is currently cutting interest rates, ensuring liquidity remains plentiful. The December 18 "dot plot" projects two 25 bps cuts during 2025. By contrast, the internet and housing booms ended nine months and three years, respectively, after the Fed began hiking **(Figure 2)**. The key risk to this view is that the disinflation process that began around mid-2022 appears to have stalled over the last six months or so. This could cause the Fed to dial back its dovish guidance and, in an extreme scenario, make a U-turn and prepare markets for policy tightening.

The third reason to believe this is not yet 1999 is that President-elect Trump has adopted a staggeringly pro-tech stance, surrounding himself with triumphant entrepreneurs and announcing a swarm of policies that should provide a salutary tailwind for the tech sector, at least through 2025 and likely well beyond.[1] They key theme is "It's Time to Build," favoring AI, crypto, drones, defense-tech, biotech, and so on. The main risk to this view is that we've all gotten over our skis and have priced in too much, too early. Governing is a lot more challenging than campaigning and one can't exclude the possibility that we'll experience a classic "buy the rumor, sell the news."

Figure 2: The AI boom is unlikely to end until the Fed pivots away from easing and begins to hike aggressively



Source: Bloomberg Finance L.P.

M7: AAPL, AMZN, GOOGL, META, MSFT, NVDA, TSLA. Indexed to 100 on 1/2019.

[1] The pro-tech policies are primarily about deregulation, such as revoking President Biden's AI Executive Order, relaxing SEC regulations to allow crypto and the blockchain to flourish and revising FAA rules to encourage a domestic drone industry. Changes will also occur at the Department of Transportation (to accelerate the rollout of AVs), FTC (to allow more M&A) and EPA (to reduce construction delays).

Will a small number of tech titans continue to dominate?

If we are correct that it isn't yet 1999, there remains the question of market concentration. Over the last decade, a handful of tech behemoths have experienced exponential growth in their FCF, market cap, power, and influence. Their continued dominance will depend on two developments.

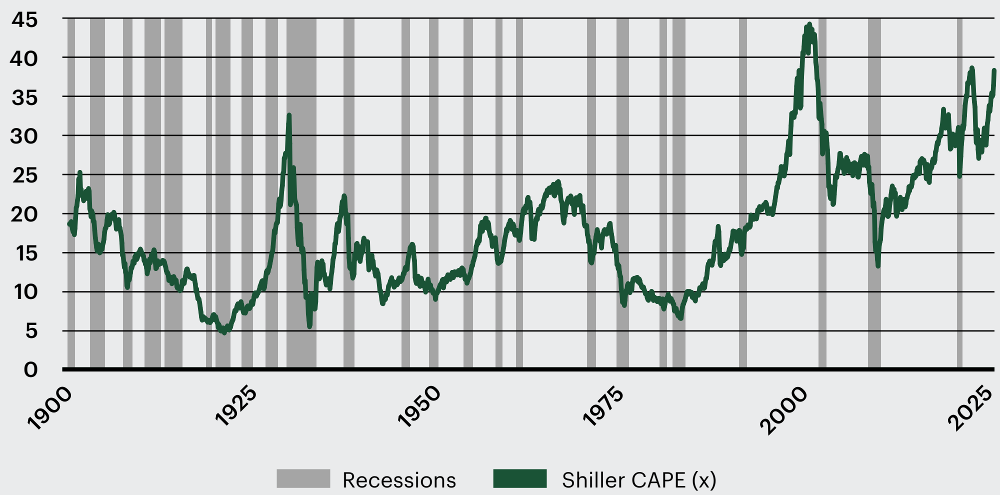
First, antitrust, which had been essentially dormant in the decades prior to 2021. However, the Biden administration aggressively cranked up the volume and currently 43% of the S&P 500 is under antitrust investigation. This enforcement blast reflects a perception that big tech has grown more by acquisition and erecting unfair barriers than by innovation and superior products.[2] All indications, including Trump's nominees for the Federal Trade Commission (FTC) and Department of Justice (DOJ), are that the new administration will dial back antitrust enforcement significantly, which means merger and acquisition (M&A) activity is likely to rebound sharply.[3] However, the perception that tech is too powerful is widespread and the content moderation policies of social media are thoroughly reviled within the GOP. This suggests the antitrust dial won't swing all the way back to its pre-2021 setting.

The second factor is the innovator's dilemma which, by definition, comes into play during periods of rapid disruption. Few titans in 1970 (PCs) or 2000 (internet) were still there twenty-five years later. To illustrate, of the top twenty global tech companies in 2000, only three remain on the list today (MSFT, ORCL, CSCO). This begs the question: What will the 2035 list look like? One lesson from history is that it is always the case that titans rise and titans fall, but it happens especially quickly in tech. That is, we should expect a majority of today's tech giants to fall from grace over the next decade, to be replaced by startups that are currently viewed as quirky and obscure, known only to a small number of customers and investors.

Two risks to our constructive view: Valuations and the timeline for killer apps

We believe the tech sector will continue to lead the overall equity market higher, at least through 2025. The biggest risk to this view is valuations **(Figure 3)**. While not yet as stretched as 1999, multiples are at extreme levels, as is equity market concentration and sentiment toward stocks. Further, the MSCI US Index currently trades on a forward PE of 26x vs 15x for the rest of the world. This is a record gap and emphasizes how vulnerable today's lofty valuations are to a macro shock.

Figure 3: U.S. equity market valuations were only higher once over the last 125 years



Source: Bloomberg Finance L.P.

[2] To illustrate, GOOG has made 262 major acquisitions since 2001 (e.g., YouTube, DoubleClick, Waze, DeepMind), while MSFT has made 225 since 1986 (including Hotmail, Skype, LinkedIn, GitHub, and Activision) and META 99 since 2007 (e.g., Instagram, Oculus VR, WhatsApp).

[3] This will likely include cross-border acquisitions, especially given USD strength and how inexpensive overseas companies are (note the extreme PE-gap between the MSCI US and both MSCI EAFE and MSCI EM).

A second risk concerns how long it will take before the first AI-enabled killer apps arrive and begin producing serious FCF. Optimists believe this will happen during the next couple years, powering markets to even loftier heights. On the other hand, pessimists emphasize the experience with the internet investment boom, which ran from 1994 to 2000. The internet frenzy resulted in massive misallocations of capital. Further, serious FCF and respectable ROIC did not arrive until well after a decade, and many of the beneficiaries were recent startups rather than the firms that had stumped up all the capex. On balance, our reading of history leads us to side with the pessimists. However, we don't expect this to become a major issue for markets until 2026 or even later.

Conclusions for Investors

We expect tech to remain the key driver of equity markets during 2025, but with elevated volatility reflecting a number of the challenges and issues raised above. We are constructive on many areas of tech, including select hyperscalers and semiconductor companies, as well as firms involved in data centers and electricity generation. Finally, we remain positive on equities overall, with the U.S. topping our ranking of markets, followed by Japan and the UK. We have a less favorable view on the outlook for stocks in Europe and China.

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