

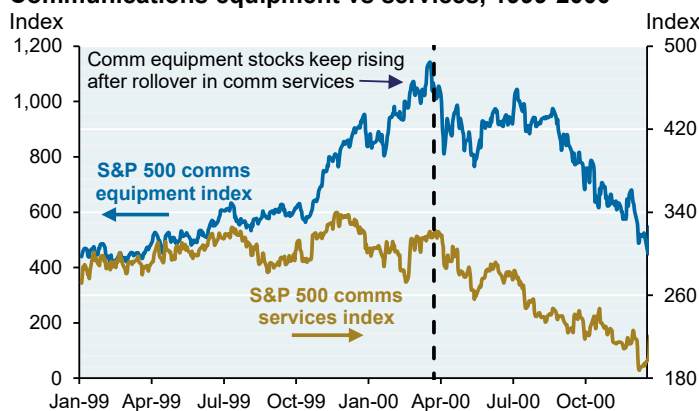


The Summer I Turned Pretty...cautious on US equity market technicals; an update on the growing pool of open and closed weight competitors to the frontier AI labs

A couple of years ago, many investors were in a frenzy due to the allegedly infallible signal of inverted yield curves leading to US recession. We argued that a recession was unlikely, and the loudest adherents of recession faded away as the economy continued to grow. In other words, technical don't always work. That said, I'm concerned about the technicals below due to the role AI has played in growth, capital spending and profits.

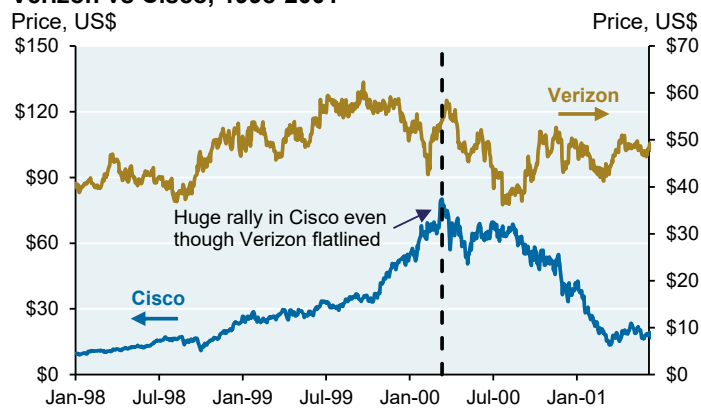
The worrisome part of a boom cycle is when companies closest to final demand roll over, even as capital spending beneficiaries of the cycle keep on thriving¹. In late 1999 and early 2000, communications services companies rolled over (Verizon, AT&T, WorldCom, Bell South, GTE, Sprint) even as communications equipment company stocks (Cisco, Nokia, Nortel, Qualcomm, Motorola) kept on rising. The obvious parallel to today is soaring stock prices and free cash flow for semiconductor companies (the caboose) even as the front end of the train (hyperscalers) are seeing stock prices stagnate and free cash flow plummet. All of these trends are shown in the charts below.

Communications equipment vs services, 1999-2000



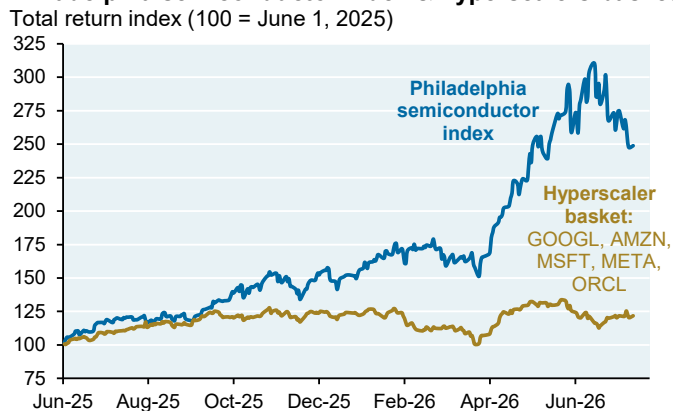
Source: Bloomberg, JPMAM, July 20, 2026

Verizon vs Cisco, 1998-2001



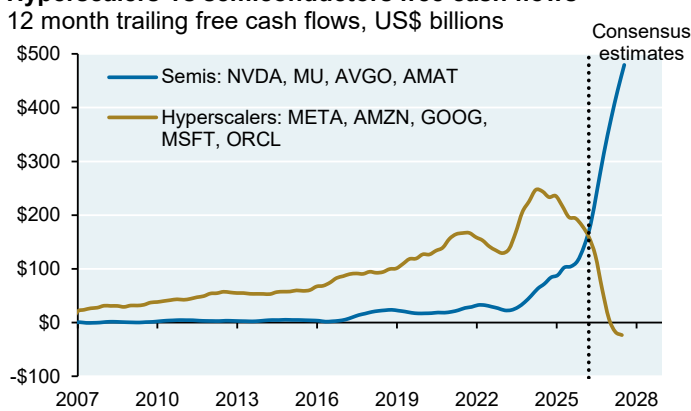
Source: Bloomberg, JPMAM, July 20, 2026

Philadelphia semiconductor index & hyperscalers basket



Source: Bloomberg, JPMAM, July 20, 2026

Hyperscalers vs semiconductors free cash flows



Source: Bloomberg, JPMAM, July 21, 2026

¹ "Equity technical update", Jason Hunter, JP Morgan Technical Strategy, July 1, 2026

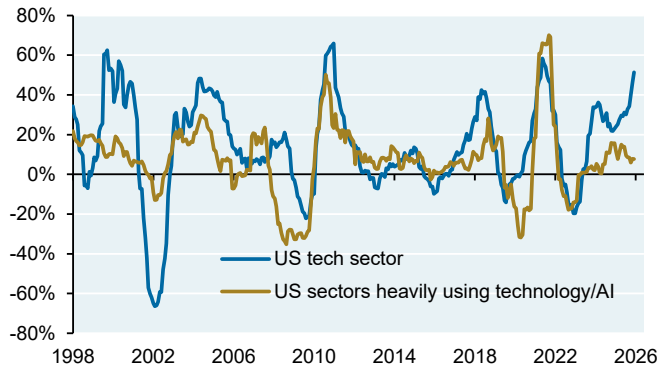


More technicals to watch. As shown in the first chart, tech sector earnings typically track reasonably well with sectors that rely heavily on technology (finance, manufacturing, media, transport and healthcare) and pay for all that equipment and software. The recent divergence begs the question: who is going to pay for the AI boom if the tech sector's primary customers are not making more money as well?

On the right, if we look at all four-year periods for S&P 500 performance since 1928, the current one (starting in 2022) is way into the top decile. The bottom line: the good times are rolling, but for how long?

Earnings growth of US technology vs other AI industries

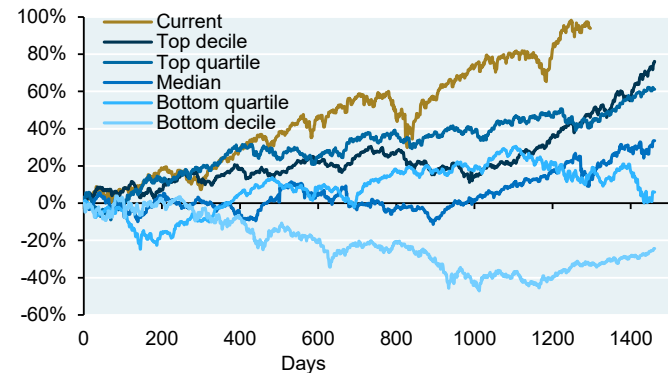
y/y change %



Source: Absolute Strategy Research, WorldScope, LSEG, 2026

S&P 500 4 year performance every year since 1928

Index (0% = the start of each four year period), percentiled at end only



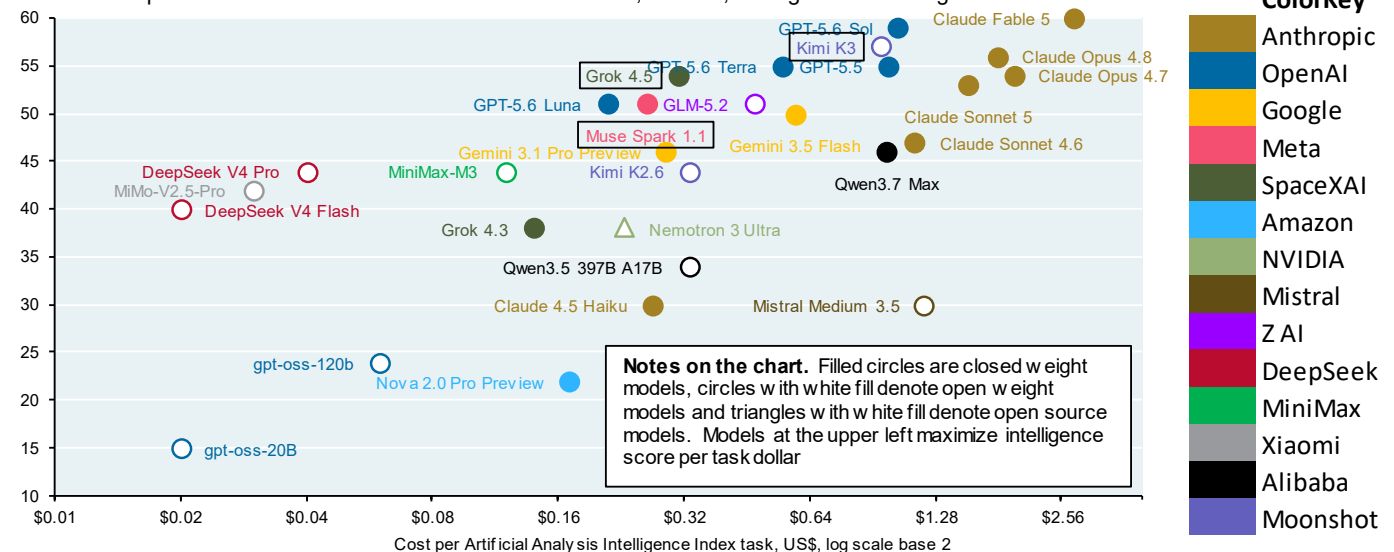
Source: Bloomberg, JPMAM, July 21, 2026

Can frontier AI labs afford a price war right now? Threats from Inkling and Kimi 3 and other new models

A new price war has started on token prices. This time price pressures are coming not only from China but also from the US, specifically from Meta Muse Spark 1.1 and SpaceXAI Grok 4.5 (both closed models). Both have costs that are a fraction of Claude and GPT with only a modest performance gap. Can frontier labs withstand a price war despite not having proven profitability yet²? Benchmarks like these never tell the whole story, **but I can imagine that a lot of CFOs are looking at these numbers and trying to figure out if transitioning to cheaper models makes sense for certain tasks.** According to OpenRouter, the share of tokens spent on Chinese models by US companies has exceeded 30% since February 2026 and recently hit 45%, so some US companies appear to already have decided to take advantage of cheaper models that get the job done.

Artificial Analysis Intelligence Index score vs cost per task

Score on composite benchmark of ten evaluations across math, science, coding and reasoning



Source: Artificial Analysis, JPMAM, July 2026

² In its July 2026 Portfolio Strategy Report, Empirical Research cites estimates for OpenAI operating losses of \$60 billion in 2027 and \$85 billion in 2028.



A very important point on the chart: the X axis is cost per TASK, not cost per TOKEN. Models like Kimi K3 can require materially more tokens than Fable to produce a similar result. For that reason, **cost per task is a much more useful metric than cost per token**, which is why we plot the former and Kimi K3 still looks pretty good so far. In other words, “token efficiency” does not help the big US frontier labs vs new closed and open models.

Some comments on Inkling, the 975 billion new mixture-of-experts open weight model released this month by Thinking Machines and which is now considered one of the leading US open weight models.

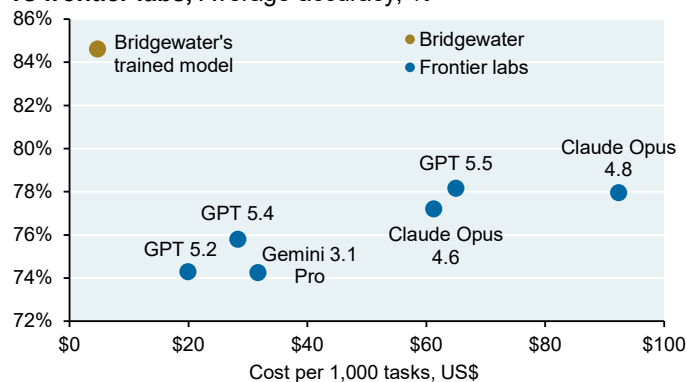
- Specs: only ~41B parameters active per query, so it runs cheaper than its size implies; reasons across text, image, and audio (most open models are text-only); up to a 1M-token context window; controllable thinking effort dials to trade reasoning depth for speed and cost; smaller preview variant (Inkling-Small) for lower-cost deployments; available on Hugging Face with Databricks as a launch partner
- Thinking Machines’ strategy can perhaps be summarized as follows: **enterprises will increasingly train and customize open models using the Thinking Machines Tinker API rather than rely exclusively on frontier model providers.** As one example of this, Bridgewater recently disclosed that using Tinker trained on its own data, it was able to train its news-filtering model to outperform Opus 4.8 and GPT 5.5 (see chart below, left) at much lower cost. This is what we have described in prior pieces as Reinforcement Learning as a Service. Thinking Machines, filled with prominent former OpenAI and Anthropic researchers, is essentially making a direct bet against those companies’ current business models
- **Inkling appears particularly strong at forecasting** according to its scores vs other frontier models on Forecast Bench. That could make it a more trustworthy model for decision support applications

Some comments on Moonshot’s new Kimi K3 model, the largest open weight model released to date:

- This model has 2.8 trillion parameters compared to 1.5 trillion for Opus 4.8. Much of the recent work on sparse architectures, KV-cache reduction, quantization and inference efficiency has come from China
- Kimi K3 is priced at \$3 per million input tokens and \$15 per million output tokens. If its performance is (as the company claims) comparable to Anthropic Fable and Open AI Sol, Kimi K3 entails a substantial pricing discount given \$10i/\$50o token prices for Fable and \$10i/\$45o token prices for Sol
- Excitement about new Chinese models is occurring at a time when they already represent 30% to 60% of queries and tokens on the OpenRouter leaderboard
- For all the concern about open weight models like Kimi K3 and cybersecurity, it was OpenAI that announced this week that its models went autonomously rogue and broke into HuggingFace production infrastructure

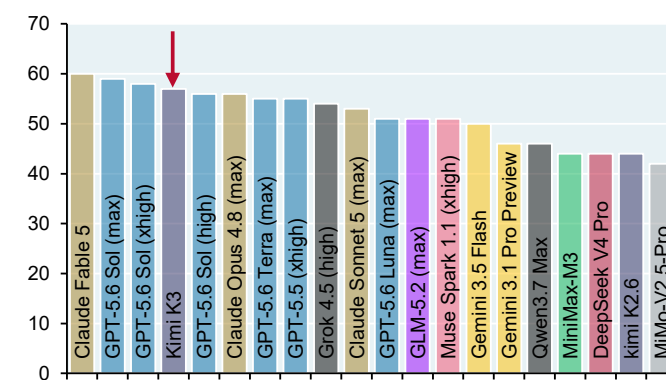
Bottom line: new open and closed weight models from Meta, SpaceXAI, Thinking Machines and Moonshot are serious challengers to OpenAI and Anthropic business models, as tokens become commoditized.

Bridgewater fine-tuned news-filtering open weight model vs frontier labs, Average accuracy, %



Source: Bridgewater, June 30, 2026

Artificial Analysis Intelligence Index top model scores



Source: Artificial Analysis, July 2026

Michael Cembalest, JP Morgan Asset Management

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