

The Macro Implications of the AI Capex Boom

We believe AI capex is set to significantly support US growth in the coming years and that many of the second-order consequences of this investment are not priced in.

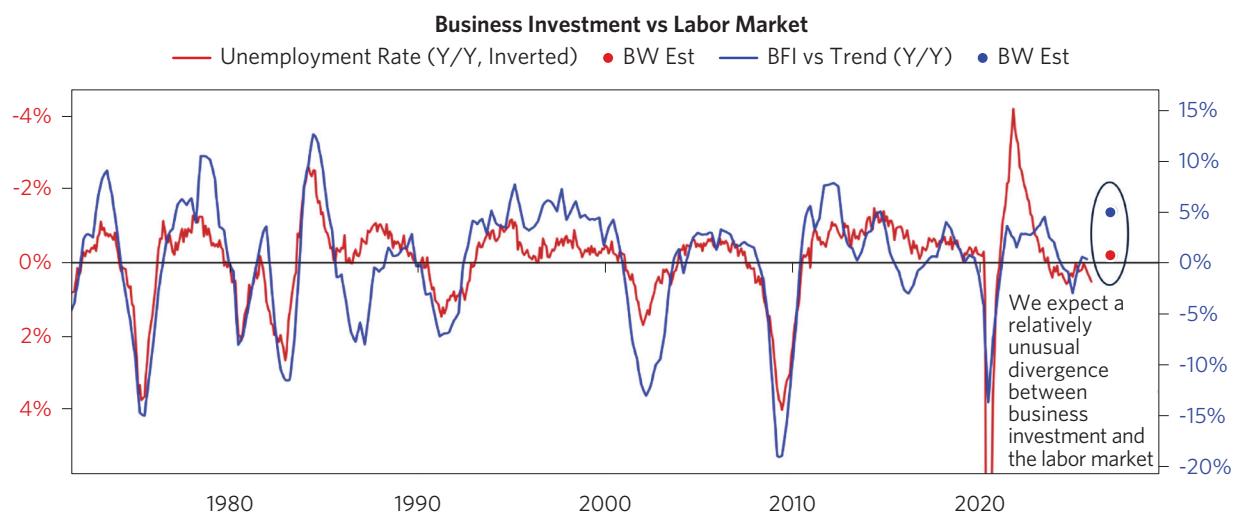
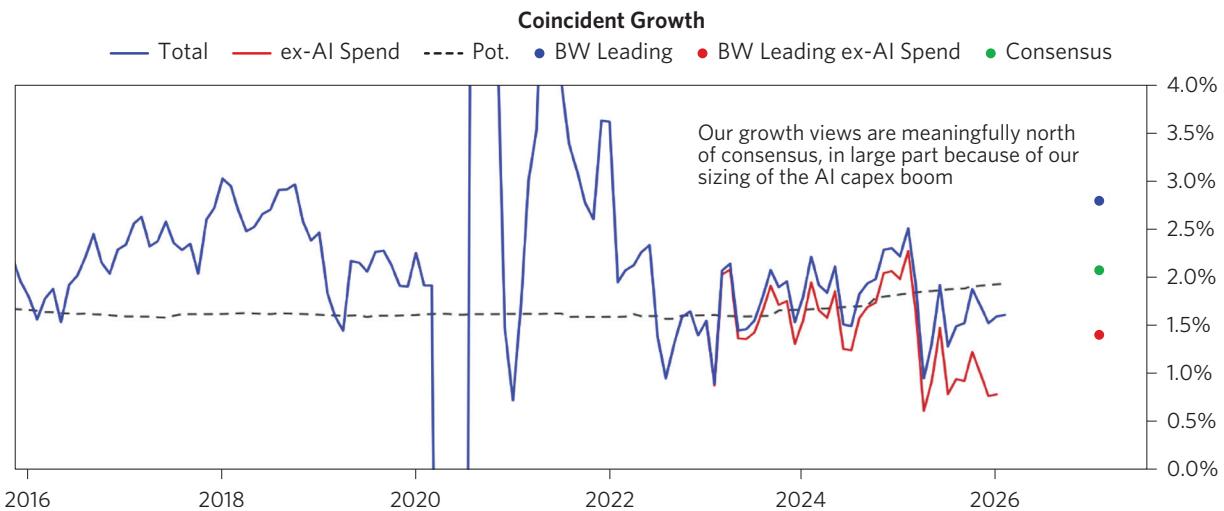
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Looking into 2026, one of the dynamics that seems most underpriced to us is the effect of the AI capex boom on macroeconomic conditions. A lot has been said about the particular companies doing the AI capex and their earnings potential, but when we aggregate across companies to estimate the second-order, economy-wide effects, we get to impacts that look much larger than consensus growth forecasts. In this report, we share our thinking on the macro implications of AI's resource grab phase. We cover the US below, where the majority of the data center build-out is occurring, but the implications are global.

- **The impact on US GDP is very large—we estimate AI capex as providing a ~140bp boost to US growth in 2026 and a ~150bp boost in 2027.** These are massive sums, on par with the contribution of business investment to growth in the tech bubble. That said, a material part of the estimate comes from Nvidia and a couple other chipmakers' profits, which are unlikely to be recycled back into the economy (including profits they receive from selling chips to data centers being constructed in the rest of the world). It's very rare—even unprecedented—to have such high GDP growth driven in large part by profits that are captured and saved by a narrow set of companies.
- **Given the nature of the spend and where it will go, the AI capex boom is unlikely to support labor markets much.** The labor required to build or operate data centers is quite small relative to the dollars of capex spend. In fact, AI capex is at risk of creating negative pressures for the labor market, as the tremendous amount of financing required drives up the cost of capital, creating headwinds for other, more interest-rate-sensitive sectors that are also more labor-intensive, such as residential construction. These dynamics also have the potential to offset some of the inflationary elements of the AI boom, like higher power prices, through softer wages and services inflation, creating a mixed picture for inflation overall.
- **AI is not yet delivering significant productivity gains outside of a few specific segments of the labor market, but it is getting closer to being able to deliver more widespread impact.** The advancements in AI have been transformational, but in a way we'd describe as "more genius and less human." On nearly any measurable task, AI can either outperform a human expert or is on track to. But jobs involve much more than tasks, and the things AI is still bad at—like long-term planning, extended memory, and creativity—it is really bad at. This creates challenges for broad-based adoption. But as the models keep improving (as with the release of [Gemini 3](#) and [Claude Opus 4.5](#)), the point of widespread adoption is getting closer and, with it, significant amounts of investment and labor displacement.
- **How the Fed should handle strong growth, a soft labor market, and a potential disinflationary productivity boom is unclear.** The soft labor market poses risks to the Fed's employment mandate, and the outlook for inflation is mixed given labor market softness but rising prices for power and key data center inputs (like memory chips). But low interest rates risk further accelerating speculative equity market activity and the frenzy of deal-making and AI investment that's already underway, creating a ripe environment for a bubble.
- **Many of the second-order consequences are not priced in.** When we look at macro assets, we think the markets are not pricing the implications of this degree of capex—particularly this level of growth and the impact on yields and currencies from the growing competition for capital.

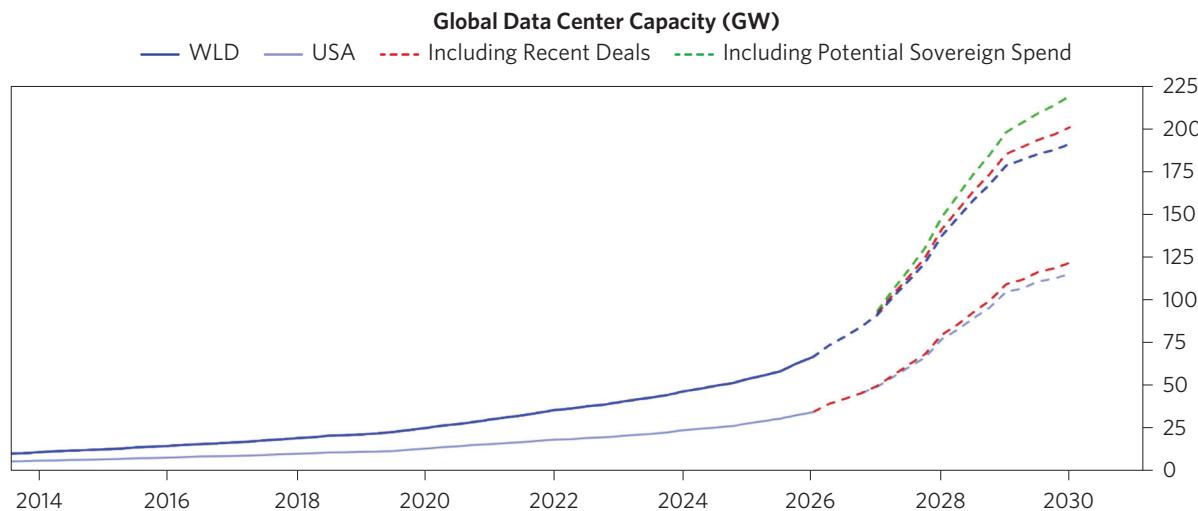
In short, there are pressures in the environment ahead for strong growth, but they are concentrated in AI investment as the rest of the economy grows around potential. This complexion of growth would constitute a historically rare combination of strong business investment but soft employment growth.



The Coming Wave of AI Investment Will Support Growth and Create Acute Price Pressures

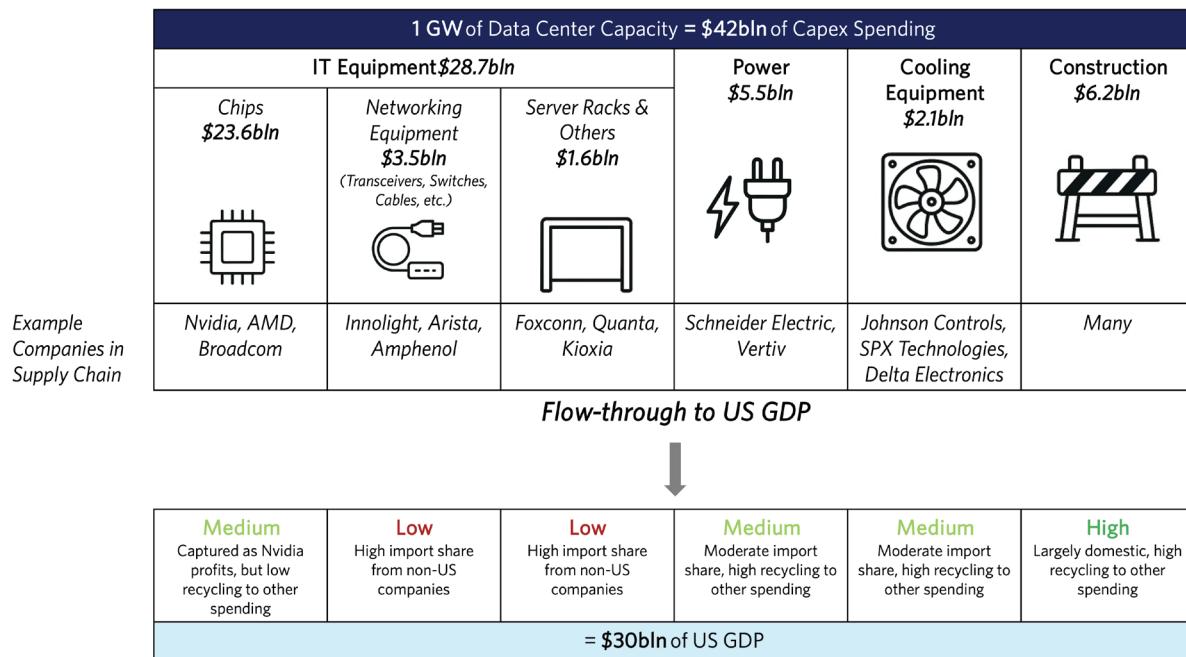
Demand for compute is rising exponentially as more consumers and businesses adopt AI and companies race to train the next generation of models. The leading companies are now locked in a competitive resource grab dynamic, committing to multiyear investment plans in order to secure necessary but scarce components.

Our process for estimating the growth impact of AI capex starts with a projection of the data center build-out, triangulating across company announcements and site-by-site permitting data, while making probabilistic adjustments based on factors like whether financing has been confirmed for that project. Below, we show our curves for both the US and the rest of the world. As you can see, the majority of the data center build-out is set to occur in the US, and even for non-US construction, a decent share will flow back to the profits of US companies (especially Nvidia). We focus on the impacts on US growth in the rest of this report, but the AI spend will be globally significant.



From there, we map the gigawatts of data center build-out to dollars of capex spend, and dollars of capex spend to dollars of real GDP. We do this based on a bottom-up understanding of the data center supply chain—for each component, what are the companies that supply those inputs, what is the nature of their supply chains (e.g., how much is imported), and how do they use the revenues they receive (e.g., input costs versus profits versus employee wages), which determines how supportive capex is of total US growth. Separately, we also pencil in the contribution from companies' spending on AI R&D and AI capex not tied to data center build-out, though it's worth noting that these channels of spending are small relative to spending on data center investment.

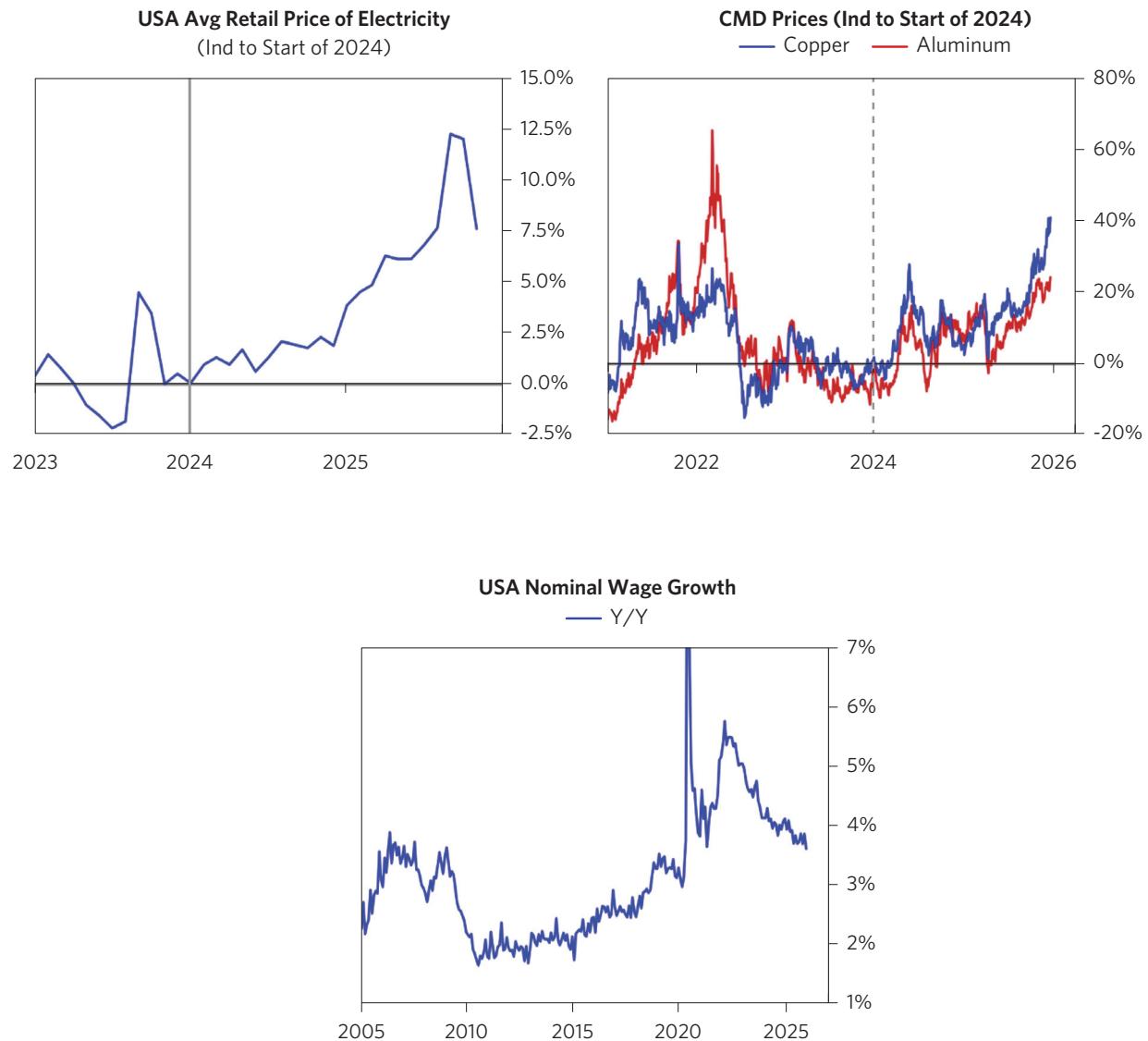
The diagram below highlights the essence of the approach. We get to a large contribution to US growth, shown in the charts in the introduction, because of the massive scale of data center capacity build-out that companies are committing to.



This build-out will create acute price pressures in particular pockets of the economy:

- **Power:** Surging demand for compute has already started to hit the “soft wall” of power availability in the US. The issues at play include insufficient peak generation capacity (i.e., not enough capacity to support the moments where electricity demand is highest) and insufficient transmission capacity to connect new power generation and new large loads (like data centers) to the grid. Many hyperscalers are turning to behind-the-meter solutions, like natural gas turbines, but these have important cost and relative efficiency disadvantages compared to the grid.
- **Key components (memory chips, generators/turbines, transformers, etc.):** Rising AI demand is also overwhelming supply chains for many of the other inputs into data centers. One of the most notable examples is memory chips, where leading companies like SK Hynix have stated they have sold out of all capacity until 2027. These supply pressures will percolate to other goods and businesses that use the same inputs—for example, memory chips are about 10% of the total cost of goods sold for an iPhone.
- **Materials:** Rising data center demand will also create price pressure for copper (which faces its own structural supply constraints), aluminum, and other materials.
- **However, labor costs are unlikely to rise much in aggregate,** as the total number of workers needed to build and operate data centers is quite small. That said, there is the risk of shortages for particular kinds of skilled labor, like electricians. But even quite significant wage inflation here wouldn’t have much of an impact on economy-wide wages.

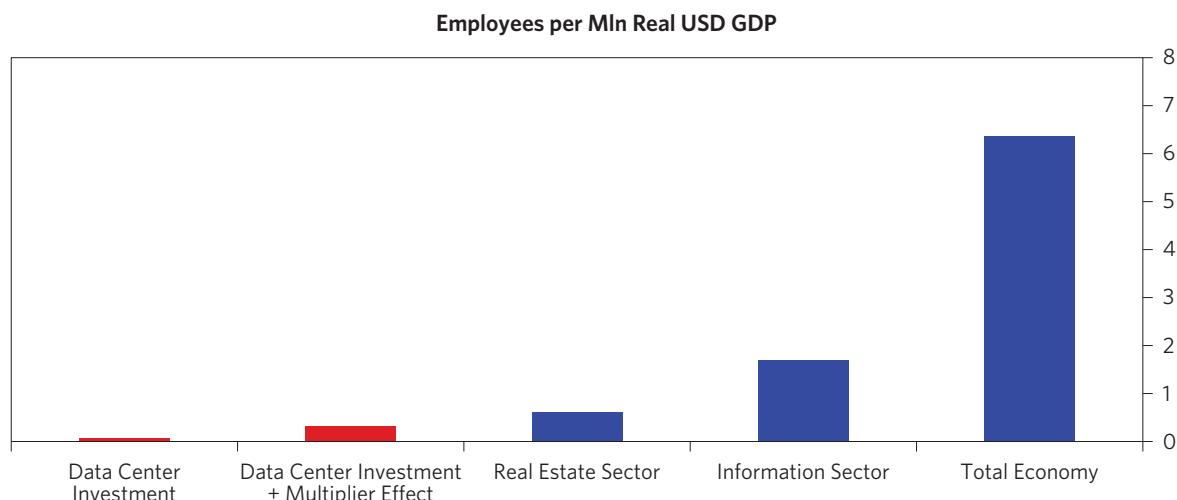
The charts below show how we're already starting to see these select price pressures materialize in power as well as the commodities used in data center construction. Memory chip prices (not shown below) have also surged over the past year. Meanwhile, wage growth continues to soften. For now, the impact on overall inflation is limited, given the much greater share of the CPI basket that's sensitive to wage costs compared to the prices more directly impacted by data center demand.



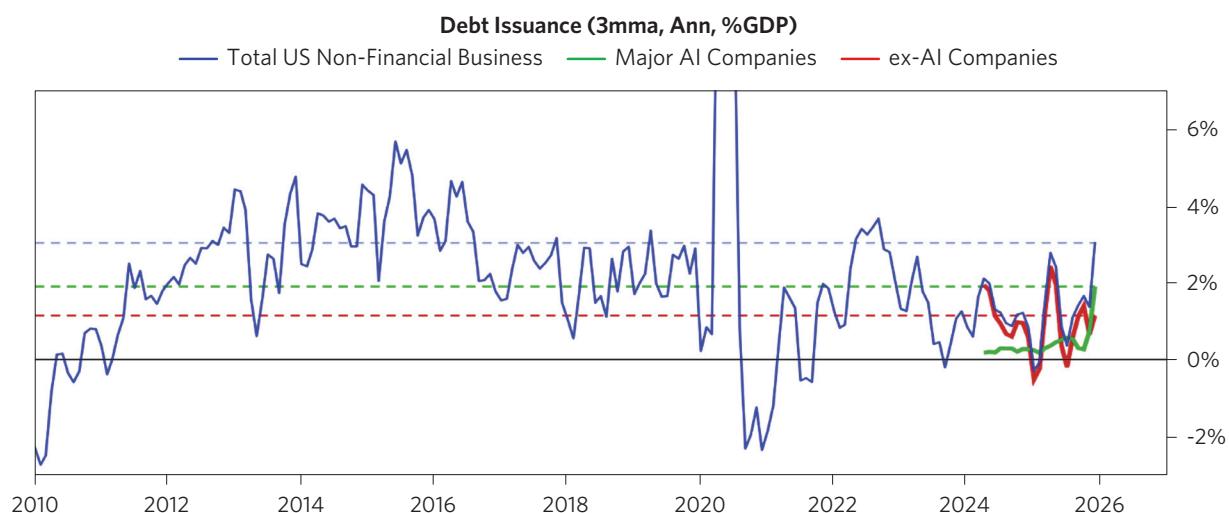
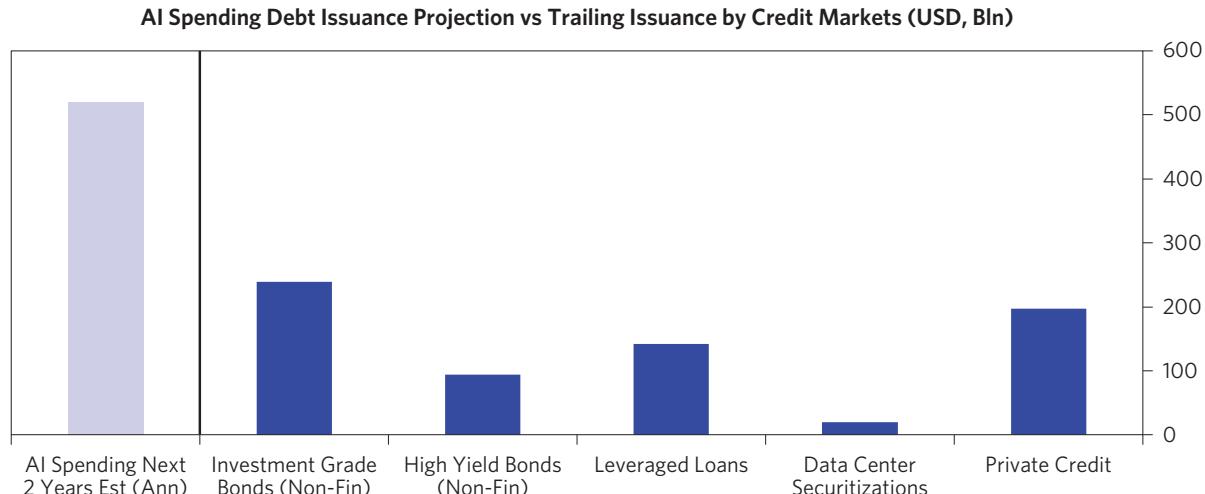
AI Capex Is Unlikely to Meaningfully Support Labor Markets and Risks Starving Other Sectors of Capital

We are relatively more confident in the impact of the AI capex boom on particular prices than we are in its overall impact on inflation because of the mixed impact it will have on the labor market and wages. By itself, AI capex is unlikely to be very labor-intensive—most of the cost involved is equipment-related (chips, cooling equipment, etc.), and once the data center is built, it requires very few people to operate. As a stark example, consider Meta's \$1.5 billion data center development in El Paso, Texas, compared to AESC's \$1.6 billion investment in a battery cell manufacturing plant in Florence County, South Carolina. The Meta data center is expected to support 100 jobs once completed, while the AESC manufacturing facility is expected to support 1,620, a huge difference for a comparable amount of investment.

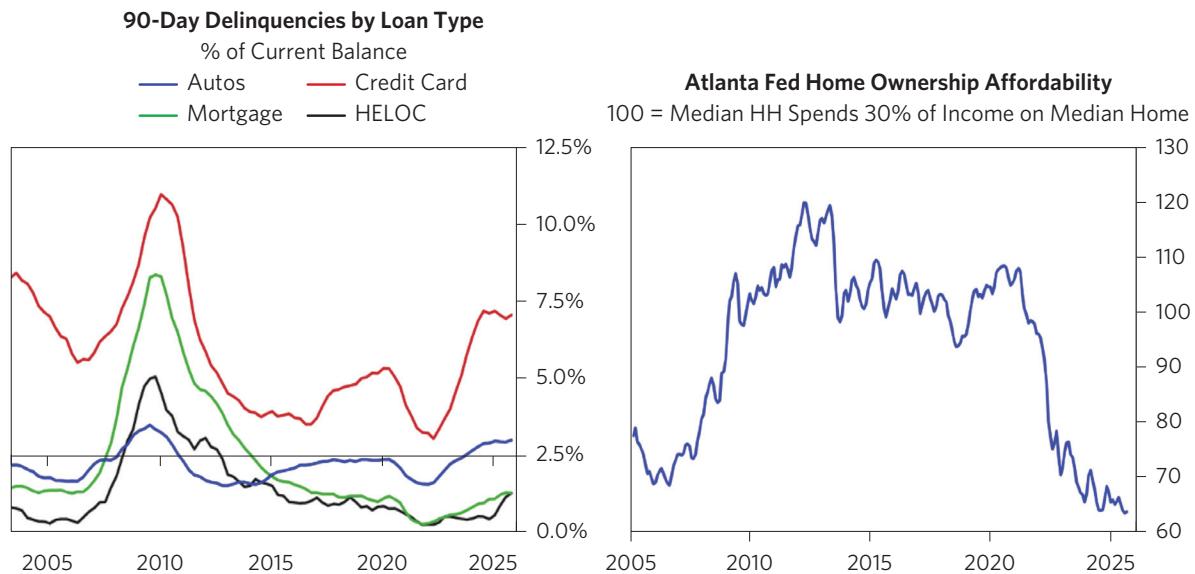
The chart below compares the employees per million dollars of US GDP that we expect from data center investment, compared to the labor intensity of general economic activity—it is much, much smaller, even smaller than other sectors that typically don't employ many workers relative to the value they create, like real estate or information. This is a somewhat overstated perspective—we are comparing capital investment in one industry to holistic economic activity in other industries—but it speaks to the extremely unique nature of the AI investment boom, and how much economic activity it can create solely through spending on capital as opposed to labor.



Even before accounting for any potential impact on AI adoption on employment, **AI capex itself could create headwinds to the labor market** by driving the cost of capital higher and steering capital away from other, more employment-sensitive sectors of the economy. There are some small signs that this is already happening—while total US corporate borrowing is now around its 2010s averages, that's primarily due to a surge in AI-related issuance. Borrowing from non-AI companies is running at levels that are quite low relative to the past 15 years.

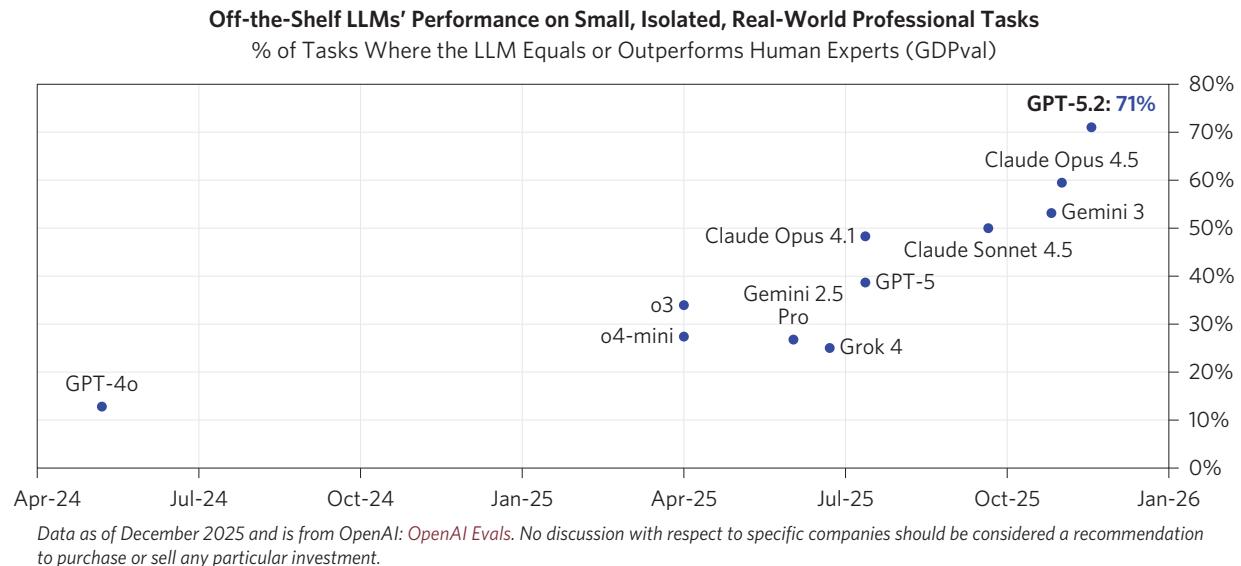


While US growth overall has held up as a result of AI capex and wealth gains powering consumption from high-income consumers, it is clear that high interest rates are slowing down pockets of the economy—delinquencies remain elevated, and home ownership remains unaffordable for many—weighing on spending that would be more likely to support employment compared to AI capex (e.g., services, residential construction).

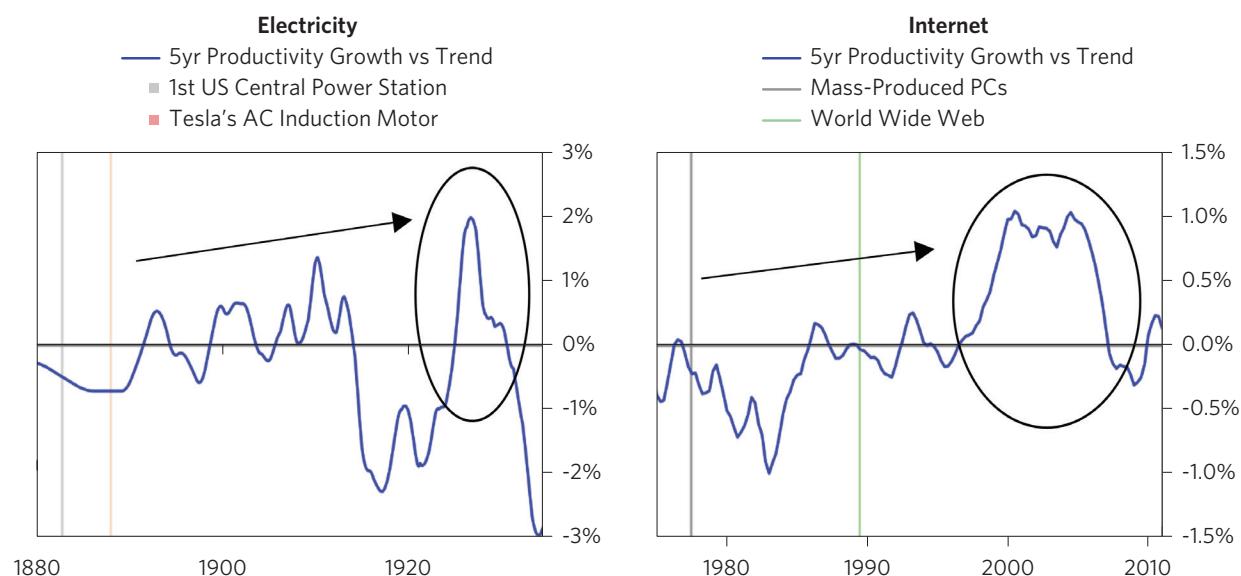


So Far, the Productivity Impact Has Been Limited, but We're Getting Closer to Bigger Changes

AI is not yet delivering significant productivity gains outside of a few targeted sectors, but it is getting closer and closer to being able to deliver more widespread impact. On nearly any measurable task, AI can either outperform a human expert or is on track to, but jobs involve much more than tasks, and AI is worse at skills like long-term planning, extended memory, and creativity. This limits how easy it is for organizations, particularly those without technologists and experts, to realize the potential of AI and, overall, contributes to our assessment of AI's achievements right now as "more genius and less human."



But as the models continue to improve (as with the release of **Gemini 3** and **Claude Opus 4.5**), the point of widespread adoption is getting closer, and with it, significant amounts of both investment and productivity. At least in the near term, AI seems likely to follow the classic J-curve productivity path of prior general-purpose technologies like electricity or the internet—requiring a lot of upfront investment that doesn't immediately improve productivity, but eventually proving transformative.



A Cross-Cutting Set of Pressures for the Fed

Given the supports from AI capex (as well as other pressures we've discussed separately, like OBBB provisions kicking into effect, and some potential for additional policy supports ahead of the midterms), we expect the US to grow well above potential and at a faster rate than the Fed expects in 2026, and for continued above-target inflation at a rate that's a bit higher than the Fed's estimate. But our estimates for the unemployment rate are much closer to the Fed's. The Fed has an inflation mandate and an employment mandate, not a growth mandate. Growth is only useful for giving us more of a leading read on what the Fed ultimately cares about, but it can be misleading when there are structural dynamics creating divergences between GDP growth and the labor market. The table below suggests that even by our own measures that account for the impact of AI capex, conditions may transpire in a way consistent enough with the Fed's own projections that the Fed continues normalizing interest rates.

2026 Projections			
	Fed	BW	Diff
Real Growth	2.3%	2.8%	0.5%
Unemployment Rate	4.4%	4.3%	-0.1%
Core PCE Inflation	2.5%	2.7%	0.2%
Fed Proj Easing	25bps		

Easing monetary policy into an environment of solid growth, rising investment, and technological innovation can create a particularly fertile set of conditions for an equity bubble. For now, this dynamic appears to be having little influence on how the Fed is setting monetary policy, with both Chair Powell and Vice Chair Jefferson highlighting (as we have) the strong earnings growth that has funded current AI investments and limited signs of financial excess. The question will be whether and how the Fed shifts its policy stance as financial conditions evolve and the AI investment boom accelerates from here.

- **Fed Chair Powell in response to a question about whether rate cuts could fuel a market bubble:** "...I don't think that the spending that happens to build data centers all over the country is especially interest-sensitive. It's based on longer-run, it's—longer-run assessments that this is an area where there's going to be a lot of investment and that's going to drive higher productivity and that sort of thing. I don't know how those investments will work out, but I don't think they're particularly interest-sensitive compared to some of the other sectors."
- **Vice Chair Jefferson:** "In sum, looking at these dimensions, as of now, the differences between the current market and the dot-com era make it less likely that we are witnessing a replay of the late 1990s. Most notably, in contrast with the dot-com era, the current AI-related stock market activity appears more concentrated among established firms with actual earnings. Additionally, these developments are occurring against the backdrop of a financial system that is sound and resilient."

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