

Too Many Thoughts on AI-Driven Spending and the U.S. Macroeconomy

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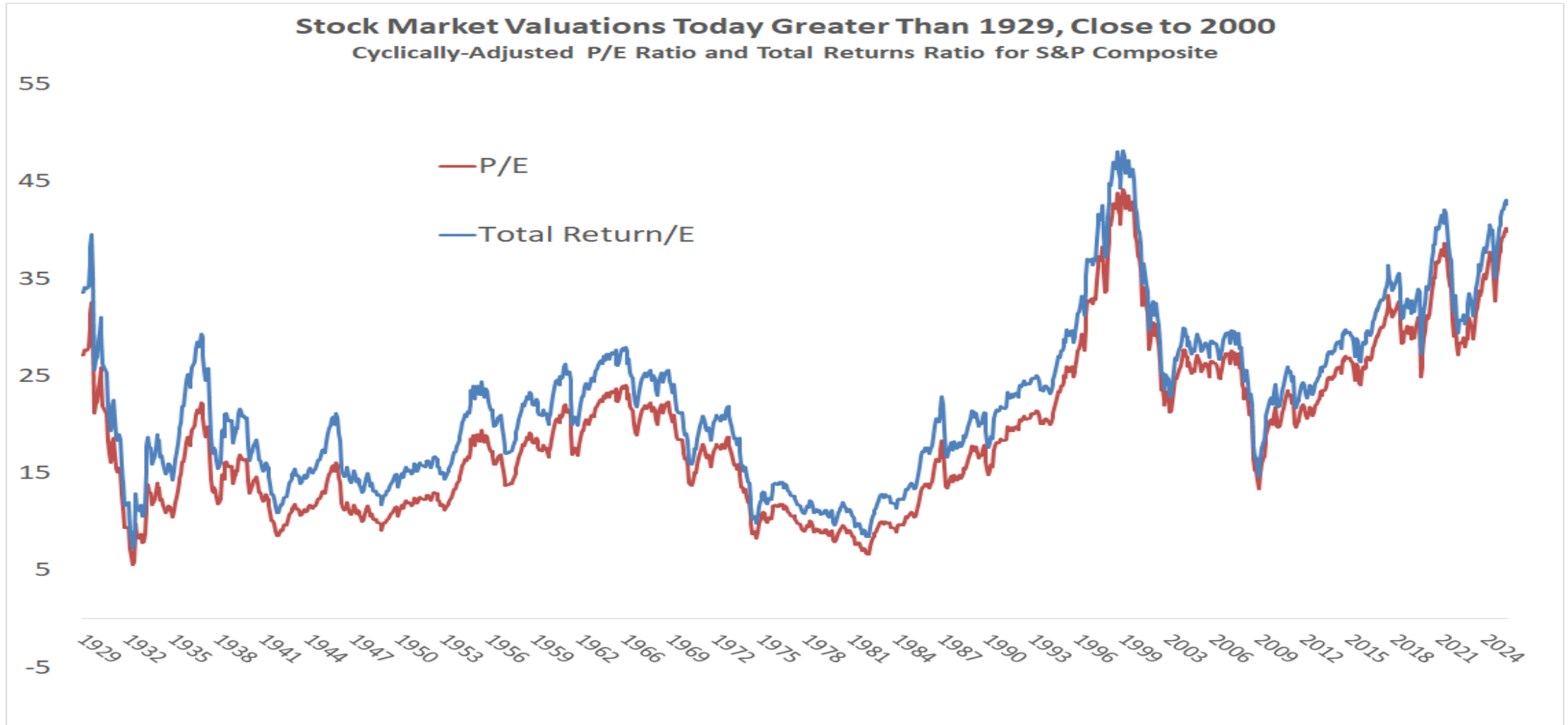
Overview

- Is AI-related spending the only thing between the U.S. economy and recession?
 - Not really – but it's true that the overall economy seems potentially weak while AI-related spending is strong. Without AI spending there would likely be detectable upward pressure on unemployment rates (not same thing as recession but not good)
- Is AI-related spending fragile and prone to a quick reversal in coming years?
 - Potentially yes – best response is very standard Keynesian recession response
- Do we need to worry that dodgy financial engineering will lead to an AI-driven financial crisis due to ?
 - I don't think so – at least not yet
- What about longer-run effects, like job-displacement or rising profit share?
 - No evidence yet that this is a big deal – and even very bullish forecasts of AI effects don't seem that worrisome when put into historical perspective
- Policy thoughts

AI-Related Spending and Near-Term Growth (or, Hydraulic Effects Related to AI)

- 2 big effects of AI-related spending and growth
 - Consumption spending from stock market “wealth effect” – AI firms leading a stock market surge (bubble?) that is generating more consumption spending
 - Macroeconomic investment (building plants and structures, buying equipment and people to do R&D) related to AI firms’ race to make the market-leading AI firm
- Right now, wealth effect likely the bigger one?
 - But, combined, AI-related spending might be adding a bit under 1% roughly to GDP growth? Not nothing but not the whole story explaining non-recession
- Financial fragility from AI capex another worry?

Stock Market Today Does Look Like a Bubble



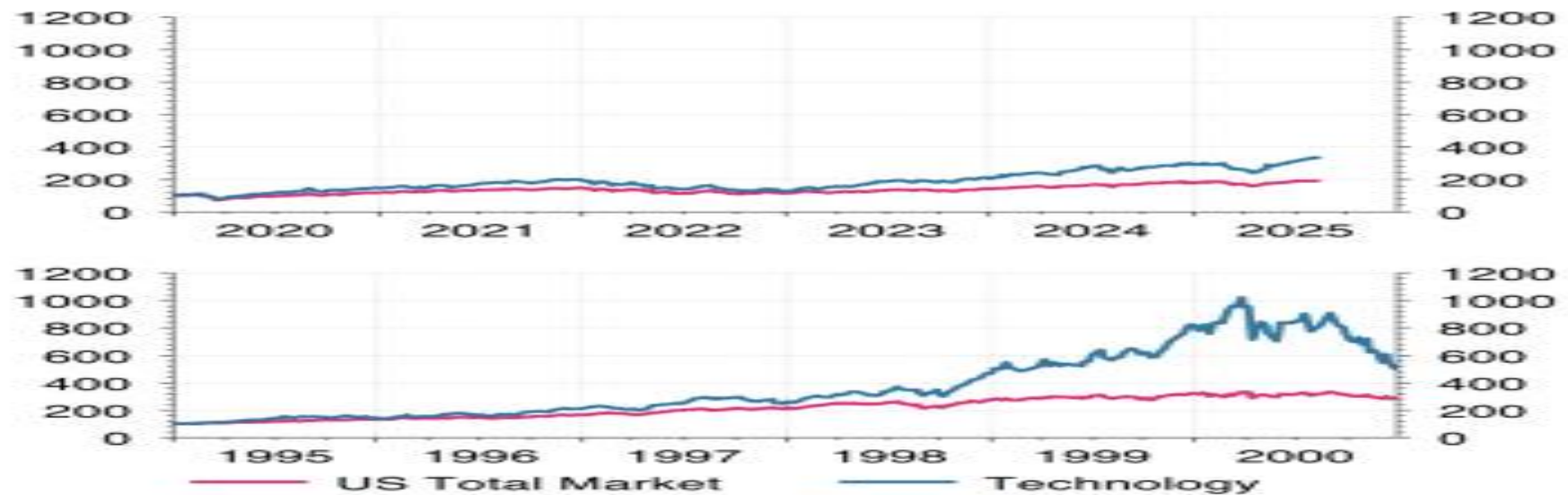
Numbers on stock market effect

- Households have about \$40 trillion in corporate equity wealth
- Say p/e ratio falls from today's 40 to more-reasonable 30. Say it all happens through declines in stock prices
 - HH wealth would then be down \$10 trillion. Stock market wealth effects are estimated at around 2% (much smaller than wealth effect from housing wealth), so, this is about \$200 billion reduction in consumer spending
- This is very roughly 0.65% of GDP growth
 - Real number might be less? Could take >1 year to see price declines? AI-related stocks “only” about 50-60% of stock growth since 2022....

Note on bubble/wealth effects

Today's overall p/e a bit lower than 2000, and today's contribution from technology firms smaller than in late 1990s?

Figure 3 Current tech rally vs. dot-com bubble
(equity indices)



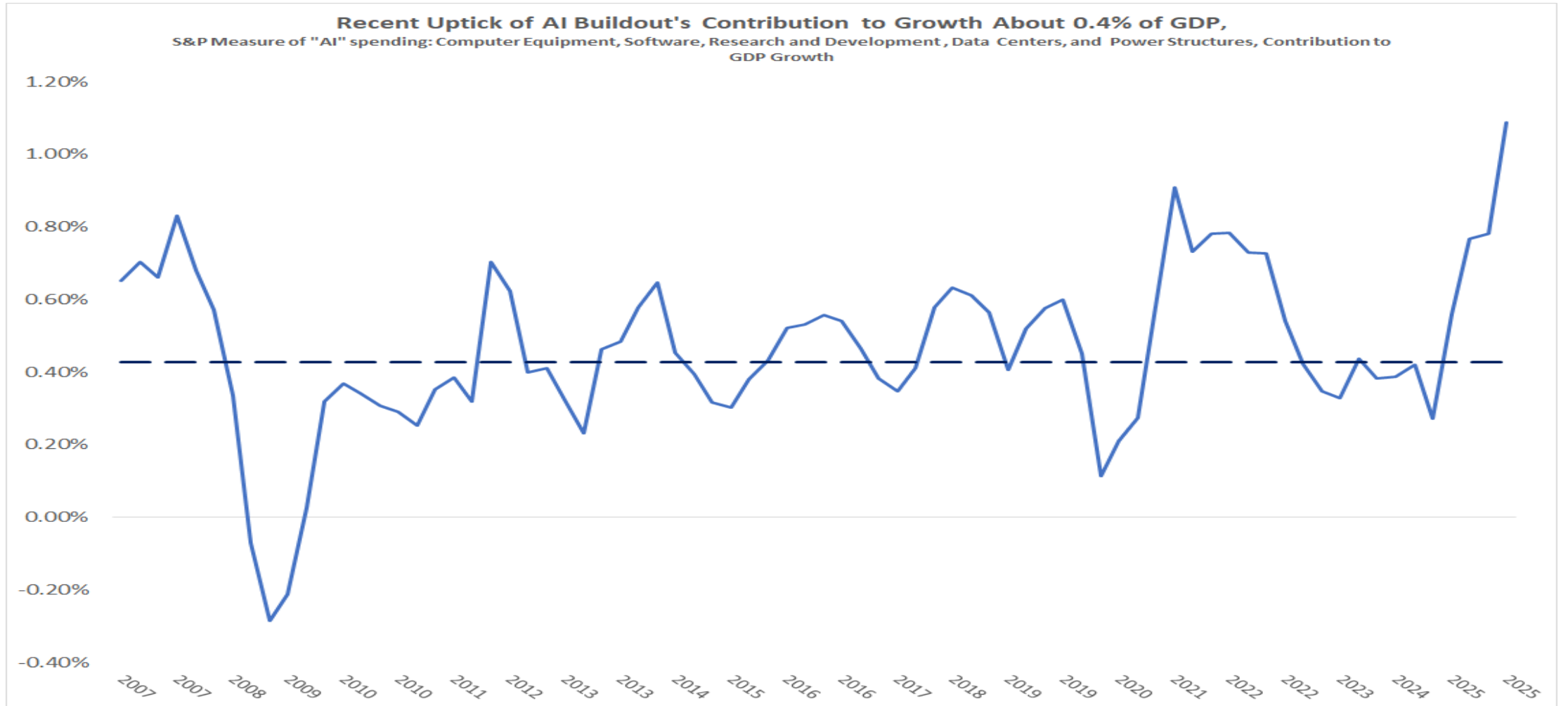
Source: LSEG.

Note: In each panel, indices are rebased at 100 on the first date displayed in the chart.

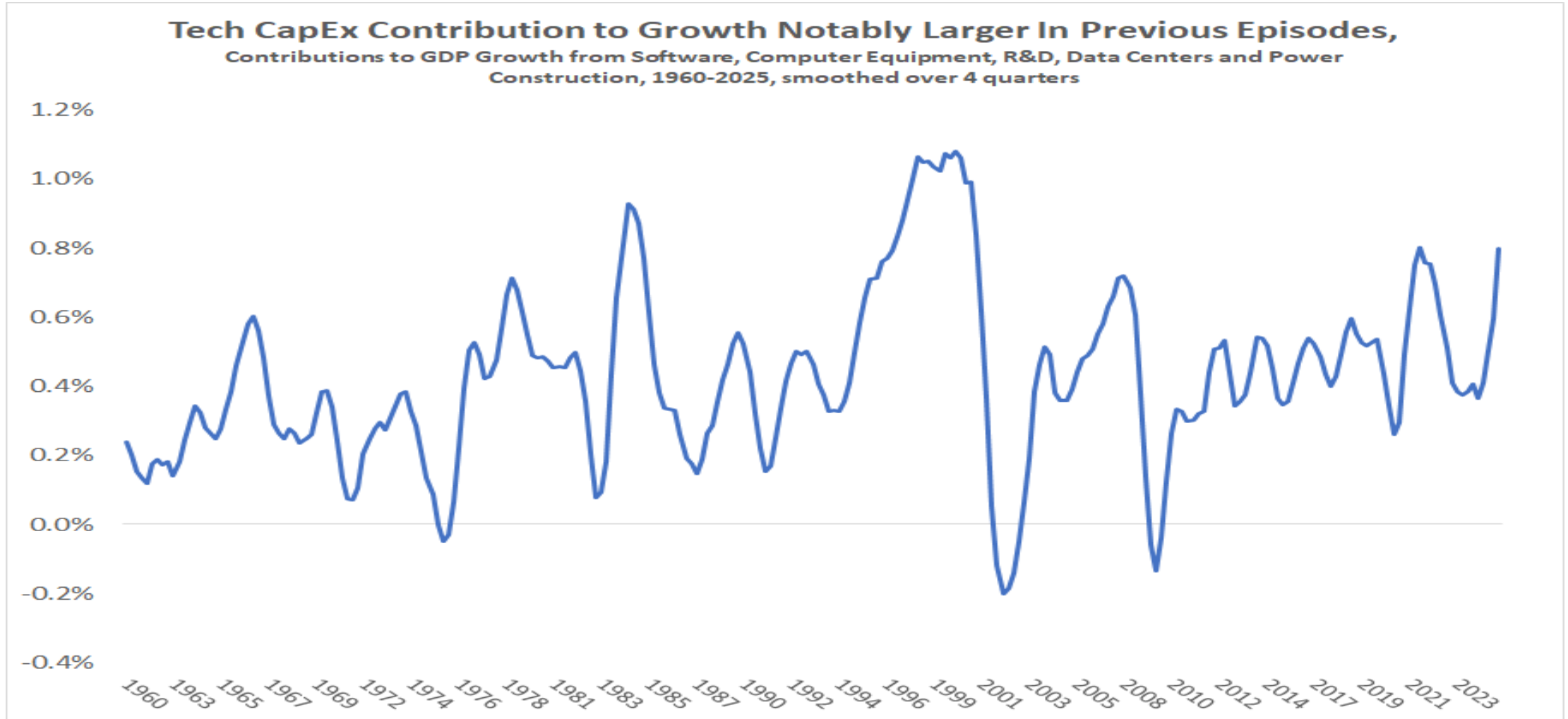
AI Capex Big Yet Still Seem Overstated

- “Meta plans \$600 billion US spend as AI data centers expand”
- These are *plans* over some *multi-year* period
- Also, some of the capex in these AI “plans” is either the same as or is just substituting for other IT-related investments.
- Is there evidence that AI is driving a big uptick in overall corporate spending?
- Real data that can so far be plausibly linked to AI capex spending shows something like a 0.4% contribution to GDP growth
- Yet, again, this capex contribution pales when compared to other historical periods of rapid tech adoption – like the late 1990s

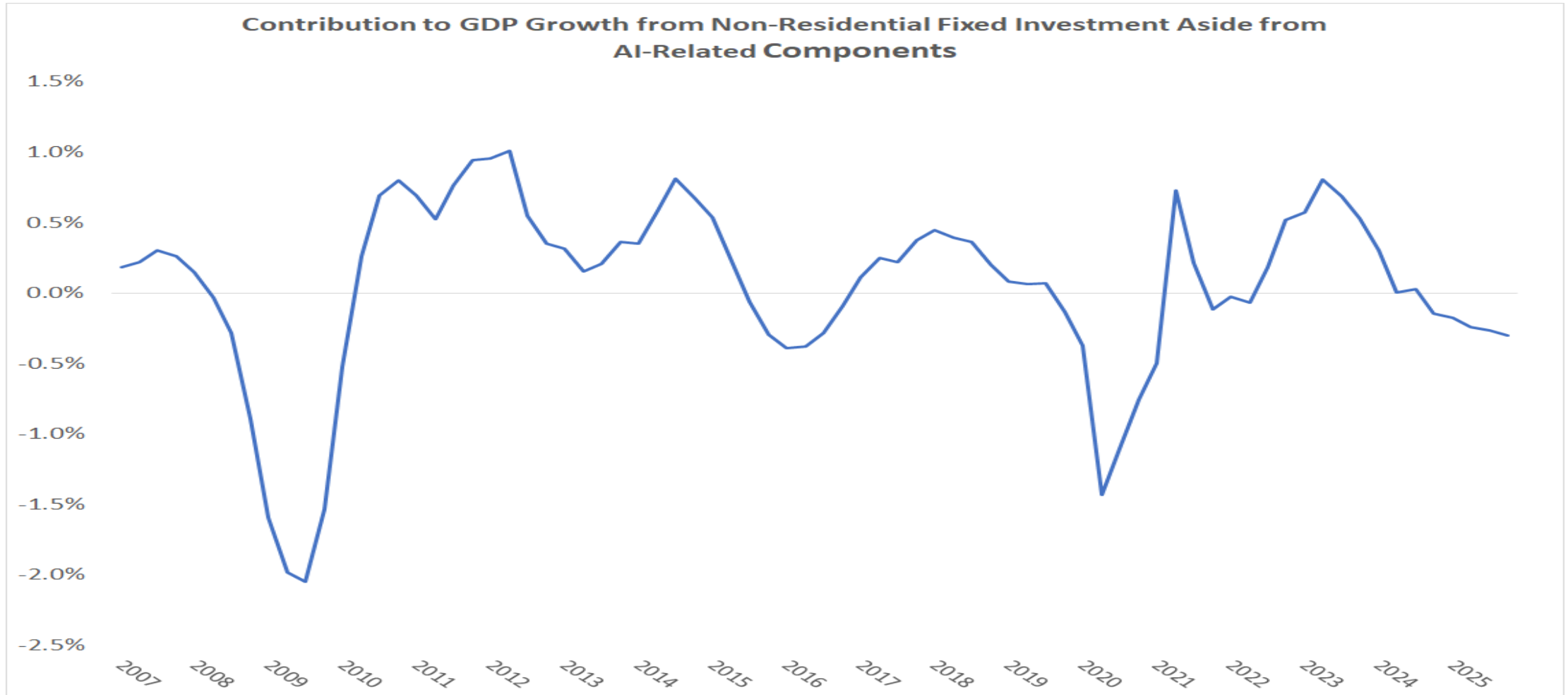
AI Capex Contribution to Growth Rising Very Recently



Today's Tech Spending Tame in Historical Frame



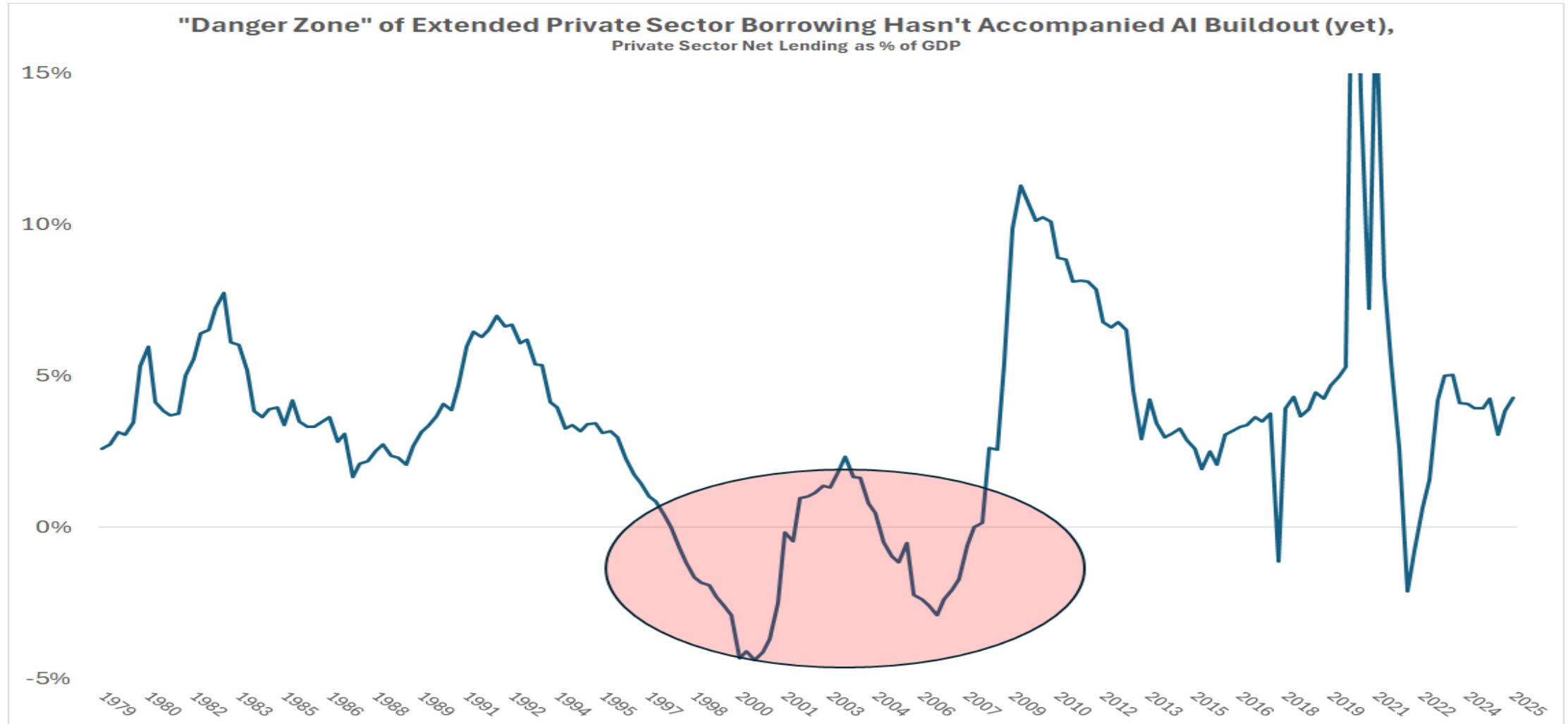
Side-Note: Non-AI Related Investment Is Quite Weak – Could be AI Crowd-Out or Casualty of Overall Policy Uncertainty?



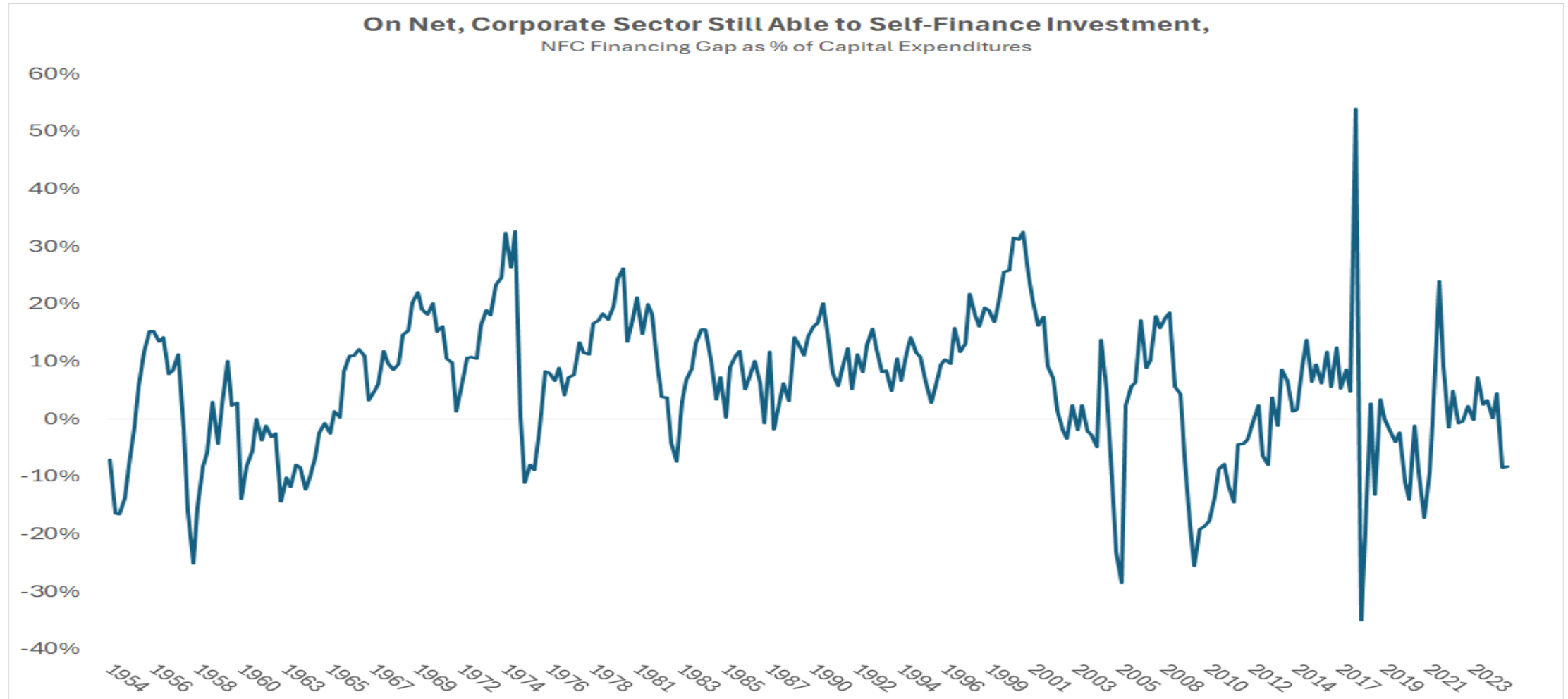
Summing up hydraulic effects

- Aggressive estimates (0.65% contribution from wealth effect and 0.35% from capex) sum to about 1% of GDP growth contributions
- Our long-run sustainable pace of GDP growth is likely under 2%, so, a 1% shock is halfway to recession, and, growth of 1% would see unemployment rate start to rise
- Further, AI-related spending might well be a fragile base for growth – it is not hard to imagine both wealth effects and capex drying up really fast if firms start being disappointed about potential future returns
- So, AI-related spending effects alone would definitely make me start reaching at least for the “what to do in case of recession” playbook
- Luckily (so far anyway) I don’t see the financial fragility issue in play yet – investments seem mostly financed out of profits

So Far, Little Evidence Of Fragile Financing Structures?



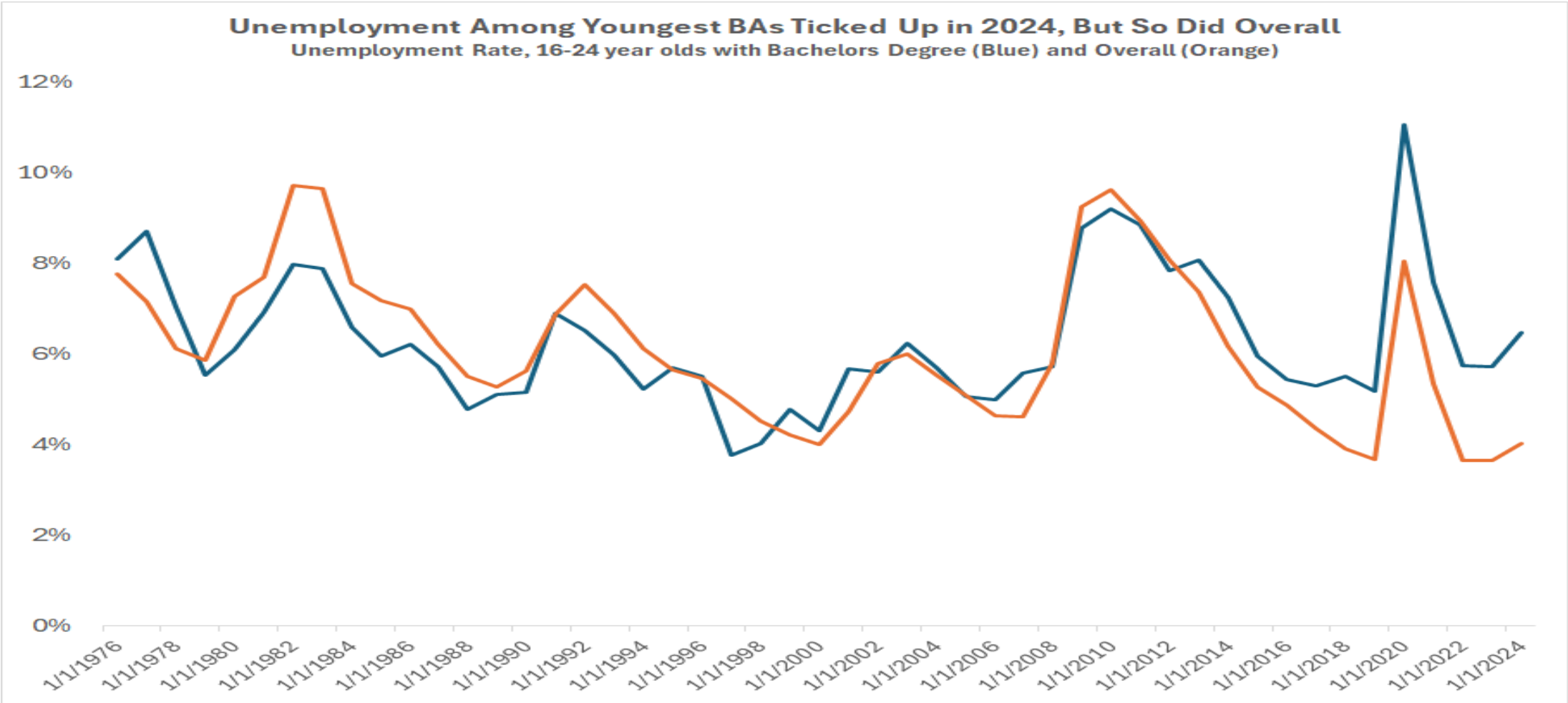
Corporate CapEx Internally Financed Today



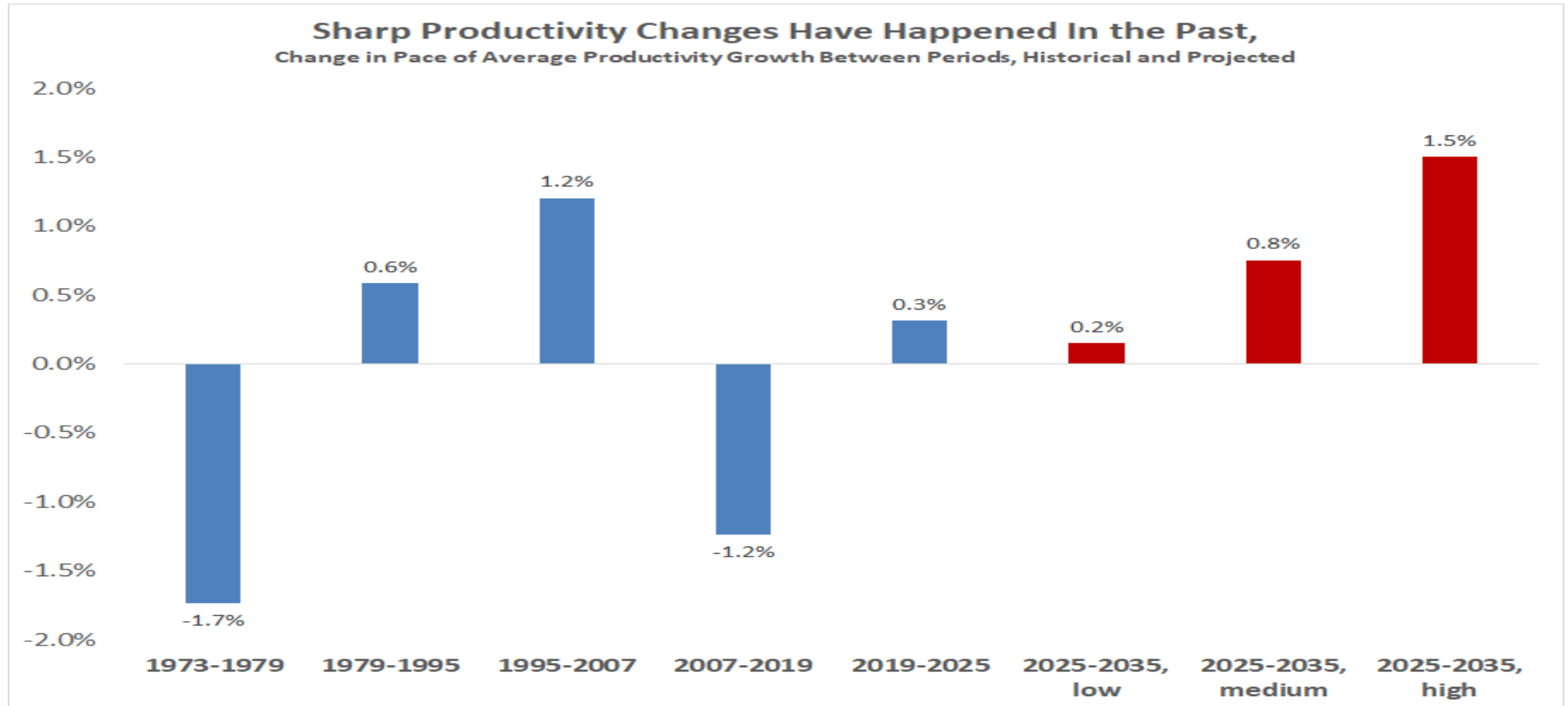
Will AI Make Jobs Redundant and Raise Profit Share?

- Forecasted effects – even on higher end – are not showing historically unprecedented labor market disruption coming our way
- Effects on profit share also not evident
- Youngest workers with BAs (16-24 year olds) saw rising unemployment thru 2024 – but so did everybody else?

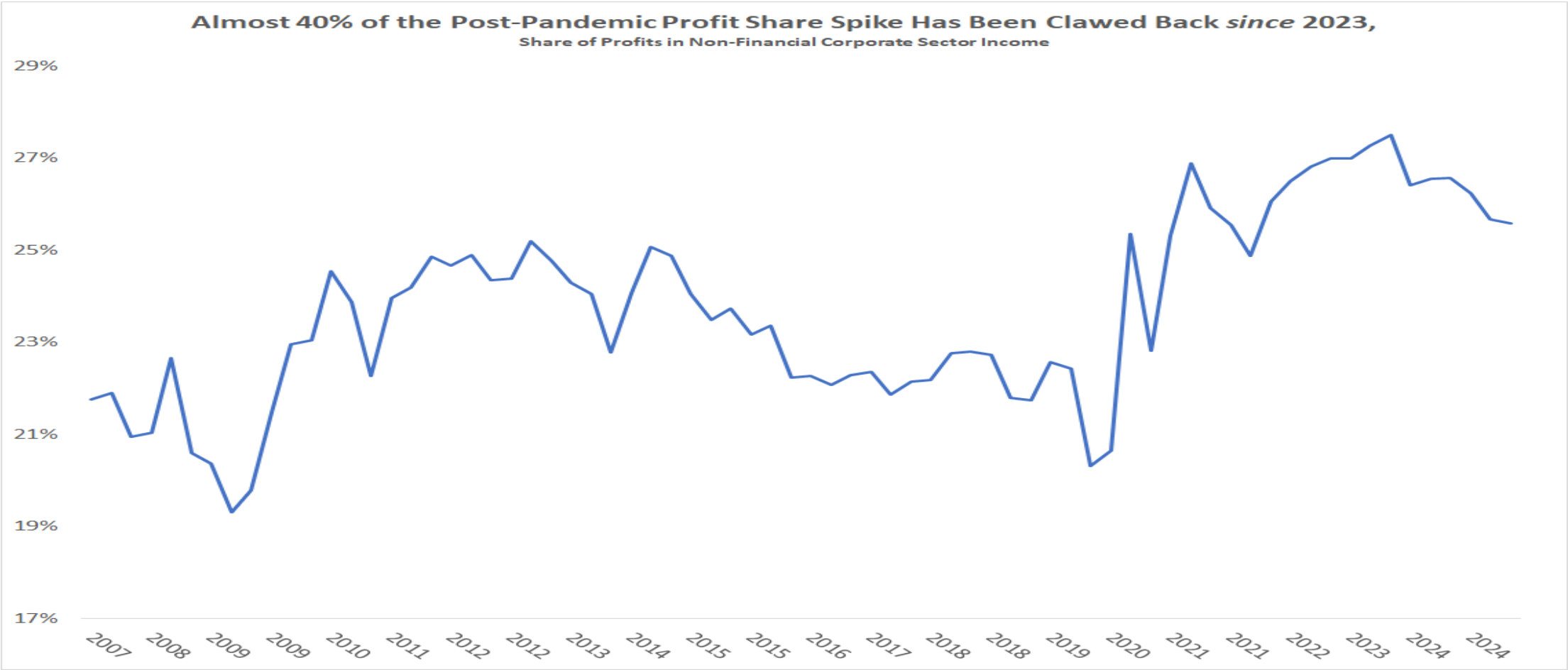
Labor Market for Young College Grads is Softening – But So Is Wider Labor Market



AI's Forecasted Productivity (and Job-Displacing) Effects Are Not Historically Unprecedented



As AI Investment Ramped Up, Profit Share Actually Declined



Policy Thoughts

- For recession worries, the playbook is largely the same regardless of source of demand shortfall: use monetary and fiscal policy to boost the demand that was erased
 - Would be nice to have strong automatic stabilizers in the US, but, we don't and the OBBB just weakened the ones we do have (Medicaid/SNAP)
- We probably don't need it – but a better playbook for what happens during financial crises still needed
 - Don't want to coddle banks/financial institutions, but also don't want to hobble Fed's ability to do rescue measures
- For long-run worries about inequality, AI changes very little – we need full employment, strong unions, robust labor standards and a progressive tax/transfer system. Very little AI-tailored needed here

AI stocks have left the S&P 500 in the dust since the launch of ChatGPT

Percentage change, normalised

— AI stocks — Non-AI — S&P 500

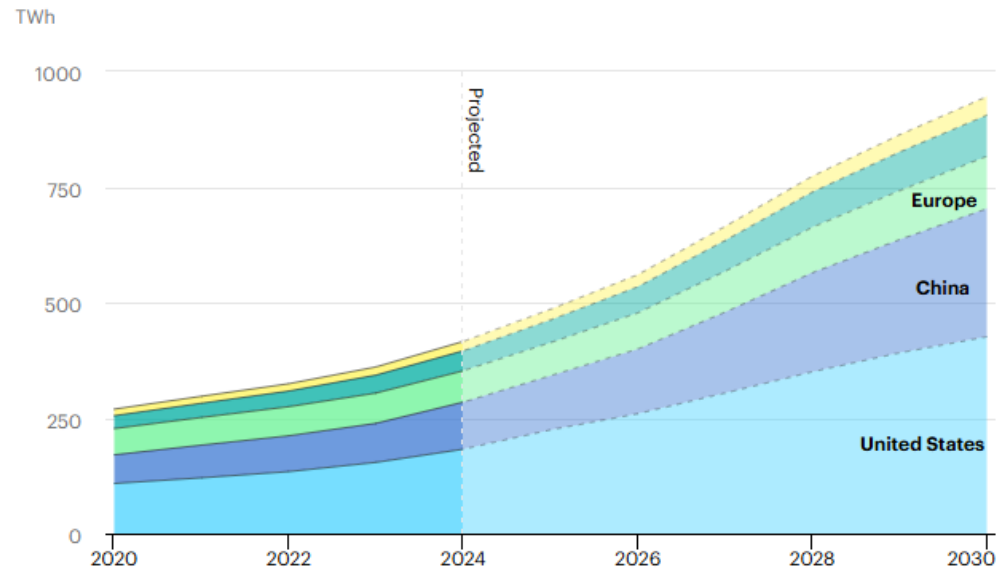


*AI" and "Non-AI" companies refer to Coatue's determination of each company in the S&P 500

Source: Coatue Management

Data centre electricity consumption by region, Base Case, 2020-2030

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● United States ● China ● Europe ● Asia excluding China ● Rest of world

Increase in electricity demand by sector, Base Case, 2024-2030



TWh

