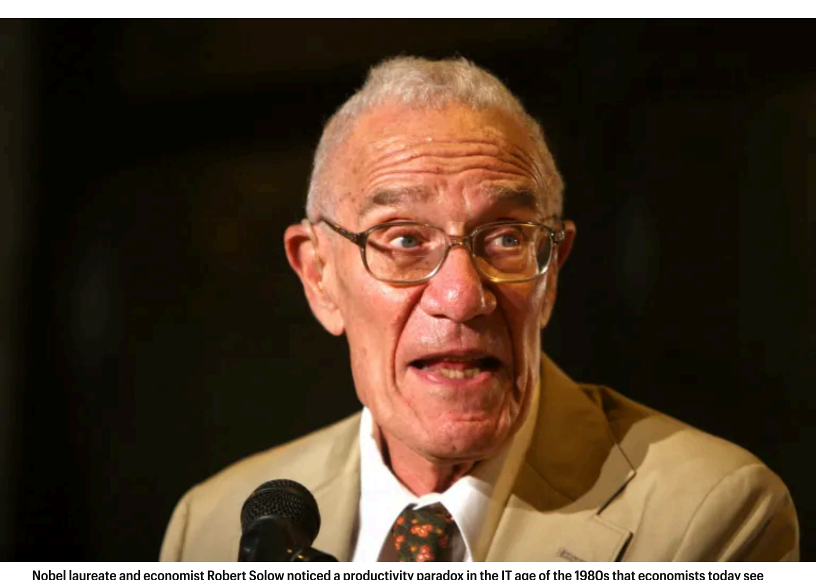
Thousands of CEOs just admitted AI had no impact on employment or productivity—and it has economists resurrecting a paradox from 40 years ago

By Sasha Rogelberg
Reporter

February 17, 2026, 1:32 PM ET



Nobel laureate and economist Robert Solow noticed a productivity paradox in the IT age of the 1980s that economists today see reflected in the AI boom.
LIOR MIZRAHI—GETTY IMAGES

In 1987, economist and Nobel laureate Robert Solow made a stark observation about the stalling evolution of the Information Age: Following the advent of transistors, microprocessors, integrated circuits, and memory chips of the 1960s, economists and companies expected these new technologies to disrupt workplaces and result in a surge of productivity. Instead, productivity growth slowed, dropping from 2.9% from 1948 to 1973, to 1.1% after 1973.

Newfangled computers were actually at times producing too much information, generating agonizingly detailed reports and printing them on reams of paper. What had promised to be a boom to workplace productivity was for several years a bust. This unexpected outcome became known as Solow's productivity paradox, thanks to the economist's observation of the phenomenon.

"You can see the computer age everywhere but in the productivity statistics," Solow wrote in a *New York Times Book Review* article in 1987.

New data on how C-suite executives are—or aren't—using AI shows history is repeating itself, complicating the similar promises economists and Big Tech founders made about the technology's impact on the workplace and economy. Despite 374 companies in the S&P 500 mentioning AI in earnings calls—most of which said the technology's implementation in the firm was entirely positive—according to a *Financial Times* analysis from September 2024 to 2025, those positive adoptions aren't being reflected in broader productivity gains.

A study published this month by the National Bureau of Economic Research found that among 6,000 CEOs, chief financial officers, and other executives from firms who responded to various business outlook surveys in the U.S., U.K., Germany, and Australia, the vast majority see little impact from AI on their operations. While about two-thirds of executives reported using AI, that usage amounted to only about 1.5 hours per week, and 25% of respondents reported not using AI in the workplace at all. Nearly 90% of firms said AI has had no impact on employment or productivity over the last three years, the research noted.

However, firms' expectations of AI's workplace and economic impact remained substantial: Executives also forecast AI will increase productivity by 1.4% and increase output by 0.8% over the next three years. While firms expected a 0.7% cut to employment over this time period, individual employees surveyed saw a 0.5% increase in employment.

Solow strikes back

In 2023, MIT researchers claimed AI implementation could increase a worker's performance by nearly 40% compared to workers who didn't use the technology. But emerging data failing to show these promised productivity gains has led economists to wonder when—or if—AI will offer a return on corporate investments, which swelled to more than $250 billion in 2024.

"AI is everywhere except in the incoming macroeconomic data," Apollo chief economist Torsten Slok wrote in a recent blog post, invoking Solow's observation from nearly 40 years ago. "Today, you don't see AI in the employment data, productivity data, or inflation data."

Slok added that outside of the Magnificent Seven, there are "no signs of AI in profit margins or earnings expectations."

Slok cited a slew of academic studies on AI and productivity, painting a contradictory picture about the utility of the technology. Last November, the Federal Reserve Bank of St. Louis published in its *State of Generative AI Adoption* report that it observed a 1.9% increase in excess cumulative productivity growth since the late-2022 introduction of ChatGPT. A 2024 MIT study, however, found a more modest 0.5% increase in productivity over the next decade.

"I don't think we should belittle 0.5% in 10 years. That's better than zero," study author and Nobel laureate Daron Acemoglu said at the time. "But it's just disappointing relative to the promises that people in the industry and in tech journalism are making."

Other emerging research can offer reasons why: Workforce solutions firm ManpowerGroup's 2026 Global Talent Barometer found that across nearly 14,000 workers in 19 countries, workers' regular AI use increased 13% in 2025, but confidence in the technology's utility plummeted 18%, indicating persistent distrust.

Nickle LaMoreaux, IBM's chief human resources officer, said last week the tech giant would triple its number of young hires, suggesting that despite AI's ability to automate some of the required tasks, displacing entry-level workers would create a dearth of middle managers down the line, endangering the company's leadership pipeline.

The future of AI productivity

To be sure, this productivity pattern could reverse. The IT boom of the 1970s and '80s eventually gave way to a surge of productivity in the 1990s and early 2000s, including a 1.5% increase in productivity growth from 1995 to 2005 following decades of slump.

Economist and Stanford University's Digital Economy Lab director Erik Brynjolfsson noted in a *Financial Times* op-ed the trend may already be reversing. He observed that fourth-quarter GDP was tracking up 3.7%, despite last week's jobs report revising down job gains to just 181,000, suggesting a productivity surge. His own analysis indicated a U.S. productivity jump of 2.7% last year, which he attributed to a transition from AI investment to reaping the benefits of the technology. Former Pimco CEO and economist Mohamed El-Erian also noted job growth and GDP growth continuing to decouple as a result in part of continued AI adoption, a similar phenomenon that occurred in the 1990s with office automation.

Slok similarly saw the future impact of AI as potentially resembling a "J-curve" of an initial slowdown in performance and results, followed by an exponential surge. He said whether AI's productivity gains would follow this pattern would depend on the value created by AI.

So far, AI's path has already diverged from its IT predecessor. Slok noted in the 1980s, an innovator in the IT space had monopoly pricing power until competitors could create similar products. Today, however, AI tools are readily accessible as a result of "fierce competition" between large language model-buildings driving down prices.

Therefore, Slok posited, the future of AI productivity would depend on companies' interest in taking advantage of the technology and continuing to incorporate it into their workplaces. "In other words, from a macro perspective, the value creation is not the product," Slok said, "but how generative AI is used and implemented in different sectors in the economy."

About the Author

By Sasha Rogelberg
Reporter

Sasha Rogelberg is a reporter and former editorial fellow on the news desk at *Fortune*, covering retail and the intersection of business and popular culture.

See full bio

By Fortune Editors
March 25, 2026

3 days ago

4 days ago

SUCCESS

Palantir's billionaire CEO says only two kinds of people will succeed in the AI era: trade workers — 'or you're neurodivergent'

By Fortune Editors
March 24, 2026

COMMENTARY

The Treasury just declared the U.S. insolvent. The media missed it

By Fortune Editors
March 23, 2026

2 days ago

1 day ago

PERSONAL FINANCE

Current price of gold as of March 25, 2026

By Fortune Editors
March 25, 2026

ECONOMY

Social Security insolvency: How a six-figure cap to flatten benefits for the ultrawealthy could buy the program 7 critical years

By Fortune Editors
March 26, 2026

2 days ago

1 day ago

SUCCESS

JPMorgan's Jamie Dimon says remote work breeds 'rope-a-dope politics' and stunts young workers' growth

By Fortune Editors
March 25, 2026

AI

Meta's $27 billion AI data center is causing chaos in small town Louisiana

By Fortune Editors
March 26, 2026