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An AI Productivity Boom? Don't Count Your (Productivity Data) Chickens

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2025 was barely above 0 at 15,000/month. So, if economic growth is strong and job growth is weak, some would tell us we are in the middle of a productivity boom with the promised benefits (and perils) of AI upon us!

But we shouldn't be so fast to jump to conclusions as economic data is never that simple. We may in fact be seeing a productivity

boom. But that is still to be determined. If we are seeing it, it is still unclear why.

Productivity Data is Noisy

Business Sector: Real Output Per Hour of All Persons (SAAR, % change)

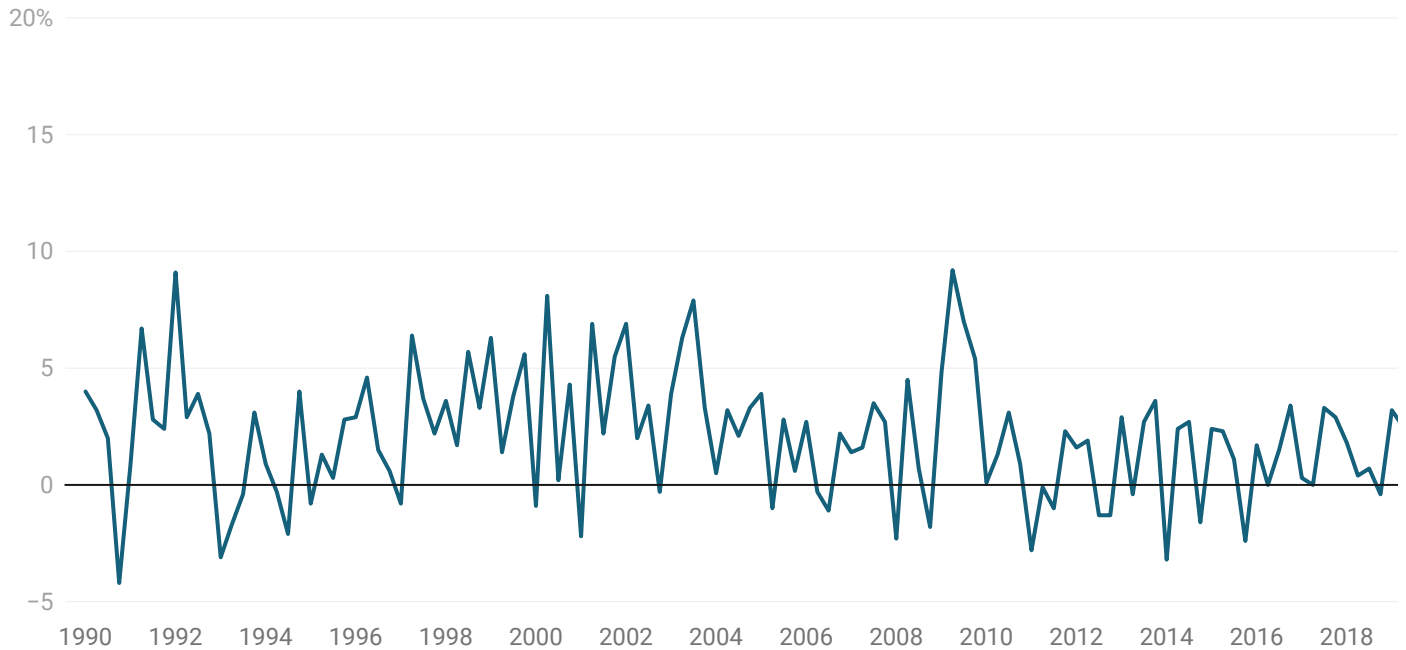


Chart: The Budget Lab • Source: BLS, The Budget Lab analysis • Created with [Datawrapper](#)

There are three reasons why what we are seeing may not actually be a real jump in productivity—or an irreconcilable gap between economic growth and job growth.

First, productivity is noisy data (as you can see in the chart above) and this is an important point we must recognize at the offset. We shouldn't overreact to one or even two quarters of data. Looking over several quarters, we can see that productivity growth has averaged about 2.2%. That is strong, but not unusually so (about where we were headed into the pandemic). The noise in productivity is partly due to how it's measured: productivity is what's "left over" after all the other inputs have been accounted for

(the residual). In other words, productivity growth includes both actual productivity and any measurement error. That's why most economists prefer to look at it over a longer period of time.

Second, jobs growth in 2025 was quite low. We know that because we just got the annual revisions for the establishment survey (where jobs data comes from) which lowered the number of jobs we added in 2025—a totally typical part of the measurement process. But for GDP growth in 2025, we're still waiting for two things: 1) the advance, second, and third estimate for the fourth quarter in 2025 and 2) the annual benchmark revision for GDP which will occur in July. Note that any comparison of jobs data and GDP data for 2025 is comparing revised jobs data to unrevised and incomplete GDP data.

Third, jobs growth in 2025 was, as said, quite low. But GDP data has been weird in 2025 partly because of policy and behavioral swings around trade. If you look at job growth relative to private-domestic final purchases (PDFP, what economists sometimes refer to as “core GDP”, which strips out some of these sources of volatility, and is a better predictor of future GDP growth than GDP itself), it is still low, but not as low as it is relative to the GDP data.

It should be said that even if you trust the productivity data, and think we are seeing an increase in productivity, there are other explanations besides AI.

First, productivity can rise in response to compositional issues (see discussion from [Ernie Tedeschi](#) and [Callum Williams](#)). In the graph

above, you can see productivity rising dramatically during Covid (and less dramatically in 2009). Did we all become more productive when we were stuck at home and others couldn't go to work at all? You may be shocked to hear that we did not. Instead, since the people who lost their jobs were disproportionately low-wage workers (who show up as lower productivity in the data), productivity rose due to a compositional effect. (A similar thing happened in 2009).

One reason job growth in 2025 was so low was because of changes in immigration policy. If the people being removed from the labor force were lower productivity workers, that will show up as an increase in productivity *even though the productivity of the workers who remain behind has not changed*. In fact, the same thing skewing job growth down may be skewing productivity growth up.

Second, if you look at the productivity data, it appears that much of the **boost** is coming from capital utilization due to increased productive investment. That would be consistent with an increase in productivity due to AI. But its important to distinguish at this point it is people investing in AI not people becoming more productive by using AI.

Could this be the beginnings of an AI productivity boom? Maybe! But this is not the data we should hang our hat on. If productivity growth swings back in the next reading (for the quarter of 2025), that shouldn't make us assume that there are no productivity impacts of AI, and vice versa. Productivity is one of the most

important economic concepts and also one of the hardest to measure—particularly in real time. We'll have better luck tracking measures like real wage growth and changes in occupational composition to give us a signal.

But until we get a clear signal one way or the other—we shouldn't put all our eggs in the productivity data release basket.



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