## Maybe We've Been Thinking About the Productivity Slump All Wrong

Neil Irwin: New York Times

## JULY 25, 2017

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American businesses are doing a terrible job at making their workers more productive.

Productivity growth is the weakest it has been since the early 1980s — only 0.8 percent a year over the last half a decade, compared with 2.3 percent on average from 1947 to 2007. This is the root cause of slow growth in both G.D.P. and worker pay.

At least, that is the standard way of thinking about productivity and its relationship to the economy. In a mainstream view, productivity is a kind of magic force that helps explain rising output. New labor-saving inventions come along or new management practices are taken up that miraculously allow companies to produce more output with fewer hours of work.

You can't really predict when and how those innovations will arrive, in this view. Henry Ford starts using a moving assembly line. Sam Walton perfects the just-in-time supply chain. Easy-to-use word processors result in fewer businesspeople who need secretaries. Voilà, the productive capacity of the nation rises, along with incomes and living standards.

But what if this is the wrong way of thinking about it? What if productivity growth is not so much an external force that proceeds in random fits and starts, but is rather deeply intertwined with the overall state of the economy and labor market?

The second possibility is the provocative argument of a new paper published Tuesday by the Roosevelt Institute, a liberal think tank. The paper argues that the United States economy is not actually closing in on its full economic potential and has plenty of room for continued growth — so long as the Federal Reserve doesn't put on the brakes of the expansion prematurely.

J. W. Mason, the author of the report, argues that soft productivity growth reflects not some unlucky dearth of new innovations, but rather is a consequence of depressed demand for goods and services and a slack labor market that has depressed wages.

Maybe if the labor market were tighter and wages were rising faster, it would induce companies to invest more heavily in new labor-saving innovations.

What's particularly interesting is that this diagnosis — though decidedly not the policy prescriptions — has some overlap with the arguments of influential conservative economists.

A recent paper published by the Hoover Institution and American Enterprise Institute argued that the productivity drought was caused by insufficient investment in capital equipment and software, and was poised to rebound. (Three of the four authors, Glenn Hubbard, John B. Taylor and Kevin Warsh, are potential candidates to be President Trump's nominee to lead the Federal Reserve.)

And it comports with the view of some of the more sophisticated analysts of productivity trends from the business world.

For example, Marco Annunziata, the chief economist of General Electric, argues that many of the technological innovations now coming to market, like 3D printing and the use of augmented reality glasses in industrial settings, really are generating huge productivity gains where they are deployed.

But capital spending has been weak over all, and particularly weak for those more transformative innovations.

"The investment that should be most powerful in driving productivity for companies has been the weakest," Mr. Annunziata said. "It means that all these innovations aren't scaling. They're only being implemented on an episodic basis, on a small scale."

Companies, in his telling, are spending their capital budgets not on things that might cause a leap in their workers' productivity, but on smaller projects to replace old machinery and software and make marginal efficiency gains.

What would change that? That's what brings us back to Mr. Mason's arguments about the interplay between demand and productivity growth.

Just maybe, if the labor market tightens and good workers are harder to find — and wages rise — that will be the impetus to get companies to consider more of those big-ticket innovations that generate productivity growth.

Consider a hypothetical (though one that isn't actually that hypothetical right now). If your neighborhood fast food place employs 10 people during the lunch rush, with each making \$10 an hour, what will happen if your state raises its minimum wage to \$15?

The owner might raise prices, or accept lower profits, or close the store entirely. Or, just maybe, the owner will invest in new machinery to enable workers to do more with less. Perhaps the restaurant will be able to operate just fine with only five workers after investing in self-ordering kiosks and a hamburger-flipping robot.

There's a term for a restaurant that can serve the same number of burgers with half as many employees, and it's higher productivity. (While this can conjure scary notions of a work force made redundant by robots, economists see a more hopeful picture: that higher productivity enables faster economic growth and higher incomes, at the cost of some temporary disruption for the workers affected.)

In the context of the minimum wage debate, pretty much everyone agrees that this kind of response — "capital substitution," to use the technical term — is to be expected. But there's no reason it would happen only after a minimum-wage increase. You could imagine the same thing happening if wages rose because of market forces; that same fast food restaurant might invest in kiosks and robots if the labor market were so tight that no workers were willing to take the job for \$10.

If you look at long-term patterns of productivity growth, they roughly fit this idea, that a booming job market tends to be followed by a productivity boom, and that deep recessions are followed by productivity slumps.

The strongest productivity growth in post-World War II America came in the late 1960s and early 2000s. The two periods of greatest weakness were the early 1980s and the last decade since the global financial crisis.

There are some historical roots for this argument, too. Some historians believe that the industrial revolution began in Britain instead of elsewhere because comparatively high wages for British workers prompted companies to invest in labor-saving devices.

In this way of thinking about productivity, inventors and business innovators are always cooking up better ways to do things, but it takes a labor shortage and high wages to coax firms to deploy the investment it takes to actually put those innovations into widespread use.

Mr. Mason adds that this idea has some big implications for how to think about growth in worker compensation in the current economic environment. There has been a glaring contradiction around how much American workers' wages can, or should, be rising.

"On Mondays and Wednesdays, economists argue that wages are low because robots are taking people's jobs. On Tuesdays and Thursdays, it's that we can't have wages rise because productivity growth is low," said Mr. Mason, an economist at John Jay College. "Both can't be true."

In other words, instead of worrying so much about robots taking away jobs, maybe we should worry more about wages being too low for the robots to even get a chance.