California: San Francisco explores the need for a robot tax

David M. Kall | Thursday, September 14, 2017

This spring, we mentioned that there is a movement afoot to bring the idea of an "automation tax," also known as a "robot tax," to the fore. Bill Gates is one proponent of taxing the robots that replace humans, on the grounds that it "would help society to smooth the harsher aspects of a broad transition to automation; humans could then focus on tasks that demand human creativity and empathy, such as caring for the elderly and children."

At least one lawmaker also likes the idea of a robot tax. San Francisco Board of Supervisors member Jane Kim called for a hearing on the topic at a March 14, 2017 meeting, to examine "an ongoing tax on every machine that replaces a human."

Fast forward several months, and Kim has gotten serious. Asserting that "automation could eliminate up to 47 percent of all existing jobs in the next 20 years," she initiated the Jobs for the Future Fund "to tackle this emerging challenge – and build a statewide coalition in support of a smart solution." The fund serves as an education and outreach forum for labor leaders, businesses, nonprofits, and civic organizations to not only develop the resources necessary to retrain displaced workers, but also to invest "in industries that will support good-paying jobs that cannot be automated away."

Kim reasons that "[a]utomation is revolutionizing industries ranging from trucking to retail to manufacturing and accounting. Millions of jobs will be lost – but if we prepare now, we can help create new opportunities for workers through job training, education and smart investments." She fears that

worker displacement "would dwarf the jobs lost in the Great Depression and Great Recession."

The Jobs for the Future Fund's website states that the "common-sense idea – as workers are displaced," is for companies to "continue to pay a portion of the lost tax into a fund that can then be used for education, retraining and targeted investments in new industries. This modest tax will help smooth the transition for our workers, providing them with better opportunities."

Problems with a robot tax

An article from MIT Technology Review's *The Download* pointed to a few complications with the idea of taxing companies when their robots "steal" human jobs. First, companies are at risk of refusing to leverage new technologies if they are forced to pay taxes when they otherwise would not.

In a different article, the MIT Technology Review also contended that such a tax would exacerbate the reality that technology is not radically changing the economy, even though it is true that the internet and computation advances fueled rapid economic growth between 1994 and 2004.

Indeed, "during the past decade we slid back to far slower improvements in productivity, hence stagnant economic growth." Citing an economist at the University of Chicago Booth School of Business, the author notes that "U.S. productivity grew at a mere 1.3 percent per year from 2005 to 2015, far less than the 2.8 percent annual growth rate during the decade earlier…had the slowdown not occurred, the gross domestic product would have been $2.7 trillion higher by 2015—about $8,400 for every American."

The reasons for the slowdown, the author concedes, are not clear. But one explanation is the difficulty of "convert[ing] recently developed digital technologies into meaningful changes in the economy's largest sectors, such as health care, manufacturing, and transportation."

The article quotes another expert, a professor at MIT's Sloan School of Management, who had this to say about the use of technology to spur economic growth:

> [T]he process has been 'disappointingly difficult.' [W]hile there has been 'a lot of progress in the underlying technologies in the last few years, companies are finding that making the necessary changes is expensive and takes time. 'It's not trivial. It's not like flipping a switch. And companies are struggling.'

More optimistically, a third expert suggested that "[a]s we learn to apply the new technologies, we could see growth in productivity speed up again." The MIT professor agreed, opining that he could "imagine a second wave" of the information technology gains from the late 1990s and early 2000s.

In the piece in *The Download*, Kim acknowledged a second kind of problem associated with taxing robots that replace humans: "We're still working on what defines a robot and what defines job displacement." This makes it hard to know the best way tax automation; two ways of doing so are taxing the capital investment in robots, or the increased profits that the robots generate, but these both seem "imperfect."

Other choices include reducing taxes on human labor, or "or aggressively taxing the world's most successful firms that make best use of automation." The obvious drawbacks associated with these options underscore the sentiment that "it's still unclear which would work best."

Tax policy needs to change

A Harvard Law & Policy Review paper, "Should Robots Pay Taxes? Tax Policy in the Age of Automation," explores these issues, and others. It observes that our tax "system encourages automation by providing employers with preferential tax treatment for robot workers" by taxing labor instead of capital. According

to the article, there are three problems associated with this:

1. Firms can avoid paying employee and employer wage taxes that state and federal governments impose.
2. Firms can claim accelerated tax depreciation on capital costs for automated workers.
3. Firms can avoid paying indirect taxes, defined as taxes levied on goods and services, rather than on profits. Examples of indirect taxes are retails sales taxes and value added taxes. “Employers are thought to bear some or all the incidence of indirect tax, as worker salaries and retirement benefits must be increased proportionately to offset the indirect tax. In the case of automated workers,” a business can entirely avoid the burden of indirect taxes.

While policy makers debate how to deal with the job losses that automation will continue to produce, the authors suggest that most proposals, dealing either with job training or redistribution of social benefits, are inadequate because the importance of tax policy has been neglected in their view.

Instead, they contend the following:

> [E]xisting tax policies must be changed. The system should be at least ‘neutral’ as between robot and human workers, and automation should not be allowed to reduce tax revenue. This could be achieved by disallowing corporate tax deductions for automated workers, creating an ‘automation tax’ which mirrors existing unemployment schemes, granting offsetting tax preferences for human workers, levying a corporate self-employment tax, or increasing the corporate tax rate.

Ultimately, the authors argue, “the ideal solution may be a combination of these proposals.”

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Team member bio