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# An Economic Model for the AI Age

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LONDON – In April, Alphabet CEO Sundar Pichai predicted that artificial intelligence would have an impact "more profound" than any other human innovation, from fire to electricity. While it is impossible to know precisely what that impact will be, two changes appear particularly likely: demand for labor will fall, and productivity will rise. In other words, we appear to be moving toward a labor-less economic model, in which fewer human workers are needed to sustain growth.
Jobs in back-office support, legal services, and accountancy seem to face the most immediate risk from new generative AI technologies, including large language models like ChatGPT-4. But every sector of the economy is likely to be affected. Because language tasks account for 62% of employees' time, a recent report by Accenture notes, large language models could affect 40% of all working hours.

Accenture estimates that 65% of the time spent on these language tasks can be "transformed into more productive activity through augmentation and automation." And a new McKinsey report predicts that the AI-driven productivity boost could add the equivalent of $2.6-4.4 trillion in value to the global economy annually.

But, even as higher productivity boosts economic growth, the diminution of labor would undermine it, meaning that, ultimately, growth could well stagnate. Reduced demand for human workers implies a steep rise in unemployment, especially since the world population is set to continue growing.

Unemployment is already a persistent problem. According to the International Labor Organization, the total number of unemployed young people (15-24 years old) has remained around 70 million for more than two decades. And the global youth unemployment rate has been trending up, from 12.2% in 1995 to just under 13% percent after the 2008 global financial crisis to 15.6% percent in 2021.

AI will exacerbate these trends. And because AI's impact on labor markets is likely to be structural, the rise in unemployment would amount to a permanent dislocation. Structural unemployment could return to levels last seen in the deindustrialization of the 1980s, when joblessness in the United Kingdom, for example, remained above 10% for the better part of the 1980s.
How can governments support GDP growth in a new era of persistent structural unemployment? The most obvious likely response is a shift to greater redistribution, with governments raising taxes on the proceeds from AI-driven productivity gains and using those revenues to support the wider population, including by implementing some version of a universal basic income.

To ensure adequate revenue to support expanded social safety nets, governments might move beyond taxing excess profits generated by AI-driven productivity gains to taxing the revenues of the firms reaping the biggest rewards. That way, the state – and, in turn, the general population – would claim

a greater share of the AI windfall.

Of course, the AI revolution also has profound implications for businesses. For starters, companies will have to adjust their strategies and operations to account for the combination of higher productivity and a smaller labor force, which will enable them to generate more output with less capital. Companies that adjust as needed, and deliver low cost-to-income ratios, will attract investors; those that are slow to change their operating models will lose competitiveness and could fail.

The effects of such corporate adjustments will reverberate throughout the economy. Reduced demand for capital by firms will put downward pressure on the cost of capital, and companies will have less need to borrow from banks, causing overall activity in capital markets also to decline.

Higher taxes on corporate profits (or revenues) would create additional challenges. While the state will need to increase revenues to support the growing number of unemployed, this could leave corporations with lower retained earnings to reinvest, despite the additional profits generated by AI-driven productivity gains.

This is bad not only for the companies themselves. Lower investment in the economy would undermine growth, shrink the economic pie, and lower living standards. It would also narrow the tax base, erode the middle class, and widen inequality between the owners of capital and the traditional labor force.

So, while governments might want to raise taxes and redistribute the revenues in order to alleviate the short-term disruption caused by AI, in the long term, they will need to think bigger. In fact, policymakers are going to have to rethink prevailing economic models and principles – beginning with the assumption that labor is a key engine of growth. In the age of AI, workers may do little to drive growth, but they must benefit from it.


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