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Opening Remarks on Productivity Dynamics

Remarks by

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at

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Good afternoon. Thank you for moderating, Peter. It is an honor to be with you today, and it is always great to be back at Stanford and at the Hoover Institution. I spent several formative years of my career here, including as a National Fellow, and always enjoy returning. And it is a privilege to share the panel with Dr. Schnabel, and Presidents Musalem and Hammack. I look forward to our discussion.<sup>1</sup>

Before that, I would like to briefly discuss a topic I see as critical to the future path of the economy: productivity growth. Productivity growth has been surprisingly strong in recent years, and this has influenced my view of the appropriate stance of monetary policy. I will also explore two ongoing developments that are likely to influence productivity growth moving forward: changes to trade policy and the wider adoption of artificial intelligence (AI). Productivity dynamics are something I have long studied closely and will continue to pay careful attention to as I consider the appropriate stance of monetary policy.

It is helpful to start by looking back about three years to the middle of 2022. At that point, the global economy had largely reopened after pandemic closures, a historic amount of federal support had been deployed, and unemployment was falling toward a half-century low. But supply disruptions persisted, and the 12-month inflation rate reached its peak at over 7 percent. The challenge for Federal Reserve policymakers was clear: Move inflation back toward its 2 percent target while maintaining the health of the labor market. The Federal Open Market Committee (FOMC), which I joined that year, began to raise the federal funds rate from near zero, ultimately reaching just above 5 percent by mid-2023. Many forecasters predicted that a recession in 2023 was more

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<sup>1</sup> The views expressed here are my own and are not necessarily those of my colleagues on the Federal Reserve Board or the Federal Open Market Committee.

likely than not. And yet, one did not materialize. Instead, inflation came down considerably, while unemployment remained low. How did this unusual and welcome outcome happen?

Two notable factors were the unwinding of pandemic-era conditions that previously constrained the supply of both goods and labor in conjunction with restrictive monetary policy that contributed to a moderation in aggregate demand. Today, I would like to call attention to a third factor: a greater-than-usual increase in productivity during the pandemic recovery.

Prior to the pandemic, from 2007 to 2019, productivity growth in the business sector averaged 1.5 percent annually. In the past five years productivity growth accelerated to 2 percent. While some of the productivity gains may reflect situations unique to the reopening of the economy, it is notable that the level of productivity, as measured by output per hour, remained above trend throughout 2023 and 2024.<sup>2</sup> This increase in productivity was partially driven by pandemic labor shortages themselves. When it was difficult to find employees, as many Americans retired or stepped out of the labor force, many businesses innovated. For example, restaurants adopted online ordering apps and retailers accelerated the implementation of self-checkout systems.<sup>3</sup> These changes improved efficiency and contributed to an expansion in potential gross domestic product (GDP). As a result, price pressures eased from their peak while demand remained strong.

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<sup>2</sup> For additional discussion, see the box “Labor Productivity since the Start of the Pandemic” in Board of Governors of the Federal Reserve System (2025), *Monetary Policy Report* (Washington: Board of Governors, February), pp. 18–20, [https://www.federalreserve.gov/publications/files/20250207\\_mprfullreport.pdf](https://www.federalreserve.gov/publications/files/20250207_mprfullreport.pdf).

<sup>3</sup> See Austan Goolsbee, Chad Syverson, Rebecca Goldgof, and Joe Tatarka (2025), “The Curious Surge of Productivity in U.S. Restaurants,” NBER Working Paper Series 33555 (Cambridge, Mass.: National Bureau of Economic Research, March), <https://www.nber.org/papers/w33555>.

Improved productivity is widely beneficial to the economy. It allows workers to receive pay raises without companies needing to further increase prices and helps ensure consumers have access to the products and services they demand. Furthermore, and particularly relevant to me as a monetary policymaker, a rise in potential output lessens the need to use monetary policy to slow demand. This effect is good for the obvious reason that it allows for increasing economic growth without higher inflation. But importantly, it also lowers the risk of a policy overshoot that could cause the unemployment rate to rise.

Now that I have reviewed the role that productivity growth played in the post-pandemic recovery, I would like to focus on two countervailing forces on productivity that I am currently studying. These are changes to trade policy and the growth of AI.

I expect to see a drag on productivity in the near term stemming from the recent changes to trade policy and the related uncertainty, for several reasons. First, uncertainty around trade policy is likely to reduce business investment going forward. At this time, firms do not know the ultimate level and incidence of tariffs or their duration. Firms contemplating large investments might observe conditions that could hold under the paradox of thrift, wondering whether they could get a better deal if they just wait. Higher costs of imported materials and components could also cause firms to delay or scale back their investment plans. This reduction in capital formation can lead to slower technological innovation and adoption and decreased overall efficiency in production processes. Second, protectionist trade policies, while intended to support domestic industries, may inadvertently lead to a less competitive environment, if they prop up less efficient firms. And third, any supply-chain disruptions resulting from the policy changes

would make production slower and less efficient. These disruptions can lead to inventory mismatches, production delays, and increased costs as firms scramble to find alternative suppliers or redesign their products to accommodate new input constraints. This set of disruptions could pose a particular challenge for monetary policymakers. A reduction in potential GDP means less slack in the economy, which, in turn, means greater inflationary pressure. According to the Taylor Principle, for which no explanation is needed at this conference, taming higher inflation requires a higher policy rate. I believe that keeping inflation expectations credibly anchored is essential. Therefore, all else equal, lower productivity could cause me to support keeping rates at a higher level for longer.

The second ongoing economic development I see altering productivity is the rapidly expanding use of AI. I view this emerging technology as likely to have a significant positive effect on productivity growth. In fact, I see AI as poised to be at least as transformative as other general purpose technologies, such as the printing press, the steam engine, and the internet. With wider adoption of AI, we could have a surge in potential output.

As I have discussed in several recent speeches, AI has the potential to revolutionize numerous sectors of our economy.<sup>4</sup> We already see AI assistants boosting productivity in customer service, software development, and medical diagnosis. AI's ability to process and analyze vast amounts of data could lead to breakthroughs in

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<sup>4</sup> See Lisa D. Cook (2024), "Artificial Intelligence, Big Data, and the Path Ahead for Productivity," speech delivered at "Technology-Enabled Disruption: Implications of AI, Big Data, and Remote Work," a conference organized by the Federal Reserve Banks of Atlanta, Boston, and Richmond, held in Atlanta, Georgia, October 1, <https://www.federalreserve.gov/newsevents/speech/cook20241001a.htm>.

scientific research and innovation, resulting in an increased arrival rate of new ideas, further amplifying its effect on productivity.

Of course, an AI productivity boom would come with its own set of challenges. If potential output expands too rapidly, it could leave slack in the economy and the labor market. Moreover, the productivity gains from AI may not be uniform across all sectors, job types, or tasks, leading to a transitional period as the labor market adjusts. Despite these challenges, I am optimistic about AI and its potential to drive significant productivity growth in the coming years.

To summarize, I see an important role for productivity growth to play in assisting FOMC policymakers to achieve our dual-mandate goals. This dynamic played out, alongside other factors, in recent years when inflation eased from historic highs while the labor market remained solid. Two currently unfolding economic events are likely to influence productivity growth in the coming years—specifically, changes to trade policy and the expansion of AI. Those two developments may prove to run counter to each other, but it is too soon to predict precisely. I will be closely monitoring developments in this space. I look forward to engaging with those studying this topic including, I am sure, many in this room.

Thank you. I look forward to the discussion.