

## The Outlook for Demand, Inflation and Productivity

Remarks by  
Esther L. George  
President and Chief Executive Officer  
Federal Reserve Bank of Kansas City

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The views expressed by the author are her own and do not necessarily reflect those of the Federal Reserve System, its governors, officers or representatives.

Thank you for participating in the Federal Reserve Bank of Kansas City's Agricultural Symposium. Now in its 11th year, the symposium offers an opportunity for academics, policymakers, lenders and practitioners to gather and discuss important topics related to agricultural economics. We are proud to sponsor this look at a sector so vital to our region, the nation and the global economy and to engage with you in this virtual format.

This year's theme focuses on agricultural productivity growth. Producers and consumers of agricultural products alike benefit from productivity growth, and it has particular relevance now as strong increases in demand for agricultural products coincide with a run-up in crop prices. Over the long run, productivity growth is a key determinant in whether increased demand will be met by higher supply or if prices will have to rise to dampen the strength of demand.

The importance of productivity growth extends well beyond agriculture, of course. It plays an essential role in the long-run pace of economic growth, as well as the living standards and incomes of households. Productivity growth also lies at the intersection of demand growth and price inflation—a relationship that is attracting quite a bit of attention these days. In my remarks this afternoon, I'll talk about the role of productivity growth as a consideration for the nation's economic outlook, and consequently, the outlook for monetary policy.

### **The economic outlook**

Since the pandemic upended the global economy a little over a year ago, we have made considerable progress along the path to economic recovery. By many measures, the gaps that opened up in early 2020 have narrowed. Real gross domestic product (GDP), the broadest measure of the nation's economic output, increased at a robust 6½ percent annual rate in the first quarter, and will likely surpass its pre-pandemic level this quarter. The unemployment rate, at just over 6 percent in April, has improved considerably from its nearly 15 percent peak a year ago.

That progress alone is reason to be optimistic. Even so, we remain more than 8 million jobs shy relative to pre-pandemic levels. While this shortfall partly reflects the still-elevated unemployment rate, another factor has been a decline in labor force participation with many potential workers sitting on the sidelines.

As we look ahead, I anticipate strong employment growth in the coming months, particularly in contact-intensive industries such as hospitality and live entertainment, where the

rebound in jobs has so far been incomplete. The outlook is also supported by an extraordinary amount of policy stimulus, both fiscal and monetary. Fiscal transfers have led to a considerable improvement in household balance sheets, with an accumulation of savings far in excess of normal levels. In fact, the outlook is so strong that the discussion has quickly shifted from demand shortfalls to supply constraints.

### **Key questions for the outlook**

In gauging the economy's progress, I see three big, and somewhat sequential, questions that policymakers will grapple with over coming months. First, how actively will consumers spend down the excess savings that many households accumulated during the pandemic? Second, will limited supply and bottlenecks constrain this urge to spend, or will production, possibly supported by productivity growth, be able to keep up with a rush in demand? And third, if strong demand runs up against production constraints, will the effect be a temporary increase in prices and inflation, or a more persistent change in price-setting behavior of businesses?

Starting with the outlook for household spending, healthy balance sheets suggest that households have the capacity to spend. If and how quickly households spend down their excess savings will likely be an important determinant of the pace of growth over the next few years. While households could draw down their savings quickly, several factors suggest that people may want to hang on to at least a portion of their accumulated savings. Households are now painfully aware of new economic risks that might not have been a consideration a little over a year ago. With this recent experience of an economic shutdown, they may wish to keep higher amounts of liquid assets relative to the past. Also, since the fiscal transfers have largely been temporary, consumers might not want to materially change their spending decisions in response to only a short-lived increase in income.

On the second question, will supply constraints impede growth? We are certainly hearing anecdotal evidence to this effect, with labor, materials and transportation services reported as being in short supply. For labor, this shortage reflects the still-depressed level of labor force participation that I discussed earlier. How quickly supply can grow to meet higher demand will likely, at least in part, depend on the factors that are behind the decline in labor force participation. Some of the fall is likely due to the pandemic, either through restrictions on activity, lack of childcare, enhanced unemployment benefits, or fear of contagion. As the

pandemic fades and time passes, these factors will reverse, and labor constraints should ease. However, it is also possible that some of the decline in participation reflects a growing detachment from work for some, especially after the disruptions of the last year. This might be particularly true for workers that were near retirement. In this case, it will likely take a period of strong growth to draw these workers back in.

With respect to the widespread materials and transportation shortages, some may resolve during the remainder of the year, but others are likely to persist beyond that. For example, the shift in demand from services to goods during the pandemic has led to a surge in imports, backing up traffic at U.S. ports. The resulting longer shipping times have led to a global shortage of intermodal containers that many in the agricultural industry have likely experienced. A shift in consumption patterns back to services may help alleviate these delays, but it's not yet clear when that may occur. For manufacturers, surging demand for commodity computer chips has run up against global capacity constraints, which require long lead times to expand.

Productivity growth has the potential to play a role in meeting any incipient rush in demand. By allowing higher output with the same inputs, productivity can loosen the capacity and labor constraints that could stifle demand and weigh on economic growth.

Predicting the evolution of productivity, however, can be difficult. Measured by output per hour of work, productivity jumped during the pandemic, averaging close to 4 percent at an annual rate over the past year, more than triple the average pace over the last decade. However, much of this acceleration seems likely to reverse as restaurants reopen and hotels return to full capacity given their relatively low measured productivity.

But it is also possible that certain adaptations made during the pandemic, as well as behavioral changes on the part of consumers, could lead to a persistent increase in worker productivity. For example, over the past year, restaurants saw their customers shift towards curbside pickup or home delivery options. By adapting to this shift, restaurants were able to produce a similar product with less labor input. Similarly, the pandemic has led organizations to rethink the role of business travel in their operations. Travel is an expensive input for many businesses, and a shift towards far cheaper digital interactions could lead to significant cost savings and increased productivity. On the other hand, one could argue that hosting a conference like this on Zoom is a poor substitute for in-person engagement and could perhaps even depress productivity. This is all to say, that a lot remains to be sorted out regarding the pandemic's effect

on productivity. More generally, tight labor markets often incentivize productivity-enhancing innovation. For example, you see this at retail stores, where self-checkout has become increasingly common.

Turning to the third question, how will the dynamics of a strong economy and supply constraints affect inflation? Inflation over the 12 months ending in April, as measured by the consumer price index (CPI), increased to 4.2 percent, the fastest pace in over a decade and up considerably from the 1.4 percent pace recorded at the start of the year. What the current pace of inflation means for the inflation outlook for the medium term is less than clear. Many factors that have boosted current inflation seem likely to fade over time. For example, the average price of a gallon of gasoline fell to \$1.87 last April as demand fell sharply and inventories accumulated rapidly. Remarkably, these factors actually pushed the spot price of oil below zero for a moment last year. This April, as demand has recovered with a reopening economy, the average price per gallon hit \$2.96, an almost 60 percent increase from a year earlier, but about equal to the average price over the previous 10 years. This normalization in the price of gasoline contributed almost a percentage point to the overall rate of inflation in April.

Gasoline of course is not the only price bouncing back as the economy reopens. Some services that suffered large price declines early in the pandemic, including air travel and hotel accommodations, saw prices jump in April, even as they remain considerably below pre-pandemic levels. As these sectors recover, there is certainly scope for further strong increases, although I would expect as these prices recover, the pace of increase will slow.

A normalization of prices depressed by the pandemic doesn't tell the whole story though. Other sectors have seen prices jump far above pre-pandemic levels as supply constraints have developed against a backdrop of robust demand. This is particularly true for automobiles, where production disruptions have contributed to higher new car prices, with even larger spillovers to used car and rental car prices. In fact, as many recent travelers have experienced, rental car prices have increased more than 80 percent over the last year in the CPI data. Such bottlenecks seem likely to clear over time and stabilize prices.

Expecting these price pressures to ease, however, does not ignore the potential for more persistent inflation pressures. Over the long-term, the outlook for inflation is influenced by demand that is sufficiently strong across a wide range of goods and services that it pushes the overall economy up against its productive capacity. In the near-term, it can be difficult to

distinguish between a string of seemingly idiosyncratic bottlenecks and a broader-based lack of capacity. In the end, the persistence of any step up in inflation will ultimately depend on the pricing behavior of firms and workers, which in turn will be importantly affected by expectations for future inflation.

Measures of inflation expectations, both from surveys and financial markets, have moved up as the economy has reopened and strong fiscal stimulus has boosted growth. These and other indicators of pricing behavior will provide important signals about the longer-run trajectory for inflation. Prior to the pandemic, the economy had experienced a long period during which inflation pressures remained muted even as the economy appeared to be running near capacity. The apparent lesson from this period was that the inflation process had changed relative to earlier decades, a shift that the Federal Open Market Committee (FOMC) acknowledged in the adoption of its new monetary policy framework last year. Although providing the context for the revised framework, the cause of this shift in inflation dynamics remains relatively obscure. As such, an overarching takeaway from this period might be that the inflation process can change, and that changes can be relatively persistent.

While it is clear that several temporary factors are boosting inflation now, I am not inclined to dismiss today's pricing signals or to be overly reliant on historical relationships and dynamics in judging the outlook for inflation. The past few decades saw inflation play a relatively minor role in the day-to-day decision-making of businesses and consumers. Maintaining this state of affairs as we seek to achieve our objectives for maximum employment and price stability will be important.

### **The outlook for monetary policy**

As the pace and strength of the recovery unfolds, monetary policy settings remain highly accommodative and will remain so for some time in line with the FOMC's forward guidance. The Committee has stated that it expects to keep the policy rate near zero until the labor market has reached levels consistent with maximum employment and inflation has risen to 2 percent and is on track to moderately exceed 2 percent for some time. The FOMC also expects to maintain its purchases of Treasuries and mortgage-backed securities until substantial further progress has been made towards these employment and inflation goals.

Judging the appropriate timing for policy adjustments is always challenging. The economy is an incredibly complex set of relationships, many of which have been disrupted by the pandemic with uncertain long-term consequences. This is true for how we consume, how we produce, and how we work. As the economy works its way towards a new equilibrium, policymakers will be well served to take a flexible approach to monetary policy decisions, in my view. In this regard, the Federal Reserve's revised framework for monetary policy, adopted last August, provides a "framework," rather than a "rule." The FOMC has in the past avoided strict adherence to monetary policy rules, so it is unsurprising that the revised framework is not a precise prescription for policy action even as it repositions the Federal Reserve's approach to achieving its congressional mandates for employment and inflation.

The structure of the economy changes over time, and it will be important to adapt to new circumstances rather than adhere to a rigid formulation of policy reactions. With a tremendous amount of fiscal stimulus flowing through the economy, the landscape could unfold quite differently than the one that shaped the thinking around the revised monetary policy framework. That suggests remaining nimble and attentive to these dynamics will be important as we seek to achieve our policy objectives in the context of sustainable economic growth and the well-being of the American public.