President's Message: Monetary policy in a supply constrained economy

by:

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This President's Message is based on remarks President George delivered at the Kansas City Fed's annual Agricultural Symposium, May 23, 2022.

After decades of low and stable prices in the United States, inflation has emerged as a central challenge in the economy. Prices are moving up, and more rapidly than at any point in the recent past. The inflation we are now experiencing is obviously both too high and too broad to dismiss. It has become a top priority for the Federal Reserve to return inflation to its 2% objective.

How did we get here?

The factors behind the recent increase in prices are fairly straightforward: When demand for goods and services exceeds the economy's ability to supply those goods and services, prices rise. The nature of this demand and supply imbalance, however, poses some challenging issues for policymakers.

As the economy reopened throughout 2021, demand surged, supported by a tremendous amount of policy stimulus. The federal government has provided about $6 trillion of fiscal stimulus since the start of the pandemic. Monetary policy was also very accommodative, as the Federal Reserve cut interest rates to zero and added over $4 trillion to its balance sheet. Together, fiscal and monetary policy provided a massive boost to the economy, encouraging consumers to spend.

And spend they did, particularly on goods. Additional time at home during the pandemic apparently allowed households to identify needs they might not have previously known they had, and demand for kitchen appliances, entertainment systems, and exercise equipment skyrocketed. Although purchases of durable goods have eased after jumping in the first half of last year, they remain about 10 percent above pre-pandemic trends.

The fast recovery of the labor market has also encouraged spending. The economy added a record number of jobs in 2021. In the first four months of this year, a further 2 million jobs were added, about equal to the total number of jobs created in each

full year of the 2010s. More people working increases incomes and supports higher spending.

With the amount of stimulus injected into the economy, the strength of demand is not particularly surprising. Although the surge in consumption was certainly not a given recalling how uncertain the course of the pandemic remained throughout 2021. What is more surprising, from my perspective, is the underperformance of the supply side of the economy. Even as inflation suggests that the economy is operating far above capacity, practically bursting at the seams, the level of real GDP remains 2.5% below its pre-pandemic trend, a shortfall equal to a typical year's worth of growth.

The emergence of supply constraints has put the economy in somewhat unfamiliar territory. In the two decades prior to the pandemic, it was widely thought that the primary factor holding back economic growth was weak demand. Underlying this belief was the relative benign nature of inflation over this period, even in the face of historically low global interest rates and low unemployment. An apparently low neutral rate of interest, a level known to economists as r-star, suggested that monetary policy had to work pretty hard just to keep demand in the vicinity of the economy's available supply.

Now supply constraints dominate the economic narrative. What changed? One possibility is that nothing has changed. Perhaps the pre-pandemic economy was closer to full capacity than we realized. However, another possibility is that the pandemic has resulted in persistent, perhaps even permanent, damage to the productive capacity of the economy. This damage could be manifested along a number of dimensions. I'll highlight three: persistent damage to global supply chains, the quick destruction of capacity in the services sector, and long-lasting damage to workforce engagement and labor force participation.

Persistent disruptions to supply chains

The initial shock of the global shutdown in March 2020 tangled the carefully coordinated movement of shipping containers, the lifeblood of global commerce, and disrupted global production networks. Although progress has been made and the line of ships waiting off the shore of Long Beach has diminished, disruptions have migrated to other parts of the supply chain. For example, warehouse space has become scarce in many markets.

Production and capacity have also been affected. The semiconductor shortage and its impact on the automobile sector are well known, but other industries have also been hit by shutdowns. For example, in 2020, following a sharp fall-off in demand for diesel and gasoline, a number of refineries in the United States permanently shut down, lowering domestic refining capacity by 5%. This loss of capacity has contributed to the run up in fuel prices this year as remaining capacity is running flat out.

More broadly, the war in Ukraine has disrupted the supply and transportation of many commodities, pushing up prices for energy and food across the world. Similar to energy markets, the prices of many agricultural commodities also surged with the war in Ukraine and have remained very high. The price of wheat, for example, is about double what it was a year ago, but the

prices of other major commodities are also considerably higher than last year and much higher than before the pandemic. While the increase in prices has supported incomes in the farm sector, I have heard many contacts in our region describe their angst about rising input costs, or potentially even the availability of some key inputs, such as fertilizer. Across the spectrum of these supply constraints is growing concern about the persistence of these issues.

The quick destruction of capacity in the service sector

A second factor pointing to supply-side damage can be found in the service sector of the economy. Transportation and production bottlenecks have been particularly important for explaining the upward movement in goods prices, but recently services prices have also been picking up.

The increase in services price inflation is occurring despite continued weakness in the sector. Consumption of services only returned to pre-pandemic levels in the first quarter of this year. Given apparent slack in the services sector, why are prices moving up so strongly? It could be that excess capacity in the services sector disappeared much more quickly than we might have anticipated, so that even with subpar output the sector is not actually operating with much slack.

The pandemic recession was different from most recessions in that demand for services was hit particularly hard while demand for goods skyrocketed. Typically, the consumption of goods falls more steeply than services with downward pressure on prices as slack opens up in the economy. What we may be seeing in the current services-led recession is a much quicker adjustment of available capacity than in a typical recession. Lower fixed costs in the services industry may have allowed firms to quickly eliminate excess capacity in reaction to a steep fall in demand.

Continuing labor market frictions

The inability of the service sector to quickly add capacity is intrinsically related to the third factor holding back the supply side of the economy: continued frictions in the labor market. By many metrics, the labor market appears to be unusually tight. The unemployment rate is close to a historic low. The number of posted job vacancies is the highest on record, as is the pace at which workers are quitting their jobs, an indicator of a hot labor market as workers are more likely to quit when alternative opportunities are abundant. Speaking to contacts in the region, hiring and retaining workers is an acute challenge. Yet, notwithstanding the apparent tightness of the labor market, employment remains over 1 million workers short of pre-pandemic levels and considerably further below the pre-pandemic trend. What explains this gap? I will highlight two dynamics weighing on the labor force: lagging labor force participation and a significant step down in the pace of immigration.

In April, the percentage of the working age population participating in the labor force was 1.2 percentage points lower than before the pandemic. Controlling for population growth and aging, this implies a gap of about 2 million workers relative to pre-pandemic levels. Earlier in the recovery, prime age women made up a disproportionate number of the missing workers,

possibly due to disruptions to childcare arrangements. More recently, prime age participation has rebounded to close to pre-pandemic levels, such that the largest contributors to the current gap in participation are workers older than 65. Participation for the 65-plus age group fell off sharply with the pandemic and has not shown much recovery, perhaps as fears of illness lessened the desire to work and this was a feasible option as rising asset values boosted retirement wealth.

Another factor contributing to the tight labor market has likely been a significant fall off in the number of immigrants. This issue is often highlighted by our regional contacts in the agricultural sector and other parts of the economy. Immigration started to move down in 2016 and then fell off sharply during the pandemic. If immigration had continued at its earlier trend for the previous five years, estimates suggest there would be an additional 3 million immigrants, many of whom would have joined the workforce.

Where do we go from here?

With these thorny supply side issues affecting the economy, what role does monetary policy play? Certainly, monetary policy cannot fix supply shocks. But monetary policy does play an important role in addressing the imbalances between supply and demand. With inflation high, monetary policy must act to dampen the pace of demand growth, bringing demand into alignment with supply and relieving pressure on prices.

With inflation at a 40-year high and the unemployment rate near record lows, the stance of monetary policy has belatedly shifted to the removal of accommodation. A series of interest rate increases combined with significant reductions in asset holdings are underway. However, with real inflation-adjusted interest rates still deeply negative and the balance sheet twice its pre-pandemic size, questions about the path of policy are prevalent.

The responsiveness of the economy to changes in the interest rate can be difficult to predict in part because it is likely to vary over time. For example, with consumption skewed towards durable goods, which tend to be more interest-sensitive than other components of spending, it is possible that higher rates will have a more pronounced impact on demand and inflation than observed in the past. On the other hand, high levels of liquidity in the economy and healthy household balance sheets might make consumption less reactive to higher interest rates.

Fed policymakers have emphasized a commitment to act expeditiously to restore price stability, and I expect that further rate increases could put the federal funds rate in the neighborhood of 2% by August, a significant pace of change in policy settings. Balance sheet reduction plans will also be underway as a tightening mechanism, with financial markets far more unsettled currently than in 2017, when the Fed last initiated a rundown in the size of its balance sheet. Communicating about our policy path to avoid introducing any further uncertainty can ensure progress in significantly reducing the size of the balance sheet and lessening the central bank's footprint in financial markets. Evidence that inflation is clearly decelerating will inform

judgments about further tightening.

The central bank's job is to prevent persistent imbalances from feeding into inflation and unmooring inflation expectations. By influencing interest rates, the Federal Reserve primarily affects the demand side of the imbalance. The evolution of its efforts alongside other factors will affect the course of monetary policy, requiring continuous and careful monitoring.

Media

In May, President Esther George delivered remarks on the first day of the 2022 Agricultural Symposium. Photo by Gary Barber