A notable feature of the economic shock emanating from the COVID-19 pandemic has been its unevenness. Certain industries, job classes and geographies were hit harder by the pandemic and the associated pull back in economic activity than others. At the same time, the massive policy response to the shock, both fiscal and monetary, was broadly targeted, resulting in some sectors doing extraordinarily well even as others have struggled. The pandemic shock, with its disparate impact, comes in the context of an economy that was already experiencing growing wealth inequality and market concentration. In this sense, the pandemic has only amplified questions of how policy, and particularly monetary policy, with its broad-based rather than sector-specific tools, should respond to wide divergences in economic outcomes across sectors and populations. Are there mechanisms through which monetary policy could or should address disparate economic conditions?

To contribute to the discussion around these issues, the Federal Reserve Bank of Kansas City sponsored a virtual symposium titled “Macroeconomic Policy in an Uneven Economy” on Aug. 27, 2021. The annual symposium brought together a distinguished group of central bank officials and academic, policy and business economists to discuss the economic and policy developments in the wake of the
pandemic. The symposium began with a keynote address followed by a morning session with two papers with discussants and a panel discussion. The afternoon session opened with another set of remarks followed by an additional two papers and a final panel discussion.

**Opening Keynote Address**

The symposium opened with a keynote address from Federal Reserve Chair Jerome Powell. Chair Powell’s remarks discussed the outlook for the economy and monetary policy in the context of the COVID pandemic, noting that the recession induced by the pandemic had both been the deepest and the shortest on record. However, the economic impact of the recession had not been evenly distributed, with lower-wage workers in the service industry and African American and Hispanic workers suffering disproportionately. Unevenness was also apparent in the pandemic pattern of consumption, with a large shift away from the consumption of services toward durable goods, with a subsequent effect on prices in the two sectors.

Turning to the outlook, Powell was optimistic that the labor market would continue to heal as pandemic-related disruptions faded, while also noting that there remained a considerable gap relative to pre-pandemic conditions. In particular, there remained 6 million fewer jobs relative to February 2020. While the unemployment rate had fallen considerably from the most acute phase of the pandemic, the true amount of labor market slack was likely understated given that labor force participation remained depressed.

Powell noted the sharp run up in inflation that had accompanied the rapid reopening of the economy. While cautious on the outlook for inflation given the uncertain economic environment, Powell outlined five reasons why the current elevated level of inflation might be temporary. First, price pressures continued to be most apparent in the relatively narrow group of goods and services most affected by the pandemic and the reopening of the economy. Second, some of the prices most responsible for the run-up in inflation, including those for used cars, were showing signs of moderation. Third, wage increases remained contained, with little evidence of that a “wage-price spiral” was underway. Fourth, long-run inflation expectations
remained anchored at levels consistent with the Federal Open Market Committee’s definition of price stability. And last, it was not clear that the underlying forces that had weighed on inflation in the decades prior to the pandemic had dissipated.

In discussing the outlook for monetary policy, Powell noted two lessons from the past as relevant for the current situation. First, it is important not to overact to temporary increases in inflation given the long lag between a change in the stance of policy and the ultimate effect on economic activity. Second, what appear to be transitory increases in inflation can become persistent if the public comes to expect higher inflation.

**Monetary Policy and Uneven Shocks**

The first paper, by Veronica Guerrieri, Guido Lorenzoni, Ludwig Straub and Iván Werning, examines the optimal monetary policy response to a shock that shifts demand from one sector of the economy to another, similar to the shift in consumption toward goods and away from services that has been observed following the pandemic shock. The authors ask how monetary policy should respond to such a shock. A starting point is that such a shock requires a reallocation of resources, particularly labor, toward the sector with growing demand and away from the sector with shrinking demand. This reallocation in turn requires a change in relative wages, with higher wages in the growing sector needed to attract the workers necessary to increase production and meet demand.

The authors argue that the optimal monetary policy following such an asymmetric shock could be to allow inflation to run above its target, easing the necessary adjustment in relative prices and wages. This is particularly the case when firms find it difficult to cut nominal wages. With downward rigidity in wages, high inflation can ease the needed adjustment in relative wages, decreasing real wages in shrinking sector even as nominal wages remain flat, and encouraging the movement of labor to growing sector. A key result of the paper is that in the face of an uneven shock, monetary policy should consider the necessary adjustment of relative prices. By easing the reallocation of
labor between growing and shrinking sectors, monetary policy can benefit both workers and the overall economy.

In the discussion of the paper, Cynthia Wu investigated the role that asset purchases and average inflation targeting can play in improving economic outcomes and enhancing the effectiveness of monetary policy. By adding quantitative easing (QE) to the policy mix along with control of the policy rate, the central bank has two tools which allows it to meet two objectives, inflation and employment, improving on the policy outcomes feasible through adjustments to the policy rate alone. She also discussed the role that more targeted polices, including the Mainstreet Lending program and Paycheck Protection Program, could have in addressing uneven shocks.

Fiscal Policy and Uneven Shocks

The second paper, by Pierre-Olivier Gourinchas, Şebnem Kalemli-Özcan, Veronika Penciakova and Nick Sander, analyzes the effectiveness of fiscal policy in buffering economic activity from the disruptive impact of the pandemic. As part of their study the authors examined a large dataset of firm-level financial records drawn from several advanced and emerging market economies. Their results suggest that fiscal support was effective in significantly reducing the number of small and medium-size business failures that might have otherwise occurred during the pandemic. In addition, they found that, despite being widely dispersed, fiscal support did not result in an increase in “zombie” firms, or firms that were on the brink of failure prior to the pandemic but were propped up by government assistance.

The paper also examined the success of fiscal policy in supporting aggregate demand through transfers to both firms and households. The authors found that despite the impediment to consumption imposed by large-scale shutdowns and supply disruptions, transfers were effective in reallocating demand toward sectors with slack. The paper suggests that the global spillovers from expansive U.S. fiscal policy were limited and often negative on account of the effect of spending on interest rates and the terms of trade. Finally, the paper discussed the risks around a two-speed global recovery, where a
faster recovery and quicker normalization of monetary policy in the advanced economies negatively affects emerging markets by prematurely tightening global financial conditions.

In her discussion, Valerie Ramey commented on the role that government transfers had played in the COVID policy response. In contrast to the model results in the paper, evidence suggests that household spending, particularly for low-income households, was responsive to transfer payments. Governments saw transfer payments as a way to quickly distribute policy stimulus and reach a wide range of economic actors. Ramey also commented on the importance of quick fiscal support to preserve economic links that might have otherwise been destroyed during the pandemic. By allowing firms, workers, and consumers to maintain pre-COVID relationships, fiscal support allowed for a quick recovery with less economic scarring relative to other downturns.

Panel on the Interaction of Fiscal and Monetary Policy

The first panel looked at the interaction of fiscal and monetary policy. Alan Blinder led off the discussion, noting that he had presented the first paper at the first Jackson Hole symposium in 1982 on the same topic, through in a much different context. In the 1980s, fiscal and monetary policy were moving in different directions, as tax cuts boosted activity while monetary policy tightened in response to elevated inflation. Currently, both fiscal and monetary policy are extraordinarily expansionary. Blinder argued that in times of crisis, central bank independence was neither feasible nor desirable given the need for the Treasury and the Federal Reserve work in tandem to calm financial markets. However, he also cautioned that an intertwining of monetary and fiscal policy in normal times threatens central bank independence and should be avoided. The challenge therefore arises of how to disentangle monetary and fiscal policy after a crisis, especially one in which central banks, including the Federal Reserve, purchased a large quantity of government assets. The likely persistence of low equilibrium interest rates suggests that asset purchases will remain in the Fed’s policy toolkit. Therefore, while asset purchases may be unavoidable, Blinder recommends that the Fed does avoid purchasing
non-Treasury assets, including mortgage-backed securities, as the impression of sectoral credit allocation might be politically contentious.

Next, Gita Gopinath reviewed the extraordinary global fiscal and monetary policy response to the pandemic. She noted the aggressiveness of the policy response likely prevented a far greater decline in output than was observed and allowed for a quicker recovery by preventing the economic and labor market scarring that often weighs on growth following downturns. Gopinath then discussed the possibility that policy had gone too far, and whether the accommodative monetary policy adopted during the crisis would result in higher inflation. History suggests that large increases in the monetary base are less likely to lead to a sustained jump in inflation when policy rates are near zero or when central banks are independent. Accumulated credibility allowed central banks to react aggressively and effectively to the pandemic-induced downturn. However, Gopinath warned that it is important that central banks work to maintain this credibility coming out of the crisis.

Eric Leeper rounded out the panel with a discussion of shifting norms in the conduct of monetary and fiscal policy. Leeper made clear the important assumptions on fiscal-monetary coordination that underlie many models used to inform monetary policy. Most models assume that increases in monetary policy rates are contractionary, as the negative effect of substitution away from current consumption outweighs the boost to consumption that comes from higher earnings on savings. Importantly, in the background, this assumption is contingent on a fiscal budget constraint that implies that higher interest costs on government debt eventually lead to higher taxes. The models make the point that monetary and fiscal policy are always economically intertwined, even if politically independent. Leeper then goes on to discuss how fiscal norms, such as a belief that fiscal deficits will eventually be matched by fiscal surpluses, play an important role in the effectiveness of monetary policy, and how uncertainty over these norms could alter the mechanism through which monetary policy affects the economy.
Afternoon Remarks

Donald Kohn opened the afternoon session with remarks on open issues in financial stability, providing recommendations for actions that could improve the resilience of the financial system. Kohn divided his analysis and recommendations across four categories, discussing the urgency for action, the banking sector, the non-bank financial sector and the regulatory structure and process.

Starting with the urgency for action, Kohn pointed out that in the current uncertain environment the potential for unexpected shocks to the economy and the financial system was high. At the same time, with monetary policy constrained at the zero lower bound and with the possibility of limited fiscal space, the ability of policy to buffer any further shocks was limited. As such it is paramount that financial stability concerns be addressed now in order to increase the resilience of the financial system.

Kohn pointed out the banking sector had weathered the pandemic shock fairly well, but argued for regulatory changes that he viewed as further supporting the stability of markets. In particular, Kohn called for modifying the Supplementary Leverage Ratio, possibly by permanently exempting reserves from total assets, so as to free up balance sheet capacity for banks to provide liquidity to the Treasury market in times of stress. Kohn also argued for more active use of the countercyclical capital buffer as a mechanism for ensuring that capital regulation is not otherwise procyclical.

The remarks also highlighted risks in the increasingly important non-bank financial sector, which often undertakes maturity and liquidity transformation similar to that done by banks but with far fewer regulatory constraints. In particular, Kohn discussed the risks of a surging demand for liquidity in times of stress, and how a maturity mismatch in open-ended funds can contribute to this stress. Kohn recommended expanding access to the Fed’s Standing Repo Facility and reducing stigma on discount window use as potential mechanisms for lessening the “dash for cash” that often arises during times of financial market stress.
Kohn closed out the discussion with a recommendation that the regulatory structure be improved by providing specific financial stability mandates to all agencies currently participating in the Financial Stability Oversight Council, along with a requirement that agencies explicitly consider the systemic implications of their actions.

**The COVID Shock and an Uneven Labor Market**

In the third paper, Ayşegül Şahin and Bart Hobijn studied the cyclical dynamics of labor force participation through a careful examination of the labor market flows between employment, unemployment, and entry and exit from the labor force. They find that changes in labor force participation represent an important component of the change in the overall employment to population ratio across the cycle. They identify a participation cycle that falls in downturns and picks up during expansions. This participation cycle lags the cyclical change in unemployment, so that in a typical recovery depressed labor force participation continues to weigh on overall employment even after the unemployment rate has begun to recover.

The paper finds that the increase in labor force participation that typically accompanies an expanding economy is not primarily the result of new entrants being drawn into the labor force by a hot economy. Rather, this rise in labor force participation that follows increases in employment primarily reflects the fact that employed workers are more attached to the labor force. In contrast, workers that are unemployed are more likely to drop out of the labor force, such that a high unemployment rate is associated with lower labor force participation. Overall entry into the labor force is largely independent of the cyclical state of the economy. Instead, changes in the tendency with which people exit the labor force predominantly accounts for fluctuations in participation during economic cycles.

In discussing the paper, Betsey Stevenson examined some of the implications of the analysis. Given the importance of steady employment in keeping workers attached to the labor force, Stevenson speculated that there could be a rationale for paying people to stayed employed during downturns. Such a program could prevent the decline in labor force participation that typically accompanies
recessions, and thereby mitigate some of the labor market scarring that can delay recoveries. Stevenson also commented on the paper’s suggestion that policymakers could ignore trend movements in labor force participation. Some of the dynamics examined in the paper could differ substantially across demographic groups, for example mothers with young children might be more likely to exit the labor force when unemployed, and that these differences, and the relative persistence of these differences, could help explain trends across different demographic groups.

**Low Interest Rates and an Uneven Economy**

In the final paper, Atif Mian, Ludwig Straub and Amir Sufi investigated the dynamics behind aggregate household saving in the United States. High saving is one factor behind the persistent decline in $r^\ast$, or the equilibrium interest rate which balances savings with investment, in recent decades. One common explanation for the decline in $r^\ast$ is that the aging of the population has boosted saving, particularly as baby boomers accumulated nest eggs prior to retirement. However, the paper shows that population aging has not been a particularly important factor in explaining aggregate saving. Instead, increased income inequality and high saving by high income households has played a larger role in boosting aggregate saving. High income households tend to save more and as a greater share of national income has accrued to these households, national saving has been boosted as well.

Looking forward, the authors speculate that the importance of income inequality for high saving, the “savings glut of the rich,” is likely to continue to be a factor in lowering equilibrium interest rates. In contrast, demographics could eventually put upward pressure on $r^\ast$ as baby boomers spend down their savings in retirement.

In discussing the paper Fatih Guvenen pointed out that the aggregate U.S. saving rate had declined over the period of the study. Saving by high income households had increased, but not enough to offset declining saving by lower income households. Guvenen highlighted that this was consistent with the pattern of income growth across segments of the income distribution. In particular, rising
income inequality has been associated more with a stagnation of wages at the lower end of the distribution than rapid growth in income at the upper end. Guvenen also pointed out that U.S. household saving represented only one dynamic in the determination of the equilibrium interest rate, with global developments likely playing a more important role.

**Panel on Monetary Policy in an Uneven Economy**

The second panel examined monetary policy in the context of an uneven economy. Markus Brunnermeier kicked off the discussion with an examination of average inflation targeting in the context of the Federal Reserve’s revised monetary policy framework. Brunnermeier highlighted some considerations in determining the optimal period over which to average inflation in such a framework. One consideration is the length of time over which prices normally adjust. If prices do not adjust frequently, a shorter averaging period can force relative price distortions on those prices that are relatively flexible to meet the target. Another consideration is the length of fixed rate debt contracts. Unexpected inflation can lead to a redistribution of wealth between savers and borrowers, adding an element of uncertainty to debt contracts that can impinge on market efficiency. Average inflation targeting can decrease this uncertainty if the averaging period aligns with the typical duration of debt contracts. Finally, Brunnermeier argued the importance of fixing and announcing the period length to allow the public’s beliefs to coalesce around an anchor for inflation expectations.

Next, Kristin Forbes discussed the merits of unwinding monetary accommodation through reductions in central bank asset holdings relative to increases in the policy rate. The two policy tools potentially affect different segments of the economy, with the balance sheet having a more pronounced impact on longer-term interest rates. Forbes outlined considerations in balancing the two tools. Removing accommodation by increasing the policy rate is generally better understood, simpler to communicate, and easier to calibrate given the long history of conducting monetary policy in this manner. The policy rate can be adjusted relatively quickly and, in the context of the zero
lower bound, a higher policy rate can create additional policy space to address subsequent downturns. The benefits of removing stimulus through a reduction in central bank asset holdings include allowing a better targeting of particular sectors, notably housing, as well as reinforcing the independence of the central bank relative to fiscal authorities. Given the current uneven recovery, Forbes saw some benefit in prioritizing adjustments to the balance sheet and increasing longer-term interest rates relative to short-term rates.

Maurice Obstfeld closed out the panel by examining how economic unevenness was affecting emerging market and developing economies (EMDEs). Obstfeld noted that the EMDEs had so far weathered the pandemic downturn better than expected, supported by expansionary policy at home and spillovers from policy actions in the advanced economies. However, these economies faced substantial challenges ahead, particularly if policy started to tighten in the advanced economies before local conditions had recovered, a divergence perhaps in part driven by lower vaccination rates in EMDEs. Overall, EMDEs remain vulnerable to a global financial cycle, and particularly an appreciating dollar. Higher public debt loads in EMDEs coming out of the pandemic crisis have likely only served to increase these vulnerabilities in the years ahead.