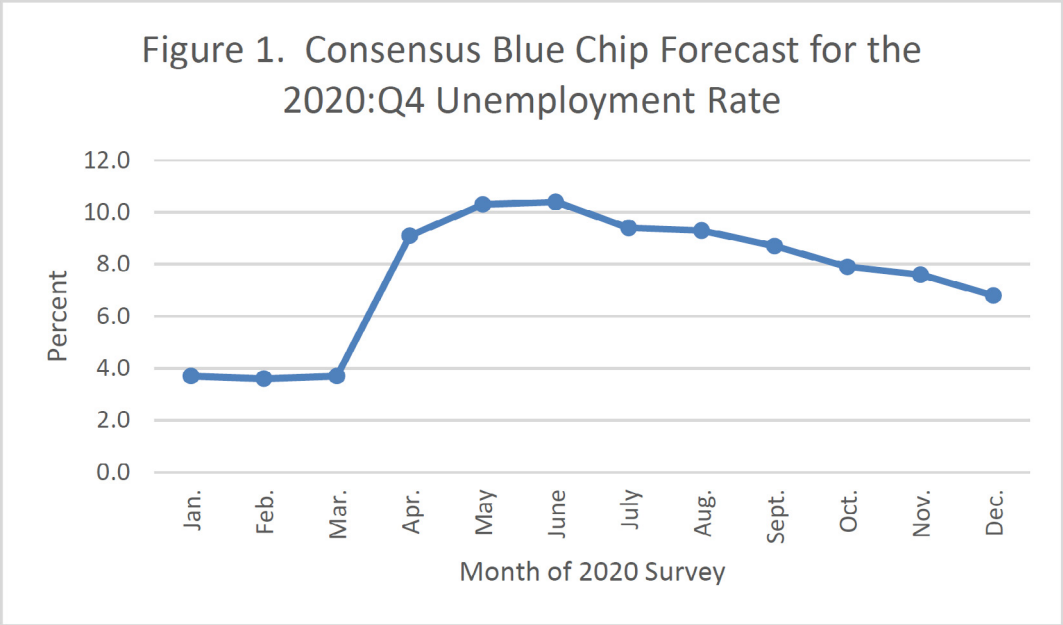


Source: Haver Analytics, Blue Chip Economic Indicators.

grow at an annual rate of 6 to 7 percent this quarter and by nearly that much in the first quarter of 2022.

Turning to inflation, it is alarmingly high, persistent, and has broadened to affect more categories of goods and services, compared with earlier this year. Wages are rising, and business contacts are reporting in the Fed's Beige Book that they are comfortable passing on increases in input costs to their customers. I have argued for some time that there are upside risks to inflation, and with inflation exceeding the FOMC's 2 percent target for some time now, I strongly supported the Committee's decision this week to speed up the pace of the tapering of asset purchases. This action gives us increased flexibility to adjust monetary policy as needed in 2022.

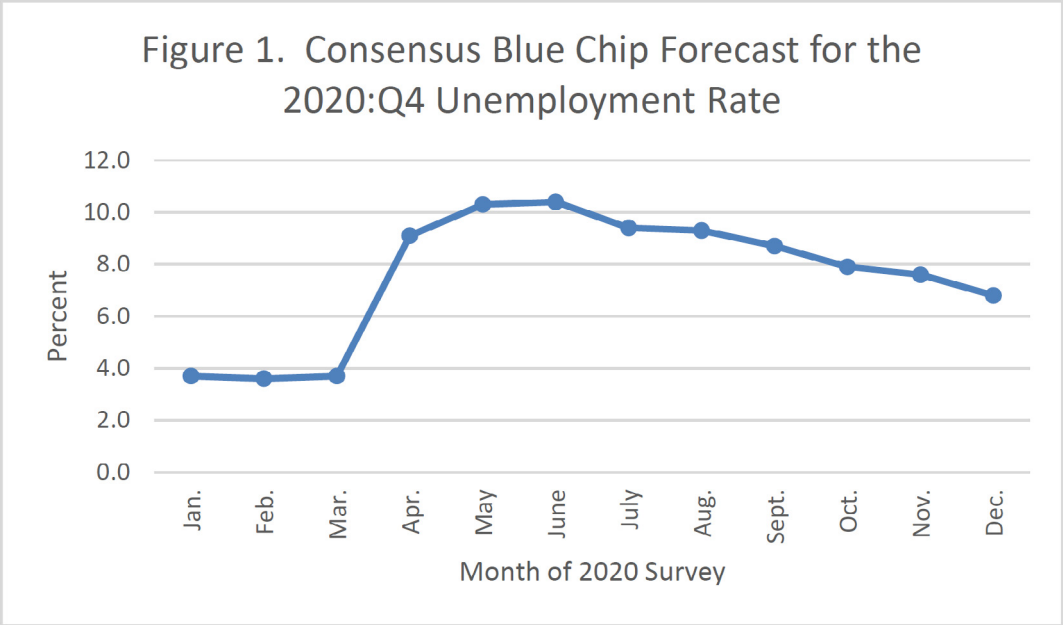
Assuming this new pace of reductions in our monthly asset purchases continues, the FOMC will end purchases in March. The appropriate timing for the first increase in the policy rate, of course, will depend on the evolution of economic activity, something that I will be closely monitoring. But given my expectations for inflation and labor market conditions, I believe an increase in the target range for the federal funds rate will be warranted shortly after our asset purchases end.

One big uncertainty about this outlook, of course, is the Omicron variant. We still don't know how serious a public health threat it will be, so we don't know if it will slow the U.S. economy, as the Delta variant briefly did, or even possibly slow progress toward maximum employment. Cutting the other way, we also do not know if Omicron will exacerbate labor and goods supply shortages and add inflation pressure, derailing the moderation of inflation next year that is my baseline. Over the past couple of years, forecasters have gotten pretty used to sudden changes in the outlook, and my colleagues and I on the FOMC will adjust as needed.

The Perils of Forecasting

As I am speaking to the Forecasters Club of New York, I thought I would pontificate a bit on the nature of the forecasting business. Forecasting typically involves answering the following question: Given the data

we see today, what will be the value of some variable, such as gross domestic product (GDP), some



Source: Haver Analytics, Blue Chip Economic Indicators.

beliefs about the future, no one would be able to decide to spend or invest. The cumulative effect of all those decisions determines whether the economy grows or contracts, whether a business thrives or fails, and whether families can pay their bills.

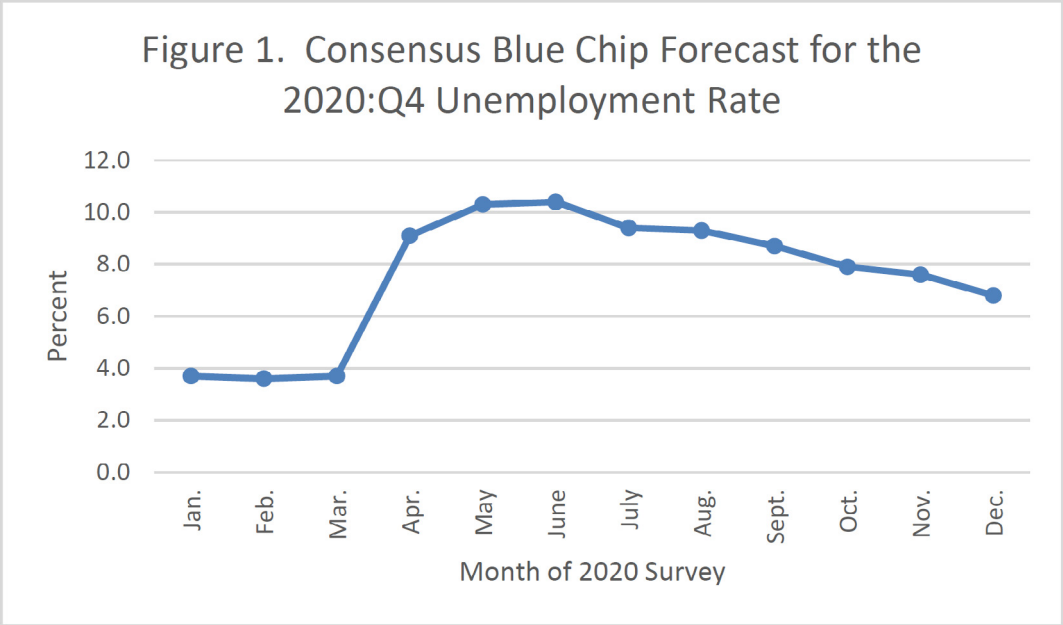
So, fully aware of the dismal prospects of getting a forecast right, we soldier on, in pursuit of the scintilla of understanding it may provide about a future that everyone is interested in. It is often said that, based on our performance, economic forecasters need to approach this work with humility, but I think it is exactly the opposite. It takes bravado and some chutzpah to stand up and express confidence in an economic forecast that will almost certainly be wrong. But we do it and take the hits when we are wrong, because so much depends on that view of where the economy is headed. Now, let us look at the forecasting community's performance over the past couple of years.

Two Years of COVID-19

It has been almost exactly two years since reports began to circulate of a novel virus in Wuhan, China. In March 2020, health experts in the United States and elsewhere were recommending social distancing, avoiding crowded public places, and maintaining at least six feet of distance from other people. At that time, many economies, and eventually much of the United States, instituted lockdowns that kept school kids and nonessential employees at home. The effect was a sudden and severe drop in economic activity and significant stress in the financial system, including a significant disruption in Treasury markets.

Unlike other severe economic shocks in the past century, such as the Global Financial Crisis (GFC), the COVID crisis was a health emergency. The response was a planned shutdown of key sectors of the U.S. economy—something that had never been done before. Obviously, the pandemic has been a great hardship for many people, and it was very challenging for anyone trying to forecast the effect of the virus on the economy. While we all knew that a recession was in the cards, forecasters lacked the historical

analog to give us an idea of the severity of the recession. To say there was massive uncertainty in



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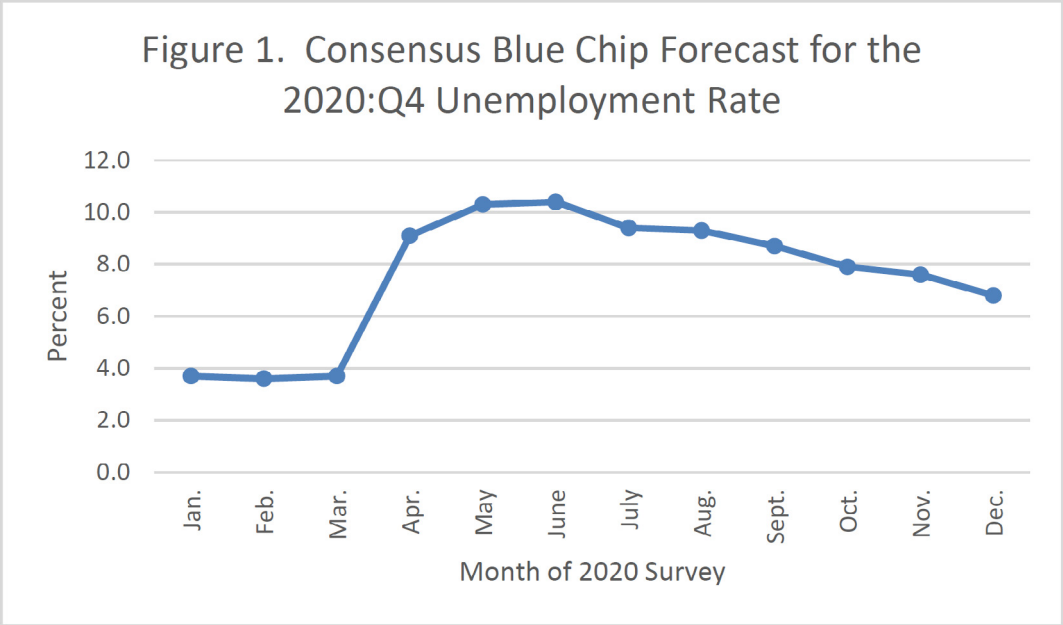
novelty of an economic shock and quickly adapt our models to new situations. Some adaptations will work well and others will not, but you must adapt and, through trial and error, sort out how to modify one's model to account for novel shocks.

At the onset of the pandemic, there was a lot of learning about the nature of the shock and how to adapt economic models. Economists had to quickly incorporate epidemiology models of disease transmission into their economic models to try to understand how the spread of the virus would affect the overall economy.[3] As a simple example, how should we capture the economic effects of social distancing in models in which the concept of distance doesn't exist?

I cannot say how much forecasters relied upon their existing models or historical data to adjust their outlooks as 2020 progressed, but it was not enough to avoid large and persistent forecasting errors. For example,figure 1 shows the evolution of the Blue Chip summation of private forecasters' outlook for the average level of the unemployment rate in the fourth quarter of 2020. In March, like everyone else, these forecasters had no sense of what was coming; the consensus was for an unemployment rate of 3.7 percent near the end of the year. By April, there was a clear sense that the shock was bad. Forecasters adjusted their expectation for the unemployment rate to average near 9 percent in the fourth quarter of 2020. In May, with numbers in hand showing unemployment averaging around 14 percent for March and April, the consensus Blue Chip forecast then suggested a slowly declining unemployment rate that would average a bit over 10 percent in Q4. A slow decline in unemployment is what we experienced after the GFC, so it made sense to project a similar slow decline after the virus hit. But this time really was different.

In fact, the unemployment rate dropped to 6.7 percent in November, and that is where it ended the year. Even after the dramatic economic rebound in May and June, the change in the consensus view for the

unemployment rate later that year was extremely gradual. Something seemed to prevent forecasters—me



Source: Haver Analytics, Blue Chip Economic Indicators.

The lesson from this experience is that economists need to continually adapt their models to the economic situation they are faced with, and when they are faced with a severe shock, they should ask themselves if they need to adapt their standard models and find other methods for forecasting the economy.

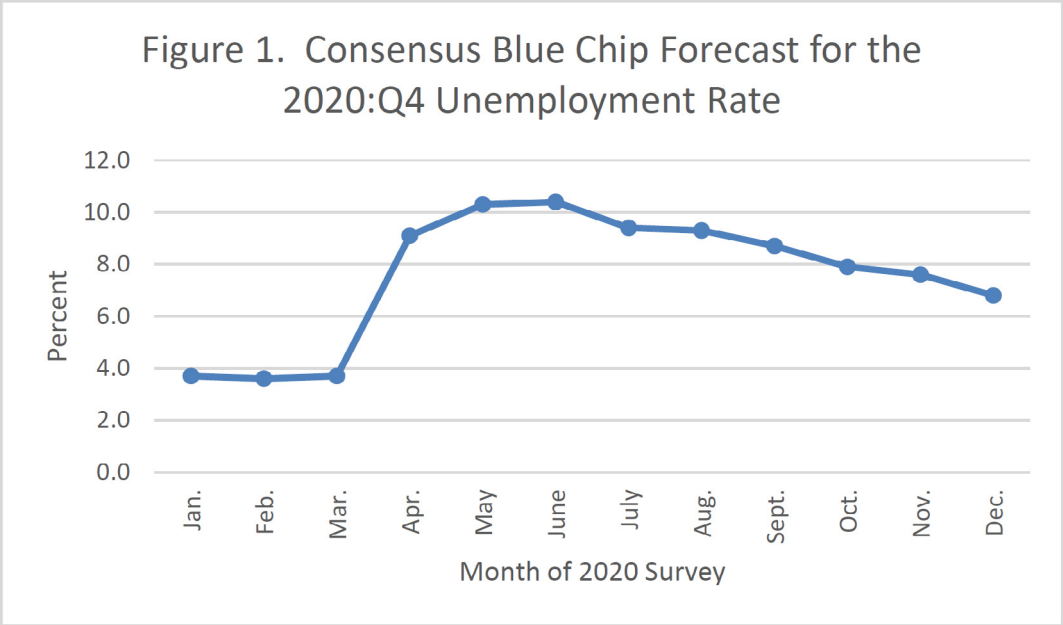
Lesson 2: Novel Shocks Can Produce Financial Stress in Unexpected Areas

Another lesson we learned was that unprecedented shocks, such as a pandemic, can generate unexpected and unfamiliar stress in the financial system. When the lockdowns and business closures started, it was reasonable to wonder whether banks would come under pressure, as they did during the Global Financial Crisis. As it turned out, banks were in pretty good shape and weathered the spring of 2020 pretty well, after a decade of effort by them and by government to strengthen regulation and supervision.[4] On the other hand, probably the last thing that we expected to see was severe stress in the Treasury market, the most liquid and stable financial market in the world. But as it became clear that earnings and all sorts of payments could be disrupted to households, businesses, and state and local governments, there was a huge dash for cash and other liquid assets.[5] Instead of flocking to Treasuries, people were trying to sell them into a rapidly deteriorating market. So we learned that even a Treasury security can become illiquid for certain types of shocks.

Lesson 3: The Fed Has Powerful Tools, Even When the Shock Is Unprecedented

We also learned that the Fed has potent tools to deal with even such an unfamiliar crisis. The Fed stepped in, lowered rates for discount window lending, revived lending facilities from the financial crisis, and created numerous new facilities to lend or support lending to households, small and large businesses, and state and local governments. In all, the Fed created 13 different lending facilities. In most cases, merely announcing these backstops succeeded in stabilizing markets, and, in fact, several facilities experienced very few requests for loans, which I consider a success.

So we learned that when the Fed acts quickly and decisively, our tools can quickly restore confidence,



Source: Haver Analytics, Blue Chip Economic Indicators.

employment to keep growing. With the unemployment rate at 4.2 percent in November, I believe we are very close to meeting the FOMC's maximum-employment goal. For inflation, as I said earlier, the next few months will be crucial in determining whether price increases will begin to moderate, as I still expect in my baseline outlook. However, I will be closely watching indicators of inflation expectations for signs that consumers and investors have come to expect high inflation well into the future, a development that could signal that the moderation in inflation I expect will not be coming soon. So, by choosing to speed up our reductions in asset purchases, the FOMC is providing flexibility for other adjustments to monetary policy, if needed, as early as spring to accommodate changes in the economic outlook. Omicron, as I said earlier, could slow the recovery or exacerbate inflation pressures, so we will have to be ready in the coming weeks to adjust as needed.

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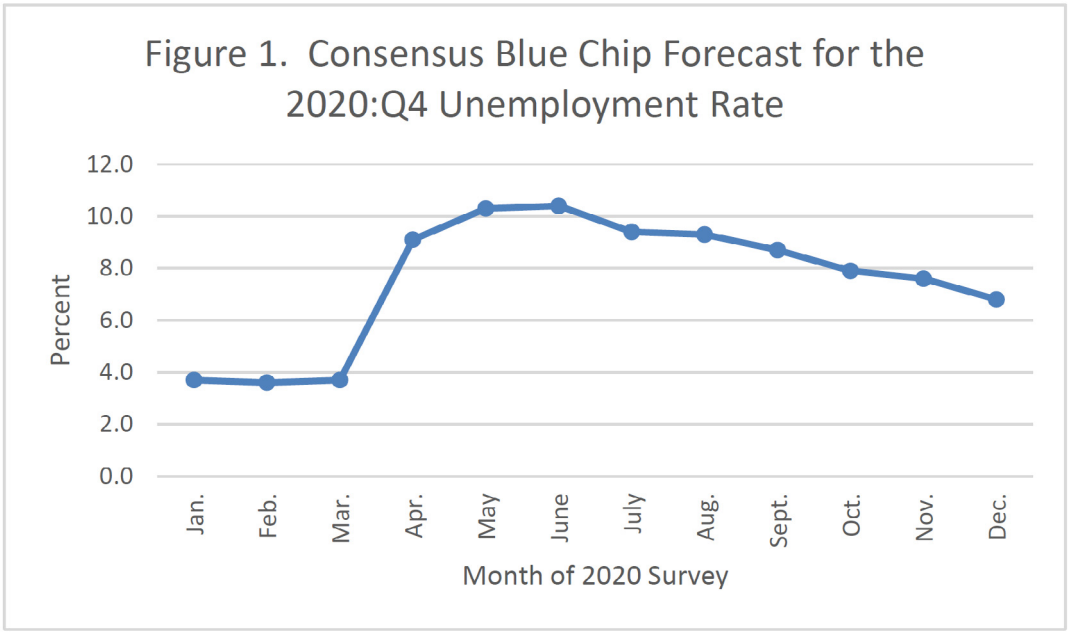
1. These views are my own and do not represent any position of the Board of Governors or other Federal Reserve policymakers. Return to text

2. The data here are from the Bureau of Economic Analysis, national income and product accounts. Since 1947, when quarterly measurement began, the previous record was an annualized drop of 10 percent in the first quarter of 1958. Return to text

3. For example, see Guillaume Vandenbroucke (2020), "The Mechanics of Individually- and Socially-Optimal Decisions during an Epidemic," Working Paper Series 2020-013B (St. Louis: Federal Reserve Bank of St. Louis, September); Andrew Glover, Jonathan Heathcote, Dirk Krueger, and Jose-Victor Ríos-Rull (2020), "Health versus Wealth: On the Distributional Effects of Controlling a Pandemic," NBER Working Paper Series 27046 (Cambridge, Mass.: National Bureau of Economic Research, September); Martin Bodenstein, Giancarlo Corsetti, and Luca Guerrieri (2020), "Social Distancing and Supply



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