The remarks on the national economy and monetary policy are the same as those delivered February 12, 2019.
**Introduction**

I thank the University of Kentucky’s Gatton College of Business and Economics for inviting me to participate in the 2019 Economic Outlook Conference. The Federal Reserve Bank of Cleveland is pleased to have a productive, ongoing relationship with the Gatton College, including co-sponsorship of annual workshops and seminars presented by Gatton faculty and Cleveland Fed researchers. I am especially looking forward to hearing the other speakers’ take on the economy and the question and answer portion of the program because as we navigate through the year, we will need to be particularly attuned to what is happening on the ground.

As many of you probably know, Lexington falls within the Cleveland Fed’s District, which includes the state of Ohio and parts of Pennsylvania, Kentucky, and West Virginia. The Cleveland Fed is one of 12 regional Reserve Banks distributed across the country that, along with the Board of Governors in Washington, D.C., comprise the Federal Reserve System. This regional structure helps us to collect information from around the country so that our monetary policy decisions can take into account the diversity of the American economy and its people. I am very grateful for the many contacts throughout our District who generously share with us their insights into business activity, labor markets, and financial conditions. This timely information is collected through our surveys and in meetings of our advisory councils and boards of directors. We have a business advisory council here in Lexington, and I would like to thank Dr. Ken Troske for serving on the group. The information he and his colleagues provide is very helpful to me as I formulate my economic outlook and monetary policy views, which I’ll speak about today. My remarks will reflect my own views and not necessarily those of the Federal Reserve System or my colleagues on the Federal Open Market Committee, the monetary policymaking body within the Fed.
The National Economic Outlook

Economic growth

Congress has given the Fed its monetary policy goals of price stability and maximum employment. From the standpoint of those goals, the U.S. economy is doing very well. The economy has been growing at an above-trend pace for the past couple of years, with estimates suggesting that growth was a strong 3 percent last year. Labor market conditions continue to be very strong, with above-trend job growth and very low unemployment. And after several years of being below-target, inflation has moved up and has been relatively stable around the FOMC’s 2 percent objective.

My expectation is that the economy will maintain its good performance in 2019. In my view, the most likely case is that we will see somewhat slower growth than we did last year, reflecting less of a boost from fiscal stimulus and less accommodative financial conditions. I expect growth to be at or slightly above trend, in the 2 to 2-1/2 percent range. Employment growth will also slow a bit, but it will remain strong enough to absorb those entering the workforce, and I expect the unemployment rate to remain at or below 4 percent. As this transition toward a sustainable pace occurs, I expect inflation to remain near 2 percent, with the usual transitory ups and downs.

If this outlook comes to pass, we will chalk up 2019 as another very good year for the economy. But the path to sustainability is rarely smooth, and uncertainty is clouding the outlook. The partial shutdown of the federal government is a case in point. It caused significant hardships for the workers who weren’t getting paid and for businesses that rely on the parts of the government that weren’t operating. In terms of the overall economy, we will see somewhat slower growth in the first quarter than we otherwise would, but I expect that to be made up in the second quarter, as long as we avoid another shutdown. The shutdown came at a time when people were already feeling a bit uneasy. In the fourth quarter of last year, investor sentiment shifted and investors began putting significant weight on downside risks to the forecast. As a result, there was a sharp increase in volatility, a decline in equity prices, and an increase in
the credit spread of corporate bond yields relative to Treasury yields. It was a good reminder that the
economy is dynamic and can take unexpected turns. While we all have to look forward and make our
best assessment of how the economy is doing, we also have to be ready to change those views should the
incoming information warrant it.

Since the start of the year, conditions in financial markets have eased, although they remain tighter than
they were last fall. Surveys indicate that households and businesses are less confident about the economy
than they were, but so far, much of the incoming data are consistent with slower but still solid growth.
Household incomes have been rising, reflecting the strength of the job market and lower taxes. In the
aggregate, households have been able to increase savings and their debt levels are manageable, making
for sound balance sheets. These factors have been supporting solid consumer spending, which is over
two-thirds of output. Going forward, we will need to keep a close eye on whether household sentiment
weakens so much that people postpone spending or whether they remain cautiously optimistic and
continue to spend.

The housing market has slowed over the past year. Affordability is becoming an issue because the 30-
year mortgage rate has been trending up since mid-2016 and house price appreciation continues to exceed
income growth. Looking forward, the tax changes contain several provisions that affect homeownership,
including the limits on deductions for mortgage interest and for state and local taxes, which includes
property taxes. On the other hand, strong labor markets mean more people are now in the position to
make the commitment to purchase a home. On balance, I don’t expect housing to contribute much to
economic growth this year, but I don’t expect to see a sharp pullback in the sector either.

Business spending was quite strong in the first half of last year, supported by strong earnings growth and
changes in tax policy that included lower corporate tax rates and full expensing of investment in
equipment and intangibles. But business spending moderated in the second half of the year, as financial
conditions tightened and uncertainty over tariffs, trade policy, and growth abroad began to weigh on manufacturers and other firms dependent on exports.

Sometimes I am asked why the Fed takes into account how other economies are doing when our monetary policy goals pertain to the U.S. economy. The answer is because how economies in the rest of the world fare can spill over to the U.S. through trade and financial markets. Growth abroad, including China and Europe, is expected to slow this year, but there is some uncertainty around how much of a slowdown there will be. The path and outcome of Brexit add further uncertainty, as does the outcome of trade and tariff negotiations. Indeed, some of the slowdown abroad is likely related to changes in and uncertainty over trade policy. So far, the majority of our business contacts continue to report that while their concerns about trade policy and global growth are rising, their investment plans remain intact. But some larger multinational firms have become more hesitant, and several manufacturing contacts have said that the tariffs have been disruptive to their supply chains, forcing them to find alternative suppliers or face increasing costs of production. Should the slowdown in the economies of our major trading partners, including China and Germany, be sharper than expected or should the continued uncertainty persuade more firms to take a wait-and-see attitude, U.S. growth may slow more than anticipated. Of course, a favorable resolution to some of the uncertainty could buoy sentiment and lead to a pickup in investment and stronger than expected growth in the U.S.

Overall, in my view the most likely outcome is that the economic expansion will continue this year, with growth moving down to a more sustainable pace, at or slightly above trend, but the risks around the forecast, including slowing global growth, uncertainty over trade policy, tighter financial conditions, and the changes in business and consumer sentiment, bear watching.

*Labor markets*

The strong economic growth we have experienced over the past few years has been accompanied by
strong labor market conditions. Last year, the economy added more than 2.6 million jobs; that’s over 220,000 jobs per month. In January, payrolls rose by more than 300,000 jobs. This is much stronger than trend job growth, which most estimates put in the range of 75,000 to 120,000 per month. The unemployment rate has been at or below 4.0 percent for almost a year, which is near the historical lows seen over the past 50 years. It seems unlikely that this low level can be maintained over the longer run. Our business and labor contacts, across a variety of industries, have been reporting to us for quite some time that it is very difficult to find workers across all skill levels. Some firms have shifted from looking for new hires to doing all they can to retain their current workers, including offering more flexible work schedules and raising wages. These anecdotal reports have shown through to the national statistics. Aggregate measures of compensation are now in the 3 percent range, after being quite subdued earlier in the expansion. This is a welcome increase. It gives workers more purchasing power, but because the pickup has been in line with productivity growth and inflation, it has not added to inflationary pressures.

Inflation

The FOMC has set a symmetric goal of 2 percent inflation, as measured by the year-over-year change in the price index for personal consumption expenditures, that is, PCE inflation. Our goal is symmetric, meaning that we don’t want to see inflation run either persistently above or persistently below this goal. When assessing where the economy is relative to our goal, monetary policymakers look through short-term variations in the inflation measures and focus on the underlying medium- to long-term trends in inflation.

After running below 2 percent for much of the expansion, inflation rates have firmed over the last several years. Last year, higher energy prices boosted headline PCE inflation above 2 percent, and the recent decline in energy prices will likely mean that inflation will move below 2 percent in the first part of the year. But the core inflation measures, which exclude food and energy prices, show that underlying trend inflation is essentially at the Fed’s goal of 2 percent. The key to this good performance is that
expectations about inflation over the medium to longer term have been stable. This has kept inflation pressures at bay despite the tightness in labor markets, the strength of the economy, and reports from business contacts that they have more pricing power now than they have had in many years. Going forward, with appropriate adjustments in monetary policy that maintain stable inflation expectations, my outlook is that inflation will remain near our symmetric 2 percent goal.

Before turning to monetary policy, let me say something about the regional economy.

**The Regional Economy**

The Lexington metropolitan area has shown some of the strongest economic performance in the Cleveland Fed’s District, and this performance has been aided by strong longer-term fundamentals. For example, from 1996 to 2008, the Lexington metro area saw a strong 20 percent increase in population, about double that of the state of Kentucky, and stronger than the 16 percent pace seen for the U.S. as a whole. This strong population growth was accompanied by solid job growth of 11 percent, somewhat higher than what the state saw, though not quite as high as the national pace. Lexington’s performance compares very favorably to that of the Cleveland metro area, which lost about 3 percent of its population and more than 3 percent of its jobs over the same time period.

Since the expansion began in June 2009, the relative economic performance of Lexington has remained solid. Both population growth and job growth in the Lexington metro area have significantly outpaced the nation’s. On net, payroll jobs are about 18 percent higher than they were when the expansion started. The metro area’s unemployment rate peaked at 8.8 percent in the aftermath of the recession, well below the 10 percent peak seen for the nation as a whole. Lexington’s unemployment rate is now down to 3.3 percent, well below the nation’s 4 percent rate. The one place where Lexington has not kept pace with

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1 From 1996 to 2008, payroll jobs grew by 14 percent in the U.S. and by about 10 percent in Kentucky.
the nation is in real per capita income growth. It has been rising over the expansion, but only between a half and two-thirds of the national pace.

Research shows that regions that are resilient, that is, regions that have been able to avoid persistent declines in population over the long run, tend to have a more diverse industry mix and a more educated population. Lexington scores well on both counts. Like many parts of the Cleveland Fed’s District, historically manufacturing has accounted for a relatively larger share of the Lexington metro area’s jobs compared to the nation. That is still true, but over time, Lexington’s industry mix has become more diversified. In the 1990s, manufacturing represented 16 percent of Lexington’s jobs; that share has now fallen to about 11 percent. In addition to manufacturing, the mining and government sectors also represent a larger share of jobs in Lexington than they do at the national level. But over the expansion, the region has been adding jobs in education, healthcare, and professional and business services.

Education is the key to helping ensure that a region’s population acquires the necessary skills for the jobs available now and in the future. In terms of education, the Lexington metro area compares quite favorably with the nation, with a higher percentage of the population having earned a bachelor’s degree or

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3 In the U.S., the share of jobs in manufacturing has fallen from about 15 percent in the 1990s to about 8 percent today. The comparable declines in shares were from 20 percent to about 12 percent in Ohio and from 18 percent to 13 percent in Kentucky.

4 Cleveland Fed researchers found that over a 75-year period, in our District, education levels were consistently one of the most reliable indicators for each state’s per capita income growth and that counties with higher levels of high school graduates tend to have lower poverty rates and higher levels of labor force participation. See “Altered States: A Perspective on 75 Years of State Income Growth,” Federal Reserve Bank of Cleveland 2005 Annual Report. (https://www.clevelandfed.org/newsroom-and-events/publications/annual-reports/ar-2005-perspective-on-75-years-of-state-income-growth/ar-200502-altered-states-essay.aspx) and Mark Schweitzer and Peter Rupert, “Understanding the Persistence of Poverty,” Federal Reserve Bank of Cleveland 2006 Annual Report. (https://www.clevelandfed.org/newsroom-and-events/publications/annual-reports/ar-2006-understanding-the-persistence-of-poverty/ar-200602-understanding-the-persistence-of-poverty.aspx)
further education. Lexington benefits from having the University of Kentucky right here, as well as other strong colleges in the region. Not all jobs will require a college degree. Cleveland Fed research indicates that compared to other parts of the country, Lexington has a somewhat higher share of so-called “opportunity occupations.” These are jobs that pay above-median wages but don’t require a bachelor’s degree. These types of jobs still require training, but it often takes less time and money to transition into them. In addition to a skilled workforce, effective leadership and collaboration among businesses, government, nonprofits, and individuals have helped areas navigate economic transitions driven by technological change and globalization. Workforce development will need to remain an important focus of civic and business leaders in the region to ensure that Lexington will be able to extend its solid economic performance into the future.

Now that I have given you a sense of my outlook for the economy, let me conclude with some remarks on monetary policy.

**Monetary Policy**

Since December 2015, when the expansion was well underway, the FOMC has been gradually moving the policy rate up from the extraordinarily low level that was needed to address the Great Recession. At its January meeting, the FOMC decided to keep the target range for the federal funds rate, our policy rate,

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5 Of the population age 25 years and over, 87.3 percent in the U.S. and 89.3 percent in the Lexington metro area have earned a high school diploma or higher; 27.3 percent in the U.S. and 24.6 percent in the Lexington metro area have earned a high school diploma as their terminal degree; and 30.9 percent in the U.S. and 36.2 percent in the Lexington metro area earned a bachelor’s degree or higher.


at 2-1/4 to 2-1/2 percent, and we have adopted a wait-and-see approach regarding future rate adjustments. I fully supported this decision because I believe that policy, for the time being, is well-calibrated to the economic outlook and the risks around that outlook.

Our policy rate is now at the lower end of the range of FOMC participants’ estimates of its longer-run neutral rate, a level that neither stimulates nor restricts the economy and is consistent with maximum employment and price stability, and our most recent policy rate increases are still working themselves through the economy.

With respect to our monetary policy goals of price stability and maximum employment, the economy is in a very good spot. Growth is slowing from an above-trend pace, and labor markets are strong. While the unemployment rate is lower than the level that is sustainable in the longer run, inflation is near 2 percent and does not show signs of appreciably rising. In my view, monetary policy does not appear to be far behind or far ahead of the curve. This environment gives us the opportunity to continue to gather information on the economy and assess our forecast and the risks, before making any further adjustments in the policy rate. If the economy performs along the lines that I’ve outlined as most likely, the fed funds rate may need to move a bit higher than current levels. But if some of the downside risks to the forecast manifest themselves, and the economy turns out to be weaker than expected and jeopardizes our dual mandate goals, I will need to adjust my outlook and policy views.

In addition to bringing interest rates up to more normal levels, since October 2017, the FOMC has also been letting the longer-term assets that we purchased to add accommodation during the financial crisis and Great Recession gradually roll off the Fed’s balance sheet, and we have made considerable progress in bringing bank reserves down to more normal levels. As the FOMC announced in January, we plan to continue to use our current operating framework for implementing monetary policy.
Our current operating framework, sometimes called a floor system or an abundant reserves system, differs from the framework we used prior to the financial crisis and Great Recession. In July 2007, the Fed was holding less than $900 billion on the asset side of its balance sheet. On the liability side, banks were holding about $10 billion in reserve accounts at the Fed. With reserves this scarce, the FOMC could make small changes in the supply of reserves by buying or selling short-term Treasuries. This, coupled with estimates of the demand for reserves, allowed the FOMC to ensure that the market-clearing interest rate at which banks lend reserves to each other overnight, the fed funds rate, was maintained at the FOMC’s target.

But during the financial crisis and Great Recession, once our policy rate was brought down to essentially zero, to add further monetary accommodation, the FOMC began purchasing longer-term assets in order to put downward pressure on long-term interest rates. As a result of these purchases, the assets on the Fed’s balance sheet swelled, to over $4.5 trillion at the peak in January 2015, a five-fold increase. Reserves and currency are the main liabilities on the Fed’s balance sheet. As assets rose, so did reserves, peaking at $2.8 trillion in October 2014, with most of this in excess of that required to meet regulatory reserve requirements.

At such ample reserve levels, small changes in the supply of reserves have little effect on the fed funds rate, and the FOMC began implementing monetary policy in a new way. In particular, in October 2008 Congress gave the Fed the authority to pay interest on the reserve balances that banks and other depository institutions hold at the Fed. So the FOMC began bringing the fed funds rate into its target

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8 In general, studies find that the Fed’s various asset purchase programs have lowered longer-term yields. For a review of the empirical evidence, see Stanley Fischer, “Conducting Monetary Policy with a Large Balance Sheet,” remarks at the 2015 U.S. Monetary Policy Forum, sponsored by the University of Chicago Booth School of Business, New York, NY, February 27, 2015. (http://www.federalreserve.gov/newsevents/speech/fischer20150227a.pdf)
range using the rate the Fed pays on excess reserves and using overnight reverse repurchase agreements, which help put a floor on the fed funds rate. Raising the interest rate on excess reserves puts upward pressure on the fed funds rate because banks are unlikely to accept a rate in the market lower than the one they can get by depositing their funds at the Fed. Overnight reverse repos, or ON RRPs, involve the Fed selling securities from its large portfolio of assets with an agreement to buy them back the next day at a pre-determined price from eligible counterparties, including banks, primary dealers, money market funds, and government-sponsored enterprises. By offering a safe overnight asset to a broader array of money market participants, some of whom are not eligible to receive interest on reserves, overnight reverse repos help put a firmer floor on the fed funds rate because these counterparties should be reluctant to lend their liquidity in the market at rates lower than what they could get at the Fed.

This abundant reserves, or floor, system does not require the FOMC to actively manage the supply of reserves, so it is easier to implement, and it has given the FOMC effective control of interest rates. The FOMC plans to continue to use this system to implement policy. The Fed’s balance sheet will be larger than it was before the financial crisis. This is so not only because of this implementation framework, but also because the public’s demand for currency is rising over time and because banks’ demand for reserves has increased because of their own risk-management needs and in response to regulatory changes put in place since the crisis. Even so, the balance sheet will be considerably smaller than it was at its post-crisis peak, and we have made considerable progress in normalizing it. Assets held by the Fed are now about $4 trillion, down about $0.5 trillion, or over 10 percent, since their peak, and reserves are now about $1.6 trillion, down about $1.2 trillion, or over 40 percent, since their peak.

At coming meetings, we will be finalizing our plans for ending the balance-sheet runoff and completing balance-sheet normalization. As we have done throughout the process of normalization, we will make these plans and the rationale for them known to the public in a timely way because transparency and accountability are basic tenets of appropriate monetary policymaking.