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***“Risk Management in Monetary
Policymaking”***

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The views expressed today are my own, not necessarily those of my colleagues on the Federal Reserve Board of Governors or the Federal Open Market Committee.

Good morning. It is a pleasure to be with the New England chapter of the National Association of Corporate Directors. I'd like to especially acknowledge and thank one of your members, Cathy Minehan, who was my predecessor as president of the Federal Reserve Bank of Boston, and helped make this event possible.

As corporate directors, you assess the plans and forecasts of the organizations you oversee – and also grapple with the risks inherent in those plans, and how those risks can be managed. In something of a parallel, I will talk today not only about the outlook for the economy, but also the *risks* to that outlook – and how the Federal Reserve is taking those risks into account as it executes monetary policy.

Today I plan to share my outlook for the economy with you, as well as the implications that outlook has for the Fed's policymaking, in my view. In order to look ahead, however, I think it is important to begin by reflecting on the economy at the end of last year, in the fourth quarter.

I won't need to remind you that the fourth quarter of 2018 featured a series of problems – some realized, some potential – that affected financial markets. Domestic and international stock indices fell, stock volatility rose, oil prices fell, long Treasury rates fell, and credit spreads widened. These asset price movements – along with the partial government shutdown, trade concerns, and declines in consumer sentiment – likely contributed to much weaker than expected December retail sales. The constellation of financial-market movements also caused some analysts to highlight recession probabilities, and the heightened risk of a more pronounced slowdown for the global economy.

After the calendar turned to 2019, many financial markets recovered smartly, and Congress and the Administration reached a budget agreement that avoided an extended shutdown. These developments appear to have alleviated some of the more pronounced concerns.

However, many of the underlying global growth issues that generated the recent spate of financial-market concerns are as yet unresolved. These issues include slowing growth in China and Europe, constraints on international trade, the potential for Brexit-generated challenges, and problems at some European banks – all issues that could weigh on an already-slowing economy. These conditions, together, provide ample justification for focusing on prudent risk management when setting monetary policy.

My view, as I will discuss today, is that the most likely outcome for 2019 is relatively healthy U.S. economic growth somewhat above 2 percent over the course of the year, with inflation very close to Fed policymakers' 2 percent target, and a U.S. labor market that continues to tighten somewhat. All in all, a relatively strong forecast.

However, policymakers cannot place complete faith in what they believe is the most likely outcome. So the Federal Reserve must take into account key risks to the forecast, and develop a strategy for managing those risks.

Obviously one such risk involves the economy's growth rate, both at home and abroad. Domestic growth somewhat above 2 percent, as I anticipate, would be a slowdown relative to the roughly 3 percent growth of last year, although still somewhat above my estimate of the economy's so-called potential growth rate.¹ The modest slowing from last year's rate would be due to the diminishing fiscal stimulus from earlier policies, and the effects of four increases in

short-term interest rates last year. Those effects are built into my forecast for a growth rate somewhat above 2 percent – which would still be sufficient to bring additional improvements to labor markets, without much risk of higher inflation. In that sense, it would be a very welcome outcome. But there is some risk that more pronounced slowdowns in the rest of the world could dampen U.S. growth more than I am forecasting.

On the other hand, earlier concerns that the economy might overheat in a number of ways seem somewhat less pressing at this juncture. Given the growth outlook, I expect inflation to end 2019 close to the Federal Reserve’s 2 percent target. And some financial stability risks have been reduced, as recent financial market volatility has tempered investor ebullience. So, in my view, there is less reason to fear overheating, and somewhat greater risks to the outlook – and together these factors are sufficient to justify a pause in the recent monetary tightening cycle. I would add to these factors one more – the difficulties in interpreting the trajectory of the economy due to delays in economic data, caused by the partial government shutdown. Altogether, it is a good time for policymakers to be patient, taking the time to evaluate the risks I’ve outlined, as well as the underlying strength of the economy.

Overall, my message today is positive. In my view, the U.S. economy will likely grow fast enough to cause further tightening in labor markets. Financial markets have stabilized, and stock prices have recovered from their December lows. Concerns about government shutdowns are diminished, and there appears to be more optimism relative to trade disputes. While labor markets are tight and wage pressures are rising, inflation is so far quite well behaved. This means that, in the face of heightened risks, policymakers can be patient, waiting to see additional incoming data to better discern the direction of the economy before taking any further monetary

policy action. This is the essence of the prudent risk management in policymaking that is my theme today.

Financial Markets – Recovery from the Fourth Quarter

With that summary and overview, let me now walk you through the data that underpins my views.

Figure 1 shows the movement of two domestic stock indices – the Dow Jones 30 Industrials and the S&P 500 – since the beginning of 2018. The indices showed no particular trend in the first half of 2018 before rising in the third quarter, and then rather sharply declining in the fourth quarter. Stock prices declined approximately 15 percent from their peak to the December lows. However, there has been a significant recovery since the December holiday week, with the stock indices now exceeding their levels at the start of 2018.

Figure 2 highlights that the stock market declines were a global phenomenon. International stock indices all swooned in the fourth quarter (or earlier, in the case of China). But unlike U.S. stocks they remain well below (roughly 10 percent below) their levels at the beginning of 2018. The declines sparked concerns that both the European and Chinese economies might be slowing down more than anticipated.

Global and domestic slowdown concerns also resulted in significant stock volatility at the end of 2018, as shown in **Figure 3**. You may recall that there was a similar spike in volatility at the beginning of 2018, stemming at least in part from similar concerns over slower global

growth, including slowing in China and other emerging markets. As stocks have improved since the beginning of this year, the volatility has subsided.

While there is evidence of recovery in domestic and global stock indices, accompanied by a reduction in volatility, debt markets have not recovered to the same degree. **Figure 4** shows that the 10-year U.S. Treasury rate is about 50 basis points lower than its recent peak in the fall. Investors tend to move into longer-term Treasury securities when they are concerned with global risks – in part, what many call a “flight to quality.” This increase in demand for Treasuries raises their price and lowers their yield. One possible way to interpret the fall in 10- year Treasury rates is as a response by some investors who choose to use longer-term Treasury securities as a hedge against global risks, possibly suggesting lingering concern with downside risk, at least in the bond markets.

Figure 5 shows two common measures of the slope of the yield curve. The most commonly used measure, the spread representing the 10-year Treasury rate minus the 2-year Treasury rate, declined significantly over 2018 – as the Federal Reserve raised short-term rates and as Treasury security rates declined. A second measure of the yield curve studied by Engstrom and Sharpe (2018)² looks at the implied forward yield on a three-month Treasury bill six quarters ahead, minus the yield on a current three-month bill. By focusing on the near-term path of interest rates rather than a 10-year horizon, this measure may reflect the market’s assessment of whether near-term monetary policy may tighten or ease. The decline in this shorter yield curve measure is consistent with increased assessments of risk by many investors, as well as the Federal Reserve’s recent willingness to be patient in light of those increased risk concerns.

Figure 6 shows that risks are also being priced into credit spreads. The spread between high-yield corporate bonds and 10-year U.S. Treasuries rose significantly at the end of 2018. This spread is important because it reflects a perception that corporate default risks have increased. These risks might be most acute if investors thought that the probability of a more significant economic slowdown had increased. There has been some reversal of this increase since the beginning of the year, but high-yield rate spreads remain higher than levels seen for much of 2018.

Figure 7 shows U.S. debt markets aren't the only place where concerns about slowing global growth are surfacing. Yields on 10-year German government bonds have declined from their already low levels, potentially reflecting some flight to quality within Europe. In contrast, Italian 10-year government bond yields have risen significantly, as investors require a higher risk premium for Italian debt, likely reacting to the risk that global and European slowing will weaken Italy's economy and its government's ability to meet its debt obligations.

Overall, markets are still pricing in somewhat elevated risk, even as some of the concerns from the end of last year seem to have subsided somewhat. U.S. stock markets have partially recovered and stock volatility is lower, but foreign stocks and all debt markets are still priced as if there are heightened risks. These heightened risks are another reason why patience in monetary policy is appropriate at this time.

The Most Likely Outlook for the Economy

While downside risks are elevated, it is important not to lose sight of the modal forecast, that is, the most likely outcome forecasters see for the economy. **Figure 8** shows the February 10th Blue Chip Forecast, encompassing approximately 50 private-sector economists' forecasts for real GDP over 2019. The solid line shows the average of the forecasts for real GDP. These private forecasts are not anticipating a significant slowdown – with GDP growing somewhat above 2 percent over the year. Even the average of the 10 lowest forecasts does not show a sharp slowdown, with growth over the year somewhat above 1.5 percent.

If growth exceeds 2 percent, as in the consensus forecast, labor markets would be expected to tighten further. **Figure 9** shows unemployment rate by race and ethnicity – and each measure is quite low by historical standards. One of the advantages of such low unemployment rates is that additional members of racial and ethnic groups that have tended to have higher unemployment rates are drawn into the labor market.

Figure 10 shows that initial claims for unemployment remain quite low. This suggests that employers are loathe to lay off workers in an environment where finding new hires could be challenging.

Despite the clear benefits to having a tight labor market, we have to keep in mind that there are costs when a labor market becomes *too* tight. I will explore this possibility in my next few charts.

Figure 11 depicts the so-called quits rate – the number of people who voluntarily leave their job as a share of total employment. Voluntary job-leavers do not qualify for unemployment

insurance – so the higher quits rates reflect workers’ confidence that they will quickly find alternative employment if they leave a job. But it is also a sign of emerging wage pressures. Workers are likely voluntarily leaving jobs because other employers offer higher wages. As workers move to higher-paying jobs, the effect on wages can cascade through firms who lose as well as gain employees. The employer gaining a worker may face pressure to offer his or her current workforce the new (higher) market wage, and the former employer will need to offer the higher market wage to attract a new worker to the position, which may also affect prevailing wages for the employer’s workforce.

To clarify, I am not suggesting that wage growth is a problem per se. On the contrary, I want to see wage growth – particularly if it is a result of improved productivity. But wage growth that drives inflation significantly above target would be a problem. Again, we want to consider the risk of the labor market becoming *too* tight, given the downsides to that happening. The Federal Reserve’s dual mandate from Congress encompasses not just maximum sustainable employment, but also stable prices.

Figure 12 shows that there has indeed been upward momentum in wages. Both average hourly earnings and the employment cost index have been rising. At current rates of increase, wage growth roughly reflects worker compensation for their increased efficiency (productivity growth, about 1 percent) plus the increased cost of living (inflation, about 2 percent). However, if wages were to continue to accelerate without a pickup in productivity, some of the increase in wage costs would be reflected in smaller profit margins or higher prices.

In **Figure 13**, we see wages trending up in several industries that tend to have lower-skilled workers. This is good for employees, but highlights the pressure that tight labor markets place on some businesses.

Figure 14 shows that, to date, rising wages have not placed significant pressure on prices, perhaps because most firms have significant profit margins to absorb any cost increases. In particular, core inflation remains just below the Federal Reserve's 2 percent target, while total PCE inflation has fallen below 2 percent, largely a result of lower oil prices. Declines in oil prices could have longer-lasting effects on the *level* of prices, but should have only temporary effects on inflation (i.e., the rate of change).

To further parse inflation readings, **Figure 15** shows that the 2 percent overall inflation rate reflects the combination of *services* price increases of over 2 percent with the more volatile *goods* prices that mostly fell from 2013 through 2016, and had risen significantly more slowly than services of late. While goods prices did rise much more slowly than services, there had been a recent increase, which at least partly reflected the impact that tariffs may be having on traded goods prices. Goods prices declined slightly in December.

Concluding Observations

While the modal forecast for the economy is consistent with growth slightly above 2 percent, inflation close to target, and some further tightening of labor markets, the risks to that outlook have increased recently. In my view, current monetary policy needs to balance this relatively benign forecast with the increased downside risks that are reflected in asset prices.

I will reiterate that while there has been some recovery in equity prices, financial markets overall continue to price in downside risks to the economy. This is most obvious in longer Treasury rates and wider credit spreads, consistent with the ongoing risks posed by slower global growth. While incoming data are still delayed because of the partial government shutdown, there is some indication in the December retail sales data that the economy may be slowing a bit faster than policymakers anticipated.

It could be that asset-price declines, government shutdowns, and challenges in reaching trade agreements were the source of slowing in the real economy at the end of last year. Or it could be that asset price weakness reflected the perception that the economy was slowing, particularly in the face of rising interest rates. It remains to be seen whether the few signs of weakness at the turn of the year reflect an underlying slowdown in the economy, or a response to a variety of temporary concerns that may fade.

It may be several meetings of the Federal Open Market Committee before Fed policymakers have a clearer read on whether the risks are becoming reality – and by how much the economy will slow compared to last year. With less ebullience in financial markets and no immediate signs of inflationary pressures, patiently watching to see how the economy develops is the appropriate policy for now, and represents prudent management of risks to the forecast.

Thank you.

¹ Growth above the economy's "potential" rate of growth, which I estimate to be 1.8 percent, would typically push down unemployment.

² See <https://www.federalreserve.gov/econres/feds/files/2018055pap.pdf>