Geek-Out Wednesday Topic: The Federal Reserve Dot Plot

What it is it?

The Federal Reserve's Open Market Committee (FOMC) releases a scatter plot of interest rate projections for the future. The plot is released in its March, June, September, and December meetings along with projection materials. The chart is an x y scatter plot with short term interest rates on the y-axis and with timeframes of 1 to 3 years and the "the longer term" depicted on the x-axis. Each member on the FOMC submits his or her prediction for what they believe should be the midpoint for Fed Funds at the end of each year going forward. Though all 19 members may submit projections, the voting members of the FOMC are the Federal reserve officials who are tasked with setting interest policy and they include: 7 members of the Fed Board of governors, The President of the New York Federal Reserve Bank, and 4 Federal Reserve Bank Presidents from each of the remaining 11 regional reserve banks who rotate in one year terms. The resulting 12 members meet at 8 regularly scheduled meetings per year to set rate policy and it is their projections along with non-voting participants that appear on the four dot plots released annually. The dot plot is perhaps one of the most scrutinized releases in the world as its projections come directly from policy makers. As with all things in economics, it is not without its detractors.

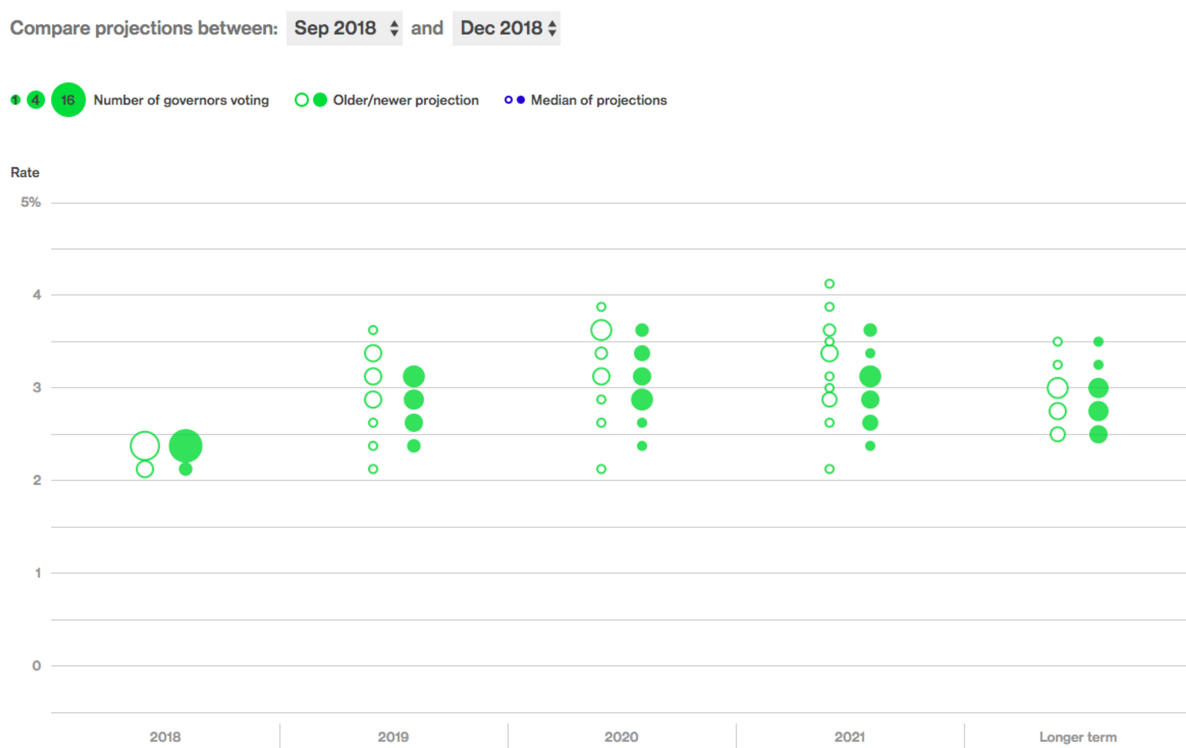
The history of the Dot Plot

The dot plot was first introduced by Fed Chairman Ben Bernanke in 2011. It was during that time, in the wake of the Great Recession, that the Fed was utilizing very aggressive and unprecedented accommodative policy to jumpstart the ailing economy. The Fed was still nowhere near switching gears with QE1 and QE2 having been completed in 2009 and 2011 respectively, there would still be another round of easing (QE3) in 2012. Interest rates were near zero and would not be changed until 2015. At that point Bernanke thought that the Fed would need a way to communicate or signal any potential future changes in policy in order to soften the blow in the event of a reduction of accommodations or to ease concerns by demonstrating ongoing accommodation. In the case of taking away accommodations, economies are cyclical and the Fed was well aware that at some point in the future they would find itself in a tightening cycle, even though it would have been unthinkable in 2011. Bernanke believed in what he termed "aggressive forward guidance" which would signal Fed intent in its Dot Plots.

How to read the Dot Plot – What does it mean?

Below is a Bloomberg chart depicting the December 2018 meeting's dot plot. Each yellow dot represents an FOMC member's prediction for the Fed Funds rate at the end of a given year. So for example, we can see that 6 members believed that the Fed Funds Target midpoint would be at 3.125% while only 2 members expected rates to remain unchanged. What we look for on this chart is the median of the dots, or predictions (depicted by the green line). In this case, members predicted that rates would be at 2.875% at the end of the year, on median. As the current Fed Funds target is 2.25-2.5%, that would mean that governors are anticipating two 25 basis point rate hikes throughout 2019. By looking further out into 2020, governors predict that rates would be 3.125%, meaning that they expect another rate hike in that year. 2021's median shows governors expecting no change in rates with a shift downward thereafter. Remember that each dot is anonymous, so we don't know which governor made the prediction or if they are even a voting member.

Another way to observe the Dot Plot is by observing the changes in FOMC member predictions from one meeting to another. This enables us to see if sentiment is shifting to a more dovish or hawkish stance. The following chart, also from Bloomberg allows us to compare dots plots from one meeting to another. Depicted in this chart is the dot plots from September 2018 and December 2018. If you look closely at the dots for 2019, you can see that the median forecast in September was 3.125% but by December governors lowered their predictions to 2.875%. In other words, they were expecting one less rate hike for the year. This resulted from the changing conditions being observed throughout the 4th quarter of last year. The path remained the same, just one less 25 basis point hike for 2019. In other words, the Fed became slightly less hawkish.



The future of the Dot plot

You can see why so many folks: investors, Fed watchers, economists, and politicians focus so heavily on this single scatter plot. There are many critics of the Dot Plot who claim that the chart does not represent policy, that voting members submit predictions along with non-voters, and that no one, even the Fed bankers, can predict that far in the future. As rate policy is data dependent, future predictions, certainly beyond 12 months are worthless. Chairman Jerome Powell himself has publicly expressed concerns over the Dot Plot making its future questionable. The most important thing to remember is that it is just a prediction and that the further out in time you go, the less valid the predictions will be. Otherwise the Dot Plot remains the single best way to gauge the current thinking of monetary policy makers.

Mark Malek
3/20/2019

DISCLOSURE