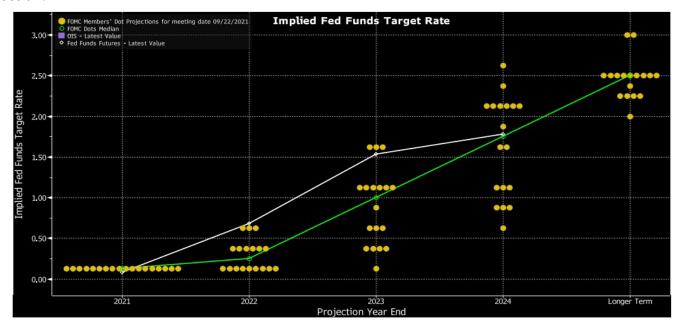
Dot Plotting Interest Rate Strategy



December 2021

In 2012, the Federal Reserve Open Market Committee (FOMC) added the now frequently-referenced "dot plot" to its Summary of Economic Projections. The dot plot is updated and released four times a year and shows what the FOMC participants expect to be the appropriate level of the federal funds rate at different time horizons, assuming a base-case economic forecast. Both the dot plot and Summary of Economic Projections, which was introduced two years prior, were intended to supplement the official policy statement and provide additional transparency about FOMC expectations. While the track record of the dot plot correctly forecasting the funds rate has been limited, we find it a useful exercise to compare the Fed's expectations for monetary policy to the market's expectations and to our own.

To that end, we have adopted a similar process on the Regions Investment Management (RIM) Fixed Income Team, where participants with a wide variety of expertise submit their base-case expectations around interest rates, forming a RIM dot plot. The RIM dot plot serves as an important reference point for discussion and decisions around interest rate strategy and appropriate portfolio positioning. Like the Fed version, it should be understood in the proper context, keeping in mind that a good investment strategy should be able to perform well in multiple scenarios, not just the base case. Furthermore, yield curve positioning should be integrated and balanced with other portfolio management tools such as sector positioning and security selection.



Source: Bloomberg

Analyzing the Fed Dots:

The Federal Reserve has pursued a policy of sustained and substantial monetary easing this year by maintaining the federal funds rate at zero while also continuing to expand its balance sheet at rapid pace. Only in November did the FOMC feel the economy had met the conditions for beginning to taper or slow new asset purchases. These policies have been shaped by the Committee's economic forecasts, which like most economic forecasts have seen substantial revisions over the course of the pandemic.

The most recent FOMC dot plot was updated at its September meeting. At the time, the number of participants

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expecting at least one rate hike in 2022 increased to nine, up from seven in June, such that participants were evenly split on whether the liftoff in rates should begin in 2022 or 2023. The median expectation for 2023 rose to suggest that three hikes would be appropriate by the end of that year, up from two in the June assessment, and none in March. The first projections for 2024 were also released, with the median suggesting an additional three hikes in that year. Expectations for the appropriate level of the longer run rate remained unchanged, with the median suggesting 2.5%.

Investors frequently focus on the median dot for each time horizon as a good gauge of where the majority of the FOMC expects the funds rate to be, although it is important to note that not all FOMC participants get to vote on policy. Voting status is limited to the seven members of the Board of Governors, the president of the Federal Reserve Bank of New York, and four of the remaining eleven reserve bank presidents on a rotating basis. Since the dots are submitted anonymously, it is not always clear where the center of the voting members stands. Based on their public comments, however, and without getting too precise, it is reasonable to assume the current Chairman and his majority tend to fall on the lower side of the median view.

More importantly, the Fed dots do not have a particularly strong track record for predicting the path of the actual federal funds rate. Part of this may be attributable to changes in the committee membership and the fact that not all voters will even be around when actual decisions are made. However, as Chairman Jerome Powell stressed in June, there is no great forecaster of the future, so the dots need to be taken "with a big, big grain of salt." This statement supports the idea that the dots may be more sensitive to changes in the economic environment than to changes of committee membership. Indeed, the FOMC has already experienced one such shift in views during the "Powell Pivot" early in his term and again with the pandemic as economic expectations failed to materialize.

Despite their deficiencies, the dots can provide important signals about how Fed expectations are shaping up and how they could potentially translate into policy. These signals have arguably become more important lately as the Federal Reserve revised its policy framework last year. The new policy framework allows for inflation to run moderately above the Fed's target of 2% to compensate for periods of below-target inflation and thereby achieve an average of 2% over the longer-term horizon. How this framework will work in practice, however, remains to be seen and investors are watching the dots closely to understand the Fed's new reaction function.

It is likely that another shift in the Fed's expectations is already underway as inflation has proved stronger and more persistent this year than what most forecasters have expected. Until June, the median Fed dot was not expecting any rate hikes in 2023, much less 2022, and the Committee was only beginning to discuss how it might taper its asset purchases at some seemingly distant point in the future. While the September dots suggested extremely accommodative policy with the median funds rate remaining below its projected, long-term "neutral rate" even in 2024, Committee member views about the future have clearly become more divided, and even the Chairman has voiced support for accelerating the tapering plan that the FOMC just announced in November. Certainly, there are upside risks to the dots in the near term, given recently strong inflation data. How this plays out in the longer term will depend on how much and how quickly inflation moderates, or whether rising inflation and inflation expectations become more entrenched.

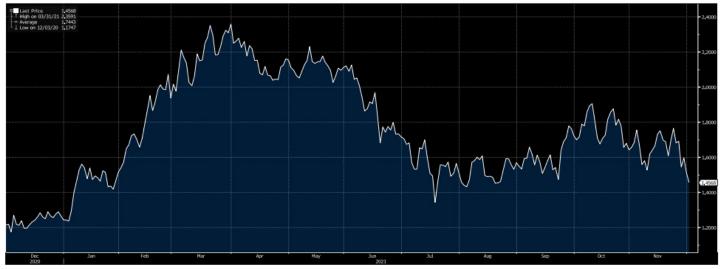
Gauging the Market View:

The bond market, of course, doesn't necessarily take the Federal Reserve at its word, or its dots. At the beginning of the year most investors were willing to go along with the Fed and its new framework, thinking rate hikes would be off the table for some time and that the front end of the yield curve would remain well anchored. Those expectations began to be challenged in June, around the same time the median FOMC dot started indicating possible rate hikes in 2023. Investor nerves cooled over the summer but have reemerged this fall with the surprisingly strong and persistent inflation data.

The federal fund futures market currently implies that that the first interest rate hike should come by the middle of next year, not long after the Fed would finish tapering its asset purchases if it maintains its current pace of tapering. The futures market implies an additional hike in 2022, leaving the funds rate near 0.68% at the end of the year, well above the Fed's median dot of 0.25%. By the end of 2023, the futures market implies a funds rate near 1.53%, still above the Fed median of 1.0%. The futures market and the Fed median converge at the end of 2024 near 1.75%.

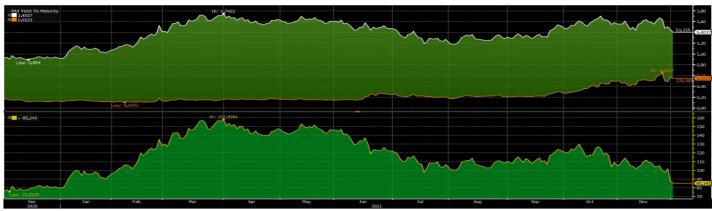
In considering how much difference there is between the Fed and the market, one must keep in mind that the futures market is updated in real time, so it is incorporating new economic data, including faster inflation data, that FOMC participants did not have when they made their projections in September. Indeed, some FOMC participants are likely to update their dots with the same data when they release new projections in December. However, we should also keep in mind that the Chairman and the center of the Committee will probably still fall at the lower end of the new range.

Just as important as how much Fed tightening is priced in the front end of the yield curve is how much is priced into later years. While there are different ways to look at this, some investors look at forward rates on overnight indexed swaps as a proxy for where the market expects the longer run funds rate to go. Currently this market is indicating a longer-term rate near 1.47%, lower than the 1.78% rate that fed fund futures are expecting in 2024 and still well below the Fed's estimate of its longer-term neutral rate of 2.5%.



Source: Bloomberg

In effect, the market is suggesting more rate hikes sooner as the Fed responds to higher inflation in the short term, but less hikes later as inflation eventually moderates. These views are born out in the U.S. Treasury market, where the curve has flattened notably since the spring. While the yield on the 10-year Treasury has struggled to break through its high for the year of 1.74% in March, the yield on the 2-year Treasury reached a new high of 0.64% in November. As a result, the 2s to 10s curve has flattened from 158 bp in March to 85 bp at the beginning of December. An even more pronounced flattening has taken place between 5-year and 30-year Treasury yields, where the yield on 30-year has fallen from a high of 2.45% in March to 1.74% at the beginning of December, while the yield on the 5-year Treasury reached a new high for the year in November of 1.34%. These moves have resulted in the yield spread flattening over 100 bp to just 60 bp.



Source: Bloomberg

Our View:

As previously noted, the RIM Fixed Income Team has adopted a process similar to the FOMC, where participants submit their base-case projections for interest rates to build a RIM dot plot. Like the FOMC, each participant submits a projection for the federal funds rate at different time horizons. Rather than project a long-term funds rate, however, participants make projections for the yield on the 10-year U.S. Treasury, which is more directly relevant for managing fixed income investments as it captures expectations about inflation and term premiums in addition to the funds rate.

Given the challenging nature of forecasting interest rates, we find it helpful to survey a broad range of specialists, who can draw on perspectives from different functional areas including research, trading and portfolio management, and who also have expertise in different parts of the market including corporate bonds, securitized products and municipal securities. While our forecasts are subject to many of the same revisions that are inherent to the practice of economic forecasting, we find value in quantifying our base-case expectations and using that as anchor for discussions and decisions about investment strategy.

The RIM dot plot was last updated at the beginning of December. In general, participants are much more sanguine about the prospect for interest rate hikes than the market and align more closely to the views of the leadership at the Fed. The median RIM dot projects one interest rate hike in 2022 as Fed focuses primarily on tapering its asset purchases. Following the initial liftoff in rates, the RIM median projects a very gradual rise in the funds rate with one additional hike in 2023 and another hike in 2024. Regarding the yield on the 10-year Treasury, participants generally expect it to end 2022 modestly higher at 1.75%. Opinions become more divergent in 2023 and 2024, but the median dot suggests a further rise in the 10-year to 2% in 2023, which it would likely maintain in 2024.

The RIM dot plot scenarios provide a base case for our interest rate outlook. As one would expect, the farther out the projection, the wider the variance in the outcomes. However, the more near-term projections guide our portfolio positioning. The RIM dots currently suggest a much slower path for interest rate hikes than what is priced in the bond market. It also suggests that longer-term rates should move modestly higher as the curve steepens. Based on our internal discussions, most participants expect that Fed will generally err on the side of caution as it makes monetary policy less accommodative. Because rate hikes will come slowly, inflation is likely to be more persistent than what the market is expecting. Furthermore, participants think it will be more difficult for the Fed to remove accommodation than the market expects and that there remains a risk of a taper tantrum as the market adjusts to losing an important buyer of Treasuries and agency mortgage-backed securities.

	Year-End Fed Funds Rate		
100+		••	••••
75-100		•••	•••••
50-75	•••	••••	•
25-50	•••••	••	•
0-25	••••	•	•
	2022	2023	2024

	Year-End 10-Year Treasury			
3%+				
2.75%	•	••	•	
2.5%	••		•	
2.25%		•••	••	
2%	••	••••	•••••	
1.75%	•••••	•	•	
1.5%	••	•	•	
1.25%		•		
1% or				
less			•	
	2022	2023	2024	

Source: RIM (Internal)

While these views on interest rates are our base case, we recognize there is considerable uncertainty about

how the economic environment ultimately evolves. As such, we have carefully expressed and balanced them with different tools in our toolkit. We are only slightly underweight duration relative to the benchmark in most of our strategies. In our Core Bond strategy, we have focused the duration underweight using long corporate credit, where spreads are historically tight. We are also underweight agency MBS, given tight spreads and limited compensation for convexity risk. To make up for lost income from these underweights, we are overweight shorter-term corporate credit, where spreads are tight, but where spread duration risk is low, resulting in an overall yield slightly higher than our benchmark.

Concluding Thoughts:

Outside of credit risk, interest rates and their direction drive the bulk of fixed income returns over time as investors seek to optimize portfolio performance. Building an interest rate outlook and yield curve strategy based upon a mosaic of market, economic, and monetary data points is one of the key considerations of the Fixed Income Team's decision making. Combined with other pertinent decisions such as sector weightings and security selection, we believe our collective tools within well-defined risk parameters are more likely to result in better long-term performance outcomes for our clients.

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