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Outlook for Bonds as Interest Rates Rise

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Since the start of 2022, the Fed has set off fireworks in the bond market. After initially deciding incorrectly that inflation pressures were transitory, it embarked on a hard pivot in favor of increasing hawkishness. Bonds got hit very hard as the Fed telegraphed its plan to raise interest rates multiple times through at least the end of 2023. It followed through with a 0.25% hike in fed funds rate at its mid-March 2022 meeting, the first interest rate increase since 2018.

What spooked the Fed? Rampant and sky-high inflation that have persisted much longer than the Fed initially expected. Supply chain constraints due to Covid-19, rising labor costs in a tight labor market, and strong consumer demand spurred by government stimulus and reopening of global economies drove ongoing inflationary pressures. To punctuate this point, the annual increase in CPI before seasonal adjustment has been hitting fresh 40-year highs over the past few months. In the most recent reading, the CPI rose 7.9% annually in February 2022, the highest annual increase since January 1982.

The already-stressed supply chains and rising inflation have been exacerbated by the invasion of Ukraine. The war is disrupting supply and driving up prices of a wide range of commodities, with pressure cascading to the production and transportation of goods across a wide spectrum of industries.

Since the Fed's dual mandate is full employment and stable prices (the Fed has loosely targeted 2% inflation rate per year), and inflation shows no sign of letting up, the Fed has telegraphed that it will continue raising the fed funds rate throughout 2022 and into 2023. According to the FOMC statement released in mid-March, the Fed now anticipates 6 more rate hikes for the rest of this year.

Unlike short-term interest rates, longer-term rates are determined by the market and depend on inflationary expectations and supply/demand dynamics for money. Specifically, the

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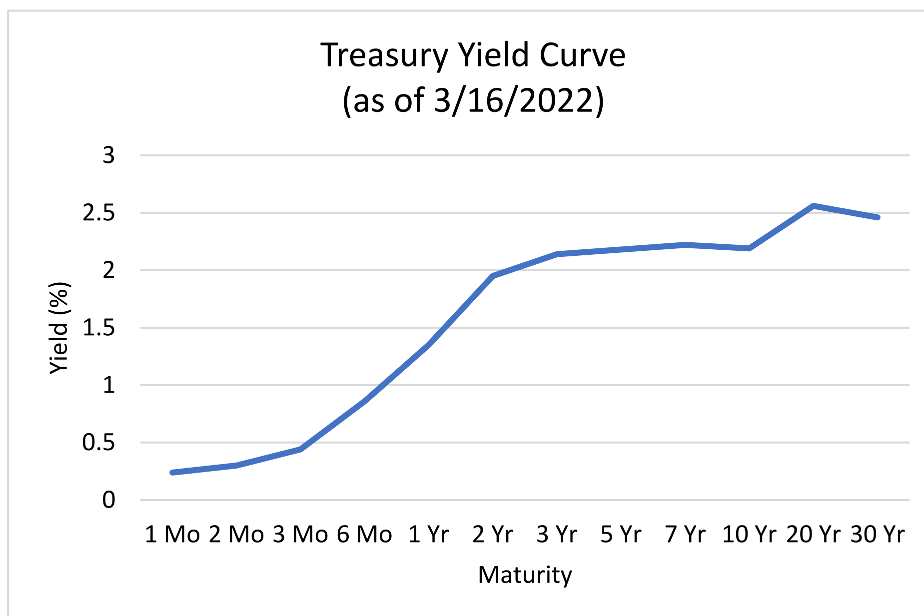
trajectory of long-term interest rates will be governed by the market's perception of how well the Fed is containing inflationary pressures. The difference between short-term and longer-term interest rates is depicted on the so-called "yield curve," which plots interest rate (yield) levels against bond maturities. Here is a recent example showing the yield curve for Treasuries.



Source: https://home.treasury.gov/resource-center/data-chart-center/interest-rates/TextView?type=daily_treasury_yield_curve&field_tdr_date_value_month=202203

Treasury yields beyond 3 months have spiked since late last year in reaction to rampant inflation. As of March 16, 2022, yields for Treasuries maturing 1-year or longer were all at or close to their highest levels since March 2020, with the 10-year Treasury yielding 167 basis points (1 basis points = 0.01%) above the record low set in early August 2020 and the 30-year Treasury yielding 147 basis points above the record low set in early March 2020.

If you own bonds, what should your strategy be in view of rising interest rates? Before discussing this, let's first review the primary risks of bond investing: credit risk and interest rate risk.

Credit risk is the risk that the bond issuer fails to pay interest and/or principal payments when due. A bond's credit risk increases when the issuer is experiencing deteriorating cash flow and/or financial conditions. Private credit rating agencies like Moody's, Standard & Poor's, and Fitch provide credit ratings on many bonds. Bonds that are more likely to default get lower ratings than those with superior financial strength.

Interest rate risk is the risk that the bond's value declines due to rising interest rates. Bond prices move inversely to interest rates; bond prices fall (rise) when interest rates rise (fall). Generally, bonds with longer modified duration pose more interest rate risk than those with shorter duration. Duration is a function primarily of price, maturity date, interest coupon level,

and reinvestment frequency. For a given rise in interest rates, bonds with longer modified duration will fall more than those with shorter duration. Conversely, longer-duration bonds will go up in value more when market interest rates drop.

The appropriate bond investing strategy going forward in face of rising interest rates depends primarily on your projections for 2 factors: 1) how high/fast will interest rates go up; and 2) what will happen to the shape of the yield curve.

How high/fast will interest rate rise?

The Fed is currently expecting short-term interest rates to go up steadily throughout 2022 in response to high inflation. As of mid-March, the Fed expected the fed funds rate to range from 1.6% to 2.4% (with a median of 1.9%) at the end of 2022. The median of the Fed's projections for fed funds rate at the end of 2023 is 2.8%.

What will happen to the shape of the yield curve?

Changes in the shape of the yield curve are determined by how differently rates along the yield curve react to external factors. Typically, the yield curve is upward sloping, with longer -term bonds offering higher yields. As the Fed continues to raise fed funds rates for the remainder of this year, short-term rates will continue to rise. How will this impact the shape of the yield curve? If short-term and long-term rates go up by the same amount (measured in basis points), the entire yield curve will shift up in parallel and the shape of the curve will be unchanged. If the longer-term segments of the curve move up by more than the shorter segments, the yield curve will steepen. Conversely, should the longer segments rise less than the shorter segments of the curve, the yield curve will flatten.

Whether the shape of the yield curve steepens, flattens or remains unchanged is primarily a reflection of how well the market thinks the Fed is controlling inflation, while keeping the economy humming along to maintain full employment. If the market concludes that the Fed is doing a good job, longer-term rates will likely move up roughly in line with short-term rates, leaving the slope of the yield curve largely intact. Such a situation would be represented by a growing economy that is "not too hot or cold," with inflation relatively stable at around 2% a year.

If the economy continues to grow very fast and/or inflation does not come down to more normal levels, the market will worry that inflation will remain too high and the Fed is not being hawkish enough. In this scenario, longer-term interest rates are likely to move up more to compensate for the heightened inflationary risks. As longer-term rates increase more than shorter-term rates, the yield curve will steepen.

Conversely, if the Fed raises interest rates too quickly and aggressively, the economy will slow too much and could at some point risk entering a recession. In this situation, the market

will worry more about the health of the economy and less about inflation, which will mean relatively lower long-term interest rates compared to short-term rates. Under this scenario, longer-term interest rates would rise less than shorter-term rates, flattening the yield curve. If such aggressive rate increases choke off economic growth and run a real risk of pushing the economy into recession, the shape of the yield curve could temporarily "invert," leaving longer-term rates lower than shorter-term rates.

The market is currently divided on whether the Fed is moving too slowly or quickly in raising interest rates. There are plenty of informed, smart investors on diametrically opposite sides of this debate. Since the start of 2022, the shape of the Treasury yield curve has flattened. This is surprising as the Fed has only hiked interest rate once and only 25 basis points. A reasonable explanation is that the market has taken the cue from the Fed's explicit projection of 6 more hikes for 2022 and several more increases during 2023, and front-run the Fed by adjusting rates higher all along the yield curve. The recent trend of a flattening yield curve is the market's judgment that the Fed's plan runs a substantial risk of pushing the economy into recession.

Continuing to hike interest rates will eventually slow the economy – the only issue is by how much? The Fed is trying to "thread a needle" for a "soft landing," by bringing inflation down while avoiding a recession. The Fed's past success at accomplishing this feat is mixed.

As rates rise, bond values drop. The bonds with the longest modified durations will drop the most. It is therefore important to keep the duration of your bonds very short. As short-term rates move up, you can redeem your bonds at maturity and reinvest in new short-term bonds with higher yields that correspond to the shift upwards in the yield curve. Parking funds normally earmarked for fixed-income assets in cash temporarily as a bond surrogate can be beneficial, as cash is the shortest duration asset. With interest rates on the rise and expected to continue increasing through at least the end of 2023, cash is immune to nominal price depreciation and offers **valuable optionality** for later deployment to lock in higher yields as interest rates rise.

If and when the Fed's hiking program brings inflation down to normal levels and/or looks likely to push the economy into recession, you should consider investing some of your cash in longer-term bonds for capital appreciation potential. This is because long-term rates are likely to drop in reaction to dissipating inflationary pressures and/or anticipation of a recession. Since bond prices move inversely to interest rates, such longer-term bonds should enjoy higher capital appreciation if/when long term interest rates drop.

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