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Investing in a Falling Interest Rate Environment

- The current inversion in the yield curve has resulted in higher yields on shorter-term investment options relative to longer-term investments.
- While these higher short-term yields may be attractive today, longer-term strategies have historically outperformed across a variety of interest rate environments.
- A disciplined strategy, incorporating liquidity needs, investment time horizon, and prudent risk management, is generally preferred over attempts to time the market.
- With the Federal Reserve (Fed) signaling the beginning of an easing cycle, now is a good time to be considering the benefit of extending duration to lock in today's available yields. This includes the potential benefit from having income locked in for a longer period time as well as the potential from price appreciation from longer-duration securities.

The Fed rapidly raised the target federal funds rate in 2022-2023 in response to a large spike in inflation coming out of the pandemic. This policy shift caused short-term yields (especially those under one year) to increase at a rate faster than intermediate- and long-term yields. The result was an "inverted yield curve" in which shorter-term investments today yield more than intermediate- and longer-term ones. In response, some investors changed their investment strategies, holding more cash and shortening their portfolio maturities to take advantage of higher short-term yields.

While it can be tempting to try to time the market and ride the wave of short-term rates, we believe this strategy may not be the most appropriate in the long run. Our view is that a properly developed investment strategy which aligns a portfolio's investment horizon to its constraints and long-run objectives is the most prudent approach.

We will discuss the typical interest rate cycle, importance of portfolio segmentation, long-term considerations for investment strategies, and how investors should prepare for likely Fed rate cuts.

Interest Rate Cycles

Interest rate cycles typically follow the business cycle and are pivotal in shaping investment strategies. During periods of outsized economic growth, rising inflation, or overly frothy investment markets, the Fed typically raises short-term rates to counteract those forces. As rates rise, longer-term investments usually underperform shorter-duration strategies because of the inverse relationship between prices and yields: as yields rise, bond market prices fall, with longer-duration strategies impacted more. Further, shorter-duration strategies may be able to more easily take advantage of higher rates as portfolio securities mature more quickly and can be reinvested at higher yields. Conversely, in a declining rate environment, longer-term investments may be more attractive as investors can lock in yields for a longer period.

Longer-duration strategies significantly underperformed beginning in 2022, when the Fed began hiking interest rates to fight inflation. As a result, some investors changed their investment strategy to take advantage of these higher short-term yields. However, with the Fed now signaling the beginning of an easing cycle, investors should consider whether to extend duration now to lock in today's historically attractive yields.

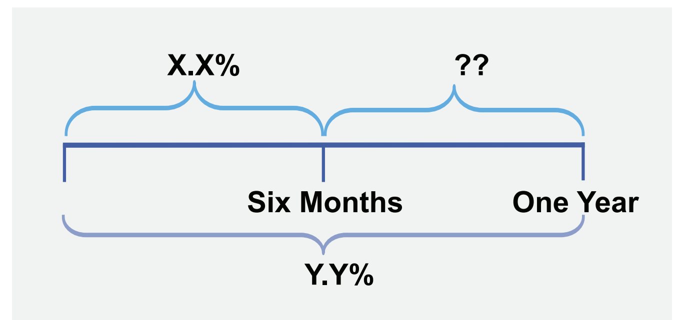
Portfolio Segmentation

It is important to understand that the total return of a portfolio is not the only marker of a successfully executed investment strategy, as income, cash flow, liquidity and safety are also important objectives. One of the ways to structure a portfolio to meet various goals and constraints is through a process known as "portfolio segmentation." It begins by examining both historical cash flows and expected future liquidity needs, generally resulting in some combination of the following:

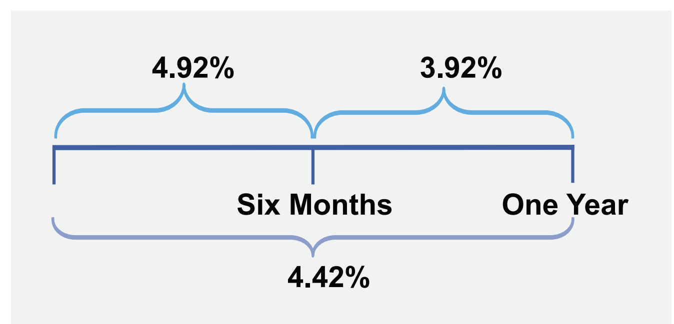
1. **Daily Liquidity:** Investments in money market funds or local government investment pools (LGIPs) can provide liquidity to meet daily cash flow needs.[1] Today, rates on overnight liquidity are typically anchored to Fed policy decisions. Overnight investment rates have been extremely competitive over the past 18 months due to the Fed's rate hikes and inversion in the yield curve and liquid vehicles can typically be quickly converted to cash without a significant loss in value. Maintaining a portion of the overall portfolio specifically designated for liquidity can provide flexibility to meet unexpected cash needs without disrupting the overall strategy.
2. **Short-Term Portfolios:** Beyond daily liquidity, short-term portfolios can be structured with investments maturing between 0-12 months to match maturities to known cash needs (such as payroll, debt service payments, project fund expenditures, etc.). In the current interest rate environment, investments inside of 12 months also have historically high and attractive yields.
3. **Core Portfolios:** Core portfolios are intended for longer-term investment and are structured to generate a competitive rate of return through market and interest rate cycles. Compared to the shorter funds above, these tend to have maximum maturities or durations of three, five, or 10 years and will usually have fewer maturities concentrated on the short end of the curve. In the current interest rate environment, these strategies offer lower initial yields relative to shorter-duration investments due to the inverted yield curve. However, they may offer better earnings and return potential over longer time horizons for the reasons described below. Any excess liquidity in the overall portfolio could be designated for the core portfolios and used to extend duration to enhance potential future returns.

The Impact of Maturity on Reinvestments

A comparison of results on long-term vs. short-term strategies will ultimately depend on how rates change in the future, something which is unknowable and highly uncertain. What is known are the rates available today on investments of differing horizons. To assess the tradeoff between any two maturity options, investors can run a breakeven analysis to determine at what rate the shorter-maturity security needs to be reinvested in the future to "breakeven" with the today's current yield on the longer-maturity investment.



For example, if a 1-year security can be purchased at a yield of 4.42% and a 6-month investment at a yield of 4.92%, then the 6-month security needs to be reinvested upon maturity for 6 additional months at an approximate yield of 3.92% to "breakeven" with purchasing a 1-year security at a yield of 4.42%:



1 *Local government investment pools (LGIPs) are established by states to provide other governmental entities with a short-term investment vehicle, often formed as a trust, to purchase shares or units in an investment portfolio.*

If the investor believes that reinvestment rates will be higher than the calculated breakeven rate after the initial 6-month investment, then the shorter option would be considered preferable. Conversely, if the investor believes that the reinvestment rate is likely to be lower than the breakeven rate in six months, then locking up the longer 1-year investment today would be more advantageous. The longer investment option has the added benefit of creating more certainty around earnings for the full 1-year term in this example. But, given today's inverted yield curve, it also locks in those earnings at a rate lower than today's short-term yields.

The Impact of Income on Total Returns

For fixed-income portfolios, income is generally a major driver of portfolio return.[2] In an inverted yield curve environment, such as the one we currently find ourselves in, shorter-term investments have a higher starting yield and, as such, higher current income. However, the income return of a portfolio is also a function of time—meaning, how long the income is locked in based on the maturities of the investments in the portfolio. Shorter-term investments roll over more frequently and are subject to greater reinvestment risk. On the other hand, yields on longer-term investments are locked in for a longer period.

In this sense, the average income return over the entire period is more important than the starting income of the two strategies. In a falling interest rate environment, proceeds of shorter-term investments will likely be reinvested at lower yields. This, in turn, may result in a lower average income return relative to longer-duration strategies that were purchased at the beginning of the period. And extending investments before interest rates fall is beneficial because it allows higher income to be locked in for a longer period. The breakeven analysis described above is one tool to help evaluate the options.

The Impact of Duration on Total Returns

From a return perspective, longer-duration securities tend to have more price appreciation and thus contribute positively to portfolio return in a falling interest rate

What is total return?

Total return is the standard performance metric for an actively-managed portfolio. For a portfolio of fixed income securities, it equates to the income return of the portfolio plus the price return, which represents the change in market value. The income return generally reflects interest earned on investments based on the yield at which the securities were originally purchased, i.e., if a security yields 5% at cost, it will produce more income return than a security purchased at an initial yield of 1%.

Price return, on the other hand, reflects how market condition changes affect the market value of investments. Total return includes both unrealized gains and losses between evaluation periods as well as gains and losses realized due to trading activity.

What is duration?

Duration measures the sensitivity of the price of a bond to changes in interest rates. It considers a bond's maturity, yield, coupon, and any call features. Fixed-rate securities with longer durations are more interest-rate sensitive than comparable shorter-duration fixed-rate securities. Due to the inverse relationship between price and yields, when interest rates rise, longer-duration securities tend to decrease in market value more than shorter-duration securities; conversely, when interest rates fall, longer-duration securities tend to increase in market value more than shorter-duration securities.

2 *For the period beginning June 30, 2004 and ending June 30, 2024, the annualized total return of a 1-5 year Treasury index was 2.17%, which consisted of an annual income return of 2.44%, representing the income earned on the underlying investments, and an annual price return of -0.27%, representing changes in the market value of the underlying investments including realized and unrealized gains and losses.*

environment.[3] Conversely, longer-duration securities tend to experience more market value loss in a rising interest rate environment, which is a detriment to performance.[4]

With the Fed expected to begin cutting rates, now is a good time to be considering the appropriateness of and benefit from extending duration to lock in today's available yields. This includes the potential benefit from having income locked in for a longer period time as well as the potential from price appreciation from longer-duration securities.

Interest Rate Expectations and Portfolio Performance in an Inverted Yield Curve Environment

If we pull together the concepts above – the impact of maturities on reinvestments, starting yield driving income, and duration sensitivity – we can see how investors in a rising interest rate environment are typically rewarded for following a shorter-duration strategy. Shorter-duration investments experience less loss of market value as rates rise and can be reinvested at increasingly higher yields. Further, if the yield curve is inverted, shorter-duration investments may also have the benefit of higher starting yields.

However, in a stable or falling interest rate environment, the converse is true: longer-duration strategies may outperform because they potentially experience both a greater increase in market value as rates fall as well as having income locked in for a longer period of time. As yields fall, market prices of securities rise.

In an inverted yield curve environment, longer-duration securities will have a lower starting yield than shorter-duration investments; however, if the expectation is that interest rates will fall, these strategies may still outperform. Even though the starting income may be lower, the average income over the period may be greater because it is locked in at a higher rate, rather than following the Fed's trajectory downwards. This harkens back to the idea of breakeven rates discussed above.

As shown in the tables below, one way to compare the performance of different strategies through different interest rate cycles is based on a historical analysis between an ultrashort duration option (using the ICE BofA 3-Month Treasury Bill Index as a proxy) and the ICE BofA 1-5 Year U.S. Treasury Index.[5]

	Ultrashort Duration Strategies	Longer Duration Strategies
Interest Rate Environment	**Total Return**	**Total Return**
Rising	2.05%	0.88%
Falling or Stable	1.04%	2.46%
Entire Horizon	1.35%	1.96%

Reference: Interest Rate Environments			
Falling or Stable	07/01/2006-12/31/2015	01/01/2019-03/31/2022	
Rising	07/01/2004-06/30/2006	01/01/2016-12/31/2018	04/01/2022-6/30/2023

3 *For example, for the 2-year period beginning September 30, 2018 and ending September 30, 2020, the yield of the 2-year Treasury fell by over 250 basis points (2.50%). During that period of time, the annualized price return of the 1-5 year Treasury index was 2.94% whereas the annualized price return of the 0-1 year Treasury index was 0.15%.*

4 *For example, for the 2-year period beginning December 31, 2021 and ending December 31, 2023, the 2-year Treasury rose by approximately 350 bps (3.50%). As a result, the price return of the 1-5 year Treasury index over this period was -2.41%, which was significantly worse than the 1.48% price return of the 0-1 year Treasury index.*

5 *For the 20 year period beginning June 30, 2003 and ending June 30, 2023.*

We can observe that:

- During rising rate cycles, the short-term strategy outperforms because they can more easily take advantage of higher rates while longer-term strategies tend to be locked in at the lower rates that prevailed prior to yields rising.[6]
- In falling and stable rate environments, the longer-term strategy tends to significantly outperform because in an environment with a normal, upward-sloping yield curve the longer-duration strategy will tend to take advantage of higher available yields out the curve, while securities purchased at the prevailing higher yield prior to rates declining are locked in for a longer period of time.

While the longer-duration strategy outperformed the shorter-duration strategy by 61 basis points (bps) over the 20-year horizon, investors should first consider whether their portfolio is aligned with their liquidity needs and risk tolerance, with performance as a secondary objective.

Conclusion

While it can be tempting to try to time the market and ride the wave of short-term rates, we encourage investors to maintain a longer-term focus. This is particularly true for portfolios that may have been allowed to build up excess liquidity because of the higher short-term yields in the current investment environment. A disciplined investment strategy emphasizing portfolio segmentation, which includes understanding daily liquidity needs and those funds which may be invested further out the curve, tends to perform the best in the long run. We encourage you to speak with your PFM Asset Management relationship manager who can work with you to evaluate your cash flows and liquidity needs to help build strategies that involve both short-term and long-term investment options.

6 *Defined as periods between the beginning and end of a rate hike cycle, as shown in the reference table.*

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