Disciplined Investing as Fed Signals Change

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Financial markets are always changing and continuously present new opportunities and challenges for investors. The most successful investors are those that stick to a well-defined investment plan which enables them to maximize income and limit risk throughout market cycles. For many public entities, an effective approach is an asset-liability investment strategy. Matching expected liabilities (expenses) with investment maturities reduces interest rate risk and can improve investment returns over time. In this paper, we integrate both a historical return analysis and current market conditions to evaluate investment strategies that can add value to investment portfolios over the long run.

Market Volatility is Back

Market volatility spiked in the second half of 2018 as the bond market began pricing in more accommodative monetary policy over the next several years. At the conclusion of its January meeting, the Federal Reserve confirmed market expectations in their statement by eliminating a reference to "further gradual increases" in the fed funds rate. The Fed reiterated that it will remain patient as the committee determines if future adjustments to the federal funds rate may be appropriate to support its dual mandate of maximum employment and price stability. Future rate hikes will be dependent on incoming economic data and financial market developments.

In its January meeting, the Federal Reserve also outlined a more dovish plan for normalizing its balance sheet. The Fed had previously indicated that Quantitative Tightening, or a shrinking of its balance sheet, would run on "autopilot." The change in tone from the Fed including an anticipated pause in interest rate hikes and slower Quantitative Tightening reflects factors such as policy uncertainty about trade and Brexit, slower global growth, and reduced stimulus in 2019 from the December 2017 U.S. tax cuts.

The result of these market developments is that since the 4th quarter of 2018, the yield curve has flattened and even inverted between 1 and 5 years. Historically, an inverted yield curve has been a signal of economic weakness ahead. Focusing on the 2-year US Treasury as displayed in Chart 1, yields have trended down from near 3.00% to below 2.50% while exhibiting a fair degree of volatility. Market volatility often breeds fear among investors, which could lead to unwarranted investment decisions that impair portfolio performance. Whether interest rates move up or down, investors should strive to understand the impact of changing interest rates and the impact of these changes on their investment strategy.

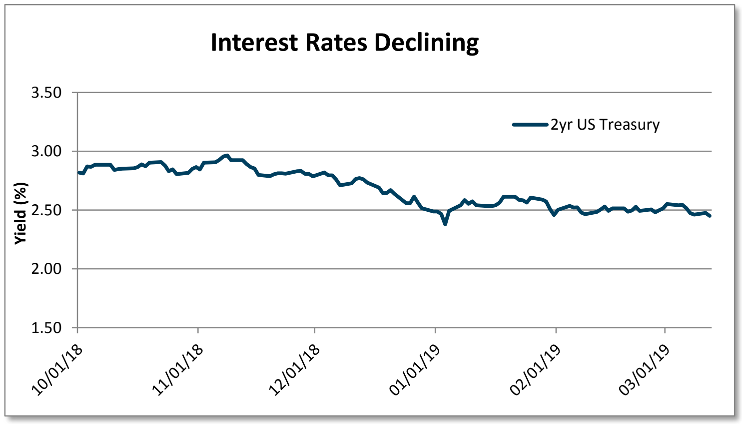

Chart 1
Source: PMA Financial Network, Inc.

Investing with Purpose

Most public entities have conservative investment policies that require investing in high quality fixed income vehicles. Common investment objectives include capital preservation and providing sufficient liquidity while maximizing income. This is the axiom: Safety, Liquidity, Yield.

How should our municipality's investment strategy change as the Fed signals a pause in interest rate hikes?

Investment returns are maximized when executed in alignment with a comprehensive investment strategy.

SAFETY

Protection of principal is of primary concern to all public entity investors. Public funds investors should implement suitable credit analysis procedures and achieve proper collateralization, when required. For the purpose of this article, it should be emphasized that each investment vehicle carries unique risks that must be thoroughly understood and analyzed. All investments should be aligned with state statute and the public entity's investment policy and risk

LIQUIDITY

Conducting a cash flow analysis is a good starting point when developing an investment strategy. This analysis should map out dates and amounts for items such as payroll, accounts payable, debt schedules and expected revenues.

A cash flow analysis helps public entities separate funds into monies that are needed in the current budget year (operating funds) versus reserves that are available for future needs.

YIELD

Executing a successful investment plan requires diligence. Simply identifying future liabilities does not result in higher interest income. The value of cash flow analysis is realized by aligning investment maturity dates with future liabilities and identifying and investing long-term reserves in long-term investments. Since the yield curve is normally positively sloped (see Chart 2), investing longer out the yield curve can generate additional yield and income.

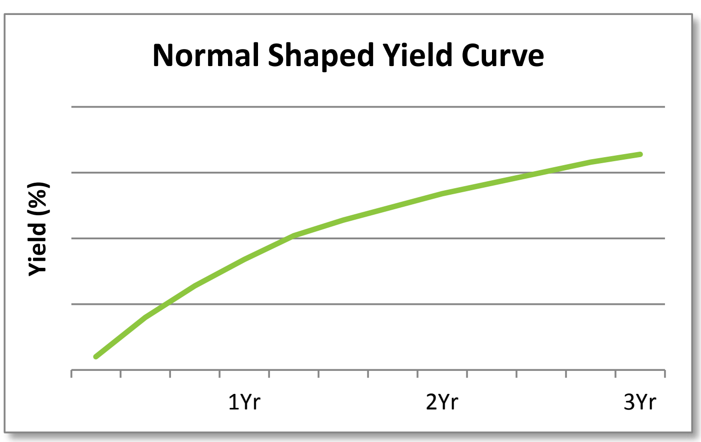

Chart 2
Source: PMA Financial Network, Inc.

Maximizing Returns

Based on the investment objectives of safety, liquidity and then yield, we know that public entities have a low risk tolerance and a short to intermediate investment horizon. However, over the past decade, many investors have become accustomed to holding most if not all available funds in overnight accounts such as money market funds and bank savings accounts. Using two market indexes as a proxy for short-term and longer-term investments, we show that over time, returns can be increased by investing in longer-term investments.[1]

TOTAL RETURN

Total return is the sum of income return and price return. Income return is generated through coupon payments and the accrual of interest. For fixed income investments, income is fixed regardless of the interest rate environment. Price return is a function of market interest rates – all else equal, bond prices decline when interest rates rise and bond prices increase when interest rates fall. While other investment characteristics such as yield can offer insights into income, total return is the best measure of investment income. In addition, total return aligns with GASB accounting rules which require mark-to-market accounting.

HISTORICAL RETURN ANALYSIS

In Chart 3 on the following page, the blue line shows that the annualized return for the 1-3 year Treasury Index was 4.09% from 1990-2018 while the grey line shows the annualized return for the 3-month Treasury Bill Index was only 2.95% over the same time period.

[1] Short-term and longer-term investments are being represented by the ICE Bank of America Merrill Lynch 3-month Treasury Bill Index and the ICE Bank of America Merrill Lynch 1-3 year Treasury Index, respectively.

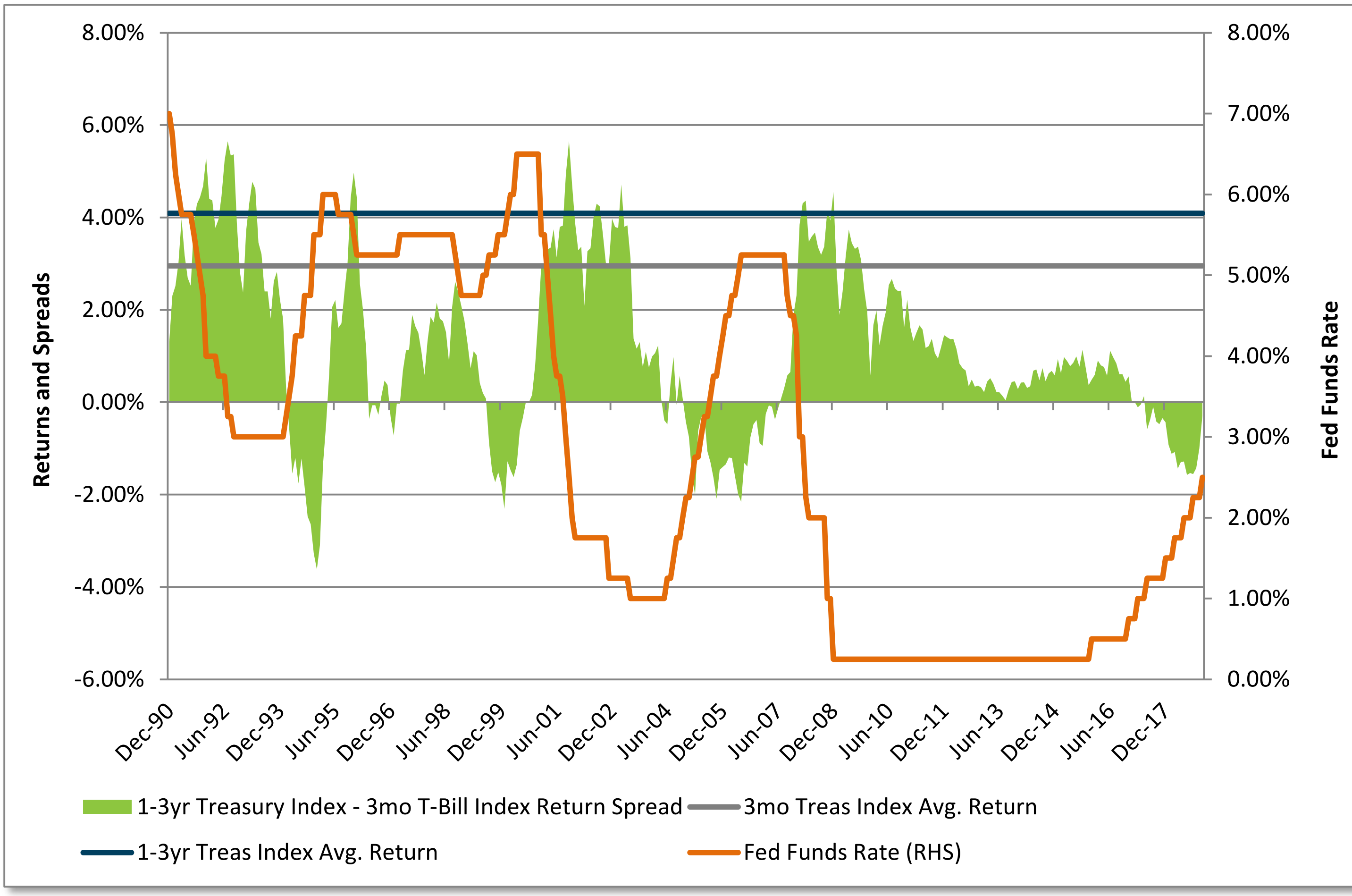

Chart 3. Source: Bloomberg | As of December 31, 2018

The value of investing further out the curve is immediately evident with an annualized return more than 1.1% higher when investing in the longer-term index.

For each month, the area filled in green represents the spread between returns of the 1-3 year Treasury Index and the 3-month Treasury Bill Index. The spread is positive for most months, but typically turns negative as the Fed raises interest rates. The Fed Funds Rate is shown in orange. You will see that during the most recent rate hiking cycle by the Federal Reserve, the spread between the two indexes first turned negative in March 2017.

Investors who only focus on recent performance may have observed short-term investments outperforming longer-term investments. Focusing only on recent performance ignores the prevailing trend over time. There is a benefit in extending out the yield curve and a cost to staying too short.

Don't pay for liquidity you don't need.

Upon more careful analysis of the data, history shows that the spread between these two indexes typically turns positive prior to the Federal Reserve first reducing interest rates. Indeed, the negative spread narrowed during the fourth quarter of 2018 and was only -0.29% in December 2018. Furthermore, the data shows that the spread can leap very quickly into positive territory as we saw in 1995, 1997, 2000 and 2007.

This data clearly highlights the message that investors should avoid timing the market since returns can change rapidly and unexpectedly.

Note that staying short and waiting for conditions to change is timing the market. Instead, a prudent investor should maintain a disciplined approach and match investments with future liabilities.

Investment Ladder

A laddered portfolio is a useful strategy to maintain diversification across the yield curve. For operating funds, investments should be laddered to match expected expenses. For long-term reserves, a laddered portfolio of investments from 1-3 years, for example, is an effective strategy to extend investments out the yield curve while creating consistent opportunities to reinvest maturities.

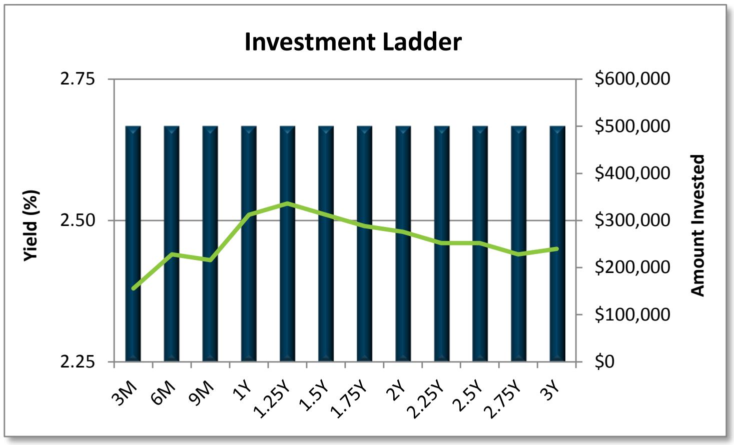

Chart 4
Source: Bloomberg | As of March 11, 2019

Chart 4 depicts a 3-year ladder for $6 million of reserves using current market interest rates. In this example, a $500,000 investment matures every 3 months from 3 months through 3 years. The average yield for the portfolio is 2.47%. Even with the partly inverted yield curve as of March 11, 2019, the average yield of the portfolio is higher than if all investments were held in 3-month Treasury Bills (2.38%).

Once the ladder is constructed, one investment will mature every 3 months. If in 3 months there is no need to spend the maturity amount, these maturity proceeds may be invested to the end of the ladder. A 3-year, fixed rate investment helps protect the investor from a decline in interest rates over the next three years.

Investment ladders contribute to investment diversification and create liquidity in the event of unforeseen expenses.

Common Challenges Facing Investors

Extending investments out the yield curve can result in increased returns over time; however, this strategy can also present risks that must be understood by investors.

INTEREST RATE RISK

Interest rate risk increases for bonds with a longer time to maturity, or more precisely, bonds with a longer duration. Duration is a measure of interest rate risk and it represents the approximate percentage change in price for a 100 basis point change in rates. For example, if a portfolio has a duration of two years and interest rates increase by 0.50%, the portfolio is expected to decrease in value by 1.00%.

As market volatility has increased, portfolios have experienced more price change resulting in greater volatility in total returns.

Interest rate risk can be mitigated by aligning investments with future expenses.

An asset-liability investment strategy combined with good liquidity planning reduces the risk that a security will need to be sold prior to maturity.

TIMING THE MARKET

As previously discussed, attempting to time the market is a chief risk and one which may be exacerbated in times of increased market volatility. A good adage to remember is time in the market is more important than timing the market. Moreover, attempting to stay short to capitalize on rising short-term interest rates is not an effective strategy over time.

YIELD CHASING

The changing investment landscape may also produce another undesirable action by investors – yield chasing. Yield chasing is characterized by investors who seek out the highest yields available in the market with limited regard to issuer credit risk, portfolio diversification, investment strategy or asset/liability considerations. The result can be portfolios highly concentrated by issuer, industry or maturity.

In general, securities with higher yields hold greater risk so yield chasing investors are more likely to purchase riskier securities. While the prudent investor should focus on extending out the yield curve when possible to maximize returns, these investments should only be made after first considering the safety, liquidity and interest rate risk of each investment.

A Disciplined Approach

Market conditions have changed considerably in recent months. We have moved from a period of gradually rising interest rates to an environment marked by a partly inverted yield curve and more volatile interest rates. An investment strategy predicated on creditworthy investments, cash flow analysis and a disciplined investment plan will help your municipality prudently manage risk while offering the potential for higher interest income.

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