# Investing in a Rising Rate Environment

By: Brian Hextell

Higher interest rates represent an opportunity for public entities to generate greater interest income for their communities and districts. But with interest rates having been so low for so long, rising market rates are unfamiliar and can present risks.

After a period of extraordinarily low interest rates, the Federal Reserve first hiked the Fed Funds rate by 0.25% in December 2015 and has done so six times in total since 2015. Notably, while the common vernacular is that the "Fed is going to increase rates," the reality is that the market is forward looking and it prices in future expected moves by the Fed and other factors. Chart 1 shows that 2-year Treasury rates began increasing well in advance of the Fed's December 2015 rate hike. Furthermore, 2-year Treasury rates have increased by more than the 1.50% that the Fed has raised rates since 2015.

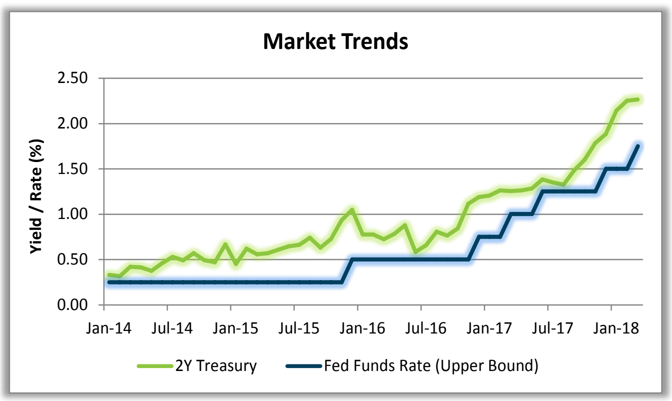



Chart 1

Source: Bloomberg | As of: March 30 2018

## Investing with Purpose

For most public entities, the investment objective for operating funds and reserves can generally be described as maximizing investment income while first investing in assets that protect principal and provide sufficient liquidity for future expenditures. This is the axiom: Safety, Liquidity, Yield.

> *How should our investment strategy change in a rising rate environment?*

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. Discussing all facets of credit analysis and proper collateralization is a complex topic of its own and would require another article to explore in greater detail. 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 your investment policy and risk tolerance. This includes ensuring that all deposits are properly collateralized.

## Liquidity

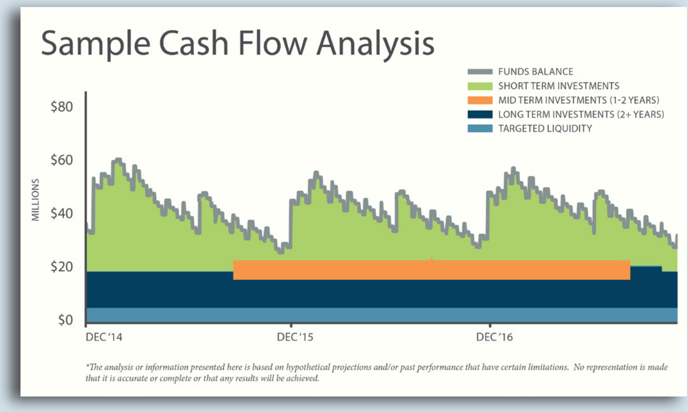
Understanding liquidity needs is where planning becomes the priority. An investment plan begins with preparing a cash flow analysis. Such an analysis can be highly detailed or relatively simple. A cash flow analysis should map out such items as payroll and accounts payable dates and amounts, and debt schedules.

Analyzing historical cash flow data can help build a foundation from which to base investment decisions. An effective analysis should isolate anomalies and identify trends. Combined with other data, a cash flow analysis can provide a complete and reliable financial picture.

## Cash Flow Analysis

Key characteristics of a cash flow investment plan:

- Match all liabilities with an investment maturity
- Extend investments to benefit from higher rates
- Plan for cash shortfalls
- Identify long-term investment potential
- Maximize interest income




## Yield

Executing a successful investment plan requires diligence. Simply identifying future liabilities (expenses) does not result in higher interest income. The value of the cash flow analysis is realized when appropriate investments are purchased with maturity dates matching the future liabilities.

Investors who have become accustomed over the past decade to holding available cash in short-term accounts can see in Chart 2 that yields in the 2-year to 5-year range are much more attractive compared to three years ago. After ensuring short-term liabilities are funded, investors can maximize interest earnings by investing further out the yield curve.

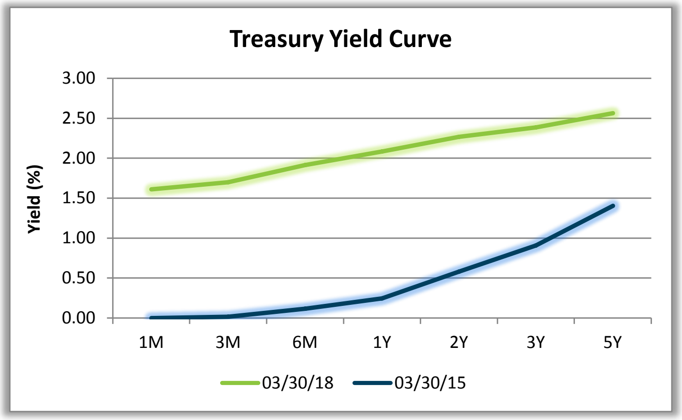



Chart 2

Source: Bloomberg | As of: March 30, 2018

In the past, we have seen that rising interest rates can cause some investors to delay executing investments or invest for shorter terms than their cash flow analysis would indicate. Such investors may conclude that since rates are rising, they are better off to wait to invest or invest shorter term until rates rise further. The following example considers a public entity with $10 million of reserves that is weighing the benefits of a 1 year or 6 month investment.

**INVESTMENT AMOUNT** **$ 10,000,000**

| | | INCOME |
|---|---|---|
| 1- YEAR RATE | 2.08% | $203,000 |
| 6-MONTH RATE | 1.91% | $91,500 |
| BREAKEVEN RATE | 2.25% | $ 111,500 |
| | | $ 203,000 |

The disciplined investor who invests in the 1-year security will earn $208,000 of interest in this example. The amount of interest earned by the investor who chooses the 6-month term is only $95,500. To break even, the 6-month rate will need to increase by 0.34% to 2.25% in six months. Will this occur? Maybe. Can we plan for this? No.

Attempts to time the market are often unsuccessful because markets are always changing in unexpected ways. However, if we identify an objective and gather and analyze data to formulate a plan, we can reduce investment risks. Planning is not about predicting the future, but rather preparing for it.

## Investment Ladder

What about reserves for which there is no known future liability? A laddered portfolio of evenly spaced bond maturities is a useful strategy. Benefits of an investment ladder are that the structure contributes to investment diversification while also reducing reinvestment risk.

Chart 3 depicts a 3-year ladder for $6 million of reserves. In this example, a $500,000 investment matures every 3 months from 3 months through 3 years. 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. The 3-year investment should not only provide the highest yield in a normal interest rate environment, it also helps protect the investor from a decline in interest rates over the next three years. Another benefit of a ladder is that it creates regular liquidity in the event of unforeseen expenses.

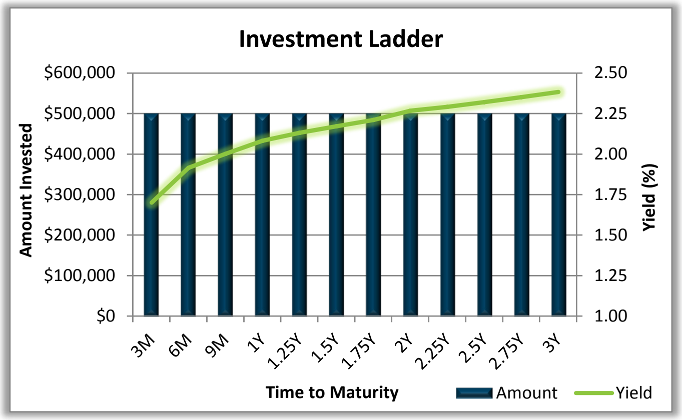



Chart 3

Source: Bloomberg | As of: March 30, 2018

## Potential Risks

Overall, rising interest rates benefit public entities and other short-term investors through higher interest income potential. However, higher interest rates can also present risks.

As highlighted above, attempting to time the market presents investment risks. A good adage to remember is, "time in the market is more important than timing the market." The premise is that staying fully invested should allow you to earn greater interest income over most time periods. There is an opportunity cost of waiting to invest.

Another risk is price risk. Marketable securities such as government bonds must be marked to market. When interest rates rise, bond prices fall, which can result in unrealized losses. Bond funds consisting of marketable securities can endure reduced periodic returns as a result of increases in interest rates. Extending investment maturities longer than your cash flow or investment objectives allow also presents risks. Interest rate risk should be measured and understood by the investor.

Market conditions have changed considerably over the past three years. We have moved from a period of historically low, stable interest rates to an environment marked by rising and more volatile interest rates. Professionals responsible for the investment of public entity funds must adjust to this new market reality. An investment strategy predicated on cash flow analysis, creditworthy investments, and a disciplined investment plan will help you prudently manage risk while offering the potential for higher interest income.

## About Brian Hextell

Brian joined the firm in 1999 and is a Senior Vice President. He provides leadership to the firm in the areas of credit research and client investment strategy. Beginning in 2004, Brian led PMA Financial Network's Credit Risk Management Department. He is also responsible for developing and implementing investment strategies for institutional client portfolios. Brian has spoken at many school, city and county conferences on the topics of credit analysis, deposit collateralization, investment policy development and investment strategy. He received his Bachelor of Science in Finance from Northern Illinois University and his Master of Business Administration in Finance from DePaul University. He holds Series 7, 50 and 66 FINRA licenses.