"When the supply and demand for bonds normalize, Treasury bond investors will likely realize that economics, inflation, and other factors warrant much lower yields."

The quote from Yields are Defying Yesterday's Logic, written last September, presents our case for why we think bonds might offer a great investment opportunity. Recent inflation data only magnifies our interest in bonds.

The latest one-month CPI inflation rate is $-.1 \%$. The three-month annualized rate of inflation is only $1.83 \%$. We say "only" because many investors focus on the widely followed $+6.5 \%$ year-over-year inflation rate. Annual inflation rates are essential to track, but they can be very misleading when price trends are changing quickly, as they are.

While other investors fret over yesterday's inflation, we look toward tomorrow's inflation. Assuming monthly inflation rates remain low or decline further, as we suspect, bonds offer an incredible opportunity to earn historically attractive real yields. The ten-year U.S. Treasury (UST) note currently offers a yield of $1.75 \%$ more than the current three annualized month inflation rate. Such compares favorably to the negative $.18 \%$ average (using annual CPI) since 2010.

We have discussed the recent attractiveness of bond yields on numerous occasions. What follows are often a slew of questions from readers about buying bonds. As such, we devote this article to a bond-buying FAQ of sorts. This set of questions and answers focuses solely on U.S. Treasury Bonds.

After reading this article, if you are still interested in learning more about bonds, check out our video Bonds Explained Simply. The, YouTube video features Michael Lebowitz and Adam Taggart on the Wealthion channel.

## Where Can I Buy Treasury Bonds?

Investors can purchase Treasury bonds at almost all banks, custodians, and brokerage firms. Additionally, the U.S. Treasury Department runs Treasury Direct, selling bonds directly to the public.

The benefit of buying from the Treasury is that they do not charge expenses, management fees, or a bid-offer spread. The drawback is that you can't sell bonds held at the Treasury. To do so, you must first transfer the bond(s) to a broker/custodian. Furthermore, bonds cannot be transferred from Treasury Direct until you have held the bond for at least 45 days.

Most banks and brokerage firms offer a wide selection of Treasury bonds. It is usually minimal if there is a fee to buy or sell bonds. There is often a bid-offer spread when you buy bonds that have already been auctioned and therefore trade on the secondary market. The spread is the difference between the price a buyer is willing to purchase the bonds and where a seller will sell bonds. The true price usually lies in the middle. The difference is trading expenses. Treasury bonds are among the most liquid assets in the world. Therefore, the bid/offer spread is almost always relatively small.

## What Types of Treasury Bonds Can I Buy?

There are two types of Treasury securities, marketable and non-marketable. Marketable securities can be bought and sold in the secondary bond market before maturity. Non-marketable savings bonds cannot be sold and are difficult to transfer to someone else.

## Marketable Bonds

The following are the multiple classifications of marketable Treasury bonds:

- Bills: short-term securities issued with maturities ranging from four weeks to one year. Bills are sold at a discount to par with no coupon. The yield is solely a function of the purchase price accruing to par by maturity. For example, a one-year bill priced at 95 yields $5.26 \%$. That is calculated by dividing the expected price appreciation by the purchase price. In this case, the price gain will be $\$ 5$ on a $\$ 95$ investment. The math is: (100-95) /95.
- Notes: securities issued with maturities ranging from 2 years to 10 years. Unlike bills, notes pay a coupon every six months. The yield is a function of the coupon and the price. For example, a 2 -year note with a price of 98 and coupon of $4 \%$ yields $5.02 \%$ annually. $4 \%$ comes from the coupon, and $1.02 \%$ ( $1 / 98$ per year) is from expected price appreciation.
- Bonds: are identical to notes, except they describe all issuances with greater than ten years to maturity.
- TIPS: TIPS or Treasury Inflation-Protected securities are unique as the principal is adjusted by changes in the Consumer Price Index (CPI). TIPS pay interest every six months and are issued in terms of 5,10 , and 30 years. TIPS should provide a zero percent real return, ensuring you do not lose purchasing power to inflation.
- FRNs: FRNs or Floating Rate Notes have variable interest payments based on the yield of 3month bills. FRNs are only issued with two-year terms and pay interest quarterly.


## Non-marketable Bonds

Non-marketable Treasury bonds include HH-Bonds, I-Bonds, and EE-Bonds. For more on I-bonds we wrote an article entitled I-Bonds: At 7\%, Its Hard To Go Wrong. Information on H, EE, and other bond series is available on the Treasury Direct's About U.S. Saving Bonds page.

## What is Duration?

Understanding where we can buy bonds and the type of bonds available, we can now dive into bond mechanics to appreciate which bond(s) may suit your needs and objectives.

Like any investment, risk and reward are critical factors for consideration. Treasury securities have zero risk of a loss of principal, but there is a risk that the bond's price will change. If a bond is sold before maturity, such a loss can become permanent.

Let's explore duration, the trade-off between price and return.

The yield example in the Treasury notes section above shows how price and coupon factor into the yield. The coupon, except with FRNs, is fixed; therefore, price is the variable determinant of a bond's yield. As bond prices fall, yields rise, and vice versa. The question is how much bond prices will rise or fall for a given change in its yield.

## Duration in Practice

Duration measures the sensitivity of price to a change in yield. Generally, a bond's duration is always shorter than its time until maturity, except for bills and zero-coupon bonds, which are virtually equal.

The current ten-year UST (4.125\% 11/15/2032) note has a duration of 8.173. If the yield on the note falls by $1 \%$, the price should increase by $8.173 \%$. Similarly, it will fall by $8.173 \%$ if the yield increases by $1 \%$.

The lower the coupon, the closer the duration is to the time until maturity. Additionally, the duration will shift with price but not significantly.

With an understanding of duration, we can assess the risk and reward of bonds and better compare our options. Using our 10-year note with a duration of 8.173 , if we think there are equal odds the yield rises or falls by $2 \%$, then there is an equal chance we could make or lose approximately $16.3 \%$ from price changes in addition to the $4.125 \%$ annual coupon. Ergo, including the coupon payment, the note should provide about $20.5 \%$ upside or $12 \%$ downside if the note's yield shifts by $2 \%$.


## Which Maturity Bond Should I Buy?

This is the most popular question we get.
Answering it requires appreciating the following two questions.

- What is your risk threshold?
- Why are you buying the treasury bond?

Duration, as we shared earlier, helps to evaluate price risk. For perspective on how much yields can change and the potential risk of buying the bond, it is worth looking at recent yield ranges and yield changes over prior economic and market environments.

Regarding the purpose of buying the bond, it is constructive to understand if the purchase is speculative, a long-term buy-and-hold investment, or a higher-yielding option for cash until stocks or other assets offer a better risk/return profile.

## Speculative Traders

The bond's duration should guide your expectations for how potential yield changes across the maturity spectrum will affect prices. For example, if you think 2 -year notes will fall by $3 \%$ in yield and 10-year notes will only fall by $1 \%$, then you must decide between a potential profit of
approximately $6 \%$ for the 2 -year note or around $8 \%$ for the ten-year note. Mind you, the 10-year note offers a higher potential return but more risk if you are wrong.

## Buy and Hold Investors

Buy-and-hold investors should focus on the current yield and not on potential price changes. In this case, the investor must decide which term and yield profile best suit one's investment needs.

## Parking Cash

Many anxious equity investors are flocking to Treasuries to lock in high yields on their cash. If such is your goal, you should consider short-term Treasury Bills. The price risk and interest rate risk of holding Bills are minimal. In the section below titled Reinvestment Risk, we advise on choosing the proper bill maturity.

## Coupon or Yield?

When we wrote this article, Fidelity offered three unique two-year notes maturing on December 31, 2024. Their respective yields in the far-right column are virtually identical. The difference between the notes is in their prices and coupons.

If income generation is a priority, the middle Treasury bond with the $4.25 \%$ coupon would best serve your needs. The other bonds offer lower coupon payments but, in exchange, provide more price appreciation. There are potential tax implications when comparing coupons to price changes, so please check with a tax expert to ensure you make the most appropriate decision.

| Oescripton | Suser/ Ticker | Industry proceeds | Mopdy's $50$ | Next Call Opter | Mshrey Datp | Coupos Ratel Coupes tyse | Ask Price | Asa GIY (MonAmbinc) | AskrTw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WNTED STATES TREAS SER NH 2004, 17305, 31-0EC- 2NSUFDED COUPON | T | PUEUCACMN. | 1 |  | 12312034 | 1.750 Fross | 548.437594 | 75,800 (1000) | 429 |
|  2W4IFOCD COUPON IMETEIAL EVENTIS) |  | PuELCACMNa | Nal |  | 12300024 | 425000035 | \$ 200000008 | 30,000 (25004) | 4271 |
|  2W2IFOXED COUPON | $\uparrow$ | Pueuchtemm | MM1 |  | 13317204 | 22500 mat | 596705450 | 79,800 0500] | 429 |

## Reinvestment Risk- What's the Right Maturity for me?

To help understand reinvestment risk and select the proper bond maturity, we present an investor deciding between three-month and six-month bills. The decision should be based on your expectations for bond yields. Specifically, in this case, what will a 3-month bill yield three months from now?

Assume the current 3- and 6-month bills yield $4.00 \%$ and $4.25 \%$, respectively. You can lock in $4.25 \%$ for a 6 -month term or take a risk and buy the 3-month bill at $4.00 \%$. If you select the threemonth bill, you will need to buy another 3-month bill in three months. If the yield in three months exceeds $4.50 \%$, choosing two shorter bills versus the six-month bill was wise. However, if the Fed starts cutting rates aggressively in the next three months, you would have been much better served to lock in the higher rate for the six months.

You can use the same weighted average math to compare two or more bonds with differing maturities.

## Barbell Strategy

A barbell strategy entails buying multiple bills, notes, and or bonds with varying maturity dates. The benefit of purchasing multiple bonds with staggered maturities versus one large bond is the diversity in coupons and duration. The barbell strategy also provides liquidity as bonds mature. Lastly, having bonds mature at various points during an investment cycle can reduce reinvestment risks.

## Mutual Funds and ETFs

Many investors choose to let professionals manage bonds for them. ETFs and mutual funds have become very efficient and offer specific bond portfolios. Further, fees and expenses for many such funds are reasonable. Maybe most enticing, funds and ETFs are easy to buy and sell, offering investors ease in managing liquidity.

## Summary

This article only scratches the Treasury bond surface. That said, we hope it provides some answers to help you better consider Treasury bond holdings and, specifically, what types of bonds may be best for you.

If you want information on how we can help you manage bond portfolios, please fill out our How Can We Help form, and we will get back to you.

