SOURCING LIQUIDITY IN RISING RATE STRATEGIES

Rick Harper – Chief Investment Officer, Fixed Income and Model Portfolios
11/18/2014

This post is relevant to institutional investors interested in trading exchange-traded funds (ETFs) in significant volume. Individual investors do not always have access to liquidity providers to trade ETFs as referenced below. As we have highlighted over the last several months, investors can take a variety of approaches to help reduce interest rate risk in their portfolios. In our view, one of the most intuitive ways is to simply hedge the interest rate risk of existing exposures in a bond portfolio. In the same way that exchange-traded fund (ETF) investors have embraced currency-hedged equity strategies, we believe strategies that hedge the interest rate risk of popular fixed income strategies could see similar levels of adoption when rates start to rise. The premise is similar—both approaches enable investors to preserve exposure, yet hedge the risks they don't wish to take. However, hedging of any kind often sparks questions of mechanics and then liquidity and capacity from investors. It is important to remember that currency forwards and U.S. Treasury futures contracts are among the most liquid financial instruments in the world. As we will explain below, the mechanics of trading interest-rate-hedged strategies are generally no different from executing any other fixed income ETF strategy. One of the key differentiating factors of our approaches to rising rate strategies is based on how they are constructed: Maintain traditional bond exposure but dial down the interest rate risk through hedging. As a result, each of the strategies is constructed in the same way as a long-only bond stategy. However, a second step occurs whereby the strategy seeks to offset the interest rate risk of the bond portfolio by selling U.S. Treasury futures contracts. Given that Treasury futures are among the most liquidly traded futures contracts in the world,[1] the additional cost of executing these trades is generally de minimis in most market scenarios. As a result, even though these strategies do not trade as much average trading volume as some other traditional bond ETFs, the underlying liquidity available is usually the same, if not greater, than the underlying securities themselves. Let's look at a real-life example of a $35 million trade that was executed seamlessly in the WisdomTree Barclays U.S. Aggregate Bond Zero Duration Fund (AGZD). Essentially, the strategy is long a broad portfolio of U.S. fixed income and short Treasury futures to offset the interest rate risk exposure across the yield curve. This trade happened in two tranches on September 4, 2014. At that time, AGZD was trading, on average, 6,036 shares a day, or about $300,000.[2] The customer contacted the WisdomTree capital markets desk to get a better understanding of the underlying liquidity of the strategy in addition to the onscreen ETF volume. The capital markets team explained that the liquidity available in the marketplace would be the lesser of the long bond portfolio volume and the short Treasury futures that the Fund holds as hedges. In this case, the market value of the outstanding bonds in the Barclays U.S. Aggregate Index is $17.4 trillion.[3] Given that most fixed income securities trade over the counter, there is generally less transparency about average daily trading volume in fixed income as compared to equities. However, the Federal Reserve recently reported that U.S. Treasury securities trade, on average, $489 billion a day.[4] Given that this represents only 36% of the portfolio, we believe that aggregate bond strategies are among the most liquid in the market.[5] For the short portion of the portfolio, U.S. Treasury futures trade $240 billion average daily volume.[6] This means that ETF market makers have at least $240 billion of daily liquidity to translate into the AGZD ETF for any customer. ETF market makers can then hedge themselves by replicating the underlying basket of the ETF. In the case of AGZD, if a market maker sold the ETF to a customer, they are short the ETF, and would then look to buy its equivalent positions of the underlying basket. In this case, the market maker would buy bonds in the Barclays U.S. Aggregate Index and sell a combination of U.S. Treasury futures. Given the differences in daily traded volume, it is the hedge that determines the available liquidity. Let's look at how the trade in AGZD worked for this particular customer. As we mentioned, two tranches needed to be done for administrative reasons. The first one was traded at 10:37:12 on September 4, 2014, and the print can be seen

GRAB

AGZD US Equity | 1) Actions | 97) Settings | Page 1 Trade/Quote Recap

USD

2) Trade Recap | 3) Quote Recap

From 09/04/14 10:35:00 Min Size | Mrkt Mk | Cond

To 09/04/14 10:38:00 Price Range - | High 50.12 | Low 49.917

Time	E	Bid/Trd/Ask	E	Size*	MMkr	Cond
10:37:43	Q	49.71/50.10	Q	30x30	NSDQ	
10:37:43	P	50.04/50.10	Q	2x30		
10:37:43	P	50.04/		2x	ARCX	
10:37:38	P	50.03/50.10	Q	20x30		
10:37:38	P	50.03/		20x	ARCX	
10:37:25	Q	49.72/50.10	Q	1x30	NSDQ	
10:37:25	Q	49.71/50.10	Q	30x30	NSDQ	
10:37:25	P	50.04/50.10	Q	1x30		
10:37:25	P	50.04/		1x	ARCX	
10:37:21	P	50.03/50.10	Q	20x30		
10:37:21	P	50.03/		20x	ARCX	
10:37:12	D	50.06		3975.02		Q
10:36:31	Q	49.72/50.10	Q	1x30	NSDQ	
10:36:31	Q	49.71/50.10	Q	30x30	NSDQ	
10:36:31	Q	48.04/		2x	NITP	
10:36:31	Q	48.04/		1x	NITP	
10:36:31	Q	/		x	NITP	
10:36:31	Q	47.53/		1x	NITP	
10:36:31	P	50.04/50.10	Q	1x30		
10:36:31	P	50.04/		1x	ARCX	

Price White: Best qt Amber: MM qt Gray: Prev qt *Size scaled by 100 Zoom 100%

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2014 Bloomberg Finance L.P.
SN 553416 H265-3244-2 07-Nov-14 9:50:58 EST GMT-5:00

Source: Bloomberg, as of 9/4/14.

below. The highlighted box shows that 397,502 shares (about $20 million worth) traded at $50.06. The offer on screen at the time was $50.10. So 65x the average daily volume of the ETF traded 4 cents inside the offer. We would interpret this as having no impact on the ETF price. Just to be sure, let's look at the second print. That same day at 15:29:01, 298,215 shares (about $15 million worth) of AGZD printed at $50.10.

Source: Bloomberg, as of 9/4/14.

Again, the highlighted yellow box shows the print by the arrow at $50.10, and the offer at the time was $50.10. Again, no price impact to the ETF. This is an illustration of the theory of liquidity that we explained. This customer wanted to hedge the interest rate risk in the portfolio with an ETF that didn't have much regular daily volume. The customer did due diligence on the Fund and its underlying liquidity by using all the available resources, including the capital markets team at WisdomTree. What the customer discovered is that AGZD fit the investment needs and that $240 billion of liquidity was available in the marketplace. The customer then worked with the trading platform to use the services of a market maker to translate that $240 billion of underlying liquidity into the ETF at the requested size and time. The result was two trades done without price impact. Additionally, it is worth noting that liquidity is available on both entry and exit to the strategy. Market makers are often agnostic regarding buys or sells and just look to hedge themselves with underlying liquidity. Thus, when the customer intends to sell a position, regardless of AGZD's daily onscreen volume, the volume of the underlying basket will again be available, just as it was on the above examples. [1]Source: Chicago Mercantile Exchange (CME), as of 8/31/14. [2]Source: Bloomberg, based on 30-day average volume, 9/4/14. [3]Source: Barclays, as of 10/31/14. [4]Sources: Federal Reserve, Bloomberg, as of 10/29/14. [5]Source: Barclays, as of 10/31/14. [6]Source: Chicago Mercantile Exchange (CME), as of 8/31/14.

Important Risks Related to this Article

There are risks associated with investing, including possible loss of principal. Fixed income investments are subject to interest rate risk; their value will normally decline as interest rates rise. The Fund seeks to mitigate interest rate risk by taking short positions in U.S. Treasuries, but there is no guarantee this will be achieved. Derivative investments can be volatile, and these investments may be less liquid than other securities, and more sensitive to the effects of varied economic conditions. Fixed income investments are also subject to credit risk, the risk that the issuer of a bond will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline. The Fund may engage in "short sale" transactions of U.S. Treasuries, where losses may be exaggerated, potentially losing more money than the actual cost of the investment, and the third party to the short sale may fail to honor its contract terms, causing a loss to the Fund. While the Fund attempts to limit credit and counterparty exposure, the value of an investment in the Fund may change quickly and without warning in response to issuer or counterparty defaults and changes in the credit ratings of the Fund’s portfolio investments. Investing in mortgage- and asset-backed securities involves interest rate, credit, valuation, extension and liquidity risks and the risk that payments on the underlying assets are delayed, prepaid, subordinated or defaulted on. Due to the investment strategy of certain Funds, they may make higher capital gain distributions than other ETFs. Please read the Fund’s prospectus for specific details regarding the Fund’s risk profile.

For standardized performance and the most recent month-end performance click here NOTE, this material is intended for electronic use only. Individuals who intend to print and physically deliver to an investor must print the monthly performance report to accompany this blog.

For more investing insights, check out our Economic & Market Outlook

View the online version of this article here.

IMPORTANT INFORMATION

U.S. investors only: Click here to obtain a WisdomTree ETF prospectus which contains investment objectives, risks, charges, expenses, and other information; read and consider carefully before investing.

There are risks involved with investing, including possible loss of principal. Foreign investing involves currency, political and economic risk. Funds focusing on a single country, sector and/or funds that emphasize investments in smaller companies may experience greater price volatility. Investments in emerging markets, currency, fixed income and alternative investments include additional risks. Please see prospectus for discussion of risks.

Past performance is not indicative of future results. This material contains the opinions of the author, which are subject to change, and should not to be considered or interpreted as a recommendation to participate in any particular trading strategy, or deemed to be an offer or sale of any investment product and it should not be relied on as such. There is no guarantee that any strategies discussed will work under all market conditions. This material represents an assessment of the market environment at a specific time and is not intended to be a forecast of future events or a guarantee of future results. This material should not be relied upon as research or investment advice regarding any security in particular. The user of this information assumes the entire risk of any use made of the information provided herein. Neither WisdomTree nor its affiliates, nor Foreside Fund Services, LLC, or its affiliates provide tax or legal advice. Investors seeking tax or legal advice should consult their tax or legal advisor. Unless expressly stated otherwise the opinions, interpretations or findings expressed herein do not necessarily represent the views of WisdomTree or any of its affiliates.

The MSCI information may only be used for your internal use, may not be reproduced or re-disseminated in any form and may not be used as a basis for or component of any financial instruments or products or indexes. None of the MSCI information is intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such. Historical data and analysis should not be taken as an indication or guarantee of any future performance analysis, forecast or prediction. The MSCI information is provided on an "as is" basis and the user of this information assumes the entire risk of any use made of this information. MSCI, each of its affiliates and each entity involved in compiling, computing or creating any MSCI information (collectively, the "MSCI Parties") expressly disclaims all warranties. With respect to this information, in no event shall any MSCI Party have any liability for any direct, indirect, special, incidental, punitive, consequential (including loss profits) or any other damages (www.msci.com)

Jonathan Steinberg, Jeremy Schwartz, Rick Harper, Christopher Gannatti, Bradley Krom, Tripp Zimmerman, Michael Barrer, Anita Rausch, Kevin Flanagan, Brendan Loftus, Joseph Tenaglia, Jeff Weniger, Matt Wagner, Alejandro Saltiel, Ryan Krystopowicz, Jianing Wu, and Brian Manby are registered representatives of Foreside Fund Services, LLC.

WisdomTree Funds are distributed by Foreside Fund Services, LLC, in the U.S. only.

You cannot invest directly in an index.

DEFINITIONS

Liquidity : The degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid asset.

Interest rate risk : The risk that an investment's value will decline due to an increase in interest rates.

Hedge : Making an investment to reduce the risk of adverse price movements in an asset. Normally, a hedge consists of taking an offsetting position in a related security, such as a futures contract.

Forward currency contracts : A forward contract in the forex market that locks in the price at which an entity can buy or sell a currency on a future date.

Long-only bond strategy : a traditional approach to fixed income portfolio management.

Yield curve : Graphical Depiction of interest rates on government bonds, with the current yield on the vertical axis and the years to maturity on the horizontal axis.

Tranches : a portion of a larger trade.

Barclays U.S. Aggregate Bond Index, 1-3 Year : This index is the 1-3 Yr component of the U.S. Aggregate index.

Over-the-Counter (OTC) : A security traded in some context other than on a formal exchange such as the NYSE, TSX, AMEX, etc.

Average Daily Trading Volumes : The average amount of individual securities traded in a day or over a specified amount of time. Trading activity relates to the liquidity of a security; therefore, when average daily trading volume is high, the stock can be easily traded and has high liquidity. As a result, average daily trading volume can have an effect on the price of the security. If trading volume isn't very high, the security will tend to be less expensive because people are not as willing to buy it.

Short (or Short Position) : The sale of a borrowed security, commodity or currency with the expectation that the asset will fall in value, the opposite of Long (or Long Position).

Market maker : Someone who quotes a buy and a sell price in a financial instrument.

Underlying basket : Securities held by a fund to replicate an investment strategy or index.

Onscreen volume : the number of shares traded in an ETF on an exchange.