How will Trend Followers Perform in a Rising Interest Rate Environment?

Rising interest rates are a top-of-mind concern for investors right now. Inquiries about the impact of rising rates are among the most frequently asked questions from our clients and prospects in recent months. There seems to be a lot of uncertainty (and in some cases, misconceptions) about the ability of CTAs to thrive in rising/ higher interest rate environments. We, at DUNN Capital Management, LLC ("DUNN"), don't know if the extended bull-market in fixed income is officially over, but it seems likely. Admittedly, we have thought that numerous times over the last 8 years or so since the end of the credit crisis. That's why we strictly focus on systematic trading ... Since human intuition is often faulty, we deliberately take emotion and subjective decision-making out of the equation and let our models algorithmically determine what the price data is telling us. Nevertheless, we welcome this opportunity to discuss our views on rising rates, whether they occur in the near or far-off future.

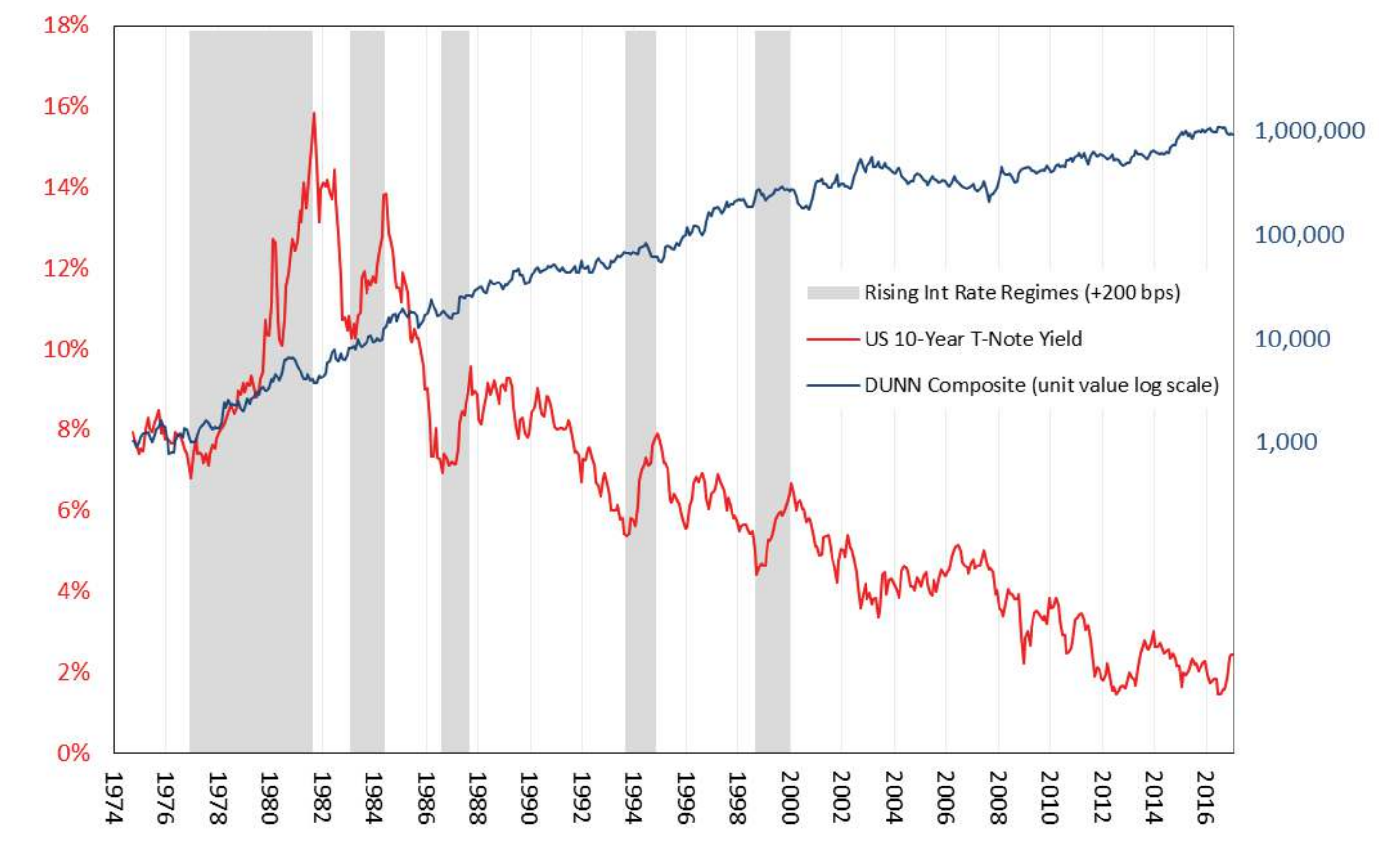
There are two main sources of investor anxiety around rising interest rates, which we will address from the bottom up. First is the micro-issue of roll yield. It appears to be generally accepted that a significant portion of gains earned by CTAs over the long bull market in fixed income have been attributable to the roll-yield. So the question is how much will gains earned during a bear market in bonds be eroded by roll "expense". The second source of angst is the macro-issue of whether or not rising interest rate environments generate enough overall trends in other markets for CTAs to identify and exploit. This gets to the question of whether higher interest rate environments are conducive to the trendiness of markets in all global sectors.

There are three sources of returns on positions in futures contracts. The first and most obvious is the change in spot prices. The second is the so-called "roll yield", which is the change in futures prices due to the necessary convergence of futures and spot prices when time approaches the contract expiration date. The third is the return on collateral. In the particular case of interest rates, DUNN strategies have realized substantial gains in the last two years due mainly to the second source of returns, roll yield. For example, the roll yield will be profitable when holding a long position on interest rate futures if neither the market's expectation of raising interest rates nor some implied risk premium for long futures positions is realized. This behavior has displayed a consistent trend, which has favored disciplined trend-following systems and allowed us to profit even in a zero- or negative-rate environment.

Going forward, if interest rates maintain a sustained ascent and fixed income futures remain in backwardation, the price of futures will tend to rise as the contract gets closer to expiration, generating a positive roll yield and chipping away at the profitability of short positions. In other words, if interest rates do not climb as fast as anticipated, futures prices will rise and cause any strategy holding short interest rate positions to give back some of its gains. Some investors have posited that the roll yield will more than offset any gain generated by a change in spot prices and make

by Niels Kaastrup-Larsen, DUNN Capital (Europe) fixed income markets difficult for CTAs. However, there are several problems with this assumption. First, there is no guarantee that the fixed income futures markets will remain in backwardation in the years to come or that the slope of the rate curve will be as steep as it has been. These are the factors that determine roll yield and, as there are numerous market dynamics affecting the interest rate curve, it is not a given that the roll yield will be positive or significant in a rising interest rate environment. The impact of roll yield could be small in a rising interest rate environment and has been in the past. Another problem with this view is that it assumes simple constant positions in a fixed term-structure scenario. In reality, trend following signals look at continuous price changes incorporating both rate changes and roll yield. This explains why we at DUNN are still long some of the European fixed income futures, even as rates have begun to

DUNN Composite Performance vs US 10-Year T-Note Yield, Sep 1974 – Jan 2017



Performance During Rising Rate Regimes Since Inception of DUNN in 1974

Period			US 10 Yr T Note Yield			DUNN Performance		S&P Performance		DUNN/S&P
Trough	Peak	Months	Trough	Peak	Increase	Total	Annualized	Total	Annualized	Correlation
Dec-76	Sep-81	57	6.8%	15.8%	9.0%	246.5%	29.9%	45.3%	8.2%	8.7%
Feb-83	Jun-84	16	10.3%	13.8%	3.6%	63.4%	44.5%	9.9%	7.3%	-48.6%
Aug-86	Sep-87	13	6.9%	9.6%	2.7%	39.7%	36.2%	31.6%	28.8%	1.9%
Sep-93	Nov-94	14	5.4%	7.9%	2.5%	-8.3%	-7.2%	2.2%	1.8%	-53.5%
Sep-98	Jan-00	16	4.4%	6.7%	2.2%	4.7%	3.5%	39.4%	28.3%	-42.6%
Average		23			4.0%		21.4%		14.9%	

rise. In this case, our models are expecting the profit earned from the roll yield to surpass any losses due to a change in interest rates. So the bottom line is that DUNN's trend following strategies are certainly smart enough to profitably trade fixed income futures in a rising rate environment, but the magnitude of their contribution to the total program performance may or may not be diminished by roll yield depending on the shape of the rate curve.

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Now to address the bigger picture concern... Because most of today's CTAs did not even exist the last time there was a sustained rising rate dynamic in the marketplace, investors question how managed futures strategies will perform in such an environment. We know that trend followers have no long or short bias, so, theoretically, such managers should be able to perform in up or down markets. And we know that a material and sustained rise in interest rates should have the capability of directly and/ or indirectly generating trends in a variety of market sectors. But, because many investors have not seen this in action, they question whether or not rising rates are actually good catalysts for trends. This perceived lack of history is compounded by the potential for a positive roll yield to reduce the profitability of short positions in the fixed income sector if rates increase in a material and sustained fashion. After all, fixed income is known to have been a big contributor to managed futures performance during the rise in popularity of the strategy over the last two decades.

It turns out we don't have to solely rely on theory or simulated performance to determine the potential for trend following success during rising rate environments. Though the industry was smaller in the 1970s, 80s & 90s when we last experienced rising interest rate regimes, there were CTAs applying trend following techniques and DUNN was one of them. DUNN was launched in 1974 and has been practicing trend following from inception. We can look back on the performance of the DUNN Composite during rising interest rate regimes as an indicator for what we might expect in the future when we encounter this market dynamic again. Of course past performance is no guarantee of future results. But trend following is trend following and investors have been applying rules-based decision mechanisms to market information for hundreds of years.

We have plenty of recent data to examine how CTAs perform in individual months where rates went up or down. These small changes happen every month and are not what worry our investors. They are interested in what happens during larger rate moves over longer periods of time. The type of sustained rise that hasn't happened in almost two decades. They want to know: Will CTAs be a liability or a positive performer in their portfolio in the years to come. So we looked back at our firm's performance during rising rate regimes, which we defined as periods of 12 months or more that contained an increase in rates of 200 basis points or more. Please see the graph and table for the results.

When isolating these rising rate regimes and analyzing DUNN's performance during these periods, it's clear that trend following worked well from a return perspective and at the same time remained uncorrelated with equities. It's also important to keep in mind that both our signal-generation process and portfolio risk control are much more sophisticated and the computing capabilities much more powerful, today than what we had in place during these past rising rate regimes.

As we move into the future, if and when we finally encounter another rising rate regime, I think what can be expected from trend followers in general is largely the same as what they have delivered over the years:

- Rising rates will be a catalyst for trends to develop in a variety of market sectors.
- Trend followers will identify and exploit trends wherever they exist.
- It is unpredictable what markets will be most affected by rising rates, so investing with a diversified trend follower is key.
- Trend followers will remain largely uncorrelated with fixed income and equities, making the asset class a very beneficial addition to traditional portfolios.
- It is difficult to anticipate the timing of strong and sustained market moves, so to trend following should always be a core allocation.