
DOES A MINIMUM-VOLATILITY APPROACH COMPOUND RISK IN CONSERVATIVE ALLOCATIONS?

Jeremy Schwartz – Global Chief Investment Officer
11/02/2016

I recently had a conversation with an asset allocation group that was building portfolios for a conservative clientele, typically with a 75%–80% fixed income allocation to emphasize only small tolerance for risk. This group was looking at the investment factor world and the widespread trends toward investment strategies oriented to minimum [volatility](#) (“min vol”). They thought this type of min-vol approach would be a good fit for their clientele.

At a surface level, I understand the intuitive appeal: minimum-volatility strategies ostensibly sound great for conservative portfolios. I noted, however, that min-vol strategies are likely to compound and concentrate the “bond [duration](#)” risk already loaded in their portfolios and thus actually serve as a poor diversifier for the 75% of the portfolio in fixed income strategies.

Min Vol Adding to Bond Risk?

In late September, I wrote a series of [blog posts discussing the factors that I thought were contributing to the trends in low-volatility strategies](#)—that is, the declining [interest rate](#) environment. [The Utilities sector was a classic sector represented in low-volatility strategies](#) and benefited from a decline in interest rates in early 2016. That outperformance started to shift on July 8, when the 10-Year-Yield in the U.S. turned around.

Those blog posts with evidence across a few sectors and major markets in 2016 generated some good discussions with clients, and one astute CIO forwarded me a recently released academic paper entitled “Does Interest Rate Exposure Explain the Low Volatility Anomaly?”¹ The authors summarized their findings as follows:

We show that part of the outperformance of low volatility stocks can be explained by a premium for interest rate exposure. Low volatility portfolios have a negative exposure to interest rates, whereas the more volatile stocks have a positive exposure... Our results [...] imply a strong implicit exposure to interest rate risk of low volatility portfolios.

The regression models below illustrate the embedded interest rate factor exposure inherent to 10 different portfolios, sorted by their low-volatility characteristics. These volatility deciles, or portfolios, were taken from the [Fama-French website](#) and examined for their exposure to a specific interest rate factor. There were two sets of regressions shown here—one looking at each portfolio’s exposure to just this interest rate factor, and the other using a two-factor model incorporating market [risk](#) along with the interest rate factor.

Low-Volatility Embedded Interest Rate Exposure

Single-Factor Regression Model	
Portfolio	Interest Rate Factor
1	0.62
2	0.52
3	0.54
4	0.45
5	0.41
6	0.23
7	0.33
8	0.31
9	0.15
10	-0.17
10-1	-0.79

Multi-Factor Regression Model		
Portfolio	Interest Rate Factor	Market Risk Factor
1	0.33	0.68
2	0.15	0.85
3	0.13	0.94
4	0.01	1.02
5	-0.06	1.07
6	-0.29	1.19
7	-0.23	1.29
8	-0.29	1.38
9	-0.51	1.54
10	-0.87	1.63
10-1	1.20	0.95

Regressions show sensitivity of portfolios to specified factors.

The 10 portfolios represent the decile groupings of stocks observed in the Fama French Three-Factor Model, where 1 indicates the least volatile decile of stocks (lower volatility), and 10 represents the most volatile decile. Past performance is not indicative of future results.

For more information, see the [Fama French website](#).

What is Embedded Bond Risk?

Using this two-factor approach, one might interpret the results as saying the lowest-volatility portfolio was allocating 33% to the interest rate factor (with a lower market [beta](#) of approximately .68), while the highest-volatility decile was like being short the interest rate factor (while also having a high market beta of 1.6).

This embedded “bond bet,” or bond exposure, inherent to a low-volatility approach perhaps suggests that investors who already have significant fixed income allocations should explore equity strategies that are less sensitive to interest rates.

It has been a long time since there was a [bear market](#) in bonds—and we do not expect any significant rise in rates that could cause a huge amount of pressure in this segment of the portfolio in the near term. But investors should be cognizant of the bond duration in their equity portfolios and perhaps look for diversifying strategies.

Within the equity income portion of an allocation, we suggest looking at our [Quality Dividend Growth](#) family of Indexes. These Indexes screen for factors that provide a forwarding-looking dividend growth profile, and the screens we utilize tend to be underweight sectors with just the highest dividend yields—sectors such as Utilities, Telecommunications and [REITs](#). We also believe [this segment of the market is one of most attractively valued today](#).

¹Joost Driessen, Ivo Kuiper, Robbert Beilo, “Does Interest Rate Exposure Explain the Low Volatility Anomaly?” SSRN, 10/9/16.

Important Risks Related to this Article

Dividends are not guaranteed, and a company currently paying dividends may cease paying dividends at any time.

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

Volatility: A measure of the dispersion of actual returns around a particular average level.

Duration: A measure of a bond's sensitivity to changes in interest rates. The weighted average accounts for the various durations of the bonds purchased as well as the proportion of the total government bond portfolio that they make up.

Interest rates: The rate at which interest is paid by a borrower for the use of money.

Risk: Also standard deviation, which measures the spread of actual returns around an average return during a specific period. Higher risk indicates greater potential for returns to be farther away from this average.

Beta: A measure of the volatility of a security or a portfolio in comparison to a benchmark. In general, a beta less than 1 indicates that the investment is less volatile than the benchmark, while a beta more than 1 indicates that the investment is more volatile than the benchmark.

Bear market: A sustained downturn in market prices, increasing the chances of negative portfolio returns.

Real estate investment trust (REIT): Investment structure containing a basket of different exposures to real estate, be it directly in properties or in mortgages. Returns predominantly relate to changes in property values and income from rental payments.