

Academics, quants don't agree on volatility claims

BY  **ARI T. WEINBERG** · SEPTEMBER 4, 2017

Defining the relationship between exchange-traded funds and volatility has been a pastime of academics and quants around the world for more than two decades. Yet, as the U.S. market's preferred measure of volatility — the Chicago Board Options Exchange Volatility index, or VIX — hovered near all-time lows in July, few asked to what extent the relentless flow of money into indexed equity strategies and exchange-traded funds could actually be limiting volatility. That calculus was supposed to head the other way.



Ohio State University Professor
Itzhak Ben-David

In the working paper "Do ETFs Increase Volatility," Ohio State University's Professor Itzhak Ben-David analyzes the impact that ETFs might have on the underlying securities in ETF baskets.

Mr. Ben-David, who will be speaking at the SEC-NYU Dialogue on Securities Market Regulation on Sept. 8, and his co-authors observe that "demand shocks" in the ETF market on stocks held by ETFs are largely "non-fundamental" and the result of the arbitrage, which "seems to lead to higher perceived risk and higher risk premiums."

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Market participants, however, believe the effects of passive management and indexation actually contribute to a reduction in near-term volatility — market makers lay off risk directly in the index futures and options markets — while pushing hedging activity farther out-of-the-money.

"The risk positions of the largest ETF option traders and market makers — and the way that

they hedge their risks — also serve to dampen market volatility," says Jake Weining, founding partner at Malachite Capital Management in New York. Malachite manages nearly \$375 million in a global, market neutral equity volatility fund, including index and ETF volatility options.

traded products and leveraged (inverse) ETFs. However, the relentless flows into U.S.-listed equity ETFs — \$195 billion through July, according to research firm ETFGI, already surpassing 2016's full-year \$173 billion total — has shifted the focus of volatility and correlation observers to the entire market. Through Aug. 22, equity ETFs held \$2.34 trillion in assets, according to ETF rating and research firm XTF, a unit of the London Stock Exchange Group.

"Our best estimate is that 10.3% of global stocks and bonds are held by index investors and about 7% for U.S. equities," says Ananth Madhavan, global head of research for ETFs and index investing at **BlackRock (BLK) Inc. (BLK)** in San Francisco. Mr. Madhavan says BlackRock recently looked at cross-stock correlations and returns to test the theory that indexing was driving increased co-movement and found that periods such as the 1930s, when there was no indexing, and late 1990s dot-com boom showed higher correlations among individual securities.

"Macro-driven environments increase correlations and drive volatility," Mr. Madhavan said.

"The data just doesn't support the view that indexing is pushing around prices."

According to the Investment Company Institute, roughly 10% of daily ETF trading results in the actual creation or redemption of ETF baskets, which would have a direct impact on the market for a particular security.

David Varadi, director of research for Blue Sky Asset Management LLC, which sponsors the \$191 million QuantX Funds, is more aligned with the view that ETF ownership has had an effect on volatility, but that the current macro environment — with the end of quantitative easing, a slowly tightening Federal Open Market Committee, and a policy and regulatory regime that is less certain — has recently led to "a structural break in correlations" where there's a bigger gap between individual stock winners and losers and greater sector dispersion. The CBOE S&P 500 Implied Correlation index sank to 25 by the end of July, though historically the index has ranged between 50 and 70, and it has returned to range between 30 and 40 in August.

"When correlations are low, index-implied volatility will be much lower than the average implied volatility across individual stocks or sectors, which substantially reduces the value of the VIX," Mr.

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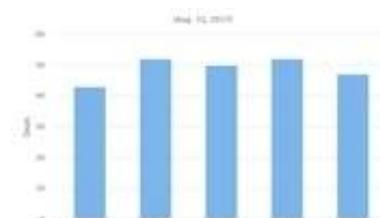
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