# New Study Finds Index Strategies Using Cboe Russell 2000 Options Offer Income Generation and Downside Protection

- Index strategies using Cboe Russell 2000 Options have exhibited less severe maximum drawdowns, lower standard deviations relative to underlying equity index since 2001
- Inclusion of Cboe PUTR Index in a traditional stock/bond portfolio also enhanced risk-adjusted returns

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**CHICAGO – February 20, 2020** – Cboe Global Markets, Inc. (Cboe: CBOE), one of the world's largest exchange holding companies, and Wilshire Analytics, the investment technology group of Wilshire Associates Incorporated (Wilshire®), a leading global financial services firm, today released new research designed for financial professionals examining the effectiveness of options-selling index strategies. Options-selling index strategies are designed to provide investors with income from premiums and a potential downside cushion in the event of a market turn.

The new whitepaper, "The Cboe Russell 2000 Option Benchmark Suite – Improving Diversification by Harvesting Volatility Risk Premiums," commissioned by Cboe and authored by Wilshire, analyzes four Cboe Russell 2000 options index strategies that sell monthly options on the small-cap Russell 2000® Index (RUT): the Cboe Russell 2000 BuyWrite Index (BXR℠), Cboe Russell 2000 30-Delta BuyWrite Index (BXRD℠), Cboe Russell 2000 PutWrite Index (PUTR℠), and Cboe Russell 2000 Zero-Cost Spread Collar Index (CLLR℠). The performance of these Cboe indexes are compared against the underlying Russell 2000 Index (RUT) and broad market indexes over a period of almost nineteen years, from January 31, 2001 to December 31, 2019.

Jeff Foley, Managing Director and Head of Business Operations for Wilshire Analytics, said: "Our analysis suggests that options-selling index strategies can be effective in lowering overall portfolio volatility, while generating healthy levels of income during periods of market downturns. Given today's uncertain market environment, we expect investors could continue to benefit from options-selling strategies to help reduce downside risk."

As detailed in the study, the research found all four Cboe indexes delivered Russell 2000 Index type returns, expanded the mean variance efficient frontier, helped manage tail risk and captured the volatility risk premium. Key findings of the study include:

- **Expanded Efficient Frontier:** 15% additional allocation of PUTR to a traditional 60/40 stock-and-bond portfolio improved returns by 8 basis points, and reduced standard deviation by 21 to 57 basis points.
- **Improved Tail Risk and Lower Volatility:** All four Cboe strategy indexes had lower volatility and maximum drawdowns than the Russell 2000 Index. PUTR had a 29% lower standard deviation and 28% less severe drawdown than the Russell 2000 Index.
- **Richly Priced Options Premiums Harvested:** All four Cboe strategy indexes sold RUT options and collected monthly premiums. BXR collected an average gross premium of 2.1%. RUT options were usually richly priced, as average implied volatility exceeded average realized volatility by about 3.3 volatility points.
- **Enhanced Risk-Adjusted Returns:** The implied volatility risk premium fueled strong risk-adjusted returns for PUTR, as the Sharpe Ratio for PUTR was 28% higher than that of the Russell 2000 Index.

Alec Young, Managing Director of Global Markets Research at FTSE Russell, said: "After a strong 25% Russell 2000 Index total return last year, there's room for optimism although reasons for near-term caution have also recently emerged. On a

positive note, the domestic economic picture looks solid led by a resilient consumer, accommodative financial conditions and an uptick in global leading indicators, all of which bode well for small caps – an economically sensitive asset class that tends to do best when growth is picking up. That said, volatility is a normal part of investing and often stems from macro risks that are inherently hard to predict like the sudden coronavirus outbreak or the outcome of November's presidential and congressional elections. In addition, 2019's strong performance has left Russell 2000 valuations at a historically elevated level of 25X 12-month forward consensus EPS, (vs. a 10-year average of 22X) leaving investors with less margin for error if high 2020 earnings growth expectations fail to materialize. As such, we are excited to partner with Cboe to bring investors high quality, Russell 2000 risk management tools to complement the leading U.S. small cap equity index."

More information about the whitepaper, the underlying indexes and risk disclosures may be found at: http://www.cboe.com/Wilshire-Russell

## About Cboe Global Markets, Inc.

Cboe Global Markets (Cboe: CBOE) is one of the world's largest exchange holding companies, offering cutting-edge trading and investment solutions to investors around the world. The company is committed to defining markets to benefit its participants and drive the global marketplace forward through product innovation, leading edge technology and seamless trading solutions.

The company offers trading across a diverse range of products in multiple asset classes and geographies, including options, futures, U.S. and European equities, exchange-traded products (ETPs), global foreign exchange (FX) and volatility products based on the Cboe Volatility Index (VIX Index), recognized as the world's premier gauge of U.S. equity market volatility.

Cboe's subsidiaries include the largest options exchange and the third largest stock exchange operator in the U.S. In addition, the company operates one of the largest stock exchanges by value traded in Europe and is a leading market globally for ETP listings and trading.

The company is headquartered in Chicago with a network of domestic and global offices across the Americas, Europe and Asia, including main hubs in New York, London, Kansas City and Amsterdam. For more information, visit www.cboe.com.

## About Wilshire Associates

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