IN PRACTICE

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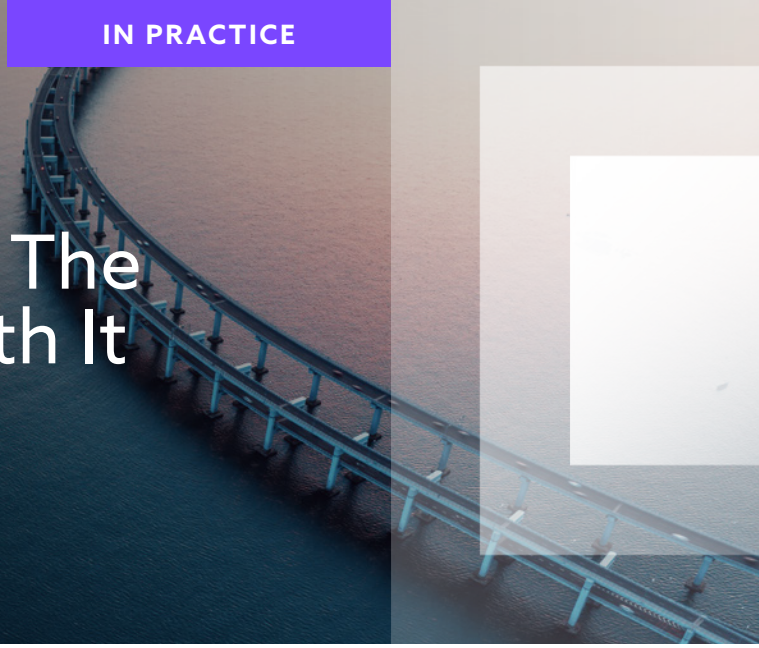

# Spot Bitcoin ETFs: The Struggle Was Worth It (In Practice)

**Mark Fortune**

Spot bitcoin exchange-traded funds (ETFs) have quickly become a landmark development in the crypto investing space. In just one year, they've amassed more than $75 billion in new assets and outpaced futures-based ETFs on key performance metrics. New research in the *Financial Analysts Journal* by Andrew M. Hornback and Robert E. Whaley breaks down the most relevant insights for investment professionals—from why benchmark selection matters to how regulatory delays impacted investor outcomes—and what this means for ETF design, portfolio strategy, and market efficiency going forward.

After a decade-long regulatory delay, the US launch of spot bitcoin ETFs in 2024 led to the fastest asset growth in ETF history and offered investors a more efficient alternative to futures-based bitcoin funds.

The article, "Spot Bitcoin ETFs: The Struggle Was Worth It," is innovative in its comprehensive empirical evaluation of the first year of performance of US spot bitcoin ETFs, especially in contrast to their futures-based predecessors.[1]

This *In Practice* feature highlights key findings from the study, including the structural advantages of spot ETFs, the performance impact of benchmark selection, and the broader regulatory implications for bringing financial innovation to the market. It is based on an interview with lead researcher Robert E. Whaley.

## Key Findings

- **The authors quantitatively demonstrate that spot bitcoin ETFs outperform futures-based bitcoin ETFs** (e.g., BITO) due to structural inefficiencies in futures markets—such as roll costs, liquidity issues, and volatility-induced tracking errors.

[1]Andrew M. Hornback and Robert E. Whaley, "Spot Bitcoin ETFs: The Struggle Was Worth It," *Financial Analysts Journal* 81 (Second Quarter 2025): 39–50. https://rpc.cfainstitute.org/research/financial-analysts-journal/2025/spot-bitcoin-etfs.



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- **They show that benchmark index choice significantly affects performance**, even when the holdings are similar—highlighting that ETF design matters more than commonly appreciated.
- **They argue that regulatory delays imposed material costs on investors**, since superior spot products were withheld while less efficient futures-based ETFs were approved first.

The researchers say that together, these findings challenge assumptions about ETF equivalency and underscore the importance of regulatory consistency, product design, and benchmark transparency in bringing innovative financial instruments to the market.

## Practical Applications

The study's findings suggest the following:

- **Easier access to bitcoin for investors:** Spot bitcoin ETFs provide a simple, regulated way for investors to gain long-term bitcoin exposure without needing to directly hold cryptoassets.
- **Better product selection:** Investors can now compare spot versus futures-based ETFs using such factors as tracking accuracy, volatility, and cost to choose the most efficient investment vehicle.
- **Informed ETF design:** ETF issuers can use insights into fees, benchmarks, and branding to design more competitive and effective products in a crowded market.
- **Institutional strategy opportunities:** Institutions can apply arbitrage and hedging strategies, such as long–short ETF trades, to exploit market inefficiencies.
- **Smarter regulation:** Regulators can learn from past delays and inconsistencies to create faster, more consistent approval frameworks for innovative financial products.

## Author Discussion

Whaley believes the study's findings have wide-ranging practical applications for individual investors looking for efficient bitcoin exposure, financial advisers building diversified portfolios, and ETF issuers designing competitive products. Also, regulators can apply the findings to help them balance innovation with investor protection, and institutional investors and traders can use them to seek strategic opportunities in volatile markets. "The findings help educate investors and financial advisers

**"The findings help educate investors and financial advisers on ETF structure, risks, and optimal use, improving decision making across portfolio strategies."**

on ETF structure, risks, and optimal use, improving decision making across portfolio strategies," Whaley says.

Spot bitcoin ETFs' performance relative to bitcoin futures and futures-based bitcoin ETFs has been nothing short of extraordinary, according to Whaley. He nonetheless advises caution, emphasizing the importance of correlation in diversification. "Bitcoin's lack of correlation with stocks and bonds presents an opportunity, but its high volatility (60%–70%) compared to stocks (around 18%) is a significant risk factor that must be considered," he says.

Whaley says his research on the futures-based VIX ETF market found that because these ETFs are created by buying large numbers of futures contracts, they contribute to driving futures prices higher than they should be. "This creates a condition called 'contango' in the futures market, meaning you will pay too much if you consistently go long, lowering your rate of return due to high demand for long futures contracts," he asserts. The same is true in many futures markets used to structure ETFs, including the bitcoin futures market, he says.

Whaley notes that the Winklevoss brothers (Cameron and Tyler) first sought SEC approval for their Winklevoss Bitcoin Trust—a spot bitcoin ETF—in July 2013. The SEC rejected the application in 2017, citing concerns about the bitcoin market's maturity. The twins tried again in June 2018 but were denied once more, this time due to concerns about market manipulation and lack of proper oversight. "So, there was a logical inconsistency in the regulatory outcome," Whaley argues.

He notes that part of the study, which the authors omitted from the article, evaluates international perspectives. He says he found that regulatory authorities in such countries as Canada and Australia, as well as in Europe, were more flexible. "They were able to introduce this new financial innovation with shorter lead times or review windows," he explains.

## The Study

The study examines the performance of spot bitcoin ETFs during their first year of trading. It focuses on innovation and regulation in the ETF industry, especially the January 2024 launch of spot bitcoin ETFs in the United States, and highlights the need for collaboration between innovators and regulators to bring new financial products to market more effectively.

The article emphasizes that regulatory resistance can delay innovation, often at the cost of investors. However, when innovation and regulation work together—as shown by the success of spot bitcoin ETFs—new products can thrive and reshape the financial landscape, Whaley says.

After the 1987 stock market crash, Canadian regulators and exchanges worked quickly to launch an ETF, while in the United States, it took six years to debut the SPDR S&P 500 (SPY) ETF, which occurred in 1993, due to regulatory delays. "The SEC blocked spot bitcoin ETFs for years over concerns about

market manipulation. But the regulator allowed a futures-based bitcoin ETF in 2021, raising questions about regulatory consistency, since both rely on the same underlying bitcoin markets," Whaley says.

## Looking Forward

On 11 January 2024, 10 spot bitcoin ETFs launched simultaneously. Among the new ETFs, IBIT (BlackRock) and FBTC (Fidelity) attracted the most assets, and GBTC (Grayscale) posted the highest returns.

The launch has transformed access to bitcoin for US investors, Whaley says. He argues that these products have proven wildly successful, and they outclass futures-based ETFs in terms of efficiency, tracking, and long-term value.

"This study also underscores the importance of regulatory clarity, benchmark design, and investor education," he emphasizes. "While one year is not long enough to draw long-term conclusions, early data strongly suggests that spot bitcoin ETFs are better suited for most investors than their futures-based predecessors." He adds that going forward, as competition intensifies and more data emerges, investors will benefit from better tools, lower fees, and clearer regulation—leading to more efficient and accessible exposure to digital assets such as bitcoin.

## Bios

**Andrew M. Hornback** is a PhD candidate in computer science at the Georgia Institute of Technology. He completed his MBA at Vanderbilt University's Owen Graduate School of Management and has developed artificial intelligence and derivatives models for the Deals practice at PricewaterhouseCoopers.

**Robert E. Whaley** is the Valere Blair Potter Professor of Management and director of the Financial Markets Research Center at Vanderbilt University's Owen Graduate School of Management. He received a bachelor of commerce degree from the University of Alberta and master of business administration and PhD degrees from the University of Toronto. Whaley is an established expert in derivative contract valuation and risk management and has been a consultant for many major investment houses, security (futures, option, and stock) exchanges, governmental agencies, and accounting and law firms. He received the 1993 Earl M. Combs, Jr. Award for contributions to the futures industry, a Chicago Board Options Exchange 40th Anniversary Award for contributions to listed option markets in 2013, the 2015 Joseph W. Sullivan Options Industry Achievement Award, the 2015 William F. Sharpe Lifetime Achievement Award for his indexing contributions, and the 2024 IAQF/Northfield Financial Engineer of the Year Award.

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