Buying the Rumor, Selling the News? Bitcoin Price Dynamics Around the SEC Approval of Spot Bitcoin ETFs

Nguyen Hoang Anh, Trinh Minh Ngoc and Nguyen Thi Hong Thuy

Faculty of Accounting and Auditing, VNU University of Economics and Business, Vietnam
Corresponding author, E-mail: ngocmt@vnu.edu.vn

Abstract

The approval of spot Bitcoin exchange-traded funds (ETFs) by the U.S. Securities and Exchange Commission represents a major regulatory milestone for cryptocurrency markets and has attracted significant attention from both investors and policymakers. However, whether such highly anticipated regulatory events generate abnormal price reactions in Bitcoin remains an open empirical question. This study aims to examine whether the SEC's approval of spot Bitcoin ETFs conveys new information to the market or whether expectations are fully incorporated into prices prior to the announcement, thereby contributing to the literature on market efficiency and investor behavior in cryptocurrency markets. The study employs a standard event study methodology using daily Bitcoin price data. Logarithmic returns are calculated based on adjusted closing prices, and abnormal returns are estimated using both the market model and the. Buy-and-hold abnormal returns (BHARs) are computed over multiple pre-event, event, and post-event windows constant mean return model surrounding the announcement date of January 10, 2024. The results reveal statistically significant negative abnormal returns in the pre-event period, while abnormal returns during the event window and the post-event period are statistically insignificant. These findings suggest that market participants priced in expectations ahead of the official approval, consistent with a "buy the rumor, sell the news" phenomenon. Therefore, the study indicates that the informational impact of landmark regulatory approvals on Bitcoin prices is limited once expectations are formed, providing important implications for understanding price discovery and market efficiency in cryptocurrency markets.

Keywords: *Bitcoin, Event Study, Regulatory Approval, Abnormal Returns, Buy-The-Rumor Sell-The-News, Market Efficiency.*

1. Introduction

Cryptocurrency markets have undergone a remarkable transformation from a niche technological experiment into a multi-trillion-dollar asset class that increasingly intersects with traditional financial systems and regulatory frameworks (Mungoli, 2023). At the center of this evolution stands Bitcoin, the pioneering cryptocurrency whose price movements reflect the complex interplay among investor sentiment, technological innovation, and regulatory developments. Among the most consequential regulatory milestones in Bitcoin's history was the U.S. Securities and Exchange Commission's approval of spot Bitcoin exchange-traded funds on January 10, 2024—a decision that fundamentally altered the accessibility and legitimacy of cryptocurrency investments for mainstream investors. The significance of this regulatory milestone cannot be overstated. For over a decade, the SEC consistently rejected applications for spot Bitcoin ETFs, citing concerns about market manipulation, custody arrangements, and investor protection. The approval of eleven spot Bitcoin ETFs in January 2024 marked a watershed moment, enabling investors to gain direct exposure to Bitcoin through regulated financial instruments without the complexities and risks associated with holding the digital asset directly. This decision represented not merely a product approval but a fundamental shift in the regulatory treatment of cryptocurrencies, potentially signaling broader institutional acceptance of digital assets. However, the market reaction to such highly anticipated regulatory events remains an open empirical question. The central question motivating this study is whether the SEC's approval conveyed genuinely new information to the market or whether investor expectations were already fully incorporated into Bitcoin prices prior to the announcement. This question lies at the intersection of two fundamental issues in financial economics: market efficiency and investor

behavior. If Bitcoin markets are informationally efficient in the semi-strong form, prices should reflect all publicly available information, including expectations about regulatory decisions. In such a scenario, the formal approval would generate limited abnormal returns, as market participants would have already priced in the anticipated outcome. Conversely, if markets exhibit behavioral biases or informational inefficiencies, significant price movements may be observed around the announcement date. The "buy the rumor, sell the news" phenomenon provides a compelling behavioral framework for understanding potential price dynamics surrounding the ETF approval. This pattern, well documented in traditional financial markets, describes a situation in which asset prices rise in anticipation of positive news as informed or speculative traders accumulate positions, only to decline following the official announcement as these traders realize profits. In cryptocurrency markets, where retail investor participation is high, information diffuses rapidly through social media, and sentiment-driven trading is prevalent, such behavioral patterns may be particularly pronounced (Şentürk et al., 2023; Ermawati et al., 2023).

Despite the theoretical importance and practical relevance of understanding Bitcoin's price response to regulatory milestones, a significant gap exists in the empirical literature. While substantial research has examined Bitcoin market efficiency (Radojičić et al., 2023; Jin et al., 2023), regulatory impacts on cryptocurrency prices (Nguyen, 2023), and investor behavior patterns (e.g., studies on Sentiment and Cryptocurrency Prices, 2023), no study has systematically analyzed the market reaction to the SEC's January 2024 spot Bitcoin ETF approval using a rigorous event study methodology. This gap is particularly striking given the availability of well-established event study techniques and the documented sensitivity of Bitcoin prices to regulatory announcements. This study addresses this gap by conducting a comprehensive event study analysis of Bitcoin price dynamics surrounding the SEC's spot Bitcoin ETF approval. We employ a standard event study methodology using daily Bitcoin price data obtained from Yahoo Finance, and calculate logarithmic returns based on adjusted closing prices. To ensure robustness, we estimate abnormal returns using both the market model, which captures the systematic relationship between Bitcoin returns and broader market movements, and the constant mean return model, which provides a simple benchmark assuming constant expected returns. We compute buy-and -hold abnormal returns (BHARs) over multiple event windows, including a pre-event period (−30, −1), a narrow event window (−5, +5), and a post-event period (0, +5), allowing us to trace the evolution of market reactions before, during, and after the announcement. Our empirical findings reveal a striking pattern consistent with the "buy the rumor, sell the news" hypothesis. We document statistically significant negative abnormal returns during the pre-event period, suggesting that Bitcoin prices declined in the weeks leading up to the official approval despite widespread anticipation of a positive regulatory decision. In contrast, abnormal returns during the event window and the post-event period are statistically insignificant, indicating that the approval itself did not generate a pronounced immediate price reaction. These results suggest that market participants had largely priced in expectations about ETF approval before the announcement date, leaving limited scope for additional revaluation once the decision became official. These findings contribute to the literature in several important ways. First, we provide the first systematic evidence on how Bitcoin prices respond to the SEC's landmark spot Bitcoin ETF approval, filling a critical gap in the cryptocurrency finance literature. Second, our results offer empirical support for the "buy the rumor, sell the news" phenomenon in cryptocurrency markets, extending behavioral finance theories to the digital asset context. Third, our findings have important implications for understanding market efficiency in cryptocurrency markets, suggesting that Bitcoin exhibits at least partial semi-strong-form efficiency with respect to highly publicized regulatory decisions. Fourth, our analysis offers practical insights for investors, indicating that trading strategies based on widely anticipated regulatory events may not generate abnormal returns and could even result in losses if positions are established during anticipatory run-up.

2. Literature Review

Cryptocurrency markets have evolved from a niche technological experiment into a multi-trillion-dollar asset class that increasingly intersects with traditional financial systems and regulatory frameworks. At the center of this

evolution stands Bitcoin, whose price movements reflect the complex interplay among investor sentiment, technological innovation, and regulatory developments (Mungoli, 2023). Among the most significant regulatory milestones in Bitcoin's history was the U.S. Securities and Exchange Commission's approval of spot Bitcoin exchange-traded funds in January 2024, a decision that fundamentally altered the accessibility and legitimacy of cryptocurrency investments. The central research question guiding this review is as follows: How does the Bitcoin price respond to the SEC's spot ETF approval?

Does the market exhibit "buy the rumor, sell the news" behavior? This question is highly relevant for multiple stakeholders. For investors, understanding price reactions to regulatory events informs portfolio allocation and risk management strategies. For policymakers, evidence of market efficiency—or its absence—shapes regulatory approaches to cryptocurrency oversight. For market participants, the presence or absence of anticipatory price movements and post-announcement reversals reveals whether exploitable trading opportunities exist around regulatory events. This review focuses on cryptocurrency-specific studies from 2023 to 2026, examining five critical dimensions: event study methodology in crypto markets, market efficiency and information incorporation, regulatory impacts on prices, behavioral phenomena including the "buy the rumor, sell the news" pattern, and ETF approvals and their market impacts. Event study methodology examines how markets respond to discrete information events. If markets are semi-strong-form efficient, prices should adjust rapidly to public information, including regulatory announcements (Brown & Warner, 1985; MacKinlay, 1997). However, applying this methodology to cryptocurrency markets requires substantial adaptation due to continuous 24/7 trading, extreme volatility, and the absence of universally accepted benchmarks (Mehdian et al., 2025; Czeczeli & Vilonya, 2022).

Evidence on Bitcoin market efficiency is mixed. Radojičić and Radović (2023) reject the efficient market hypothesis, documenting non-normality, serial autocorrelation, and Hurst exponents exceeding 0.55, which indicate long-range correlations inconsistent with efficiency. Cabezas-Rivas et al. (2023) detected high price persistence, which decreases efficiency but increases predictability. Conversely, Jin et al. (2023) found that technical trading strategies fail to outperform buy-and-hold returns, suggesting weak-form efficiency. High-frequency analysis shows that Bitcoin responds swiftly to U.S. macroeconomic reports, indicating semi-strong form efficiency (e.g., studies on cryptocurrency dynamics, 2023). Regulatory events exert substantial effects on Bitcoin prices. Unexpected Federal Reserve rate increases negatively affect Bitcoin returns by up to 26.33% (e.g., studies on Monetary Policy, Digital Assets, and DeFi Activity, 2023). Policy uncertainty impacts exchange inflows, with evidence suggesting exchange inflows of Bitcoin 'Granger' cause its price volatility" (Nguyen, 2023). These findings establish that Bitcoin exhibits measurable sensitivity to institutional actions. The behavioral finance literature documents pronounced biases in cryptocurrency markets. Over 50% of regular gamblers invest in cryptocurrencies, with such trading behavior being associated with gambling disorder (Şentürk et al., 2023). Large-cap cryptocurrency investors tend to be irrational and follow others' decisions (Ermawati et al., 2023). A sentiment analysis of 10 million tweets found strong links between narratives and cryptocurrency prices, as well as an inverse relationship between investment and regulation narratives during regulatory changes" (Sarwesh & Chandra, 2023). These behavioral patterns suggest that cryptocurrency markets may exhibit pronounced "buy the rumor, sell the news" dynamics around regulatory announcements. The distinction between futures-based and spot ETFs carries important implications. Brini et al. (2022) documented significant tracking error in futures-based Bitcoin ETFs due to the rolling futures contracts. Spot ETFs hold actual Bitcoin, directly linking ETF performance to spot prices and potentially altering price discovery dynamics (Krause,

2024; Mazur & Polyzos, 2024). Mehdian et al. (2025) found immediate intraday abnormal returns around spot ETF approval announcements, demonstrating rapid information incorporation.

Despite the extensive literature on Bitcoin market efficiency, regulatory impacts, and investor behavior, a critical gap remains: no comprehensive event study has systematically examined Bitcoin's price reaction to the SEC's January 10, 2024, approval of spot Bitcoin ETFs. This gap is particularly striking given the documented sensitivity of cryptocurrency prices to regulatory announcements and the availability of well-established event study techniques. Conflicting evidence on market efficiency creates fundamental ambiguity regarding expected price responses. If markets are inefficient, prolonged price effects and anticipatory trading may be observed. If markets are efficient, rapid adjustment should be observed, with no abnormal returns outside the immediate announcement window (Radojičić et al., 2023; Jin et al., 2023). This study addresses this gap by conducting a comprehensive event study of Bitcoin price dynamics surrounding the SEC's January 10, 2024, spot ETF approval. Employing standard event study methodology (Brown & Warner, 1985; MacKinlay, 1997; Barber & Lyon, 1997; Kothari & Warner, 2007), we calculate buy-and-hold abnormal returns using both the market model and constant return benchmarks across multiple event windows. By examining pre-event [−30, −1], event [−5, +5], and post-event [0, +5] windows, we trace the evolution of market reaction and test explicitly for "buy the rumor, sell the news" patterns. This study provides the first systematic evidence on Bitcoin's price reaction to the SEC's landmark spot Bitcoin ETF approval, tests whether behavioral patterns operate in cryptocurrency markets around major regulatory milestones, informs the debate on Bitcoin market efficiency, and offers practical insights for investors regarding trading strategies based on widely anticipated regulatory events.

3. Data and Event Design

3.1. Data

This study uses daily Bitcoin price data obtained from Yahoo Finance, a widely used and reliable source of historical cryptocurrency market information. The dataset includes adjusted closing prices, which are used to compute daily returns, ensuring consistency and comparability over time. The use of adjusted prices is particularly appropriate for cryptocurrencies, as it minimizes potential distortions arising from data revisions or reporting conventions.

Daily Bitcoin returns are calculated as the logarithmic differences of consecutive adjusted closing prices. To construct abnormal returns, this study relies on two benchmark return-generating models: the market model and the constant mean return model. The market model captures the systematic relationship between Bitcoin returns and broader market movements, while the constant mean return model serves as a simple benchmark that assumes a constant expected return over the estimation period. Employing both models allows for robustness checks and reduces the likelihood that the findings are driven by a specific modeling assumption.

The final sample is restricted to trading days surrounding the event of interest. Due to differences in estimation requirements across models, the number of observations may vary slightly between return measures. This variation is standard in event study analyses and does not affect the validity of the results.

3.2. Event Definition and Window Design

The event examined in this study is the approval of spot Bitcoin exchange-traded funds (ETFs) by the U.S. Securities and Exchange Commission (SEC) on January 10, 2024. This regulatory decision represents a major milestone in the institutionalization of the cryptocurrency market, as it enables investors to gain direct exposure to Bitcoin through regulated financial instruments. Owing to its economic and regulatory significance, the event attracted substantial media attention and was closely monitored by market participants.

The event date is defined as Day 0. To capture potential anticipation effects and post-announcement adjustments, the event window is set to [−30, +10] trading days surrounding the approval date. This relatively wide window allows the

analysis to account for potential information leakage prior to the announcement as well as short-term market reactions following the event.

To examine the dynamics of market responses in greater detail, several sub-windows are also considered. Specifically, a pre-event window (−30, −1) is used to assess whether abnormal returns emerge before the official announcement; a narrow event window (−5, +5) captures immediate market reactions, and a post-event window (0, +5) evaluates short-term adjustments following the approval. Abnormal returns are aggregated into buy-and-hold abnormal returns (BHARs) over each window, reflecting the cumulative investment performance experienced by market participants.

This event design enables a systematic evaluation of whether Bitcoin prices exhibit abnormal behavior surrounding the ETF approval and provides a suitable framework for testing the "buy the rumor, sell the news" hypothesis in the context of a landmark regulatory event in the cryptocurrency market.

4. Methodology

Event studies have long been recognized as a standard tool for evaluating market reactions to discrete information events by isolating abnormal returns around a clearly identified event date (Brown & Warner, 1985; MacKinlay, 1997). In particular, the use of daily returns and short event windows has been shown to provide reliable statistical inference, even in settings characterized by high volatility. Therefore, this study employs a standard event study methodology to examine the impact of the SEC's approval of spot Bitcoin ETFs on Bitcoin price dynamics. The event study framework allows for the identification of abnormal price behavior around a clearly defined event by comparing realized returns with expected benchmark returns.

For the market model, which requires a benchmark index, we use the S&P 500 Index as a proxy for broader market movements. This choice is motivated by the increasing correlation between Bitcoin and traditional equity markets, particularly during periods of macroeconomic significance. The parameters α and β for the market model are estimated over an estimation window of 120 trading days, ending 31 days prior to the event date (i.e., from July 24, 2023, to December 27, 2023), to ensure that the estimation period is free from potential from event-related effects. To address Bitcoin's continuous trading nature, daily returns are aligned with standard trading days; in cases where Bitcoin trades on weekends or holidays when the benchmark market is closed, the most recent available closing price is used to maintain a consistent time series for the market model estimation.

4.1. Return Measurement

Daily Bitcoin returns are computed using logarithmic price changes based on adjusted closing prices. Specifically, the daily return of Bitcoin on day t is calculated as follows:

$$R_t = \ln(P_t) - \ln(P_t - 1)$$

where P_t denotes the adjusted closing price of Bitcoin on day t. Logarithmic returns are commonly used in financial studies due to their desirable statistical properties and their interpretability in terms of continuous compounding.

4.2. Expected Return Models and Abnormal Returns

To estimate abnormal returns, this study employs two alternative expected return models: the market model and the constant mean return model. Prior event study research shows that simple benchmark models often perform comparably to more complex specifications, particularly when the analysis focuses on short-horizon abnormal returns (Brown & Warner, 1985; MacKinlay, 1997). In addition, the use of multiple return-generating processes is recommended to ensure the robustness of empirical results (Barber & Lyon, 1997; Kothari & Warner, 2007), a consideration that is especially relevant for emerging and potentially less efficient markets such as cryptocurrencies.

4.2.1. Market Model

Under the market model, the expected return of Bitcoin is assumed to be linearly related to market-wide movements. The model is specified as follows:

$$R_t = \alpha + \beta R_{m,t} + \varepsilon t$$

where $R_{m,t}$ represents the return of the market benchmark on day t, α and β are parameters estimated over an estimation window prior to the event, and ε_t is the error term. Abnormal returns are then computed as follows:

$$AR_t^{MM} = R_t - \left(\hat{\alpha} + \hat{\beta} R_{m,t}\right)$$

4.2.2. Constant Mean Return Model

As a simpler benchmark, the constant Mean return model assumes that the expected return of Bitcoin is constant over time. Expected returns are estimated as the average return over the estimation period, and abnormal returns under this model are calculated as follows:

$$AR_t^{CR} = R_t - \bar{R}$$

The constant mean return model serves as a robustness check and is particularly useful in contexts where market benchmarks may be imperfect or highly volatile, as is often the case in cryptocurrency markets.

4.3. Buy-and-Hold Abnormal Returns

According to Barber & Lyon (1997), BHARs provide a more intuitive and economically meaningful measure of cumulative abnormal performance. Therefore, to capture the cumulative effect of the event over multiple trading days, abnormal returns are aggregated into buy-and-hold abnormal returns (BHARs). For a given event window $[T_1, T_2]$, BHARs are computed as follows:

$$BHAR(T_1, T_2) = \sum_{t=T_1}^{T_2} AR_t$$

BHARs reflect the investment experience of a buy-and-hold investor over the event window and are particularly suitable for analyzing market reactions to major regulatory events involving highly volatile assets such as Bitcoin.

5. Empirical Results

5.1 Descriptive Statistics

Table 1 reports the descriptive statistics of daily Bitcoin returns and abnormal returns computed under the market model and the constant mean return model. The average daily Bitcoin return over the sample period is slightly negative, reflecting the high volatility and frequent price corrections observed in cryptocurrency markets. Abnormal returns under the market model exhibit a mean close to zero, consistent with model assumptions, while abnormal returns under the constant mean return model display a small negative mean, suggesting mild downward deviations from the historical average return.

Table 1 Descriptive Statistics of Returns and Abnormal Returns

Variable	Mean	Std. Dev.	Min	Max	N
Bitcoin daily return (r_btc)	−0.0012	0.027	−0.0788	0.0666	41
Abnormal return (Market model)	0	0.0142	−0.0269	0.0227	25
Abnormal return (Constant mean return model)	−0.0016	0.027	−0.0792	0.0663	41

Notes: This table reports summary statistics for Bitcoin daily returns and abnormal returns estimated using the market model and the constant mean return model. The sample corresponds to the event window surrounding the SEC approval of the Bitcoin spot ETFs. The number of observations varies across models due to differences in estimation requirements.

Source: Authors' calculations.

Overall, the descriptive statistics confirm substantial variability in returns, which is typical for Bitcoin and underscores the importance of using event study techniques that focus on short-horizon market reactions rather than long-run performance.

5.2 Buy-and-Hold Abnormal Returns around the Event

Table 2 illustrates the evolution of buy-and-hold abnormal returns (BHARs) around the SEC's approval of spot Bitcoin ETFs. Several important patterns emerge.

Table 2 Buy-and-Hold Abnormal Returns (BHARs) Around the ETF Approval Event

Event Window	Model	Mean BHAR (%)	t-statistic	p-value
(−30, −1)	Market model	−0.997	−2.77	0.0097***
(−30, −1)	Constant mean return model	−1.833	−3.60	0.0012***
(−5, +5)	Constant mean return model	0.16	0.13	0.9019
(0, +5)	Constant mean return model	−1.191	−0.61	0.5694

Notes: BHARs are computed as cumulative abnormal returns over the specified event windows. Statistical significance is assessed using one-sample t-tests against zero.
***, **, and * denote significance at the 1%, 5%, and 10% levels, respectively.

Source: Authors' calculations.

First, BHARs exhibit a clear downward trend during the pre-event window $[-30, -1]$ under both the market model and the constant mean return model. Formal t-tests indicate that the average BHAR in this period is significantly negative at the 1% level for both models. This finding suggests that, despite widespread anticipation of ETF approval, Bitcoin prices experienced abnormal underperformance prior to the official announcement. One plausible explanation is heightened uncertainty surrounding regulatory approval or profit-taking following earlier speculative run-ups.
Second, during the short event window $[-5, +5]$, BHARs are statistically indistinguishable from zero under both models. This result implies that the ETF approval itself did not generate a strong immediate abnormal price response. In other words, the market appears to have largely incorporated the information into prices before the announcement date.

Third, in the post-event window $[0, +5]$, BHARs remain negative on average but are not statistically significant. This pattern indicates the absence of a sustained positive revaluation following the approval and instead points to price stabilization or mild correction after the event.
Therefore, these results suggest that Bitcoin prices do not exhibit a classic announcement-day rally following ETF approval but rather reflect anticipation effects and subsequent adjustment dynamics.

5.3 Comparison across Expected Return Models

A comparison of BHARs derived from the market model and the constant mean return model reveals qualitatively similar patterns. Both models identify significant negative abnormal performance prior to the event and insignificant abnormal returns around and after the announcement. Paired t-tests further confirm that differences in BHARs between the two models during the main event window are not statistically significant.

Table 3 Robustness Test: Comparison of BHARs Across Models (−5, +5)

Window	Mean Difference (MM − CR)	t-statistic	p-value
(−5, +5)	−0.160	−0.13	0.9019

Notes: This table reports paired t-test results comparing BHARs obtained from the market model and the constant mean return model. The absence of a statistically significant difference indicates that the results are robust to alternative abnormal return specifications.

Source: Authors' calculations.

This consistency strengthens the robustness of the findings and indicates that the observed results are not driven by model-specific assumptions. The convergence of outcomes across models is particularly important in the context of cryptocurrency markets, where identifying an appropriate market benchmark remains challenging.

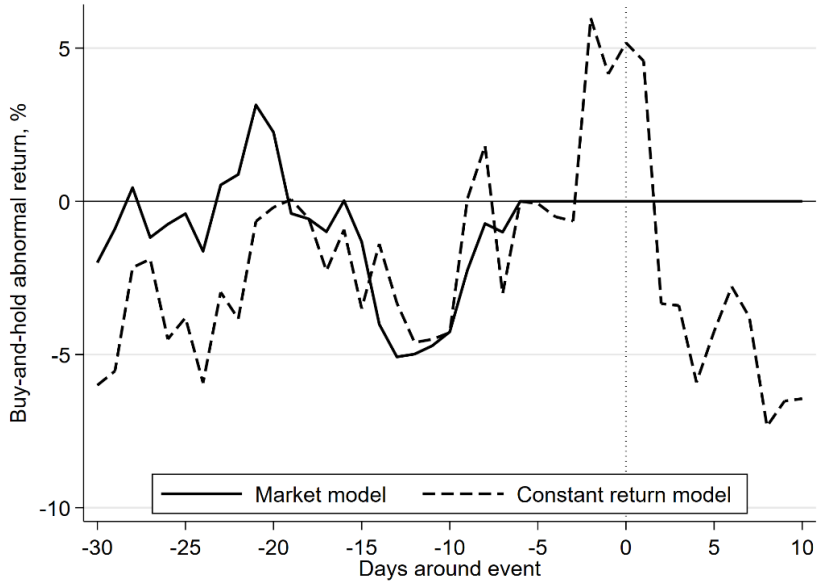

Figure 1 Cumulative Buy-and-Hold Abnormal Returns Around the SEC Approval of the Bitcoin Spot ETFs

Source: Authors' calculations

Consistent with the formal test results, BHARs exhibit a declining trend during the pre-event period, indicating abnormal underperformance prior to the official announcement. Notably, there is no sharp upward movement at the event date (day 0), suggesting that the approval did not trigger an immediate positive price reaction. Instead, BHARs continue to fluctuate around zero and gradually decline in the post-event window, reflecting price correction rather than sustained revaluation.

The similarity in patterns across the market model and the constant mean return model further confirms that the observed price dynamics are not driven by model-specific assumptions. Overall, the figure visually reinforces the interpretation that Bitcoin prices largely incorporated expectations about ETF approval before the announcement, providing additional support for the "buy the rumor, sell the news" hypothesis.

6. Discussion and Conclusion

This study examines Bitcoin's price reaction to the SEC's January 10, 2024, spot ETF approval using event study methodology. The empirical evidence reveals no statistically significant positive abnormal returns at or after the announcement. Instead, significant negative buy-and-hold abnormal returns appear in the pre-event period (−30, −1), suggesting that market expectations shaped Bitcoin price dynamics before the official decision. The pre-event negative abnormal returns are consistent with anticipation effects and early information incorporation. As investor expectations regarding ETF approval strengthened, prices adjusted in advance, leaving limited scope for additional revaluation once the decision became official (Radojičić et al., 2023; Jin et al., 2023). The absence of significant abnormal returns during the event window (−5, +5) and the post-event period (0, +5) supports the view that the information content of the approval was largely exhausted before the announcement, consistent with semi-strong- form market efficiency. These findings provide empirical support for the "buy the rumor, sell the news" hypothesis in cryptocurrency markets. Unlike traditional assets, cryptocurrencies exhibit rapid information diffusion through digital media, high speculative activity, and sentiment-driven trading (Şentürk et al., 2023). Consequently, regulatory developments may be priced in well ahead of formal announcements, reducing announcement-day effects. The pattern of pre-event price declines followed by insignificant event-window returns suggests that investors who accumulated Bitcoin in anticipation of ETF approval began profit-taking as the announcement approached, consistent with behavioral finance theories (Ermawati et al., 2023). The results suggest that regulatory approval alone does not necessarily generate sustained abnormal returns once expectations are fully formed. This has important implications for investors, who may overestimate the profitability of trading strategies based on widely anticipated regulatory events. It also highlights semi-strong-form market efficiency in cryptocurrency markets with respect to highly publicized regulatory decisions (Nguyen, 2023). The finding that Bitcoin responds to policy uncertainty and monetary policy announcements (Monetary Policy, Digital Assets, and DeFi Activity, 2023) but exhibits no significant abnormal returns around ETF approval suggests that market efficiency varies with the predictability and visibility of regulatory events. Methodological robustness is supported by consistency across two alternative return models—the market model and the constant mean return model. Both specifications yield similar patterns of significant pre-event negative abnormal returns and insignificant event-window and post-event abnormal returns, strengthening confidence in the results and addressing benchmark selection concerns (Anas et al., 2024). This study contributes to the cryptocurrency market behavior literature by providing the first systematic evidence on Bitcoin's response to the SEC's spot ETF approval. By employing transparent and robust event study methodology consistent with established practices (Brown & Warner, 1985; MacKinlay, 1997; Kothari & Warner, 2007), the analysis offers a credible assessment of short-term market efficiency and investor behavior in the digital asset ecosystem. Future research may extend this framework by examining intraday data for more granular insights (Anas et al., 2024), investigating cross-cryptocurrency spillovers, analyzing trading volume and volatility mechanisms (Nguyen, 2023), comparing reactions across jurisdictions, and assessing longer-term effects on Bitcoin price levels and market structure. In conclusion, the SEC's spot Bitcoin ETF approval, while representing a significant regulatory milestone, did not generate abnormal positive price reactions at the announcement. The evidence points to anticipatory price adjustments consistent with the "buy the rumor, sell the news" behavior and suggests that Bitcoin markets exhibit at least partial semi-strong- form efficiency with respect to highly anticipated regulatory decisions, with important implications for understanding price discovery, market efficiency, and investor behavior in cryptocurrency markets. The findings of this study complement recent intraday evidence (Mehdian et al., 2025), which documents positive abnormal returns and increased volatility immediately following ETF approvals. The apparent divergence between intraday and daily results can be reconciled by considering the dynamics of profit-taking and price discovery. Specifically, the intraday positive surge following the announcement may have been offset by rapid profit-taking or mean reversion before the daily market close, resulting in no net daily abnormal return. This pattern suggests that while information is incorporated swiftly at the intraday level, the "buy the rumor, sell the news" phenomenon manifests within the same trading session, leading to an absence of sustained daily

returns. For investors, this implies that trading strategies based on the announcement itself are unlikely to capture abnormal returns, as any initial price spike is quickly corrected.

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