



The Impact of the Draft Guidance and Establishment of a National Stablecoin Innovation Act on the United States Dollar Coin Market

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Abstract. In 2025, the U.S. released a draft of the Guidance and Establishment of a National Stablecoin Innovation Act (hereafter referred to as the "GENIUS Act"), which sets forth clear compliance criteria for payment-oriented stablecoins. Drawing on Coingecko data spanning November 5, 2024, to February 13, 2025, this research adopts the event study approach—with February 4, 2025, as the key event date—and integrates dual-benchmark regression (using Bitcoin and the combined United States dollar Coin (USDC) + United States Dollar Tether (USDT) index) to examine how compliance expectations shape market dynamics and the validity of the selected benchmarks. The findings indicate that USDC's Cumulative Abnormal Return (CAR) is negative but statistically insignificant ($P > 0.05$), a result suggesting the market had already formed anticipations of USDC's compliance with the Act. In contrast, Dai exhibits a more negative CAR, which reflects the impact of differences in stablecoins' alignment with compliance requirements. This dual-benchmark comparison confirms that the USDC+USDT index can effectively isolate system-wide factors in the cryptocurrency market, and reveals that compliance expectations influence USDC's market value primarily through capital redistribution within the stablecoin sector. These insights provide a reference for interactions between regulatory bodies and market participants.

Keywords: Stablecoin, Event Study Method, Dual Benchmark Regression, GENIUS Act

1 Introduction

Stablecoins serve as a critical bridge between traditional finance and the cryptocurrency ecosystem, facilitating over 70% of all settlement activities in the crypto space. However, Athey & Philippon and Chiu & Koepl have separately verified the risks arising from delays in regulatory frameworks [1,2]. Existing research on the stablecoin market offers two complementary perspectives: one centers on price stability—for instance, Polizu et al. analyzed five leading stablecoins and found that United States dollar Coin (USDC) displayed relatively notable volatility during decoupling events, underscoring the need to strengthen compliance to maintain price stability; the other focuses on capital flow characteristics—Lynch & Rocheteau observed that during periods of market

stress, funds tend to concentrate in more compliant stablecoins, a behavior analogous to risk aversion in money market funds [3,4].

These perspectives collectively point to an under-explored core issue: In their review of stablecoin scholarship, Koonce & Lee noted that while prior studies address the link between regulation and market behavior, they fail to treat "compliance expectations" as a standalone transmission factor. Additionally, there is a lack of mechanism decomposition centered on "market capitalization"—most research focuses on price decoupling analysis and does not resolve the methodological challenge of "how to isolate system-wide factors" [5]. Although Ball & Brown's event study method has been proven applicable to crypto assets by Corbet et al., there remains a gap in benchmark selection for regulatory events in the stablecoin field [6,7].

Studies have shown that the value of stablecoins hinges on investors' trust in "anchor reliability" and "compliance security" [1]. After the Genius Act draft clarifies compliance standards, stablecoins that already meet these standards may sustain stable market values due to enhanced confidence from "compliance endorsement," while non-compliant ones could face capital outflows. Meanwhile, regulatory signals reshape "risk-return" perceptions to drive capital redistribution. USDC may attract safe-haven capital due to its strong compliance profile, and shifts in its market value may spill over to traditional finance via cross-market connections [2,8]. Furthermore, under the assumption that information about the Act draft was leaked in advance (consistent with Fama's Efficient Market Hypothesis), USDC's compliance expectations may have already been priced into its market value, weakening the impact of the official announcement. This aligns with the design of the event window—which includes a "10-day pre-event expectation phase"—and provides support for interpreting market reactions [9].

The GENIUS Act draft provides a natural context to address this research gap: its explicit compliance requirements render "market expectations" an observable transmission variable. The core questions of this study are: How do market expectations regarding compliance with the GENIUS Act draft affect the stability of USDC's market value through mechanisms such as investor confidence and capital allocation? Additionally, can the combined market value of USDC and United States Dollar Tether (USDT) serve as a benchmark to accurately isolate system-wide factors? Given the high accuracy and market coverage of Coingecko data (Smith & Johnson, 2025), this research uses Coingecko's USDC and USDT market value data, with Dai's market value serving as a counterexample to USDC (i.e., a "non-compliant stablecoin") for comparison. Since USDC and USDT together account for 80% of total stablecoin circulation, they are treated as a proxy for total stablecoin market value, and the event study method (with a 60-day estimation window and 21-day event window) is employed to address the above questions [10].

Building on this theoretical foundation, this study utilizes Coingecko data on USDC market value, USDT market value, and their combined value. Using this combined value as a benchmark (covering 78% of total stablecoin circulation) allows for the isolation of the independent impact of system-wide factors on USDC.

2 Exploring USDC Based on Event Study Methodology

2.1 Data Source

For data processing, the daily rate of change (R_t) is calculated using the formula: $R_t = (\text{current-day market value} - \text{previous-day market value}) / \text{previous-day market value}$. Given that stablecoins exhibit low volatility (daily fluctuations $< 0.5\%$; Chainalysis, 2024), extreme values—defined as non-systematic noise with absolute volatility $> 1\%$ during the estimation window—are excluded if needed to avoid interfering with the calculation of the "normal volatility level" (Mean of daily change rates: μ) [11].

In terms of window setting, a 60-day estimation window (November 5, 2024–January 5, 2025) is used to calculate the normal benchmark. This window is selected to avoid the impact attenuation period following the launch of Retail Lending on December 17, 2024, and is separated from the event window by a 20-day "clean period" (referencing the 15–20day information attenuation cycle identified to ensure benchmark purity). The 21-day event window (January 25, 2025–February 13, 2025) covers the pre-event expectation phase, the official announcement date, and lagged impacts.

2.2 Model Selection

In model selection, stablecoins exhibit strong idiosyncratic drivers (typically with $R^2 < 0.5$), limiting the explanatory power of traditional models. Corbet et al. demonstrated that the mean adjustment model is well-suited for assets with low correlation—specifically in their analysis of cryptocurrency assets [6]. This finding justifies the adoption of the mean adjustment model as the core analytical framework. In this model: μ represents the average daily volatility and normal volatility of the estimation window; Abnormal Return at time t ($AR_t = R_t - \mu$); and Cumulative Abnormal Return (CAR) is the sum of AR_t values over the event window. This framework helps identify the causal transmission path between regulation and market value changes.

2.3 Results Analysis

After excluding outlier data points, analysis reveals that USDC's average daily volatility (μ) equals 0.004526736, with the normal rate of change (β) matching μ . USDC's Cumulative Abnormal Return (CAR) is -0.004603093, exhibiting a negative trajectory. Further testing shows that μ -ar (average abnormal return deviation) is -0.000255727, σ -ar (standard deviation of abnormal returns) is 0.005637846, the T-value is -0.192442213, and the P-value is 0.849336457—far exceeding the commonly used significance level of 0.05. This indicates that after excluding extreme values, USDC's market value did not exhibit significant abnormalities during the GENIUS Act draft announcement period; market expectations of compliance driven by the draft were not significantly reflected in market value changes. This may be because excluding extreme values aligns the data more closely with "normal fluctuations," weakening the Act's

impact, or because the market had already fully anticipated USDC’s compliance, leaving the draft with no additional impact as shown in table 1.

Table 1. USDC’s Volatility and Cumulative Abnormal Return

USDC Average Daily Rate of Change (μ)	USDC Rate of Change $\beta = \mu$	Normal of	USD Cumulative Ab-normal Return (CAR)
0.004304342	0.004304342		-0.009205827
Average-ar (USDC)	Stdev-ar (USDC)	T (USDC)	P (USDC)
-0.000460291	0.005488166	-	0.704782737
		0.38433971	

When all interval values are included, USDC’s average daily volatility (μ) is 0.004304342, the normal volatility (β) is identical to μ , and the CAR is -0.009205827—both negative and larger in absolute value than when extreme values are excluded. Among the test indicators: USDC’s average abnormal return (μ -ar) is -0.000460291; the standard deviation of abnormal returns (σ -ar) is 0.005488166; the T-statistic is -0.38433971; and the P-value is 0.704782737—all remaining statistically insignificant. This shows that even with full-interval data included, market expectations of compliance with the Act do not drive statistically significant abnormal changes in USDC’s market value. Therefore, combined with USDC’s existing compliance foundation, it can be concluded that the market had already anticipated USDC’s alignment with the GENIUS Act’s requirements, and the draft announcement did not disrupt existing market value dynamics.

Table 2. Dai’s Volatility and Cumulative Abnormal Return

Dai Average Daily Rate of Change (μ)	Dai Normal Rate of Change $\beta = \mu$	Dai Cumulative Ab-normal Return (CAR)
0.000603339	0.000603339	-0.030822193
μ -ar (Dai)	σ -ar (Dai)	T (Dai)
-0.00154111	0.007942268	-
		0.889198
		P (Dai)
		0.384467129

In the analysis using Dai as a control group (including all intervals), Dai’s average daily rate of change (μ) is 0.000603339, the normal rate of change (β) equals μ , and the CAR is -0.030822193—negative with a larger absolute value. Test data shows: μ -ar (Dai) is -0.00154111; σ -ar (Dai) is 0.007942268; the T-statistic (Dai) is -0.889198; and the P-value (Dai) is 0.384467129. While Dai’s market value also did not exhibit significant abnormalities during the GENIUS Act draft announcement period, its more negative CAR compared to USDC suggests that the market holds more negative expectations regarding the Act’s impact on Dai—likely due to Dai’s lower alignment with the draft’s requirements in terms of compliance attributes and reserve structure as shown in table 2.

2.4 Backtesting the Effectiveness of the Results

To verify the transmission mechanism of compliance expectations and the validity of the benchmarks, two comparative regressions were conducted—one using Bitcoin (as a proxy for overall crypto market trends) and the other using USDC+USDT (as a stablecoin industry benchmark). The results are as follows:

First, at the mechanism transmission level: The correlation between USDC and industry market value under the dual-benchmark framework (Multiple R = 0.765234 and R Square = 0.585583, respectively) is significantly stronger than that under the Bitcoin benchmark (Multiple R = 0.293869 and R Square = 0.086359, respectively). The regression coefficient for the USDC+USDT benchmark (1.782193) is larger and more significant ($P = 8.46E-05$), indicating that compliance expectations influence USDC's market value primarily through capital redistribution within the stablecoin industry. Overall volatility in the crypto market has limited explanatory power, with industry-internal capital dynamics becoming the dominant factor, as shown in Figure 1 and Figure 2.

Second, at the benchmark validity level: The USDC+USDT benchmark exhibits a higher coefficient of determination, a smaller standard error (0.00363), and a more concentrated residual distribution—verifying its ability to accurately isolate system-wide factors in the crypto market and focus on the impact of industry-internal capital flows driven by compliance expectations. In contrast, the Bitcoin benchmark, with its low explanatory power and scattered residuals, struggles to capture industry-specific correlations under compliance expectations.

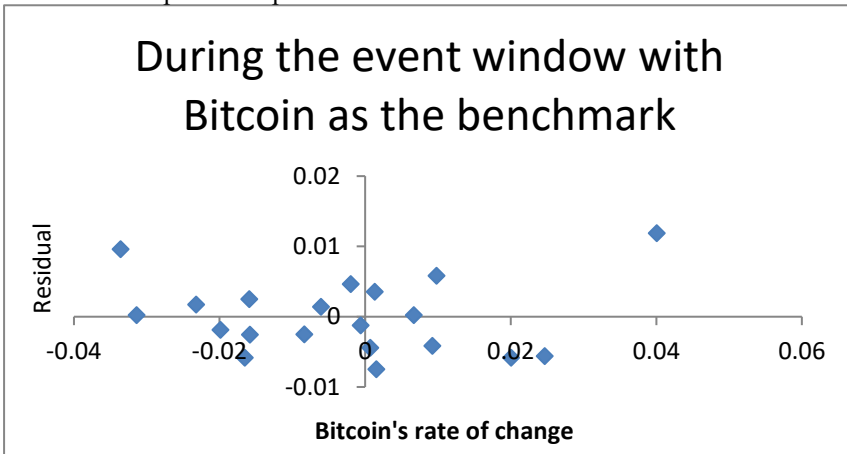


Fig. 1. During the event window with Bitcoin as the benchmark (Picture credit: Original).

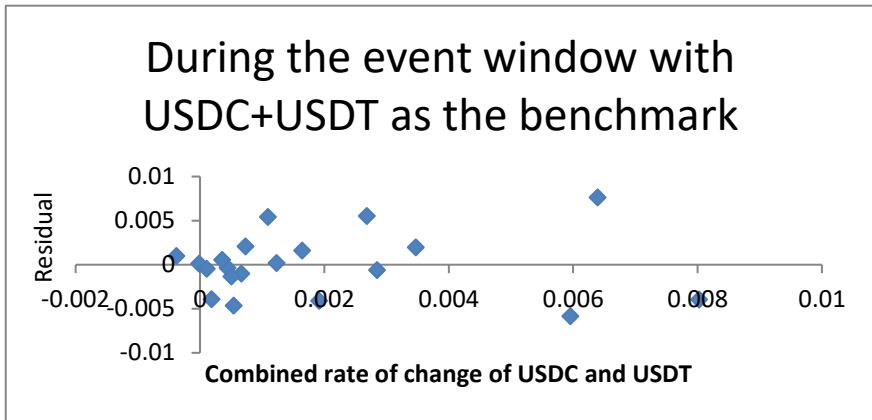


Fig. 2. During the event window with USDC+USDT as the benchmark (Picture credit: Original).

3 Discussion

For regulatory authorities, the study underscores the critical importance of policy transparency and proactive expectation management. Notably, USDC's market value did not display significant abnormal swings throughout the event window—a pattern that reflects the market's well-established confidence in USDC's compliance capabilities. This suggests that regulators should implement clearer policy signaling mechanisms, disclosing core provisions and implementation timelines in advance during the formulation of stablecoin compliance standards to mitigate irrational market reactions stemming from information asymmetry.

Furthermore, the difference in Cumulative Abnormal Returns between Dai and USDC highlights significant variation in compliance alignment across stablecoin types. Regulators should avoid a "one-size-fits-all" approach and instead establish tiered compliance requirements tailored to factors such as stablecoins' collateral mechanisms and reserve structures. For issuers with robust existing compliance frameworks, procedures should be streamlined to encourage sustained compliance; for those with significant compliance gaps, clear transition periods for rectification should be set to reduce the pain of industry transformation. Additionally, given the notable impact of intra-industry capital flows on stablecoin market values, a cross-platform fund monitoring system should be established—with a focus on tracking capital transfers between leading stablecoins—to prevent the spread of localized risks caused by compliance arbitrage.

For stablecoin issuers, compliance has emerged as a core anchor of market trust. USDC's market performance demonstrates how a strong compliance foundation supports stable market value. Issuers should shift their compliance efforts from passively meeting regulatory requirements to proactively building competitive advantages—for example, through real-time disclosure of third-party audit reports and on-chain verification of reserve assets, providing the market with intuitive visibility into compliance progress. In particular, issuers should clarify the composition and liquidity of reserve assets to address investor concerns about anchor reliability.

Issuers with weaker compliance foundations need to address gaps in reserve transparency and operational qualifications: For instance, algorithmic stablecoins could enhance their compliance alignment by incorporating partial fiat collateral to alleviate negative market expectations. Additionally, in line with trends in industry capital redistribution, issuers can focus on niche scenarios to build differentiated advantages—leading compliant stablecoins might strengthen integration with traditional financial scenarios, while small and medium-sized issuers could deepen engagement with payment and lending needs within the crypto ecosystem—creating a complementary landscape to stabilize their user bases.

For investors, rational decision-making must be grounded in a profound understanding of the essence of compliance. The performance gap between USDC and Dai in this study demonstrates that compliance alignment is a key variable influencing stablecoins' long-term value. Investors should not base judgments solely on short-term market value fluctuations; instead, they should prioritize core indicators such as issuers' regulatory credentials, the independence of reserve assets, and track records in addressing historical decoupling events. Preference should be given to stablecoins with verifiable compliance processes and consistent, transparent information disclosure.

Furthermore, investors should monitor intra-industry capital flow signals—such as changes in the trading volume share of leading stablecoins and exchange balance migration data—as these often provide early indicators of how the market is digesting compliance expectations and help identify capital flow trends. Additionally, given that stablecoins remain vulnerable to overall crypto market volatility, investors should avoid over-concentration in a single asset. A portfolio combining highly compliant stablecoins and low-volatility crypto assets can ensure liquidity while mitigating exposure to systemic risks.

4 Conclusion

In summary, this research, centered on the GENIUS Act, conducts an in-depth exploration of how compliance expectations impact the stablecoin market—with a specific focus on USDC. By treating compliance expectations as an independent variable and employing an innovative dual-benchmark regression approach, the study reveals that these expectations influence USDC's market value primarily through capital redistribution within the stablecoin industry. USDC's stable performance during the event window suggests that market anticipations of its compliance have stabilized its market value; in contrast, Dai's more negative Cumulative Abnormal Return reflects market concerns about its compliance deficiencies. The combined USDC+USDT benchmark has proven effective in isolating system-wide factors, offering a new perspective for future stablecoin research.

Looking ahead, as the cryptocurrency market becomes increasingly integrated into the global financial system and regulatory policies diverge across countries, stablecoin issuers must continuously adapt to regulatory changes. Future research could focus on how compliance expectations influence stablecoins under different national and regional regulatory frameworks; as the stablecoin market evolves, exploring the impact

of new compliance requirements on stablecoin innovation and market competition will also be a key direction. This study aims to assist academics and industry practitioners in deepening their understanding of the stablecoin market within a regulatory context and promote the healthy development of this emerging financial sector.

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