

# Monthly Review and Performance Report

CGS Engine Quants<sup>∞</sup>

<sup>∞</sup> Valley Forge and Vision Hills, Earth, Solar System

Jan 17, 2025

Designed to balance stability, scalability, and sophistication, our model introduces a new era of optimal-frequency trading powered by cutting-edge robo-trader technology. We are thrilled to unveil a groundbreaking quantitative trading model that combines innovation, precision, and adaptability to redefine trading excellence. Utilizing our state-of-the-art multibot technology, we can operate between 200 to 2000 robo-traders, all available 24/7 to monitor the market and identify true trading signals, as well as any significant deviations from the equilibrium status.

## 1 Financial Market Recap

### 1.1 Our Target Assets from Dec 16, 2024 to Jan 15, 2025

Over the past month, the market showed mixed performance. The DIA, SPY, and QQQ experienced declines, while GLD and SLV achieved modest gains. Bitcoin (BTC) remained volatile amid broader cryptocurrency fluctuations.

- DIA (Dow Jones Industrial Average ETF) fell -1.55%, averaging -0.077% daily, with a maximum gain of 1.67% and a loss of 2.61%.
- SPY (S&P 500 ETF) dropped -1.79%, with an average daily return of -0.089%. Its highest return was 1.82%, and its largest drop was -2.98%.
- QQQ (Nasdaq 100 ETF) had the steepest decline at -2.45%, averaging -0.12% daily. It reached a high of 2.30% but fell -3.61% at its worst.
- GLD (Gold ETF) gained 1.92%, benefiting from safe-haven demand, with a maximum daily return of 1.36%.

- SLV (Silver ETF) rose 0.96%, experiencing more volatility than gold, with a maximum gain of 2.79% and losses up to -3.45%.
- BTC (Bitcoin) remained highly volatile with an average daily return of -0.035%. Bitcoin's price has shown significant volatility, briefly dropping below \$90,000 on January 13 after reaching an all-time high of \$108,309 on December 17, 2024.

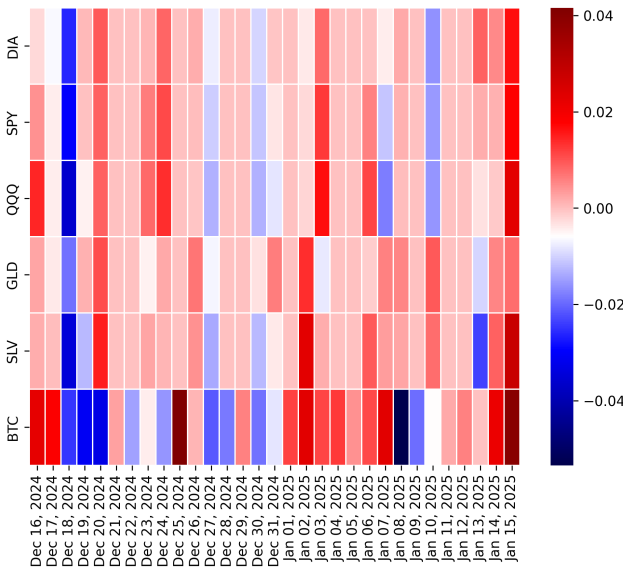


Figure 1: Daily Returns from Dec 16, 2024 to Jan 15, 2025

In summary, equities struggled while precious metals offered stability, and cryptocurrency markets highlighted their risk-on nature.

**Table 1:** Statistics from Dec 16, 2024 to Jan 15, 2025

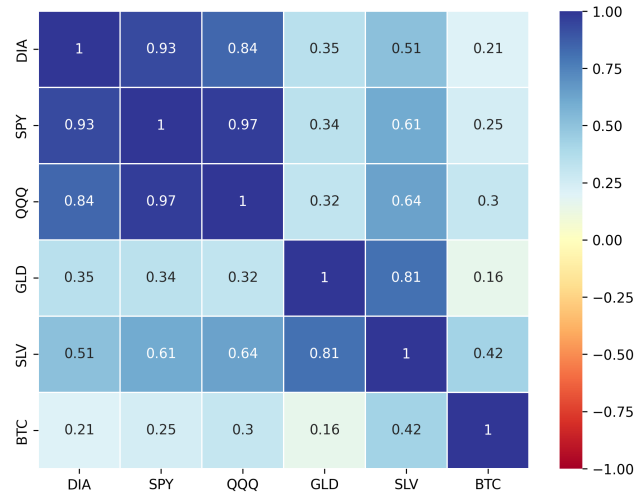
	Daily Returns		Normalized Gains	
	Mean	Std. Dev	Mean	Std. Dev
DIA	-0.00077	0.00963	0.97370	0.01058
SPY	-0.00089	0.01097	0.97881	0.01256
QQQ	-0.00122	0.01410	0.97764	0.01764
GLD	0.00096	0.00804	0.99713	0.01117
SLV	0.00047	0.01462	0.97690	0.01619
BTC	-0.00035	0.02158	0.89703	0.16925

## 1.2 Institutional Investments and Market Movements

- **Binance.US:** In January 2025, interim CEO Norman Reed announced plans to restore USD fiat services<sup>1</sup> within weeks. This move signals a dramatic recovery supported by renewed banking partnerships and regulatory dialogue (in CoinDesk by Allison, 2025).
- **Intesa Sanpaolo's Bitcoin Purchase:** Italy's largest bank, Intesa Sanpaolo, executed its first proprietary bitcoin trade, acquiring 11 bitcoins valued at approximately €1 million. This action reflects the increasing integration of digital assets into traditional finance (in Reuters by Za, 2025).
- **Sygnum's Valuation Milestone:** Crypto-focused bank Sygnum reached a \$1 billion valuation after raising \$58 million in its latest funding round. These funds will support its expansion in Europe and a launch in Hong Kong, highlighting the growing institutional interest in the crypto sector (in Reuters by Nishant, 2025).
- **MicroStrategy's Continued Bitcoin Acquisition:** Despite Bitcoin's price fluctuations, MicroStrategy purchased an additional 2,530 bitcoins for \$243 million, raising its total holdings to nearly 450,000 bitcoins, valued at around \$41 billion (in Investopedia by Torpey, 2025).

In recent weeks, Europe has made strides in its regulatory framework for cryptocurrencies, particularly regarding the implementation of the Markets in Crypto-Assets (MiCA) regulation and related guidelines. Meanwhile, Hong Kong and Singapore are enhancing their crypto regulations to attract investments and foster innovation while maintaining oversight. This proactive regulatory approach positions Hong Kong and Singapore as key leaders in the Web3, digital trading, and blockchain sectors in Asia.

<sup>1</sup>In June 2023, following the controversy surrounding the crypto exchange FTX, the SEC sued Binance, Binance.US, and owner Changpeng Zhao (CZ) over alleged securities violations, accusing Binance.US of fraud without evidence. This resulted in major setbacks for the company.

**Figure 2:** Correlation of Daily Returns of Assets from Dec 16, 2024 to Jan 15, 2025

## 1.3 Global Regulatory Developments

- **(U.S.) CFPB's Proposed Consumer Protections:** The U.S. Consumer Financial Protection Bureau (CFPB) has proposed that cryptocurrency companies be held responsible for reimbursing customers for losses caused by hacks or unauthorized transactions. This proposal aims to align the security standards for digital wallets with those of traditional bank accounts (in CFPB, 2025).
- **(Europe) MiCA Implementation:** The Markets in Crypto-Assets (MiCA) regulation took effect on December 30, 2024, introducing stricter rules for the crypto sector in Europe. This includes new prudential requirements and licensing obligations for companies operating in this space (in Digital Marketing News by Neely, 2025).
- **(Hong Kong) Tax Exemptions for Crypto Investments:** Hong Kong plans to exempt private equity funds, hedge funds, and family offices from taxes on gains from cryptocurrency investments. This initiative aims to enhance its status as a leading offshore finance hub and attract digital asset investments (in Reuters by Zhen, 2024b).
- **(Hong Kong) Licensing of Crypto Exchanges:** The Securities and Futures Commission (SFC) has granted licenses to four additional cryptocurrency exchanges, bringing the total number of licensed exchanges to seven. This move is part of Hong Kong's strategy to strengthen its position as a global hub for digital asset trading (in Reuters by Zhen, 2024a).
- **(Singapore) Strengthening Regulatory Framework:** Singapore has improved its regulatory framework for cryptocurrencies, issuing 13 licenses to crypto exchanges in 2024—more than double the

number issued the previous year. This positions Singapore as a leading crypto hub in Asia, balancing innovation with investor protection (in Cointelegraph by Vardai, 2025).

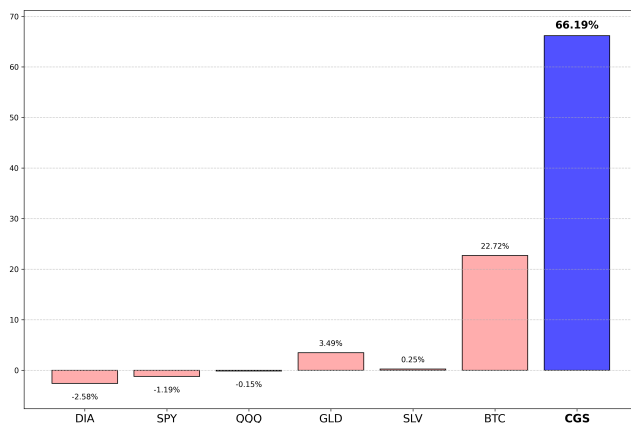
## 2 CGS Engine Performance

### 2.1 Comparative Performance Review

Between mid-November and mid-December 2024, Bitcoin (BTC) experienced substantial price fluctuations, reaching an all-time high of \$108,309 on December 17, 2024.

In the following month, from mid-December to mid-January, BTC entered a range-bound phase, fluctuating between approximately \$92,000 and \$100,000. This period resulted in a slight negative return.

Despite the high volatility and range-bound market conditions, our CGS engine<sup>2</sup> can still execute effective trading strategies. The results in Figure 3 indicated that our multibot quant system demonstrated exceptional performance, where we can find the approximate returns: CGS 66.19%, BTC 22.72%, GLD 3.49%, SLV 0.25%, QQQ -0.15%, SPY -1.19%, and DIA -2.58% from Nov 11, 2024 to Jan 16, 2025.



**Figure 3:** Performance comparison of approximate returns from Nov 11, 2024 to Jan 16, 2025

The CGS engine utilizes a unique range-trading process that identifies key levels, which we refer to as the “dynamic support set,” within the established price range based on recent<sup>3</sup> fluctuations. One of the key algorithms implemented in our trading engine allows for real-time adjustments of the dynamic lower and upper bounds (referred to as the dynamic support-set update algorithm).

<sup>2</sup>Our CGS Engine began operating on November 10, 2024.

<sup>3</sup>By our cutting-edge time-span construction system

This enables the opening (or closing) of new positions—whether long, short, or holding—to profit from the asset’s movements within our unique support-set system (as depicted in Figure 4).

While timing trading decisions perfectly remains a challenging task (almost impossible), our CGS trading engine has demonstrated effectiveness in capitalizing on market opportunities, even in the absence of a clear trend. Our bots systematically exploit short-term price movements, generating profits even when the overall market experiences a slight negative return.

### 2.2 The CGS Engine Robo-Traders

During this period, a total of 288 trading bots were actively operational. Their primary role is to monitor the financial market continuously and to identify true trading signals based on predefined triggers. In Figure 4, we present four critical components that provide insight into the bots’ operations: i) the price of Bitcoin (BTC); ii) the actions of long and short positions taken by the bots; iii) the total percentage of BTC held by the CGS engine bots; and iv) the trading volume observed in the market.

It is crucial to understand that our bots are not designed to make predictions. Instead, their actions are entirely driven by real-time observations of market data. The quantity of shares and cryptocurrencies that these bot traders engage with can change rapidly in response to market fluctuations and significant news developments that affect investor sentiment<sup>4</sup>. Capital is strategically allocated to these bots, allowing them to operate independently while adhering to a set of predefined parameters and algorithms that govern their trading strategies. This framework enables them to respond to market conditions with speed and efficiency, optimizing the potential for successful trades.

Tables 2 and 3 provide a comprehensive overview of the operation of our CGS engine robo-traders and the key metrics that we can monitor regarding their activities. The “loop idx” indicates the number of iterations that have occurred since the CGS engine was initially launched. This index can be translated into a specific time frame, allowing us to understand the system’s longevity and performance over time. Meanwhile, the “cumulative gain” metric serves as an essential indicator of the trading outcomes; a value greater than 1 signifies a profit, whereas a value less than 1 reflects a loss.

To enhance our analysis, we meticulously gathered detailed transaction data from our robo-traders. On January 8, 2025, at 07:45 (EST), several robo-traders initiated transactions that involved short-selling, which is characterized by a negative position amount. Throughout the trading session, these robo-traders continuously

<sup>4</sup>Converted to the CGS engine metrics

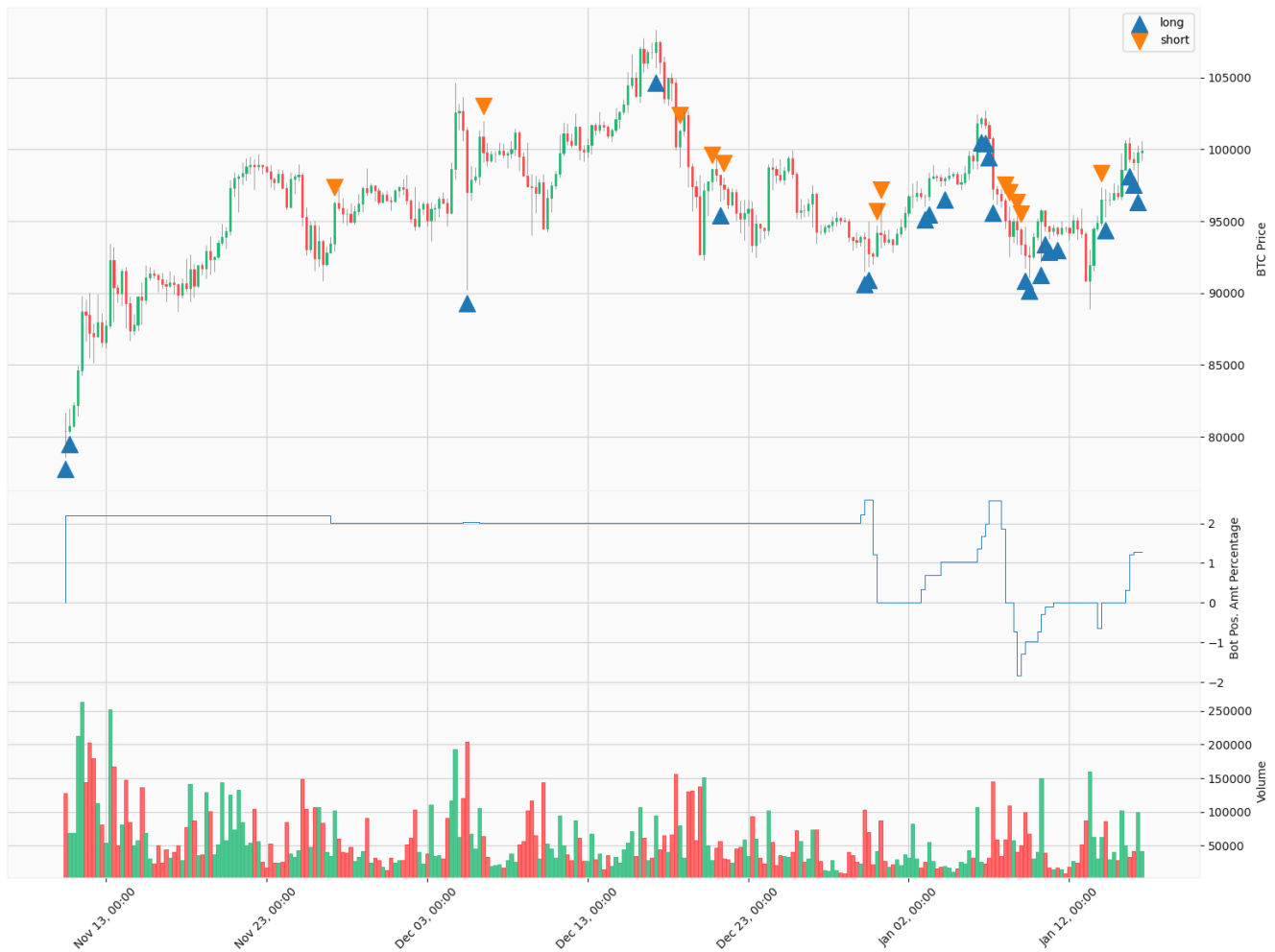
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**Table 2:** Sample Data of CGS Engine Robo-Traders, Captured at Idx = 5686 (Jan 8, 2025 at 07:45 (EST))

bot name	loop idx	cumulative gain	current position	position Amt	idx current position start
CGSmodel3-lpb0016	5686	1.21189	enter-short	-0.00178964BTC	5686
CGSmodel5-lpb0018	5686	1.09765	enter-short	-0.00146206BTC	5686
CGSmodel5-lpb0006	5686	1.10762	enter-short	-0.00363699BTC	5686
CGSmodel5-lpb0008	5686	1.08657	enter-short	-0.00359849BTC	5686
CGSmodel3-lpb0054	5686	1.20946	enter-short	-0.00363699BTC	5686

**Table 3:** Sample Data of CGS Engine Robo-Traders, Captured at Idx = 5830 (Jan 9, 2025 at 19:45 (EST))

bot name	loop idx	cumulative gain	current position	position Amt	idx current position start
CGSmodel3-lpb0016	5830	1.21603	exit-short	-	5830
CGSmodel5-lpb0018	5830	1.09765	short	-0.00146206BTC	5686
CGSmodel5-lpb0006	5830	1.10762	short	-0.00363699BTC	5686
CGSmodel5-lpb0008	5830	1.08657	short	-0.00359849BTC	5686
CGSmodel3-lpb0054	5830	1.22011	exit-short	-	5830



**Figure 4:** BTC Amt Percentage (held by the CGS Engine Robo-Traders) and Trading Information from Nov 11, 2024 to Jan 16, 2025

monitored market conditions for specific predefined trigger events that would signal the optimal time to exit their short positions.

During this period (Idx 5686 to 5830, or Jan 8 at 07:45 to Jan 9 at 19:45 (EST)), two of the robo-traders (identified as CGSmodel3-lpb0016 and CGSmodel3-lpb0054) successfully exited their short positions and realized additional returns of 0.414% and 1.065%, respectively. Their ability to achieve positive outcomes highlights the effectiveness of the decision-making algorithms employed by the CGS engine. In contrast, the remaining three robo-traders decided to maintain their current positions, opting to hold their trades while diligently observing the market for potential opportunities. They continued to perform all required computations, analyzing various data points and market fluctuations as they awaited more favorable conditions for potential action. This strategic approach underscores the balance between risk management and the pursuit of profitability within our trading framework.

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