

# White Paper: The OTC Green Squeeze - A Mechanical Validation

## Executive Summary

This paper posits and provides a mechanical validation for the theory of the 'OTC Green Squeeze'. The theory holds that the unique structural isolation of U.S. cannabis equities, a direct result of decades of federal prohibition, has created a market environment highly susceptible to a cascading, two-phase squeeze event upon the advent of transformative legislative catalysts. This analysis is predicated on the assumption that such catalysts—namely federal cannabis rescheduling and comprehensive banking reform—will inevitably occur.

The theory unfolds in two distinct but interconnected phases. The first phase is a **Liquidity Squeeze**, where an initial, powerful price shock is driven by a fundamental supply-demand imbalance in the underlying, illiquid Over-the-Counter (OTC) traded stocks of U.S. Multi-State Operators (MSOs). This imbalance is theorized to be triggered by the mandatory hedging activities of a concentrated group of swap counterparties. These institutions service the primary U.S. cannabis Exchange-Traded Fund (ETF) as it absorbs a sudden and massive influx of previously sidelined institutional and retail capital following federal reform.

The second phase is a reflexive **Gamma Squeeze**, which acts as a powerful accelerant to the initial event. The price surge from the liquidity squeeze is expected to attract intense speculative interest, manifesting as massive call option volume on the highly liquid, exchange-traded ETF itself. This forces options market makers to hedge their sold call positions by purchasing ETF shares on the open market. This hedging activity, in turn, triggers the ETF's creation mechanism, compelling the swap counterparties to purchase even more of the now-scarce underlying OTC stocks to hedge their own expanding derivative exposure. This sequence ignites a powerful, self-reinforcing feedback loop, bridging the liquidity differential between the OTC and national exchange markets through a chain reaction of obligatory hedging.

The OTC Green Squeeze is not a prediction of market timing but a mechanical exploration of the foreseeable consequences of forcing a modern, derivative-linked capital structure onto a fundamentally illiquid and legally isolated asset class. This paper will deconstruct the historical context, the financial instruments, and the market dynamics that form the foundation of this theory, validating its preconditions with a quantitative analysis of the current market structure.

## Section I: The Structural Isolation of U.S. Cannabis Capital Markets

To comprehend the mechanics of the OTC Green Squeeze, one must first understand the foundational premise: U.S. cannabis Multi-State Operators (MSOs) represent a unique class of assets, fundamentally and artificially isolated from efficient capital markets. This isolation, a direct consequence of a protracted and ongoing federal prohibition, is the primary source of the market's structural inefficiencies, illiquidity, and the latent potential for extreme volatility upon a catalytic shock.

### Historical Context of U.S. Federal Prohibition

The legal framework that isolates the U.S. cannabis industry began to take shape nearly a

century ago. The Marihuana Tax Act of 1937 was the first major piece of federal legislation to restrict cannabis. This culminated in the Controlled Substances Act (CSA) of 1970, a comprehensive legal framework that criminalized the manufacture, distribution, and possession of cannabis at the federal level by classifying it as a Schedule I controlled substance. The definition of a Schedule I substance is critical to understanding the subsequent market frictions. Such substances are deemed to have a high potential for abuse, no currently accepted medical use in treatment in the United States, and a lack of accepted safety for use under medical supervision. This classification places cannabis in the same legal category as heroin and LSD, a designation that forms the bedrock of all financial and operational impediments faced by the industry.

Over the past several decades, a significant "federalism gap" has emerged. As of early 2024, thirty-eight states and Washington, D.C., have legalized cannabis for medical use, and a growing number have also legalized it for adult recreational use. This has created a thriving, state-legal industry that operates in direct conflict with federal law, forcing MSOs to navigate a fragmented and complex patchwork of state-by-state regulations while remaining federally illicit.

## **The Consequences of Prohibition on Capital Markets**

The Schedule I status of cannabis under the CSA has profound and debilitating consequences for MSOs' access to the U.S. financial system. These consequences are not incidental; they are the direct result of federal laws designed to sever illicit enterprises from the legitimate economy.

### **Banking and Financial Services Exclusion**

The primary barrier to traditional finance stems from the CSA's interplay with the Bank Secrecy Act (BSA) and federal Anti-Money Laundering (AML) statutes. Because the sale of cannabis remains a federal crime, any proceeds generated from these state-legal sales are considered proceeds of unlawful activity under federal law. Financial institutions that knowingly handle these funds risk severe penalties, including:

- Criminal liability for money laundering, with potential prison sentences of up to 20 years for employees.
- Stiff civil and criminal monetary penalties for the institution.
- Asset forfeiture, where federal authorities can confiscate any property or proceeds traceable to federally prohibited cannabis sales.
- In extreme cases, the revocation of an institution's federal deposit insurance and potential liquidation by regulators.

Faced with these existential risks, the vast majority of federally chartered banks, credit unions, and credit card processors (such as Visa and MasterCard) refuse to provide services to cannabis-related businesses. This forces many MSOs into a cash-intensive operational model, which severely stifles growth, complicates basic functions like payroll and tax compliance, and creates significant public safety concerns.

### **Exclusion from Major U.S. Stock Exchanges**

A direct consequence of federal illegality is the inability of U.S. plant-touching cannabis companies to list their securities on major national exchanges such as the New York Stock Exchange (NYSE) or the Nasdaq Stock Market. These exchanges have listing standards that require compliance with all applicable federal laws. As MSOs operate in violation of the CSA, they are barred from these premier capital markets, which are home to the world's largest and most liquid companies. This exclusion is a critical factor, as it relegates MSOs to a less efficient

and more volatile trading environment.

## Resulting Market: The Over-the-Counter (OTC) Markets

Forced out of the mainstream, U.S. MSOs have found a home on the Over-the-Counter (OTC) markets. Unlike the NYSE or Nasdaq, which are centralized exchanges with a single, transparent order book, the OTC market is a decentralized, dealer-based network where securities are traded directly between two parties, facilitated by broker-dealers. The OTC Markets Group organizes this market into three tiers based on the quality and quantity of information the companies provide:

- **OTCQX (The Best Market):** This is the top tier, where most major MSOs like Curaleaf (CURLF), Green Thumb Industries (GTBIF), and Trulieve (TCNNF) trade. Companies on this tier must meet high financial standards and provide current disclosures, but they are still not subject to the same stringent oversight as exchange-listed firms.
- **OTCQB (The Venture Market):** This middle tier is for early-stage and developing companies that are current in their reporting.
- **OTC Pink (The Open Market):** This tier has the fewest requirements and carries the highest risk.

While trading on the OTCQX provides a degree of legitimacy, the structural characteristics of the OTC market are fundamentally different from and less efficient than those of a national exchange. Key characteristics include lower liquidity, wider bid-ask spreads (representing higher transaction costs), less price transparency, and a significantly smaller and less diverse pool of potential investors. This inherent illiquidity is a critical precondition for the OTC Green Squeeze theory. The dealer-driven nature of the OTC market means liquidity is not continuous but is instead provided by a finite number of market makers. A sudden, massive, one-sided demand shock—such as the one anticipated post-legalization—could easily overwhelm the capital capacity of the relatively few market makers for these specific stocks. This could lead to a liquidity crisis where bid-ask spreads widen dramatically or liquidity evaporates entirely, causing extreme price volatility. This structural fragility is a core component of the squeeze theory.

## The Assumed Catalysts: Rescheduling and Banking Reform

For the purposes of this theoretical exploration, it is assumed that two key legislative and regulatory catalysts will inevitably occur, acting as the trigger for the squeeze.

- **The SAFER Banking Act:** This legislation, or a version thereof, would provide a "safe harbor" to financial institutions, explicitly protecting them from federal prosecution or regulatory penalties for providing services to state-sanctioned cannabis businesses. This would unlock access to the full suite of traditional financial services, including checking accounts, business loans, and credit card processing, normalizing the industry's financial operations.
- **Federal Rescheduling:** The reclassification of cannabis from Schedule I to a less restrictive schedule, such as Schedule III, would have monumental financial implications. The most significant impact would be relief from Internal Revenue Code Section 280E, a punitive tax provision that prohibits businesses trafficking in Schedule I or II substances from deducting ordinary business expenses from their gross income. The removal of 280E would dramatically improve MSO profitability, normalize their effective tax rates, and substantially increase their free cash flow, making them fundamentally more attractive investments.

The combination of these events represents the breaking of an artificial liquidity dam. The current legal and financial barriers do more than just inconvenience cannabis companies; they

actively prevent the natural flow of institutional capital into the sector. While some studies show that even limited medical legalization significantly lowers a firm's cost of equity by reducing labor market frictions, the barriers to the capital markets remain absolute for large institutions. The current state is an artificially suppressed capital environment. The removal of these barriers would not just attract *some* new capital; it would unlock access to the entire universe of institutional asset management—a multi-trillion-dollar pool of capital that has been completely excluded due to investment mandates prohibiting the holding of federally illegal or non-exchange-listed securities. This sets the stage for an unprecedented demand shock into a structurally illiquid market.

## **Section II: The Paradox of ETF Exposure: Synthetic Access and Concentrated Risk**

The structural isolation of U.S. MSOs on the OTC markets creates a significant challenge for investors seeking diversified exposure. Financial engineering has provided a solution, but in doing so, has created a unique and paradoxical structure that is central to the OTC Green Squeeze theory. This section dissects the primary investment vehicle—the AdvisorShares Pure US Cannabis ETF (MSOS)—and explains how its reliance on derivative instruments concentrates risk and creates a powerful, mechanical link between the liquid mainstream market and the illiquid OTC market.

### **The Role of Exchange-Traded Funds (ETFs)**

ETFs are pooled investment vehicles that hold a basket of securities and whose shares trade on major stock exchanges throughout the day, much like individual stocks. A key feature of ETFs is the creation and redemption mechanism, which ensures that the ETF's market price stays closely aligned with the Net Asset Value (NAV) of its underlying holdings.

This process involves large institutional investors known as Authorized Participants (APs). When demand for an ETF's shares on the secondary market pushes its price above its NAV, an AP can intervene. The AP will buy the underlying securities that the ETF holds (the "creation basket") and deliver them to the ETF issuer in exchange for a large block of new ETF shares (a "creation unit"). The AP can then sell these new shares on the open market for a risk-free profit, and in doing so, increases the supply of ETF shares, pushing the price back down toward the NAV. The reverse process, redemption, occurs when the ETF trades at a discount to its NAV. This arbitrage mechanism is fundamental to how ETF inflows translate into buying pressure on the underlying assets.

### **The MSOS ETF: A Necessary Workaround**

The AdvisorShares Pure US Cannabis ETF (MSOS) is the primary U.S.-listed ETF providing investors with dedicated exposure to American MSOs. However, it faces a critical operational hurdle. Due to the federal illegality of cannabis, major U.S. custodial banks (such as BNY Mellon or State Street), which are required to hold the assets of a U.S.-registered fund, are unwilling to take direct custody of the shares of plant-touching U.S. cannabis companies. To circumvent this restriction, MSOS does not hold the MSO stocks directly. Instead, it employs a synthetic replication strategy, gaining exposure to the performance of these stocks through the use of derivative contracts, specifically Total Return Swaps (TRS).

### **Mechanics of the Total Return Swap (TRS) Structure**

A Total Return Swap is a bilateral financial contract in which two parties agree to exchange the returns from a specified asset or basket of assets. The mechanics, as applied to the MSOS ETF, are as follows:

- **Parties:** The two parties are the ETF (the "total return receiver") and a large financial institution, typically an investment bank (the "total return payer" or "swap counterparty").
- **The Exchange:** The swap counterparty agrees to pay the MSOS ETF the total return of a reference asset (e.g., a basket of MSO stocks like CURLF and GTBIF). This total return includes all capital appreciation and any dividends paid by the stocks. In exchange, the MSOS ETF pays the counterparty a floating financing fee, typically based on a benchmark rate like SOFR plus a spread.
- **Collateral:** The ETF does not transfer its capital to the counterparty. Instead, it holds cash or highly liquid securities (like U.S. Treasury bills) as collateral against the value of the swap.
- **The Hedging Obligation:** This is the most critical component of the structure. To offer this swap, the counterparty is now effectively short the performance of the MSO stocks. To neutralize this risk, the counterparty must purchase and hold the actual underlying MSO stocks on its own balance sheet. The performance of these shares they physically hold is what they are contractually obligated to deliver to the ETF. This hedging activity is not optional; it is a fundamental requirement for the counterparty to manage its market risk.

## The Creation Process for a Swap-Based ETF

The use of swaps alters the standard ETF creation mechanism in a crucial way. When investor demand for MSOS shares increases, the process unfolds as follows:

1. **Capital Inflow:** An AP, seeing the MSOS market price trade at a premium to its NAV, decides to create new shares.
2. **Cash-for-Shares:** Unlike a physically-backed ETF, the AP does not deliver a basket of MSO stocks. Instead, the AP delivers cash to the ETF issuer.
3. **New Swap Agreements:** The ETF issuer (AdvisorShares) takes this new cash and uses it to enter into additional TRS agreements with its swap counterparties, increasing the fund's notional exposure to the MSO basket.
4. **Mandatory Hedging:** The swap counterparties, having increased their short exposure to the MSOs through the new swaps, are now compelled to go into the open OTC market and purchase more shares of the actual MSO stocks to hedge their larger position.

This structure effectively transforms diffuse buying pressure on a liquid, exchange-traded ETF into a highly concentrated, non-discretionary buying mandate placed upon a few large financial institutions in the illiquid OTC market. Retail and most institutional investors buying MSOS are simply acquiring a liquid security, abstracted from the underlying mechanics. However, their collective capital is funneled directly to a small number of swap counterparties—such as Nomura and Clear Street—who have a non-negotiable obligation to buy the underlying stocks. This concentration dramatically amplifies the market impact of ETF inflows. The risk is not merely that a counterparty might default, but that their perfectly rational and mandatory hedging actions will be the very catalyst for market dislocation, especially in a massive inflow scenario where they may struggle to source enough shares in the illiquid OTC market to remain fully hedged.

## Section III: A Theoretical Framework of Market Squeezes

The term "squeeze" in financial markets refers to a condition of intense pressure that forces market participants to act in a way that exacerbates an existing price trend. The OTC Green Squeeze theory is a composite of two distinct but synergistic types of squeezes: a liquidity squeeze and a gamma squeeze. Understanding the mechanics of each is essential to validating the overall theory.

## The Liquidity Squeeze

A liquidity squeeze, in its purest form, is a direct and severe supply-and-demand imbalance in an asset market. It is characterized by a sudden, overwhelming surge in buying demand that is met with a scarcity of available assets for sale. This lack of "market liquidity"—the ease with which an asset can be bought or sold without affecting its price—forces prices to rise dramatically to entice new sellers into the market.

The vulnerability of a stock to a liquidity squeeze is largely determined by its "free float." The free float represents the number of shares that are actually available for public trading on the open market. It is calculated by taking the total number of shares outstanding and subtracting any "locked-in" or restricted shares, which are typically held by company insiders, large strategic investors, and governments. A stock with a low free float is inherently less liquid; a smaller amount of buying pressure can have a disproportionately large impact on its price because the pool of available shares to absorb that demand is shallow. In a liquidity squeeze, as buyers rush in, market makers who provide liquidity are forced to widen their bid-ask spreads significantly, or may even withdraw from the market temporarily, causing prices to "gap up" until a new equilibrium is found at a much higher level.

## The Gamma Squeeze

A gamma squeeze is a more complex, reflexive phenomenon that originates in the options market and spills over into the underlying stock market. It is a powerful feedback loop driven by the hedging activities of options market makers. To understand its mechanics, one must first understand two key options risk metrics, known as "the Greeks":

- **Delta ( $\Delta$ ):** This measures the rate of change of an option's price in response to a \$1 change in the underlying stock's price. A call option's delta ranges from 0 to 1. An at-the-money call option has a delta of approximately 0.50, meaning its price will increase by \$0.50 for every \$1 increase in the stock price.
- **Gamma ( $\Gamma$ ):** This measures the rate of change of an option's delta. It is the "delta of the delta" and represents the acceleration of an option's price sensitivity. Gamma is highest for at-the-money options, especially as their expiration date approaches.

The gamma squeeze process unfolds in a distinct sequence:

1. **Initial Catalyst and Speculative Buying:** A stock experiences an initial upward price movement, which attracts speculative traders. These traders, seeking leveraged returns, buy large volumes of out-of-the-money (OTM) call options.
2. **Market Maker Hedging:** Market makers, who act as the sellers for most of these call options, are now short these calls. To manage their risk and remain "delta-neutral," they must buy the underlying stock. The amount of stock they buy is proportional to the delta of the options they sold.
3. **The Feedback Loop Ignites:** The hedging-related buying from market makers adds to the demand for the stock, pushing its price even higher. As the stock price rises and approaches the strike prices of the OTM calls, the gamma of these options causes their delta to increase rapidly (i.e., accelerate towards 1.0).
4. **Forced Hedging and Acceleration:** To remain delta-neutral against this now-higher

delta, the market makers are forced to buy *even more* of the underlying stock. This additional, price-insensitive buying creates further upward pressure on the stock, which in turn causes the delta of the call options to increase even more, forcing yet another round of hedging. This self-perpetuating cycle is the gamma squeeze.

## Differentiating the Squeezes

The critical distinction lies in the origin of the buying pressure. A liquidity squeeze is a direct confrontation between buyers and sellers in the underlying asset market. A gamma squeeze is an indirect, reflexive event where activity in the derivatives market (options) forces mechanical buying in the underlying asset market.

However, these two phenomena are not mutually exclusive. A gamma squeeze rarely occurs in a vacuum; it requires an initial catalyst to start the upward price movement and attract the necessary speculative options volume. A powerful liquidity squeeze serves as a perfect initial catalyst. It can create the initial, non-fundamental price shock that captures the market's attention and draws in the options speculators, setting the stage for the gamma squeeze to act as a powerful accelerant to an already volatile situation. The historic GameStop event in 2021 was a prime example of a scenario that contained elements of both a short squeeze (a type of liquidity squeeze) and a subsequent, powerful gamma squeeze.

## Section IV: The OTC Green Squeeze: A Synthesis of Mechanics

The OTC Green Squeeze theory is a synthesis of the structural market inefficiencies, complex financial instruments, and market pressure dynamics detailed in the preceding sections. It describes a sequential, two-phase event where a liquidity squeeze in the underlying OTC market for MSO stocks ignites a reflexive gamma squeeze on the primary cannabis ETF, creating a powerful and potentially explosive feedback loop.

### The Catalyst Event (Assumed)

The entire sequence is predicated on the occurrence of one or more major legislative or regulatory catalysts. For the purpose of this analysis, the trigger is assumed to be a definitive announcement of federal cannabis rescheduling from Schedule I to Schedule III and/or the passage of the SAFER Banking Act. This event is not merely an incremental positive development; it is perceived by the market as the "breaking of the dam"—a fundamental regime change signaling the end of the structural isolation of U.S. MSOs and their imminent integration into the mainstream financial system.

### Phase 1: The Liquidity Squeeze (The Ignition)

The initial market reaction is driven by a torrent of capital seeking exposure to an asset class that was previously inaccessible to a large portion of the investment universe.

1. **Capital Inflow:** A broad spectrum of investors, from large institutions (pension funds, mutual funds, endowments) to sophisticated retail investors, who were previously sidelined by legal risks or investment mandates, now seek to establish positions in U.S. cannabis. The most efficient, liquid, and accessible vehicle for this exposure is the NYSE Arca-listed AdvisorShares Pure US Cannabis ETF (MSOS).
2. **ETF Share Creation:** The massive inflows into the MSOS ETF on the secondary market

drive its share price to a premium over its Net Asset Value (NAV). This creates a profitable arbitrage opportunity for Authorized Participants (APs). The APs execute this arbitrage by delivering large amounts of cash to the ETF issuer in exchange for newly created blocks of MSOS shares (creation units), which they then sell on the open market to capture the premium.

3. **Swap Counterparty Hedging:** The MSOS ETF, now flush with new cash from the creation process, immediately deploys this capital by increasing the notional value of its Total Return Swap (TRS) agreements with its counterparties.
4. **The Squeeze on the OTC Market:** The swap counterparties (e.g., large investment banks) are now contractually obligated to hedge their newly expanded short exposure to the MSO basket. They are forced to enter the illiquid OTC market as price-insensitive buyers, seeking to acquire large quantities of the underlying MSO stocks (such as CURLF, GTBIF, TCNNF, etc.).
5. **Market Impact and Price Dislocation:** This concentrated, non-discretionary, and urgent buying demand collides with the structurally illiquid nature of the OTC market. The limited free float and low average daily trading volume of the MSO stocks mean that the supply of willing sellers is quickly exhausted. To fulfill their hedging requirements, the counterparties must aggressively bid up prices, causing them to "gap up" violently to find new sellers at much higher levels. This is the initial, powerful liquidity squeeze.

## Phase 2: The Gamma Squeeze (The Afterburner)

The dramatic price appreciation from the liquidity squeeze acts as a powerful catalyst, attracting a new wave of speculative interest that ignites the second phase of the event. This phase is centered on the derivatives market of the liquid ETF, not the illiquid underlying stocks.

1. **Increased Visibility and Speculation:** The violent upward movement in the underlying MSO stocks causes the NAV of the MSOS ETF to surge. The ETF's market price follows suit, generating significant media attention and capturing the interest of momentum traders, retail investors, and options speculators.
2. **Massive Call Option Volume on MSOS:** These speculators, seeking leveraged upside exposure to the rapidly appreciating sector, pile into short-dated, out-of-the-money (OTM) call options on the MSOS ETF itself. This is a critical step, as a liquid and accessible options market exists for the exchange-traded MSOS, whereas it does not for the individual OTC-traded MSO stocks.
3. **Market Maker Hedging on the ETF:** Options market makers, who are the primary sellers of these call options, find themselves with a large and growing short delta position on the MSOS ETF. To hedge this risk, they are forced to buy shares of the MSOS ETF on the open market in proportion to the aggregate delta of the options they have sold.
4. **The Reflexive Feedback Loop:** This is where the two squeezes become synergistically linked, creating a powerful, self-reinforcing cycle:
  - **Step A:** The hedging-related buying of MSOS shares by options market makers drives the ETF's price up further, often creating or expanding a premium over its already-rising NAV.
  - **Step B:** This premium incentivizes APs to conduct more arbitrage, leading to the creation of *even more* new MSOS shares through the cash-for-shares process.
  - **Step C:** The ETF uses this new cash to enter into *even more* TRS agreements with its swap counterparties.
  - **Step D:** The swap counterparties are now forced to buy *even more* of the underlying OTC stocks, which are already in the throes of a severe liquidity squeeze, driving their prices to even more extreme levels.
  - **Step E:** The surge in the underlying stock prices causes the MSOS NAV to



increase further. This rise in the underlying's price causes the gamma of the MSOS call options to accelerate their delta, forcing the options market makers to buy more MSOS shares to maintain their hedge (return to Step A).

This cycle—where hedging on the ETF forces hedging on the underlying stocks, which in turn forces more hedging on the ETF—is the essence of the OTC Green Squeeze. It is a mechanism that bridges two distinct market arenas with vastly different liquidity profiles. The speculative energy and leverage available in the liquid options market for the ETF are mechanically translated into brute-force buying pressure in the illiquid OTC market for the stocks, with each phase amplifying the other. The event is a chain reaction of forced hedging, where the swap counterparties' actions in Phase 1 create the conditions that force the options market makers' actions in Phase 2, which in turn forces an even greater reaction from the swap counterparties. Each participant, acting rationally to mitigate their own risk, contributes to the systemic price dislocation.

## Section V: Validating the Preconditions: A Quantitative Analysis of Market Structure

The theoretical framework of the OTC Green Squeeze rests on two critical, verifiable preconditions: the structural illiquidity of the underlying U.S. MSO stocks and the concentrated, swap-based structure of the primary ETF vehicle, MSOS. This section provides a quantitative analysis to validate these foundational assumptions.

### Analysis of Underlying Asset Illiquidity

The theory posits that the OTC market for U.S. MSO stocks lacks the depth and liquidity to absorb a sudden, large-scale demand shock. This can be demonstrated by examining key liquidity metrics for the leading MSOs. Free float, which represents the shares available for public trading, is a crucial indicator of a stock's susceptibility to a squeeze; a lower free float implies that a smaller volume of buying can have a larger price impact. Other metrics, such as low average daily trading volume relative to market capitalization and wide bid-ask spreads, further confirm an illiquid trading environment.

The table below presents these liquidity metrics for five of the largest U.S. MSOs. The data, compiled from SEC filings and financial data providers, paints a clear picture of a market characterized by limited tradable supply and high transaction costs, validating the core assumption of structural illiquidity.

**Table 1: Key U.S. MSO Liquidity Metrics**

Ticker	Company Name	Market Cap (\$B)	Avg. Daily Volume (Shares)	Shares Outstanding (M)	Estimated Public Float (M)	Float as % of Outstanding
CURLF	Curaleaf Holdings, Inc.	2.0	3,200,000	728.3	585.6	80.4%
GTBIF	Green Thumb Industries Inc.	2.0	670,868	237.7	187.3	78.8%
TCNNF	Trulieve Cannabis Corp.	1.5	3,100,000	191.1	162.4	85.0%

CRLBF	Cresco Labs Inc.	0.51	733,473	491.0	458.6	93.4%
VRNOF	Verano Holdings Corp.	0.34	1,048,481	364.5	301.8	82.8%
<i>Data compiled from sources.</i>						
<i>Note: Shares Outstanding and Float data are based on the most recent available SEC filings and financial data provider estimates, which may vary. Float as % of Outstanding is derived from these figures.</i>						

The data reveals that while these are billion-dollar companies, their average daily trading volumes are exceptionally low compared to exchange-listed companies of similar market capitalization. For example, a company like JetBlue Airways (JBLU), with a comparable market cap of around \$1.7 billion, has an average daily volume of over 18 million shares. This stark contrast highlights the shallow nature of the OTC market for MSOs. A sudden demand equivalent to just a few days of average volume could exhaust the available supply of shares, validating the precondition for a severe liquidity squeeze.

## Analysis of the ETF Hedging Mechanism

The second core precondition of the theory is that investor access to this illiquid asset class is funneled through a concentrated, derivative-based structure. The AdvisorShares Pure US Cannabis ETF (MSOS) achieves its exposure not through direct ownership but through Total Return Swaps, concentrating the physical hedging obligation onto a small number of institutional counterparties.

An examination of the ETF's holdings and prospectus confirms this structure. The fund's documentation explicitly states its use of swaps to gain exposure to U.S. cannabis companies due to custodial restrictions. The list of holdings reveals that the largest positions are not stocks but derivative contracts with specific counterparties.

**Table 2: Structure of U.S. Cannabis ETF Exposure (MSOS)**

Top Holding (Referenced MSO)	Portfolio Weight (%)	Exposure Type	Known Counterparties
Green Thumb	24.25%	Total Return Swap	Nomura, Clear Street

Industries Inc. (GTBIF)			
Trulieve Cannabis Corp. (TCNNF)	22.88%	Total Return Swap	Nomura, Clear Street
Curaleaf Holdings, Inc. (CURLF)	21.63%	Total Return Swap	Nomura, Clear Street
Verano Holdings Corp. (VRNOF)	Not in Top 3 but significant holding	Total Return Swap	Nomura, Clear Street
Cresco Labs Inc. (CRLBF)	Not in Top 3 but significant holding	Total Return Swap	Nomura, Clear Street
<i>Data compiled from sources.</i>			
<i>Note: Portfolio weights are subject to daily change. Counterparties are based on available fund documentation.</i>			

This table validates the "bottleneck" component of the theory. It demonstrates empirically that the vast majority of capital flowing into the primary U.S. cannabis ETF does not result in diversified buying across the market. Instead, it is translated into a concentrated hedging mandate for a handful of investment banks. These institutions are then required to execute large-volume purchases in the illiquid OTC market detailed in Table 1. This structure mechanically ensures that a broad-based demand shock in the liquid ETF market will be focused into a powerful, concentrated buying pressure point in the fragile underlying market, confirming the second key precondition of the OTC Green Squeeze theory.

## Section VI: Conclusion: Implications of Structurally-Induced Volatility

The analysis presented in this paper validates the mechanical plausibility of the OTC Green Squeeze theory. By deconstructing the unique market environment created by U.S. federal cannabis prohibition and examining the financial instruments used to navigate it, a clear pathway for a multi-stage, reflexive market event emerges. This is not a matter of speculative sentiment alone, but rather a conclusion rooted in the predictable mechanics of modern finance when applied to a structurally flawed and isolated market.

### Recapitulation of the Squeeze Mechanism

The theory's foundation is the artificial isolation of U.S. MSOs, which forces them onto illiquid OTC markets and makes them inaccessible to direct institutional investment. The primary bridge for mainstream capital, the MSOS ETF, is built upon a synthetic structure of Total Return Swaps. This structure concentrates the physical hedging obligation—the actual purchasing of OTC-traded MSO shares—into the hands of a few institutional counterparties.

Upon the assumed catalyst of federal reform, the theory posits a two-phase sequence:

1. **The Liquidity Squeeze:** A surge of capital into the MSOS ETF forces its swap counterparties into the illiquid OTC market as massive, price-insensitive buyers. This demand overwhelms the limited free float of MSO stocks, causing a violent initial price surge.
2. **The Gamma Squeeze:** This initial price shock attracts intense speculative interest in the form of call option buying on the liquid, exchange-traded MSOS ETF. The ensuing

hedging by options market makers forces further creation of ETF shares, which in turn compels the swap counterparties to buy even more of the already-scarce underlying OTC stocks, igniting a powerful, self-reinforcing feedback loop.

## Broader Market Implications

The OTC Green Squeeze theory serves as a compelling case study in the unintended consequences of prolonged regulatory friction in an era of sophisticated and interconnected financial markets. It demonstrates how legal and regulatory barriers, when maintained for extended periods, do not merely suppress an industry but can force the evolution of complex, and potentially fragile, financial structures to circumvent them.

The key takeaway is that financial innovation—in this case, the application of swap-based ETFs to a legally isolated asset class—can create new and unforeseen pathways for risk and volatility transmission. The very mechanism designed to provide liquid access to an illiquid market becomes the potential conduit for an extreme volatility event. The structure concentrates risk and creates a mechanical linkage where rational, risk-mitigating actions by one set of participants (options market makers hedging delta) can force destabilizing actions by another set of participants (swap counterparties chasing an illiquid asset).

Ultimately, the potential for an event like the OTC Green Squeeze is a direct consequence of the profound and persistent disconnect between state-level cannabis legalization and federal prohibition. This disconnect has distorted the natural formation of capital markets for an entire industry, forcing capital to flow through complex, concentrated, and structurally brittle channels. The squeeze, should it occur, would not be an anomaly but rather a violent and logical market correction of these man-made inefficiencies, marking a dramatic end to the structural isolation of U.S. cannabis capital markets.

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