May 21, 2025

BY ELECTRONIC SUBMISSION

Christopher J. Kirkpatrick, Secretary
Commodity Futures Trading Commission
Three Lafayette Centre 1155 21st Street, N.W.
Washington, D.C. 20581

Re: Request for Comment on the Trading and Clearing of “Perpetual” Style Derivatives

Dear Mr. Kirkpatrick,

AlpacaDB Inc. (“Alpaca”) appreciates the opportunity to respond to the Commission’s Request for Comment regarding perpetual derivatives contracts (“perpetual swaps”, “perpetual futures”, “perpetual derivatives”, “perpetuals” or “perps”) to express our point of view on how this technology affects markets regulated by the CFTC. Alpaca’s subsidiaries comprise of a registrant with the Securities and Exchange Commission (“SEC”) as a self-clearing broker-dealer, Alpaca Securities LLC (“Alpaca Securities”), a federally registered Money Service Businesses (“MSB”), Alpaca Crypto LLC (“Alpaca Crypto”) a crypto derivatives exchange AlpacaX Crypto Limited and a broker-dealer AlpacaX Securities Limited (the “AlpacaX” entities) fully licensed under the Bahamas DARE act. Ten years ago Alpaca was founded in California, we are now a proud American business with over 200 employees worldwide.

I, Arush Sehgal, am Head of Crypto at Alpaca, serving as CEO of Alpaca Crypto LLC and AlpacaX, previously a founder of a California based credit card company, a US licensed Alternative Trading System and personally one of the largest creditors in FTX. I was selected by the Department of Justice as one of nine members of the Official Committee of Unsecured

Creditors in the FTX Delaware bankruptcy, one of the largest in history, where I dutifully served nine million unsecured creditors worldwide for two years.

My experience at FTX as a trader, creditor and fiduciary, as well as my career building and leading modern financial infrastructure companies in both traditional and crypto contexts affords me unique insight into how these systems should be built in addition to how to keep customers safe during bankruptcy.

I support permitting perps in CFTC-supervised markets, and I strongly urge careful consideration to the often overlooked key pillars of what makes the perpetual swap the most widely adopted product in crypto history outside of bitcoin itself, as detailed below.

I. Perpetual derivatives are an evolution of the futures model

While they are commonly known as perpetual futures, it is misleading to describe these instruments as futures contracts under the Commission's framework. Perps are bilateral contracts, not requiring clearing through a DCO due to their near-real-time continuous settlement. They are best understood as **uncleared swaps** under the current CFTC definitions. Perps can be described as **a functional and technical evolution of the futures model**, adapted for the 24/7 market where price discovery, margining, matching, custody, liquidation and settlement are collapsed into a vertically integrated and real-time platform. For the reasons outlined below, I strongly believe the current FCM/DCO model is a poor fit for perpetual derivatives.

II. Vertical integration and near-real-time settlement drives cost efficiencies and eliminates entire categories of counterparty risk

Vertical integration

The Commission should consider the SEC's 1998 guidance as precedent of the shift towards vertical integration enabling the safer financial innovation.

OTC Derivatives Dealers, 63 Fed. Reg. 59362, 59364 (Nov. 3, 1998):

'By permitting U.S. securities firms to conduct both securities and non-securities OTC derivatives activities through a single legal entity, the new structure will enable the firms to enter into more comprehensive netting arrangements with counterparties and thus more effectively manage credit risk.'"

The natural evolution is to extend this regulatory stance such that a modern perpetual derivatives exchange would be permitted to conduct netting activity across multiple asset classes, traditional, crypto, derivatives, equities, fixed income, fx, commodities etc… all of the above would comprise the collateral base of a modern cross margin system.

But the Commission must go further. In addition to cross margin, exchanges should be permitted to provide free market data, matching, custody, cross margin, airtight liquidation and near-real-time settlement in a single stack. All of the above controlled under a single entity is essential for cost-efficient, capital-efficient (for participants) and risk-minimized perpetual derivatives.

Cost efficiencies

A modern perps exchange drives massive cost efficiencies over comparable leveraged speculative instruments like Contracts For Difference ("CFDs"), while actually *decreasing* risk in the financial system. A simple thought experiment – why is it that perps funding and settlement is so significantly cheaper than overnight financing, clearing and settlement of CFDs? This is largely due to the elimination of unnecessary intermediaries between participants, again a nod to the bilateral nature of these instruments, further evidencing the case for an uncleared swap.

Near-real-time settlement

A vertically integrated perpetuals exchange continuously settles trades every 30 seconds, 24/7. This means 2880 ledger entries per participant for every 24 hours a trade is open, something made possible with modern innovations in data storage, high throughput and low-latency processing. Contrary to the false media narrative of the FTX "dumpster fire", the one thing all FTX creditors agreed on, from large institutions to small retail, was the books and records related to perps settlement were complete and flawless down to the moment the exchange was turned off. This was a crucial design choice from the FTX engineering team that should be taken into account as a gold standard perpetual derivatives exchanges. Not only is it more capital efficient for participants, it eliminates the need for the exchange (or an FCM under the traditional model) to warehouse risk.

Importantly, near-real-time settlement increases the velocity of money. Students of economic theory would know this results in a positive multiplier effect, and is the healthiest form of leverage in a monetary system, stimulating growth without introducing risk.

III. Cross margin works hand in hand with an airtight liquidation engine

A hallmark of the perpetual swap is the ability to use any collateral asset, even those belonging to different asset classes whether traditional, crypto, spot, derivatives, even unrealized Profit and Loss ("uPnL") as collateral to margin perpetual positions. Near-real-time settlement uPnL increases the collateral base proportionately whilst perpetual positions are still open. What keeps this system safe is the ability to liquidate positions in time, much of which is down to the mathematics of the margining system, and the rest is down to having a properly designed liquidation engine, with dynamically defined margin call levels, liquidation price, bankruptcy price, position takeover mechanics requiring backstop liquidity providers, auto-deleveraging and in the worst case scenario trade rollbacks. All of the above must be given careful attention by new regulations to ensure only airtight liquidation engines and correctly configured margining mathematics are approved for US perpetual derivatives exchanges.

IV. Regulatory oversight of margin parameters

In modern well designed margin systems, the mathematics defining what margin is allowed should be given careful regulatory consideration, and in particular it should take into account volatility, globally available supply of the asset and its book liquidity in the event of a market-wide liquidation. Assets should be therefore given what's known as a discount factor. Maximum leverage per market should also be limited based on these factors, but more important than leverage is the maximum open interest, or size, that should be allowed to be open of any particular asset. Many crypto exchanges have collapsed because they didn't give ample consideration to margin parameters. Although this attack has been around since the earliest days or perps, as recently as a few months ago Hyperliquid's margin system was exploited in exactly this way. Hyperliquid L1 being an immutable ledger with no rollbacks, the team resorted to overriding market prices for the asset causing irreparable damage and confusion to those unsuspectingly holding it. This would of course be completely unacceptable in a regulated regime, yet another example after FTX of US citizens getting hurt on unregulated exchanges without CFTC oversight.

V. Lack of sophisticated FCMs and slow approval of new FCMs is a bottleneck to growth

I urge the Commission take a survey of US businesses that have attempted or abandoned efforts to become an FCM, especially those that require membership at the CME for example, to inform guidance on whether the traditional application process is one that will foster the necessary innovation required for the US to remain competitive in a global market. Or is it one that, even if unintentionally, favors large incumbent institutions with antiquated systems to dominate the FCM landscape?

Consider that sections I-IV merely scratch the surface of a market-leading product. Even today's most modern FCMs are not capable of offering basic cross margin that would constitute the bare minimum functionality of a modern perps exchange. Traditional FCMs are not built to support crypto assets let alone a combination of crypto and traditional assets in the same margin system.

Traditional FCMs' technology platforms are designed for the traditional futures model and are not capable of providing real-time cross-margining and liquidation sufficient enough to facilitate the growth of US regulated perps amongst a sea of fiercely competitive offshore exchanges.

VI. Regulatory fast-track

Poorly designed incentives mean incumbents face no real competition to improve their systems. It is difficult to find an example outside LedgerX where a new company even with sufficient regulatory capital can build a business case for investors whilst not being able to profitably operate in the multiple years it takes to become a DCO. Alpaca was forced set up our derivatives business in the Bahamas instead of the US so we could fund our development with revenue. Coinbase, Kraken and others have been driven to Bermuda or El Salvador. LedgerX, having allegedly been funded by fraudulently sourced FTX depositor capital is the exception rather than the rule. I strongly recommend a regulatory fast track for qualifying fintechs to become regulated perps exchanges while maintaining all the necessary financial safeguards to afford consumers the best possible protection.

VII. Summary and conclusion

I counsel strongly against limiting perpetuals to the FCM/DCO model and call for careful consideration to design new regulation for the unique innovations in risk management that modern full-stack derivatives exchanges provide. The traditional FCM/DCO model is fundamentally incompatible with the structure, speed, and capital efficiency that make perps so compelling. Perpetuals are not merely another product—they are a transformative evolution of the futures model. Their success stems from collapsing multiple layers of legacy infrastructure into a single, vertically integrated stack that delivers 24/7 trading, real-time margining, continuous settlement, free market data, and airtight risk management.

The beauty of perps lies in their simplicity and cost efficiency—demonstrably cheaper and safer than legacy instruments like CFDs—and their unmatched capital efficiency through cross-margining, including dynamic use of unrealized PnL. These innovations are not theoretical. They have been proven in production: at FTX, even amid catastrophic failure, perp settlement records remained complete to the final second—an extraordinary endorsement of near-real-time netting design.

Building an effective US market for perpetuals requires more than fitting them into existing structures. It demands regulatory recognition of their unique risk profile, their need for margin and liquidation engines built for 24/7 volatility, and the inadequacy of today's FCMs to support crypto-native products. Without reform, the FCM/DCO bottleneck will stifle innovation, prevent viable new entrants, and continue pushing American entrepreneurs offshore.

To ensure market integrity and global leadership, I recommend:

- Developing a new category of regulated perpetual derivatives or uncleared swaps,
- Permitting vertically integrated exchanges to operate within a single-stack framework under strong oversight,
- Modernizing regulatory treatment of cross-margin and liquidation systems,
- Fast-tracking licensing for qualified fintech firms to operate regulated perps exchanges in the US.

Retrofitting perps to outdated models risks rendering US regulated perpetual futures uncompetitive in the global market, in the process squandering this once-in-a-generation opportunity to create great American businesses that set the global standard for decades to come.

Respectfully,

Arush Sehgal
CEO, Alpaca Crypto LLC
CEO, AlpacaX Crypto Limited
CEO, AlpacaX Securities Limited