

SUBMISSION COVER SHEET

IMPORTANT: Check box if Confidential Treatment is requested

Registered Entity Identifier Code (optional): 24-349

Organization: Chicago Mercantile Exchange Inc. ("CME")

Filing as a: DCM SEF DCO SDR

Please note - only ONE choice allowed.

Filing Date (mm/dd/yy): 09/10/24 Filing Description: Initial Listing of the Bitcoin Friday Futures Contract

SPECIFY FILING TYPE

Please note only ONE choice allowed per Submission.

Organization Rules and Rule Amendments

- Certification § 40.6(a)
- Approval § 40.5(a)
- Notification § 40.6(d)
- Advance Notice of SIDCO Rule Change § 40.10(a)
- SIDCO Emergency Rule Change § 40.10(h)

Rule Numbers:

New Product

Please note only ONE product per Submission.

- Certification § 40.2(a)
- Certification Security Futures § 41.23(a)
- Certification Swap Class § 40.2(d)
- Approval § 40.3(a)
- Approval Security Futures § 41.23(b)
- Novel Derivative Product Notification § 40.12(a)
- Swap Submission § 39.5

Official Product Name: Bitcoin Friday Futures

Product Terms and Conditions (product related Rules and Rule Amendments)

- Certification § 40.6(a)
- Certification Made Available to Trade Determination § 40.6(a)
- Certification Security Futures § 41.24(a)
- Delisting (No Open Interest) § 40.6(a)
- Approval § 40.5(a)
- Approval Made Available to Trade Determination § 40.5(a)
- Approval Security Futures § 41.24(c)
- Approval Amendments to enumerated agricultural products § 40.4(a), § 40.5(a)
- "Non-Material Agricultural Rule Change" § 40.4(b)(5)
- Notification § 40.6(d)

Official Name(s) of Product(s) Affected:

Rule Numbers:

September 10, 2024

VIA ELECTRONIC PORTAL

Mr. Christopher J. Kirkpatrick
 Office of the Secretariat
 Commodity Futures Trading Commission
 Three Lafayette Centre
 1155 21st Street, N.W.
 Washington, D.C. 20581

**Re: CFTC Regulation 40.2(a) Certification. Initial Listing of the Bitcoin Friday
 Futures Contract.
 CME Submission No. 24-349**

Dear Mr. Kirkpatrick:

Chicago Mercantile Exchange Inc. (“CME” or “Exchange”) hereby certifies to the Commodity Futures Trading Commission (“CFTC” or “Commission”) the initial listing of the Bitcoin Friday Futures contract (the “Contract”), for trading on the CME Globex electronic trading platform (“CME Globex”) and for submission for clearing via CME ClearPort effective on Sunday, September 29, 2024, for trade date Monday, September 30, 2024.

Contract Title	CME Globex and CME ClearPort Code	Rulebook Chapter
Bitcoin Friday Futures	BFF	451

The underlying reference for the Contract is the CME CF Bitcoin Reference Rate New York Variant (“BRRNY”) (the “Reference Rate”), which mirrors the methodology of the underlying index that the Exchange utilizes to settle its standard USD denominated Bitcoin Futures (“BTC”) contract. The BRRNY is a once-a-day reference rate of the USD price of bitcoin. It represents the aggregate executed trade flow on major cryptocurrency spot exchanges during a specific calculation window; 3:00 p.m. - 4:00 p.m. New York time.

The Reference Rate is calculated and administered by CF Benchmarks Ltd. (“CF Benchmarks”), a benchmark administrator registered with the European Securities and Markets Authority in accordance with Article 34 of the EU Benchmark Regulation under the regulatory supervision of the UK Financial Conduct Authority.

Section 1 - Contract Specifications

Contract Title	Bitcoin Friday Futures
Rulebook Chapter	CME 451
CME Globex and CME ClearPort Code	BFF (e.g., BFFMYDD – where: M=single letter month code; Y=single number year code; DD=date)
Contract Size	0.02 bitcoin, as defined by the CME CF Bitcoin Reference Rate New York Variant (BRRNY)

Trading and Clearing Hours	CME Globex Pre-Open: 4:45 p.m. - 5:00 p.m. Central Time (CT) CME Globex: Sunday - Friday 5:00 p.m. - 4:00 p.m. CT with a 60-minute break each day beginning at 4:00 p.m. CT CME ClearPort: Sunday 5:00 p.m. - Friday 5:45 p.m. CT with no reporting Monday - Thursday 5:45 p.m. – 6:00 p.m. CT
Settlement Method	Financial
Listing Schedule	Friday contracts listed for two (2) consecutive weeks
Initial Listing Schedule	October 4, 2024 (contract code: BFFV404). October 11, 2024 (contract code: BFFV411).
Price Quotation	U.S. dollars and cents per bitcoin
Minimum Price Fluctuation	Outright: \$5.00 per bitcoin = \$0.10 per contract Calendar Spread: \$1.00 per bitcoin = \$0.02 per contract
Termination of Trading	Trading terminates at 4:00 p.m. New York time on the Friday of the contract week. If that Friday is not a business day in both London and the U.S., trading shall terminate on the preceding day that is a business day in both London and the U.S.
Final Settlement	Delivery is by cash settlement by reference to the Final Settlement Price, equal to the CME CF Bitcoin Reference Rate New York Variant on the Last Day of Trading.
Final Settlement Increment	\$0.01
Position Limits and Reportable Levels	Aggregated Spot Month Position Limit of 2,000 Bitcoin Futures (BTC) contracts effective close of trading three (3) business days prior to expiration. Position accountability level of 5,000 BTC contracts be applied to positions in single months outside the spot month and in all months combined.
Block Trade Minimum Threshold / Reportable Window	25 contracts / Reportable window: 15 minutes
CME Globex Matching Algorithm	F: First In First Out (FIFO)

Section 2: Index Administration, Governance, and Methodology

Cash Market Overview

Bitcoin is a decentralized open source blockchain and digital currency that allows for secure peer-to-peer transactions on the internet.

Bitcoin was created by Satoshi Nakamoto, a pseudonymous person or team who outlined the technology in a 2008 white paper. The bitcoin network went live in 2009. Every transaction involving Bitcoin is tracked on the Bitcoin blockchain ledger which is public and permissionless. Unlike a bank's ledger, the Bitcoin blockchain is distributed across the entire network. No company, country, or third party is in control of it; and anyone can become part of that network.

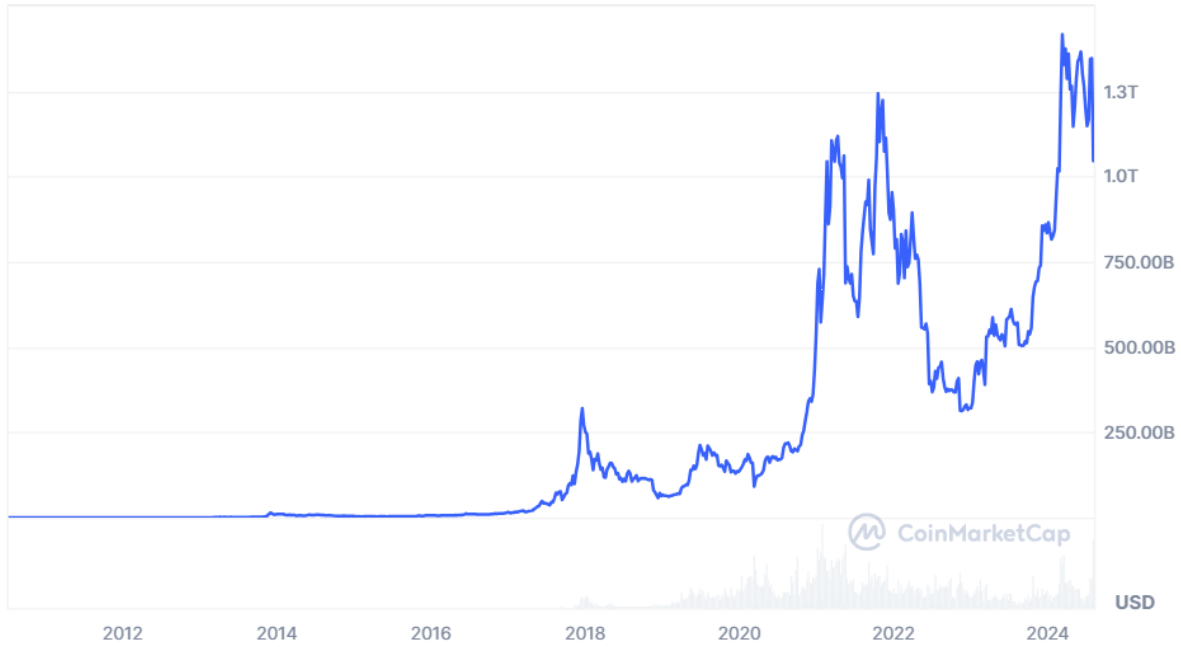
The network's native cryptocurrency token is bitcoin (BTC). According to Coinmarketcap.com (<https://coinmarketcap.com/>), the market cap for all digital assets is over \$1.8 TN. Bitcoin is the largest cryptocurrency by market capitalization, estimated to be \$1 TN¹ as of August 5, 2024. BTC can be traded for other cryptocurrencies or other sovereign currencies.

The 24 hour trading volume in bitcoin is \$98 BN as of August 5, 2024. Bitcoin is actively traded across approximately 400 spot exchanges and other execution platforms that offer leveraged exposure. The value of a single bitcoin has steadily climbed to an all-time high of \$73,750 on March 14, 2024, the current price of August 5, 2024, is around \$53,500.

¹ Source: <https://coinmarketcap.com/currencies/bitcoin/>

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Bitcoin Market Capitalization



Source: CoinMarketCap.com

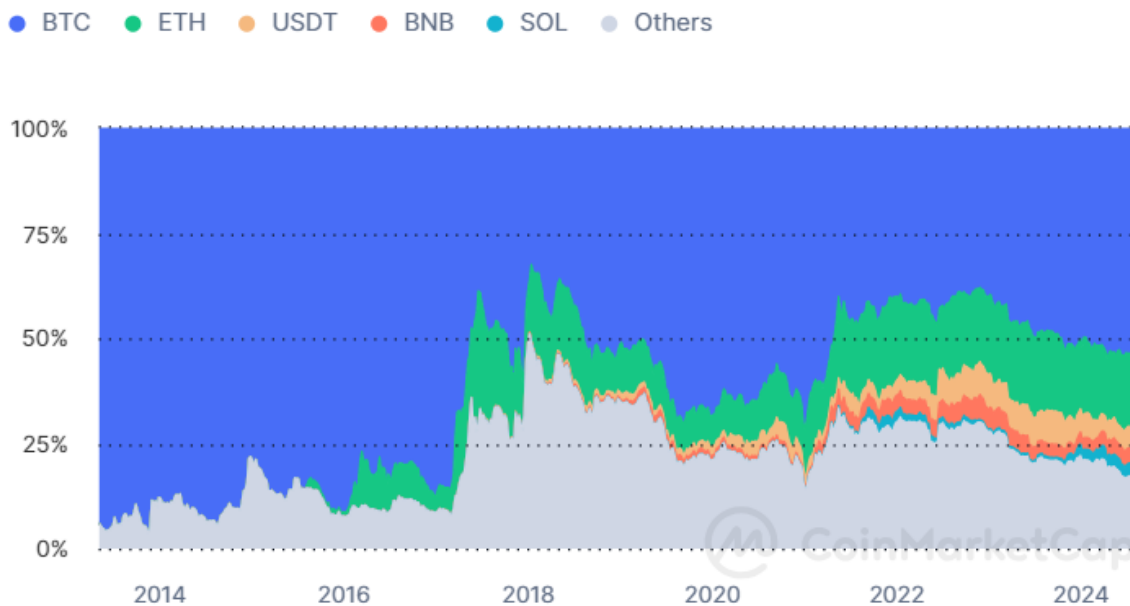
Bitcoin Price History



Source: CoinMarketCap.com

Bitcoin's Percentage of Total Market Capitalization (Dominance)

In terms of market dominance, bitcoin is consistently the dominant cryptocurrency. As of August 5, 2024, bitcoin's dominance stood at 56.2%%



Source: CoinMarketCap.com

Total Supply

The bitcoin protocol defines, in advance, how the currency will be created and at what rate. Upon release of bitcoin in 2009, Satoshi Nakamoto coded the theoretical maximum number of coins that will ever be minted for bitcoin, as 21 million. The supply of new bitcoins is designed to grow toward a ceiling of 21 million units. However, not all 21 million coins are currently in circulation.

Bitcoin Mining and Blocks

Bitcoin mining is the process by which new bitcoin enter circulation. Miners are individuals or groups who work to secure the network by verifying transactions and adding them to a public ledger; the bitcoin blockchain, in what is called blocks. A block contains details of all the transactions that have been transacted within a given timeframe. Blocks form a chain by referring to the hash (or fingerprint) of the previous block.

Mining requires specialist equipment and great power. The miners are an important part of preserving the blockchain ledgers. The miner that first finds the newest block is rewarded with new bitcoin for their work. Miners also take transaction fees paid by parties sending bitcoin.

The bitcoin code is designed to create a new block every ten minutes. As such the number of bitcoin in existence increases about every 10 minutes when new blocks are mined and added to the bitcoin blockchain. The bitcoin protocol defines how many bitcoin are released each time a miner discovers a new block. At the current mining rate each new block adds 3.125 bitcoin into circulation, which is approximately 450 bitcoin per day.

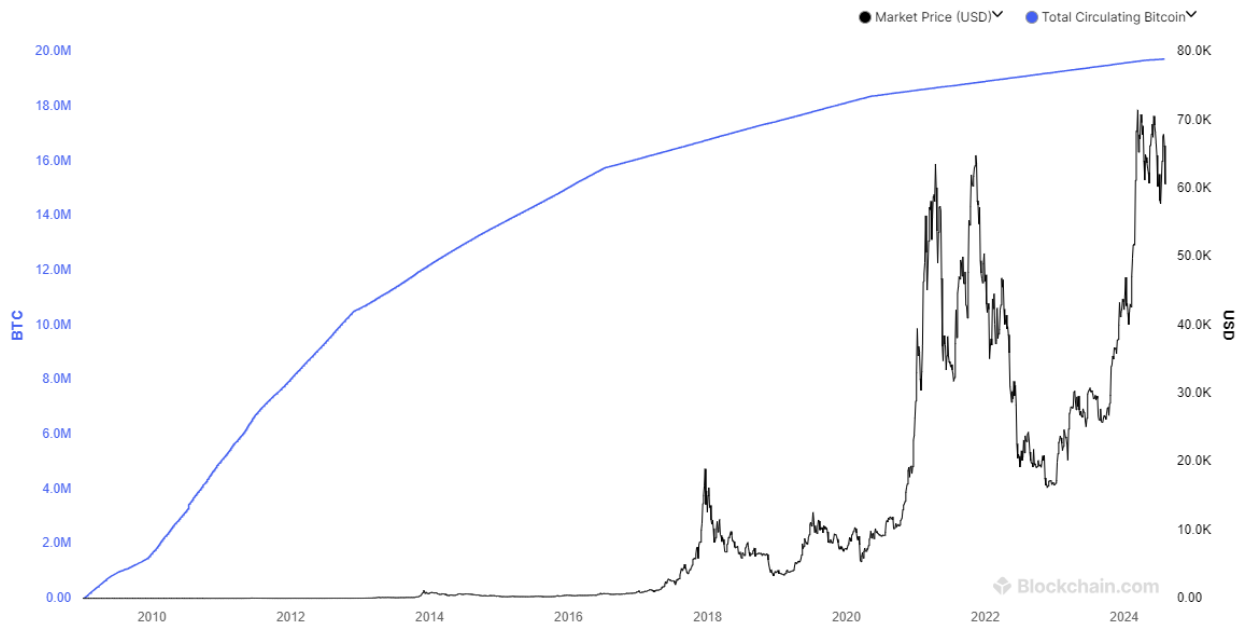
Initially, the block reward was set to 50 bitcoin per solved block. The protocol states that the number of bitcoin created per block, i.e., the mining reward, will decrease geometrically. This system is in place to systematically reduce the rate at which new bitcoin are issued into circulation This gradual systematic

process will see a 50% reduction every 210,000 blocks, or approximately every four years, until all the 21 million units of bitcoin have been created, which will happen in 2140.

Bitcoin in Circulation

As of August 5, 2024, 19,735,953 (19.7 million) bitcoin have been mined. This represents circa 94%² of all the bitcoin total supply originally set.

Bitcoin in Circulation



Source: www.blockchain.com/en/charts/total-bitcoins

As designed, the percent growth of mined bitcoin has slowed since inception and will eventually end when all 21 million bitcoin have been mined.

As designed, the percent growth of bitcoin in circulation has slowed since inception. The growth of the bitcoin in circulation is expected to slow with time, eventually ending at 21 million bitcoins.

² <https://www.blockchain.com/explorer/charts/total-bitcoins>

Approximate Bitcoin in Circulation at the end of each calendar year

Year	Total Bitcoin in Circulation	Total percentage increase
31-Dec-09	1,620,475	
30-Dec-10	5,003,425	209%
29-Dec-11	7,986,433	60%
30-Dec-12	10,606,004	33%
30-Dec-13	12,192,506	15%
28-Dec-14	13,657,946	12%
28-Dec-15	15,015,763	10%
29-Dec-16	16,070,956	7%
29-Dec-17	16,769,794	4%
30-Dec-18	17,453,566	4%
30-Dec-19	18,130,731	4%
30-Dec-20	18,584,959	3%
31-Dec-21	18,915,978	2%
30-Dec-22	19,246,866	2%
30-Dec-23	19,584,728	2%

Source: www.blockchain.com/en/charts/total-bitcoins

The theoretical total supply of bitcoin, however, is not the total circulating supply. The total circulating supply is lower than the total supply due to accidental loss, willful destruction, and technical peculiarities.

From the total supply of 19.7 million bitcoin, it would be prudent to discount for unrecoverable bitcoin that are burned (bitcoin that will never be spent - for example, if the bitcoin were sent to a public address without any party knowing or having a way to compute the private key, the bitcoin associated with that key are considered "burned."); permanently withdrawn from circulation or lost. There is no consensus on the number to be deducted, but best estimates indicate there to be about a 20% total loss. This would produce an estimate of 15.76 million bitcoin as circulating supply (equal to 19.7 million x 0.80).

Deliverable Supply

In theory, all 15.76 million units extant may be considered as notional deliverable supply of contract-grade commodity. A prudentially conservative estimate, however, would acknowledge that bitcoin is traded in multiple currency denominations, of which USD is one.

For illustration, consider that during the six months ending June 30, 2024, around 91.86% of fiat bitcoin transaction volume was in the BTC:USD currency pair.³ Using 90%, as a conservative estimate of USD market share as a proxy for the share of outstanding bitcoin that stands as notional contract-grade supply for Bitcoin Friday Futures, it would produce an estimate of 14.18 million bitcoin (equal to 15.76 million x 0.90) as the 'money stock' notionally eligible for delivery in fulfillment of expiring Contracts. The following analysis uses this estimate.

The position limit will be applicable in aggregate with the Exchange's Bitcoin Futures (BTC) contract. For the discussion of position limits that follows, contract size is for the BTC contract, with a 5 bitcoin multiplier.

By the standards applicable to agricultural or other commodity futures for physical delivery (i.e., 17 CFR 150.5(b)(1)), the position limit would be set at or below 25 percent of estimated spot month deliverable

³ Source: <http://data.bitcoinity.org/markets/volume/6m?c=e&t=b>
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supply. Under current bitcoin market conditions, the resultant maximum position limit would be 3,546,000 bitcoin, or 709,200 Contracts ((equal to 14.18 million bitcoin x 0.25) / (5 bitcoin per Contract)).

An alternative approach is based on the standard that the Exchange has typically applied to foreign exchange futures products, according to which the position limit is set at or below one percent of the money stock in the contract-grade currency denomination. Applied to the estimated bitcoin 'money stock', the result would be a position limit of 141,840 bitcoin, or 28,368 Contracts ((equal to (14.18 million bitcoin x 0.01) / (5 bitcoin per Contract)) or less.

Position Limits

The position limit will be applicable in net futures equivalent of Bitcoin Futures, including Bitcoin Futures, Options on Bitcoin Futures, Micro Bitcoin Futures, Options on Micro Bitcoin Futures, Bitcoin Euro Futures, Micro Bitcoin Euro Futures and Bitcoin Friday Futures.

Viewed in the context of the preceding cash market overview and to align with the Bitcoin Futures contract, the aggregated Spot Month Position Limit shall be 2,000 Bitcoin Futures (BTC) contracts effective close of trading three (3) business days prior to expiration.

Single Month and All Month Accountability Levels: 5,000 BTC contracts.

The recommended quantity is sufficiently stringent that it would be highly unlikely to motivate attempted manipulation of the benchmark in connection with Contract final settlement and is significantly below the standard 25% 'money stock' analysis of deliverable supply test.

Additionally, to allow for increased transparency and more effective market surveillance, a reportable position level shall be set at one (1) Bitcoin Friday Futures contract.

Section 3. PRA Analysis CME CF Reference Rates

The Contract's final settlement is determined by reference to the CME CF Bitcoin Reference Rate New York Variant ("BRRNY") (or "Reference Rate"). The Reference Rate is calculated and administered by CF Benchmarks and uses the same methodology that is used for the CME CF Bitcoin Reference Rate ("BRR") to determine the final settlement price for CME's standard Bitcoin Futures contract, except for the choice of calculation window and publication time.

Governance

The Reference Rate is calculated and administered by CF Benchmarks, a leading provider of cryptocurrency benchmarks and indices. CF Benchmarks is registered with the European Securities and Markets Authority ("ESMA") as a benchmark administrator in accordance with Article 34 of the EU Benchmark Regulation and under the regulatory supervision of the UK Financial Conduct Authority. The CME CF Benchmark Statement, which provides additional details on regulatory compliance requirements, is available on the CF Benchmarks website.⁴

Furthermore, an oversight committee is responsible for overseeing certain activities undertaken in connection with the Reference Rate by approving and regularly reviewing the calculation methodology, practice, standards and definition of the reference rate to ensure it remains relevant and robust. Currently there are seven (7) members of the oversight committee. The committee is comprised of a (1) CF Benchmarks representative, two (2) representatives from CME Group, and at least two (2) independent experts. The oversight committee meets at least once per quarter and publishes its minutes publicly on the

⁴ CME-CF Benchmark Statement. Located in the CME CF Oversight Committee section:

<https://www.cfbenchmarks.com/documentation/products/cme-cf>

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CF Benchmarks website. Further details of the oversight committee’s charter and related governance policies are available on the [CF Benchmarks](#) website.⁵

License Arrangements

There is sufficiency of data inputs for the calculation, and the data is provided under licensing arrangements with each exchange, who in turn meet strict entry criteria.

The Exchange uses the Reference Rate under the terms of a data sharing license agreement with CF Benchmarks Ltd.

Constituent Exchange Eligibility Criteria

The Reference Rate is calculated from trades transacted on specific constituent exchanges. Specific eligibility criteria must be adhered to, in order to become a constituent exchange.

To assure that the CME CF Cryptocurrency Pricing Products reflect global cryptocurrency trading activity in a representative and unbiased manner, a geographically diverse set of spot trading venues is included within the current framework. Applications for new Constituent Exchanges to be added will be based on a set of predefined criteria, and the operation of existing Constituent Exchanges will be monitored against the same criteria.

The constituent exchanges eligibility criteria are publicly available on the CF Benchmarks website.⁶

A trading venue is eligible as a Constituent Exchange in any of the CME CF Cryptocurrency Pricing Products if it facilitates spot trading of the relevant cryptocurrency against the corresponding fiat currency (the “Relevant Pair”) and makes trade data and order data available through an Automatic Programming Interface (API) with sufficient reliability, detail and timeliness.

Furthermore, it must, in the opinion of the Oversight Committee, fulfill the below criteria.

1. The venue’s Relevant Pair spot trading volume for an index must meet the minimum thresholds as detailed below for it to be admitted as a constituent exchange: The average daily volume the venue would have contributed during the observation window for the Reference Rate of the Relevant Pair exceeds 3% for two consecutive calendar quarters.
2. The venue has policies to ensure fair and transparent market conditions at all times and has processes in place to identify and impede illegal, unfair or manipulative trading practices.
3. The venue does not impose undue barriers to entry or restrictions on market participants, and utilizing the venue does not expose market participants to undue credit risk, operational risk, legal risk or other risks.
4. The venue complies with applicable law and regulation, including, but not limited to capital markets regulations, money transmission regulations, client money custody regulations, know-your-client (KYC) regulations and anti-money laundering (AML) regulations.
5. The venue cooperates with inquiries and investigations of regulators and the Administrator upon request and must execute data sharing agreements with CME Group. Once admitted a constituent exchange must demonstrate that it continues to fulfill criteria 2 to 5 inclusive. Should the average daily contribution of a constituent exchange fall below 3% for any Reference Rate then the continued inclusion of the venue as a constituent exchange to the Relevant Pair shall be assessed by the CME CF Oversight Committee.

⁵ CME-CF Oversight Committee Charter and CME-CF Conflicts of Interest Policy. Located in the CME CF Oversight Committee section: <https://www.cfbenchmarks.com/documentation/products/cme-cf>

⁶ CME-CF Constituent Exchanges Eligibility Criteria. Under CME CF Constituent Exchanges section: <https://www.cfbenchmarks.com/documentation/products/cme-cf>

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Currently, there are six (6) constituent exchanges: Bitstamp, Coinbase, Gemini, itBit, Kraken and LMAX Digital as more specifically noted below. The list of current constituent exchanges is also available on the CF Benchmarks website.⁷

Constituent Exchanges

Constitute Exchange	CME CF Bitcoin Reference Rate	CME CF Bitcoin Reference Rate New York Variant	Date Added
Bitstamp	✓	✓	November 14, 2016
Coinbase	✓	✓	November 14, 2016
ItBit	✓	✓	November 14, 2016
Kraken	✓	✓	November 14, 2016
Gemini	✓	✓	August 30, 2019
LMAX	✓	✓	May 3, 2021

Calculation Methodology

The Exchange commenced daily publication of the Reference Rate in February 2022. The Exchange publishes the rate on its website at 4:00 p.m. New York time.

The Bitcoin Reference Rate New York Variant is a daily reference rate of the USD price of one bitcoin as of 4:00 p.m. New York time. It is the aggregation of executed trade flow of major cryptocurrency spot exchanges that participate in the price discovery process as constituent exchanges during a specific one-hour calculation window (3:00 p.m. to 4:00 p.m. New York time). All relevant transactions are added to a joint list, recording the trade price and size for each transaction. This one-hour window is then partitioned into twelve, five-minute intervals. For each partition, the volume-weighted median trade price is calculated from the trade prices and sizes of all relevant transactions across all constituent exchanges. The index is then derived from the equally weighted average of the volume-weighted medians of all partitions and published daily at 4:00 p.m. New York time.

The calculation methodology is publicly available on the CF Benchmarks website.⁸

Qualitative Description

CME CF Cryptocurrency Reference Rates are calculated based on the Relevant Transactions of all Constituent Exchanges. Calculation steps on any given Calculation Day are as follows:

- 1. All Relevant Transactions in the specified pair, from Constituent Exchanges are added to a joint list, recording the trade price and size for each transaction. The assessments are calculated three times daily based on relevant transactions that occur on the underlying Constituent Exchanges in the one hour window from 3:00 p.m. to 4:00 p.m. London, New York or Hong Kong/Singapore time (the "Observation Period").
- 2. The list is partitioned into a number of equally sized time intervals (12, 5-minute partitions).
- 3. For each partition separately, the volume-weighted median trade price is calculated from the trade prices and sizes of all Relevant Transactions, i.e., across all Constituent Exchanges.
- 4. The respective CME CF Cryptocurrency Reference Rate is then given by the equally weighted average of the volume-weighted medians of all partitions.

⁷ CME-CF Constituent Exchanges List. Under CME CF Constituent Exchanges section: <https://www.cfbenchmarks.com/documentation/products/cme-cf>

⁸ CME-CF Reference Rate Methodology. In the CME CF Single Asset Series section: <https://www.cfbenchmarks.com/documentation/products/cme-cf>

A pre-defined CF Benchmarks policy has also been established to evaluate any hard fork for its significance and impact on the index. Procedural policy details are provided in a Hard Fork Policy document on the CF Benchmark website.⁹

Methodology Design Choices

The calculation methodology mitigates to a high degree against price anomalies, while being replicable through spot trading on the constituent exchanges. This is achieved through several design choices around partitions, the weighting of those partitions, medians and the volume weighting of medians. Further details on the methodology are available on the CF Benchmarks website.

Overall, the Reference Rate is designed to have limited susceptibility to temporary price swings and outlier prices. There are criteria for an exchange to charge a fee for trading, which eliminates wash trading to increase volumes. The calculation only includes bitcoin executed in USD and (1) excludes alternate currency pairs or crypto to crypto trading, (2) does not apply conversion calculations, and (3) excludes stable coin transactions.

Not Readily Susceptible to Manipulation

The index is not readily susceptible to manipulation due to the design of the methodology. As noted above, the use of medians reduces the effect of outlier prices on one or more constituent exchange. The volume-weighting of medians filters out high numbers of small trades that may otherwise control the value of a non-volume weighted median. The use of twelve (12) non-weighted partitions assures that price information is sourced equally over the entire observation period. Influencing the rate would therefore require trading activity during multiple partitions on several exchanges over an extended period, which would prove a costly and an operationally intensive undertaking. The methodology is designed to remove the reliance on any single contributing exchange, where delayed or missing data from an exchange does not cause a calculation failure.

In accordance with the methodology, if for any constituent exchange the absolute percentage deviation of the volume-weighted median trade price in comparison with the median of the volume-weighted median trade prices of all constituent exchanges exceeds a given threshold (currently set at 10% and defined in the methodology), all relevant transactions of that constituent exchange are flagged as potentially erroneous and are disregarded in the calculation of index for that calculation day.

Furthermore, for inclusion in the calculation, a constituent exchange's spot trading volume must meet the minimum threshold (currently, 3% relative contribution over two (2) consecutive quarters) as detailed in the methodology.

The criteria collectively cause that constituent exchanges deliver transparent and consistent trade and order data to CF Benchmarks via an API with sufficient reliability, detail and timeliness.

Furthermore, the constituent exchanges maintain fair and transparent market conditions to impede illegal, unfair or manipulative trading practices, and comply with applicable law and regulations including, capital markets regulations, money transmission regulations, client money custody requirements, know-your-client ("KYC") requirements, and anti-money-laundering ("AML") regulations.

The constituent exchanges are also required to cooperate with inquiries and investigations of the administrator (CF Benchmarks) and execute a data sharing agreement with CME Group.

⁹ CME-CF Hard Fork Policy: In the CME CF Single Asset Series section:
<https://www.cfbenchmarks.com/documentation/products/cme-cf>

According to coinmarketcap.com, bitcoin trades on approximately 400 spot exchanges/platforms. Bitcoin trades in USD are transacted on approximately 20 spot exchanges.

In aggregate, the six (6) constituent exchanges that contribute data to the Reference Rate host several thousand transactions on a daily basis and represent over 80% of bitcoin to USD transactions, making the indices a source of price discovery and transparency for the market.

Quality of Data Inputs

The Reference Rate methodology adheres to rules in consideration of the following factors to ensure the robustness of the index:

- Delayed data and missing data
- Erroneous data
- Potentially erroneous data
- Calculation failure

The calculation process includes automated screening for erroneous data for non-numeric or non-positive trade price or trade size and un-parseable data.

Automated data validation checks are implemented for each constituent exchange individually. Such validation checks are made to ensure that the volume-weighted median trade price for one constituent exchange does not deviate too widely from the median of the volume-weighted median trade prices of all constituent exchanges. Any data that is outside of a pre-defined deviation tolerance of the other constituent exchanges results in the entire data set from that particular constituent exchange being discarded.

Volatility

Cryptocurrency prices can be highly volatile. The Exchange is adept at managing periods of prolonged volatility as well as spikes in volatility as has been demonstrated through its risk management of a variety of asset classes including commodities, agriculture, and financial products. The Exchange will implement certain risk controls on the Contract, including special price fluctuations limits, daily price limits, and margin levels that appropriately reflect the volatility of bitcoin and ether. Though the spikes in cryptocurrency volatility can look extreme, the daily price movements of the underlying reference rates are routinely in line with other CME Group contracts and reference rates that underlie Exchange-listed contracts.

Section 4 – Customer Feedback

CME offers Bitcoin, Ether, Micro Bitcoin and Micro Ether Futures, and monthly and weekly options thereon, as well as Bitcoin and Micro Bitcoin Euro and Ether and Micro Ether Euro Futures contracts.

Demand is expected to be strong given the success of the U.S. dollar denominated standard and micro sized contracts. Market participants have indicated that the Contract could attract further participation.

Interest in the Contract has been expressed to the Exchange by traditional and crypto-focused futures liquidity providers and intermediaries. Such parties indicated that a cash-settled, weekly expiring, smaller notional sized contract available for trading and clearing on a regulated exchange would be a positive addition to the ecosystem which is currently dominated by unregulated platforms. The Contract will provide market participants an opportunity to hedge their long physical positions.

It is expected that professional trading companies looking to arbitrage price differences across other bitcoin exchanges will provide additional liquidity. It is also expected that crypto lending platforms, OTC desks, hedge funds and crypto-focused hedge funds will participate as both buyers and sellers of the Contract depending on their specific trading book and market view. In general, the bitcoin market structure will be similar to other asset classes and will be comprised of hedgers, speculators, and market makers.

Interest in Contract has also been expressed by existing and potential ETF and fund providers who cite that the addition of the Contract would provide opportunities to manage daily cashflows.

In the early development stages of the Contract, the Exchange engaged a group of market participants across a multitude of customer segments including proprietary trading firms, brokers, OTC platforms, crypto lending platforms, as well as traditional and crypto-focused hedge funds. During this market participant validation period, contract specifications and other details of a futures contract were deliberated and validated.

The Exchange also engaged some of its clearing member firms to assess their operational readiness and assess potential impacts of the Contract. Clearing members generally did not express concern regarding the launch of the Contract from an operational or risk perspective. The Contract is cash-settled futures and will have minimal operational impacts on clearing members. The Exchange also deliberated with clearing members who are material participants in this market. Such clearing members advised of their intent to approve trading of the Contract on a client-by-client basis while others indicated early support.

Section 5 – Compliance with Core Principles

The Exchange reviewed the designated contract market core principles (“DCM Core Principles”) as set forth in the Commodity Exchange Act (“CEA” or the “Act”) and identified that the following DCM Core Principles may be impacted as follows:

Core Principle 2 – Compliance with Rules

Trading in the Contract shall be subject to CME Rulebook Chapter 4, which includes prohibitions against fraudulent, noncompetitive, unfair, and abusive practices. Additionally, trading in this Contract shall be subject to the Exchange’s trade practice rules, the majority of which are contained in Chapter 5 and Chapter 8 of the Rulebook. Trading activity in this Contract shall be subject to monitoring and surveillance by CME Group’s Market Regulation Department, which has the authority to exercise its investigatory and enforcement power where potential rule violations are identified.

Core Principle 3 – Contracts Not Readily Subject to Manipulation

The Exchange certifies that the underlying reference rate, namely, the CME CF Bitcoin Reference Rate New York Variant (“BRRNY”), is not readily subject to manipulation. The index is calculated from a large number of trades observed during the calculation window. The combination of volume weighting of medians and non-weighted partitions prevents manipulation in the reference rate. Ultimately, influencing the reference rate would require significant trading activity on several exchanges over an extended period of time.

The BRRNY is calculated and administered by CF Benchmarks (registered with the European Securities and Markets Authority as a benchmark administrator in accordance with Article 34 of the EU Benchmarks Regulation) under the regulatory supervision of the UK Financial Conduct Authority.

The Reference Rate was first published on February 28, 2022, and has been calculated and published daily without exception to date. It is published daily on the CME Group website.

Core Principle 4 – Prevention of Market Disruption

Trading in the Contract will be subject to CME Rulebook Chapters 4 and 7, which include prohibitions on manipulation, price distortion, and disruption to the expiration and assignment process. As with any new product listed for trading on a CME Group designated contract market, trading activity in the Contract certified herein will be subject to monitoring and surveillance by CME Group’s Market Regulation Department. The Exchange will initially and may on an ongoing basis supplement the monitoring process by providing expiration surveillance reports to the Commission’s Division of Market Oversight staff.

Core Principle 5 – Position Limits or Accountability

Positions for the Bitcoin Friday Futures Contract will be aggregated with the Exchange's Bitcoin Futures (BTC) contract and options thereon, Micro Bitcoin Futures (MBT) contract and options thereon, the Bitcoin Euro Futures (BTE) contract and the Micro Bitcoin Euro Futures (EBM) at the applicable ratio given the differing notional values. Uniform position limits will be applied to the Contract and the standard Bitcoin Futures (BTC) contract.

The aggregated Spot Month Position Limit shall remain at 2,000 Bitcoin Futures (BTC) contracts effective close of trading three (3) business days prior to expiration.

A position accountability level of 5,000 BTC contracts shall be applied to positions in single months outside the spot month and in all months combined. The reportable level shall be one (1) Bitcoin Friday Futures contract.

The position limits for the Contract are consistent with the Commission's guidance.

Core Principle 7 – Availability of General Information

The Exchange shall disseminate a Special Executive Report ("SER") that sets forth information in regard to specifications, terms, and conditions of the Contract. The SER will also be published on the Exchange's website.

Core Principle 8 – Daily Publication of Trading Information

The Exchange shall publish trading volumes, open interest levels, and price information daily of the Contract on the CME Group website and through quote vendors.

Core Principle 9 – Execution of Transactions

The Contract will be listed for trading on the CME Globex electronic trading and for clearing through CME ClearPort. The CME Globex electronic trading venue provides for competitive and open execution of transactions. CME Globex affords the benefits of reliability and global connectivity.

Core Principle 10 – Trade Information

All requisite trade information shall be included in the audit trail and will suffice for the Market Regulation Department to monitor for market abuse.

Core Principle 11 – Financial Integrity of Transactions

The Contract shall be cleared by CME Clearing, which is registered with the Commission as a derivative clearing organization, and which is subject to all CFTC regulations related thereto.

Core Principle 12 – Protection of Markets and Market Participants

Chapters 4 and 5 in the CME Rulebook set forth multiple strictures that preclude intermediaries from disadvantaging their customers. These Rules apply to trading in the Exchange's competitive trading venues and will apply to transactions in the Contract.

Core Principle 13 – Disciplinary Procedures

Chapter 4 of the CME Rulebook provide for the Exchange to discipline, suspend, or expel members or market participants who violate the rules of the Exchange. Trading in the Contract shall be subject to these provisions. The Exchange's Market Regulation Department has the authority to exercise its powers of enforcement, in the event that rule violations in the Contract are identified.

Core Principle 14 – Dispute Resolution

Disputes in respect of the Contract shall be subject to the arbitration provisions set forth in Chapter 6 of both the CME Rulebook, which allow all nonmembers to submit to arbitration claims for financial loss resulting from transactions on the Exchange. Pursuant to these provisions, any member named as a respondent in any such claim submitted by a nonmember is required to participate in arbitration

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proceedings. Additionally, the Exchange requires members to resolve via arbitration all disputes concerning transactions on the Exchange.

Appendix A provides CME Rulebook Chapter 51. Appendix B, under separate cover, provides the Position Limit, Position Accountability, and Reportable Level Table. Appendix C provides the CME Rule 588.H. (“Globex Non-Reviewable Trading Ranges”) Table, Appendix D provides the Special Price Fluctuation Limits and Daily Price Limits Table. Appendix E provides the Exchange fees. Appendix F, under separate cover, provides the Reference Rate Analysis (confidential treatment requested).

Pursuant to Section 5c(c) of the Act and CFTC Regulation 40.2(a), the Exchange certifies that listing the Contract complies with the Act including all regulations thereunder. There were no substantive opposing views to this proposal.

The Exchange certifies that this submission has been concurrently posted on the Exchange’s website at <http://www.cmegroup.com/market-regulation/rule-filings.html>.

Should you have any questions concerning the above, please contact the undersigned at (312) 466-7478 or via e-mail at CMEGSubmissionInquiry@cmegroup.com.

Sincerely,

/s/ Timothy Elliott
Managing Director and Chief Regulatory Counsel

Attachments:	Appendix A	CME Rulebook Chapter 51
	Appendix B	Position Limit, Position Accountability, and Reportable Level Table in Chapter 5 of the CME Rulebook (attached under separate cover)
	Appendix C	CME Rule 588.H. – (“Globex Non-Reviewable Trading Ranges”) Table
	Appendix D	CME Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table
	Appendix E	Exchange Fees
	Appendix F	Reference Rate Analysis – (CONFIDENTIAL TREATMENT REQUESTED)

Appendix A

CME Rulebook

Chapter 451 Bitcoin Friday Futures

45100. SCOPE OF CHAPTER

This chapter is limited in application to Bitcoin Friday Futures. In addition to this chapter, futures shall be subject to the general rules and regulations of the Exchange as applicable.

45101. CONTRACT SPECIFICATIONS

Each futures contract shall be valued at 0.02 bitcoin as defined by the CME CF Bitcoin Reference Rate New York Variant ("BRRNY").

45102. TRADING SPECIFICATIONS

45102.A. Trading Schedule

Futures contracts shall be scheduled for trading during such hours and for delivery in such months as may be determined by the Exchange.

45102.B. Trading Unit

The unit of trading shall be 0.02 bitcoin as defined by the CME CF Bitcoin Reference Rate New York Variant ("BRRNY").

45102.C. Price Increments

The minimum price increment shall be \$5.00 per bitcoin, equal to \$0.10 per contract, except for intermonth spreads executed pursuant to Rule 542.A., for which the minimum price increment shall be \$1.00 per bitcoin, equal to \$0.02 per contract.

45102.D. Position Limits, Exemptions, Position Accountability and Reportable Levels

The applicable position limits and/or accountability levels, in addition to the reportable levels, are set forth in the Position Limit, Position Accountability and Reportable Level Table in the Interpretations & Special Notices Section of Chapter 5.

A Person seeking an exemption from position limits for bona fide commercial purposes shall apply to the Market Regulation Department on forms provided by the Exchange, and the Market Regulation Department may grant qualified exemptions in its sole discretion.

Refer to Rule 559 for requirements concerning the aggregation of positions and allowable exemptions from the specified position limits.

45102.E. Daily Price Limits

At the commencement of each Trading Day, the contract shall be subject to special price fluctuation limits and daily price limits as set forth in Rule 589 and in the Special Price Fluctuation Limits Table in the Interpretations & Special Notices Section of Chapter 5.

45102.F. Termination of Trading

Trading in expiring futures shall terminate at 4 p.m. New York time every Friday on the Last Trade Date. If that day is not a business day in both London and the U.S., trading shall terminate on the preceding day that is a business day in both London and the U.S.

45103. SETTLEMENT PROCESURES

Delivery shall be by cash settlement.

45103.A. Final Settlement Price

For a futures contract for a given delivery date, the Final Settlement Price shall be the BRRNY published at 4:00 p.m. New York time on the Last Trade Date (Rule 45102.F.). Revision to the published BRRNY shall be received prior to 23:59:59 New York time on the Last Trade Date. Thereafter, the final settlement futures price shall be deemed final.

In the event that the BRRNY is not publishable or published on the Last Trade Date, and therefore, CME cannot determine the Final Settlement Price, then final settlement of the contract is at the discretion of the Exchange and may be deferred or postponed for up to 14 consecutive calendar days.

45103.B. Final Settlement

Clearing members holding open positions in an expiring futures contract at its termination of trading (Rule 45102.F.) shall make payment to or receive payment from the Clearing House in accordance with normal variation margin procedures based on such expiring contract's Final Settlement Price (Rule 45103.A.).

In the event of a hard fork, Bitcoin Friday Futures shall continue to settle to the BRRNY corresponding to the original token pair (BTC:USD). The Exchange may, in its sole discretion, take alternative action with respect to hard forks in consultation with market participants as may be appropriate.

(End Chapter 451)

Appendix B

CME Rulebook Chapter 5 ("Trading Qualifications and Practices") Position Limit, Position Accountability, and Reportable Level Table

(attached under separate cover)

Appendix C

CME Rulebook Chapter 5 ("Trading Qualifications and Practices") Rule 588.H. – ("Globex Non-Reviewable Trading Ranges") Table

(additions underscored)

Instrument	Globex Symbol	Outrights			Spreads	
		Globex Non-Reviewable Ranges (NRR)	NRR: Globex Format	NRR: Minimum Ticks	NRR: Globex Format	NRR: Minimum Ticks
Bitcoin Friday Futures	BFF	400 Index Points	400	80	Each leg evaluated as an outright	

Appendix D

CME Rulebook Chapter 5 ("Trading Qualifications and Practices") Rule 589. – Special Price Fluctuation Limits and Daily Price Limits Table

(additions underscored)

Product	Rulebook Chapter	Commodity Code	Primary/Associated	Associated With	Dynamically Calculated Variant	Daily Price Limit
Bitcoin Friday Futures	451	BFF	Associated	BTC	10% of Dynamically Calculated Reference Price	Daily Price Limit Table

Appendix E

Exchange Fees

Membership Type	Venue/Transaction Type	Fee
Individual Members Clearing Members Rule 106.J Equity Member Firms & Rule 106.J Qualified Subsidiaries Rule 106.I Members & Rule 106.I Qualified Affiliates Rule 106.S Member Approved Funds	CME Globex	\$0.18
	EFP EFR Block	\$0.27
	Delivery	\$0.09
	Exe Asn Future From	\$0.14
Rule 106.D Lessees Rule 106.F Employees	CME Globex	\$0.28
	EFP EFR Block	\$0.42
	Delivery	\$0.14
	Exe Asn Future From	\$0.19
Rule 106.R Electronic Corporate Members (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.29
Rule 106.H and 106.N Firms Clearing Non-Equity Member Firms	CME Globex	\$0.31
	EFP EFR Block	\$0.47
	Delivery	\$0.16
	Exe Asn Future From	\$0.21
International Incentive Program (IIP) Participants International Volume Incentive Program (IVIP) Participants (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.35
Latin American Fund Manager Incentive Program (FMIP) Participants (For other than CME Globex - Non-Member rates apply)	CME Globex	\$0.35
Members Trading Outside of Division (For other than CME Globex During ETH - Non-Member rates apply)	CME Globex During ETH Only	\$0.34
Non-Members	CME Globex	\$0.35
	EFP EFR Block	\$0.53
	Delivery	\$0.18
	Exe Asn Future From	\$0.23

Processing Fees	Fee
Position Adjustment/Position Transfer	\$0.10
Give-Up Surcharge	\$0.05
Facilitation Fee	\$0.40

Appendix F
Reference Rate Analysis

(CONFIDENTIAL TREATMENT REQUESTED)