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**Rule Self-Certification**

July 2, 2018

Christopher J. Kirkpatrick

Office of the Secretariat

Commodity Futures Trading Commission

Three Lafayette Center

1155 21st Street, NW

Washington, DC 20581

Re: **Product Certification and Rule Certification for**

**Four U.S. DV01 Treasury Futures Contracts**

**Reference File: SR-NFX-2018-18**

Dear Mr. Kirkpatrick:

Pursuant to Section 5c(c)(1) of the Commodity Exchange Act, as amended (“Act”), and Sections 40.2 and 40.6 of the Commission’s regulations thereunder, NASDAQ Futures, Inc. (“NFX” or “Exchange”) hereby submits rules, terms and conditions for four new financially settled U.S. DV01 Treasury futures contracts (together, the “New Contracts”). The four New Contracts are:

* U.S. 2-YR DV01 Treasury Futures
* U.S. 5-YR DV01 Treasury Futures
* U.S. 10-YR DV01 Treasury Futures
* U.S. 30-YR DV01 Treasury Futures

The Exchange anticipates listing U.S. 10-YR DV01 Treasury Futures beginning July 18, 2018, for trade date July 19, 2018. The remaining New Contracts will be rolled out on a schedule to be determined by the Exchange and announced in a Futures Trader Alert. The rule amendments proposed in this submission shall be effective on the listing date of the U.S. 10-YR DV01 Treasury Futures.

The new rules and terms and conditions describing the New Contracts are attached to this letter as Exhibits 1 and 2, which together amend (1) Rulebook Appendix A, Listed Contracts, by adding chapters 2002, 2005, 2010 and 2030[[1]](#footnote-2) and (2) Rulebook Appendix B, Table of Position Limits, Position Accountability Levels and Large Trader Reporting Levels (attached under separate cover).[[2]](#footnote-3) A cash market description and deliverable supply analysis for U.S. Treasuries is included as Exhibit 3. The contract specifications sheet is attached as Exhibit 4. Exhibit 5 is an illustration of a final settlement price calculation provided in Excel format. Finally, a Futures Trader Alert announcing the upcoming listing of the initial DV01 Treasury Futures contract is attached as Exhibit 6.

**Contract Description**

The New Contracts are cash settled On-The-Run U.S. Treasury futures contracts expressed as 100 minus the yield of the corresponding U.S. Treasury security. The underlying interest is the dollar value (“DV01”), assigned by the Exchange at the time of listing for each contract month, of a one basis point change in yield of the current On-The-Run U.S. Treasury security with a face value of one million dollars having fixed semi-annual coupon payments available for trading on the Nasdaq Fixed Income (“NFI”) Alternative Trading System Order Book (the “NFI Order Book”). In the event the On-The-Run U.S. Treasury security corresponding to a particular contract month is redeemed or is unavailable for trading, all previously issued fixed principal U.S. Treasury securities having fixed semi-annual coupon payments may be referenced for determination of yield for that contract month. The multiplier is 100 times the DV01 for the contract month. All contract months having the same DV01 will be assigned the same trading symbol.

**Listing Schedule**

The Exchange will list for trading up to 12 consecutive or non-consecutive monthly contracts, beginning with the nearest available contract month. Each listing date for a contract month will be specified in a Futures Trader Alert, which will also identify the base trading symbol and DV01 for that contract month.

**Prices and Minimum Increments**

Prices will be quoted in Yield-Derived Price, which is 100 minus the yield on the corresponding U.S. Treasury security expressed as a percentage. (For example, a yield of 2.065 percent shall be expressed as a Yield-Derived Price of 97.935.) The minimum trading increment for the U.S. 2-YR DV01 Treasury Futures is two tenths of a basis point (.002), which is equivalent to two tenths of the contract month DV01. The other New Contracts will have a minimum trading increment of one tenth of a basis point (.001), which is equivalent to one tenth of the contract month DV01.

**Final Settlement Calculation**

Trading in an expiring contract month will terminate at 3:00 PM EPT on the last day of the contract month which is both an NFX trading day and an NFI trading day (the “Last Trading Day”). The final settlement price will be the Closing Quality Weighted Average Price (“Closing QWAP”), determined by reference to the yield of best bids, best offers (together, the “BBO”), and executed transactions on the corresponding On The Run U.S. Treasury security for the contract month occurring on NFI, exclusive of block trades or any trades not visible on the NFI Order Book, during the closing settlement period for the contract (the “Closing Settlement Period”) on the Last Trading Day. The Closing Settlement Period for the contract will be 2:59 – 3:00 PM EPT, provided, however, that in the event of an early close of trading on NFI, the Closing Settlement Period will be a one minute period during the NFI trading day announced in advance by NFX in a Futures Trader Alert. Only the yield associated with displayed orders on the NFI Order Book and executed transactions associated with those displayed orders will be included in calculation of the final settlement price.

As discussed below, the final settlement price formula incorporates both NFI BBO quotes and trades, with the trades allocated twice the weight of the quotes. Regarding the BBO quotes, the formula employs a size-weighted midpoint rather than a simple midpoint. Thus, any time the BBO changes during the Closing Settlement Period—either price or size—the midpoint changes. Additionally, the formula employs a time-weighted average of duration-weighted BBO midpoints over the course of the Closing Settlement Period, and the executed trades are volume-weighted. The final settlement process is robust and creates a benchmark that would be very difficult to manipulate.

The Closing QWAP will be 100 minus the Reference Amount. The Reference Amount is defined as the Initial Sum divided by three and common rounded to the nearest .001 (or, in the case of U.S. 2-YR DV01 Treasury Futures, common rounded to the nearest .002), where the Initial Sum is the sum of (1) two times the volume weighted average yield of executed transactions occurring during the Closing Settlement Period, and (2) the Continuous Time Average of the Weighted Midpoint of the best bid yield and the best offer yield observed on NFI during the Closing Settlement Period.[[3]](#footnote-4) However, if no executed transactions occur during the Settlement Period, the QWAP will be the Continuous Time Average of the Weighted Midpoint of the best bid yield and the best offer yield observed on NFI during the Closing Settlement Period, common rounded to the nearest .001 (or, in the case of U.S. 2-YR DV01 Treasury Futures, common rounded to the nearest .002). For purposes of making the Closing QWAP calculation, the Weighted Midpoint of each best bid yield and the best offer yield observed on NFI during the Closing Settlement Period, will be (1) the size of the best offer multiplied by the yield of the best bid plus the size of the best bid multiplied by the yield of the best offer, divided by (2) the sum of the sizes of that best bid and that best offer. Finally, the Continuous Time Average of the Weighted Midpoint will be the pro rata average of all observed Weighted Midpoints based on the period of time, as a percentage of the Closing Settlement Period, that each Weighted Midpoint remains unchanged. If during any portion of the Closing Settlement Period there is an absence of bids or offers, that portion of time will not be included for purposes of calculating the Continuous Time Average of the Weighted Midpoint.

To illustrate a final settlement calculation, assume that at 2:59:00, which is the beginning of the Settlement Period, the NFI Order Book reflected a bid size of 200 at a bid yield of 2.75, and an offer size of 400 at an offer yield of 2.745. The Weighted Midpoint between the best bid and the best offer is 2.74833, obtained by multiplying the bid size by the offer yield (200 x 2.745 = 549) and the bid yield by the offer size (2.75 x 400 = 1,100), adding the two products (549 + 1,100 = 1,649) and dividing that sum by sum of offer size plus the bid size (1,649 divided by [400 plus 200] = 2.74833. The calculation is repeated each time there is a change in any of the components of the formula (i.e., the best bid yield, the size of the best bid yield, the best offer yield, and the size of the best offer yield). For example, if at 2:59:05 a new best bid yield of 2.748 with a bid size of 100 is posted, applying the formula discussed above yields a Weighted Midpoint of 2.7474. If at 2:59:15 an existing seller aggresses to sell 100, the market becomes best bid yield 2.75 with a bid size of 200, best offer yield of 2.745 with an offer size of 300, resulting in a Weighted Midpoint of 2.748. Assume that at 2:59:35 an additional buyer enters the market resulting in an increase in the bid size from 200 to 300. The Weighted Midpoint accordingly changes to 2.7475. If at 2:59:45 a new seller of 400 at an offer yield of 2.746 enters the market, the Weighted Midpoint becomes 2.74829. Finally, if at 3:00:00, the end of the Settlement Period, a new buyer aggresses to buy 350, the offer size of the best offer yield decreases from 400 to 50 and the Weighted Midpoint becomes 2.74657.

The pro rata average of the six observed weighted midpoints based on the period of time, as a percentage of the Closing Settlement Period, is calculated to determine the Continuous Time Average of the Weighted Midpoint. To make this calculation, the first observed Weighted Midpoint (2.74833) is multiplied by 5 (the number of seconds the Weighted Midpoint remains in effect from 2:59:00 to 2:59:05) to yield a product of 13.74167. The same calculation is made for the remaining five observed Weighted Midpoints: 2.7474 x 10 seconds (2:59:05 to 2:59:15) = 27.474; 2.748 x 20 seconds (2:59:15 to 2:59:35) = 54.96; 2.7475 x 10 seconds (2:59:35 to 2:59:45) = 27.475; and 2.74829 x 15 seconds (2:59:45 to the end of the Closing Settlement Period at 3:00:00) = 41.22429. The six resulting figures are added together for a total of 164.87495, and divided by 60 seconds (the total number of seconds in the Closing Settlement Period) to arrive at a Continuous Time Average of the Weighted Midpoint of 2.74792.

At the end of the Settlement Period, the volume weighted average yield of the two executions occurring during the Closing Settlement Period is also calculated. The trade of 100 occurring at 2:59:15 is multiplied by its yield of 2.748 (274.8), and the trade of 350 occurring at 3:00:00 is multiplied by its yield of 2.746 (961.1). The total of 274.8 and 961.1 (1235.9) is then divided by the total of the trade sizes (100 + 350 = 450) to determine the volume weighted average yield of executed transactions occurring during the Closing Settlement Period of 2.74644.

Finally, to calculate the final settlement price, volume weighted average yield of executed transactions occurring during the Closing Settlement Period of 2.74644 is doubled, yielding a figure of 5.49288. This figure is added to the 2.74792 Continuous Time Average of the Weighted Midpoint, for a total of 8.2408 which is then divided by three to arrive at 2.7469333 which is rounded to the nearest .001 for a Reference Amount of 2.747. This Reference Amount is subtracted from 100 to yield a Closing QWAP of 97.253.[[4]](#footnote-5)

**Trading Rules**

The NFX trading system will execute orders pursuant to the price-time priority execution algorithm. Pursuant to Chapter IV, Section 8 of the Rulebook, the Order Price Limits shall be four basis points (for the U.S. 2-YR DV01 Treasury Futures), eight basis points (for the U.S. 5-YR DV01 Treasury Futures) or ten basis points (for the U.S. 10-YR DV01 Treasury Futures and U.S. 30-YR DV01 Treasury Futures), above and below the Reference Price as defined in Chapter IV, Section 8.

**Core Principle Compliance**

Core Principle 2 - Compliance with Rules:

The terms and conditions of the New Contracts will be set forth in Rulebook Appendix A. In addition, trading of these contracts will be subject to all relevant Exchange rules which are enforced by Exchange regulatory staff.

Core Principle 3 -Contracts not Readily Subject to Manipulation:

As discussed above, final settlement of the New Contracts will be determined by reference to displayed bids, offers and completed transactions occurring on NFI. The New Contracts will be financially settled in U.S. dollars, and do not involve the physical delivery of U.S. Treasuries.

NFI is a fully electronic central limit order book which facilitates matching of client orders in U.S. Treasury securities and is operated by Execution Access, LLC (“EA”), a subsidiary of Nasdaq, Inc.[[5]](#footnote-6) EA is registered with the U.S. Securities and Exchange Commission (the “SEC”) as a broker-dealer pursuant to Section 15 of the Securities Exchange Act of 1934 and is a member organization of the Financial Industry Regulatory Authority (“FINRA”). Clients (“Subscribers”) to NFI are institutional entities, primarily banks, broker-dealers and proprietary trading firms. Orders entered by Subscribers may interact with other Subscriber orders. EA does not trade in a principal capacity, with the exception of offsetting a bona fide error position through its error account.

In the NFI Trading Manual EA acknowledges its regulatory obligation to ensure that Subscribers’ and their authorized traders’ (“Users’”) activities on NFI are conducted in compliance with federal, state and self-regulatory organization laws, rules and regulations. In accordance with these objectives, EA states that it will seek to maintain at all times a fair and orderly market to ensure that NFI is not used for any improper purpose, including but not limited to fraud, manipulation and disruptive or deceptive practices. EA has implemented both operational and compliance best practices including those as advised by industry groups, such as the Treasury Market Practices Group, to promote and maintain the integrity and efficiency of NFI and the overall U.S. Treasury market as well as a robust internal-control environment. The Trading Manual makes clear that, as a registered securities broker-dealer, EA has responsibilities under SEC and FINRA rules to surveil for market manipulation, fraud, and disruptive and deceptive activities on NFI, including giving the false impression of market price, depth or liquidity (e.g., layering or spoofing, painting the tape, and improper self-matching); inhibiting the provision of liquidity by others causing undue latency or delays in other Subscribers executions (e.g. throttling); deliberately acting to cause error trades; and causing or exacerbating settlement failures.

NFX believes that NFI is the second largest dealer to dealer institutional trading venue for U.S. Treasury securities, with market share approximating 20%. The six on the run U.S. Treasury securities are among the highest in volume and the most liquid financial instruments in the world. Price communication between NFI and its competitor venues is very rapid. The marketplace is also extremely efficient - there are over a dozen multi-billion dollar principal trading firms whose core strategy is to transfer liquidity between U.S. Treasury trading venues at ultra-high speeds.

NFI Average Daily Volumes for January, February and March 2018 are set forth below:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2y | 5y | 10y | 30Y |
| Jan 18 | 11,434 | 25,774 | 19,866 | 3,882 |
| Feb 18 | 14,343 | 35,938 | 26,712 | 4,533 |
| Mar 18 | 10,446 | 25,284 | 20,846 | 3,271 |

Intermarket linkages and liquidity in U.S. Treasuries are discussed at greater length in Exhibit 3. Based on the size and liquidity of the cash market as discussed above, NFX believes that the DV01 futures settlement prices will be reflective of the underlying cash market, will not readily subject to manipulation or distortion, and will based on a cash price series that is reliable, acceptable, publicly available and timely, all in compliance with Core Principle 3.

In order to ensure the usefulness of the New Contracts, NFX has consulted with market users to obtain their views and opinions during the contract design process to ensure that the New Contracts’ terms and conditions reflect the underlying cash market, and that the futures contracts will perform their intended risk management and/or price discovery functions.

As with all contracts listed for trading on the Exchange, activity in the New Contracts will be subject to extensive monitoring and surveillance by the Exchange's regulatory staff in conjunction with the National Futures Association (“NFA”) pursuant to the provisions of a Regulatory Services Agreement. Additionally, the Exchange has the authority to exercise its investigative and enforcement power where potential rule violations are identified. The Exchange's disciplinary rules are contained in Chapter V of the Rulebook, which permits the Exchange to discipline, suspend or expel Futures Participants or market participants that violate the rules.

Core Principle 4 - Prevention of Market Disruption:

Trading in the New Contracts will be subject to Chapter III, Section 24 of the Exchange Rulebook which prohibits manipulative or disruptive trading practices prohibited by the Act. Section 1(c) of Chapter III requires Authorized Traders to make available to the Exchange, upon request, information and their books and records regarding their activities in another market if the Exchange’s contracts, such as the New Contracts, are settled by reference to the price of a contract or commodity traded in that reference market. The Exchange will monitor reference prices in venues that its contracts settle against.

Trading in the new contracts will be subject to monitoring and surveillance by Exchange staff. NFX Regulation, which will handle real-time surveillance, will monitor trading activity on the Exchange with a SMARTS Surveillance Application through which the Exchange can track activity of specific Authorized Traders, monitor price and volume information and receive alerts regarding market messages. NFX Regulation, in conjunction with NFA staff that handles T+1 surveillance, utilizes data collected by the SMARTS Surveillance Application to monitor price movements, as well as market conditions and volumes to detect suspicious activity such as manipulation, disruptive trading and other abnormal market activity. The Exchange has established comprehensive audit trail processes that capture trading information to facilitate the surveillance activities described herein. Futures Participants that access the Exchange electronically are responsible for maintaining audit trail information for all electronic orders pursuant to Chapter V, Section 1. The Exchange has the ability to reconstruct all orders transacted on the trading system.

Core Principle 5 - Position Limitations or Accountability:

The Exchange's rules at Chapter V, Section 13 set forth the Exchange's policies for monitoring of positions that are owned, controlled or held by any person. The New Contracts’ reporting levels, accountability levels and position limits are set forth in amendments to Rulebook Appendix B – Table of Reporting Levels, Position Accountability Levels and Position Limits. Based on the analysis set forth in the Cash Market Description and Deliverable Supply Analysis attached as Exhibit 3, the Exchange is setting its spot month position limit and accountability levels commensurate with those established by the Chicago Board of Trade (“CBOT”) for Treasury Futures, adjusted for contract size.

Core Principle 7 - Availability of General Information:

The Exchange will post general information, including its contract specifications, Exchange fees, and the NFX Rulebook, on its website: [business.nasdaq.com/futures](http://business.nasdaq.com/nasdaq-futures/nfx-market).

Core Principle 8 - Daily Publication of Trading Information:

The Exchange will publish daily information on settlement prices, volume, open interest and opening and closing ranges for actively traded New Contracts on its website as required by Commission regulations. The Exchange will also publish the total quantity of block trades that are included in trading volume for each trading day.

Core Principle 9 - Execution of Transactions:

The New Contracts will be listed for trading on the Exchange’s electronic trading system as well as by submission as block trades and Exchange for Related Position transactions pursuant to Exchange rules. The Exchange’s trading system provides a transparent, open and efficient mechanism to electronically execute trades.

Core Principle 10 - Trade Information:

The Exchange's trading system will capture and maintain all information with respect to orders placed into the trading system. The information will include orders that were executed and those that were not executed as well as all other information relating to the trade environment that determines the matching and clearing of trades such as information related to clearing and number and types of contracts. Orders entered into the trading system can be tracked from the time they are entered into the trading system until the time they are matched, canceled or otherwise removed.

Core Principle 11 - Financial Integrity of Contracts:

All contracts traded on the Exchange’s trading system will be cleared by The Options Clearing Corporation (“OCC”), which is a derivatives clearing organization registered with the Commission and subject to Part 39 of the Commission’s regulations. Transactions in the New Contracts will be subject to the Exchange’s Rulebook provisions for submission to clearing. Pursuant to Commission regulations OCC will set the speculative customer initial margin requirement on the New Contracts as it does on existing NFX contracts. CFTC regulations require OCC to set the customer initial margin requirement at an amount that is higher than OCC’s clearing member margin requirement. OCC has advised NFX that the customer initial margin requirement for NFX contracts will be set to a dollar amount that equals 110% of the greater of Value-at-Risk (VaR) level calculated using a 99% confidence interval for the daily price returns using a 2-year and 5-year look-back period (on a per contract basis). In addition, for products having an economically equivalent contract listed on another market center, OCC will not allow its rates to fall below that of the primary listing exchange. OCC has advised NFX that customer initial margin requirements are reset approximately every 90 calendar days and monitored daily, with rates being re-set should a one-day change in settlement price exceed the prevailing rate at the time. In addition, OCC has authority to update customer initial margin requirements at any time, if deemed warranted, and as dictated by market conditions. NFX has determined to adopt the result of OCC’s VaR calculation as described above as the customer maintenance margin requirement. NFX is also adopting the result of OCC’s VaR calculation as described above as the initial and maintenance margin requirement for hedge customers and Futures Participants. NFX margin rates will be available on the OCC website.

Core Principle 12 - Protection of Market Participants:

Chapter III of the Exchange’s rules protect the market and market participants from abusive, disruptive, fraudulent, noncompetitive and unfair conduct and trade practices. These rules will apply to all transactions in the Exchange’s listed contracts, including the New Contracts.

Core Principle 13 - Disciplinary Procedures:

The Exchange's rules at Chapter VI describe disciplinary procedures and authorize the Exchange to discipline, suspend, expel or otherwise sanction market participants for violations of the Exchange's rules.

Core Principle 14 - Dispute Resolution:

Chapter V of the Exchange Rulebook establishes rules concerning alternative dispute resolution, which provide for the resolution of disputes through the NFA arbitration program.

There were no opposing views among the NFX’s Board of Directors, members or market participants. The Exchange hereby certifies that the New Contracts and rule amendments comply with the Act and the Commission’s regulations thereunder. The Exchange also certifies that notice of pending certification and a copy of this submission have been concurrently posted on the Exchange’s website at [business.nasdaq.com/futures](http://business.nasdaq.com/nasdaq-futures/nfx-market).

If you require any additional information regarding the submission, please contact Carla Behnfeldt at (215) 496-5208 or carla.behnfeldt@nasdaq.com. Please refer to SR-NFX-2018-18 in any related correspondence.



Regards,

Daniel R. Carrigan

President

Attachments:

Exhibit 1: Amendments to Rulebook Appendix A - Listed Contracts

Exhibit 2: Amendments to Rulebook Appendix B - Table of Position Limits, Position Accountability Levels and Large Trader Reporting Levels (under separate cover).

Exhibit 3: Cash Market Description and Deliverable Supply Analysis

Exhibit 4: Contract Specifications Sheet

Exhibit 5: Excel Final Settlement Example

Exhibit 6: Futures Trader Alert

1. The Exchange is also adding the new contracts to the “Table of Listed Contracts” in the Introduction Section of Rulebook Appendix A, as set forth in Exhibit 1 to this submission. Exhibit 1 reflects the addition of Dry Freight contracts to the “Table of Listed Contracts” pursuant to SR-NFX-2018-31 which will become effective on July 5, 2018. [↑](#footnote-ref-2)
2. The Exchange is separately filing SR-NFX-2018-19, also to be effective upon listing of the New Contracts, which adopts provisions for each New Contract relating to block trading minimum quantities and reporting times, order type exceptions, nonreviewable ranges, trading hours and daily settlement prices in the new Appendix A chapters governing the New Contracts. Language appearing in the new Appendix A chapters which is not underlined in Exhibit 1 hereto is being separately proposed in SR-NFX-2018-19 pursuant to Commission Rule 40.6 [↑](#footnote-ref-3)
3. Prices and yields are both displayed in the NFI feed. Bond prices are mapped to yields using Yield to Maturity, U. S. Street Convention. The futures final settlement price will be an average of yields, rather than the yield of an average of prices.  [↑](#footnote-ref-4)
4. This illustration of a final settlement price calculation is also provided in Excel format as Exhibit 5 to this submission. [↑](#footnote-ref-5)
5. NFI, at the time known as eSpeed, was acquired by Nasdaq in 2013 from BGC Partners. [↑](#footnote-ref-6)