

Futures Customer Agreement and Acknowledgements

This tastytrade Futures Customer Agreement ("Futures Agreement") sets forth the terms and conditions pursuant to which tastytrade, Inc. ("tastytrade" or the "Firm"), a registered Introducing Broker ("IB") with the Commodity Futures Trading Commissions ("CFTC"), will govern all of your accounts for trading futures (collectively, the "Futures Account") that you own either individually or jointly with others ("You", "Customer") and that tastytrade introduces to Apex Clearing Corporation ("Apex"), a registered Futures Commission Merchant ("FCM"). tastytrade will act as your broker in the purchase or sale of futures contracts and options on futures (collectively, the "Commodity Interests") in the Futures Account.

1. Applicable Rules And Regulations

Your tastytrade Futures Account and any transactions you make are subject to the Firm's trading rules and policies, the rules and policies of the FCM, any execution brokers, securities and futures regulatory authorities (Financial Industry Regulatory Authority ("FINRA"), Securities Exchange Commission ("SEC"), National Futures Association ("NFA"), and CFTC), the Commodity Exchange Act, futures exchanges, futures contracts, markets, and all applicable federal, state, and local laws, regulations and rules (collectively, "Applicable Rules and Regulations"). tastytrade's website (whose domain name is registered as www.tastytrade.com) and brokerage services are not intended for persons who are under eighteen (18) years of age, persons who do not have the capacity to enter into this Futures Agreement, persons of any jurisdiction where tastytrade is not authorized to do business or where such products and other services offered by the Firm would be contrary to the securities regulations, futures regulations or other local laws and regulations of that jurisdiction.

tastytrade shall not be liable to you as a result of any action taken by the Firm or its officers, directors, employees, agents, and affiliates to comply with any Applicable Rules and Regulations.

2. Customer Representations

You represent, warrant, and agree that you have the legal authority and full power to enter into this Futures Agreement, to open and maintain Futures Accounts, to effect transactions in Commodity Interests through the use of tastytrade's brokerage services, and that any such transactions do not and will not violate any Applicable Rules and Regulations, or any judgment, decree, order, or agreement to which you or your property is subject. In the event that you direct tastytrade to execute block trades and tastytrade expressly accepts such order, you represent and agree that you are an eligible contract participant as defined by the Commodity Exchange Act ("CEA") and the CFTC.

You represent, warrant, and agree that all decisions relating to your investments or trading activity will be made by you, your duly authorized representative, or any person authorized on the Futures Account. You acknowledge that tastytrade is under no obligation to inquire as to the authority or propriety of any instructions given to the Firm and that the Firm shall be entitled to rely upon any instructions without inquiry or investigation, including instructions with respect to the disbursement of funds and the transfer of Commodity Interests from you or any person authorized on the Futures Account. You acknowledge and agree that tastytrade is not responsible for determining the validity of any status, capacity, or appropriateness of any person authorized on the Futures Account.

You agree to be bound by any oral, written, or electronic instructions which tastytrade believes, in good faith, to have been given by you or any authorized person on the Futures Account, including, but not limited to, any individual identified in writing by you to tastytrade as authorized to act on your behalf. You acknowledge and agree that you are exercising your own judgment and decision with respect to any instructions given to tastytrade regarding transactions to be executed for the Futures Account with the understanding that the Firm makes no representation or warranty as to the value, merits, or suitability of any order placed or transaction you may undertake.

You represent, warrant, and agree that you are under no legal disability which would prevent you from trading in Commodity Interests or entering into this Futures Agreement, and that all of the information contained in your Futures Account Application and all information already on record with tastytrade and Apex is true, complete, and correct as of the date hereof. You further represent, warrant, and agree that you are not an employee or a member of any exchange (nor of any corporation of which any exchange owns a majority of the

capital stock), an employee of a firm registered on any exchange, an associated person, general partner, employee, or otherwise associated with another FCM or IB under CFTC Regulation 155.3(c), or if you are so employed that a written consent of your employer will promptly be provided to tastytrade in order to maintain a Futures Account.

You agree to accept communications from tastytrade and any FCM the Firm employs at your primary postal address and/or email address on record, or at other such addresses that you may hereafter give the Firm consent to keep on record. You understand and acknowledge that all communications sent to recorded addresses - postal and/or email addresses - shall be deemed to be given to you personally, whether actually received by you or not.

You represent, warrant, and agree that you will promptly notify tastytrade in writing of any changes to your personal information, contact information, financial information, employment information, investment objective, or any change in circumstances which would affect the representations and information given to the Firm and/or cause such representations or information to be incorrect, or which would in any way affect your ability to comply with the terms of this Futures Agreement. You further agree that tastytrade can rely on the accuracy of the information you provide.

You agree that this Futures Agreement is binding on and enforceable against you in accordance with its terms.

3. Futures Trading Risks

You acknowledge that the risk of loss in trading Commodity Interests can be substantial. You may sustain a total loss of your initial margin funds and any additional funds that you deposit to establish or maintain a position. In addition, market conditions may be such that your Futures Account can incur a negative balance. In this event, you will be liable for any deficit in your Futures Account. You should also be aware that the exercise of a long option contract or the assignment of a short option contract will result in a futures position.

Furthermore, you acknowledge you should study futures trading and consider all of your financial obligations in determining whether the trading of Commodity Interests is appropriate for you. Since the risk factor is high, only genuine "risk funds" (i.e. funds you are able to lose) should be used.

You acknowledge that all transactions effected for your Futures Account and all fluctuations in the market prices of Commodity Interests or other property carried in your Futures Account are at your risk, and you shall be solely liable for such risks under all circumstances. You acknowledge that you are willing and financially able to sustain any losses resulting from you or any authorized person's transactions in Commodity Interests in your Futures Account, and you agree to honor your absolute obligation to pay tastytrade the amount of any such losses.

Trading in Commodity Interests involves a high degree of risk and is not suitable for all investors. You warrant and represent that you are fully aware of the risks inherent in trading Commodity Interests, and you agree that you are solely responsible for determining that such trading in Commodity Interests is suitable for you in light of such factors, including, but not limited to, your investment objective, financial circumstances, investment experience and knowledge. Furthermore, you acknowledge and agree that you are prepared financially to undertake the risks associated with such trading, which may include a total loss of premium and transaction costs, and losses which may exceed the total value of your Futures Account.

4. Trading In Your Futures Account

You acknowledge and agree that you are authorizing tastytrade to effect purchase and sale transactions in Commodity Interests upon the Firm's receipt of your oral, written, or electronic instructions. Further, you acknowledge and agree that you are authorizing tastytrade to employ any clearing broker, executing broker, or floor broker, as your agents in facilitating the execution, clearing, carrying, delivery, and/or settlement of any such transactions. You acknowledge that under no circumstances is tastytrade responsible for an executing broker's or floor broker's inability to execute orders. Furthermore, tastytrade shall never be responsible for any action or inaction for any executing broker or floor broker that you select.

tastytrade may route for execution any transaction authorized by you to one or more exchanges, designated contract markets, boards of trade, associations, electronic communications networks or other markets where such business is then transacted, and such routing shall be in tastytrade's sole discretion. You understand that if tastytrade believes that execution or attempted execution of any of your orders may breach any Applicable Rules and Regulations, including, but not limited to, NFA, CFTC, CME, or any other Futures Exchange Rules or Firm policies,

tastytrade may, in its sole discretion and without prior notice to you, delay, refuse, or reject to execute any purchase or sale order for your Futures Account at any time. Furthermore, you acknowledge that tastytrade may place restrictions on your Futures Account, cancel any outstanding order, liquidate your positions, close out your Futures Account, in whole or in part, or close out any commitment made on behalf of you for the protection of the Firm.

Your transactions shall be subject to the constitution, by-laws, rules, regulations, customs, and usages of the exchange or market where executed, including any clearing house it may have, in addition to any applicable Federal or State law, including, but not limited to, the provisions of the Commodity Exchange Act, as amended, and the rules and regulations thereunder (collectively, "Applicable Law"). tastytrade shall not be liable to you as a result of any action taken or inaction by the Firm or its agents to comply with any Applicable Law.

You acknowledge and agree that tastytrade has the right to limit the size and number of open contracts (net or gross) held in your Futures Account, refuse the acceptance of orders for new positions, and/or require you to reduce open positions at any time in its sole discretion.

You acknowledge and agree that tastytrade has no fiduciary obligations to you, and the duties and obligations of the Firm to you are limited to those expressly set forth in this Futures Agreement. tastytrade is acting solely in the capacity as your IB in accordance with the terms of this Futures Agreement and is not otherwise acting as an agent or a fiduciary to you. Furthermore, the Firm has no discretionary authority or control over your Futures Account.

5. Customer Obligations

You agree to promptly review upon receipt all futures account statements, trade confirmations, reports of the execution of orders for accuracy. You acknowledge that it is your sole responsibility and agree to promptly notify tastytrade if such documents appear to be inaccurate. Notwithstanding the foregoing, if you are over credited with funds or Commodity Interests, you agree to promptly return such funds or Commodity Interests upon your discovery of the error or as requested by tastytrade.

You agree to promptly pay upon demand, or upon settlement date when applicable, any and all outstanding debit balance, obligation, liability or other indebtedness (collectively, "Obligations") due to tastytrade. You acknowledge that debit balances in your Futures Account may be charged interest in accordance with tastytrade's then-current interest rate schedule for debit balances. You agree that you will be liable to tastytrade for any deficiency remaining in your Futures Account in the event of a termination or liquidation. You agree to pay when due, tastytrade's charges for commission at the rates established by the Firm in addition to related fees and charges as a result of, or related to, the transactions effected under this Futures Agreement, and for other services offered and accepted in connection with your Futures Account.

You agree to promptly pay or reimburse tastytrade, as incurred, the reasonable costs and expenses for enforcement or collection of any debit balance or Obligations, including, but not limited to, attorneys' fees and expenses, and any unpaid deficiency in your Futures Account. You acknowledge that tastytrade may accept a lesser amount than due, which will not affect the Firm's right to later recover the remaining balance, or tastytrade may demand, in its sole discretion, security for any of your obligations in lieu of requiring the immediate discharge of any of your obligations.

To execute opening purchase or sale orders, tastytrade generally requires that your Futures Account have funds available equal to the overnight margin requirement of the Commodity Interests. You acknowledge that you can sustain significant risks when you hold Commodity Interests overnight, such as, but not limited to, availability of markets, trading systems, and inherent market risk.

If applicable, you agree to promptly provide tastytrade copies of your latest audited financials and any such other financial or other information as the Firm may reasonably request.

6. Bona Fide Hedging

Pursuant to CFR § 151.5, you acknowledge that tastytrade does not open or accept Futures Accounts of bona fide hedgers. You represent that you are not a bona fide hedger, generally understood to be one who is a commodity producer, merchant, or end-user and uses the futures markets to price their goods efficiently or to manage their price risks by bona fide hedging, which you agree not to engage in and understand to be the sales or purchases of futures contracts to offset purchases or sales of the same cash commodity.

7. Margins

tastytrade shall set the margin requirements and reserves the right, and without prior notice to you, to increase such margin requirements and to limit the number of positions you may maintain or acquire through tastytrade. You agree that you will at all times maintain collateral and margin for all Accounts required by the Firm in its sole discretion or required by Applicable Law. You agree to promptly meet all margin and maintenance calls, and to be liable for the losses incurred on all of your trades, regardless of whether sufficient margin was posted at the time the trade was ordered. You acknowledge that tastytrade is not obligated to request additional Commodity Interests or other property for margin purposes in the event your margin Account falls below minimum margin requirements, notify you of such deficiency, or allow you time to deposit additional securities or other property.

8. Liquidation of Positions

You acknowledge that if your Futures Account is under-margined or if tastytrade determines, in its sole discretion, that your Futures Account is otherwise insecure with respect to your willingness or ability to fulfill your obligations hereunder, tastytrade reserves the right to offset any of your open positions in Commodity Interests, without prior notice to you, so as to eliminate such margin deficiency or insecurity. In the event of such margin deficiency or insecurity, you agree that you will remain liable to tastytrade for any loss or debit balance that results, regardless of whether tastytrade has adhered to margin or other rules of any contract market, or any other term of this Futures Agreement. You agree that any purchase or sale order in Commodity Interests for your Futures Account inadvertently accepted by tastytrade without sufficient funds will be subject to liquidation (in the case of a purchase order) or subject to buy-in (in the case of a sell order) at tastytrade's discretion and at your expense.

You acknowledge that you hereby authorize tastytrade, without prior notice and in its sole discretion, to liquidate any assets in a Securities Account of yours introduced by tastytrade and held at Apex to eliminate such margin deficiency or insecurity to the extent permitted by Applicable Law. You acknowledge tastytrade's right to offset, if deemed appropriate in its sole discretion, includes the right to buy and/or sell any and all related Commodity Interests or other property, including, but not limited to, the use of spreads, straddles, and/or off-exchange transactions in order to attain such necessary liquidation. You understand that a prior request, demand, call, or prior notice of the time and place of such sale or purchase will not be considered a waiver of tastytrade's right to sell or buy without demand or notice herein provided. Furthermore, you acknowledge that you will remain liable for and will immediately pay to tastytrade the amount of any deficiency in any Account of yours introduced by tastytrade and held at Apex resulting from any transactions described above.

9. Position Limits

In addition to compliance with any position limits that tastytrade may impose on you, you agree to comply with any applicable position limits that may be established by any FCM the Firm employs, the CFTC, other applicable regulators, the rules of any Exchange or self regulatory organization.

10. Lien and Security Interest

You grant the FCM a first lien and security interest in all monies, open positions in Commodity Interests, documents representing title to commodities, and any other property of yours (regardless whether individually or jointly owned with others) held by the FCM now or in the future in your Futures Account or otherwise in the FCM's possession or control for any purpose, including, but not limited to, safekeeping (collectively, the "Collateral"), to secure payment and discharge your obligations to the FCM or any affiliate of the FCM, which Collateral is subject to the general lien of, and right of set-off by, the FCM for any and all such obligations.

Except as prohibited by Applicable Law, all Collateral now or hereafter introduced by tastytrade and held or carried by the FCM for you may, from time to time, without notice to you, be pledged, hypothecated, loaned, or invested by the FCM or with others separately or with any other property.

11. Auto Sweep and Transfers

You understand that tastytrade requires you to open a Securities Account introduced by the Firm to Apex in order to open and maintain a Futures Account. You acknowledge and agree that if available cash is held in your Futures Account at the end of the trading day, such available cash is automatically swept from the Futures Account to your Securities Account held at Apex. You acknowledge that regardless of where your available cash is held, applicable SEC and CFTC rules require proper segregation of your and other customers' assets from tastytrade's assets and Apex's assets. You further acknowledge that transferring available cash from your Futures Account to your Securities Account will result in you not receiving preferential treatment afforded for funds held in a futures account pursuant to Part 190 of the CFTC regulations and the U.S. Bankruptcy Code. Funds held in a securities account for the purpose of purchasing securities or held in a portfolio margin account carried as a securities account are protected by the Securities Investor Protection Corporation ("SIPC"). tastytrade is a member of SIPC. You should refer to tastytrade's Securities Customer Agreement or the SIPC website directly (http://www.sipc.org) for more information regarding SIPC coverage.

As permitted by Applicable Rules, you agree that tastytrade may, in its sole discretion, and without prior notice to you, transfer excess funds or collateral between your Securities Accounts and Futures Accounts in such amount as tastytrade determines may reasonably be required to avoid margin calls or to reduce or satisfy any deficit. You acknowledge that funds will not be credited to your Futures Account until the funds are actually transferred. However, tastytrade is not obligated to do so.

You acknowledge that if you are recognized as a pattern day trader, defined as any trader who executes four or more "day trades" (a securities position that is opened and closed on the same trading day) within a five (5) business day period, your Securities Accounts must have a minimum equity of \$25,000 at the start of and maintained throughout any day that you day trade. You understand and agree that funds held in your Futures Account will not count towards the \$25,000 minimum equity requirement and will not be included in your securities day trade buying power.

12. Electronic Trading And Order Routing Systems

You acknowledge that you bear all risk associated with your orders, regardless if they are placed through tastytrade's trading platform, through a tastytrade representative or otherwise. You acknowledge that you are solely responsible for all orders (whether successfully entered or attempted to be entered) that are associated with your unique customer identifiers, including, but not limited to, your Futures Account number, customer identification number, or your unique user login credentials. You understand that tastytrade's acceptance of an order for placement, which includes, but is not limited to, Firm representatives, the tastytrade platform, email, chat or phone, does not constitute a guarantee of any kind that your order will be placed as all orders are subject to your Futures Account maintaining sufficient margin to support the resulting position. You acknowledge that tastytrade and the FCM reserve the right to set and/or change, without prior notice to you, minimum equity amounts for your Futures Account. You hereby acknowledge your responsibility to do the following:

- (i) to be aware of current margin requirements with respect to all trading activity; and
- (ii) to meet all initial and maintenance margin requirements; and
- (iii) to be liable for the losses incurred on all of your trades, regardless of whether sufficient margin was posted at the time the trade was ordered.

You acknowledge that under no circumstances, including, but not limited to, electronic or mechanical failure, system failure or delay, acts of God, terrorism, or any other reason, shall tastytrade be liable or have direct responsibility to you in the event that any of the following should occur:

(i) you are unable to access or use the tastytrade website, trading software, or applications (web, desktop, mobile) to place an order, view account information, or otherwise engage in Commodity Interests related activities; (ii) any Exchange or clearing corporation endures any mechanical, electrical or other failure, delay, interruption, or congestion regardless of whether or not any of the aforementioned results in a failure to maintain an orderly market, execute a transaction, perform clearance, or confirm transactions in Commodity Interests for your Futures Account or otherwise.

You acknowledge that tastytrade is not responsible for providing nor guarantees full and complete access to all electronic markets, under no circumstances will be liable for losses that may result for the inability to access markets due to any aforementioned restrictions or otherwise.

You acknowledge that it is your sole responsibility to cancel any and all unexecuted day orders that could normally be executed during regular market hours when access cannot be provided by tastytrade.

You acknowledge that electronic trading and order routing systems differ from traditional open outcry pit trading and manual order routing methods. Transactions using an electronic system are subject to the rules and regulations and requirements of the exchange(s) offering the system and/or listing the contract and service providers of such electronic systems, and such rules and requirements may change from time to time. You further acknowledge that trading or routing orders through electronic systems may present risk factors, including, but not limited to, system access, varying response times, and security. In the case of Internet-based systems, there may be additional types of risks related to Internet service providers and the receipt and monitoring of electronic mail.

You acknowledge some contracts offered on an electronic trading system may be traded electronically and through open outcry during the same trading hours. You agree it is your responsibility to review the rules and regulations of the Exchange offering the system and/or listing the contract to determine how order that do not designate a particular process will be executed.

13. Electronic Order Execution Requests And Communication

You agree to the following terms and conditions with respect to all electronic communications in which you communicate a request to an agent of tastytrade and any related information pertaining to such request. Requests may include instructions to execute an unsolicited order in your Futures Account via phone or through the Firm's live support chat feature. The Firm will only accept orders via email under certain circumstances. You acknowledge that electronic or phone requests communicated to the Firm will be handled on a best efforts basis. Additionally, these terms and conditions require you to acknowledge your responsibility to protect your sensitive account information as well as your responsibility to routinely monitor your Futures Account information and activity. Any orders communicated to tastytrade's platform with your unique user login credentials will be considered to have been sent and authorized by you.

- (i) You agree you will not transmit orders in Commodity Interests to tastytrade using electronic communications other than those designated by tastytrade for the express purpose of placing such orders.
- (ii) You agree that it is your responsibility to promptly notify tastytrade if you receive a trade confirmation for an order that you did not place.
- (iii) tastytrade, in its sole discretion, may decline to execute any of your orders for a variety of reasons, including, but not limited to, size of the order, market conditions, violations of your Securities Agreement(s) and/or Futures Agreement(s) with the Firm, inadequate account equity, financial insecurity, insufficient margin, risk considerations, suitability thresholds, Exchange restrictions or trading halts, and other matters or market conditions that affect trading.
- (iv) You agree that you are responsible for the monitoring of all of your orders entered into tastytrade's platform or via tastytrade's electronic communication system until such order is accompanied by an official confirmation or cancellation given by tastytrade or the FCM.
- (v) You agree to be bound by the actual order execution transacted on the Exchange that resulted from the entry of your order for your Futures Account.
- (vi) If tastytrade confirms a Futures Account trade or other activity in error and you delay reporting such error, the Firm reserves the right to remove the trade or activity from your Futures Account or require you to accept the trade or activity at tastytrade and/or the FCM's discretion.
- (vii) You agree to provide tastytrade with your primary email address and to promptly update your account profile with any changes to your email address or any other relevant information that is pertinent to your account status and/or the Firm's ability to communicate with you.
- (viii) You agree to protect your sensitive account information, including, but not limited to, your password, username, other login credentials.
- (ix) You agree to not give your login credentials or make them easily accessible to a minor.

14. Exercises, Assignments, and Deliveries

You understand that exchanges and their clearing houses have established exercise requirements for the tender of exercise instructions and that options will become worthless if you do not deliver instructions by such expiration times. You agree to contact tastytrade by 3:30pm Central Time on the last trading day in the case of long and short options, and you agree to deliver to tastytrade sufficient funds required in connection with the exercise. If you do not deliver specific instructions to liquidate, exercise, or allow the expiration of such options, or such necessary funds are not received by tastytrade prior to the expiration of the option, the Firm may permit an option to expire. Under no circumstances is the Firm or FCM obligated to exercise the option contract on your behalf and you will hold the Firm and FCM harmless from any damages or loss that may result at that time or any time thereafter. If you do not deliver timely instructions to the Firm, you hereby agree to waive any and all claims for damage or loss you might have against tastytrade arising out of the fact that an option was or was not exercised.

You understand that certain exchanges and clearing firms automatically exercise some "in-the-money" options unless instructed otherwise. You acknowledge that it is your full responsibility to take action either to exercise a valuable option contract prior to its expiration or to prevent the automatic exercise of an option, except upon your express instructions.

You acknowledge that the FCM, or its agents, randomly assign exercise notices to customers, and that short option positions may be subject to assignment at any time, including positions that are established on the same day that exercises are assigned, and that exercise assignment notices are allocated randomly among all Customers' short option positions which are subject to exercise. This is accomplished by a manual procedure, which randomly selects from among all customer short positions, including positions established on the day of assignment, those contracts that are subject to exercise. All short option positions are liable for assignment at any time. With regard to transactions in Commodity Interests, liquidating instructions on open positions in a current delivery month must be given to the Firm at least five (5) business days prior to the last trading day in the case of short positions.

tastytrade does not allow for futures contracts to be settled with physical delivery of a commodity nor does tastytrade allow for positions to be held on or after First Notice Day (the first day on which a notice of intent to deliver a commodity in fulfillment of a futures contract can be made by the clearinghouse to a buyer). You are required to close or roll your long positions to the next active month the day before the First Notice Day, and you are required to close or roll your short positions the day before the Last Trading Day (the day on which trading ceases in a futures contract for a particular contract month). If funds, documents, or instructions are not received from you, tastytrade may, without notice to you, close out such positions without additional prior notification. tastytrade shall have no liability to you for any such action. In the event of an error, omission, or out trade discovered on or after the last day of trading, tastytrade will abide by the appropriate Exchange rules for an Alternative Delivery Procedure (ADP).

15. Commissions & Fees

You agree to pay tastytrade's brokerage commissions, transaction, processing, clearing fees, market data fees, other fees, and taxes as they exist from time to time and apply to your Futures Account. You acknowledge that tastytrade reserves the right to change its commissions and fees in its sole discretion separate from any changes that the FCM makes to its fees. tastytrade will make relevant information about such commissions and fees, including any update that the FCM provides that is applicable to tastytrade's customers' Securities and Futures Accounts, available on the Firm's website at www.tastytrade.com. Furthermore, you acknowledge that tastytrade may deduct all fees directly from your Securities or Futures Account and your execution of this Futures Agreement serves as your authorization for the Firm to do so. You understand that profit and loss calculations on the trading platform or your account statements may not include commissions, fees or other transaction costs, and do not reflect the impact such costs will have on actual results.

16. Market Data

tastytrade obtains market data from exchanges, markets, associations, electronic communications networks, and from other third-party providers that transmit market data (collectively, "Market Data Providers"). You acknowledge that the market data is provided "as is" and on an "as available" basis. There is no warranty of any kind, express or implied, regarding the market data. The market data is believed to be reliable, but neither tastytrade nor Market Data Providers can guarantee the accuracy, completeness, timeliness or correct sequencing of the market data. Therefore, you agree that tastytrade may correct any execution reported to you that was based on inaccurate market data, unbeknownst to tastytrade, provided to the Firm by Market Data Providers. You understand that you are responsible for any corrected price or size of the execution of your order that reflects the actual execution of your order pursuant to the Exchange's rules where your order was routed for execution. Furthermore, you agree to not hold tastytrade or Market Data Providers liable for interruptions in the availability of market data or your access to market data. You agree to hold harmless and indemnify tastytrade, its officers, directors, employees, agents and affiliates and those officers, directors, employees, agents and affiliates of the Market Data Providers from any liability with respect to interruptions in the availability of market data, your access to market data, lost profits, trading losses or any other damages resulting from inaccurate, defective or unavailable market data. To the extent a tribunal from a component jurisdiction determines that tastytrade should be held liable for any such losses, you agree that tastytrade's liability will not exceed the amount you paid for the receipt of the market data. You acknowledge that the Market Data Providers have a proprietary interest in their market data. You may not sell, market, repurpose or redistribute the market data in any way. You acknowledge that it is solely your responsibility to ensure your employment information and use of market data on record is current and accurate at all times, and you agree to pay all applicable fees charged to as result of you not properly disclosing your employment information and use of market data as tastytrade reserves the right to do so.

17. Limitation Of Liability

You agree and understand that there may be delays or interruptions in the use of tastytrade's systems. Furthermore, vou agree and understand that tastytrade's systems are being provided "as is" and "as available" and there is no implied or express warranty, including implied warranties of merchantability, non-infringement, or fitness for a particular purpose, and implied warranties arising from course of conduct, course of dealings, regarding tastytrade's systems, tastytrade, its affiliates, Third-Party Services, Market Data Providers, and their respective licensors, officers, directors, employees, distributors, or agents make no representations with respect to the system and expressly disclaim all warranties. You agree and understand that in no event will tastytrade, its affiliates, Third-Party Services, Market Data Providers, or their respective licensors, employees, distributors, or agents be liable to you or anyone else for any loss or damage incurred with respect to your Futures Account, including consequential, incidental, punitive, lost profits or trading losses, or loss of use of services, or special or indirect damages, including, but without limitation, that result from inconvenience, delay or loss of the use of any of tastytrade's' systems. You acknowledge and agree that neither tastytrade nor any Market Data Provider make any representations, warranties, or other guarantees as to the accuracy or timeliness of any market data or to the present or future value or suitability of any transaction involving a particular Commodity Interest, security, product, or any other investment. Furthermore, you agree that neither tastytrade, its officers, directors, affiliates, and/or employees shall have any responsibility for your compliance with any laws, rules, or regulations governing your conduct.

You acknowledge and agree that tastytrade shall not have any liability to you for delays in the transmission, clearance, or confirmation of your orders due to mechanical, electronic, or computer failure or market traffic or illiquidity, other such causes beyond the Firm's control. tastytrade shall not be liable for any third party's actions, including, but not limited to, improper execution, clearance, or confirmation of your orders. Furthermore, tastytrade shall not be liable for your use of or reliance on information provided directly or indirectly through the Firm's website, or your use of third party websites or other resources linked to or otherwise incorporated into or referenced within the Firm's website.

You agree to hold tastytrade harmless from any losses or damages due to language barriers, and you acknowledge that tastytrade only guarantees customer and account support as well as its brokerage services in English.

18. Indemnification

You hereby, in both personal and representative capacities, agree to hold harmless, defend, and indemnify tastytrade and its officers, directors, employees, agents, affiliates, and Third-Party Providers and their respective officers, directors, employees, agents, and representatives from any and all liabilities, losses, costs, judgments, penalties, claims, actions, damages, expenses, and attorney's fees and disbursements (collectively, "Losses") resulting or arising directly or indirectly from your use of your Futures Account and services provided by tastytrade and/or the FCM, including, but not limited to:

- (i) as a result of your acts or omissions;
- (ii) as a result of another Account Owner's acts or omissions;
- (iii) as a result of any losses or damages you may suffer with respect to your Futures Account;
- (iv) as a result of any breach by you of any of the Futures Agreement's covenants, obligations, representations, acknowledgments or warranties;
- (v) as a result of the provision of any services provided to you; or
- (vi) as a result of any actions taken or inactions by tastytrade as allowed by this Futures Agreement and all binding agreements that you have entered into, including future or revised agreements you may enter into, with respect to your Futures Account(s) ownership, except for losses resulting from tastytrade's gross negligence or willful misconduct.

19. Extraordinary

You acknowledge that tastytrade is not responsible and you agree to not hold tastytrade liable for the losses caused, directly or indirectly, by conditions beyond the Firm's control, including, but not limited to, government restrictions, amendments to exchange or market rules, interruptions of communications or data processing services, market volatility, unusual activity, trading halts, trading restrictions or disruptions in orderly trading on any exchange or market.

20. Consent To Electronic Delivery

You acknowledge that by accepting this Futures Agreement that you are consenting to electronic delivery of documents and communications, and you authorize tastytrade and any FCM the Firm employs to deliver documents and communications by the following means:

- (i) emailing to the email address specified by you and on record with the Firm and the FCM;
- (ii) posting a communication on the website or making available, either on the Firm's website or sent via email, links to other sites on the Internet where the communication can be read and printed;
- (iii) sending you an email or other notice that directs you to an address on the Internet or a place within the website where the communication is posted and from which it can be read and printed.

You take full responsibility to protect your sensitive account information as well as your responsibility to routinely monitor your account information and activity. You agree to notify tastytrade if your login information or any Securities or Futures Account numbers have been lost, stolen, or compromised, or if there has been unauthorized access to any of your Securities or Futures Accounts.

You agree to provide the Firm with your primary email address and to promptly update your account profile with any changes to your email address or any other relevant information that is pertinent to your account status and/or the Firm's ability to communicate with you.

21. Electronic Signature

You understand that your electronic signature to sign documents is legally binding in the same manner as if you manually signed such documents. Additionally, you understand that the use of an electronic version of these documents fully satisfies any requirement that they be provided to you in writing. You understand that when you electronically sign a document, you are representing that you have read, understand, have the ability to access and retain a record of the document, and agree to be bound to the terms and conditions contained thereon. It is your responsibility to review the website at least periodically at www.tastytrade.com for changes or modifications.

22. Notification of Recording

You acknowledge that tastytrade reserves the right to monitor or record telephone conversations with all of its customers. Your execution of this Futures Agreement evidences your consent to such monitoring or recording of your conversations between you and tastytrade's employees, representatives, officers, directors, partners or agents by means of electronic telephone recording equipment. You understand that the Firm may, in its sole and absolute discretion, tape record conversations without further notice or disclosure, without the use of an automatic tone-warning device, and without assuming responsibility to make or retain such tape recordings. Furthermore, you acknowledge and agree that such recordings of telephone conversations may be used by the Firm as evidence in any dispute between you and the Firm. You agree that you will not record any telephone conversations with tastytrade's employees, representatives, officers, directors, partners or agents without the express written consent of tastytrade and the consent from any aforementioned tastytrade individual engaged in the conversation.

23. Foreign Jurisdictions

Due to foreign regulations, tastytrade may only maintain Futures Accounts for customers residing outside of the United States in certain foreign jurisdictions. You agree that if tastytrade determines that it cannot maintain your Futures Account based on your residence in a foreign jurisdiction that tastytrade reserves the right to close your account without prior notice.

You acknowledge that this Futures Agreement will be considered to be a contract made in the United States and all services considered to be performed in the United States. The tastytrade website should not be considered a solicitation for or offering of any investment product (Securities or Commodity Interests) or service outside of the United States.

24. Foreign Currency Conversions

You agree to make all deposits in U.S. dollars, except as otherwise permitted by tastytrade and Apex. Unless another currency is designated in the confirmation for such transaction, all margin deposits for such futures contract and any debit or credit made in the Futures Account as a result of liquidating such a contract shall be in U.S. dollars at a rate of exchange determined by the Firm in its sole discretion on the basis of the then prevailing rates of exchange for such foreign currency. If you place any order that would be settled in a currency other than U.S. dollars or otherwise instruct tastytrade to enter into any transaction to be denominated in a currency other than U.S. dollars, then: (a) you shall be deemed to have authorized the Firm to convert funds to the applicable currency sufficient to meet the applicable margin requirement; (b) the exchange rate for such conversion shall be determined by tastytrade on the basis of then prevailing rates of exchange and tastytrade may directly pass through a fee for such conversion; and (c) any profit or loss arising as a result of a fluctuation in the exchange rate affecting such currency shall be for the Futures Account and at your risk. In no event shall tastytrade be required to effect, or be responsible for, the conversion of funds in anticipation of changes in prevailing rates of exchange.

25. Proprietary Information

You agree not to reproduce, retransmit, disseminate, sell, distribute, publish, broadcast, circulate or otherwise exploit tastytrade's proprietary systems or any content contained therein in any manner without tastytrade's express written consent. You agree to comply with reasonable written requests by the Firm to protect tastytrade's system and respective rights therein.

tastytrade hereby grants you a revocable, non-transferable, non-exclusive, limited license to use tastytrade's systems, applications, and website (collectively "Proprietary Property") for the purpose of trade routing and execution and management of your Futures Account in accordance with the terms and conditions of this Futures Agreement. All copyright and other intellectual property rights, including, but not limited to, rights to patents, copyrights and/or trademarks shall be the sole property of tastytrade, Inc. You agree not to disclose any aspect of tastytrade's Proprietary Property or confidential information of any sort that may be received as a result of the use of tastytrade's Proprietary Property. You agree not to use any of tastytrade's Proprietary Property or any information disseminated by tastytrade's Proprietary Property for any illegal purpose, or other than strictly in accordance with the End User License Agreement between you and tastytrade.

You agree not to copy, modify, reverse engineer, decompile, adapt or reduce to readable form or create a derivate product of any aspect of tastytrade's Proprietary Property or any content contained therein. You agree and understand that all subsequent updates, replacements, enhancements, revisions, additions, conversions or the like are subject to this Futures Agreement.

26. Entity And Trust Accounts

You represent and warrant the following if you maintain an Entity or Trust Account with tastytrade:

- (i) You are authorized to open and maintain the Entity Futures Account on behalf of the Entity identified in the Entity application;
- (ii) You are the Trustee of the Trust identified in the Trust application and are authorized to open and maintain the Trust Futures Account on behalf of the Trust; and
- (iii) The Entity expressly grants to you or the Trust expressly grants to you the power to engage in any and all Commodity Interests.

For your Entity Futures Account or Trust Futures Account with more than one Account Owner, references to the "Undersigned Customer" shall include each of the Customers identified on the Futures Account application and Futures Account Record. Each Customer acknowledges, represents, certifies, and agrees:

- (i) The Entity or Trust expressly authorizes that each Customer is authorized to act independently and without the consent of the other Customer(s);
- (ii) Each Customer has consented to each Customer acting independently and without the consent of the other Customer(s) with respect to the Entity or Trust Futures Account, and that such delegation of authority is expressly authorized by the Entity or Trust and Applicable Law, and can be provided promptly to tastytrade upon the Firm's request;
- (iii) Each Customer has authority to act on behalf of the Futures Account and tastytrade may rely on and accept instructions from any one Customer;
- (iv) That any notice sent to one Customer will constitute notice to all Customers;
- (v) That tastytrade reserves the right, in its sole discretion, to require the written, and if requested, notarized, consent of any or all Customers prior to acting upon the instructions of any other Customer; and
- (vi) That neither they nor the Entity or Trust impose any obligation upon tastytrade for determining the purpose or origin of any instruction received from any Customer or any payments to or among any Customer.

You acknowledge that by accepting the terms of this Futures Agreement you are certifying and attesting that the Entity or Trust is in good standing and has not been revoked, modified, or amended in any manner which would cause the information you provided in the Entity or Trust Futures Account application to be incorrect. You agree to promptly notify tastytrade in writing of any change that would cause the information represented in your Entity or Trust Futures Account application or its corresponding Futures Account record to be incorrect or incomplete

27. Individual Account

If this is Futures Account is an individual account or an Individual Retirement Account, you acknowledge that you are representing that your Futures Account is opened and maintained by an Individual or Sole Proprietorship and no one else has an interest in the Futures Account.

If this is an Individual Retirement Account established under Section 408(a) of the Internal Revenue Code, or if this is a Roth Individual Retirement Account established under Section 408(A) of the Internal Revenue Code (each, an "IRA"), you acknowledge that you are representing that you are the beneficial owner of the IRA and have the authority to do the following:

- (i) to provide instructions with respect to the IRA;
- (ii) to receive any demands, notices, confirmations, reports, statements, and other communications of any kind;
- (iii) to sign any related documents with respect to opening and maintaining the IRA; and
- (iv) to deal with the Firm in connection herewith as fully and completely as if the trustee or custodian of the IRA had no interest herein.

28. Joint Account

For your Futures Accounts with more than one (1) Account Owner, references to "Customer" shall include each of the Customers identified on the Futures Account application and Futures Account record. Customers understand and agree that the representations, warranties and agreements made herein are made on behalf of all of the joint Futures Account Owners and further agree that each Futures Account Owner (a) is a Customer; (b) has the authority to act on behalf of the Futures Account and tastytrade may rely on and accept instructions from any one Customer; (c) is jointly and severally liable per the terms and obligations of this Futures Agreement.

tastytrade may rely on transfer or other instructions from any one of the Customers in a joint Futures Account, and such instructions shall be binding on each of the Customers. tastytrade may transfer and/or deliver Commodities Interests or other property to, and send confirmations, notices, statements and confirmations of every kind, to any one of the Customers, and such action shall be binding on each of the Customers.

Notwithstanding the foregoing, tastytrade is authorized in the Firm's discretion to require joint action by the joint Futures Account Owners with respect to any matter concerning the joint Futures Account, including, but not limited to, the giving or cancellation of orders and the withdrawal of money or Commodity Interests. Customers hereby acknowledge that tastytrade shall be under no duty or obligation to inquire into the purpose or propriety of any instruction given and shall be under no obligation to see to the applications of any funds so delivered.

For Futures Accounts opened and maintained as Joint Accounts With Rights of Survivorship ("WROS"), Customers agree that in the case of death of any of the joint Futures Account Owners, interest in the entire Futures Account shall vest in the surviving Futures Account Owner(s) under the same terms and conditions of this Futures Agreement and the surviving Futures Account Owner(s) shall promptly provide tastytrade with written notice thereof and provide any documentation reasonably requested by tastytrade and/or Apex in its management of the Futures Account.

29. Anti-Money Laundering And Customer Identification Program

To help the government fight the funding of terrorism and money laundering activities, Federal Law requires tastytrade to obtain, verify, and record information that identified each person who opens an account, such as your name, address, date of birth, and identification number. tastytrade reserves the right to collect other information and identifying documents to aid in verifying your identity, such as, but not limited to, a valid, non-expired form of government-issued photo identification (i.e. driver's license or passport). You agree to promptly provide any documents or certifications requested by tastytrade that the Firm believes are necessary or advisable to obtain for anti-money laundering compliance purposes, and that the information you provide is complete and accurate.

Furthermore, you authorize tastytrade to make inquiries to consumer or credit reporting agencies, to contact financial institutions, banks, and/or other third party sources, as the Firm shall deem appropriate, to verify your identity and the information you provided to tastytrade.

The rules set forth by the U.S. Department of Treasury, SEC, Commodities Futures Trading Commission ("CFTC"), FINRA, and the National Futures Association ("NFA") may also require tastytrade to collect additional information such as your net worth, annual income, occupation, employment information, investment experience, investment objectives, and risk tolerance.

tastytrade reserves the right to not open an Account or carry out transactions for you if your identity cannot be verified. If you have an existing Account, tastytrade reserves the right to close the Account at any point in time if your identity cannot be verified as part of tastytrade's ongoing effort to prevent fraud.

30. Termination

Your tastytrade Futures Account may be terminated and closed by you, tastytrade, or by the FCM at any time with or without cause or reason. You acknowledge that you must and you agree to provide written notice in the event that you so wish to terminate your Futures Account. You are aware and agree that such closure or termination will not affect any rights or obligations that either you or tastytrade incurred prior to such closure or termination, including any transactions arising before or after termination of the Futures Agreement.

You agree that you will notify tastytrade to liquidate all open Commodity Interest positions in and close your Futures Account if losses in your Futures Account approach the extent at which your lifestyle or that of any of your dependent(s) becomes adversely affected.

31. Scope And Transferability

This Futures Agreement shall cover individually and collectively all Futures Accounts which you may open or reopen with tastytrade or Futures Accounts opened with tastytrade that you guarantee and shall insure to the benefit of the Firm's successors whether by merger, consolidation or otherwise, and assigns, and tastytrade may transfer your Futures Accounts to the Firm's successors, assigns, affiliates, and subsidiaries, and this Futures Agreement shall be binding upon your heirs, executors, administrators, successors, assigns.

Your rights and duties hereunder may not be assigned other than with the written consent of tastytrade. You agree that tastytrade may assign this Futures Agreement to another FCM upon notice to you and otherwise in accordance with Applicable Law.

You agree that your continued use of the Futures Account will constitute your acceptance of future Futures Agreements and the terms contained therein. Furthermore, you understand and agree that any modification to this Futures Agreement shall be ineffective to relieve you of your obligations.

You agree that tastytrade shall not be bound by any representation or agreement made by any of its employees or agents that diminishes tastytrade's rights under this Futures Agreement.

32. Severability

If any court, arbitration panel, other tribunal, regulatory or self-regulatory agency or body, shall deem any provision or condition of this Futures Agreement invalid or unenforceable, such invalidity or unenforceability shall adhere only to such provision or condition. The validity of the remaining provisions and conditions shall not be affected thereby and this Futures Agreement shall be carried out as if any such invalid or unenforceable provision or conditions were not contained herein.

33. Headings Are Descriptive

The heading of each provision hereof is for descriptive purposes only and shall not be deemed to modify or qualify any of the rights or obligations set forth in each such provision.

34. Acknowledgement of Disclosures

You acknowledge that trading in Commodity Interests is speculative, involves a high degree of risk, and is appropriate only for persons who can assume risk of loss in excess of their margin deposit.

You hereby acknowledge that you received, read, understand, and retained copies of the CFTC Rule 1.55 Risk Disclosure Statement, the CFTC Rule 33.7 Futures Options Disclosure Statement, the Futures and Exchange-Traded Options Risk Disclosure Statement, and all other applicable documents provided to you in conjunction with this Futures Agreement prior to you making the determination that you are suitable to trade futures. You also understand that tastytrade is relying on you to be familiar with any disclosures related to this account that are or may become applicable.

tastytrade, Inc.

35. Governing Law

This Futures Agreement and any claims and disputes between the parties shall be governed by and subject to the internal laws (exclusive of the conflicts of law provisions) and decisions of the courts of the State of Illinois. No lawsuit, arbitration proceeding, or other claim, regardless of form, arising out of transactions under this Futures Agreement may be brought by you more than one (1) year after the cause of action arose. Provided, however, that any action brought under the provisions of Section 14 of the Commodity Exchange Act may be brought at any time within two (2) years after the cause of action occurs.

By electronically signing you hereby represent and agree that you have received, read, and understand tastytrade's Futures Agreement and agree to the provisions contained herein. Furthermore, You understand that you are providing tastytrade with a legally binding signature, just as if you had manually signed a hardcopy of the Futures Agreement.

36. Entire Agreement

This Futures Agreement and all other Agreements governing your tastytrade Futures and Securities Accounts contain the entire understanding between you, tastytrade, and Apex with respect to the subject matter here of and there of, and shall not be modified by you except in writing signed by you and an authorized Officer of tastytrade or Apex, as applicable. tastytrade may amend this Futures Agreement, which amendment shall be binding on you, and post the updated version on its website. Any material change will be sent to your attention, which includes electronic delivery.

Customer Signature:	Date:
Joint Customer Signature:	Date:

Arbitration Agreement

By signing this Arbitration Agreement, you agree any controversy or claim arising out of or relating to your Futures Accounts and introduced by tastytrade and held at Apex ("FCM") shall be settled by arbitration, either (1) under the Code of Arbitration of the National Futures Association, or (2) upon the contract market on which the disputed transaction was executed or could have been executed. Any award rendered thereon by the arbitrators, shall be final and binding on each and all of the parties thereto and their personal representatives and judgment may be entered in any court having jurisdiction thereof. At the time you notify either the FCM or tastytrade of your intent to submit a claim to arbitration, or at such time that you are notified of the FCM or tastytrade's intent to submit a claim to arbitration, you will have an opportunity to elect a qualified forum for conducting the proceedings, and will be supplied with a list of qualified organizations. You are required to send notice of your intent to arbitrate by certified mail to the FCM and/or tastytrade at their respective addresses, and the Secretary of the National Futures Association.

THREE (3) FORUMS EXIST FOR THE RESOLUTION OF COMMODITY DISPUTES: CIVIL COURT LITIGATION, REPARATIONS AT THE COMMODITY FUTURES TRADING COMMISSION ("CFTC") AND ARBITRATION CONDUCTED BY A SELF REGULATORY OR OTHER PRIVATE ORGANIZATION. THE CFTC RECOGNIZES THAT THE OPPORTUNITY TO SETTLE DISPUTES BY ARBITRATION MAY IN SOME CASES PROVIDE MANY BENEFITS TO CUSTOMERS, INCLUDING THE ABILITY TO OBTAIN AN EXPEDITIOUS AND FINAL RESOLUTION OF DISPUTES WITHOUT INCURRING SUBSTANTIAL COSTS. THE CFTC REQUIRES, HOWEVER, THAT EACH CUSTOMER INDIVIDUALLY EXAMINE THE RELATIVE MERITS OF ARBITRATION AND THAT YOUR CONSENT TO THIS ARBITRATION AGREEMENT BE VOLUNTARY. BY SIGNING THIS ARBITRATION AGREEMENT, YOU: (1) MAY BE WAIVING YOUR RIGHT TO SUE IN A COURT OF LAW; AND (2) ARE ARGEEING TO BE BOUND BY ARBITRATION OF ANY CLAIMS OR COUNTERLCAIMS WHICH YOU, THE FCM OR TASTYTRADE MAY SUBMIT TO ARBITRATION UNDER THIS AGREEMENT. YOU ARE NOT, HOWEVER, WAIVING YOUR RIGHT TO ELECT INSTEAD TO PETITION THE CFTC TO INSTITUTE REPARATIONS PROCEEDINGS UNDER SECTION 14 OF THE COMMODITY EXCHANGE ACT ("CEA") WITH RESPECT TO ANY DISPUTE WHICH MAY BE ARBITRATED PURSUANT TO THIS ARGREEMENT. IF A DISPUTE ARISES. YOU WILL BE NOTIFIED IF THE FCM OR TASTYTRADE INTENDS TO SUBMIT THE DISPUTE TO ARBITRATION. IF YOU BELIEVE A CEA VIOLATION IS INVOLVED AND YOU PREFER TO REQUEST SUCH A SECTION 14 REPARATIONS PROCEEDING BEFORE THE CFTC, YOU WILL HAVE 45 DAYS FROM THE DATE OF SUCH NOTICE IN WHICH TO MAKE THAT ELECTION. IF YOU SEEK REPARATION PROCEEDINGS BEFORE THE CFTC AND THE CFTC DECLINES TO INSTITUTE THOSE PROCEEDINGS, OR IF CERTAIN ASPECTS OF THE CLAIM OR GRIEVANCE ARE NOT SUBJECT TO REPARATION PROCEEDINGS, THE CLAIM OR GRIEVANCE, OR PART THEREOF, WILL BE SUBJECT TO THIS ARBITRATION AGREEMENT.

YOU NEED NOT SIGN THIS ARBIRTRATION AGREEMENT TO OPEN A FUTURES AND EXCHANGE-TRADED OPTIONS ACCOUNT WITH THE FCM AND/OR TASTYTRADE. SEE 17 CFR 180.1-180.5.

Customer Signature:	Date:
Joint Customer Signature:	Date: