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Fax: 866-468-6268

1. INTRODUCTION

This Agreement governs all brokerage accounts that I open with you, all transactions in my Account, the use of your websites, the Brokerage Services, the TD Ameritrade Content, and the Third-Party Content; is binding on my heirs, executors, administrators, successors, and assigns; and will inure to the benefit of your successors. By opening an Account with you, I acknowledge that I have received, read, and understand this Agreement and agree to be bound by its terms. Accounts opened with the TD Ameritrade Institutional Division are governed by a separate agreement.

"I," "me," "my," or "account owner" means each account owner who signs the Account Application. "You," "Your," or "TD Ameritrade" means TD Ameritrade, Inc., and, when applicable, TD Ameritrade Clearing, Inc. ("Clearing"), TD Ameritrade's clearing broker-dealer.

2. DEFINITIONS

"Account" means each brokerage account I open with you or have an interest in.

"Agreement" means these terms and conditions as well as any supplemental agreements and disclosures that apply to my Account, as amended from time to time.

"Applicable Rules" means all applicable federal and state laws, rules and regulations, rules of any self-regulatory organization, and the constitution and applicable rules, regulations, customs, and usages of the exchange or market and its clearinghouse.

"Brokerage Services" means your website and related services that you provide other than TD Ameritrade Content, which I need to place trades in my Account.

"Business Day" means Monday through Friday, excluding market holidays.

"Services" means, collectively, the websites, the Brokerage Services, the TD Ameritrade Content, and the Third-Party Content. This Agreement applies to the Services provided by you regardless of how I access them (for example, in person, phone, Internet, or by mobile device).

"TD Ameritrade Content" means all information, tools, and services available on your website, other than Brokerage Services provided by you, and not by a third party.

"Third-Party Content" means all information, tools, and services available on your website that are provided by a third party ("Third-Party Provider"), including financial and investment tools, market data, reports, alerts, calculators, access to online conferences, telecasts, bulletin boards, tax preparation, or account management tools.

"websites" means the Internet sites of TD Ameritrade, whose domain name is registered as <http://www.tdameritrade.com>, and others, and through which you offer Services.

3. MY ACCOUNT AND RELATIONSHIP WITH YOU

a. Self-Directed Account. I understand that Accounts opened with you are self-directed. I am responsible for all purchase and sell orders, decisions to continue with an investment strategy or to hold an investment, and instructions placed in my Account. Unless you provide advice to me that is clearly identified by you as an individualized recommendation for me, any investment decision that I make or investment strategy that I utilize, including the decision to hold any and all of the securities or derivatives in the Account, is based on my own investment decisions or those of my agent and is at my own risk. All investments involve risk, and unless you provide individualized recommendations to me, I or my agent are responsible for determining the suitability of any trade, investment, investment strategy, and risk associated with my investments. TD Ameritrade Content or Third-Party Content I access through you does not constitute a recommendation to invest in any security or derivative, or to utilize any investment strategy.

b. Fees and Commissions. I will pay commissions, charges, taxes, and other fees applicable to my Account. Current commission pricing and other fees are

on the websites. You may change your fees and commissions at any time by posting changes on the websites or by other means.

You reserve the right to vary commissions among clients in connection with special offers or combinations of services or in other circumstances. You or Clearing may pay a portion of the revenues or fees derived from servicing my Account to third parties that provide services to you or Clearing. If my Account is an IRA or other retirement plan account, my Account may be charged fees that the particular plan has authorized to be paid to service providers other than you or Clearing.

c. Statements and Confirmations. It is my obligation to review trade confirmations and Account statements promptly upon receipt. These documents will be considered binding on me unless I notify you of any objections within five days from the date confirmations are sent and within 10 days after Account statements are sent.

d. Instructions.

1. General. You may accept and act on instructions from me, my agent, or any person authorized on my Account. You may refuse any order, or delay placing any order, if you determine that an order requires clarification from me. I will not hold you responsible for any losses caused by the rejection or delay. You will not receive any order or instruction transmitted by my agent or me until you have actual knowledge of the order or instruction. You do not determine the validity of my agent's status or capacity, the appropriateness of, or the authority or actions by such person.

2. Wire Transfers. By initiating a wire transfer from my Account with or without a letter of instruction, I agree that you may use security procedures for accepting and acting upon wire transfer instructions. I agree that such security procedures may include one, some, or all of the following, depending on the type, amount, and frequency of the wire transfer request: requestor and/or account owner identification and verification; requestor and/or account owner signature comparison or verification; confirmation of receiving bank and/or account designation; notice provided via email, message center, or phone to account owner and/or authorized agent; account surveillance and/or trending analysis. In some circumstances, you may place limits on the portability of funds and additional documentation may be required.

I agree that the above security procedures are commercially reasonable under the circumstances. I agree to be bound by instructions to initiate a wire transfer, with or without a letter of instruction, whether in fact authorized or unauthorized, which you implement in compliance with these procedures, unless I have given you prior notice of possible unauthorized activity in my Account and you have a reasonable opportunity to act on such notice.

3. ACH Transactions. From time to time, originators that I authorize may send ACH credits or debits to my account. For each ACH transaction, I agree it is subject to the NACHA Operating Rules and Guidelines or other funds transfer system rules as applicable, and that the following additional terms shall apply: (1) TD Ameritrade's payment of a funds transfer to my account will be provisional until TD Ameritrade receives final settlement or payment, and I agree that TD Ameritrade may reverse the provisional credit and/or obtain reimbursement from me if you do not receive final settlement or payment; (2) A payment by the beneficiary's bank of a funds transfer from my account to the beneficiary will be provisional until final settlement has been made or until payment is considered received under applicable law, and I agree that the beneficiary's bank may reverse its provisional credit and obtain a refund from the beneficiary and I, as the originator of the payment, will not be considered to have paid the beneficiary; (3) I hereby authorize any Originating Depository Financial Institution (ODFI) to initiate, pursuant to ACH operating rules, ACH debit entries to my account for electronic presentation or re-presentation of items written or authorized by me; and (4) If I receive an unauthorized debit, I will need to file a written unauthorized debit statement with TD Ameritrade by contacting TD Ameritrade at 1-800-669-3900

e. No Endorsement of Day Trading Strategy; Representations. You do not recommend, endorse, or promote a “day trading” strategy, which may involve significant financial risk to me. If I accumulate a position in a security through multiple purchase transactions in one day and subsequently liquidate and/or close out that position on the same day through a single sale transaction, I represent that it is my intent to execute a single day-trade, unless I notify you to the contrary.

f. Clearing Agreement. You and Clearing have entered into a clearing agreement in which Clearing is the clearing agent for securities transactions for your clients. You transmit client instructions to Clearing which causes such instructions to be executed. Clearing carries my Account on a fully disclosed basis. All securities, dividends, and proceeds will be held at Clearing unless otherwise instructed.

g. Trading in Affiliate Securities. If I transact in securities that are issued by The Charles Schwab Corporation (“CSC”) or an entity controlled by CSC, I acknowledge and understand that You are controlled by CSC, and/or You and the issuer are under the common control of CSC.

h. Account Protection. You are a member of the Securities Investor Protection Corporation (“SIPC”), which protects securities customers of its members up to \$500,000 (including \$250,000 for claims for cash). An explanatory brochure is available on request at sipc.org. Additionally, you provide each client \$149.5 million worth of protection for securities and \$2 million of protection for cash through supplemental coverage provided by London insurers. In the event of a brokerage insolvency, a client may receive amounts due from the trustee in bankruptcy and then SIPC. Supplemental coverage is paid out after the trustee and SIPC payouts and under such coverage each client is limited to a combined return of \$152 million from a trustee, SIPC, and London insurers. The TD Ameritrade supplemental coverage has an aggregate limit of \$500 million over all customers. This policy provides coverage following brokerage insolvency and does not protect against loss in market value of the securities.

To obtain information about the SIPC, including the SIPC brochure, I can contact the SIPC at:

Securities Investor Protection Corporation	Tel: 202-371-8300
805 15th St, N.W., Suite 800	Fax: 202-371-6728
Washington, D.C. 20005-2215	Email: asksipc@sipc.org
	Website: sipc.org

i. Beneficiary Designation. Changes in the relationship between the account owner and designated beneficiary (such as, marriage, divorce, or adoption) will not automatically add or revoke beneficiary designations. For example, if an account owner designated a spouse as beneficiary and they subsequently divorced, the former spouse will remain beneficiary on the Account unless the account owner submits a new beneficiary designation to you.

j. Compliance with Laws. I agree to comply with all laws, rules, and regulations applicable to my Account.

4. ABOUT ME

a. Legal Capacity. I am of legal age in the jurisdiction in which I reside and have the capacity and authority to enter into this Agreement.

b. Accuracy of Information. All the information I provide you is true and correct. I will promptly notify you in writing within 10 Business Days after any change in such information. You may rely upon all information I provide you.

c. Interest in Account. I represent that no one except me (us) has an interest in any of my (our) Account(s) (unless I am opening the Account as a fiduciary).

d. Multiple Owners. If there is more than one Account owner, then the provisions of the Agreement apply to each owner. Accounts of husbands and wives in community property states will be held in the name of husband and wife as community property unless we instruct you otherwise; any other Joint Account will be held jointly with rights of survivorship unless I notify you of a different form of ownership and provide such documentation as you require. You will have no liability for any loss that may arise due to taking instructions from one owner or requiring instructions from all owners. If I am married, I may establish an account with my spouse as tenants by entirety. I will notify you if I become legally divorced.

e. Rights, Terms, and Obligations of Securities in Account. Except as required by Applicable Rules, you are not obligated to notify me of any events involving my securities positions, nor do you have the responsibility to take any

actions on my behalf with respect to such events without specific instructions from me. I am responsible for knowing the rights, terms, and obligations of securities in my Account and for monitoring the occurrence of any events involving my securities positions or securities for which I intend to place an order.

5. PRIVACY AND CONFIDENTIALITY

a. Privacy. You will take reasonable measures to protect the privacy and confidentiality of information in your possession about my Account and me. Your Privacy Statement explains how you collect and protect my information. The Privacy Statement is incorporated into this Agreement by reference.

b. Account Number, PIN, or Password. I will receive a password and/or access number (collectively “PINs”) that provides electronic access to my Account. Account numbers, User IDs, and PINs are confidential, and I am responsible for the confidentiality, protection, and use of them. Subject to the TD Ameritrade Asset Protection Guarantee, I agree to be responsible for all activities in my Account. You may be assured that I have authorized any orders or instructions that are received under my Account number and PIN or by initiating an electronic transfer of funds, with or without a letter of instruction.

c. TD Ameritrade Asset Protection Guarantee. If I lose cash or securities from my Account due to unauthorized activity, you will reimburse me for the cash or securities I lose. You promise me this protection if unauthorized activity causes losses and you determine it was through no fault of my own. You promise this protection if I do five things: (1) keep my personal identifying information and Account information secure and confidential because sharing my password, PIN, secret question answers, or other standard means of authentication with other people means I authorize them to take action in my Account; (2) use the standard security features you require for access to my account as they change over time, including using multi-factor authentication. (3) keep my contact information up-to-date with you, including my email address and phone number, so that you can contact me in case of suspected fraud; (4) review my Account frequently and my statements promptly and report any suspicious or unauthorized activity to you immediately in accordance with this Agreement; and (5) take the actions you request if my account is ever compromised and cooperate with any investigation. I agree that unauthorized activity does not include any actions or transactions undertaken by or at the request of me, my investment advisors or family members, or anyone else whom I have allowed access to my Account or to my Account information for any purpose, such as trading securities, writing checks, or making withdrawals or transfers.

d. Phone Conversations and Electronic Communications. You may record and monitor any telephone, video, or electronic communications with me.

e. Credit Reports. I authorize you to request my credit reports to verify my creditworthiness and to provide information to credit agencies. Upon request, you will inform me whether a report was requested and provide me with the name and address of the credit-reporting agency that furnished the report. Negative credit information may be submitted to a credit-reporting agency if I fail to fulfill the terms of my credit obligations.

f. Disclosure of Account Information to Third Parties. Consistent with your Privacy Statement, you and your agents are specifically authorized to disclose information about my Accounts and me to third parties.

g. Trusted Contact Authorization. If I elect to provide Trusted Contact information to you, you are authorized to communicate, verbally and in writing, with the Trusted Contact Person(s) named on the applicable Trusted Contact Authorization Form, or by other such means as I may provide Trusted Contact information to you. I understand that any communication with the Trusted Contact Person(s) may include information about any of the Account Owners, the account for which the Trusted Contact information was provided, any other accounts at TD Ameritrade in which any of the Account Owners has an interest, or any other information the Account Owners may have provided to TD Ameritrade.

I understand that you may contact the Trusted Contact Person(s) for the following reasons: (1) if there are questions or concerns about my whereabouts or health status; (2) if you suspect that I may be a victim of fraud or financial exploitation; (3) if you suspect that I might no longer be able to handle my financial affairs; (4) to confirm the identity of any legal guardian, executor, trustee, authorized trader, or holder of a power of attorney; or (5) if you have any other concerns or are unable to contact me about my Account(s)

held with you. If my Account is an Entity or other Non-natural person Account, you may also contact any Authorized Agent named on the Account for the foregoing reasons.

I further agree that: (1) the Trusted Contact Authorization does not impose any obligation that you communicate with my Trusted Contact Person(s); (2) the Trusted Contact Authorization does not authorize the Trusted Contact Person(s) to make any investment decisions or transact any business with you on my behalf; (3) the Trusted Contact Authorization is optional and I may change or withdraw it at any time by notifying you in writing; (4) all named Trusted Contact Person(s) are 18 years of age or older; (5) if there are multiple Account Owners, you are authorized to follow the instructions of any one or more Account Owners in adding a Trusted Contact, and you will not be held liable for information shared with a Trusted Contact, without regard to which Account Owner(s) authorized the addition of the Trusted Contact; and (6) you are released and discharged from all claims, causes of action, damages, losses, expenses, costs, and liabilities of any kind that may arise out of, relate to, or are in connection with the release of, or failure to release, personal and/or account information to the Trusted Contact Person(s).

6. CLIENT COMMUNICATIONS

a. Addresses. You may send communications to the mailing address, email, telephone number, or facsimile number that I provide. You also may deliver information verbally or via the Secure Message Center on your website. Communications shall be deemed delivered to me whether or not I actually receive them.

b. Electronic Signatures. My use of electronic signatures to sign your documents legally binds me in the same manner as if I had manually signed. The use of an electronic version of these documents fully satisfies any requirement that they be provided to me in writing. If I sign electronically, I represent that I have the ability to access and retain a record of the documents. I am responsible for understanding these documents and agree to conduct business with you by electronic means. I am obliged to review periodically the websites for changes or modifications.

c. Consent. By consenting to the electronic delivery of all information relating to my Account, I authorize you to deliver all communications to me by the following means: (1) by email at the email address specified by me; (2) by posting the communication on the websites or other sites on the Internet where the communication can be read and printed; (3) by sending me an email that includes a hyperlink to the websites or an address on the Internet where the information is posted, and can be read and printed; and (4) by sending me a notice that directs me to an address on the Internet or a place within the websites where the communication is posted and from which it can be read and printed. Such delivery will be an effective delivery to me for the purpose of any Applicable Rules whether or not I access or review the communication. Although I consent to electronic delivery, you may elect to deliver communications by other means which shall not affect my consent. I will notify you of any change in my address. I may revoke my consent to electronic delivery of communications and receive documents on paper. You have a reasonable period to effect such a change and may charge a reasonable fee for sending paper copies.

d. Equipment. If I agree to electronic delivery, I must have a computer with Internet access, an email address, and the ability to download and save or print communications to retain for my records. I am responsible for obtaining and maintaining all equipment and services required for online access of my Account.

7. ELECTRONIC SERVICES

a. Availability. You do not guarantee that any media will be available to me at a particular time. Access to the websites may be limited or unavailable during periods of peak demand, market volatility, system upgrades, or other reasons. You reserve the right to suspend and deny access to the Services, without prior notice or for any reason. I recognize that Account activity may be conducted through several different media (for example, Interactive Voice Response phone system [IVR] and phone); and if a certain medium is not available, I will use another medium to conduct Account activity. You will not be liable for the unavailability, delay, or failure of any of the media at any particular time or for the accessibility of, transmission quality, outages to, or malfunction of any telephone circuits, computer system, or software.

b. Use of Services. I will use the Services for lawful purposes, for my personal and noncommercial use, and as permitted by this Agreement. I

will not transmit through the websites any material that violates or infringes in any way upon the rights of others or would encourage conduct that may give rise to civil or criminal liability. I will not modify, copy, publish, transmit, license, participate in the transfer or sale of, reproduce, create derivative works from, distribute, redistribute, display, or in any way exploit the Services. I will not upload, post, decompile, reverse engineer, disassemble, modify, copy, distribute, transmit, reproduce, republish, license, display, sell or transfer, or create derivative products from the Services. Software accessed on the websites is subject to U.S. export controls and may not be downloaded by any person prohibited from doing so by Applicable Rules.

I may download software on a single computer for personal, noncommercial use, provided I keep intact all copyright and other proprietary notices. You and Third-Party Providers reserve the right to revise, modify, change, upgrade, suspend, impose limitations or restrictions on, deny access to, remove, or discontinue the Services at any time without prior notice. Third-Party Providers may enforce this Agreement against me and take action against me for my breach of this Agreement. I further acknowledge that I am subject to any agreements for the receipt and use of real time market data as distributed by the Securities Information Processors, such as those agreements governing subscriber use published at CTApian.com.

c. Limitation of Liability. The Services are provided "as is" and "as available." You, your affiliates, the Third-Party Providers and their respective licensors, employees, distributors, or agents make no representations with respect to the system and expressly disclaim all warranties. Subject to Applicable Rules, in no event will you, your affiliates, the Third-Party Providers or their respective licensors, employees, distributors, or agents be liable to me or any third party for any losses or damages outside of your control or that you did not cause.

I am solely responsible for my investment research, and neither you nor any Third-Party Provider make any representations, warranties, or other guarantees as to the accuracy or timeliness of any market data; nor do you or any Third-Party Provider make any representations, warranties, or other guarantees as to the present or future value or suitability of any sale, trade, or other transaction involving any particular security or any other investment.

d. Intellectual Property. My use of the Services will not confer any title, ownership interest, or intellectual property rights to me. The Services are protected under U.S. patent, copyright laws, international treaties or conventions and other laws, and will remain the exclusive property of you or Third-Party Providers. Company names, logos, and all related product and service names, design marks, and slogans of you or your affiliates or any Third-Party Provider are the property of the respective company. I am not authorized to use any such name or mark in any advertising, for publicity, or in any other commercial manner.

e. Cookies. You use cookies on websites and my browser will need to accept all cookies for it to perform fully. Certain features of the websites may also require the acceptance of cookies.

f. Hyperlinks. The websites may include hyperlinks to websites, owned or operated by affiliated or unaffiliated third parties. Neither you nor Third-Party Providers are responsible for the content or availability of such other websites, and shall not be responsible or liable for any loss in connection with reliance on such sites.

8. BROKERAGE SERVICES

a. Order Routing and Executions. Unless I specify the market for execution, you decide where to route my orders for execution. You consider a wide variety of factors in determining where to direct my orders, such as execution price, opportunities for price improvement (which is when an order is executed at a price that is more favorable than the displayed national best bid or offer), market depth, order size and trading characteristics of the security, efficient and reliable order handling systems and market center service levels, speed, efficiency, accuracy of executions, and the cost of executing orders at a market. If I instruct you to route my order to a particular market for execution ("Direct Routing"), and you accept my order and instruction, you are not required to make a best execution determination beyond executing the order promptly and in accordance with the terms of my order. Instructions to direct my order to certain market centers could incur additional fees.

b. Deposit and Order Refusal; Account Restrictions. You reserve the right not to accept the deposit of funds or particular securities into my Account and may refuse any of my orders. You also reserve the right to place trading, disbursement, and other restrictions on my Account. You may restrict my

Account from withdrawals or trading if there is a reasonable suspicion of fraud, diminished capacity, inappropriate activity, or if you receive reasonable notice that the ownership of some or all of the assets in my Account is in dispute. I will not hold you liable for any loss I may incur due to your refusal to permit any deposit, withdrawal, or transaction.

c. Trade Execution and Price. You route orders to markets for prompt execution in view of prevailing market conditions, but there can be delays in the processing of orders. I understand and agree with the following:

- As a self-directed trader, I am responsible for selecting the terms of my orders, including the order type, quantity, and time in force.
- The quoted price may not reflect the trading activity from all markets.
- High volumes of trading at the market open or intraday may cause delays in executions and result in prices significantly different from the price quoted at the time the order was entered.
- Markets may handle orders manually and may reduce size guarantees during periods of volatility, resulting in possible delays in order execution, and losses.
- The execution price I receive may be impacted by numerous factors beyond your control and responsibility, including the type of security, liquidity, and the size of my order. For example, large or “block” orders or orders involving illiquid securities may take additional time to execute and may execute at prices significantly different from the quoted price.
- The execution of market and stop-market orders may be at a price significantly different from the quoted price of that security. Limit orders will be executed only at a specified price or better, but there is the possibility that the order will not be executed.
- A market or stop-market order placed when markets are halted or closed, or for a security that has not traded on the public market before, may be executed once markets open at a price substantially higher or lower than the previous closing price or the anticipated price for the security.
- I am obligated to pay or receive the prevailing market price at the time my market order or stop-market order is executed, even if the execution price is significantly higher or lower than I anticipated when I placed the order. If I do not have a margin account and my market order is executed at a price that overspends the available cash in my Account, you have the right to take immediate action to force the sale of securities in my Account without notice to me or to take other appropriate actions to protect your financial interests. I agree that I will be responsible for any subsequent debit balance in my Account. Accounts with margin privileges are subject to the Margin Trading terms in this Agreement.
- Securities traded in over-the-counter bulletin board and pink sheet securities and other thinly traded securities present particular trading risks in that they are often more volatile and generally less liquid than securities traded on exchanges. You reserve the right to place restrictions on the trading of such securities without prior notice.
- I may suffer market losses during periods of volatility in the price and volume of a particular stock when systems issues result in an inability to place buy or sell orders.

d. Payment for Order Flow. You may receive remuneration from markets for directing orders to them. The source and amount of these payments are available upon written request. Markets may act as principals to buy, sell or hold securities for their own accounts, and they may make money when executing your trade.

Rule 607 of Regulation NMS requires broker-dealers to disclose, upon opening a new customer account and on an annual basis thereafter: (i) its policies regarding receipt of payment for order flow, including a statement as to whether any payment for order flow is received for routing customer orders and a detailed description of the nature of the compensation received; and (ii) its policies for determining where to route customer orders that are the subject of payment for order flow absent specific instructions.

The firm receives compensation for directing listed and OTC securities, and options order flow to selected market centers (e.g., broker dealers, exchanges and alternative trading systems) for execution. Compensation generally is in the form of a per share or per contract cash payment. The potential for receipt of order flow payment is not a factor in the routing determination. TD Ameritrade also may receive compensation related to the foreign currency exchange component of transactions in foreign securities from market centers executing such trades. In accordance with SEC Rule

606, TD Ameritrade posts quarterly reports that detail the material market centers to which TD Ameritrade routes orders in NMS Securities and TD Ameritrade’s material relationships with those market centers. This report is made available at www.tdameritrade.com/historical-606-disclosure.page or in written form upon request. As required under SEC Rule 606(b)(1), on request, TD Ameritrade will provide the identity of the market center to which your orders were routed for execution in the six months prior to the request, whether the orders were directed orders or non-directed orders, and the time of the executions, if any, that resulted from such orders. This applies to both held and not held order flow.

TD Ameritrade regularly assesses the execution quality provided by the market centers to which we route order flow in seeking best execution for our clients. For non-directed client orders, it is our policy to route orders to market centers based on a number of factors that are more fully discussed in the Supplemental Materials of FINRA Rule 5310, including where applicable, but not necessarily limited to, speed of execution, price improvement opportunities, differences in price disimprovement, likelihood of executions, the marketability of the order, size guarantees, service levels and support, the reliability of order handling systems, customer needs and expectations, transaction costs and whether the firm will receive remuneration for routing order flow to such market centers. Price improvement occurs when an order is executed at a price that is more favorable than the displayed national best bid or offer.

e. Payment for Transactions. All orders that I authorize will be processed with the understanding that I will pay for any purchase and deliver certificates to cover all sales on or before the settlement date. All sell orders that I place will be for securities that I own (“long”) and in deliverable form at the time I place the order, unless I inform you otherwise.

You reserve the right to require full payment, or an acceptable equity deposit, prior to the acceptance of any order. I will have the required cash, available funds, or equity in my Account prior to the execution and/or settlement of a purchase or short sale transaction, and the required securities in my Account prior to the execution and/or settlement of a long sale. If I do not have sufficient funds or securities in my Account, you have the right to liquidate or buy in securities at my expense, and I will be responsible for any cost or loss.

f. Payment of Indebtedness Upon Demand. If I incur and indebtedness in an account held with one of your affiliates, such as Charles Schwab Futures and Forex LLC, I understand and acknowledge that you and your affiliates may decide to transfer my indebtedness to my Account. Subject to Applicable Law, I will be liable for the payment upon your demand of any obligations owing in my Account, including the reasonable costs incurred in collecting such amounts.

g. Security for Indebtedness. I consent to you having a continuing security interest in, right of set-off to and lien on all securities, cash, investment property, and other property in my Account (“Collateral”). Subject to Applicable Rules, and without prior notice to me, you may sell or transfer the Collateral to satisfy my obligations. You also have the discretion to determine which securities and other properties are to be sold and which contracts are to be closed. You have all the rights of a secured party under the Uniform Commercial Code.

h. Short Sales. I will designate any sell order as a “short” sale if at the time I place the order I do not own the security I intend to sell or am unable to deliver the security before settlement. All short sales will be executed in a Margin Account.

i. Mutual Funds and ETFs. I authorize you to custody mutual fund holdings that I purchase directly through you. When purchasing a mutual fund, I acknowledge that I have received and read the fund prospectus. Mutual fund purchases may be subject to investment minimums, eligibility and other restrictions, as well as charges and expenses. Certain money market funds may impose liquidity fees and redemption gates in certain circumstances.

Some mutual funds sold through you impose a charge on the purchase of shares, called a “sales load.” I may be able to purchase mutual fund shares through you without paying a front-end sales load, but I may be charged a fee, called a “contingent deferred sales charge,” when I sell or redeem my shares. You may receive part or the entire sales load.

As discussed in the prospectus, some mutual funds agree to waive or reduce front-end sales loads for purchases over certain amounts. I am responsible for determining and obtaining any waivers, breakpoints, or providing you with sufficient information to assist me in obtaining such.

You may receive remuneration from fund companies, including, those participating in your no-load, no-transaction-fee program, for record-keeping, shareholder services, and other administrative and distribution services. The amount of your remuneration for these services is based in part on the amount of investments in such funds by your clients. Some mutual funds impose a distribution or service fee known as a "12b-1 fee." You may receive the 12b-1 fees in connection with my investment in such fund's shares. If I invest online in no-transaction-fee mutual funds ("NTF funds") directly through you, I will not pay a transaction fee. I also may be able to purchase mutual funds directly from the fund's distributor or underwriter without incurring a transaction fee. You receive remuneration from fund companies participating in the NTF fund program. NTF funds have other fees and expenses that apply to continued investment in the fund that are described in the prospectus. TD Ameritrade receives remuneration from certain ETFs (exchange-traded funds) that participate in commission-free ETF program for shareholder, administrative, and other services.

j. Cash Features Program. The Cash Features Program is a service you provide that permits uninvested funds, or "free credit balances," in my Account to earn income until I decide how to invest the funds in a longer-term investment. My uninvested funds may earn interest through available alternatives, which are referred to as "Features." The Feature I select, or where applicable the Feature assigned to my Account, is referred to as the "Designated Feature." I understand that I may not be eligible for some Features.

The Features available in the Cash Features Program include "sweep" vehicles ("Sweep Vehicles") into which my funds are automatically deposited or invested (i.e., swept). Currently, the Sweep Vehicles available are the TD Ameritrade FDIC Insured Deposit Account ("IDA") Feature and the money market fund Feature. Certain eligibility requirements currently apply to each of the IDA Feature and the money market fund Feature.

My Account may not be eligible for the IDA Feature. I must maintain assets in my Account with a minimum market value of \$50,000 ("Minimum Account Value") to be eligible for the IDA Feature. The Minimum Account Value requirement will be applied separately to each of my Accounts. If my Designated Feature is the IDA Feature, you may at any time determine that the value of assets in my Account is below the Minimum Account Value and you may provide me with written notice that my Designated Feature will be changed to the TD Ameritrade Cash Feature. I will be provided with an opportunity to meet the Minimum Account Value by a date specified in the written notice to retain the IDA Feature for my Account. If I no longer qualify for the IDA Feature, my funds will be withdrawn from the Program Banks (as defined below) in the IDA Feature and will be held in my Account in the TD Ameritrade Cash Feature. I understand and acknowledge that there may be benefits to TD Ameritrade, the Program Banks, or both, from withdrawing my funds from the IDA Feature and holding them through the TD Ameritrade Cash Feature.

At any time, you may impose new eligibility criteria, change existing eligibility criteria, or replace the Sweep Vehicles available to me. You may, in your discretion, grant exceptions to your eligibility criteria to one or more customers without granting such exceptions to me. You may also change the terms and conditions of any Sweep Vehicle at any time. You will give me advance notice of any such change in the Sweep Vehicles. I understand that if I am no longer eligible for my then-current Sweep Vehicle, upon prior notice, you may withdraw or redeem my funds or shares from that Sweep Vehicle and invest or deposit the proceeds in the replacement Designated Feature described in the notice. My Account will be subject to the terms and conditions of my new Designated Feature.

Through the Cash Features Program, you also provide the TD Ameritrade Cash Feature, in which uninvested funds in my Account will remain in my Account and earn interest paid by TD Ameritrade. My funds in the TD Ameritrade Cash Feature are covered by the SIPC within applicable limits, as further described in the Client Agreement.

The TD Ameritrade Cash Feature is the only Feature available to customers who reside outside the United States of America and its Territories. If my Designated Feature is the IDA Feature and I either reside or move outside the United States of America and its Territories, I understand that TD Ameritrade will, upon 30-days written notice, change my Designated Feature to TD Ameritrade Cash and my funds in the Deposit Accounts at the Program Banks in the IDA Feature will be withdrawn and placed in my Account in the TD Ameritrade Cash Feature.

If I am eligible for more than one Feature, I may instruct you to change my Designated Feature at any time to another of the Features for which I am eligible, and acknowledge that upon such instruction you may withdraw or redeem my funds or shares from my Designated Feature, as applicable, and transfer such balances to the new Designated Feature.

Proceeds from the sale of securities in my Account will be placed in my Designated Feature following settlement. The proceeds of any checks that I deposit to my Account will be placed in my Designated Feature on the Business Day after receipt by you and will begin earning dividends or interest on that day. Access may be withheld for up to four Business Days to assure that such checks have not been returned unpaid.

I acknowledge that you will automatically withdraw or redeem my funds or shares maintained in a Designated Feature to satisfy my obligations in my Account. I authorize you to select and use agents as you deem appropriate. Fees relating to each Feature will vary depending on the Feature. No portion of these fees will reduce or offset the fees otherwise due to you unless required by Applicable Rules.

If my Designated Feature is a Sweep Vehicle and my Account is approved to trade Options, you may change my Designated Feature to TD Ameritrade Cash.

Each of the three Features is described below.

1. TD Ameritrade FDIC Insured Deposit Account. Through the IDA Feature, the available cash in my Account will be automatically deposited into an interest-bearing money market deposit account ("Deposit Account") at one or more banks ("Program Banks"), whose deposits are insured by the FDIC. Certain of the Program Banks include Charles Schwab Bank, SSB; Charles Schwab Premier Bank, SSB; and Charles Schwab Trust Bank, each of which is an affiliate of you. You will maintain a list of the current Program Banks at the following link on your website: tdameritrade.com/idaprogrambanks.

The Deposit Accounts at the Program Banks are held in the name of Clearing as agent for its customers. My funds at each Program Bank will be eligible for FDIC insurance in an amount equal to \$250,000 for principal and accrued interest per depositor in each recognized legal capacity. The IDA has been structured to provide me with access to at least two Program Banks, which may be affiliated or unaffiliated with you, resulting in up to \$500,000 in FDIC insurance per depositor in each recognized legal capacity. Subject to deposit limits pursuant to agreements with the Program Banks, to the extent that my cash is being deposited into more than two Program Banks, it is possible for me to obtain total FDIC insurance in excess of \$500,000 per depositor in each recognized legal capacity.

In addition, you will determine the order of the Program Banks in the IDA for the purposes of accepting deposits based on several factors including, but not limited to, minimum and maximum deposit balances agreed to with a particular Program Bank and the contractual arrangement between you and a particular Program Bank. My deposits swept to Deposit Accounts through the IDA Feature, aggregated with any other of my deposits held at each Program Bank in the same legal capacity, are eligible for FDIC insurance coverage.

Questions about FDIC insurance coverage may be directed to you. Information also may be obtained by contacting the FDIC, by letter (550 17th Street NW, Washington, D.C. 20429), by phone (877-275-3342, 800-925-4618 (TTY)), by email using the FDIC's online Customer Assistance Form, or by accessing the FDIC website at fdic.gov. Learn more about FDIC coverage by using the FDIC's Electronic Deposit Insurance Estimator at edie.fdic.gov/.

My uninvested funds in each of my Accounts will be deposited into a Deposit Account at one or more Program Banks in an amount up to \$247,500 in a Deposit Account at any Program Bank, except for "the Excess Bank" which will receive deposits without limit, even if the amount in the Deposit Account at the Excess Bank exceeds the FDIC insurance available to me. The complete list of Program Banks including "the Excess Bank" is included on your website at tdameritrade.com/idaprogrambanks. I may contact you to determine the list of Program Banks assigned to my Account.

Any deposits (including certificates of deposit) that I maintain in the same insurable capacity directly with a Program Bank, or through an intermediary (such as you or another broker), will be aggregated with deposits in my IDA at such Program Bank for purposes of determining my maximum FDIC insurance amount. I am responsible for monitoring the total amount of deposits that I maintain at the Program Banks to determine the extent

of FDIC coverage available to me. I acknowledge that Deposit Accounts constitute obligations of the Program Banks and are not your obligations.

I can obtain publicly available financial information concerning each Program Bank at www.fdic.gov/news/publications/pichardcopies.html or by contacting the FDIC Public Information center by mail at L. William Seidman Center, Virginia Square, 3501 North Fairfax Drive, Arlington, VA 22226 or by phone at 703-562-2200. You do not guarantee in any way the financial condition of the Program Banks or the accuracy of any publicly available financial information concerning the Program Banks. You will not be responsible for any insured or uninsured portion of the IDAs. Funds in my Account will be automatically swept daily to Deposit Accounts at the Program Banks. As required by federal regulations, the Program Banks have the right to require seven days' prior notice before permitting a withdrawal out of a savings account. Currently, the Program Banks do not intend to exercise this right. In addition, savings accounts you hold as agent for me at a Program Bank may have transfer limits that prevent using such accounts as a transaction account. The following applies to the Deposit Accounts:

- When funds in my Account are first available for deposit into the Deposit Account at a Program Bank, you, as my agent, will open the Deposit Account on my behalf at the Program Bank and you will deposit the available funds from my Account into the Deposit Account at the Program Bank. Once the deposit limit at the first Program Bank is reached, funds will be deposited in the next Program Bank up to the deposit limit. Once my deposits reach the deposit limit at each Program Bank available to me, all remaining uninvested funds will be deposited in the Excess Bank, without limit and without regard to the FDIC insurance limit. You will periodically rebalance my Deposit Accounts so the total amount of my funds in the Deposit Accounts at Program Banks remains below applicable FDIC insurance limits (except for the Excess Bank, which has no limit).
- All withdrawals necessary to satisfy debits in my Account will be made by Clearing, as my agent. A debit will be created when I purchase securities or request a withdrawal of funds from my Account.
- My Account statement will display the name of each Program Bank with which I have deposits, the balance of deposits at each Program Bank, any deposits and withdrawals made during the month, and the applicable interest rate and amount of interest earned on my deposits. You, not the Program Banks, are responsible for the accuracy of my Account statements, including transactions in the Deposit Accounts maintained through the IDA Feature. I may contact you at 1-800-669-3900 for information about my balances or if I have questions about my Account statement.
- The deposit limit at the Program Banks is set slightly below FDIC-insurance thresholds to allow for accrued interest on deposits. The deposit limit at the Program Banks is set at \$247,500 (\$495,000 for Joint Accounts), which may be reset from time to time based on FDIC-insurance limits and the interest rate environment. If interest paid on my funds in the Deposit Account at one of the Program Banks results in my total funds in the Deposit Account exceeding the deposit limit at that Program Bank, the Deposit Accounts will be rebalanced the next day and the amounts in excess of the deposit limit will be transferred to another Program Bank.
- I may not change the Program Banks, the order in which funds are deposited into the Program Banks, or the maximum deposit amount at any Program Bank. I may withdraw from the IDA Feature at any time and use another Feature.
- I will earn interest on my deposits in the Deposit Accounts in accordance with the rates or tiered rates available to me as determined by you. I understand that rates may vary based on the offering or the level of my assets held with you. Interest rates earned in the Deposit Accounts will vary over time but will be paid consistent with the rate or tiered rate you make available to me regardless of which Program Bank holds my cash. The interest rates paid with respect to the IDA Feature may be higher or lower than the interest rates available to depositors making deposits directly with the Program Banks or other depository institutions in comparable accounts. The current interest rate will be available on <https://www.tdameritrade.com/pricing/margin-and-interest-rates.html>, or I may contact you to obtain the current rate. Interest will accrue on balances from the day they are deposited into the Deposit Account through the Business Day preceding the date of withdrawal from the Deposit Account. Interest will be accrued daily

and credited on the last Business Day of each month. You use the daily balance method to calculate interest on my Account.

• My Relationship with you and the Program Banks

- Clearing will act as my agent in depositing funds into the Deposit Accounts and withdrawing funds from the Deposit Accounts. No evidence of the Deposit Accounts, such as a passbook or certificate, will be issued to me. Ownership of the Deposit Accounts at the Program Banks will be evidenced by a book entry on the records of the Program Banks, and by records maintained by Clearing. I will contact you if I believe there has been any unauthorized activity between my Account and Deposit Accounts at the Program Banks, or if I have any complaints regarding the Deposit Accounts at the Program Banks.
- You may terminate my use of the IDA Feature. If you terminate my use of the IDA Feature, or do not wish to continue to act as my agent with respect to a Deposit Account, I may deal directly with the Program Banks, subject to their rules, with respect to establishing and maintaining Deposit Accounts. In the event you terminate my use of the IDA Feature, you will inform me of the replacement Feature or Features available to me. Similarly, if I decide to terminate my use of the IDA Feature, or that I no longer wish to have Clearing act as my agent with respect to the Deposit Accounts, I may establish a direct depository relationship with the Program Banks, subject to the Program Banks' rules. Establishing a direct depository relationship with the Program Banks will result in the separation of my balances in my Deposit Accounts at the Program Banks from my Account.
- Unless I establish the Deposit Accounts directly with a Program Bank as described above, any instructions regarding the movement of my funds in the IDA Feature must be provided by you to the Program Banks, and information concerning the Features may only be obtained from you. The Program Banks will not accept instructions directly from me with respect to my Deposit Accounts held through the IDA Feature, nor provide me directly with information concerning this Feature.
- I understand and acknowledge that the Program Banks benefit from having my funds placed through the IDA Feature because they use IDA balances to fund current and new investment and lending activity. The Program Banks seek to make a profit by achieving a positive spread between their cost of funds and the return on their assets, net of expenses. You receive a volume-based fee from the Program Banks that are not affiliated with TD Ameritrade that ranges from 0.60 to 0.90%. In the case of Program Banks that are affiliates, you will receive a fee of up to \$100 per account. You have the right to waive all or part of this fee. The rate of the fee that you receive may exceed the interest rate or effective yield that I receive in my balances in the Deposit Accounts. Other than the applicable fees charged on brokerage accounts, there will be no charges, fees, or commissions imposed on my Account for this Feature. The current IDA interest rate will be disclosed on your website and may be changed without prior notice.
- My deposit into Deposit Accounts at the Program Banks may need to be limited if one or more Program Banks stop accepting deposits. You will provide advance notification via your website, or other reasonable means, if any Program Bank is removed from the IDA Feature, and if advance notice is not practicable, you will notify me as soon as is reasonably practicable. If a Program Bank ceases to make its Deposit Accounts available through the IDA Feature, I will be given an opportunity to establish a direct relationship with that Program Bank outside of the IDA Feature, or else my funds will be transferred to another Program Bank participating in the IDA Feature, if available.
- In the event that FDIC insurance payments become necessary, the FDIC is required to pay principal plus unpaid and accrued interest to the date of the closing of the relevant Program Bank, as prescribed by applicable laws and regulations. Because there is no specific time period during which the FDIC must make available such insurable payments, there may be a delay in obtaining insurable payments. In addition, I may be required to provide documentation to the FDIC and you, before any insurance payouts are released to me. If the Deposit Account balances are held by me as trustee for the benefit of trust participants, I may be required to furnish an affidavit to that effect.
- You may change the IDA Feature terms and conditions by providing me advance notice.

2. TD Ameritrade Cash. If TD Ameritrade Cash is my Designated Feature, you will pay interest on available cash in my Account, the rate of which may be changed without prior notice. Interest will be accrued daily and credited on the last Business Day of each month. You may vary interest rates among clients in connection with special offers or combinations of services or in other circumstances. TD Ameritrade Cash represents balances pending investment and is not maintained solely for receiving credit interest. You segregate customer cash consistent with the Securities and Exchange Commission rules and regulations. I understand and acknowledge that you may earn income from holding my funds in the TD Ameritrade Cash Feature.

Interest rates are set at our discretion and can change daily. Interest accrues daily and is credited to my Account on or before the last Business Day of each month. To participate in the TD Ameritrade Cash Feature, I must maintain the uninvested funds in my Account for the purpose of investing in securities. The TD Ameritrade Cash Feature is not a bank account or other bank obligation, is not guaranteed by any bank, and is not insured by the FDIC.

3. Money Market Funds. Investments in money market funds are subject to eligibility and other restrictions, as well as charges, and expenses, all as further described in the prospectus. Money market funds are securities that may increase or decrease in value. They are not insured or guaranteed by the FDIC, any other government agency, or you, and there can be no assurance that such funds will be able to maintain a stable net asset value of \$1 per share. I understand that I will receive period statements for sweep transactions involving money market funds in lieu of immediate confirmations.

I understand and acknowledge that you may receive fees for providing marketing and shareholder services to money market funds. In addition, Clearing may act as transfer agent for certain funds and may receive payment for such services provided to such funds. I understand and acknowledge that the fees you and Clearing receive are disclosed in the prospectus for the fund.

k. Callable Securities. I consent to your lottery system for allocation of partial redemption or calls. A description of your procedures for callable securities is available on your website, or hard copies are available upon request.

9. MARGIN TRADING

a. Margin Account. When I purchase securities on margin, I am borrowing money from you and pledging all securities and other property in my Account as collateral for these loans. I agree to evaluate my own financial situation, resources, investment objectives, and other relevant circumstances to determine whether margin transactions are appropriate for me. You will not make this determination. Even if I determine that margin is appropriate for me, you determine whether to make such loans to me. I also understand that trading securities on margin involves a variety of risks, including the following:

1. I can lose more funds than I deposit in the margin Account. A decline in the value of securities that I purchase on margin may require me to provide additional funds to you to avoid the forced sale of those securities or other securities or assets in my Account. I could lose more than the amount I deposit in my Account.

2. You can force the sale of securities or other assets in my Account. If the equity in my Account falls below the maintenance margin requirement, or any higher "house" requirements, you can sell the securities or other assets in any of my Accounts to cover the margin deficiency. I also will be responsible for any shortfall in the Account after such a sale.

3. You can sell my securities or other assets without contacting me. Some investors mistakenly believe that a firm must contact them for a margin call to be valid, and that the firm cannot liquidate securities or other assets in their accounts to meet the call unless the firm has contacted them first. This is not the case. Although you may attempt to notify me of margin calls, you are not required to do so, and even if you have contacted me and provided a specific date by which I can meet a margin call, you can still take necessary steps to protect your financial interests, including immediately selling securities without notice to me.

4. I am not entitled to choose which securities or other assets in my Account are liquidated or sold to meet a margin call. Because the securities are collateral for my margin loan, you have the right to decide which securities to sell in order to protect your interests.

5. You can increase your "house" maintenance margin requirements at any time, and you are not required to provide me advance written notice of the change. These changes to your policy often take effect immediately and may result in the issuance of a maintenance margin call. My failure to satisfy the call may cause you to liquidate or sell securities in my Account.

6. I am not entitled to an extension of time on a margin call. While an extension of time to meet margin requirements may be available to clients under certain conditions, I do not have a right to any extension. You will determine whether to provide an extension.

b. Initial Margin and Margin Maintenance Requirements. There are rules and regulations covering margin loans, including the initial and margin maintenance requirements for margin Accounts. You may impose more stringent margin requirements, which may change without notice to me.

To trade on margin, my Account must maintain at least \$2,000 in minimum equity. I will meet the margin requirement in my margin Account before entering any order and will satisfy any additional requirements you may require. You may apply all premiums received from options writing against my margin requirements. I have the obligation to monitor the balances in my margin Account to ensure that I maintain sufficient amounts to meet margin requirements at all times. I agree to read carefully the TD Ameritrade Margin Handbook before purchasing securities on margin.

You may decline to extend credit to me for any reason, subject to Applicable Rules. There may be times when you have extended credit on certain securities, but due to market or other conditions, you may require additional cash or securities.

c. Margin Interest. I will pay interest on any credit provided to me for the purpose of purchasing, carrying, or trading in any security.

d. Margin Interest Rates. You utilize a base rate ("Base Rate") to set margin interest rates. My margin interest rate will vary based on the Base Rate and the margin balance ("Balance") in my margin Account during the interest period. The Base Rate may be changed without prior notice to me. You will post on the websites any changes to the Base Rate.

e. Interest Calculation. For each day there is a debit balance in my Account, the interest charged for that day is calculated by multiplying the applicable interest rate by my debit balance, with the result divided by 360. The sum of the daily interest charges is totaled at the end of each Account statement period and is posted to my Account on the last Business Day of the Account statement period. I will not earn interest on credit balances in my short Account.

f. Short Sales. Sales designated as "short" are done in my margin Account, and are subject to different margin maintenance requirements than securities purchased on margin. Short sales are subject to certain regulatory rules and cannot be executed under certain market conditions. You may not always have the securities available to facilitate my short sale. You may, without notice, "buy-in" securities to cover any short security position in my Account. I will reimburse you for any losses that you may incur. You may require me to deposit Collateral if the Collateral in my Account becomes insufficient. Short sale proceeds are part of the Collateral that secures your loan to me. I am also liable for all dividends paid, and all other distributions of cash or property, on securities that I have sold short.

g. Pledge of Securities and Other Property. You may pledge, repledge, or otherwise use, without notice to me, all securities and other property that you hold, carry, or maintain or for any of my margin or short Accounts. You may do so without retaining in your possession or under your control for delivery the same amount of similar securities or other property. The value of the securities and other property that you may pledge, repledge, or otherwise use may be greater than the amount I owe you. In connection with these activities, you may receive compensation and retain certain benefits to which I will not be entitled.

h. Loan of Securities/Dividend "Payments in Lieu". You are authorized to lend to yourself or others any securities you hold in my Account and to carry all securities lent as general loans. In connection with such loans,

you may receive compensation and retain certain benefits that I will not be entitled to, such as interest on Collateral posted for such loans. In certain circumstances, such loans may limit my ability to exercise voting rights with respect to the securities lent. I may request that fully paid securities not be used in connection with short sales.

i. Payments in Lieu of Dividends. I understand that in certain situations, including when you have borrowed my securities or when a trade or securities loan is in the process of settling, I may receive a “payment in lieu” of the dividend, interest or other distribution issued. I understand that such a payment may not be entitled to the same tax treatment as the dividend, interest or other distribution. You may allocate payments in lieu by any mechanism permitted by law. Certain taxable accounts that receive a payment in lieu of a qualifying dividend may in some circumstances also receive a “gross-up” payment (see Margin Handbook for more details). This gross-up is discretionary. You are not required to compensate me for any differential tax treatment associated with a payment in lieu, and no gross-up or other compensation will be due to me in connection with any payment in lieu.

10. OPTIONS TRADING

If I elect to engage in options transactions, I will be bound by the following additional terms:

a. Suitability. Options are not suitable for all investors. Options trading has inherent risks and I am prepared financially to undertake such risks and to withstand the losses that may be incurred. I acknowledge I have received or have been given access to the “Characteristics and Risks of Standardized Options” by the Options Clearing Corporation (OCC).

b. General Terms.

- I am responsible for knowing the rights and terms of all options in my Account. I agree to be bound by the FINRA, OCC, and exchange rules applicable to the trading of options contracts.
- If my options trading occurs in a margin Account, it is subject to the terms and conditions applicable to margin trading.
- Settlement on options cleared through the OCC is the Business Day after the trade date. I shall not exceed the position and exercise limits imposed by the rules of the OCC.
- I am responsible for instructing you as to my intention to exercise options contracts before the expiration date. Absent proper and timely exercise instructions from me, you have no obligation to exercise any right, privilege or obligation of any option for my Account. I agree that my failure to provide you with proper and timely instructions may result in the option expiring worthless, even though it may have a monetary value on the expiration date. I agree to read carefully the Margin Handbook for additional terms and important information regarding options exercise.
- You collect information only to establish option trading permission and not for the purpose of monitoring Account holdings or option positions.
- You and Clearing are authorized to take steps to protect their position and any obligation they have assumed at my request without notifying me.
- If I write (short) a call options contract that requires the delivery of securities to be sold, I may be required to keep the securities in my Account until the expiration of the options period and may not be allowed to sell or withdraw the securities.
- If I write (short) a put options contract that requires payment for securities to be purchased, I may be required to keep sufficient funds in my Account to make the payment until the expiration of the options period, and may not be allowed to withdraw the funds or use them for any other purpose. If I am assigned on the options, Clearing may use the funds for the purchase of the securities without prior notice to me.
- All short equity and some index options positions are available for assignment. Exercise assignment notices for equity or index options are randomly allocated among all clients' short positions.

11. INITIAL PUBLIC AND FOLLOW-UP OFFERINGS

You may participate as underwriter or a member of the selling group of, and provide access to, Initial Public Offerings (IPOs) and follow-up offerings. If I participate in such, I will be bound by additional terms.

12. ARBITRATION

This Agreement contains a predispute arbitration clause. By signing an arbitration clause, the parties agree as follows:

- All parties to this Agreement are giving up their right to sue each other in court, including the right to jury trial, except as provided by the rules of the arbitration forum in which a claim is filed.
- Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.
- The ability of the parties to obtain documents, witness statements, and other discovery is generally more limited in arbitration than in court proceedings.
- The arbitrators do not have to explain the reason(s) for their award unless, in an eligible case, a joint request for an explained decision has been submitted by all parties to the panel at least 20 days prior to the first scheduled hearing date.
- The panel of arbitrators may include a minority of arbitrators who were or are affiliated with the securities industry.
- The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is ineligible for arbitration may be brought in court.
- The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this Agreement.
- No person will bring a putative or certified class action to arbitration, nor seek to enforce any predispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until: (1) the class certification is denied; (2) the class is decertified; or (3) the client is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate will not constitute a waiver of any rights under this Agreement except to the extent stated herein.

I agree that any controversy between you and your affiliates, any of their respective officers, directors, employees, or agents and me (including any of my officers, directors, employees, or agents) arising out of or relating to this Agreement, our relationship, any Services provided by you, or the use of the Services, and whether arising before or after the date of this Agreement, shall be arbitrated and conducted under the provisions of the Code of Arbitration of the FINRA. If any party unsuccessfully resists confirmation or enforcement of an arbitration award rendered under this Agreement, then that party shall pay all costs, attorneys' fees, and expenses incurred by the other party or parties in confirming or enforcing the award. Arbitration must be initiated by service upon the other party of a written demand for arbitration or notice of intention to arbitrate. Judgment, upon any award rendered by the arbitrator, may be entered in any court having jurisdiction.

13. ADVICE

a. Unless otherwise noted by you in writing, you will act only as broker-dealer and not as an investment advisor governed by the Investment Advisers Act of 1940.

b. When I act as a self-directed investor, I am responsible for determining the suitability of any particular investment strategy, transaction, or security. You have no responsibility for any such determination unless you otherwise agree in writing, or you or your representative gives advice directly to me that is identified clearly as a recommendation by you to enter into a particular transaction or to buy, sell, or hold a particular security or securities.

c. From time to time, in connection with my Account, you may provide investment-related guidance or recommendations to me. In the event that a recommendation is made, you and/or your representative shall have my informed consent to deliver the Form CRS Customer Relationship Summary for TD Ameritrade or its affiliates, as required (“Form CRS”) - as well as any other notices, disclosures, or communications - to any mailing address, email address or facsimile number that I provide in connection with either the Account, or any other accounts that I open or otherwise maintain with you. I understand that I can also access the Form CRS by visiting

tdameritrade.com/regbi. I understand and acknowledge that it is incumbent on me to provide you with current and accurate contact information for the delivery of these documents. I acknowledge that I shall read and understand the Form CRS - as well as any other notices, disclosures, or communications - prior to acting upon any such recommendation. I agree that when you make a recommendation to me, you determine whether it is suitable and in my best interest at the time of the recommendation. If the recommended transaction is not effected contemporaneously with your recommendation, I agree you will have no liability if I choose to effect such transaction in the future. Furthermore, when you are acting as broker-dealer for my Account, I agree that you have no ongoing duty to ensure a recommendation continues to be suitable for me. Rather, I have an affirmative duty to monitor profits and losses in my Account, along with my investment goals and risk tolerance and to modify my trading decisions accordingly.

d. Unless otherwise agreed to in writing, you do not have discretionary authority over my Account or an obligation to monitor, review or make recommendations for the investment of securities or cash in my Account.

e. Any research, analysis, news, or other information made available by you does not constitute an individualized recommendation by you to buy, sell, or hold a particular security.

f. You do not provide legal, tax, or estate planning advice.

14. MISCELLANEOUS

a. Severability. If any provision of this Agreement is held to be illegal, invalid, or unenforceable under present or future laws, such provisions shall be fully severable. In such event: (1) this Agreement shall be construed and enforced as if such illegal, invalid, or unenforceable provision has never comprised a part of this Agreement or was modified to be legal, valid, and enforceable; and (2) the remaining provisions of this Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid, or unenforceable provisions or by its severance from this Agreement, to the extent permitted by Applicable Rules.

b. Account Handbook. The Account Handbook provided to me upon account opening, and available on your websites, contains important information about my Account. I will refer to the Account Handbook to learn additional information about the handling of trade orders, the receipt and delivery of funds, account policies, and other general account information.

c. Entirety of Agreement. This Agreement, any attachments hereto, the addenda and other agreements referred to in this Agreement and the terms and conditions contained in the Account statements and confirmations contain the entire agreement between you and me; and it supersedes all prior or contemporaneous communications and proposals, whether electronic, oral, or written, between me and you, provided, however, any and all other agreements if any, between me and you and your affiliates, not inconsistent with this Agreement will remain in full force and effect, and if there are any conflicts between this Agreement and any attachments or other agreements, this Agreement shall prevail.

d. Assignment and Escheatment. I may not assign this Agreement or any rights or obligations under this Agreement without first obtaining your prior written consent. You may assign, sell, or transfer my Account and this Agreement, or any portion thereof, at any time, without my prior consent. The assets in my Account may be transferred to the appropriate state if no activity occurs in my Account within the time period specified by state law.

e. Amendment. You reserve the right to amend this Agreement without prior notice to me or as required by Applicable Rules. The current version of the Agreement will be posted on the websites and my continued Account activity after such amendment constitutes my agreement to be bound by all amendments to the Agreement, regardless of whether I have actually reviewed them. You are not bound by any verbal statements that seek to amend the Agreement.

f. Termination. You may terminate this Agreement, or close, deactivate, or block access to my Account. If you decide to close my Account and I fail to

transfer it to another broker, you may liquidate my Account and send me the proceeds. I will remain responsible for the payment of all obligations incurred in my Account or otherwise. I may terminate this Agreement after paying any obligations owed upon written notice. The Agreement survives termination of the Account.

g. Force Majeure. You will not be liable for loss caused directly or indirectly by conditions beyond your reasonable control, including but not limited to Force Majeure events. "Force Majeure" means events that are beyond the reasonable control of a party, including but not limited to the following: disasters, extraordinary weather conditions, earthquakes or other acts of God, war, insurrection, riot, labor strikes, terrorist acts, government restrictions, exchange or market rulings, suspension of trading, computer or communication line failure, or failure of market centers or transmission facilities.

h. Indemnification. I agree to indemnify and hold harmless you, your affiliates, and Third-Party Providers and your and their respective officers, directors, employees, agents, and representatives from any and all liabilities, losses, costs, judgments, penalties, claims, actions, damages, expenses, or attorney's fees (collectively "Losses") resulting or arising directly or indirectly from use of the Services or transactions in my Account, except to the extent that such Losses are the result of your violation of this Agreement, Applicable Rules, or applicable standards of conduct. This provision does not restrict or limit in any way my ability to bring any claim in any forum, including in arbitration, against you that I would otherwise be entitled to bring.

i. Waiver. Your failure to insist on compliance with this Agreement will not constitute a waiver of any of its rights.

j. Admissibility of Documents in Proceedings. All documents in any format are considered to be true, complete, valid, authentic, and enforceable records of the applicable document, admissible in judicial or administrative proceedings to the same extent as if the documents and records were originally generated and maintained in printed form. I will not contest the admissibility or enforceability of your copy of the documents in any proceeding arising out of this Agreement.

k. Governing Law, Jurisdiction, and Venue. This Agreement will be governed by the laws of the State of Nebraska, but not its conflicts of law provisions. I hereby consent to the jurisdiction of and venue within the State of Nebraska for all disputes arising out of or relating to this Agreement.

l. NJ State Law. New Jersey law prohibits contractual provisions that violate the legal rights of a NJ consumer or responsibility of a seller. No provision in this Agreement shall apply to any NJ consumer if it violates any such right or responsibility, including grounds for redress based on: (i) your tortious actions; (ii) the NJ Punitive Damages Act; (iii) the NJ Uniform Commercial Code; or (iv) your failure to protect reasonably against criminal acts of third parties.

m. Worthless and Non-Transferable Securities. You reserve the right to remove from my Account any security that is deemed to have been cancelled or otherwise invalidated. In determining that a security has been cancelled or invalidated, I agree that you have derived information on such assets from me or from third parties and you have reviewed and determined to the best of your ability that the security has no market value. You are not responsible for the accuracy or reliability of any information regarding these assets. Cancelled or invalid securities may include, but are not limited to, bankruptcy or charter or registration revocation. You will notify me if you have removed a cancelled or otherwise invalid security from my account. Unless I provide you with evidence of the validity of the security within sixty days after notice of the removal, I agree to waive any claim to any future distribution from the security and agree to indemnify and hold you harmless from any claims, liability, or damages resulting from the removal of such security. If I provide you with evidence of the validity of the security from an independent third party within 60 days of receiving the notice of removal, you will reinstate my position if you are able to do so. In addition, you reserve the right to charge an additional servicing fee for securities for which a transfer agent cannot be identified (a "Non-Transferable Security").

Investment Products: Not FDIC Insured * No Bank Guarantee * May Lose Value

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