

Options Account Agreement

I agree with and represent to my Broker/Dealer ("you") as follows:

1. I understand that my account is carried by National Financial Services LLC ("NFS") and that all terms of this Agreement also apply between me and NFS.
2. All transactions shall be subject to the constitutions, rules, regulations, customs and usages of The Options Clearing Corporation and any exchange or other marketplace where executed. In addition, I am aware of, and agree to be bound by, the rules of the Financial Industry Regulatory Authority ("FINRA"), the New York Stock Exchange, Inc. ("NYSE") and The Options Clearing Corporation applicable to option contracts.
3. Any securities, cash and money market funds held by you in any of my accounts may be held and used by you as security for the performance of my obligations to you under this agreement.
4. In case of my insolvency, death or the attachment of my property, you may, with respect to any open options contract position, take such steps as you may consider necessary or appropriate to protect yourself against loss. All obligations and liabilities arising under this account are joint and several and may be enforced by my Broker/Dealer against any or all account holders.
5. I will not enter any order for options until I have received, read and understood the appropriate Options Disclosure Document(s) of The Options Clearing Corporation. I specifically affirm the following disclosures as set forth in said Document(s):
 - A. That both the purchase and the writing of options contracts involve a high degree of risk, are not suitable for many investors and, accordingly, should be entered into only by Investors who understand the nature and extent of their rights and obligations and are fully aware of the inherent risk involved, especially during extreme market volatility or trading volumes.
 - B. That I should not purchase any option unless I am able to sustain a total loss of the premium and transaction costs and (i) that I should not write a call option unless I either own the underlying security (or a security convertible, exchangeable or exercisable into such underlying security) or am able to sustain substantial financial losses and (ii) that I should not write a put option unless I am able to sustain the loss resulting from purchasing the underlying security at the exercise price.
 - C. That the price of an options contract is affected by various factors such as the relationship between the exercise price and the market price of the underlying security, the expiration date of the option and the price fluctuations or other characteristics of the underlying stock.
 - D. That the exchanges or other regulatory bodies may restrict transactions in particular options or the exercise of options contracts in their discretion from time to time.
 - E. That all index option exercises are settled by cash payment and not by the delivery of securities; and that all index option exercises are based on the closing index value and that any "in the money" index options exercised prior to the availability of the closing index value face the risk of closing out of the money due to a subsequent adverse change in the index value.
6. I have noted particularly those sections of The Options Clearing Corporation Disclosure Document(s) which summarize the risk factors involved in options trading and I have determined that, in view of my financial situation and investment objectives, options trading is suitable for me. I shall advise you of any changes in my investment objectives, financial situation and needs insofar as such changes are material to my options transactions. The financial and other information listed on this application is accurate.
7. The exercise and assignment of options will be subject to the rules of The Options Clearing Corporation and NFS as may be in effect from time to time. I am aware of your requirements and time limitations for accepting instructions from me or my authorized agent with respect to my options positions. **Manual exercise by customers:** In the event that I fail to instruct you by 4:20 p.m. (ET) on the business day immediately preceding the expiration date to exercise an equity option which is in-the-money by less than \$0.01. I hereby agree to waive any and all claims for damage or loss that I might have against you, at the time or any time thereafter, arising out of the fact that an in-the-money option is not exercised. **Automatic exercise by The Options Clearing Corporation:** I am aware that I must notify NFS no later than 4:20 p.m. (ET) on the business day immediately preceding the expiration date if I do not want The Options Clearing Corporation to exercise on my behalf an equity option which is "in-the-money" by \$0.01 or more, or an index option which is in-the-money by \$0.01 or more. In the event my option contract(s) are exercised, I understand that all resulting positions will be maintained in my account and I must instruct you to close such positions if I wish to do so. If the position(s) that arises from an exercise cannot be maintained (e.g., short stock in a retirement account, no shares available for a short sale, etc.), I understand that you will liquidate the position at my sole risk, for which I shall be charged two commissions. I agree to make full and timely settlement for any underlying security covered by the exercised option contract(s).
8. I understand that before writing any option I must have in my account a minimum equity or appropriate position in such amounts as you may specify from time to time, and that no withdrawals of cash or securities will be permitted from the account which would reduce either the equity or position below your requirements. I further understand that any orders to sell any securities held in my account pursuant to such minimum maintenance requirements may be refused by you at your sole discretion, and I shall not hold you liable for any loss that I may sustain due to your refusal to permit the sale of said securities during such period.
9. Regarding any margin transactions I may make and supplementing the terms and conditions of my Margin Account Agreement, in the event I do not meet your margin calls promptly, you are authorized in your sole discretion, and without notification to me, to take any and all steps necessary to protect yourself in connection with put or call transactions made for my account, including without limitation the right to buy or sell short, or short exempt, for my account and risk any part or all of the shares represented by options endorsed by you for my account, or to buy, sell or exercise any put or call options as you may deem necessary to fully protect yourself. Any and all losses and expenses, including attorneys' fees, incurred by you in this connection will be reimbursed by me.
10. I shall have the sole responsibility to exercise, in a proper and timely manner, any right, privilege or obligation of any put option, call option or other option which you may purchase, handle, endorse or carry for my account(s). You shall not be liable in connection with the execution, handling, selling, purchasing, or endorsing of options for my account.
11. I, alone or in concert with others, will not violate the position limits or the exercise limits of the options exchanges as set forth in The Options Clearing Corporation Disclosure Document(s).
12. I understand and acknowledge that, when transactions on my behalf are to be executed in options traded in more than one marketplace, in the absence of my specific instructions, you may use your discretion in selecting the market in which to enter my orders.
13. Securities in accounts carried by NFS are protected in accordance with the Securities Investor Protection Corporation ("SIPC") up to \$500,000. The \$500,000 total amount of SIPC protection is inclusive of up to \$250,000 protection for claims for cash, subject to periodic adjustments for inflation in accordance with terms of the SIPC statute and approval by SIPC's Board of Directors. NFS also has arranged for coverage above these limits. Neither coverage protects against a decline in the market value of securities, nor does either coverage extend to certain securities that are considered ineligible for coverage.

For more details on SIPC, or to request a SIPC brochure, visit www.sipc.org or call 1-202-371-8300.

14. This Agreement and its enforcement shall be governed by the laws of the Commonwealth of Massachusetts except with respect to its conflict of laws provisions and shall inure to the benefit of your present corporation and its successors, and shall inure to the benefit of and be binding upon my estate, executors, administrators, successors and assigns.
15. Except to the extent to which they conflict with this Agreement, the provisions of my Margin Account Agreement are incorporated herein by reference. In the event of a conflict, the provisions of this Agreement shall control. If any provision of this agreement becomes inconsistent with any present or future law or regulation of an entity having regulatory jurisdiction over it, that provision will be superseded or amended to conform to such law or regulation, but the remainder of this agreement remains in force and effect.
16. With reference to the allocation of exercise notices assigned, I understand that you will use the random selection method of allocation. This method randomly selects from all customers' short option positions, including positions established on the day of assignment, those option contracts that are subject to exercise. I further understand that all short option positions are liable for assignment at any time. A detailed description of this method is available upon written request.

17. Special Statement For Uncovered Option Writers

There are special risks associated with uncovered option writing which expose the investor to potentially significant loss. Therefore, this type of strategy may not be suitable for all customers approved for options transactions.

- A. The potential loss of uncovered call writing is unlimited. The writer of an uncovered call is in an extremely risky position, and may incur large losses if the value of the underlying instrument increases above the exercise price.
- B. As with writing uncovered calls, the risk of writing uncovered put options is substantial. The writer of an uncovered put option bears a risk of loss if the value of the underlying instrument declines below the exercise price. Such loss could be substantial if there is a significant decline in the value of the underlying instrument.
- C. Uncovered option writing is thus suitable only for the knowledgeable investor who understands the risks, has the financial capacity and willingness to incur potentially substantial losses, and has sufficient liquid assets to meet applicable margin requirements. In this regard, if the value of the underlying instrument moves against an uncovered writer's options position, the investor's broker may request significant additional margin payments. If an investor does not make such margin payments, the broker may liquidate stock or options positions in the investor's account, with little or no prior notice in accordance with the investor's margin agreement.
- D. For combination writing, where the investor writes both a put and a call on the same underlying instrument, the potential risk is unlimited.
- E. If a secondary market in options were to become unavailable, investors could not engage in closing transactions, and an option writer would remain obligated until expiration or assignment.
- F. The writer of an American-style option is subject to being assigned an exercise at any time after he has written the option until the option expires. By contrast, the writer of a European-style option is subject to exercise assignment only during the exercise period.

Note: It is expected that you will read the booklet entitled "Characteristics and Risks of Standardized Options" available from your "Broker/Dealer." In particular, your attention is directed to the chapter entitled "Risks of Buying and Writing Options." This statement is not intended to enumerate all of the risks entailed in writing uncovered options.

Notice to Customer

Payment for Order Flow. Your Broker/Dealer or NFS transmits customer orders for execution to various exchanges or market centers based on a number of factors. These include: size of order, trading characteristics of the security, favorable execution prices (including the opportunity for price improvement), access to reliable market data, availability of efficient automated transaction processing and reduced execution

costs through price concessions from the market centers. Certain of the market centers may execute orders at prices superior to the publicly quoted market in accordance with their rules or practices. While a customer may specify that an order be directed to a particular market center for execution,* the order-routing policies, taking into consideration all of the factors listed above, are designed to result in favorable transaction processing for customers.

Your Broker/Dealer and/or NFS receives remuneration, compensation or other consideration for directing customer orders for equity securities to particular broker/dealers or market centers for execution. Such consideration, if any, takes the form of financial credits, monetary payments or reciprocal business.

* **Note:** Orders placed through any telephone, electronic, or on-line trading systems cannot specify a particular market center for execution.

FINRA Rule 4311. Financial Industry Regulatory Authority, Inc. Rule 4311 requires that your Broker/Dealer and NFS allocate between them certain functions regarding the administration of your brokerage account. The following is a summary of the allocation services performed by your Broker/Dealer and NFS. A more complete description is available upon request.

Your Broker/Dealer is responsible for (1) obtaining and verifying brokerage account information and documentation, (2) opening, approving and monitoring your brokerage account, (3) transmitting timely and accurate instructions to NFS with respect to your brokerage account, (4) determining the suitability of investment recommendations and advice, (5) operating and supervising your brokerage account and its own activities in compliance with applicable laws and regulations, including compliance with margin rules pertaining to your margin account (if applicable), and (6) maintaining the required books and records for the services it performs. **NFS shall perform the following tasks at the direction of your Broker/Dealer:** (1) execute, clear and settle transactions processed through NFS by your Broker/Dealer, (2) prepare and send transaction confirmations and periodic statements of your brokerage account (unless your Broker/Dealer has undertaken to do so). Certain pricing and other information may be provided by your Broker/Dealer or obtained from third parties, which has not been verified by NFS, (3) act as custodian for funds and securities received by NFS on your behalf, (4) follow the instructions of your Broker/Dealer with respect to transactions and the receipt and delivery of funds and securities for your brokerage account, and (5) extend margin credit for purchasing or carrying securities on margin. Your Broker/Dealer is responsible for ensuring that your brokerage account is in compliance with federal, industry and NFS margin rules, and for advising you of margin requirements. NFS shall maintain the required books and records for the services it performs.

Investment Objectives

Preservation of Capital: An investment objective of Preservation of Capital indicates you seek to maintain the principal value of your investments and are interested in investments that have historically demonstrated a very low degree of risk of loss of principal value. Some examples of typical investments might include money market funds and high quality, short-term fixed income products.

Income: An investment objective of Income indicates you seek to generate income from investments and are interested in investments that have historically demonstrated a low degree of risk of loss of principal value. Some examples of typical investments might include high quality, short and medium-term fixed income products, short-term bond funds and covered call options.

Capital Appreciation: An investment objective of Capital Appreciation indicates you seek to grow the principal value of your investments over time and are willing to invest in securities that have historically demonstrated a moderate to above average degree of risk of loss of principal value to pursue this objective. Some examples of typical investments might include common stocks, lower quality, medium-term fixed income products, equity mutual funds and index funds.

Trading Profits: An investment objective of Trading Profits indicates you seek to take advantage of short-term trading opportunities, which may involve establishing and liquidating positions quickly. Some examples of typical investments might include short-term purchases and sales of volatile or low priced common stocks, put or call options, spreads, straddles and/or combinations on equities or indexes. This is a high-risk strategy.

Growth and Income: An investment objective of Growth and Income indicates you seek the potential for capital appreciation and also seek to generate some income from investments. You are willing to invest in securities that have historically demonstrated a moderate to above-average degree of risk of loss of principal value to pursue this objective. Typical investments might include common stocks, lower-quality short- and medium-term fixed-income products and bond funds, equity mutual funds and index funds.

Speculation: An investment objective of Speculation indicates you seek a significant increase in the principal value of your investments and are willing to accept a corresponding greater degree of risk by investing in securities that have historically demonstrated a high degree of risk of loss of principal value to pursue this objective.

Some examples of typical investments might include lower quality, longterm fixed income products, initial public offerings, volatile or low priced common stocks, the purchase or sale of put or call options, spreads, straddles and/or combinations on equities or indexes(1), and the use of short-term or day trading strategies.

¹Retirement accounts may not be approved for margin trading privileges. Margin is required to sell covered puts and uncovered puts and call options, conduct spreads, and to write straddles and combinations on equities or indexes.

Other: Defined by Broker/Dealer or Account Holder.

Pre-Dispute Arbitration Agreement

This agreement contains a pre-dispute arbitration clause. By signing an arbitration agreement, the parties agree as follows:

- (A) All parties to this agreement are giving up the right to sue each other in court, including the right to a trial by jury, except as provided by the rules of the arbitration forum in which a claim is filed.
- (B) Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.
- (C) The ability of the parties to obtain documents, witness statements and other discovery is generally more limited in arbitration than in court proceedings.
- (D) 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.
- (E) The panel of arbitrators may include a minority of arbitrators who were or are affiliated with the securities industry.
- (F) 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.
- (G) The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this agreement.

All controversies that may arise between you, us and your broker/dealer concerning any subject matter, issue or circumstance whatsoever (including, but not limited to, controversies concerning any account, order or transaction or the continuation, performance, interpretation or breach of this or any other agreement between you, us and your broker/dealer whether entered into or arising before, on or after the date this account is opened) shall be determined by arbitration in accordance with the rules then prevailing of the Financial Industry Regulatory Authority (FINRA) or any United States securities self-regulatory organization or United States securities exchange of which the person, entity or entities against whom the claim is made is a member, as you may designate. If you designate the rules of a United States self-regulatory organization or United States securities exchange and those rules fail to be applied for any reason, then you shall designate the prevailing rules of any other United States securities self-regulatory organization or United States securities exchange of which the person, entity or entities against whom the claim is made is a member. If you do not notify NFS and/or your broker/dealer in writing of your designation within five (5) days after such failure or after you receive from NFS and/or your broker/dealer a written demand for arbitration, then you authorize NFS or your broker/dealer to make such designation on your behalf. The designation of the rules of a self-regulatory organization or securities exchange is not integral to the underlying agreement to arbitrate. You understand that judgment upon any arbitration award may be entered in any court of competent jurisdiction.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any pre-dispute 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: (i) the class certification is denied; or (ii) the class is decertified; or (iii) the customer is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this agreement except to the extent stated herein.