

Options

Agreement

This document describes the features, policies, costs, and risks associated with options trading. Please review this document and keep it for your records. Do not return it to Fidelity.

How to Contact Us:

For matters concerning your account, including questions, changes, and notifications of errors, reach us:

By Phone:

800-343-3548

In Writing:

Fidelity Investments PO Box 770001 Cincinnati, OH 45277-0045

Who's Who in This Agreement

In this document, "Fidelity," "us," and "we" includes Fidelity Brokerage Services LLC (FBS), Fidelity Distributors Corporation, and National Financial Services LLC (NFS), as well as their employees, agents, and representatives, as the context may require. "You" and "account owner" refer to the registered owner(s) of the account or to any new account applicant; for any account with more than one owner or authorized person (such as a joint or trust account), "you" and "account owner" or "account owners" refer to all owners, collectively and individually.

Commitments by Fidelity and You

Fidelity's Commitments to You

Under this agreement, Fidelity has certain rights and responsibilities. When we accept your options application, we are agreeing to accept instructions on your account for buying, writing, and exercising various options strategies, in accordance with the terms described in this agreement and consistent with your commitments to Fidelity. We reserve the right to limit your ability to enter into opening options transactions.

Your Commitments to Fidelity

By signing the options application, you:

- Acknowledge that you have received this agreement that you accept
 the terms of this agreement, and that you will not enter any order for
 options until you have read and understood both the agreement and
 the Characteristics and Risks of Standardized Options, and supplements thereto, by The Options Clearing Corporation [the "Options
 Disclosure Document(s)"]
- Specifically affirm that you understand the risks of options as described in this agreement and the Options Disclosure Document(s), and that in full knowledge of these risks you have determined that options trading is appropriate for you, based on your own careful examination of your financial resources, investment objectives, and risk tolerance
- Acknowledge, 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 that apply to options contracts
- Agree that you, whether alone or in concert with others, will not violate
 the position or exercise limits of the options exchanges as set forth in
 the Options Disclosure Document(s)
- Agree not to hold Fidelity liable in connection with the execution, handling, selling, purchasing, or endorsing of options for your account
- Agree to let us monitor and/or record any phone conversations with you
- Agree to let us create a digital representation of your voice, a "voiceprint," that may be used for verifying your identity when you contact Fidelity

- Agree to let us verify the information you provide, such as payment and employment information, and obtain credit reports and other credit-related information about you at any time
- Agree to resolve disputes concerning your relationship with us (other than class actions) through arbitration rather than in a court of law
- Agree to notify us in writing any time there is a material change in your financial circumstances or investment objectives
- Acknowledge that Fidelity retains the right to refuse to accept an instruction for buying, writing, and/or exercising options if doing so would be contrary to applicable laws and rules or would put Fidelity at undue financial risk

Options Transaction Policies

The following policies are intended to protect you, your account, and Fidelity from potential negative impacts that may result from utilizing options strategies in your account. For example, the minimum equity/ position requirement discussed below is intended to help ensure that an adequate amount of cash or securities remains in the account to cover possible costs or liabilities that may result from options strategies that you choose to utilize.

Minimum Equity/Position Requirement

For each account approved for options trading, we will determine a minimum level of equities and/or other positions that the investor must maintain in the account. We may change this amount at any time, at our discretion and without advance notice. You may contact a Fidelity representative for information on the applicable limit for your account. It is your responsibility to ensure that your required minimum has been met before writing any option. You authorize us to not generally allow withdrawals of cash or securities that would reduce either your equity or position balance to below your required minimum, and to refuse orders to sell securities that are being held in connection with your required minimum. You agree not to hold us liable for any loss that you may sustain as a result of the enforcement of this policy on required minimums.

Exercise and Assignment of Options

As the account owner, it is your responsibility to exercise, in a proper and timely manner, any right, privilege, or obligation of any put, call, or other option that we may purchase, handle, endorse, or carry for your account(s).

However, in the absence of any instructions from you, you authorize us to exercise any in-the-money options that remain in your account on their expiration day, so long as they are in-the-money by \$0.01 or greater or in accordance with Fidelity's policies then in effect, as applicable. If you do not want us to exercise any expiring options, you must notify us by 4:20 p.m. Eastern time on the expiration date by calling Fidelity at 800-343-3548. If we do not receive your instructions by this time, you agree to waive any and all claims for damage or loss that you might have against us, at that time or later, arising out of the fact that we did not receive your orders to exercise or not exercise in time.

If sufficient assets and/or other positions are not available to cover the exercise or assignment of an option, you authorize Fidelity to take the following actions while charging the Rep-Assisted commission rate:

- place an order to close option positions
- place an order to minimize market risk (for example, if it would result in a short position or cash debit in an account not enabled for margin, result in an equity level that is below the aforementioned minimum, or if there are no shares available for a short sale)
- instruct the OCC not to exercise valuable options on or prior to the last trading day

If an option is exercised or assigned, you authorize us to close out the unsupported equities positions that result from the exercise. You agree to waive and to release us and our officers, employees and agents from any and all claims of damage or loss, then or at a later time sustained, as a result of the exercise or nonexercise of an option contract(s).

If an option assignment results in a short position of a security in your account, you understand that you may be charged short interest fees to maintain that position in your account. In addition, securities that initially are not hard to borrow and have a fee associated with them may subsequently become unavailable or hard to borrow, in which case you agree to be responsible for payment of any and all related fees, including daily short interest fees. When an option is exercised, you will be charged the full aggregate exercise price for any underlying security.

Purchasing Expiring Options

On the expiration date of an equity option, Fidelity may (i) restrict your ability to place new opening transactions and (ii) cancel any unexecuted opening transactions. The timing of these actions may vary.

Allocation of Exercise and Assignment Notices

In allocating exercise notices, we use the random selection method, meaning that the options to be exercised are selected at random from all short option positions that are open at the time (including those established that day). Equity trades that result from an option exercise or assignment are allocated to net your position(s) in order to minimize short against the box scenarios, unless you instruct us otherwise prior to settlement. All short option positions may be assigned at any time. A detailed description of this method is available upon written request.

Protective Steps You Authorize Us to Take

You authorize us to hold any securities and funds in any of your Fidelity accounts and use them as security for the performance of your obligations to us under this agreement with respect to any open options position.

If you have margin on your account, and you do not meet our margin calls promptly, we may, in our sole discretion and without notifying you, take any and all steps necessary to protect ourselves in connection with options transactions made for your account. This may include such steps as buying or selling short any or all shares represented by options in your account, or buying, selling, exercising, or blocking the exercise of any put or call options. In such a case, you will be required to reimburse us for any losses and expenses that we incur, including attorneys' fees.

If you become insolvent or die, or if your property is attached by others, we may take whatever steps we consider necessary or appropriate to protect our interests against loss.

All obligations and liabilities arising under this account are joint and several, and we may enforce them against any or all account holders. Although Fidelity may use other methods when it determines they may be more appropriate, Fidelity reserves the right to use the provisions described in this section at any time, except in cases involving retirement accounts when these provisions would conflict with the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986 (IRC), both as amended.

Options Transaction Policies for Fidelity Individual Retirement Accounts

A Fidelity IRA, a Fidelity IRA Rollover, a Fidelity SEP-IRA, a Fidelity Roth IRA, or a SIMPLE IRA (Fidelity IRA) are eligible for writing covered calls, buying calls/puts, and buying long straddles/strangles/combinations with respect to index and equity options. Put and call options strategies that are generally known as options spreads (Options Spreads) may be permitted in a Fidelity IRA account provided certain conditions are met.

The following options policies, which are designated by Fidelity as a form of margin agreement for your Fidelity IRA, provide you with important terms and conditions for buying, writing, and exercising various options strategies, including Options Spreads, in your Fidelity IRA.

Restrictions

- Spread positions in Fidelity IRAs require a minimum of \$2,000 to be set aside in an interest-bearing account referred to in your balances as "Cash Spread Reserve."
- You must meet the initial and maintenance requirements for your options positions, including Options Spreads, at all times or your positions may be closed by Fidelity without notice. This may include closing out a leg of a spread if the other leg has been exercised or an assignment occurs.

Suitability

You acknowledge that investing in options can be very risky and that you have read the "Important Information about Options Trading and Its Risks" section in this agreement. You acknowledge that your decision to trade

in options in your Fidelity IRA is solely your decision and that Fidelity has not directly or indirectly solicited you or recommended that you trade in options or that you develop or implement Options Spreads. You agree that Fidelity has not and will not recommend any options trades, including puts or calls or other options trades or Options Spreads, in your Fidelity IRA. While Fidelity will implement Options Spreads instructions it receives from you, you understand and agree that Fidelity is not responsible for determining the appropriateness or suitability of any options you purchase or sell in your Fidelity IRA. You are advised to consult a tax advisor before engaging in any option transactions in our Fidelity IRA.

Fidelity IRA Limitations and Representations

You acknowledge and agree to the following terms, conditions, and representations:

- Fidelity's approval of your Fidelity IRA for option trading, including spreads, does not mean that Fidelity has endorsed, solicited, recommended, or approved of any option transaction in your Fidelity IRA.
- Margin borrowing will not be made available in your Fidelity IRA because of applicable regulatory limitations.
- You are solely responsible for ensuring that sufficient assets are maintained in your Fidelity IRA to cover all potential obligations arising from option transactions or options strategies, including Option Spreads, allowed in your Fidelity IRA.
- It is your responsibility not to enter into any option transactions or strategies, including Option Spreads, that can result in you owing in excess of your Fidelity IRA balance.
- An obligation in your Fidelity IRA in excess of your applicable Fidelity IRA account balance can result in a taxable distribution of the IRA assets and the imposition of excise taxes.
- You agree to maintain a sufficient cash balance in your Fidelity IRA to satisfy all obligations that may arise from option transactions or Options Spreads and during the time that such options are held or Options Spreads are conducted in your Fidelity IRA. You further understand and acknowledge that amounts available for purchases within your Fidelity IRA may be limited due to amounts needed to satisfy options or Options Spreads obligations.
- Fidelity shall not be responsible for the dishonor of any transaction due to an insufficient balance in your Fidelity IRA.
- To the extent that options transactions or Options Spreads create a short or debit position in your Fidelity IRA core account, such short or debit position will immediately be covered with other assets from your Fidelity IRA.
- You assume full responsibility for reviewing the terms of any investment in your Fidelity IRA and hereby represent that maintaining options transactions, including Options Spreads, in your Fidelity IRA does not and will not violate the terms and conditions of the applicable Fidelity IRA Custodial Agreement and Disclosure Statement.
- Transactions in my Fidelity IRA do not and will not constitute a prohibited transaction as defined under ERISA, the IRC and related regulations, interpretations, and guidance, and are otherwise in compliance with all applicable laws, rules, and regulations.
- You have been advised to consult your tax advisor regarding the advisability of holding options or conducting Options Spreads in your Fidelity IRA.
- If Fidelity provides research or other information relating to options, including Options Spreads, you understand and agree that any such research or other information is provided solely as an incident to the provision of brokerage services by Fidelity and is not intended to serve as a primary basis for your investment decisions relating to your Fidelity IRA. Any such research or information will not serve as a primary basis for your decision to engage in options trading, including Options Spreads, in your Fidelity IRA.

Additional Representations

You represent and warrant the following: (1) you have determined that it is suitable for you to trade options and conduct Options Spreads in your Fidelity IRA; (2) you will not engage in any transaction including Options Spreads in your Fidelity IRA that would result in any hypothecation or extension of credit by Fidelity or its affiliates; and (3) you have not relied on Fidelity or any of its affiliates for any investment research, advice (including, but not limited to, investment, business, legal, or tax advice), or information in connection with options trading or strategies pertaining to your Fidelity IRA.

Important Information about Options Trading and Its Risks

Before you make use of options in any way, it's essential to fully understand the risks involved, and to be certain that you are prepared to accept them. The bullets below outline general risks as well as the special risks associated with writing uncovered options.

General Risks

- Options are complex and risky, and are not suitable for many investors. This applies to both the purchase and the writing of options. Unless you clearly understand the rights and obligations that an options transaction creates for you—and the inherent risks involved, especially during extreme market volatility or trading volumes—you should avoid options.
- When buying an option, or when writing a covered call option, you can lose 100% of your investment. This includes both the premium you paid and your transaction costs. A covered call option is one for which you own the underlying security (or another security convertible, exchangeable, or exercisable into that security). As noted below, with uncovered options, you can lose more than 100% of your investment.
- Many factors affect the price of an options contract. Pricing can be
 influenced by such factors 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.
- Market conditions or temporary restrictions of trading or exercising may interfere with your trading plans. If the secondary market for a given option were to become unavailable—temporarily or permanently—investors could not engage in closing transactions, and an option writer would remain obligated until expiration or assignment.
 - In addition, an options exchange or any regulatory body with jurisdiction may restrict transactions in particular options, or the exercise of options contracts, from time to time and based solely on their own discretion.
- Index options have special characteristics and risks. Index option exercises are settled with cash, not securities. In addition, because the exercise price of an index option is always based on the closing index value, an index option that is in the money during trading hours may be out of the money when the closing value is calculated—a risk to consider whenever you place an exercise order before the closing value is known.

Additional Risks of Uncovered Options

Writing uncovered options is suitable only for the 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.

- Any time you write an uncovered option, you expose yourself to significant financial losses. If the value of the underlying instrument(s) moves against you, your losses could be many times greater than the cost of the option itself. If an underlying instrument is affected by rapid price volatility or high trading volume, you may be unable to close out your position and you may be forced to endure significantly greater losses than otherwise.
- With certain uncovered options, your potential losses are unlimited. These include writing an uncovered call and combination writing (writing both a put and a call on the same underlying instrument). The risk of writing an uncovered put option is not theoretically unlimited, but in practice the losses can be as substantial as with writing an uncovered call.
- Writing uncovered options may trigger a margin call. If the value
 of an underlying instrument moves against your uncovered options
 position, your broker may demand significant additional margin
 payments. If you're not able to make these payments, your broker
 may sell securities in your accounts, liquidate options positions, or
 take other measures as described in your margin agreement.
- American-style options work differently from European-style
 options. The writer of an American-style option is subject to
 being assigned an exercise at any time after he or she 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.

The information here is only a summary of the risks associated with options. As required by this agreement, be sure to read "Characteristics and Risks of Standardized Options," in particular the chapter called "Risks of Buying and Writing Options."

If you have any questions or concerns about options, please contact Fidelity.

Important Information about Margin Trading and Its Risks

About Margin Trading and Its Risks

Trading on margin lets you borrow money from NFS, an affiliate of FBS, using securities you already own as collateral to purchase additional securities, sell securities short, protect your account from overdraft, or access a convenient line of credit. A margin account is designed primarily to finance additional purchases of securities, although it can also provide overdraft protection for your cash management activities. Before you make use of margin in any way, it's essential to fully understand the risks involved. Margin can involve significant costs and risks and is not appropriate for all investors. Account owners must determine whether margin is consistent with their investment objectives, income, assets, experience, and risk tolerance; and no investment or use of margin is guaranteed to achieve any particular objective. Risks of margin trading include:

You can lose more money than you deposited in your margin account. If securities you bought on margin go down in price, you may face a "margin call," meaning you have to deposit more money or marginable securities.

Fidelity can set stricter margin requirements than the industry minimum, and can increase these "house" requirements in its sole discretion without advance notice. An increase may take effect immediately and may trigger a maintenance margin call without prior notice.

If you cannot meet a margin call, Fidelity can force the sale of assets in your account(s). If the equity in your account falls below either industry minimums or Fidelity's house requirements, Fidelity can cover the deficiency by selling securities or other assets in any account of yours at Fidelity (including accounts at other Fidelity affiliates) without prior notice, and you will be charged the Rep-Assisted commission rate on each trade. If these assets are insufficient, you will be responsible for making up any shortfall, and potentially for paying Fidelity's costs for collecting the shortfall as well.

Fidelity can sell assets in your account without contacting you. While Fidelity generally attempts to notify customers of margin calls, it is not required to do so. Even if you are notified, Fidelity can still sell assets before the time indicated in the notice, if it believes such action is warranted. You understand that if we contact you in advance in certain instances, we are not obligated to do so and such action will not be deemed a waiver of our rights under this agreement.

Important Information about Margin Trading and Its Risks continued

You are not entitled to choose which securities are sold to meet a margin call. Because your accounts form Fidelity's collateral for its loan to you, the choice of what to sell is Fidelity's.

You are not entitled to a time extension on a margin call. While Fidelity may grant you an extension, it is not required to do so. Granting an extension on a margin call does not waive Fidelity's right to decline to grant an extension in the future.

Short selling is a margin account transaction and entails the same risks as described above. Fidelity can use your account to buy securities to cover a short position without contacting you. If you don't have sufficient assets, you are responsible for the shortfall and collection costs.

Fidelity can loan out (to itself or others) the securities that collateralize your margin borrowing. If it does, you may not be entitled to receive, with respect to securities that are lent, certain benefits that normally accrue to a securities owner, such as the ability to exercise voting rights, or to receive interest, dividends, or other distributions. Although you may receive substitute payments in lieu of distributions, these payments may not receive the same tax treatment as actual interest, dividends, or other distributions, and you may therefore incur additional tax liability for substitute payments. Fidelity may allocate substitute payments by lottery or in any other manner permitted by law, rule, or regulation.

Please note that any substitute payments Fidelity makes are voluntary, and may be discontinued at any time.

We may sell your securities or other assets without contacting you. Some investors mistakenly believe that Fidelity must contact them for a margin call to be valid, and that Fidelity cannot liquidate securities or other assets in their accounts unless Fidelity has contacted them first. This is not the case. Fidelity may attempt to notify you of margin calls, but is not required to do so. In addition, even if Fidelity has contacted you and provided a specific date by which you can meet a margin call, Fidelity can still take the necessary steps to protect its financial interest prior to that date, including immediately selling the securities without notice to you. If your application for margin is approved, you agree and acknowledge that if Fidelity contacts you in advance in certain instances, Fidelity is not obligated to do so and such action will not be deemed a waiver of Fidelity's rights under this agreement.

In addition to market volatility, factors specific to your portfolio, such as concentration, liquidity, and marketability of securities, may increase the risk of a margin call. Use of features such as checkwriting, bank cards, and bill payment services may also increase the risk of a margin call. In the absence of (i) an Intraday Free Credit Balance (during normal hours when the market is open ["Intra-day"], any new deposit to your Account or settlement proceeds from a transaction in your Account are held as a free credit balance [the "Intra-day Free Credit Balance"]), (ii) money in the core account, (iii) shares of certain Fidelity money market funds held as positions outside the core account, or (iv) cash dividends paid on marginable securities, any debits that are posted to your account will drive up your margin balance.

You may pay for securities you buy in your account in full, or you may borrow part of the purchase price from us, using a margin account. When you borrow on margin, the securities in your account become our collateral for the loan to you. A decline in the value of these securities is therefore a decline in the value of the collateral. We can respond by taking any of the following steps at any time without prior notice, and you will be charged the Rep-Assisted commission rate on each trade:

- sell assets, or contracts relating to these, that are in your account
- buy assets, or contracts relating to these, of which your account or accounts may be short, in order to close out in whole or in part any commitment on your behalf
- place stop orders with respect to these securities

How and when we can take these steps:

- · at any time, during regular market hours or otherwise
- with or without notifying you that a call is due and even if you have notified Fidelity that you will be providing additional collateral for your Account
- for any cause, including but not limited to:
 - if the value of your account equity falls
 - if you fail to meet—or indicate that you intend to fail to meet—any call for additional collateral
 - high market volatility
 - an account owner's death or petition for bankruptcy
 - an attachment or court order
 - any other situation which Fidelity, in its sole discretion, believes is warranted to prevent the account from going deficit

Margin Account Features

- The following account types are NOT eligible for margin:
 - 529 College Savings Plans
 - Health Savings Accounts
 - Custodial accounts (UGMA/UTMA)
 - Estate accounts
 - Fiduciary accounts (guardian and conservator)
 - Fidelity IRAs including 401(k) plans and Keoghs
 - Cash Management Accounts (CMA)
 - Investment Club Accounts
 - Mutual Fund Accounts
 - Portfolio Advisory Services (PAS) Accounts
- IRAs may have supplemental limited margin and/or options spread trading added.
- For accounts with identical registrations, only one of the accounts with the same registration is eligible for margin.
- Margin will not be granted if we determine that you reside outside of the United States.
- With joint registration accounts, any obligations or liabilities resulting from one account owner's actions are joint and several (i.e., are the responsibility of each account owner, both individually and jointly). We may enforce this agreement and the Customer Agreement relevant to your account against all account owners or against any owner individually. Each owner of a joint account may act as if he or she were the sole owner of the account, with no further notice or approval necessary from any joint owner. For example, one owner may buy and sell securities, withdraw assets, transfer assets into or out of the account, borrow against the account through margin, arrange for account statements to be sent only to him or her, view all available historical account documents or change the account's features and services (although no account owner may remove another's name from the account).
- Debits to resolve securities transactions (including margin calls) or the payment of account fees will be given priority over other debits, such as checks or debit card transactions.
- If certain of the sources are not enough to satisfy a given debit, we
 reserve the right to take action as we see fit, including if you have a
 margin account and the unsatisfied debit is for a securities purchase,
 drawing on the available balance of another account of yours at
 Fidelity. If you have a margin account, we may transfer to that account
 any unresolved debit from other accounts of yours.

Important Information about Margin Trading and Its Risks continued

- We may also use property to satisfy a margin deficiency or other obligation, whether or not we have made advances in connection with this property. This provision extends to any property held by you or carried for any account of yours, including any credit balances, assets, and contracts, as well as shares of any mutual funds or other investment companies for which Fidelity or an affiliate provides management or administrative services. Although Fidelity may use other methods when it determines they may be more appropriate, Fidelity reserves the right to use the provisions described in this section at any time, except in cases involving retirement accounts when these provisions would conflict with the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, both as amended.
- Retirement accounts and Fidelity BrokerageLink® accounts cannot trade foreign securities or sell short, are not eligible for margin loans, and may be subject to other rules and policies. Please see the literature for these accounts for details.
- Your account statements will show all activity in your account for the stated period, including securities transactions, cash and margin balances, credits and debits, and all fees paid directly from your account.
- You have the right to withdraw excess margin securities, provided your account is not subject to restriction under the Federal Reserve's Regulation T or such withdrawal will not cause an undermargined condition.
- In addition to reinvestment of mutual fund dividends, reinvestment of dividends from eligible equities and closed-end funds is an option for most Fidelity accounts, including those with margin. You can choose to have the service apply to all eligible securities in your account, or only to certain ones. You can request this feature on your account application (for all securities) or subsequently by phone or in writing (for all securities or for individual ones).

FBS is responsible for:

- Operating and supervising your account and its own activities in compliance with applicable laws and regulations, including compliance with federal, industry and NFS margin rules pertaining to your margin account and for advising you of margin requirements
- Extending margin credit for purchasing or carrying securities on margin.

By applying for margin trading, you agree:

 that you are responsible for any losses in your account that may arise as a result of any action outlined above. Note that property in a margin account may be pledged or repledged, hypothecated

- (loaned) or rehypothecated, either separately or in common with any other property, for as much as your obligation to us or more, without our having to retain a like amount of similar property in our control for delivery. Also, we may at any time, and without notice to you, transfer any property between any of your accounts, whether individual or joint, or from any of your accounts to any account you guarantee. As permitted by law, we may use certain securities for, among other things, settling short sales and lending securities for short sales and as a result may receive compensation in connection therewith.
- that all marginable assets will be held in a margin account, unless you
 tell us to the contrary (precious metals are not marginable). The Intraday Free Credit Balance, money in the core account, and any cash
 dividends paid on marginable securities, are automatically applied to
 your margin debt every month, unless you tell us otherwise.
- When you borrow on margin, you agree to maintain the level of margin collateral we require (which we may change in our sole discretion at any time without prior notice).
- to let us verify the information you provide and obtain credit reports and other credit-related information about you at any time, such as payment and employment information (whether for margin or any other purpose), and to permit any third-party financial service provider to do likewise.
- to authorize Fidelity to lend property of yours that has been pledged as collateral, and to comply with all provisions of this agreement concerning margin, including determining that margin borrowing is appropriate for you, based on your own careful examination of your financial resources, investment objectives, and risk tolerance.
- to refer to the Customer Agreement for more on Fidelity's brokerage fee schedules, fees for various features and services, and margin borrowing charges. Note that foreign jurisdictions may impose additional fees, taxes, or other charges from time to time, which may not be reflected in the fee schedule in effect at that time. By placing a trade in a foreign security, you agree to pay any such applicable fees, taxes, or other charges, regardless of notice.
- that the credit balance in the short account will be decreased or increased in accordance with the corresponding market values of all short positions. Corresponding debits or credits will be posted to the margin account. These entries in the margin account will, of course, affect the balance on which interest is computed. Credits in your short account, other than marking to market, will not be used to offset your margin account balance for interest computation.

If you have any questions or concerns about your margin account or margin generally, please contact Fidelity.

Limits to Our Responsibility

Although we strive to ensure the quality and reliability of our services, including electronic services (such as online, wireless, and automated telephone services), neither we nor any third party whose services we arrange for are responsible for the availability, accuracy, timeliness, completeness, or security of any service related to your account.

You therefore agree that we are not responsible for any losses you incur (meaning claims, damages, actions, demands, investment losses, or other losses, as well as any costs, charges, attorneys' fees, or other fees and expenses) as a result of any of the following:

- The acceptance and processing of any order placed on your account, whether received electronically or through other means, as long as the order reasonably appears to be authentic
- Cancellation of an accepted/executed trade in which Fidelity reasonably determines, in its sole discretion, that there was a data, clerical, or other similar error in the handling or processing of the trade, including but not limited to situations where a third party caused such error
- Investment decisions or instructions placed on your account, or other such actions attributable to you or any authorized person
- Occurrences related to governments or markets, such as restrictions, suspensions of trading, or high market volatility or trading volumes

- Uncontrollable circumstances in the world at large, such as wars, earthquakes, power outages, or unusual weather conditions
- Occurrences related to computers and communications, such as a network or systems failure, a message interception, or an instance of unauthorized access or breach of security
- With respect to electronically provided market data or other information provided by third parties, any flaw in the timing, transmission, receipt, or substance (such as any inaccuracy, error, delay, omission, or sequence error, any nonperformance, or any interruption of information), regardless of who or what has caused it to occur
- The storage and use of information about you and your account(s) by our systems and transmission of this information between you and us; these activities occur entirely at your risk
- The usage of information received by you or us through any electronic services
- Difficulties receiving information or accessing your account that are due to the equipment you use, including difficulties resulting from technical incompatibilities, malfunctions, inherent limitations, or interruptions in service

Indemnification

You agree to indemnify us from, and hold us harmless for, any losses (as defined in "Limits to Our Responsibility") resulting from your actions or failures to act, whether intentional or not, including losses resulting from actions taken by third parties. If you use any third-party services or devices in connection with your account (such as Internet service or wireless devices), all service agreements and payments for these are your responsibility. Rates and terms are set by the service providers and are not Fidelity's responsibility. Note that beyond taking reasonable steps to verify the authenticity of instructions, we have no obligation to inquire into the purpose, wisdom, or propriety of any instruction we receive.

Terms Concerning This Agreement

If you have a margin agreement with Fidelity, it is incorporated into this one by reference (legally considered part of this document). In the case of any conflict between the two agreements, this one will prevail.

This agreement and its enforcement are governed by the laws of the Commonwealth of Massachusetts, except with respect to its conflicts-of-law provisions.

All options transactions and exercises are subject to the rules and customs of The Options Clearing Corporation and of the marketplace where they are executed, as well as to applicable state and federal laws.

We may amend or terminate this agreement at any time. This may include changing, dropping, or adding fees and policies, changing features and services or the entities that provide them, and limiting the usage or availability of any feature or service, within the limits of applicable laws and regulations. Although it is our policy to send notice to account owners of any material changes, we are not obligated to do so in most cases. Outside of changes originating in these ways, no provision of this agreement can be amended or waived except in writing by an authorized representative of Fidelity.

Fidelity may transfer its interests in this account or agreement to any of its successors and assigns, whether by merger, consolidation, or otherwise. You may not transfer your interests in your account or agreement (including de facto transferral by giving a non-owner access to the account using a personal identification number [PIN]), except with the prior writ-

ten approval of Fidelity, or through inheritance, corporate dissolution, or similar circumstance, as allowed by law, in which case any rights and obligations in existence at the time will accrue to, and be binding on, your heirs, executors, administrators, successors, or assigns.

We may enforce this agreement against any and all account owners. Although we may not always enforce certain provisions of this agreement, we retain our full right to do so at any time.

If any provision of this agreement is found to be in conflict with applicable laws, rules, or regulations, either current or future, that provision will be enforced to the maximum extent allowable, or made to conform, as the case may be. However, the remainder of this agreement will remain fully in effect.

Disclosures

Receipt of Communications

Note that so long as we send communications to you at the physical or electronic address of record given on the application, or to any other address given to us by an authorized person, the communications are legally presumed to have been delivered, whether you actually receive them or not. In addition, confirmations and statements are legally presumed to be accurate unless you specifically tell us otherwise.

Personal Information

For the name and address of any credit reporting agency from which we or a card issuer has obtained information about you, send a written request to us or the card issuer, as applicable.

Service Providers

Brokerage account and margin credit services are provided by NFS, an affiliate of FBS. Services available through this account are the property of Fidelity or the third parties from which Fidelity has obtained rights.

Routing of Orders

Some options are traded in more than one marketplace. Absent any specific instructions from you, we may choose the market in which your transactions in these options are executed.

Resolving Disputes—Arbitration

This agreement contains a predispute arbitration clause. Under this clause, which you agree to when you sign your account application, you and Fidelity 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 and us concerning any subject matter, issue or circumstance whatsoever (including, but not limited to, controversies concerning any account, order, distribution, rollover, advice interaction or transaction, or the continuation, performance, interpretation or breach of this or any other agreement between you and us, 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 commence arbitration through a United States self-regulatory organization or United States securities exchange and the rules of that organization or exchange fail to be applied for any reason, then you shall commence arbitration with 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 us in writing of your designation within five (5) days after such failure or after you receive from us a written demand for arbitration, then you authorize us to make such designation on your behalf. The commencement of arbitration through a particular selfregulatory 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 predispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class action 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 (iii) 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.

On this form, "Fidelity" means Fidelity Brokerage Services LLC and its affiliates. Brokerage services are provided by Fidelity Brokerage Services LLC, Member NYSE, SIPC. 439614.12.0 (10/21)

Effective as of March 28, 2023.

Fidelity Brokerage Services LLC ("FBS") is a registered broker-dealer with the U.S. Securities and Exchange Commission. Brokerage and investment advisory services and fees differ, and it is important for you to understand these differences. Free and simple tools are available to research firms and financial professionals at Investor.gov/CRS, which also provides educational materials about broker-dealers, investment advisers, and investing.

What investment services and advice can you provide me?

FBS offers brokerage accounts and services to retail investors, including for personal and retirement investing, and cash management services (such as bill pay, checkwriting, and margin lending). FBS accounts allow you to invest in mutual funds, exchange-traded funds ("ETFs"), stocks, bonds, college savings plans and insurance products, among others. We do not limit our offerings to Fidelity funds, specific asset classes, or funds of sponsors or investment managers who compensate us. There is no minimum investment to open an account; there are minimums to purchase some types of investments. FBS works with its affiliated clearing broker, National Financial Services LLC, along with other affiliates to provide you with these investment services. For additional information, see Fidelity.com/information.

With an FBS brokerage account, unless we agree otherwise in writing, you are solely responsible for deciding how you want to invest, placing orders, and monitoring your account. FBS, either by itself or through an affiliate, can provide you with tools and information to help you make decisions and can provide you with investment recommendations for certain investments upon request. Investment advisory services are provided through our affiliated investment advisers, including Fidelity Personal and Workplace Advisors ("FPWA") and Fidelity Institutional Wealth Adviser LLC ("FIWA"), typically for a fee, and documents describing these advisory services can be found at Fidelity.com/information, including the FPWA and FIWA client relationship summaries.

FBS brokerage accounts are also available to you when you work with a third-party adviser such as a registered investment adviser, retirement plan administrator, bank or family office ("intermediaries"). If you open your FBS brokerage account through an intermediary, you or your intermediary will make all decisions regarding the purchase or sale of investments; FBS will not provide recommendations or monitor your investment decisions, or your intermediary, for you. Some intermediaries limit the investment products and services available to you. Please contact us or your intermediary for more information on the available services and investments, conflicts of interest, and any fees you will pay.

Conversation Starters. Ask your FBS financial professional:

- Given my financial situation, should I choose a brokerage service? Why or why not?
- How will you choose investments to recommend to me?
- What is your relevant experience, including your licenses, education and other qualifications?
 What do these qualifications mean?

What fees will I pay?

The fees that you will pay depend on whether you work directly with FBS or through an intermediary. If you establish a retail relationship directly with FBS, there are no commissions charged on online transactions for U.S. stocks, ETFs, options, new issue bonds and certificates of deposit ("CDs"). Online transactions in other securities are charged a commission. Sell orders for equities are charged an activity assessment fee and options have a per-contract fee. Transactions placed over the telephone or in a branch office are charged a commission. If you open an investment advisory account with one of our affiliates, your fees will be identified in the contract and disclosure document provided by that affiliate. If you work with FBS through an intermediary, please contact your intermediary for details on the fees that you will pay for your brokerage activities, as online commissions may apply.

There is no transaction fee or sales load (which is a fee charged on your investment at the time you buy a mutual fund share) for either the purchase or sale of Fidelity's retail mutual funds. Other mutual funds either have a transaction fee or no transaction fee, and some of these funds will have sales loads. These fees can vary depending on how long you hold the fund. Holding funds for less than 60 days can result in additional trading fees. Mutual funds, ETFs, insurance products, and similar investment products typically charge their own separate management fees and other expenses in addition to any fees charged by FBS. When commissions apply, you will be charged more when there are more trades in your account, and FBS therefore has an incentive to encourage you to trade more often and in larger amounts. FBS will also collect fees for margin loans based on current interest rates and your average margin loan balance.

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You will pay fees and costs whether you make or lose money on your investments. Fees and costs will reduce any amount of money you make on your investments over time. Please make sure you understand what fees and costs you are paying. Information about brokerage fees and costs for different account types, products and services is available at Fidelity.com/information.

Conversation Starter. Ask your FBS financial professional:

 Help me understand how these fees and costs might affect my investments. If I give you \$10,000 to invest, how much will go to fees and costs, and how much will be invested for me?

What are your legal obligations to me when providing recommendations? How else does your firm make money and what conflicts of interest do you have?

When FBS provides you with a recommendation, we have to act in your best interest and not put our interest ahead of yours. At the same time, the way we make money creates some conflicts with your interests. You should understand and ask us about these conflicts because they can affect the recommendations we provide to you. Here are some examples to help you understand what this means.

- FBS or its affiliates typically earn more when you invest in a product that we or one of our affiliates advise, manage, sponsor, or refer you to, such as a Fidelity mutual fund, ETF, or managed account. This creates an incentive for us to recommend our investment products over those offered by another company.
- FBS earns more on your investments in some third-party funds and ETFs, including through fees and other compensation (including sales loads, 12b-1 fees, maintenance fees, start-up fees and infrastructure support) paid by the fund, its investment adviser or an affiliate to FBS. This creates an incentive for us to recommend these products over others.
- For investments that we buy from you or sell to you for or from our own accounts ("principal trades"), we can earn more than when we buy and sell investments for your account in the open market ("agency trades"). This creates an incentive to execute trades with our own accounts rather than in the open market.

For further details on these conflicts, see Fidelity.com/information.

Conversation Starter. Ask your FBS financial professional:

How might your conflicts of interest affect me, and how will you address them?

How do your financial professionals make money?

FBS representatives also work for our affiliates, including FPWA or FIWA, for a salary and either an annual bonus or variable compensation. In some cases, they earn more from some products and services (including certain investment advisory services) than from others. In such cases, our representatives have an incentive to recommend that you select a program or product that pays them more compensation than those that will pay them less. For further details, see Fidelity.com/information.

Do you or your financial professionals have legal or disciplinary history?

Yes. Visit Investor.gov/CRS for a free and simple search tool to research us and our financial professionals.

Additional Information:

For more information about our brokerage and investment advisory services, or to obtain a copy of this Form CRS, or the Form CRS for FPWA or FIWA, go to <u>Fidelity.com/information</u>. If you work directly with FBS, to request up-to-date information, the latest Form CRS or a hard copy of materials that are hyperlinked above, call 1.800.FIDELITY (1-800-343-3548).

Conversation Starter. Ask your FPWA financial professional:

• Who is my primary contact person? Is he or she a representative of an investment adviser or broker-dealer? Who can I talk to if I have concerns about how this person is treating me?



Effective as of March 28, 2023.

Fidelity Personal and Workplace Advisors LLC ("FPWA") is a registered investment adviser with the U.S. Securities and Exchange Commission. Investment advisory and brokerage services and fees differ, and it is important for you, the retail investor, to understand these differences. Free and simple tools are available to research firms and financial professionals at Investor.gov/CRS, which also provides educational materials about broker-dealers, investment advisers, and investing.

What investment services and advice can you provide me?

FPWA offers investment advisory services to retail investors that include "wrap fee" advisory programs, discretionary advisory programs, financial planning, and referrals to third-party investment advisers. Our wrap fee programs offer investment advice from FPWA and other investment advisers, as well as securities trades and custody services from our broker-dealer affiliates. In our wrap fee programs and our discretionary advisory programs, a subadviser we hire (which is typically an FPWA affiliate) will have discretion to buy and sell mutual funds, exchange-traded products (ETPs), and/or other securities for your account without your consent to each trade. The subadviser (not FPWA) will monitor your account and investments periodically based on the flexibility of the program and investment strategy you have selected. You must meet an account minimum to open and maintain an advisory account in most of our programs. Current account minimums are described at Fidelity.com/information. (Retail advisory offerings available through Fidelity Personal and Workplace Advisors.) In some of our programs, you can only invest in Fidelity mutual funds and ETPs; in other programs, a significant percentage to substantially all of your account will be invested in Fidelity mutual funds and ETPs, depending on the investment strategy you select.

We provide financial planning to clients enrolled in certain discretionary programs and, for clients at certain asset levels, on a stand-alone basis. Our financial planning services help you evaluate your ability to meet identified goals and can also provide suggestions for changes to your asset allocation. Whether and how to implement any asset allocation or other recommendation provided as part of our financial planning services is your responsibility and is distinct from our discretionary advisory services. Our financial plans are not monitored or updated after they are provided to you. In addition, we provide referral services, which include recommendations to third-party investment advisers to help you with your investment and financial needs. We do not monitor these third-party investment advisers.

For more information regarding our retail advisory offerings, please see documents under the heading "Fidelity retail investment advisory services" at Fidelity.com/information. Specifically, you should review FPWA's Form ADV Part 2A Brochure. Our affiliated broker-dealer, Fidelity Brokerage Services LLC ("FBS"), also offers brokerage accounts and services to retail investors, as described in the FBS Form CRS accompanying this document. Please see Fidelity.com/information.

Conversation Starters. Ask your FPWA financial professional:

- Given my financial situation, should I choose an investment advisory service? Why or why not?
- How will you choose investments to recommend to me? What is your relevant experience, including your licenses, education, and other qualifications? What do these qualifications mean?

What fees will I pay?

Your fees will depend on the investment advisory program you select. See the respective program disclosure document for specific fees at Fidelity.com/information. Each wrap fee program charges an advisory fee, typically based on the amount of assets that you have in the program, which covers the ongoing management of your account(s), as well as brokerage, clearing, and custody services provided by FBS and other broker-dealer affiliates and can cover assistance from our representatives and access to financial planning services. Fees are typically deducted from your account after the end of each quarter. Wrap program fees include most transaction costs and fees to FBS and are generally higher than a typical asset-based advisory fee that does not include transaction costs for brokerage services. Our other discretionary advisory programs also charge asset-based fees or a subscription fee depending on the program. Typically, the more assets there are in your program account, the more you will pay in fees, and we have an incentive to encourage you to increase the assets in your account. The following fees are in addition to the wrap program fees: (1) underlying expenses of mutual funds and ETPs purchased for your account (though note that we credit certain revenue we receive from your mutual fund and ETP investments to your program account as explained in your Client Agreement); (2) certain charges resulting from transactions for your account executed with or through unaffiliated broker-dealers; (3) fees of investment advisers we refer you to; and (4) some incidental fees and expenses. In some wrap fee programs we charge an extra fee if your assets are invested in individual securities through a separately managed account. We charge a fixed fee for our stand-alone financial planning, and we receive a fee from advisers to whom we refer clients.

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You will pay fees and costs whether you make or lose money on your investments. Fees and costs will reduce any amount of money you make on your investments over time. Please make sure you understand what fees and costs you are paying. For additional information regarding program fees, please see Fidelity.com/information, specifically, FPWA's Form ADV Part 2A Brochure.

Conversation Starter: Ask your FPWA financial professional:

Help me understand how these fees and costs might affect my investments. If I give you \$10,000
to invest, how much will go to fees and costs, and how much will be invested for me?

What are your legal obligations to me when acting as my investment adviser? How else does your firm make money and what conflicts of interest do you have?

When we act as your investment adviser, we have to act in your best interest and not put our interest ahead of yours. At the same time, the way we make money creates some conflicts with your interests. You should understand and ask us about these conflicts because they can affect the investment advice we provide you. Here are some examples to help you understand what this means.

- FPWA or its affiliates typically earn more when you invest in a product that we or one of our affiliates advise, manage, sponsor, or refer you to, such as a Fidelity mutual fund or ETP. This creates an incentive for us and our affiliates to recommend and invest your assets in our investment products over those offered by another company.
- FPWA or its affiliates earn more on your investments in some third-party funds and ETPs, and therefore have an incentive to recommend and invest your assets in these funds and ETPs over others.
- Our investment advisory programs charge different fees. This creates an incentive for us or our affiliates to recommend advisory programs that pay us or our affiliates higher fees over other programs.

Conversation Starter: Ask your FPWA financial professional:

• How might your conflicts of interest affect me, and how will you address them?

For more details on conflicts, please see <u>Fidelity.com/information</u>.

How do your financial professionals make money?

FPWA representatives also work for our affiliated broker-dealer, FBS, for a salary and either an annual bonus or variable compensation. They earn more from some advisory programs than from other programs, or from providing brokerage services through FBS. Our representatives have an incentive to recommend that you select a program or product that pays them more compensation than those that will pay them less. For more details on compensation, please see Fidelity.com/information.

Do you or your financial professionals have legal or disciplinary history?

Yes. Visit <u>Investor.gov/CRS</u> for a free and simple search tool to research us and our financial professionals.

Conversation Starter: Ask your FPWA financial professional:

As a financial professional, do you have any disciplinary history? For what type of conduct?

For more information about our investment advisory and brokerage services, or to obtain a copy of this Form CRS, or the Form CRS for FBS, go to . To request up-to-date information, the latest Form CRS, or a hard copy of materials that are hyperlinked above, call 1.800.FIDELITY (1-800-343-3548).

Conversation Starter: Ask your FPWA financial professional:

• Who is my primary contact person? Is he or she a representative of an investment adviser or broker-dealer? Who can I talk to if I have concerns about how this person is treating me?

