

2. Account Owner (continued)

ASSOCIATIONS

Check this box if you are associated with, or employed by, a stock exchange or a member firm of an exchange or FINRA, a municipal securities dealer, or Fidelity. Then, please attach the compliance officer's letter of approval ("407 letter") and provide the name and address of the entity with which you are associated below.* Note: 407 letters are not required for Fidelity employees.

Entity Name		
Entity Address		
City	State	ZIP

*Failure to include an approval letter may delay the processing of your request. We must tell the associated entity you have applied for this account.

Check this box if you are a control person associated with either (a) another member, (b) a member organization, or (c) an immediate family/household member of a control person, or are associated with a publicly traded company under SEC Rule 144 (this would include, but is not limited to, a director, 10% shareholder, policy-making officer, and members of the board of directors).

Provide name of company and trading symbol.

Name of Company	Trading Symbol
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3. Additional Account Owner (continued)

ASSOCIATIONS

Check this box if you are associated with, or employed by, a stock exchange or a member firm of an exchange or FINRA, a municipal securities dealer, or Fidelity. Then, please attach the compliance officer's letter of approval ("407 letter") and provide the name and address of the entity with which you are associated below.* Note: 407 letters are not required for Fidelity employees.

Entity Name		
Entity Address		
City	State	ZIP

Check this box if you are a control person associated with either (a) another member, (b) a member organization, or (c) an immediate family/household member of a control person, or are associated with a publicly traded company under SEC Rule 144 (this would include, but is not limited to, a director, 10% shareholder, policy-making officer, and members of the board of directors).

Provide name of company and trading symbol.

Name of Company	Trading Symbol
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4. Financial Profile Answer for ALL account owners combined. Trusts/entities must answer based on trust/entity assets.

ANNUAL INCOME

From all sources

- ₁ Under \$20,000
₂ \$20,000–\$50,000
₃ \$50,001–\$100,000
₄ Over \$100,000

ESTIMATED NET WORTH

Excluding your primary residence

- ₁ Under \$30,000
₁ \$30,000–\$50,000
₂ \$50,001–\$100,000
₃ \$100,001–\$500,000
₄ Over \$500,000

ESTIMATED LIQUID NET WORTH

Cash and assets easily converted to cash

- ₁ Under \$15,000
₁ \$15,000–\$50,000
₂ \$50,001–\$100,000
₃ \$100,001–\$500,000
₄ Over \$500,000

Important Note: Financial profile is required to process your request for margin.

On this form, "Fidelity" means Fidelity Brokerage Services LLC and its affiliates. Brokerage services are provided by Fidelity Brokerage Services LLC, Member NYSE, SIPC.

For Fidelity Use Only <input type="checkbox"/> Approved for Margin Approving Manager's Name, Signature, and Date (MM / DD / YYYY)	Date Disclosure Sent to Customer MM / DD / YYYY	Account Number
	Introducing RR's Name, Signature, and Date (MM / DD / YYYY)	

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5. Required Signature(s) *ALL owners must read and sign. For additional owners, use a copy of this section.*

"You/you" refers to all account owners. By signing below, you:

- Acknowledge that you have received a copy of the Customer Agreement, and you state that you have read it, you understand it, and you accept its terms and conditions.
- Authorize Fidelity to extend margin credit on the account identified in Section 1.
- State that you have provided Fidelity with your required personal, financial, and investment information, and that this information is complete and truthful.
- Authorize us to hypothecate (lend) or rehypothecate, either separately or in common with any other property, either to ourselves or to others, any property we may be carrying for you on margin. This authorization applies to all accounts we carry for you and will remain in force until we receive written notice of revocation.
- Acknowledge that if you are adding margin to a Non-Prototype Retirement Account, you have read and understand the following points: As trustee, it is your responsibility to ensure that all account transaction and investment instructions provided are in accordance with the underlying plan and trust.

In addition to risks generally applicable to margin borrowing, a tax-advantaged retirement account poses additional risks, including the following: 1) using account assets to satisfy margin calls reduces tax-advantaged savings, 2) annual contribution limits might restrict a plan trustee's ability to satisfy margin calls, and 3) debt-financed investment income within a tax-advantaged account can generate unrelated business taxable income (UBTI). You are strongly encouraged to consult with your tax or benefits advisor prior to using margin borrowing on this account.

By not checking the box for Securities Industry Associations or Public Company Associations, you represent and warrant that you are not associated with, or employed by, a stock exchange or a broker-dealer, and you are not a control person or associate of a public company under SEC Rule 144 (such as a director, 10% shareholder, or a policy-making officer), or an immediate family or household member of such a person.

These accounts are governed by a predispute arbitration clause, which appears on the last page of the Fidelity Account® Customer Agreement, and you acknowledge that you have received a copy of this clause.

Owner Signature:

Owner Signature:

Questions? Go to Fidelity.com/margin or call 800.544.6666.

Form completed and signed?

Mail to Fidelity Investments, P.O. Box 770001, Cincinnati, OH 45277-0002.

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On this form, "Fidelity" means Fidelity Brokerage Services LLC and its affiliates. Brokerage services are provided by Fidelity Brokerage Services LLC, Member NYSE, SIPC.

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The Fidelity Account[®]

This document describes the features, policies, fees, and risks associated with your Fidelity Account.[®]

The first section is the agreement, or contract, for your account. The second section includes a copy of the current fee schedule and other account-related information.

Please review this document and keep it for your records. Do not mail it in with your application.

CUSTOMER AGREEMENT

About This Agreement

An introduction that includes a summary of Fidelity's responsibilities and the responsibilities you agree to accept in using your account.

Account Features

Descriptions of the basic features of your account and several optional features, such as cash management features.

Account Policies

Information on policies that affect how your account works, how orders are processed, and other account functions.

Borrowing on Margin

How a margin account works, the terms and conditions of its use, and a discussion of risks associated with margin borrowing.

Disclosures

Information on liability, certain regulations, and predispute arbitration.

ADDITIONAL INFORMATION

Fees

Fidelity's brokerage fee schedules, fees for various features and services, and margin borrowing charges.

Privacy Notice

Notices



Things to Know Before Using Your Account

The information in this box is only a summary. Please read the agreement for more complete information.

Using your brokerage account involves risks, for which you assume full responsibility.

As the account owner, you are fully responsible for monitoring your account and for all investment decisions and instructions concerning your account.

Placing orders during times when markets are volatile can be risky, particularly when you are using electronic services to access information or to place orders through your Fidelity Account® brokerage account.

Before you start using your account or any account feature, it's essential that you understand the terms, conditions, and policies that apply.

A joint owner or any one of multiple trustees can place any order in a joint account or trust account (including removing all of the assets) without the approval of the other owner(s) or trustee(s) and without any obligation on Fidelity's part to question the action.

There are certain situations in which it is essential that you get in touch with us.

You need to tell us immediately if any of the following occur:

- You notice anything incorrect or suspicious concerning your orders, account activity, or statements.
- Your financial circumstances or goals change.
- You become subject to laws or regulations concerning corporate insiders, the reporting of certain investments, or employment in the securities industry.

Disputes between you and Fidelity are settled by arbitration.

As with most brokerage accounts, the parties agree to waive their rights to sue in court, and agree to abide by the findings of an arbitration panel established in accordance with an industry self-regulatory organization.

How to Contact Us

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

By Phone	In Writing
800-544-6666	Fidelity Investments Client Services
Online	P.O. Box 770001
Fidelity.com	Cincinnati, OH 45277-0045

Who's Who in This Agreement

In this document, "Fidelity," "us," and "we" include Fidelity Brokerage Services LLC ("FBS") and National Financial Services LLC ("NFS") and their employees, agents and representatives, as the context may require. "You" and "account owner" refer to the owner indicated on the account application; 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.

About This Agreement

Fidelity's Commitments to You

Under this agreement, Fidelity has certain rights and responsibilities. When we accept your account application, we are agreeing to serve as your broker and to maintain an account for you. We agree, subject to your acceptance of an authorized order, to buy, sell, or otherwise dispose of, or acquire, securities for you according to your instructions. We also agree to provide, or acquire, various services and features, as described on the following pages.

Your Commitments to Fidelity

Many of these commitments are spelled out more completely on the following pages, but in general, when you sign the account application, you agree:

- to accept full responsibility for the content and accuracy of all authorized instructions placed on your account, and for all results and consequences of these instructions, including all investment decisions, trading orders, and all instructions placed by you or any other person you authorize
- to pay all fees, charges, and expenses incurred on your account, according to the fee schedule in effect at the time (a current schedule is provided with this agreement); for services we perform at your request that are not covered in our current fee schedule, you agree to pay the applicable fee
- to maintain enough assets in your account to satisfy all obligations as they become due, and to understand that we may take whatever steps we consider necessary to resolve unpaid debts or other obligations
- to use the account and its features according to this agreement and for your own personal purposes only
- if you use any of our electronic services, or if you provide us with your e-mail address to have your personal financial information transmitted electronically, and to receive your initial notice of our privacy policy electronically
- to keep secure your account number, username, and password, and any devices, such as mobile phones or pagers, you use in connection with your account
- to let us monitor and/or record any phone conversations with you
- 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 resolve disputes concerning your relationship with us (other than class actions) through arbitration rather than in a court of law
- if applying for margin, 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
- if applying for any other optional features or services, to understand and accept the terms associated with them
- to protect Fidelity against losses arising from your usage of market data and other information provided by third parties
- to understand that, whenever you invest in, or exchange into, any mutual fund (including any fund chosen for your core position), you are responsible for reading that fund's prospectus, including its description of the fund, the fund's fees and charges, and the operation of the fund
- to notify us in writing any time there is a material change in your financial circumstances or investment objectives
- to be bound by the current and future terms of this agreement, from the time you first use your account or sign your application, whichever happens first

Account Features

The Fidelity Account® brokerage account offers access to a range of integrated financial services, making it a versatile investment and cash management tool. Certain features and services are standard with your account. Others are optional, and may be added either when you open your account or later. Note that some features and fees vary depending on the nature of your relationship with Fidelity.

Industry regulations require that Fidelity Brokerage Services LLC (FBS) and its clearing firm, National Financial Services LLC (NFS), allocate between them certain functions regarding the administration of your account. The following is a summary of the allocation of those functions performed by FBS and NFS.

FBS is responsible for:

- Obtaining and verifying account information and documentation.
- Opening, approving and monitoring trading and other activity in your account.
- Acceptance of orders and other instructions from you regarding your account, and for promptly and accurately transmitting those orders and instructions to NFS.
- Determining the suitability of investment recommendations and advice, and that those persons placing instructions for your account are authorized to do so. NFS will not give you advice about your investments and will not evaluate the suitability of investments made by you, your investment representative or any other party.
- 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.
- Maintaining the required books and records for the services it performs.
- Investigating and responding to any questions or complaints you have about your account(s), confirmations, your periodic statement or any other matter related to your account(s). FBS will notify NFS with respect to matters involving services performed by NFS.

NFS is responsible, at the direction of FBS, for:

- The clearance and settlement of securities transactions.
- The execution of securities transactions, in the event NFS accepts orders from FBS.
- Preparing and sending transaction confirmations and periodic statements of your account (unless FBS has undertaken to do so).
- Acting as custodian for funds and securities received by NFS on your behalf.
- Following the instructions of FBS with respect to transactions and the receipt and delivery of funds and securities for your account.
- Extending margin credit for purchasing or carrying securities on margin.
- Maintaining the required books and records for the services it performs.

Standard Features

Securities Trading

This account is a brokerage account that allows the trading and holding of many securities that are publicly traded in the United States, such as most securities in these categories:

- stocks, including common and preferred
- bonds, including corporate, municipal, and government
- convertible securities
- mutual funds, including Fidelity funds, non-Fidelity funds, and closed-end funds such as exchange-traded funds (ETFs)
- options, including stock and index options, and in some cases options offered through an employee stock option program (ESOP)

- certificates of deposit (CDs)
- unit investment trusts (UITs)

In addition, the account can be used to trade certain foreign securities (either directly or as depositary receipts) and precious metals.

Fidelity may make non-personal historical trading data available to institutional clients on an aggregate basis for analysis purposes (such as trending).

Some investments that **cannot** be traded through your Fidelity Account® are futures and commodities.

When you place a trade, you may have a choice of order types, including market orders, limit orders, stop orders, and stop-limit orders. To find out how these different types of orders work, and for other helpful information, go to [Fidelity.com/brokerage](https://www.fidelity.com/brokerage).

International Trading

Fidelity offers you two different ways to trade foreign stocks. You can utilize either Fidelity's "International Trading" functionality or its "Foreign Ordinary Share Trading" service. International Trading allows you to trade most common stocks and exchange-traded funds (ETFs) directly in the local market with an option to settle your trade in U.S. dollars or in the local currency. Foreign Ordinary Share Trading allows you to trade shares in foreign corporations in the over-the-counter (OTC) market through a U.S. market maker. If you are using Fidelity's International Trading functionality, you will be subject to the terms and conditions of the International Trading Supplement. However, all customers trading foreign securities should be aware of certain risks described below:

International Trading, including direct investments in foreign markets, involves various investment risks, including foreign exchange risk (the possibility that foreign currency will fluctuate in value against the U.S. dollar), increased volatility as compared to the U.S. markets, political, economic, and social events that may influence foreign markets or affect the prices of foreign securities, lack of liquidity (foreign markets may have lower trading volumes and fewer listed companies, shorter trading hours, and restrictions on the types of securities that foreign investors may buy and sell), and less access to information about foreign companies. Emerging markets, in particular, can be subject to greater social, economic, regulatory, and political uncertainties, and can be extremely volatile.

International Trading also may be subject to various credit, settlement, operational, financial, and legal risks. These risks may include but are not limited to:

- **Physical Markets.** Certain markets may have less regulated or less liquid securities markets. In addition, some countries still rely on physical markets that require delivery of properly endorsed share certificates to effect trades. As a result, the settlement process can be lengthy (and erratic in some markets) and carries an increased risk of failure, including, but not limited to, the failure of the counterparty to deliver securities in exchange for payment.
- **Misidentification of Securities.** Foreign companies may have multiple classes of securities, including "foreign" and "local" shares. Inadequate understanding of a foreign company's capital structure or imprecision in placing orders can result in a purchase of the wrong securities.
- **Trading Days and Hours.** Differences in trading days and hours can also create operational issues, trading delays, and complicate clearance and settlement. Foreign securities orders will not be sent to the local market except during market hours in such country. Orders entered during such nonmarket hours may be held until the local market is open.
- **Cross-Border Settlement.** Cross-border settlement involves the interaction of different settlement systems and differing (and potentially inconsistent) laws in each of the affected countries.
- **Tax Treatment.** There may be negative tax consequences as a result of trading in certain countries. You should consult a tax advisor for further information.

Foreign securities positions that are not in the custody or control of NFS are not covered by SIPC or any additional insurance secured by NFS.

Fidelity may limit, restrict, or terminate ability to trade in certain foreign securities at any time and in Fidelity's sole discretion.

Please refer to Additional Information for more on Fidelity's brokerage fee schedules, fees for various features and services, and margin borrowing charges.

Core Account

Your Fidelity Account® includes a core account that is used for settling transactions and holding balances awaiting investment. Amounts contributed or received will be invested in the core position you indicate on your account application.

Statements

We will send an account statement to the address of record:

- every calendar quarter, at a minimum
- for any month when you have trading or cash management activity

Your account statements will show all activity in your account for the stated period, including securities transactions, cash and margin balances, credits and debits to your core account, and all fees paid directly from your account.

We will also send out a confirmation for every securities transaction in your account. The only exceptions are automatic investments, automatic withdrawals, dividend reinvestments, and transactions that involve only your core account; for these activities, your regular account statement serves in place of a confirmation.

To receive your account statements and confirmations faster, you can arrange to have them delivered electronically instead of through the mail. This option is free, and you can switch to or from it any time upon request.

Account Protection

The securities in your account are protected in accordance with the Securities Investor Protection Corporation (SIPC) for up to \$500,000 (including up to \$250,000 for uninvested cash). We also provide additional coverage above these limits. Neither coverage protects against a decline in the value of your securities, nor does either coverage extend to certain securities that are considered ineligible for coverage.

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

Optional Features

You can set up these services using your account application. To add them to an existing account, contact Fidelity. Some of these features are covered by their own customer agreements, provided by third parties and/or are incorporated into this agreement by reference (are legally considered part of this agreement) and will be provided to you as applicable. Note that some services are not available for certain types of accounts.

Checkwriting

Checkwriting is available on many types of registration; exceptions include certain retirement plans. Note that cancelled checks are not returned to you, although check imaging may be available.

Debit and Credit Cards; ATM Withdrawals

These cards can be used to make withdrawals at any ATM that accepts that type of card. Below are the types of cards you may apply for in connection with your Fidelity Account®:

Daily debit: VISA® Gold Check Card All transactions are debited against your core account the same day you make them. Fidelity currently covers the entire annual card fee.

Credit Cards: Fidelity makes available a number of cards with features to help you save more while providing convenient access to credit. Fidelity Investments credit cards are issued and administered by FIA Card Services, N.A., which is not affiliated with Fidelity Investments. For information about rates, fees, and other costs and benefits associated with the credit card program, visit Fidelity.com/creditcards or call FIA Card Services at 866-598-4971.

Fidelity BillPay®

Fidelity BillPay® service is free and allows you to pay your bills online. It can be set up to make fixed payments automatically, and you can also use it to send variable periodic payments on demand to designated payees.

Transferring Money Electronically

Options for transferring cash in and out of your core account electronically include bank wires, which use the Federal Reserve wire system, and electronic funds transfer (EFT), which works like an electronic check. You can also set up your account to receive periodic transfers by activating the Automatic Investment feature. In addition, you can buy and sell shares of Fidelity mutual funds by telephone and use your bank account (via electronic funds transfer) to settle the transaction.

Margin Account

A margin account lets you borrow money from NFS, using as collateral eligible securities that are in your account. A margin account is designed primarily to finance additional purchases of securities, although it can also provide overdraft protection for your cash management activities. For information on the benefits, costs, and risks of margin, see "Important Information about Margin and Its Risks."

Dividend Reinvestment

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 retirement accounts and 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).

Accessing Your Account

There are a variety of ways you can place orders, access your account, get market and investment information, or contact Fidelity. Online choices include Fidelity.com, Fidelity Active Trader Pro®, alerts and wireless trading services, and other interactive services for computers or handheld devices. Some of these services are offered by Fidelity directly; others are offered by outside providers.

Telephone choices include Fidelity Automated Service Telephone (FAST®) as well as Fidelity's telephone representatives. Both services are generally available 24 hours a day, 7 days a week. Please note that our telephone lines may be recorded, and, by signing the account application, you are consenting to such recording. If you do not wish to be recorded, you should contact Fidelity via another means. You can also speak with a Fidelity Representative in person, during business hours, at any of our Fidelity Investor Centers around the country.

Account Policies

Account Registration

Joint Registration

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 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, a joint owner can write checks, buy and sell securities, withdraw assets, transfer assets into or out of the account, borrow against the account (such as through short sales or 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).

In addition, with joint accounts, the principle of "notice to one is notice to all" applies. We are legally considered to have fulfilled an obligation to the account if we fulfill it with respect to just one account owner (e.g., sending statements or other required communications to just one account owner).

Note also that we have no obligation to question the purpose or propriety of any instruction of a joint account owner or authorized person that appears to be authentic, or to let other owners know about any changes an owner has made to the account, unless we have received written notice to the contrary, from an authorized person and in good order, at the address referenced earlier under "How to Contact Us." We do reserve the right to require, at any time, the written consent of all account owners and/or authorized persons before acting on an instruction from any account owner or authorized person, but we use this right only at our own discretion and for our own protection.

Laws covering joint or community property vary by state. You are responsible for verifying that the joint registration you choose is valid in your state. You may want to consult your lawyer about this. For joint tenants with rights of survivorship and tenants by the entirety, on the death of an account owner the entire interest in the account generally goes to the surviving account owner(s), on the same terms and conditions. For tenants in common, a deceased account owner's interest (which equals that of the other account owner(s) unless specified otherwise) goes to that account owner's legal representative. Tenants in common are responsible for maintaining records of the percentages of ownership.

Trust Accounts

The provisions in the foregoing section applicable to joint registration accounts shall likewise apply to trust accounts with multiple trustees, with one trustee having the rights and responsibilities of one joint account owner. In addition, applying for a trust account is considered to be a statement from the trustees that they are authorized, under the terms of the trust and applicable law, to open and direct a brokerage account on behalf of the trust, that their orders and transactions will be governed by the terms and conditions of all applicable trust agreements, and that Fidelity is authorized to accept instructions from any trustee.

Custodial Registration

For accounts opened under the Uniform Gifts/Transfers to Minors Acts, you, the account owner, are the custodian. By opening this type of account, you agree that all assets belong to the minor and that you will only use them for the minor's benefit—even after the assets have been removed from the account.

Account Usage

First Use of Core Account

If you choose a money market fund for your core position, making your first investment into that fund is your acknowledgment that you have received and read a prospectus for that fund. Note that your core position must meet the investment minimums for that fund.

Prohibited Uses and Actions

You are strictly prohibited from using your account in conjunction with any business as a broker-dealer, trader, agent, or advisor in any type of security, commodity, future, or contract, or in any business or organization connected with individuals performing these functions. You are also prohibited from publicizing or sharing with anyone any information you obtain through your account (such as securities quotes). In addition, be aware that we may freeze your account or suspend certain privileges, features, or services at any time without notice.

Limits on Mutual Fund Trades

Because excessive trading in mutual fund shares can be detrimental to a fund and its shareholders, we may block account owners or accounts that engage in excessive trading from making further transactions in fund shares. A block on trading fund shares may be temporary or permanent, and may apply only to certain mutual funds or all mutual funds, including Fidelity funds.

The decision to impose a block may originate with a mutual fund company or may be made by Fidelity at the brokerage account level, if Fidelity believes such a block is warranted. To see what a given fund company's definition of "excessive trading" is, check the fund's prospectus.

In addition, we may restrict or limit any transaction in any mutual fund or other investment company that we or an affiliate manages or advises if we believe the transaction could adversely affect the investment company or its shareholders.

How Transactions Are Settled

Credits to Your Account

Any new deposits or proceeds from transactions are automatically swept daily into your core account. You may be paid interest on cash balances awaiting investment (excluding any short credit balances), provided that the accrued interest for a given day is at least half a cent. The rate of interest paid varies and will depend on the daily balance in the account. Fidelity may raise or lower the rate at any time without notice. If you choose a different core position in the future, these terms will still apply.

Each check deposited is promptly credited to your core account. However, the money may not be available to use until up to four business days later, and we may decline to honor any debit that is applied against the money before the deposited check has cleared. If a deposited check does not clear, the deposit will be removed from your account, and you are responsible for returning any interest you received on it. Note that we can only accept checks denominated in U.S. dollars and drawn on a U.S. bank account (including a U.S. branch of a foreign bank). We cannot accept third-party checks. In addition, we may restrict assets in your account if we have reason to believe that such assets were incorrectly credited to your account.

Debits to Your Account

Deferred debit card charges are debited monthly. All other debit items (including checks, debit card transactions, bill payments, securities purchases, electronic transfers of money, levies, court orders or other legal process payments) are paid daily to the extent that sufficient funds are available. Note that 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.

As an account owner, you are responsible for satisfying all debits on your account, including any debit balance outstanding after all assets have been removed from an account, any margin interest (at prevailing margin rates) that has accrued on that debit and any costs (such as legal fees) that we incur in collecting the debit.

To help ensure the proper discharge of debits, it is our policy to turn to the following sources, in this order, when settling debits against your account:

- any money that is added to your account (such as checks, interest, or transaction proceeds) on the same day the debit is applied
- any money in your core account
- if you have a margin account, any margin credit available
- any shares in another Fidelity money market fund, including any in another nonretirement account with the same registration (which you authorize us to sell for this purpose when you sign the application)
- any securities in any other account at Fidelity in which you have an interest

Money market fund shares used to pay debits are redeemed at the share price in effect at the time (typically \$1). For disclosures concerning money market funds, see "Money Market Fund Investments."

Resolving Unpaid Obligations or Other Obligations

If the sources listed above in "Debits to Your Account" (which are defined as your "available balance" for purposes of this agreement) are not enough to satisfy a given debit, we reserve the right to take action as we see fit, including any of the following:

- advance funds to your account from your credit or deferred debit card
- decline to honor the debit, which may result in fees (such as a returned check fee) or other consequences for you
- if you have a margin account and the unsatisfied debit is for a securities purchase, draw 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.

Note that at any time, we may reduce your available balance to cover obligations that have occurred but not yet been debited, including but not limited to withholding taxes that should have been deducted from your account.

It is important to understand that we do have additional choices for resolving unsatisfied obligations. Like many other securities brokers, we reserve the right to sell or otherwise use assets in an account to discharge any obligations the account owner(s) may have to us (including unmatured and contingent obligations), and to do so without further notice or demand. For example, if you have bought securities but not paid for them, we may sell them ourselves and use the proceeds to settle the purchase.

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.

Transaction Settlement Deadlines

Generally, you need to pay for all transactions or deliver all securities by 2 p.m. Eastern time on the settlement date. We reserve the right to cancel or liquidate, at your risk, any transaction not settled in a timely way. Unless we require otherwise, margin calls are due on or before the date indicated, regardless of the settlement date of the transactions, also by 2 p.m. Eastern time.

Non-Transferable Securities

In the event that any securities in your account become non-transferable, NFS may remove them from your account without prior notice. Non-transferable securities are those where transfer agent services have not been available for six or more years. A lack of transfer agent services may be due to a number of reasons, including that the issuer of such securities may no longer be in business and may even be insolvent. NFS may remove non-transferable securities from your account pursuant to a Securities and Exchange Commission approved program that permits our custodian for these securities to no longer maintain the physical certificates representing the positions in these securities. Please note the following:

- There are no known markets for these securities.
- We are unable to deliver certificates to you representing these positions.
- These transactions will not appear on Form 1099 or any other tax-reporting form.

- If the position is held in a retirement account, we will not report the removal of the position as a taxable distribution and any reinstatement of the position will not be reported as a contribution.
- If transfer agent services become available sometime in the future, NFS will use its best efforts to have the position reinstated in your account.
- Positions removed from your account will appear on your next available account statement following such removal as an "Expired" transaction.

By opening and maintaining an account with us, you consent to our actions as we have described them above, and you waive any claims against us arising out of such actions. You also understand that we do not provide tax advice concerning your account or any securities that may be the subject of removal from or reinstatement into your account, and you agree to consult with your own tax advisor concerning any tax implications that may arise as a result of any of these circumstances.

Policies on Optional Features

Debit Cards and Fidelity BillPay® Service

These features are available to nonretirement accounts that have individual or joint registrations. Some cards may be available for trust or retirement registrations. On joint accounts, a co-owner may apply for an additional card in his or her own name. As an account owner, you are responsible for all usage of these features.

Each of these features is covered by its own customer agreement, which collectively are incorporated herein by reference (are legally considered part of this agreement). The appropriate agreement will be provided to you when you apply for a feature. For each feature you choose, it is your responsibility to understand the terms of its agreement before you begin using the feature. In the case of credit or debit cards, it is also your responsibility to advise any other card holders on your account that these agreements will apply to them, that they may be responsible for paying any charges you or other card holders fail to pay, and that their credit records may be affected by any activity on the account, whether attributable to them or not.

Total debit card transactions generally are limited to your available balance.

Note that on any account, we typically reduce your available balance at the time you make a debit card transaction, rather than waiting for the transaction to be posted to your account.

Bank Wires and Electronic Funds Transfer (EFTs)

Bank wire transfers to your bank are normally processed the same day, depending on the time received. A wire normally may be for between \$10,000 and \$999,999.

EFTs are normally completed within three business days of your request. Money deposited via EFT is normally not available for withdrawal for four to six business days. An EFT transfer may be for between \$10 and \$100,000. For the EFT feature to be established, at least one common name must match exactly between your Fidelity and bank accounts. To send and receive EFT transactions, your bank must be a member of the Automated Clearing House (ACH) system.

For EFT transactions, you hereby grant us limited power of attorney for purposes of redeeming any shares in your accounts (with the right to make any necessary substitutions), and direct us to accept any orders to make payments to an authorized bank account and to fulfill these orders through the redemption of shares in your account. You agree that the above appointments and authorizations will continue until we receive written notice of any change, although we may cease to act as agents to the above appointments on 30 days' written notice to your account's address of record. You further understand that Fidelity may notify you electronically or by phone when the EFT feature is set up or EFT transactions are initiated on your account.

Dividend Reinvestment Program

With this feature, all dividends paid by eligible securities that you designate for reinvestment are automatically reinvested in additional shares of the same security. (For purposes of the Dividend Reinvestment Program, “dividends” means cash dividends and capital gain distributions, late ex-dividend payments, and special dividend payments, but not cash-in-lieu payments.) In designating any eligible security for reinvestment, you authorize us to purchase shares of that security for your account.

To be eligible for this feature, a security must satisfy all of the following:

- be a closed-end fund, common stock, or foreign security (generally American depository receipts [ADRs])
- be margin eligible (as defined by NFS)
- be listed on the New York Stock Exchange or the American Stock Exchange (or one of their affiliated exchanges), or traded on the NASDAQ Stock Market
- be held in street name by NFS (or at a securities depository on its behalf)
- not be held as a short position

Dividends are reinvested on shares that satisfy all of the following:

- the security is eligible
- you own the shares on the dividend record date
- you own the shares on the dividend payable date (even if you sell them that day)
- your position in the security has been settled on or before the dividend record date
- the shares are designated for reinvestment as of 9 p.m. Eastern time on the dividend record date

Shares purchased through the Dividend Reinvestment Program will generally be placed in your account as of the dividend payable date. Note, however, that the stock price at which your reinvestment occurs is not necessarily the same as the price that is in effect on the dividend payable date. This is because we generally buy the shares of domestic companies three business days before the dividend payable date, at the market price(s) in effect at the time, in order to help ensure that we have shares on hand to place in your account on the dividend payable date. Other factors may require the purchase of the shares on a different business day, which may be before, on, or after the dividend payable date, e.g., dividends of foreign companies. Also, shares of securities that have an unusual ex-dividend date are purchased on the ex-dividend date and placed in your account on the first business day following the dividend payable date. Therefore, you may end up receiving more or fewer shares than if your dividend had been reinvested on the dividend payable date itself, particularly if there are significant changes in the market price of a security just before its dividend payable date. If several purchase transactions are necessary to reinvest your and other customers' dividends in a particular security, the price per share will be the weighted average price per share for all shares purchased. If sufficient shares are unavailable in the market to satisfy all customers' requirements for dividend reinvestment for a security, the dividend will not be reinvested.

Automatic reinvestments often involve purchase of fractional shares, calculated to three decimal places. Partial shares pay prorated dividends and can be sold if you sell your entire share position, and will be liquidated automatically in transfers and certain other situations, but otherwise typically cannot be sold.

Although for dividend reinvestments your regular account statement takes the place of a trade confirmation, you can generally obtain status information the day after the reinvestment date by contacting Fidelity.

If you transfer or reregister your account within Fidelity (for example, by changing from a Traditional IRA to a Roth IRA), you need to re-designate any securities whose dividends you want reinvested.

Wherever possible, we will buy reinvestment shares through a program offered by the Depository Trust Company (DTC) that offers a share price discount (generally up to 5%). To find out which securities are currently available through DTC, contact Fidelity. Note

that the availability of any given security through this program may change without notice. Also note that DTC program transactions take longer to process: although the transactions are effective as of the dividend payable date, they are generally not posted to your account until 10 to 15 days later. If you sell your dividend-generating shares before the posting date, the dividend will not be reinvested.

Note that dividend reinvestment does not ensure a profit on your investments and does not protect against loss in declining markets.

Fidelity Stock Plan Services

If you are a participant in equity compensation plans (“Stock Plans”) and associated equity compensation rights under those Stock Plans (collectively “Rights”) of your employer (together with its affiliates the “Issuer”) for which Fidelity Stock Plan Services provides record-keeping and administrative services (the “Stock Plan Services”), then with respect to the Stock Plan Services and your individual brokerage account identified to be used in connection with the Stock Plan Services, you agree as follows:

- You acknowledge that the terms of the Stock Plans and of your Rights are determined by the Issuer, and that you have received, reviewed, and understand the information distributed to you by the Issuer in connection with such Stock Plans and Rights, including any applicable prospectus, grant, or enrollment agreement, or other Stock Plan document (collectively “Plan Documents”).
- You acknowledge that various federal and state laws or regulations may be applicable to your transactions, including, without limitation, Rule 144 under the Securities Act of 1933 and Section 16(b) of the Securities Exchange Act of 1934, and you agree to conduct these transactions in conformity with all applicable laws and regulations.
- You acknowledge that your rights and obligations with respect to the Rights (including, without limitation, quantities, vesting dates, and expiration dates) are determined under the Plan Documents, and that if any information provided by Fidelity to you (whether verbally or in writing) conflicts with the provisions of the Plan Documents, the information in the Plan Documents will control.
- You acknowledge that certain events may affect your rights and obligations with respect to the Rights (including, without limitation, changes in your employment relationship with the Issuer), and that you are responsible for understanding your rights and obligations with respect to the Rights.
- You authorize Fidelity to act on your instructions (given in writing, by telephone, or electronically) with respect to Rights in connection with the Issuer, including, without limitation, to exercise, purchase shares, or take other actions with respect to the Rights on your behalf, or to hold, transfer, or sell shares in your account.
- You understand that your instructions to Fidelity are irrevocable, except in the case of an unexecuted limit order, which you may attempt to cancel.
- You authorize the Issuer or its agent to rely without further investigation on this authorization as conclusive evidence of your irrevocable election to authorize Fidelity to act on your behalf with respect to the Rights, including exercising your Rights in accordance with and subject to the terms, provisions, and conditions of the Issuer's Stock Plans and the Plan Documents.
- In connection with certain Stock Plans, you may agree to certain contractual limitations on the shares that you obtain through the Stock Plan, including, without limitation, contractual restrictions on your ability to sell securities you obtain in connection with Stock Plans, and you hereby consent to and authorize Fidelity to take actions reasonable and necessary to enforce such contractual limitations in accordance with the Stock Plans and the Plan Documents.
- You authorize Fidelity, the Issuer, and their agents to exchange information regarding the exercise of your Rights and your purchase and sale of shares, including, without limitation, notice of exercise, number of shares, sale date, sale price, and income tax information relating to compensation income and tax withholding in relation to these transactions and subsequent sales, transfers, and dispositions of shares.

Trading in Volatile Markets—Understand the Risks

Volatile markets can present higher trading risks, especially when you are using electronic services to access information or place orders. Ways to manage some of these risks include:

- **Consider placing limit orders instead of market orders** In certain market conditions or with certain types of securities offerings (such as IPOs and technology stocks), price changes may be significant and rapid during regular or after-hours trading. In these cases, placing a market order could result in a transaction that exceeds your available funds, meaning that Fidelity would have the right to sell other assets in your account. This is especially a risk in accounts that you

cannot easily add money to, such as retirement accounts.

- **Be aware that quotes, order executions, and execution reports could be delayed** During periods of heavy trading or volatility, quotes that are provided as “real time” may be stale—even if they appear not to be—and you may not receive every quote update. Security prices can change dramatically during such delays.
- **When cancelling an order, be sure your original order is actually cancelled before entering a replacement order** Don't rely on a receipt for your cancellation order: that order may have arrived too late for us to act on.

- **Use other ways to access Fidelity during peak volume times** Phone or computer capacity limitations could mean delays in getting information or placing orders. If you are having problems with one method, try another.

The chances of encountering these risks are higher for individuals using day-trading strategies. In part for this reason, Fidelity does not promote day-trading strategies.

For more information on trading risks and how to manage them, visit Fidelity.com or contact Fidelity.

- In the case of Rights which are stock options, for any option exercise-and-sell order for which you give Fidelity instructions, you authorize Fidelity to make full payment to the Issuer or its agent for the option exercise price and, when required, tax withholding as instructed by the Issuer.
- Fidelity reserves the right to reject any order to sell shares in your account until shares are properly delivered by the Issuer and deposited into your account.
- You authorize the Issuer or its agent to issue shares in connection with any Rights to Fidelity in street name and to forward the shares (plus any dividend, split, or similar distribution paid by the Issuer or its agent with respect to such shares) directly to Fidelity for your account.
- You acknowledge that the Rights were granted in connection with your employment and, at the time of exercise, purchase, or other direction you give to Fidelity, you will be authorized to exercise, purchase, or take such other action.
- You understand that the Rights and/or the subsequent sale of the shares may have significant tax consequences. You further understand that Fidelity and its agents and employees are not authorized to give you tax or investment advice, and you have consulted such other sources you deem appropriate in connection with your transactions.
- You agree to indemnify Fidelity for any loss we may suffer as a result of our compliance with the authorizations set forth herein and any instructions given by you.

Precious Metals

Precious metals are not covered by SIPC account protection, but are insured by the depository at market value if stored through us. When trading precious metals, note that because they can experience sudden and rapid price changes, they are risky as investments, and we cannot guarantee you an advantageous price when you trade them. If you take delivery of precious metals, delivery charges, sales and use taxes, and storage fees will apply.

Closing Your Account

We can close your account, or terminate any optional feature, at any time, for any reason, and without prior notice. You can close your account, or terminate any optional feature, by notifying us in writing or calling us on a recorded line. We may automatically close accounts with zero balances.

Regardless of how or when your account is closed, you will remain responsible for all charges, debit items, or other transactions you initiated or authorized, whether arising before or after termination. Note that a final disbursement of assets may be delayed until any remaining issues have been resolved.

If your account has a balance of less than \$100 and no account activity has occurred for a 6-month period, you authorize Fidelity to sell the securities in the account, send a check for all the proceeds and any other cash to your address of record, and close your account.

Monitoring Your Account and Notifying Us of Errors

As an account owner, you are responsible for monitoring your account. This includes making sure that you are receiving transaction confirmations, account statements, and any other expected communications. It also includes reviewing these documents to see that information about your account is accurate and contains nothing suspicious.

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 received them or not. In addition, confirmations and statements are legally presumed to be accurate unless you specifically tell us otherwise.

If you have not received a communication you expected, or if you have a question or believe you have found an error in any communication from us, telephone us immediately, then follow up with written confirmation.

You agree to notify us immediately if:

- you placed an order electronically but did not receive a reference number for it (an electronic order is not considered received until we have issued an acknowledgment)
- you received confirmation of an order you did not place, or any similar conflicting report
- there is any other type of discrepancy or suspicious or unexplained occurrence relating to your account
- your password or access device is lost or stolen, or you believe someone has been using it without authorization

If any of these conditions occurs and you fail to notify us immediately, neither we nor any other Fidelity affiliate will be liable for any consequences. If you do immediately notify us, our liability is limited as described in this agreement.

With any feature or service that is governed by a separate agreement (such as a credit card agreement), note that different policies concerning error resolution and liability may apply, as described in the separate agreement.

If, through any error, you have received property that is not rightfully yours, you agree to notify us and return the property immediately.

Complying with Applicable Laws and Regulations

In keeping with federal and state laws, and with securities industry regulations, you agree to notify us in writing if any of the following occur (with all terms in quotes defined as being within the meaning of the Securities Act of 1933):

- if you are, or later become, an “affiliate” or employee of a stock exchange, a member firm of an exchange or the Financial Industry Regulatory Authority (FINRA), a municipal securities dealer, or Fidelity or any Fidelity “affiliate”
- if you are, or later become, an “affiliate” or “control person” with respect to any security held in your account
- if any transactions in your account regarding securities whose resale, transfer, delivery, or negotiation must be reported under state or federal laws

You also agree to:

- ensure that your account transactions comply with all applicable laws and regulations, understanding that any transaction subject to special conditions may be delayed until those conditions are met
- comply with all policies and procedures concerning “restricted” and “control” securities that we may require
- comply with any insider trading policies that may apply to you as an employee or “affiliate” of the issuer of a security

We will assume that any securities or transactions in your account are not subject to the laws and regulations regarding “restricted” and “control” securities unless you specifically tell us otherwise.

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
- cancellation of an accepted/executed trade when dealers and/or contra-parties notify Fidelity that they are unable to deliver the bonds because the order was filled in 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
- telephone requests for redemptions, so long as we transmit the proceeds to you or the bank account number identified
- 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
- any checks or other debits to your account that are not honored because the account has insufficient funds

If any service failure is determined to be our responsibility, we will be liable only for whatever benefit you would have realized up to the time by which you should have notified us, as specified earlier in “Monitoring Your Account and Notifying Us of Errors.”

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

Applicability

This agreement is the only agreement between you and us concerning its subject matter, and covers all accounts that you, at whatever time, open, reopen, or have opened with us. In addition, if you have already entered into any agreements concerning services or features that relate to this account (such as the usage agreement for Fidelity.com), or if you do so in the future, this agreement incorporates by reference the terms, conditions, and policies of those agreements. In the case of any conflict between this agreement and an agreement for a particular service or feature, the service or feature agreement will prevail.

Governing Laws and Policies

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 transactions through Fidelity are subject to the rules and customs of the marketplace where they are executed, as well as applicable state and federal laws. In addition, the services below are subject to the following laws and policies:

- Securities trades: any Fidelity trading policies and limitations that are in effect at the time

- Online services: the license or usage terms posted online
- Checkwriting: the applicable provisions of the Uniform Commercial Code and the terms governing the service

Modification and Enforcement

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 (such as the bank that provides clearing services for checkwriting), 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 transfer by giving a nonowner access to the account using a password) except with the prior written 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. In addition, any securities exchanges or associations that provide information to you through your account may enforce the terms of this agreement directly against you. 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 present 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.

Fidelity may use the electronically stored copy of your (or your agent's) signature, any written instructions or authorizations, the account application and this agreement as the true, complete, valid, authentic and enforceable record, admissible in judicial, administrative or arbitration proceedings to the same extent as if the documents and records were originally generated and maintained in printed form. You agree to not contest the admissibility or enforceability of the electronically stored copies of such documents in any proceeding between you and Fidelity.

Borrowing on Margin

While margin can be a beneficial tool for investors, it involves significant risks (see the box "Important Information about Margin and Its Risks") and may not be appropriate for many people. Margin is not available on retirement accounts.

If your account is approved for margin, you agree that all marginable assets will be held in a margin account, unless you tell us to the contrary (precious metals are not marginable). Money in your core account, and any cash dividends paid on marginable securities, are automatically applied to your margin debt every month.

When you borrow on margin, you agree to maintain the level of margin collateral we require (which we may change at any time without prior notice).

Should we believe it necessary to protect our interests, we may take any or all of the following steps at any time without prior notice:

- 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
- 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, in Fidelity's sole discretion, believes such action is warranted to prevent the account from going deficit
- 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

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. You understand 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.

You understand and agree that you are responsible for any losses in your account that may arise as a result of the actions 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.

Additional terms concerning margin appear elsewhere in this agreement under "Your Commitments to Fidelity," "Optional Features," "Account Usage," and "Service Providers," under "Fees" in the Additional Information section, and in the section entitled "Important Information about Margin and Its Risks."

Disclosures

Credit-Related Information

For the name and address of any credit reporting agency from whom we or a third-party service provider has obtained information about you, send a written request to us or the service provider, as applicable.

If you apply for a debit or credit card, we may share information about you and other card applicants with card issuers, which are not affiliated with Fidelity. If you don't want a third-party service provider to share information about you with other entities in turn, it is your responsibility to inform the card issuer of this.

Service Providers

Brokerage account and margin credit services are provided by NFS, an affiliate of FBS. Bonds may be traded through NFS (which may choose to act as principal or agent) or through external dealers. Services available through this account are the property of Fidelity or the third parties from which Fidelity has obtained rights. Market data provided by national securities exchanges or associations remain the property of those entities.

Routing of Orders

FBS routes most customer orders to its affiliated broker/dealer, NFS, which in turn sends orders to various exchanges or market centers for execution. In deciding where to send an order, NFS looks at a number of factors, such as 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 execution cost. Some market centers may execute orders at prices superior to the publicly quoted market. Although you can instruct us to send an order to a particular marketplace, our order-routing policies are designed to result in transaction processing that is favorable for you. NFS reserves the right to wait for the primary exchange to open before commencing trading in a particular security.

Certain Fees We Receive

Fidelity and its affiliates receive fees for providing certain products and services. Below is a partial list of affiliates and the services they are paid for:

- Fidelity Management & Research Company—fee for serving as an investment advisor to the Fidelity funds.
- FBS and NFS—payments or other consideration (such as financial credits or reciprocal business) for directing equity trades to particular broker-dealers or market centers for execution. In addition to sales loads and 12b-1 fees described in the prospectus, FBS or NFS receives other compensation in connection with the purchase of certain mutual fund shares and/or the ongoing maintenance of those positions in your brokerage account. This additional compensation may be paid by the mutual fund, its investment advisor, or one of its affiliates. Additional information about the source(s) and amount(s) of compensation as well as other remuneration received by FBS or NFS will be furnished to you upon written request.

Warranty Disclaimer

Neither we nor any third party makes any representations or warranties express or implied, including, without limitation, any implied warranties of merchantability or fitness for a particular purpose in respect of any services provided in connection with this account, or any information programs or products obtained from, through, or in connection with these services. In no event will we or any third party be liable for direct, indirect, incidental, or consequential damages resulting from any defect in or use of these services.

Money Market Fund Investments

An investment in a money market fund is neither insured nor guaranteed by the Federal Deposit Insurance Corporation or any other U.S. government agency. Although a money market fund seeks to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in a money market fund.

Callable Securities Lottery

When street name or bearer securities held for you are subject to a partial call or partial redemption by the issuer, NFS may or may not receive an allocation of called/redeemed securities by the issuer, transfer agent, and/or depository. If NFS is allocated a portion of the called/redeemed securities, NFS utilizes an impartial lottery allocation system, in accordance with applicable rules, that randomly selects the securities within customer accounts that will be called/redeemed. NFS' allocations are not made on a pro rata basis and it is possible for you to receive a full or partial allocation, or no allocation. You have the right to withdraw uncalled fully paid securities at any time prior to the cutoff date and time established by the issuer, transfer agent, and/or depository with respect to the partial call, and also 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. For more information and an example of the impartial lottery process, please go to: http://personal.fidelity.com/products/fixedincome/FI_Common_Risk.shtml.

Residents of Louisiana

If you are opening a joint account in Louisiana, you should be aware that Louisiana does not recognize certain types of joint account registrations. As a result, Fidelity will only establish a joint account when directed by you to do so and only when you direct Fidelity to establish such account as tenants in common. In connection with your direction to establish this type of joint account, each account owner expressly and irrevocably renounces the right to concur in the disposition or alienation of the account by the other account owner for the entire time the account is open, or the longest term allowed by applicable law.

Wisconsin Marital Property Act

Married Wisconsin residents should be aware that no provision of any marital property agreement, unilateral agreement, or court decree under Wisconsin's Marital Property Act will adversely affect a creditor's interest unless, prior to the time credit is granted, the creditor is furnished a copy of, or given complete information about, that agreement or decree.

Unclaimed Property

Your account balance and certain uncashed checks issued from your account may be transferred to a state unclaimed property administrator if no activity occurs in the account or the check remains outstanding within the time period specified by the applicable state law.

Important Information about Using Margin and Its Risks

When you buy securities in your account, you may pay for them 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 in a variety of ways, as described below.

Before you make use of margin in any way, it's essential to fully understand the risks involved. These risks 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 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. 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.
- **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.
- **Checkwriting, cards, and bill payment service may increase your risk of a margin call.** Any debits that are posted to your account when no income or core account assets are available will drive up your margin balance.

Be sure to read the margin account policies in "Borrowing on Margin" within this customer agreement. If you have any questions or concerns about your margin account or margin generally, please contact Fidelity.

Resolving Disputes—Arbitration

This agreement contains a pre-dispute 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 will typically 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 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 through 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 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 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 (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.



900 Salem Street, Smithfield, RI 02917

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Guide to Brokerage and Investment Advisory Services at Fidelity Investments

This brochure highlights important differences between the brokerage and investment advisory services that may be provided to you as part of your retail relationship with Fidelity Investments (“Fidelity”). Depending on your individual goals and investment objectives, our registered representatives may assist you with brokerage services, investment advisory services, or both. As you may know, Fidelity offers investors many different types of financial products and services, including brokerage, investment advisory, and insurance products and services.

It is important for you to understand that our brokerage services and investment advisory services are separate and distinct. Fidelity’s brokerage products and services are covered under different sets of laws and regulations from our investment advisory products and services, and our obligations and duties to you are different for each. Although your Fidelity Representative may serve as your primary point of contact for many of the services you receive from Fidelity, when you receive multiple services from Fidelity, each service will be governed by the specific agreement, laws, and regulations applicable to that type of service—and therefore may be different from service to service.

Fidelity Brokerage Services

Our brokerage products and services for retail investors are provided to you through Fidelity Brokerage Services LLC (“FBS”), a broker-dealer that is registered with the Securities and Exchange Commission (“SEC”) and that is a member of the Financial Industry Regulatory Authority (“FINRA”), the New York Stock Exchange (“NYSE”) and Securities Investor Protection Corporation (“SIPC”).

When we act as a broker for you, our primary role, as described in your Fidelity Brokerage Account Agreement, is to accept orders and execute transactions in your Fidelity Brokerage Account based on your instructions. You, or your authorized representative, direct all trading and are responsible for all investment decisions in your Fidelity Brokerage Account.

Some of our brokerage representatives also hold insurance licenses which allow them to sell life insurance and annuities issued by our affiliated life insurance companies and certain unaffiliated life insurance companies. Our brokerage representatives may also make referrals to non-affiliated advisors, and when they do so, they are acting in a broker-dealer, and not an investment adviser, capacity.

When we act as a broker for you, we also offer you investment education, research, planning assistance, and guidance designed to assist you in making decisions on the various products that you may wish to hold. No separate fees are charged for the investment education, research, planning assistance, and guidance that Fidelity offers you because they are part of, and considered to be incidental to, the brokerage services that we provide.

Unless we specifically state otherwise, Fidelity is acting as a broker-dealer with respect to your account and as a broker-dealer and insurance agent with respect to any insurance product.

When we act as your broker, we are held to the legal standards under applicable federal and state securities laws, and the rules of self-regulatory organizations for broker-dealers such as FINRA. We are also subject to state insurance laws relative to the sale of life and annuity products. Among other things, these regulations require broker-dealers to:

- Execute your trades with diligence and competence and seek to provide best execution in light of prevailing market conditions;
- Have reasonable grounds for believing that any security that we specifically present to you is suitable given your investment objectives, risk tolerance, financial and tax status and other financial information you have disclosed to us;
- Treat you in a manner characterized by principles of fair dealing and high standards of honesty and integrity.

When we act in a brokerage or insurance agency capacity, we do not have a fiduciary or advisory relationship with you and our disclosure obligations are more limited than if we did. In general, unless we specifically inform you otherwise, the services offered by our representatives are services offered by FBS.

How you are charged for Fidelity's brokerage services

Fidelity's brokerage services are provided through your Fidelity Brokerage Account. Your costs for brokerage services are typically based on a transaction charge, often called a commission, for each trade you make in your account, or a mark-up/mark-down, or spread, in the case of certain transactions. Other costs and charges will also apply to your account and these costs and charges are outlined in your Fidelity Brokerage Account Customer Agreement or as you are otherwise notified. Life insurance and annuity product sales will result in a commission payment to us from the affiliated and non-affiliated insurance companies for the insurance products we sell.

As compensation for the services they provide, our broker-dealer representatives receive base pay and may also be eligible to receive variable compensation. More information on our representatives' compensation is available upon request or can be found online at http://personal.fidelity.com/misc/gettingstarted/pdf/representative_compensation.pdf.

Fidelity's Investment Advisory Services

Our investment advisory services to retail investors, including but not limited to Portfolio Advisory Services ("PAS®"), are offered through Strategic Advisers, Inc. ("SAI") a Fidelity Investments company and an investment adviser registered with the SEC under the Investment Advisers Act of 1940 (the "Advisers Act"). When we act as a registered investment adviser, our primary role is the delivery of our investment advisory services and/or our management of your investment advisory account. We provide investment management services on a discretionary basis based on your investment objectives and risk tolerance.

If you ask us to provide investment advisory services we will do so only pursuant to a written agreement that describes our investment advisory relationship with you and our obligations to you. You also will receive a disclosure document describing the specific investment advisory service we will be providing to you. These documents explain the types of services we provide, the applicable advisory fees, research, affiliations, any potential conflicts between our interests and yours, and the business background of the key personnel responsible for our activities as an investment adviser.

When we act as an investment adviser, we are considered to have a fiduciary relationship with you and are held to legal standards under applicable federal and state securities laws. If you are an investment advisory client, we owe you a fiduciary duty under the Advisers Act in connection with the specific investment advisory service we will be providing to you. An example of this duty is our obligation as an investment adviser to make full and fair disclosure of all material facts about our services and our relationship and an obligation to place your interests before our own when managing your account.

In an advisory relationship, we also are obligated:

- To ensure that investment advisory services are suited to your specific investment objectives, needs, and circumstances;
- To disclose potential conflicts of interest between our interests and yours;
- To disclose whether and to what extent we (or our affiliates) receive additional compensation from you or a third party as a result of our relationship with you;
- To get your consent before engaging in transactions with you for our own, an affiliate's, or another client's account; and
- To not unfairly advantage one advisory client to the disadvantage of another.

Please note that SAI's investment advisory services are limited strictly to those accounts for which you have entered into an advisory agreement with SAI. The fact that SAI serves as investment adviser for some of your accounts does not mean that SAI is under any obligation to provide investment advisory services for other accounts you may have, either at Fidelity or with another financial institution.

How you are charged for Fidelity's Investment Advisory Services

SAI offers several discretionary investment management services through Portfolio Advisory Services, including Fidelity Portfolio Advisory Service® ("PAS"), Fidelity Private Portfolio Service® ("PPS"), Fidelity Private Portfolio Service for Trusts ("PPST"), Fidelity® Personalized Portfolios, and Fidelity® Personalized Portfolios for Trusts. **These services provide discretionary investment management for a fee.** Your fees for investment advisory services

are described in the client agreement for the applicable service; typically, advisory fees will be an agreed-upon percentage of the assets held in your investment advisory account. In the context of Portfolio Advisory Services, this fee typically covers both our investment management services and your trading costs (note that other costs are not included). This fee is expressed as an annual percentage (for example, 1%), but is charged to your account on a quarterly basis in arrears. Each of our investment advisory services has an agreement and disclosure document that explains its fees in detail.

Representatives who recommend Portfolio Advisory Services products receive compensation if you open a Portfolio Advisory Services account. In some cases, this compensation is greater than what the representative would receive if you purchased certain other products offered by Fidelity. As noted above, more information on our representatives' compensation is available upon request or can be found online at http://personal.fidelity.com/misc/gettingstarted/pdf/representative_compensation.pdf.

Additional Information

Fidelity Representatives' use of any specific title or designation does not imply that they are providing you with any specific service, such as financial planning or other investment advisory services. Whether you are a brokerage or investment advisory client is dictated by the actual services that are agreed upon and provided to you.

If at any time you would like clarification on the nature of services in your Fidelity account, please speak with a Fidelity Representative, either at one of our Investor Centers or by calling 1-800-FIDELITY, or visit our Web site at www.fidelity.com. We also urge you to carefully read the account agreements and disclosures that we provide to you for our brokerage and advisory services, copies of which can be found at <http://personal.fidelity.com/accounts/services/content/mostrequested.shtml#portadvisory>.

Fidelity Portfolio Advisory Service® is a service of Strategic Advisers, Inc., a registered investment adviser and a Fidelity Investments company. Fidelity Private Portfolio Service® and Fidelity® Personalized Portfolios may be offered through the following Fidelity Investments companies: Strategic Advisers, Inc.; Fidelity Personal Trust Company, FSB ("FPT"), a federal savings bank; or Fidelity Management Trust Company ("FMTC"). Nondeposit investment products and trust services offered through FPT and FMTC and their affiliates are not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency, are not obligations of any bank, and are subject to risk, including possible loss of principal. **These services provide discretionary money management for a fee.**

Brokerage services provided by Fidelity Brokerage Services LLC, a Fidelity Investments company and a member of NYSE and SIPC. Custody and other services provided by National Financial Services LLC, a Fidelity Investments company and Member of NYSE and SIPC.



Fidelity Brokerage Services LLC, Member NYSE, SIPC
900 Salem Street, Smithfield, RI 02917
Strategic Advisers, Inc.

Brokerage Commission and Fee Schedule

FEES AND COMPENSATION

Fidelity brokerage accounts are highly flexible, and our cost structure is flexible as well. Our use of “à la carte” pricing for many features helps to ensure that you only pay for the features you use.

About Our Commissions and Fees

The most economical way to place trades is online, meaning either through Fidelity.com, Fidelity Active Trader Pro[®] or Fidelity Mobile[®]. The next most economical way is Fidelity Automated Service Telephone (FAST[®]). This automated service is available around the clock and can be accessed from a touch-tone phone.

The fees described in this document apply to the Fidelity Account[®], Non-Prototype Retirement Accounts, Health Savings Accounts (HSAs), and Fidelity Retirement Accounts (including Traditional, Roth, Rollover, SEP-IRA, SIMPLE IRAs, and Fidelity Retirement Plans (Keogh and SE 401(k)), and inherited IRAs and inherited Keogh accounts). Note that different fee schedules generally apply for Stock Plan Services.

STOCKS/ETFs

Online **\$7.95 per trade**
 FAST[®] **\$12.95 per trade**
 Rep-Assisted **\$32.95 per trade**

These commissions and fees apply to securities including, but not limited to, domestic (US) equities traded on national exchanges, short sales, exchange-traded funds (ETFs), and U.S.-traded foreign securities (ADRs, or American Depository Receipts, and ORDs, or Ordinaries). For details on foreign stock trading, see the Foreign Stocks section.

There is an assessment of \$0.0195 per \$1,000 of principal in addition to your commission that is added to sell orders. This assessment is imposed on the financial services industry by the Securities and Exchange Commission to cover the government's costs of regulating the security markets and security professionals.

Fidelity Brokerage Services LLC (“FBS”) and/or NFS receives remuneration, compensation, or consideration for directing orders in equity securities to particular broker/dealers or market centers for execution. The source and nature of any compensation received in connection with your particular transaction will be disclosed upon written request to FBS. Please refer to Fidelity's customer agreement for additional information about order flow practices and Fidelity's commitment to execution quality (http://personal.fidelity.com/products/trading/Fidelity_Services/Service_Commitment.shtml) for additional information about order routing. Also review FBS's annual disclosure on payment for order flow policies and order routing policies.

FBS receives compensation from the fund's advisor or its affiliates in connection with a marketing program that includes promotion of this security and other iShares funds, as well as the waiver of commissions for online trades in certain iShares funds (“Marketing Program”). FBS is entitled to receive additional payments during or after termination of the Marketing Program based upon a number of criteria, including the overall success of the Marketing Program and the continuance of commission waivers. The Marketing Program creates significant incentives for FBS to encourage customers to buy iShares funds. Additional information about the sources, amounts, and terms of compensation is described in the ETF's prospectus and related documents.

NEW ISSUE

Fidelity makes certain new issue products available without a separate transaction fee. Fidelity receives compensation for participating in the offering as a selling group member or underwriter. The compensation Fidelity receives when acting as both underwriter and selling group member is reflected in the “Range of Fees from Underwriting” column. When Fidelity acts as underwriter but securities are sold through other selling group members, Fidelity receives the underwriting fees less the selling group fees.

Securities	Range of Fees from Participation in Selling Group	Range of Fees from Underwriting
IPOs	• 3% to 4.2% of the investment amount	• 5% to 7% of the investment amount
Follow-Ons	• 1.8% to 2.4% of the investment amount	• 3% to 4% of the investment amount

Please refer to the applicable pricing supplement or other offering document for the exact percentage sales concession or underwriting discount.

OPTIONS

Online **\$7.95 per trade** + 75¢ per contract
 FAST[®] **\$12.95 per trade** + 75¢ per contract
 Rep-Assisted **\$32.95 per trade** + 75¢ per contract

Buy-to-close trades: regular online stock rates apply when the contract price is 65¢ or less; or regular options rates (as above) apply when the contract price exceeds 65¢. Exercises and assignments: regular online stock rates apply. Maximum charge: 5% of principal (subject to a minimum charge of \$7.95 for Online trades, \$12.95 for FAST trades, and \$32.95 for Rep-Assisted trades).

Multi-Leg Option orders are charged only on base commission, plus a per contract charge for the total number of contracts executed in the trade.

The Options Regulatory Fee applies to both option buy and sell transactions. This fee is in addition to your commission, and is included on your trade confirmation in the Activity Assessment Fee. The current cumulative fee charged by participating options exchanges is \$0.0245 per contract and is subject to change at any time. In addition, other options exchanges may decide to impose similar fees. If so, these fees will also be included in the Activity Assessment Fee. All fees collected by Fidelity are passed on to the appropriate regulatory body to meet this requirement.

BONDS AND CDS

New Issues, Primary Purchases (all other fixed-income securities except U.S. Treasury)

Fidelity makes certain new issue products available without a separate transaction fee. Fidelity receives compensation for participating in the offering as a selling group member or underwriter. The compensation Fidelity receives when acting as both underwriter and selling group member is reflected in the “Range of Fees from Underwriting” column. When Fidelity acts as underwriter but bonds are sold through other selling group members, Fidelity receives the underwriting fees less the selling group fees.

BONDS

Securities	Range of Fees from Participation in Selling Group	Range of Fees from Underwriting
Agency/GSE	N/A	• 0.05% to 1.00% of the investment amount
Corporate Notes	• 0.004% to 2.5% of the investment amount	• 0.0055% to 3.0% of the investment amount
Corporate Bond	• 0.010% to 0.075% of the investment amount	• 0.050% to 0.115% of the investment amount
Municipal Bonds and Taxable Municipal Bonds	• 0.1% to 2% of the investment amount	• 0.1% to 2.5% of the investment amount
Structured Products (Registered Notes)	• 0.5% to 5% of the investment amount	N/A
Fixed-Rate Capital	• 2% of the investment amount	• 3% of the investment amount

Please refer to the applicable pricing supplement or other offering document for the exact percentage sales concession or underwriting discount.

CDs

Securities	Range of Fees from Participation in Selling Group	Range of Fees from Underwriting
CDs — CDIPs (Inflation Protected)	• 0.1% to 2% of the investment amount	• 0.1% to 2.5% of the investment amount
Structured Products (Market-linked CDs)	• 0.5% to 5% of the investment amount	N/A

U.S. Treasury, including TIPS — Auction Purchases

Online **No charge**

Rep-Assisted **\$19.95 per trade**

SECONDARY MARKET TRANSACTIONS

Concessions for all secondary bond (fixed-income) trades are listed below.

U.S. Treasury, including TIPS

Online **No charge**

Rep-Assisted **No charge**

All Other Bonds

Online **\$1.00 per bond***

Rep-Assisted **\$1.00 per bond****

*Online \$8.00 minimum

**Rep-Assisted \$19.95 minimum

Please note that a \$250 maximum applies to all trades and is reduced to a \$50 maximum for bonds maturing in one year or less.

Bond orders cannot be placed through FAST.™ Orders for high-yield, mortgage-backed, and other debt securities must be placed through a representative.

The offering broker, which may be our affiliate National Financial Services ("NFS"), may separately mark up or mark down the price of the security and may realize a trading profit or loss on the transaction. If NFS is not the offering broker, Fidelity compensation is limited to the prices above.

MUTUAL FUNDS

This section only describes fees associated with your account. Fees charged by a fund itself (for example, expense ratios, redemption fees [if any], exchange fees [if any], sales charges [for load funds]) are in the fund's prospectus. Read it carefully before you invest.

Fidelity Funds

All Methods **No transaction fee**

FundsNetwork Funds

Through FundsNetwork,® your account provides access to over 4,900 mutual funds. At the time you purchase shares of a no-load fund, those shares will be assigned either a transaction fee (TF) or no transaction fee (NTF) status. When you subsequently sell those shares, any applicable fees will be assessed based on the status assigned to the shares at the time of purchase.

Fidelity Brokerage Services LLC, or its brokerage affiliate, may receive remuneration for providing certain recordkeeping or shareholder services to these fund families.

FBS has contracted to receive other compensation in connection with the purchase and/or the ongoing maintenance of positions in certain mutual fund shares in your brokerage account. This additional compensation may be paid by the mutual fund, its investment advisor, or one of its affiliates. All or a portion of this compensation may be funded with 12b-1 fees as described in the fund's prospectus.

FundsNetwork No Transaction Fee (NTF) Funds

All Methods **No transaction fee* and no load**

Short-term Trading Fees

Fidelity will charge a short-term trading fee each time you sell or exchange shares of FundsNetwork NTF funds held less than 60 days (short-term trade). Fidelity funds, money market funds, funds redeemed through the Personal Withdrawal Service, and shares purchased through dividend reinvestment are not subject to this short-term trading fee. Fidelity reserves the right to exempt other funds from this fee, such as funds designed to achieve their stated objective on a short-term basis. The fee will be based on the following fee schedule:

Online **\$75.00 flat fee**

Fidelity Automated Service Telephone (FAST™): **0.5625% of principal** (25% off representative-assisted rates), maximum \$187.50, minimum \$75
 Representative-Assisted: **0.75% of principal**, maximum \$250, minimum \$100

Please be aware that certain FundsNetwork funds may be subject to separate and additional redemption fees imposed by the particular fund. Please refer to a fund's current prospectus for details.

*Fidelity reserves the right to change the funds available without transaction fees and reinstate the fees on any funds.

FundsNetwork Transaction-Fee Funds (no load)

Purchases:

Online: **\$75 per investment**

FAST™: **0.5625% of principal per investment**; minimum \$75, maximum \$187.50

Rep-Assisted: **0.75% of principal per investment**; minimum \$100, maximum \$250

Redemptions:

Fidelity does not charge a transaction fee on any redemption of shares of a transaction-fee fund that were purchased with no load. A fund's own redemption fees may apply.

You can buy shares in a transaction-fee fund from its principal underwriter or distributor without a Fidelity transaction fee.

FundsNetwork Load Funds

All Methods **A fund's sales charges may apply.** Fidelity does not charge a transaction fee on a load fund. A fund's own redemption fees may apply.

FOREIGN STOCKS

Fidelity offers you two different ways to trade foreign stocks. You can utilize either Fidelity's "International Trading" functionality or its "Foreign Ordinary Share Trading" service.

International Trading allows customers to trade stocks from 17 countries and exchange between 13 currencies. These trades are placed using a root symbol, followed by a colon (:), and then the two-letter country code for the market the customer wants to trade in. *Foreign Ordinary Share Trading* allows customers to trade shares in foreign corporations in the over-the-counter (OTC) market using a five-character symbol ending in "F." Depending on the service, different commissions and fees apply, as more fully described below.

International Trading

Canada

Online **\$19 CAD per trade**;

Rep-Assisted **\$70 CAD per trade**

France, Germany, Belgium, Italy, Netherlands, Portugal

Online **19 EUR per trade**

Rep-Assisted **50 EUR per trade**

Hong Kong

Online **HK\$250 HKD per trade**;

Rep-Assisted **HK\$600 HKD per trade**

Note: Additional fees charged in Hong Kong include:

Transaction Levy **0.004% of principal** on buys and sells

Trading Fee **0.005% of principal** on buys and sells

Stamp Duty **0.10% of principal** on buys and sells

Japan

Online **¥3,000 JPY per trade**;

Rep-Assisted **¥8,000 JPY per trade**

United Kingdom

Online **£9 GBP per trade**;

Rep-Assisted **£30 GBP per trade**

Note: Additional fees charged for trades in the United Kingdom include:

PTM Levy **£1 GBP** on buys and sells where principal amount is >£10,000 GBP

Stamp Duty **0.50% of principal** on buys only

Australia

Online **\$32 AUD per trade**;

Rep-Assisted **\$70 AUD per trade**

Norway

Online **kr160 NOK per trade**;

Rep-Assisted **kr400 NOK per trade**

New Zealand

Online **\$35 NZD per trade**;
Rep-Assisted **\$90 NZD per trade**

Mexico

Online **\$360 MXN per trade**;
Rep-Assisted **\$960 MXN per trade**

Singapore

Online **\$35 SGD per trade**;
Rep-Assisted **\$90 SGD per trade**

Note: Additional fees charged in Singapore include:
Clearing fee **0.04% of principal** on buys and sells

Sweden

Online **kr180 SEK per trade**;
Rep-Assisted **kr480 SEK per trade**

Switzerland

Online **CHF25 CHF per trade**;
Rep-Assisted **CHF65 CHF per trade**

When stocks are listed in a currency other than the local market currency, commissions are charged in the currency that the stock is listed in.

Note: There may be additional fees charged for trading in certain countries, and the list of countries and fees is subject to change without notice. These additional fees, if any, will display in the Other Fees section on the Trade Verification page.

Foreign Currency Exchange

A currency exchange fee (in the form of a markup or markdown **on the rate of exchange**) will be charged based on the size of the currency conversion. See fee schedule below.¹

<\$100K	1.0% of principal
\$100K–\$249K	0.75% of principal
\$250K–\$499K	0.50% of principal
\$500K–\$999K	0.30% of principal
\$1M+	0–0.20% of principal

Foreign Ordinary Share Trading

For every country other than Canada, these shares will be traded in the over-the-counter (OTC) market through a U.S. market maker, unless otherwise directed. When trading in Canadian stocks, orders are generally routed to brokers in Canada. However, dually listed Canadian stocks may be routed to a Canadian broker or U.S. market center for execution. In all cases, the domestic stock commission schedule applies.

For every country other than Canada, additional foreign exchange fees of up to 0.30% of principal are embedded in the execution price of non-Canadian foreign ordinary shares that are executed directly on the foreign exchange (available only through a representative).

If your order is routed to a Canadian broker, certain additional fees may apply, including:

- Limit orders—a local broker fee is incorporated into the limit price by the Canadian broker
- Market orders—a local broker fee is incorporated into the execution price
- Foreign exchange fees of up to 0.06% of principal are embedded in the execution price.¹

Any foreign ordinary stock that is not Depository Trust Company eligible is subject to another \$50 fee.

Foreign Fixed-Income Trading

When purchasing a foreign currency-denominated fixed-income security for settlement in USD, the following charges will apply:

<\$1M	0.30% of principal
\$1M–\$5M	0.20% of principal
>\$5M	negotiated rate

OTHER INVESTMENTS

Commercial Paper \$50 per transaction

Unit Investment Trusts (UITs) \$35 minimum per redemption; no fee to purchase. Fidelity makes certain new issue products available without a separate transaction fee. Fidelity receives compensation for participating in the offering as a selling group member. Fees from participating in the selling group range from 1% to 4% of the public offering price. Fidelity may also receive compensation for reaching certain sales levels, which range from 0.001%–0.0025% of the monthly volume sold.

Precious Metals

Buy	Gross Amount	% Charged on Gross Amount	Sell	Gross Amount	% Charged on Gross Amount
\$0–\$9,999		2.90%	\$0–\$49,999		2.00%
\$10,000–\$49,999		2.50%	\$50,000–\$249,999		1.00%
\$50,000–\$99,999		1.98%	\$250,000+*		0.75%
\$100,000+*		0.99%			

*delivery charges and applicable taxes if you take delivery

Fidelity charges a quarterly storage fee of 0.125% of the total value or \$3.75, whichever is greater. Storage fees are pre-billed based on the value of the precious metals in the marketplace at the time of billing.

For more information on these other investments and the cost of a specific transaction, contact Fidelity at 800-544-6666. Minimum fee per precious metals transaction: \$44. Minimum precious metals purchase: \$2,500 (\$1,000 for IRAs). Precious metals may not be purchased in a Fidelity Retirement Plan (Keogh), and are restricted to certain types of investments in a Fidelity IRA.

OTHER FEES AND COMPENSATION

All Accounts

Mutual Fund Low Balance Fee \$12 per year for each noncore Fidelity fund under \$2,000; other policies described below

Bank Wire \$15 per transaction; waived for households that meet certain asset and trade minimums at Fidelity²

Foreign Currency Wires up to 3% of principal; charged when converting USD to wire funds in a foreign currency

Foreign Dividends/Reorganizations 1% of principal; charged when a dividend is paid or a reorganization event occurs on a foreign asset held in an account in USD

Voluntary Reorganizations \$38 per transaction; applies to voluntary transactions such as exercising rights or warrants, participating in tender offers, bonds or preferred stock; waived for households that meet certain asset and trade minimums at Fidelity²

Nonretirement Accounts

Checkwriting \$15 per returned check or stop-payment; nominal fees may apply for services such as check reorders, copies of checks, and specialty check orders

Debit Card No card fee for Fidelity VISA® Gold Check Card + \$1.00 per ATM transaction above five transactions per month; households with \$500,000 in assets or 120 trades per year pay no Fidelity ATM fee and Fidelity reimburses domestic ATM fees charged by other institutions up to \$75 per year. ATM not available for Fidelity HSA debit card.

Credit Card No annual fee for Fidelity Investment Rewards Visa Signature® Card + any interest charges and fees you incur (see your card member agreement)

Late Settlement \$15 per transaction; charged when a securities purchase settles one or more days late due to insufficient funds being available in your account

¹ Currency exchanges are completed on behalf of Fidelity Brokerage Services LLC and National Financial Services LLC (together, "Fidelity") by Fidelity FOREX, Inc., an affiliate of Fidelity. Fidelity sends the transaction to Fidelity FOREX, Inc., for the foreign exchange transaction. Fidelity serves as agent and Fidelity FOREX, Inc., as principal to the foreign exchange transaction. Fidelity FOREX, Inc., may impose a commission or markup to the price they receive from the interbank market, which may result in a higher price to you. Fidelity FOREX, Inc., may in turn share a portion of any foreign exchange commission or markup with Fidelity. More favorable exchange rates may be available through third parties not affiliated with Fidelity.

² Households with \$1 million or more in assets or \$25,000 or more in assets + 120 trades a year. For details, see Fee Waiver Eligibility section on the next page.

Transfer Limited Partnership Positions \$75 per partnership; applies only when moving a holding in an unregistered partnership to your account

Transfer and Ship Certificates \$100 per certificate; applies only to customers who have certificate shares reregistered and shipped; waived for households that meet certain asset and trade minimums at Fidelity²

Cashier's Check \$20 (Not applicable to Fidelity Retirement Accounts) Available only at select Investor Centers, cashier's checks, which are purchased with funds from a Fidelity nonretirement account, are subject to a \$20 fee; waived for households that meet certain asset and trade minimums at Fidelity²

Retirement Accounts and HSAs

Annual Fees \$25 per year for SIMPLE IRAs; deducted from account (usually in November) unless employer has already paid separately. Fidelity may deduct an administrative fee of \$12 per quarter (\$48 annually) from your Fidelity HSA; waived for households that meet certain asset minimums at Fidelity.³ The administrative fee will not be deducted if it's paid by your employer.

Close Account \$50 per account for Fidelity IRAs (excluding SIMPLE IRAs), Fidelity Retirement Plan (Keogh) Accounts

Check Ordering HSAs will be subject to a fee of \$10 per order of 25 checks.

Fee and Trading Policies

Commissions will be charged per order. For commission purposes, orders executed over multiple days will be treated as separate orders. Unless noted otherwise, all fees and commissions are debited from your core account.

Fee Waiver Eligibility

To determine your eligibility for fee waivers, we group the assets and trading activity of all of the eligible accounts shown on your periodic account statement.

Eligible accounts generally include those maintained with Fidelity Service Company, Inc., or FBS [such as 401(k), 403(b), or 457 plan assets] or held in Fidelity Investments Life Insurance Company accounts, Fidelity Portfolio Advisory Service[®] or Fidelity Private Portfolio Service[®] accounts. Assets maintained by Fidelity Personal Trust Company, FSB, are generally not included. We may include other assets at our discretion.

We will review your account periodically to confirm that your household is receiving the best fee waivers it qualifies for, and may change your fee waiver eligibility at any time based on these reviews. We update fee waiver eligibility across household accounts promptly after a daily review of trading activity, and monthly after a review of household assets. All trading activity is measured on a rolling 12-month basis.

If you believe there are eligible accounts within your household that are not being counted in our fee waiver eligibility process—for example, accounts held by immediate family members who reside with you—you may authorize Fidelity to consolidate these accounts into an aggregated relationship household and review them for eligibility. Any resulting fee waivers would extend both to you and to all immediate family members residing with you. Most customers receive only a single customer reporting statement from Fidelity and do not need to take any action. However, for more information, go to [Fidelity.com/goto/commissions](https://www.fidelity.com/goto/commissions) or call us at 800-544-6666.

Mutual Fund Low-Balance Fee

Fund positions are normally valued each year on the second Friday in November. Positions opened after September 30, or after January 1 if using regular, periodic investment plans, are not subject to the fee for that calendar year. See your Fidelity fund's prospectus for additional information. This fee does not apply to Portfolio Advisory Services, SIMPLE IRA, CIT, or Fidelity BrokerageLink[®] accounts.

³Households with \$250k or more in assets. For details, see Fee Waiver Eligibility section.

ATM Fees

For ATM transactions, assets are calculated each business day and free ATM use is extended to the account the following day. Accounts which do not maintain the stated balances may be charged the fee without notice. ATM withdrawals may be subject to other fees and limits.

Limits on Feature Eligibility

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.

Prospectuses and Fact Sheets

Free prospectuses are available for UITs, Fidelity funds, and Fidelity FundsNetwork[®] funds. Fact sheets are available for certificates of deposit. To obtain any of these documents, and for other information on any fund offered through Fidelity, including charges and expenses, call 800-544-6666 or visit [Fidelity.com](https://www.fidelity.com).

Margin Fees

Understanding how margin charges are calculated is essential for any investor considering or using margin. The information below, provided in conformity with federal securities regulations, is designed to help you understand the terms, conditions, and methods associated with our margin interest charges.

For all margin borrowing—regardless of what you use it for—we charge interest at an annual rate that is based on two factors: our base rate, and your average debit balance. We set our base rate with reference to commercially recognized interest rates, industry conditions regarding margin credit, and general credit conditions. The table below shows the premiums and discounts we apply to our base rate depending on the average debit balance:

Interest Charged

Average Debit Balance	Interest Charged Above/Below Base Rate
\$0–\$9,999.99	+2.00%
\$10,000–\$24,999.99	+1.50%
\$25,000–\$49,999.99	+1.00%
\$50,000–\$99,999.99	+0.50%
\$100,000–\$499,999.99	0.00%
\$500,000	–2.825%

In determining your debit balance and interest rate, we combine the margin balances in all your accounts except short accounts and income accounts. We then compute interest for each account based on the rate resulting from averaging the daily debit balances during the interest period. Interest is charged from the date we extend you credit.

Your rate of interest will change without notice based on changes in the base rate and in your average debit balance. When your interest rate is increased for any other reason, we will give you at least 30 days' written notice. If the base rate is stated as a range, we may apply the high end of the range.

For any month where your monthly margin charges are \$1 or more, your monthly statement will show both the dollar amount and the rate of your interest charges. If your interest rate changed during the month, separate charges will be shown for each rate. Each interest cycle begins the first business day following the 20th of each month.

Other Charges

You may be assessed separate interest charges, at the base rate plus two percentage points, in connection with any of the following:


- Payments of the proceeds of a security sale in advance of the regular settlement date (such prepayments must be approved in advance)
- When the market price of a "when-issued" security falls below your contract price by more than the amount of your cash deposit
- When payments for securities purchased are received after the settlement date

How Interest Is Computed

Interest on debit balances is computed by multiplying the average daily debit balance of the account by the applicable interest rate in effect and dividing by 360, times the number of days a daily debit balance was maintained during the interest period.

Marking to Market

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.

FACTS	What do Fidelity Investments and the Fidelity Funds do with your personal information? 	
WHY?	Financial companies choose how they share your personal information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.	
WHAT?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> ■ Social Security number and employment information ■ assets and income ■ account balances and transaction history When you are <i>no longer</i> our customer, we continue to share your information as described in this notice.	
HOW?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information, the reasons Fidelity Investments and the Fidelity Funds (hereinafter referred to as "Fidelity") choose to share, and whether you can limit this sharing.	
REASONS WE CAN SHARE YOUR PERSONAL INFORMATION	DOES FIDELITY SHARE?	CAN YOU LIMIT THIS SHARING?
For our everyday business purposes— such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes— to offer our products and services to you	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes— information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes— information about your creditworthiness	No	We don't share
For nonaffiliates to market to you	No	We don't share
QUESTIONS?	Call 800-544-6666. If we serve you through an investment professional, please contact them directly. Specific Internet addresses, mailing addresses, and telephone numbers are listed on your statements and other correspondence.	

WHO WE ARE

Who is providing this notice? Companies owned by Fidelity Investments using the Fidelity name to provide financial services to customers, and the Fidelity Funds. A list of companies is located at the end of this notice.

WHAT WE DO

How does Fidelity protect my personal information? To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings.

How does Fidelity collect my personal information? We collect your personal information, for example, when you

- open an account or direct us to buy/sell your securities
- provide account information or give us your contact information
- tell us about your investment portfolio

We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.

Why can't I limit all sharing? Federal law gives you the right to limit only

- sharing for affiliates' everyday business purposes—information about your creditworthiness
- affiliates from using certain information to market to you
- sharing for nonaffiliates to market to you

State laws and individual companies may give you additional rights to limit sharing.

DEFINITIONS

Affiliates Companies related by common ownership or control. They can be financial and nonfinancial companies.

- Fidelity Investments affiliates include companies with the Fidelity name (excluding the Fidelity Funds), as listed below, and other financial companies such as National Financial Services LLC, Strategic Advisers, Inc., and Pyramis Global Advisors, LLC.

Nonaffiliates Companies not related by common ownership or control. They can be financial and nonfinancial companies.

- Fidelity does not share with nonaffiliates so they can market to you.

Joint marketing A formal agreement between nonaffiliated financial companies that together market financial products or services to you.

- Fidelity doesn't jointly market.

OTHER IMPORTANT INFORMATION

If you transact business through Fidelity Investments life insurance companies, we may validate and obtain information about you from an insurance support organization. The insurance support organization may further share your information with other insurers, as permitted by law.

If you interact with Fidelity Investments directly as an individual investor (including joint account holders), we may exchange certain information about you with Fidelity Investments financial services affiliates, such as our brokerage and insurance companies, for their use in marketing products and services as allowable by law. Information collected from investment professionals' customers is not shared with Fidelity Investments affiliates for marketing purposes, except with your consent or the consent of your investment professional and as allowed by law.

The Fidelity Funds have entered into a number of arrangements with Fidelity Investments companies to provide for investment management, distribution, and servicing of the Funds. The Fidelity Funds do not share personal information about you with other entities for any reason, except for everyday business purposes in order to service your account. For additional information, please visit Fidelity.com.

WHO IS PROVIDING THIS NOTICE?

Fidelity Investments companies: Fidelity Brokerage Services LLC; Fidelity Distributors Corporation; Fidelity Investments Institutional Operations Company, Inc.; Fidelity Investments Institutional Services Company, Inc.; Fidelity Management Trust Company; Fidelity Personal Trust Company, FSB; Fidelity Investments Life Insurance Company; Empire Fidelity Investments Life Insurance Company; Fidelity Insurance Agency, Inc.; National Financial Services LLC; Strategic Advisers, Inc.; Pyramis Global Advisors, LLC

The Fidelity Funds, which include funds advised by Strategic Advisers, Inc.

NOTICE OF BUSINESS CONTINUITY

Fidelity is committed to providing continuous customer service and support; however, we recognize that there are potential risks that could disrupt our ability to serve you. We are confident that we have taken the necessary steps that will allow us to reduce or eliminate the impact of a business disruption.

Fidelity recognizes the responsibility we have to our customers. We have implemented a business continuity management program with a strong governance model and commitment from senior management. Our continuity program's primary objectives are to meet the needs of our customers, maintain the wellbeing and safety of our employees, and meet our regulatory obligations. The planning process is risk based and involves the understanding and prioritization of critical operations across the firm, the anticipation of probable threats, and the proactive development of strategies to mitigate the impact of those events.

Our continuity planning teams work closely with local governments and officials in the event of an outage impacting our operations. Additionally, Fidelity has identified three large scale scenarios that require particular focus: pandemics, events impacting stock and bond market operations, and cyber events. Detailed response plans have been developed and cross-discipline teams have been trained to address both day-to-day disruptions as well as these specific events.

Each Fidelity department has developed the capabilities to recover both operations and systems. All continuity plans are designed to account for disruptions of various lengths and scopes, and to ensure that critical functions are recovered to meet their business objectives. Critical business groups operate from multiple sites. Dedicated teams within our technology organizations ensure that critical applications and data have sufficient redundancy and availability to minimize the impact of an event. Key components of Fidelity's continuity and technology recovery planning include:

- Alternate physical locations and preparedness
- Alternative means to communicate with our customers
- Back-up telecommunications and systems
- Employee safety programs

Plans are tested regularly to ensure they are effective should an actual event occur. Fidelity's Business Continuity Plans are reviewed no less than annually to ensure the appropriate updates are made to account for operations, technology, and regulatory changes. Material changes will be reflected in an updated "Notice of Business Continuity Plan." You may obtain a copy of this notice at any time by contacting a Fidelity Representative.



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