lity 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



FIDELITY ACCOUNT CUSTOMER AGREEMENT

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
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 our 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, tax consequences, and instructions placed by you or any other person you authorize
- to pay all fees, charges, and expenses incurred on your account, in accordance with the provisions of this agreement and 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
- that if you have authorized someone to act on your behalf in your account, any and all disclosures, required or otherwise, may be provided solely to the individual acting on your behalf as part of the scope of his or her authority

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.

Foreign Securities 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:

Trading in foreign securities, 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.

Trading in foreign securities 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. In addition, participation in shareholder voting and/or dividend payments in non-U.S. securities is subject to the rules and regulations of the non-U.S. market in which the security was issued and may require the disclosure of your personal information, including but not limited to, name, address and country of citizenship and/or residence.
- 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. Note that foreign jurisdictions may impose additional fees, taxes, or other charges from time to time, which may not be reflected in the fee schedule in effect at that time. By placing a trade in a foreign security, you agree to pay any such applicable fees, taxes, or other charges, regardless of notice.

Core Account

Your Fidelity Account® includes a core account that holds assets awaiting investment or withdrawal. Any amount in your core account will be held in the core position specified (including by default) or selected by you on your Fidelity Account® application.

Depending on the type of Fidelity Account®, the available options for your core position may include a money market mutual fund, a bank sweep, or a free credit balance. For purposes of the Core Account section of this Agreement, the free credit balance is referred to as the "Taxable Interest Bearing Option." Please note that this is different from the Intra-day Free Credit Balance described in the Credits to Your Account section of this Agreement. More details about the money market mutual fund and bank sweep can be found, respectively, in the money market mutual fund's prospectus or the FDIC Insured Deposit Sweep Program Disclosure, both of which will be made available to you when applicable. Like any free credit balance, the Taxable Interest Bearing Option represents an amount payable to you on demand by Fidelity. Subject to applicable law, Fidelity may use this free credit balance in connection with its business. Fidelity may, but is not required to, pay you interest on this free credit balance, provided that the accrued interest for a given day is at least half a cent. Interest, if paid, will be based upon a schedule set by Fidelity, which may change from time to time at Fidelity's sole discretion. Fidelity reserves the right to make changes to the available options and/or the options available to you for your core position.

If You Reside Outside the United States

If we determine that you reside outside the United States in any country other than Canada (as described in the Residing Outside the United States section of this Agreement) at the time you open your Fidelity Account®, or at any point in time after you open your Fidelity Account® (e.g., as a result of a subsequent move), your core account will not operate as described above. Instead, during such time as we believe you reside outside the United States, the following will apply:

New Fidelity Accounts.

If you select the Taxable Interest Bearing Option as your core position (or if you subsequently change your election to the Taxable Interest Bearing Option), your core account will operate as otherwise described in this Agreement except that you will be unable to change your core position election, even if other options are available to you.

If you select or default into any option for your core position other than the Taxable Interest Bearing option, the process of sweeping the Intra-day Free Credit Balance to your core account (as described in the Credits to Your Account section of this Agreement) will be suspended. As a result, all uninvested cash in your Fidelity Account® will be held in the Intra-day Free Credit Balance. You will also be unable to make any change to the option you selected or were defaulted into for your core position during the account opening process, except that you may change your election to the Taxable Interest Bearing Option, if that option is available to you. Should you make that change, your core account will operate as if you selected the Taxable Interest Bearing Option as your core position during the account opening process (as described in the immediately preceding paragraph).

2. Existing Fidelity Accounts.

If you have a Fidelity Account® that utilizes the Taxable Interest Bearing Option as your core position (or if you subsequently change your election to the Taxable Interest Bearing Option), your core account will operate as otherwise described in this Agreement, except that you will be unable to change your core position election, even if other options are available to you.

If you have a Fidelity Account® that utilizes any option for your core position other than the Taxable Interest Bearing Option, the process of sweeping the Intra-day Free Credit Balance to your core account will be suspended. You will be able to liquidate that position should you elect to do so, but you will generally be unable to add to it for as long as we believe you reside outside the United States, except for automatically reinvested dividends on money market mutual fund positions and the deposit of accrued interest in the case of a bank sweep. As a result, all new deposits to your Fidelity Account® or settlement proceeds from transactions in your Fidelity Account® will be held in the Intra-day Free Credit Balance. You will also be unable to make any change to your core position election, except that you may change your election to the Taxable Interest Bearing Option, if that option is available to you. Should you make that change, your core account will operate as if you had an existing Fidelity Account® that utilizes the Taxable Interest Bearing Option (as described in the immediately preceding paragraph).

Should we determine you no longer reside outside the United States, if your Fidelity Account® was subject to a suspension, this suspension will be lifted, the Intra-day Free Credit Balance will be swept to your core account and held in the core position that you selected or were defaulted into, and, going forward, your Fidelity Account® will operate as otherwise described herein.

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, 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 your core position, or the Intra-day Free Credit Balance; 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 account the same day you make them. Fidelity currently covers the entire annual card fee.

Credit Cards: There are several different cards available to you. These cards have different features, including the ability to earn cash back rewards, while providing convenient access to credit. These credit cards are issued and administered by a third party. For information about rates, fees, and other costs and benefits associated with the credit card program, visit Fidelity.com/creditcards.

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 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 a money market mutual fund is your core position, making your first investment into that fund is your acknowledgment that you have received and read a prospectus 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

During normal hours when the market is open ("Intra-day"), any new deposit to your Fidelity Account® or settlement proceeds from a transaction in your Fidelity Account® are held as a free credit balance (the "Intra-day Free Credit Balance"). Each business day, the Intra-day Free Credit Balance is automatically swept into your core account, where it is handled as described in the Core Account section of this Agreement, except as otherwise noted therein. Like any free credit balance, the Intra-day Free Credit Balance represents an amount payable to you on demand by Fidelity. Subject to applicable law, Fidelity may use this free credit balance in connection with its business. Fidelity may, but is not required to, pay you interest on this free credit balance provided that the accrued interest for a given day is at least half a cent. Interest, if paid, will be based upon a schedule set by Fidelity, which may change from time to time at Fidelity's sole discretion.

Interest paid on your Intra-day Free Credit Balance will be labeled "Credit Interest" in the Investment Activity section of your account statement. Interest is calculated on a periodic basis and credited to your account on the next business day after the end of the period. This period typically runs from approximately the 20th day of one month to the 20th day of the next month, provided, however, that the beginning and ending periods each year run, respectively, from the 1st of the year to approximately the 20th of January, and approximately the 20th of December to the end of the year. Interest is calculated by multiplying your average Intra-day Free Credit Balance during the period by the applicable interest rate, provided, however, that if more than one interest rate is applicable during the period, this calculation will be modified to account for the number of days each period during which each interest rate is applicable.

Each check deposited is promptly credited to your account. However, the money may not be available to use until up to six 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, if we have reason to believe that assets were incorrectly credited to your account, we may restrict such assets and/or return such assets to the account from which they were transferred.

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. You are also responsible for ensuring that checks issued to you representing distributions from your account are promptly presented for payment. If a check issued to you from your account remains uncashed and outstanding for at least six months, you authorize and instruct Fidelity, in its sole discretion, to cancel the check and return the underlying proceeds to you by depositing the proceeds into your account.

To help ensure the proper discharge of debits, it is our policy (unless we agree to do otherwise) to turn to the following sources, in this order, when settling debits against your account:

- the Intra-day Free Credit Balance
- · the core account
- any shares of a Fidelity money market fund held in the account that maintain a stable (i.e., \$1.00/share) net asset value and are not subject to a liquidity fee or a similar fee or assessment
- if you have a margin account, any margin credit available

In addition to the foregoing, we may also turn to the following sources:

- any shares of a Fidelity money market fund held 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

If you want to opt out of the foregoing, please contact Fidelity for more information.

In the event that your account does not contain sufficient cash, Fidelity may liquidate securities to satisfy a court order, levy, or any other legal process payment. Money market fund shares used to pay debits are redeemed at the share price in effect at the time. For disclosures concerning money market funds, see "Money Market Fund Investments."

Resolving Unpaid Obligations or Other Obligations

If certain of 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 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)

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 Order cancellations are performed on a "best efforts" basis. There is no guarantee that an open order can be cancelled, in whole or in

- part. 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.

- 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. The reinvestment of dividends may be delayed in certain circumstances. NFS reserves the right to suspend or completely remove securities from participation in dividend reinvestment and credit such dividends in cash at any time without notice.

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
- 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.

If you or another individual associated with your account resides outside the US, Fidelity may at any time in its sole discretion terminate that relationship, or modify your rights to access any or all account features, products or services. By opening or maintaining an account with Fidelity, you acknowledge that Fidelity does not solicit offers to buy or sell securities, or any other product or service, to any person in any jurisdiction where such offer, solicitation, purchase or sale would be unlawful under the laws of such jurisdiction.

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." Fidelity reserves the right to restrict your account from withdrawals and/or trades if there is a reasonable suspicion of fraud, diminished capacity, or inappropriate activity. Fidelity also reserves the right to restrict your account from withdrawals and/or trades if Fidelity is put on reasonable notice that the ownership of some or all of the assets in the account is in dispute.

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 transferal 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 is not suitable for all investors. 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). The Intra-day Free Credit Balance, money in the core account, and any cash dividends paid on marginable securities, are automatically applied to your margin debt every month, unless you tell us otherwise.

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

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.

Consumer Reporting Agencies

We may report information about your account to credit bureaus. Late payments, missed payments, or other defaults on your account may be reflected in your credit report.

We may also provide information about you and your account as well as the activity in your account to one or more consumer reporting agencies. If you believe that information Fidelity has provided about you or your account or the activity in your account is not accurate, you may notify us at:

Fidelity Investments

ATTN: Customer Data Disputes

P.O. Box 770001

Cincinnati, OH 45277-0045

In order for us to investigate any dispute that you may submit to us with respect to information that we have provided, please provide us with the following information:

- (1) Your name, address, and account number;
- (2) An identification of the specific information that you believe is not accurate; and
- (3) An explanation of the basis for your dispute.

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. FBS, NFS, or their affiliates may receive compensation in connection with the purchase and/or ongoing maintenance of positions in certain mutual funds in your account. FBS, NFS, or their affiliates may also receive compensation for such things as systems development necessary to establish a fund on their systems, a fund's attendance at events for FBS' clients, and/or representatives and opportunities for the fund to promote its products and services. This compensation may take the form of sales loads and 12b-1 fees described in the prospectus, as well as program participation and maintenance fees, and infrastructure support paid by the fund, its investment advisor, or an affiliate. 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

You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so.

An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Fidelity Investments and its affiliates, the fund's sponsor, have no legal obligation to provide financial support to money market funds and you should not expect that the sponsor will provide financial support to the fund at any time.

Redemption Features/Callable Securities Lottery

Certain debt securities may have redemption features in addition to those disclosed on the trade confirmation including, for example, special mandatory redemption features such as sinking funds provisions. It is the customer's obligation to review all disclosure documents the customer may receive, and to understand the risks of calls or early redemptions, which may affect yield. Issuers may, from time to time, publish notices of offers to redeem callable securities within limited time, price, and tender parameters. NFS is not obligated to notify customers of such published calls. Information about whether a municipal security is callable can be accessed via the Municipal Securities Rulemaking Board's Electronic Municipal Market Access ("EMMA") website (www.emma.msrb.org).

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. If you have bought or sold a security, and prior to the settlement of your trade, the issuer initiates a call of the security, NFS reserves the right to cancel your trade. Customers are responsible for covering any outstanding short positions, as well as any other resulting costs in their account, that result from the lottery.

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.

Residing Outside the United States

If we determine that you reside outside the United States, you will be subject to certain limitations. While we generally make this determination by looking at the address information on our books and records (including the addresses maintained by the account owner and certain individuals with control over the account), we reserve the right to consider other information when making this determination and/or subjecting you to these limitations.

Generally speaking, regardless of where you reside, you will be subject to certain limitations. These include, but are not limited to, the following: (i) we will provide you with only ministerial or administrative services, which means that, among other things, our representatives will not engage in discussions with you about such topics as asset allocation, income planning, or portfolio composition; and (ii) you will not be permitted to purchase additional shares of any U.S. mutual fund (except pursuant to a dividend reinvestment program or in other limited circumstances), which among other things will affect the operation of your core account (please refer to the Core Account section of this Agreement for further details).

In addition to the foregoing, depending on where you reside, you

may be subject to additional restrictions (for example, margin lending or options trading may not be permitted) up to and including restrictions that will prevent you from making additional deposits or purchasing additional securities positions (i.e., you will be prohibited from doing anything in your account other than selling your existing holdings and withdrawing the proceeds).

Notwithstanding the above, special rules govern your relationship with us if you live in Canada. Because of this, and because every situation is unique, you should contact Fidelity if you have questions about how you may be affected.

If you notify us that you do not reside outside the U.S., these limitations may be lifted.

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 in its sole discretion without advance notice. An increase may take effect immediately and may trigger a maintenance margin call without prior notice.
- If you cannot meet a margin call, Fidelity can force the sale of assets in your account(s). If the equity in your account falls below either industry minimums or Fidelity's house requirements, Fidelity can cover the deficiency by selling securities or other assets in any account of yours at Fidelity (including accounts at other Fidelity affiliates) without prior notice. 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.

• In addition to market volatility, factors specific to your portfolio, such as concentration, liquidity, and marketability of securities, may increase the risk of a margin call. Use of features such as checkwriting, bank cards, and bill payment services may also increase the risk of a margin call. In the absence of (i) an Intra-day Free Credit Balance, (ii) money in the core account, (iii) shares of certain Fidelity money market funds held as positions outside the core account, or (iv) cash dividends paid on marginable securities, any debits that are posted to your account will drive up your margin balance.

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 may include a minority of arbitrators who were or are affiliated with the securities industry.
- **F.** The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is ineligible for arbitration may be brought in court.

G.The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this agreement.

All controversies that may arise between you and us concerning any subject matter, issue or circumstance whatsoever (including, but not limited to, controversies concerning any account, order 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.



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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 Account Customer 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.

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; and
- 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 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:

www.fidelity.com/bin-public/060 www fidelity com/documents/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. ("Strategic Advisers"), 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.

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 Strategic Advisers' investment advisory services are limited strictly to those accounts for which you have entered into an advisory agreement with Strategic Advisers. The fact that Strategic Advisers serves as investment adviser for some of your accounts does not mean that Strategic Advisers 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

Strategic Advisers offers several discretionary investment management services through Portfolio Advisory Services, including Fidelity Portfolio Advisory Service®, Fidelity® Personalized Portfolios, Fidelity® Personalized Portfolios for Trusts, Fidelity® Strategic Disciplines, BlackRock® Diversified Income Portfolio, and Fidelity GoSM. **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 generally covers both the investment management services and the trading costs associated with the account (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: www_fidelity.com/bin-public/060 www fidelity com/documents/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: www.fidelity.com/customer-service/forms-applications/overview.

Fidelity Portfolio Advisory Service®, Fidelity® Strategic Disciplines, Fidelity Wealth Management Advisory™, and BlackRock® Diversified Income Portfolio are services provided by Strategic Advisers, Inc. (SAI), a registered investment adviser and a Fidelity Investments company. Fidelity Go™ is a service provided by Strategic Advisers, Inc. (SAI) and Geode Capital Management LLC, an unaffiliated registered investment adviser. Fidelity® Personalized Portfolios may be provided through the following Fidelity Investments companies: SAI; Fidelity Personal Trust Company, FSB (FPTC), a federal savings bank; or Fidelity Management Trust Company (FMTC). Nondeposit investment products and trust services offered through FPTC and FMTC and their affiliates are not insured or guaranteed by the FDIC or any other government agency, are not obligations of any bank, and are subject to risk, including possible loss of principal. These advisory services are provided for a fee.

Brokerage services are provided by Fidelity Brokerage Services LLC. Custody and other services are provided by National Financial Services LLC. Both are Fidelity Investments companies and members of NYSE and SIPC.

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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. The fees described in this document may change from time to time without notice. Before placing a trade, consider Fidelity's most recent Brokerage Commission and Fee Schedule, available at Fidelity.com or through a Fidelity representative.

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 (U.S.) 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).¹ For details on foreign stock trading, see the Foreign Stocks section.

In addition to the commission, there is an assessment charged on all sell orders. This assessment, which typically ranges from \$0.01 to \$0.03 per \$1,000 of principal, is intended to cover what is sometimes referred to as a "regulatory fee" or "Section 31 Fee." Fidelity remits these fees to certain self-regulatory organizations and national securities exchanges, which in turn make payment to the SEC. These fees are intended to cover the costs incurred by the government, including the SEC, for supervising and regulating the securities markets and securities professionals. Because the fees may vary over time, and because these variations may not be immediatelý known to Fidelity, you acknowledge and agree that Fidelity shall have the right to determine the amount of such assessment in its sole and exclusive discretion, that the assessment may differ from or exceed the actual amount of the fee applicable to your transaction, and that Fidelity may retain any such excess for its benefit.

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 payer, source, and nature of any compensation received in connection with your particular transaction will vary based on the venue that a trade has been routed to for execution and will be disclosed upon written request to FBS. Please refer to Fidelity's customer agreement for additional information about order flow practices and to 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 has entered into a long-term, exclusive and significant arrangement with the advisor to the iShares Funds that includes but is not limited to FBS's promotion of iShares funds, as well as in some cases purchase of certain iShares funds at a reduced commission rate ("Marketing Program"). FBS receives compensation from the fund's advisor or its affiliates in connection with the 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. 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.

Short-term Trading FeesEffective September 30, 2013, Fidelity will charge a short-term trading fee each time you sell iShares Funds purchased commission free that are sold within 30 days.

The short-term trading fee will be applied on a first-in, first-out basis, and will not apply to iShares Funds purchased through dividend reinvestment. The short-term trading fee is based on the following schedule:

Online: \$7.95FAST®: \$12.95

Please note: Rep-Assisted trades for iShares Funds will be subject to the \$32.95 commission per trade, but will not be subject to the short-term trading fee.

Free commission offer applies to online purchases of Fidelity ETFs and select iShares ETFs in a Fidelity brokerage account, which may require a minimum opening balance of \$2,500. The sale of ETFs is subject to an activity assessment fee (of between \$0.01 and \$0.03 per \$1,000 of principal). Fidelity ETFs and iShares ETFs are subject to a short-term trading fee by Fidelity if held less than 30 days.

NEW ISSUE

Fidelity makes certain new issue products available without a separate transaction fee. Fidelity may receive compensation for participating in the offering as a selling group member or underwriter. The compensation Fidelity receives from issuers 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	rities Range of Fees from Participation in Selling Group Range of Fees	
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: commission-free online when the contract price is 10¢ or less; regular online stock rates apply when the contract price is 11¢-65¢; or regular options rates (as above) apply when the contract price exceeds 65¢.

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).

Exercises and assignments: regular online stock rates apply.

Multi-Leg Option orders are charged only one 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 cumulative fee charged by participating options exchanges is \$0.0417 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 may receive compensation from issuers for participating in the offering as a selling group member and/or underwriter. The compensation Fidelity receives from issuers 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.

¹ A Financial Transaction Tax of 0.20% of principal per trade on purchases of French securities and 0.10% of principal per trade on purchases of Italian securities may be assessed

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	• 0.01% to 2.5% of the investment amount	• 0.01% to 3.0% of the investment amount	
Corporate Bond	• 0.01% to 2.5% of the investment amount	• 0.05% to 3.0% 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)	• 0.05% to 5.0% of the investment amount	N/A	
Fixed-Rate Capital	• 2% of the invest- ment 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)	• 0.05% to 5% of the investment amount	N/A

$\hbox{U.S. Treasury, including TIPS---Auction Purchases}\\$

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 \$19.95

All Other Bonds

Online \$1.00 per bond

Rep-Assisted \$1.00 per bond*

*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.®

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.

Foreign Fixed-Income Trading

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

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

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 certain 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, $^{\circ}$ your account provides access to over 10,000 mutual funds. At the time you purchase shares of funds, those shares will be assigned either a transaction fee (TF), a no transaction fee (NTF) or a load 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 affiliates, may receive compensation in connection with the purchase and/or the ongoing maintenance of positions in certain mutual funds in your account. FBS may also receive compensation for such things as systems development necessary to establish a fund on its systems, a fund's attendance at events for FBS's clients and/or representatives, and opportunities for the fund to promote its products and services. This compensation may take the form of sales loads and 12b-1 fees described in the prospectus, as well as program participation and maintenance fees, and infrastructure support paid by the fund, its investment advisor, or an affiliate.

FundsNetwork No Transaction Fee Funds.

All Methods No transaction fee* Most NTF Funds will have no load. Certain NTF Funds will be available load waived. Short-term Trading Fees

Fidelity charges a short-term trading fee each time you sell or exchange shares of a FundsNetwork NTF fund held less than 60 days. This fee does not apply to Fidelity funds, money market funds, FundsNetwork Transaction Fee funds, FundsNetwork load funds, funds redeemed through the Personal Withdrawal Service, or shares purchased through dividend reinvestment. In addition, 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 \$49.95 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

Keep in mind that the short-term trading fee charged by Fidelity on FundsNetwork NTF funds is different and separate from a short-term redemption fee assessed by the fund itself. Not all funds have short-term redemption fees, so please review the fund's prospectus to learn more about a potential short-term redemption fee charged by a particular fund.

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

FundsNetwork Transaction-Fee Funds

Purchases:

Online: \$49.95 or \$75 per purchase. To identify any applicable transaction fees associated with the purchase of a given fund, please refer to the "Fees and Distributions" tab on the individual fund page on Fidelity.com.

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

Rep-Assisted: **0.75% of principal per purchase;** 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

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. Depending on the service, different commissions, taxes and fees may apply as more fully described below. You can also call a Fidelity representative for further detail.

International Trading

International Trading allows customers to trade stocks from 25 countries and exchange between 16 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. The commission and additional charges that may apply for International Trading will vary as noted below, depending on the market and whether the trade is placed online or through a representative. Please also note that if a security trading on an exchange

in one of the markets noted below is only listed for trading in a currency other than that country's local market's currency, then the commissions and fees that will be charged will be based on the currency the security is trading in instead of the local market's currency. The list of countries, currencies, taxes and fees provided below is subject to change without notice.

Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain

Online 19 EUR per trade

Rep-Assisted **€0 EUR per trade**

Note: There may be additional fees or taxes imposed on transactions in certain securities including: Financial Transaction Tax: 0.20% of principal per trade on purchases of French securities and 0.10% of principal per trade on purchases of Italian securities.

Stamp Tax 1.00% of principal per trade on purchases of Irish securities.

Australia

Online **\$32 AUD per trade**Rep-Assisted **\$70 AUD per trade**

Canada

Online **\$19 CAD per trade**Rep-Assisted **\$70 CAD per trade**

Denmark

Online 160 DKK per trade Rep-Assisted 420 DKK per trade

Hong Kong

Online HK\$250 HKD per trade Rep-Assisted HK\$600 HKD per trade

Note: Additional fees or taxes imposed on transactions in Hong Kong securities include:

Transaction Levy **0.003% of principal** per trade Trading Fee **0.005% of principal** per trade Stamp Duty **0.10% of principal** per trade

Japan

Online **¥3,000 JPY per trade** Rep-Assisted **¥8,000 JPY per trade**

Mexico

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

New Zealand

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

Norway

Online **kr160 NOK per trade** Rep-Assisted **kr400 NOK per trade**

Poland

Online **90 PLN per trade** Rep-Assisted **235 PLN per trade**

S Africa

Online 225 ZAR per trade Rep-Assisted 600 ZAR per trade

Note: Additional fees or taxes imposed on transactions in S. African securities include:

Securities Transfer Tax: 0.25% of principal on purchases

Singapore

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

Note: Additional fees or taxes imposed on transactions in Singapore securities include:

Clearing fee 0.04% of principal per trade

Sweder

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

Switzerland

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

United KingdomOnline **£9 GBP per trade**Rep-Assisted **£30 GBP per trade**

Note: Additional fees or taxes imposed on transactions in UK securities include: PTM Levy £1 GBP per trade where principal amount is >£10,000 GBP Stamp Duty 0.50% of principal only on purchases

There may also be further fees, taxes, or other charges assessed when conducting transactions in foreign securities beyond those described here. Details regarding these charges are available from a Fidelity representative. These fees, taxes, and charges, if any, will be disclosed on your trade confirmation (either individually or in the aggregate) and/or may be incorporated into the execution price.

Foreign Currency Exchange

In addition to the commissions, taxes, fees, and other charges noted above, a currency exchange fee (in the form of a markup or markdown **on the exchange rate**) will be charged based on the size of the currency conversion, pursuant to the following schedule:

<\$100K	1.0% of principal
\$100K-<\$250K	0.75% of principal
\$250K-<\$500K	0.50% of principal
\$500K-<\$1M	0.30% of principal
\$1M+	0-0.20% of principal

Foreign Ordinary Share Trading

Foreign Ordinary Share Trading allows customers to trade shares in foreign corporations on the over-the-counter (OTC) market using a five-character symbol ending in "F." Trades in foreign ordinary shares can be placed online or through a Fidelity representative. In either case, the domestic commission schedule for stocks/ETFs will apply. A \$50 fee will also be charged on each transaction in any foreign ordinary stock that is not Depository Trust Company eligible. Depending on the security and the market, additional charges will apply, as described below. There may also be further fees, taxes, or other charges assessed when conducting transactions in foreign securities beyond those described here. Details regarding these charges are available from a Fidelity representative. These fees and taxes, if any, will be disclosed on the trade confirmation (either individually or in the aggregate) and/or may be incorporated into the execution price.

Canada

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. If the order is routed to a Canadian broker, a local broker's fee of \$0.0015 CAD per share if the price of the stock is less than or equal to \$0.10 CAD, \$0.0025 CAD per share if the price of the stock is greater than \$0.10 and less than \$1 CAD, and \$0.005 per share if the price of the stock is greater than or equal to \$1 CAD, and a foreign exchange fee of up to 0.01% of the principal may also be incorporated into the execution price.

All Other Countries

For every country other than Canada, shares will be traded on the over-the-counter market through a U.S. market maker, unless you direct otherwise when you place your trade through a representative. In that situation (that is, if you direct that the transaction occur other than on the over-the-counter market), an additional foreign exchange fee of up to 0.30% of principal per trade may be incorporated into the execution price.

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 \$10 per online transaction, \$15 per transaction via form or representative; 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 and ATM Fees There is no annual fee for the Fidelity® Visa® Gold Check Card or the Fidelity HSA® debit card. Fidelity does charge \$1.00 for every ATM transaction above five each month. You may also be charged separate fees by other institutions, such as the owner of the ATM. Note: You cannot use the Fidelity HSA® debit card at an ATM.

If you qualify for Premium, Private Client Group, or have household annual trading activity of 120 or more stock, bond, or options trades, Fidelity will not charge an ATM transaction fee and will reimburse itemized domestic fees charged when using the card at ATMs displaying the Visa®, Plus®, or Star® logos. Eligibility for these fee waivers and reimbursements is determined based on asset levels as of the end of each business day, and will be applied the following day. If your eligibility changes, your account may be charged the applicable fees without notice. Any reimbursements will be credited to your account the same day an ATM fee is debited from the account. In rare instances, ATM owners may not itemize fees, which may cause disruption of individual automatic rebates. Should this occur, please contact Fidelity. Note: There is a foreign transaction fee of 1% that is not waived or reimbursed, and will be included in the amount charged to your account.

The Fidelity® Visa® Gold Check Card and Fidelity HSA® debit card are issued by PNC Bank, NA, and administered by BNY Mellon Investment Servicing Trust Company, which are not affiliated with Fidelity.

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

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 \$10 Available by overnight delivery to customer's address by calling a Representative, or in person at the Boston Congress St. Investor Center. Cashier's Checks, which are purchased with funds from a Fidelity account, are subject to a \$10 fee (waived for Gold-level accounts)³

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® Personalized Portfolios 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 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.

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.

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.

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

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.

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

	Interest Charged	
Average Debit Balance	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.

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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: Social Security number and employment information assets and income account balances and transaction history When you are no longer 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.			
	WE CAN SHARE RSONAL INFORMATION		DOES FIDELITY SHARE?	CAN YOU LIMIT THIS SHARING?
such as to	eryday business purposes— process your transactions, maintain y court orders and legal investigation aus		Yes	No
	arketing purposes — r products and services to you		Yes	No
For joint m	narketing with other financial comp	panies	No	We don't share
	filiates' everyday business purposen about your transactions and experie		Yes	No
	filiates' everyday business purposen about your creditworthiness	es—	No	We don't share
For nonaff	iliates to market to you		No	We don't share
QUESTIONS? Call 800-544-6666. If we serve please contact them directly, addresses, and telephone numother correspondence.		em directly. Specific Internet lephone numbers are listed	t addresses, mailing	

WHO WE ARE		
Who is providing this notice?	Companies owned by Fidelity Investments using the Fidelity name to provide finance services to customers, and the Fidelity Funds. A list of companies is located at the exportance 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 FIAM 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. We may share medical information about you to learn if you qualify for coverage, to process claims, to prevent fraud, or otherwise at your direction, as permitted by law. You are entitled to receive, upon written request, a record of any disclosures of your medical record information. Please refer to your statements and other correspondence for mailing addresses.

If you establish an account in connection with your employer, your employer may request and receive certain information relevant to the administration of employee accounts.

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 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.; FIAM 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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Fidelity Brokerage Services LLC and National Financial Services LLC, Members NYSE, SIPC 900 Salem Street, Smithfield, RI 02917

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CUSTOMER AGREEMENT AND ADDITIONAL INFORMATION

This document describes the features, policies, fees, and risks associated with your Fidelity® Cash Management Account. The first section is the agreement, or contract, for your account, which includes a description of the FDIC-Insured Deposit Sweep Program. 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 features included with your account and additional features offered.

Account Policies

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

Disclosures

This section includes information on liability, certain regulations, and predispute arbitration.

Fidelity Cash Management Account FDIC-Insured Deposit Sweep Program Disclosure Document

ADDITIONAL INFORMATION

Fees

Fidelity's fees for various features and services.

Privacy Notice



Management Account

FIDELITY® CASH MANAGEMENT ACCOUNT AGREEMENT

Things to Know Before Using Your Account

The Fidelity® Cash Management Account is an alternative for your spending and short-term savings needs. The Fidelity® Cash Management Account offers the ability to purchase and hold mutual funds, CDs, and other short-term instruments in addition to FDIC-eligible cash core.

As the account owner, you are responsible for monitoring your account and for all decisions and instructions concerning your account, including any securities you buy, sell, or hold in your 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 can make transactions in a joint account (including removing all the assets) without the approval of the other owner(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 incorrect or suspicious account activity.
- 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.

Since this is a brokerage account, 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 a brokerage industry self-regulatory organization.

How to Contact Us

For account-related matters, including questions, changes, and notifications of errors, reach us:

By Phone In Writing

800-544-6666 Fidelity Investments
Client Services
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(s) 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 maintain an account for you. We also agree to serve as your broker and to provide 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, for all results and consequences of these instructions, including all investment decisions, trading orders, tax consequences, and all instructions placed by you or any other person you authorize
- 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
- to use from time to time the account or some other account with us that is linked or used as a complement to your Fidelity Cash Management Account to buy, sell, or hold securities
- if you use any of our electronic services or if you provide us with your email 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, 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, and to permit any third-party financial services provider providing services for this account 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 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, 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

- to pay all fees, charges, and expenses incurred on your account, in accordance with the provisions of this agreement and 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
- that if you have authorized someone to act on your behalf in your account, any and all disclosures, required or otherwise, may be provided solely to the individual acting on your behalf as part of the scope of his or her authority

Account Features

The Fidelity Cash Management Account offers a range of integrated financial services. Certain features and services are included with your account. Additional features may be added either when you open your account or later. Features and associated fees may vary depending on your relationship with Fidelity.

Standard Features

The features below come standard with your Fidelity Cash Management Account.

For more information on these features, please visit Fidelity.com/ cashmanagement. Also, please note that each of the features offered below is subject to the approval of Fidelity Investments and/or the third-party provider of the specified service.

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:

- (1) Obtaining and verifying account information and documentation.
- (2) Opening, approving, and monitoring trading and other activity in your account.
- (3) Accepting orders and other instructions from you regarding your account, and for promptly and accurately transmitting those orders and instructions to NFS.
- (4) 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.
- (5) 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.
- (6) Maintaining the required books and records for the services it performs.
- (7) Investigating and responding to any questions or complaints you have about your account(s), confirmations, your periodic statements, 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:

- (1) The clearance and settlement of securities transactions.
- (2) The execution of securities transactions, in the event NFS accepts orders from FBS.
- (3) Preparing and sending transaction confirmations and periodic statements of your account (unless FBS has undertaken to do so).

- (4) Acting as custodian for funds and securities received by NFS on your behalf.
- (5) Following the instructions of FBS with respect to transactions and the receipt and delivery of funds and securities for your account.
- (6) Extending margin credit for purchasing or carrying securities on margin.
- (7) Maintaining the required books and records for the services it performs.

Core Account

Your Fidelity Cash Management Account includes a core account that holds assets awaiting investment or withdrawal. Your core account utilizes a core position referred to as the "FDIC-Insured Deposit Sweep" or the "Sweep."²

In connection with the Sweep, cash contributed to or received in your Account is held in the core account (the "Cash Balance"). On the next business day after receipt (not including bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday), Cash Balances are automatically "swept into" an FDIC-insured interest-bearing account (a "Program Deposit Account") at one or more participating banks (each, a "Program Bank"), where the Cash Balance becomes eligible for FDIC insurance. Once your Cash Balance has been swept into a Program Bank, it is referred to as your "Program Deposit." Your Program Deposit is also automatically withdrawn from ("swept out of") a Program Deposit Account back into your Fidelity Cash Management Account, as necessary. Your Program Deposit will earn interest, provided that the accrued interest for a given day is at least half a cent.

In addition to the information provided above, more details about the Sweep can be found in the Fidelity® Cash Management Account FDIC-Insured Deposit Sweep Program Disclosure document, which is attached hereto, incorporated herein, and forms a part of this Agreement.

If You Reside Outside the United States

If we determine that you reside outside the United States in any country other than Canada (as described in the Residing Outside the United States section of this Agreement), either at the time you open your Fidelity Cash Management Account, or at any point in time after you open your Fidelity Cash Management Account (e.g., as a result of a subsequent move), your core account will not operate as described above. Instead, during such time as we believe you reside outside the United States, the following will apply:

1. New Fidelity Accounts.

The process of sweeping the Intra-day Free Credit Balance to your core account (as described in the Credits to Your Account section of this Agreement) will be suspended. As a result, all uninvested cash in your Fidelity Cash Management Account will be held in the Intra-day Free Credit Balance. The Sweep will remain your core position, but there will be no Cash Balance to be swept into a Program Deposit Account. You will also be unable to make any changes to the Sweep, including making any changes to the Program Bank List assigned to your Fidelity Cash Management Account.

2. Existing Fidelity Accounts.

The process of sweeping the Intra-day Free Credit Balance to your core account will be suspended. This will not affect any existing Program Deposit at a Program Bank. You will be able to liquidate that position should you elect to do so, but you will generally be unable to add to it for so long as we believe you reside outside the United States, except for the deposit of accrued interest, which will continue to occur as described in the Fidelity Cash Management

¹Fidelity may share the following pieces of information (as available): account owner name, address, phone number(s), Social Security number, date of birth, and Fidelity Cash Management Account number with PNC Bank, N.A., for the Fidelity Visa® Gold Check Card, and with Fiserv for the Fidelity BillPay® service.

²The available options for your core position could also include a money market mutual fund or a taxable interest-bearing option. More details about the money market mutual fund can be found in the fund's prospectus, which will be made available to you when applicable. The taxable interest-bearing option represents funds payable to you on demand by Fidelity. Subject to applicable law, Fidelity may use these funds in connection with its business. Fidelity may, but is not required to, pay you interest on these funds. Interest, if paid, will be based upon a schedule set by Fidelity, which may change from time to time in Fidelity's sole discretion. Fidelity reserves the right to make changes to the available options and/or the options available to you.

Account FDIC-Insured Deposit Sweep Program Disclosure document. As a result, all new deposits to your Fidelity Cash Management Account, or settlement proceeds from transactions in your Fidelity Cash Management Account, will be held in the Intra-day Free Credit Balance. The Sweep will remain your core position, but you will be unable to make any changes to it, including making any changes to the Program Bank List assigned to your Fidelity Cash Management Account.

Should we determine you no longer reside outside the United States, if your Fidelity Cash Management Account was subject to a suspension, this suspension will be lifted, the Intra-day Free Credit Balance will be swept to your core account and held in the core position, and, going forward, your Fidelity Cash Management Account will operate as otherwise described herein.

Checkwriting

Unlimited, free checkwriting is available through your Fidelity Cash Management Account. All registered owners requesting checkwriting must complete and sign a checkwriting form. Previously completed checkwriting forms for any other accounts in your name may not be used in conjunction with this account. Checks paid will be reported on your account statement. Note that cancelled checks are not returned to you, although check imaging may be available should you prefer to receive your statements in the mail. You can indicate your preference for check images now on the Fidelity Cash Management Account Application or later on the checkwriting form.

If you view your account statements online, you can click on links of cleared checks within the section for Fidelity Cash Management Account to view an image of these checks.

Fidelity Visa® Gold Check Card (Debit/ATM)

Fidelity currently covers the annual fee for the Fidelity Visa® Gold Check Card debit card. This card is issued by PNC Bank, N.A., and administered by BNY Mellon Investment Servicing Trust Company, neither of which is affiliated with Fidelity Investments. The Fidelity Check Card Agreement and Disclosure Statement will accompany your debit card. With this debit card, you can make withdrawals from any ATM machine displaying the Visa,® Plus,® or Star® logos or make purchases wherever Visa is accepted. All Fidelity ATM withdrawal fees will be waived. In addition, your Fidelity Cash Management Account will be reimbursed for ATM fees charged by other institutions wherever your card is accepted. Reimbursement will be credited the same day the ATM fee is debited from your account. Use of the card and right to reimbursements are subject to Fidelity's policy on abusive and excessive use of features, explained in this agreement. Please note that there is a foreign transaction fee of 1% that is not waived, which will be included in the amount charged to your account.

Please see the Fidelity Check Card Agreement and Disclosure Statement for additional information on the use of the card. The thirdparty trademarks appearing herein are the property of their respective owners.

Fidelity BillPay®

Fidelity BillPay® is a free service that allows you to easily manage your bills via Fidelity.com. You can set up one-time, future-dated, and recurring payments. The "Quick Add" feature allows you to easily add many payees by simply entering a phone number. The service offers quicker payment options, including "Same Day" and "Next Day" processing for certain bills. You can also sign up to receive eBills (electronic versions of your bills), alerts, and bill reminders to inform you of upcoming bills.

Please see the separate Fidelity BillPay® Service Agreement at Fidelity.com/goto/billpay for complete details.

Statements

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

• every calendar quarter, at a minimum

• for any month when you have cash management or, possibly, trading activity

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

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 at any time upon request.

Additional Features

Transferring Money Electronically

Fidelity offers two methods to transfer money electronically between your Fidelity Cash Management Account and an eligible bank or financial institution.

Electronic Funds Transfer (EFT) allows you to transfer money on a one-time or recurring basis between your Fidelity Cash Management Account and an eligible bank or financial institution. To use this service, you must first provide instructions to link your Fidelity account to your external account(s). Fidelity does not charge a fee for this service, but your institution may.

Bank wires allow you to request one-time transfers of cash between your Fidelity Cash Management Account and an eligible bank or financial institution. Fidelity may charge a fee to send a wire, as explained in the Additional Information (Fees) section. Also, other institutions may charge a fee to send or receive a wire.

Direct Deposit

Direct deposit allows you to have all or a portion of your paycheck or other regular payment deposited electronically into your Fidelity Cash Management Account. Direct deposit must be established at the payment initiator such as your employer. Please visit Fidelity.com/depositincome for forms and additional information.

Accessing Your Account

There are a variety of ways in which you can access your account, place an order, get market and investment information, or contact Fidelity. Online choices include Fidelity.com, alerts, and other interactive services for computers and 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, withdraw assets, transfer assets into or out of the account, arrange for account statements to be sent only to him or her, view all historical account documents, or change the account's features and services (although no account owner may remove another's name from the account). A joint owner can also buy and sell securities.

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 an attorney if you have specific circumstances or questions. For joint tenants with rights of survivorship 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

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 a Fidelity Cash Management Account, make transactions, add or change any account features, and direct trading and other activities, on behalf of the trust; that their transactions will be governed by the terms and conditions of all applicable trust agreements; and that Fidelity is authorized to accept instructions from any of the trustees. Applying for a trust account is also considered to be a statement that all trustees certify that Fidelity can rely on instructions from any one trustee to represent the unanimous consent of all trustees for actions taken on this account. All trustees on the account may be required to complete and sign the Fidelity Trustee Certification Form.

Account Usage

First Use of FDIC-Insured Deposit Sweep Program

Making your first deposit into your Fidelity Cash Management Account is your acknowledgment that you have read the full disclosure for the FDIC-Insured Deposit Sweep Program, as defined in the "Fidelity Cash Management Account FDIC-Insured Deposit Sweep Program Disclosures" document.

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.

Intended Use

It is expected that your Fidelity Cash Management Account be used for holding short-term assets for spending and short-term savings purposes. As a brokerage account, it provides the opportunity to purchase a range of short-term investment vehicles that may be suitable for these purposes, including money market or other mutual funds, CDs, and fixed-income instruments.

How Transactions Are Settled

Credits to Your Account

During normal hours when the market is open ("Intra-day"), any new deposit to your Fidelity Cash Management Account, or settlement proceeds from a transaction in your Fidelity Cash Management Account are held as a free credit balance (the "Intra-day Free Credit Balance"). Each business day, the Intra-day Free Credit Balance is automatically swept into your core account, where it is handled as described in the Core Account section of this Agreement, except as otherwise noted therein. Like any free credit balance, the Intra-day Free Credit Balance represents an amount payable to you on demand by Fidelity. Subject to applicable law, Fidelity may use this free credit balance in connection with its business. Fidelity may, but is not required to, pay you interest on this free credit balance, provided that the accrued interest for a given day is at least half a cent. Interest, if paid, will be based upon a schedule set by Fidelity, which may change from time to time at Fidelity's sole discretion.

Interest paid on your Intra-day Free Credit Balance will be labeled "Credit Interest" in the Investment Activity section of your account statement. Interest is calculated on a periodic basis and credited to your account on the next business day after the end of the period. This period typically runs from approximately the 20th day of one month to the 20th day of the next month, provided, however, that the beginning and ending periods each year run, respectively, from the 1st of the year to approximately the 20th of January, and approximately the 20th of December to the end of the year. Interest is calculated by multiplying your average Intra-day Free Credit Balance during the period by the applicable interest rate, provided, however, that if more than one interest rate is applicable during the period, this calculation will be modified to account for the number of days each period during which each interest rate is applicable.

Each check deposited is promptly credited to your account. However, the money may not be available until up to six 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). A check sent to Fidelity that is payable to someone other than an account owner or a division of Fidelity Investments is considered a third-party check. We do not accept third-party checks. In addition, if we have reason to believe that assets were incorrectly credited to your account, we may restrict such assets and/or return such assets to the account from which they were transferred.

Debits to Your Account

All debit items are paid daily to the extent that sufficient funds are available. Note that debits for the payment of any account service fees owed to Fidelity 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, and any costs (such as legal

fees) that we incur in collecting the debit. You are also responsible for ensuring that checks issued to you representing distributions from your account are promptly presented for payment. If a check issued to you from your account remains uncashed and outstanding for at least six months, you authorize and instruct Fidelity, in its sole discretion, to cancel the check and return the underlying proceeds to you by depositing the proceeds into your account.

To help ensure the proper discharge of debits, it is our policy (unless we agree to do otherwise) to turn to the following sources, in this order, when settling debits against your account:

- the Intra-day Free Credit Balance
- the core account
- any shares of a Fidelity money market fund held in the account that maintain a stable (i.e., \$1.00/share) net asset value and are not subject to a liquidity fee or a similar fee or assessment
- if you have a margin account, any margin credit available In addition to the foregoing, we may also turn to the following sources:
- any shares of a Fidelity money market fund held 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

If you want to opt out of the foregoing, please contact Fidelity for more information.

In the event that your account does not contain sufficient cash, Fidelity may liquidate securities to satisfy a court order, levy, or any other legal process payment. For more information on your Cash Balance, please refer to the Fidelity Cash Management Account FDIC-Insured Deposit Sweep Program Disclosures document.

Resolving Unpaid Obligations or Other Obligations

If certain of 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 decline to honor the debit, which may result in fees (such as a returned check fee) or other consequences for you.

Note that at any time we may reduce your available balance to cover obligations that have occurred but have 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 an 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.

Policies on Optional Features

Fidelity Visa® Gold Check Card and Fidelity BillPay® Service

These features are available with Fidelity Cash Management Accounts that have individual or joint registrations. Some debit cards may be

available for trust registrations. On joint accounts, a co-owner may apply for an additional debit 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 a debit card, it is also your responsibility to advise any other cardholders on your account that these agreements will apply to them.

Total debit card and Fidelity BillPay® transactions generally are limited to your available balance. Debit card purchase and transaction limits may apply and are outlined in the Fidelity Check Card Agreement and Disclosure Statement.

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.

Electronic Funds Transfers (EFTs) and Bank Wires

Electronic funds transfers (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 electronic funds 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.

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.

For electronic fund transfers, you hereby grant us limited power of attorney for purposes of liquidating any cash 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 liquidation of cash 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.

Abusive and Excessive Use of Features

Fidelity reserves the right to revoke account features for usage that Fidelity, at its sole discretion, deems to be abusive or excessive. Examples of such behavior include but are not limited to:

- Performing or allowing transactions in which you or a related party receive financial benefit at the expense of Fidelity or its provider(s)
- Excessive ATM fees as a result of multiple, small withdrawals in a 24-hour period
- Allowing a person who is not a listed owner of your Fidelity Cash Management Account to use features such as your debit card or checkwriting
- Using the Fidelity Cash Management Account in a manner other than its stated intended use

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 six-month period, you authorize Fidelity to liquidate the assets 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 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 receive 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 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 personal identification number (PIN) 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 debit 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 occurs (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.

If you or another individual associated with your account resides outside the U.S., Fidelity may at any time in its sole discretion terminate that relationship, or modify your rights to access any or all account features, products, or services. By opening or maintaining an account with Fidelity, you acknowledge that Fidelity does not solicit offers to buy or sell securities, or any other product or service, to any person in any jurisdiction where such offer, solicitation, purchase, or sale would be unlawful under the laws of such jurisdiction.

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 is 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:

- cancellation of an accepted 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
- the acceptance and processing of any order placed on your account, whether received electronically or through other means, so long as the order reasonably appears to be authentic
- 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." Fidelity reserves the right to restrict your account from withdrawals and/or trades if there is a reasonable suspicion of fraud, diminished capacity, or inappropriate activity. Fidelity also reserves the right to restrict your account from withdrawals and/or trades if Fidelity is put on reasonable notice that the ownership of some or all of the assets in the account is in dispute.

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 to 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 transferal 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.

Things to Know If You Trade or Hold Securities in Your Fidelity Cash Management Account

Trading in your account involves risks for which you assume full responsibility

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 Cash Management Account.

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

Commitments to and from Fidelity

When you sign the account application, you are also agreeing:

 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; this includes all investment decisions and trading orders, and all instructions placed by you or any other person you authorize to understand that, whenever you invest in, or exchange into, any
mutual fund, you are responsible for obtaining and reading that
fund's prospectus, including its description of the fund, the fund's
fees and charges, and the operation of the fund

We agree to serve as your broker and, subject to our acceptance of an authorized order, to buy, sell, or otherwise dispose of securities for you according to your instructions.

Features

Securities Trading

Because the Fidelity Cash Management Account is a brokerage account, it allows for 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)
- certificates of deposit (CDs)
- unit investment trusts (UITs)

In addition, the account can be used to trade certain foreign securities (either directly or as depository receipts) and precious metals. Note that foreign jurisdictions may impose additional fees, taxes, or other charges from time to time, which may not be reflected in the fee schedule in effect at that time. By placing a trade in a foreign security, you agree to pay any such applicable fees, taxes, or other charges, regardless of notice. In addition, participation in shareholder voting and/or dividend payments in non-U.S. securities is subject to the rules and regulations of the non-U.S. market in which the security was issued and may require the disclosure of your personal information, including but not limited to, name, address, and country of citizenship and/or residence. 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 Cash Management Account are futures, commodities, and currencies.

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. Margin and Option features are not allowed on the Fidelity Cash Management Account.

Trading Confirmations

We will send 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 position or the Intra-day Free Credit Balance; for these activities, your regular account statement serves in place of a confirmation.

Account Protection

Any securities that may be held 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 a SIPC brochure, visit sipc.org or call 202-371-8300.

Please note that until funds are swept to a Program Bank, they are covered by SIPC. Once funds are swept to a Program Bank, they are no longer covered by SIPC, but they are eligible for FDIC insurance

subject to FDIC insurance coverage limits. For more information about the Bank Sweep, please refer to the Fidelity® Cash Management Account FDIC-Insured Deposit Sweep Program Disclosure document.

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 Fidelity Cash Management Account, or only to certain ones. You can request this feature by phone or in writing (for all securities or for individual ones).

Account Policies Regarding Trading

Account Usage

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 to 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 a given fund company's definition of "excessive trading," 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.

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.

Dividend Reinvestment

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 cashin-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 depositary receipts [ADRs])
- be margin eligible (as defined by NFS)
- 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. The reinvestment of dividends may be delayed in certain circumstances. NFS reserves the right to suspend or completely remove securities from participation in dividend reinvestment and credit such dividends in cash at any time without notice.

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 redesignate 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.

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.

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 your own tax advisor concerning any tax implications that may arise as a result of any of these circumstances.

Monitoring Your Account and Notifying Us of Trading Errors

As an account owner, you are responsible for monitoring your account. This includes making sure that you are receiving transaction confirmations and any other expected communications.

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

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 a risk especially 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. Order cancellations are performed on a "best efforts" basis. There is no guarantee that an open order can be cancelled, in whole or in part.

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.

Disclosures

Service Providers

Brokerage account 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.

Should you choose to trade bonds in your Fidelity Cash Management Account, they may be traded through NFS (which may choose to act as principal or agent) or through external dealers.

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.

Money Market Fund Investments

You could lose money by investing in a money market fund. Although the fund seeks to preserve the value of your investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the fund is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor has no legal obligation to provide financial support to money market funds, and you should not expect that the sponsor will provide financial support to the fund at any time.

Credit-Related Information

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

If you apply for a debit 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 card issuer to share information about you with other entities in turn, it is your responsibility to inform the card issuer of this.

Consumer Reporting Agencies

We may report information about your account to credit bureaus. Late payments, missed payments, or other defaults on your account may be reflected in your credit report.

We may also provide information about you and your account as well as the activity in your account to one or more consumer reporting agencies. If you believe that information Fidelity has provided about you, your account, or the activity in your account is not accurate, you may notify us at:

Fidelity Investments Attn: Customer Data Disputes P.O. Box 770001 Cincinnati. OH 45277-0045

In order for us to investigate any dispute that you may submit to us with respect to information that we have provided, please provide us with the following information:

- (1) Your name, address, and account number;
- (2) An identification of the specific information that you believe is not accurate; and
- (3) An explanation of the basis for your dispute.

Certain Fees We Receive

Fidelity and its affiliates receive fees for providing certain products and services. Following 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.
- Fidelity will receive a fee from banks supporting the sweep. For more
 information, please refer to the "Benefits to Fidelity and Others"
 section within "Details" of the Fidelity Cash Management Account
 FDIC-Insured Deposit Sweep Program Disclosures document.
- 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 affiliates. FBS, NFS, or their affiliates may receive compensation in connection with the purchase and/or ongoing maintenance of positions in certain mutual funds in your account. FBS, NFS, or their affiliates may also receive compensation for such things as systems development necessary to establish a fund on their systems, a fund's attendance at events for FBS clients and/ or representatives and opportunities for the fund to promote its products and services. This compensation may take the form of sales loads and 12b-1 fees described in the prospectus, as well as program participation and maintenance fees, and infrastructure support paid by the fund, its investment advisor, or an affiliate. 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, expressed or implied, including, without limitation, any implied warranties of merchantability or fitness for a particular purpose with respect to 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.

Redemption Features/Callable Securities Lottery

Certain debt securities may have redemption features in addition to those disclosed on the trade confirmation, including, for example, special mandatory redemption features such as sinking funds provisions. It is the customer's obligation to review all disclosure documents the customer may receive, and to understand the risks of calls or early redemptions, which may affect yield. Issuers may, from time to time, publish notices of offers to redeem callable securities within limited time, price, and tender parameters. NFS is not obligated to notify customers of such published calls. Information about whether a municipal security is callable can be accessed via the Municipal Securities Rulemaking Board's Electronic Municipal Market Access ("EMMA") website (www.emma.msrb.org).

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. If you have bought or sold a security, and prior to the settlement of your trade, the issuer initiates a call of the security, NFS reserves the right to cancel your trade. Customers are responsible for covering any outstanding short positions, as well as any other resulting costs in their account, that result from the lottery. For more information and an example of the impartial lottery process, please go to: http://personal.fidelity.com/products/fixedincome/ FI_Common_Risk.shtml.

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.

Residing Outside the United States

If we determine that you reside outside the United States, you will be subject to certain limitations. While we generally make this determination by looking at the address information on our books and records (including the addresses maintained by the account owner and certain individuals with control over the account), we reserve the right to consider other information when making this determination and/or subjecting you to these limitations.

Generally speaking, regardless of where you reside, you will be subject to certain limitations. These include, but are not limited to, the following: (i) we will provide you with only ministerial or administrative services, which means that, among other things, our representatives will not engage in discussions with you about such topics as asset allocation, income planning, or portfolio composition; and (ii) you will not be permitted to purchase additional shares of any U.S. mutual fund (except pursuant to a dividend reinvestment program or in other limited circumstances), which among other things will affect the operation of your core account (please refer to the Core Account section of this Agreement for further details).

In addition to the foregoing, depending on where you reside, you may be subject to additional restrictions (for example, margin lending or options trading may not be permitted) up to and including restrictions that will prevent you from making additional deposits or purchasing additional securities positions (i.e., you will be prohibited from doing anything in your account other than selling your existing holdings and withdrawing the proceeds).

Notwithstanding the above, special rules govern your relationship with us if you live in Canada. Because of this, and because every situation is unique, you should contact Fidelity if you have questions about how you may be affected.

If you notify us that you do not reside outside the U.S., these limitations may be lifted.

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.

Resolving Disputes — Arbitration

This agreement contains a predispute arbitration clause. Under this clause, which you agree to when you sign your account application, you and Fidelity agree as follows:

- A. All parties to this agreement are giving up the right to sue each other in court, including the right to a trial by jury, except as provided by the rules of the arbitration forum in which a claim is filed.
- B. Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited
- C. The ability of the parties to obtain documents, witness statements, and other discovery is generally more limited in arbitration than in court proceedings.
- D. The arbitrators do not have to explain the reason(s) for their award unless, in an eligible case, a joint request for an explained decision has been submitted by all parties to the panel at least 20 days prior to the first scheduled hearing date.
- E. The panel of arbitrators may include a minority of arbitrators who were or are affiliated with the securities industry.
- F. The rules of some arbitration forums may impose time limits for bringing a claim in arbitration. In some cases, a claim that is

- ineligible for arbitration may be brought in court.
- G. The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this agreement.

All controversies that may arise between you and us concerning any subject matter, issue, or circumstance whatsoever (including, but not limited to, controversies concerning any account, order, or transaction, or the continuation, performance, interpretation, or breach of this or any other agreement between you and us, whether entered into or arising before, on, or after the date this account is opened) shall be determined by arbitration in accordance with the rules then prevailing of the Financial Industry Regulatory Authority (FINRA) or any United States securities self-regulatory organization or United States securities exchange of which the person, entity, or entities against whom the claim is made is a member, as you may designate. If you commence arbitration through a United States self-regulatory organization or United States securities exchange and the rules of that organization or exchange fail to be applied for any reason, then you shall commence arbitration with any other United States securities selfregulatory 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, or 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.

Before investing, consider the funds' investment objectives, risks, charges and expenses. Contact Fidelity for a prospectus or, if available, a summary prospectus containing this information. Read it carefully.

Any fixed-income security sold or redeemed prior to maturity may be subject to a substantial gain or loss. Your ability to sell a CD on the secondary market is subject to market conditions.

Fidelity, Fidelity Investments, Fidelity Cash Management Account, Fidelity BillPay, and FAST are registered service marks of FMR LLC. Third-party marks appearing herein are the property of their respective owners.



Fidelity Brokerage Services LLC, Member NYSE, SIPC, 900 Salem Street, Smithfield, RI 02917 National Financial Services LLC, Member NYSE, SIPC, 200 Seaport Boulevard, Boston, MA 02210

Fidelity® Cash Management Account FDIC-Insured Deposit Sweep Program Disclosure

Summary

This document provides important information about the FDIC-Insured Deposit Sweep Program offered in connection with the Fidelity® Cash Management Account (the "Account"). If you have questions or need additional information, you can call a Fidelity Representative at 800-544-6666.

How It Works

Your Fidelity® Cash Management Account utilizes a core account. Uninvested balances in your core account will be held in a core position called the "FDIC-Insured Deposit Sweep" (the "Sweep"). Cash contributed to or received in your Account is held in the core account (the "Cash Balance"). On the next business day (not including bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday) after receipt, Cash Balances are automatically "swept into" an FDIC-insured interest-bearing account (a "Program Deposit Account") at one or more participating banks (each a "Program Bank"). A hierarchical list of Program Banks will be assigned to your Account (the "Program Bank List") and the first bank on your Program Bank List will be designated as your "Primary Program Bank." Cash Balances up to the Maximum Deposit Limit (as further defined below) will be swept to your Primary Program Bank. The additional Program Banks, if any, on your Program Bank List will be available to accept excess Cash Balances in the event that you reach the Maximum Deposit Limit at your Primary Program Bank, provided, however, that if you have Program Deposits at each available Program Bank on your Program Bank List in an amount equal to the Maximum Deposit Limit, any remaining Cash Balances will be swept to your Primary Program Bank. Once your Cash Balance has been swept into a Program Deposit Account, it becomes eligible for FDIC insurance and is referred to as your "Program Deposit." Beginning with your Primary Program Bank, your Program Deposit is also automatically withdrawn from ("swept out of") a Program Deposit Account back into your Fidelity Cash Management Account as necessary. In this document, the sweep process between your Fidelity Cash Management Account and the Program Deposit Account is referred to as the "Program." The Program is only available to account owners of Fidelity Cash Management Accounts registered in the name of individuals or trusts, but only if all the beneficiaries of that trust are natural persons.

You will be informed of the Program Bank List assigned to your Account. If you open a new Account, you will receive this information in connection with the account opening process. For more information about the method used to generate your Account's Program Bank List, please refer to the "Details" section of this document.

Program Deposit Accounts are established on behalf of you and other Fidelity customers who participate in the Program. Although Fidelity will sweep your Cash Balance into a Program Deposit Account at a Program Bank, you will only have access to your Cash Balance through your Fidelity Cash Management Account. Please call a Fidelity Representative with questions on accessing your Cash Balance. You cannot make withdrawals from the Program Deposit Account, even if you contact the Program Bank. A full list of current Program Banks can be found on our Web site at Fidelity.com/FCMACoreBanks or by calling a Fidelity Representative. Once your Account is established, you will have the ability to modify the Program Bank List assigned to your Account by opting out of one or more of the Program Banks. You may also select a different Program Bank List if one is available. To discuss either possibility, please contact a Fidelity Representative.

Fidelity has the right to limit the amount of your Cash Balance that is swept into a Program Deposit Account, or to move your Cash Balance to another Program Bank if Fidelity determines that such action is necessary to protect your funds, or in the event that a Program Bank is not able or willing to take additional deposits. Please consult the "Details" section for further important information, as such action may affect your effective rate of return as well as eligibility for FDIC insurance.

Interest Rates

You will earn interest on your Program Deposit. The rate of interest varies over time. The rate may be tiered based on the balance of your FDIC-Insured Deposit Sweep plus the value of any additional eligible accounts or assets held at Fidelity that in the future may be added for purposes of qualifying for a particular interest rate tier ("Eligible Assets").

The interest rate for each tier is based on a number of factors, including general economic and business conditions. Interest on Program Deposits will be paid by the Program Bank. Customers with higher Eligible Assets generally will receive higher interest rates on their Program Deposits than customers with lower Eligible Assets.

Fidelity offers similar programs to account owners who maintain other types of accounts ("Other Accounts"). These Other Accounts currently include Health Savings Accounts (HSAs) and certain individual retirement accounts (IRAs), but this may change over time without notice to you. While the same Program Bank may participate in the Program as well as the programs for these Other Accounts, the interest rate paid by a Program Bank in connection with the Program may be different from that paid by the same Program Bank in connection with similar programs offered to account owners who maintain Other Accounts with Fidelity.

Over any given period, the interest rates on the Program Deposits may be lower than the rate of return on similar non-FDIC-insured investments or deposit accounts offered outside of the Program. To compare current rates of return between the Program Deposit in your Fidelity Cash Management Account and similar, non-FDIC-insured cash balance options available at Fidelity, please visit Fidelity.com/FCMACoreRates.

Interest rates, tier levels, and Eligible Assets may be changed at any time and without prior notice to you. Current interest rates and annual percentage yields (APYs) for Program Deposits and a description of any assets at Fidelity that currently qualify as Eligible Assets can be found at Fidelity.com/FCMA or by calling a Fidelity Representative at 800-544-6666. Interest on your Program Deposit accrues daily, is compounded monthly, and will be reflected on your Fidelity Cash Management Account statement as of the last business day of each month. Your continued use of your Fidelity Cash Management Account after Fidelity posts on its Web site any change to applicable interest rates, tier levels, and/or Eligible Assets shall constitute your consent to any such change.

Important information regarding the calculation and payment of interest on your Program Deposit, including how your Eligible Assets will be determined, can be found in the section entitled "Interest" or by calling 800-544-6666.

FDIC Insurance Coverage/SIPC Protection

Your Program Deposit, together with any non-Program deposits you may have at the same Program Bank, which include deposits arising in connection with similar programs offered to account owners who maintain Other Accounts with Fidelity, as well as savings and checking accounts, money market deposit accounts, and CDs issued directly to you by the Program Bank, are insured by the FDIC, an independent agency of the U.S. government, up to a standard maximum amount in accordance with the rules of the FDIC. The applicable FDIC insurance limit depends upon the ownership capacity in which you hold the Program Deposit, and the relevant limit will be applied to all deposits (including Program Deposits and non-Program deposits) held in the same ownership capacity by you at the same Program Bank. Deposits held in different ownership capacities, as provided in FDIC rules, are insured separately. Single ownership accounts are insured up to \$250,000 and each co-owner's share of joint accounts is insured up to \$250,000. For retirement accounts such as IRAs, the limit is typically \$250,000. HSAs, unless they possess special features, are considered to be held in the same right and capacity as other single ownership accounts of a depositor, and are combined with such other single ownership accounts, for the purpose of applying the \$250,000 maximum limit. Special rules apply to insurance of trust deposits. If you have both a Program Deposit and non-Program deposits at the same Program Bank held in the same right and legal capacity as your Program Deposit, you must aggregate all such deposits with your Program Deposit for purposes of determining FDIC coverage. If your total funds on deposit at a Program Bank exceed the applicable FDIC insurance limit, the FDIC will not insure your funds in excess of the limit.

For more information, please refer to the "Details" section. For more information, visit fdic.gov or call 877-ASK-FDIC (877-275-3342).

Fidelity is not responsible for monitoring the amount of your Program Deposit in any Program Bank to determine whether it exceeds the limit of available FDIC insurance. You are responsible for monitoring the total amount of your assets on deposit with each Program Bank (including amounts in other accounts at the Program Bank held in the same right and legal capacity) in order to determine the extent of deposit insurance coverage available to you on those deposits, including your Program Deposit. If you are a trustee, you are responsible for determining the application of the insurance rules for you and your beneficiaries.

Any securities held in the Fidelity Cash Management Account (as opposed to the Program Deposit) are investment products and as such: (i) are not insured by the FDIC; (ii) carry no bank or government guarantees; and (iii) have associated risks.

By investing in securities you can lose your money, including the principal amount you invested. Securities held at Fidelity (as well as funds held at Fidelity and not at a Program Bank) are covered by the Securities Investor Protection Corporation (SIPC). SIPC currently protects these funds and securities up to \$500,000, including \$250,000 for claims for cash. SIPC coverage does not cover fluctuations in the market value of your investments. Your Cash Balance is only eligible for FDIC insurance once it becomes a Program Deposit held by a Program Bank. Your Cash Balance while held by Fidelity and in transit to or from a Program Bank is not FDIC-insured but is covered by SIPC. For more information regarding FDIC insurance, please consult fdic.gov. For more information regarding SIPC coverage, including the SIPC brochure, please consult sipc.org or call 202-371-8300.

Financial Benefits to Fidelity and Others

Fidelity receives a fee from each Program Bank in connection with the Program. This fee is typically based on the average aggregate daily Program Deposits on deposit with the Program Bank. The fee paid to Fidelity may vary from Program Bank to Program Bank. The fee paid to Fidelity by such Program Bank may also be different from that paid by the same Program Bank in connection with similar programs offered to account owners who maintain Other Accounts with Fidelity. In addition, the fee paid to Fidelity by each Program Bank may vary over time and may range up to an annualized rate equivalent to 4% of the balance of all Program Deposits held at that Program Bank.

The Program Administrator will receive a service fee from Fidelity, which will range between 0.010% and 0.035% of the aggregate daily balance of all Program Deposits. This fee is compensation for technology and accounting services rendered and assistance with regulatory compliance. Fidelity may be a customer of the Program Administrator or a Program Bank and may have other financial interactions with the Program Administrator or the Program Bank. Fidelity may, in the future, designate one of its affiliates as the Program Administrator or a Program Bank or both.

Details

In this Disclosure Statement, "Fidelity," "us," and "we" include Fidelity Brokerage Services LLC (FBS) and National Financial Services LLC (NFS), 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.

Overview

Under the Program, the Cash Balance in your Fidelity Cash Management Account is automatically swept into and out of an interest-bearing Program Deposit Account at one or more Program Banks with which Fidelity has contracted.

The Sweep should not be viewed as a long-term investment option. If you are interested in a long-term investment option for your Cash Balances, please consider alternatives other than the Sweep that may be better suited for such purpose.

How the Program Works

Deposits

The Cash Balance in your Fidelity Cash Management Account will be automatically swept on the next business day after receipt (not including bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday) into one or more Program Deposit Accounts established by Fidelity on behalf of you and other Fidelity customers who participate in the Program at the Program Banks.

Starting with your Account's Primary Program Bank, Fidelity will sweep Cash Balances to the Program Deposit Account at such bank until the total amount of your Program Deposit at that Program Bank is equal to the Maximum Deposit Limit. If, after this process is completed, there is a remaining Cash Balance in your Account, Fidelity will sweep those funds into the next available Program Bank on your Account's Program Bank List (as more fully described below) until the total amount of your Program Deposit at that Program Bank is equal to the Maximum Deposit Limit. This process will repeat itself until either (a) there is no remaining Cash Balance in your Account or (b) a Cash Balance remains in your Account and you have Program Deposits at each available Program Bank on your Account's Program Bank List in an amount equal to the Maximum Deposit Limit, in which case the remaining Cash Balances will be swept to your Account's Primary Program Bank. Please note that if, as a result of this process, you have Program Deposits in excess of the Maximum Deposit Limit at your Account's Primary Program Bank, it is very likely that some of those funds will not be covered by FDIC insurance.

Maximum Deposit Limit

The Maximum Deposit Limit will at all times be equal to 98% of the then applicable standard maximum deposit insurance amount for a nonretirement single ownership deposit account. For example, if the standard maximum deposit insurance amount is \$250,000, then the Maximum Deposit Limit is \$245,000.

Withdrawals

If funds are needed to cover a debit in your Account at the end of a business day (such as to cover an ATM withdrawal or a security purchase you made in the Account), the funds will be automatically swept out of the Program Deposit Account(s) back into your Account. Funds are swept out of the Program Banks in the same order that they are swept in, starting with the Primary Program Bank (up to the amount of your Program Deposit at that bank) and then moving to the next available Program Bank on your Account's Program Bank List (as more fully described below) until either the debit is satisfied or the total amount of your Program Deposits have been swept back into your Account. Program Deposits remaining at the Program Bank(s) will not be reallocated as part of this process, so as a result, you may have less than the Maximum Deposit Limit in Program Deposits at your Account's Primary Program Bank, but still have Program Deposits equal to the Maximum Deposit Limit at other Program Banks on your Account's Program Bank List.

Interest Posting

Each month, your Account statement will reflect the interest accrued on Program Deposits at each Program Bank separately. Interest accrues daily, is compounded monthly, and posted to the Program Deposit Account on the last business day of each month. After being posted to the Program Deposit Account, interest payments are swept to your Account where they could create a Cash Balance. In the event there is a Cash Balance, it will be swept to one or more Program Banks in accordance with the deposit methodology described above.

Changes to FDIC Insurance Limits

If the standard maximum deposit insurance amount for a nonretirement single ownership deposit account increases or decreases, Fidelity will determine a new Maximum Deposit Limit as of the effective date of the change. If the standard maximum deposit insurance amount increases and you have Program Deposits at your Account's Primary Program Bank in excess of the new Maximum Deposit Limit, then Fidelity will sweep these funds into the next available Program Bank on your Program Bank List (as more fully described below), until the total amount of your Program Deposits at that Program Bank are equal to the Maximum Deposit Limit. This process will repeat itself until either (a) you no longer have Program Deposits at your Account's Primary Program Bank in excess of the new Maximum Deposit Limit or (b) you have Program Deposits at each available Program Bank on your Account's Program Bank List in an amount equal to the Maximum Deposit Limit, in which case any excess Program Deposits will remain at your Account's Primary Program Bank. If the standard maximum deposit insurance amount decreases,

Fidelity will redistribute all of your Program Deposits across all of the available Program Banks in your Account's Program Bank List in accordance with the deposit methodology described above. Please note that if you have Program Deposits in excess of the Maximum Deposit Limit at your Account's Primary Program Bank, it is very likely that some of those funds will not be covered by FDIC insurance.

Evidence of Ownership

No evidence of ownership of the Program Deposit Account, such as a passbook or certificate, will be issued to you. Instead, the Program Deposit Account will be evidenced by (1) a book entry on the account records of each Program Bank showing an omnibus Program Deposit Account as being held in the name of NFS for the benefit of you and other Fidelity customers that participate in the Program, and (2) records of your Program Deposit from time to time in the Program Deposit Account maintained by NFS as your custodian and recordkeeper for the Program Bank.

Program Banks

Fidelity maintains a list of Program Banks for the Program (the "Master List"). This Master List may differ from similar master lists used with Other Accounts. From time to time, a Program Bank may be added to or removed from the list. Removing a Program Bank from the Master List means that Fidelity has terminated its relationship with such Program Bank and the Program Bank no longer participates in the Program. If a Program Bank is removed from the Program, Fidelity will transfer your Program Deposit from that Program Bank into another Program Bank or Program Banks in accordance with the deposit methodology discussed above as if you had opted out of such Program Bank (as more fully described below).

Each Program Bank may accept deposits up to an aggregate deposit limit (the "Deposit Limit"), which generally caps the total amount on deposit at the Program Bank in connection with the Program as well as similar programs offered in connection with Other Accounts. The Deposit Limit is set by contract between Fidelity and the Program Bank.

Program Bank Status

A status is assigned to each Program Bank. This status, which may change daily, reflects the Program Bank's ability to accept Program Deposits. As a general rule, a Program Bank's ability to accept Program Deposits is unrestricted except when one of the following applies:

Unavailable—A Program Bank that is unable to accept additional Program Deposits because it has reached its Deposit Limit. Characterizing a Program Bank as Unavailable will not affect existing Program Deposits at the Program Bank, but new deposits will be prohibited, except in situations where: (i) the Unavailable Program Bank is the only Program Bank on the Master Program Bank List, or (ii) the Unavailable Program Bank is the Primary Core Bank and every other Program Bank in the Program Bank List assigned to an Account is unavailable to take deposits because they are also Unavailable, have been Opted Out (as further defined below), or are Pending Activation (as further defined below).

Overflow—A Program Bank that is unable to serve as a Primary Core Bank because the total amount on deposit at the Program Bank in connection with the Program as well as in connection with similar programs offered in connection with Other Accounts is within \$50,000,000 of such Program Bank's Deposit Limit. Assigning a Program Bank an Overflow status will not affect existing Program Deposits at the Program Bank, but the Program Bank will be ineligible to serve as a Primary Core Bank except in situations where the Overflow Program Bank is the only Program Bank on the Master Program Bank List.

Pending Activation—A Program Bank that has been added to the Master Program Bank List, but is not yet available to receive Program Deposits.

Opted Out—The Account owner has elected not to utilize this Program Bank. While the Program Bank will remain on the Account's Program Bank List, the Program Bank is not available to receive Program Deposits. This status applies only to the Account at issue and has no impact on the Program Bank's ability to accept Program Deposits in connection with the broader Program. To opt out of a Program Bank, please call a Fidelity Representative.

Program Bank List

Your Account will be assigned a Program Bank List that may contain one or more Program Banks. Your Account's Program Bank List will be generated from the Master List. This Master List may differ from similar master lists used with Other Accounts. The hierarchy of the Program Banks on your Account's Program Bank List reflects the order in which these Program Banks will be utilized in connection with your Account. The first bank on your Account's Program Bank List will be designated as your Account's Primary Program Bank. Fidelity may from time to time generate different Program Bank Lists. As a result, the Program Bank List assigned to one Account may differ from the Program Bank List assigned to another Account.

New Accounts

The Program Bank List assigned to your Account will be determined based upon the day your Account is established, and all Accounts established that day will generally be assigned the same Program Bank List. If your Account is assigned a Program Bank List that contains only a single Program Bank, then that Program Bank will be the Primary Program Bank. Please note that if this occurred and, as a result, you have Program Deposits in excess of the Maximum Deposit Limit at your Primary Program Bank, it is very likely that some of those funds will not be covered by FDIC insurance.

You will receive a New Account Profile that includes the Program Bank List assigned to your Account. You will generally not be able to modify the Program Bank List assigned to your Account or select a different Program Bank List during the account-opening process. However, once your Account is established, except as otherwise described in the Fidelity Cash Management Account Customer Agreement, you will have the ability to modify the Program Bank List assigned to your Account by opting out of one or more of the Program Banks. You may also select a different Program Bank List if one is available. To discuss either possibility, please contact a Fidelity Representative.

The Program Bank List assigned to your Account is available on Fidelity.com. To access the Program Bank List, you must log in to your Account, navigate to the "Positions" page, and then click on the "FDIC-Insured Deposit Sweep" link. The status of one or more of the Program Banks on these Program Bank Lists may be reflected as "pending" for a period of time after the Program Bank List is first assigned to your Account. If you have questions about a particular Program Bank's status, or need further information about the Program Bank List assigned to your Account, please contact a Fidelity Representative.

Changes to Program Bank Lists

Customer-Initiated Changes

Except as otherwise described in the Fidelity Cash Management Account Customer Agreement, once your Account has been established, you can modify the Program Bank List assigned to your Account by calling Fidelity and "opting out" of any one or more Program Banks on your Account's Program Bank List, provided, however, that you must have at least one Program Bank in your Program Bank List in order to utilize the Program. By opting out of a Program Bank, you make the Program Bank inactive and ineligible or unavailable to receive Program Deposits from your Account. A Program Bank you have opted out of will still appear on the Program Bank List assigned to your Account with a designation that indicates its status. Your decision to opt out is revocable. You can call Fidelity at any time and opt back into a Program Bank, provided that the Program Bank is still participating in the Program.

Except as otherwise described in the Fidelity Cash Management Account Customer Agreement, you can call Fidelity at any time to request a different Program Bank List, if one is available. If you elect to utilize a different Program Bank List, and you previously opted out of one or more Program Banks, those opt out elections will carry over to your Account's new Program Bank List, provided, however, that because you may not opt out of the Primary Program Bank, if the Primary Program Bank on this new Program Bank List is one that you previously opted out of and you wish to maintain that election, you must utilize a different Program Bank List with a different Primary Program Bank.

If you opt out of one or more Program Banks and you currently have Program Deposits with these Program Banks, those Program Deposits will be treated as if they were a Cash Balance in your Account and reallocated to the remaining active Program Banks on your Account's Program Bank List in accordance with the Deposit methodology described above. Likewise, if you elect to use a different Program Bank List, all your Program Deposits

will be treated as if they were a Cash Balance in your Account and reallocated to the Program Banks on this new Program Bank List in accordance with the Deposit methodology described above.

Programmatic Changes

From time to time, a Program Bank may be added to or removed from a Program Bank List. New Program Banks will be added to the end of a Program Bank List and existing Program Banks being removed will be deleted from a Program Bank List. If more than one Program Bank is added at any given time, the banks will be added to the end of a Program Bank List in alphabetical order. A Program Bank List will not be reordered as a result of either the addition or removal of a Program Bank. If a Program Bank has been removed from a Program Bank List, that Program Bank will no longer be available to receive Program Deposits. If you have a Program Deposit on deposit with the removed Program Bank, Fidelity will transfer your Program Deposit from that Program Bank into the remaining Program Banks on your Account's Program Bank List as if you had opted out of such Program Bank. In the event the Program Bank that is removed from the Program Bank List is your Primary Program Bank, then the next available Program Bank on your Account's Program Bank List will be designated the Primary Program Bank.

Every Account must be assigned a Program Bank List with at least one available Program Bank. If the removal of a Program Bank combined with your election to opt out of one or more Program Banks results in your Account's Program Bank List having no available Program Banks, then you direct Fidelity to (1) void your opt out election, (2) assign as your Account's Primary Program Bank the Program Bank on your Account's Program Bank List immediately following the Program Bank that was removed, and (3) transfer your Program Deposit from the removed Program Bank into your Account's Primary Program Bank as if you had opted out of the removed Program Bank.

Bank Status Changes

In certain circumstances, a Program Bank that has been added to your Account's Program Bank List will appear on your Account's Program Bank List with a designation that indicates its status as "pending." A pending Program Bank will not be available to receive Program Deposits until the pending designation is removed (generally thirty (30) days). However, you may elect to opt out of a pending Program Bank at any time in accordance with the process described above.

Once the status of a Program Bank changes such that it is no longer pending, any cash balances in the Account's Primary Core Bank in excess of the Maximum Deposit Limit will be automatically swept into the newly available Program Bank in accordance with the deposit methodology discussed above.

Likewise, if the status of a Program Bank changes such that it is no longer Unavailable or Opted Out, any cash balances in the Account's Primary Core Bank in excess of the Maximum Deposit Limit will be automatically swept into the newly unrestricted Program Bank in accordance with the deposit methodology discussed above.

Changes Affecting Your Account

Fidelity may from time to time make changes in the Program that include making Program Deposit Accounts available at banks other than the current Program Banks or shifting Program Deposits between Program Banks. Fidelity has the right to limit the amount of your Cash Balance that is swept into a Program Deposit Account or to move your Cash Balance to another Program Bank if Fidelity determines that such action is necessary to protect your funds, or in the event that a Program Bank is not able or willing to take additional deposits, a Program Bank's participation in the Program is terminated or a Program Bank's ongoing viability may be in question. In such case, any or all of the Cash Balance in your Fidelity Cash Management Account may be placed into a core position other than the FDIC-Insured Deposit Sweep, such as a money market mutual fund, a free credit balance position, or other available cash investment vehicle. These alternative core positions would not be eligible for FDIC insurance but may be eligible for SIPC protection.

The new core position that Fidelity chooses for you may receive a lower effective rate of return. Fidelity will attempt to select an alternative core position for you that provides a rate of return that is equal to or better than the rate of return you were receiving on your Program Deposit. Fidelity, however, cannot guarantee any rate of return, including a return that is equal to or greater than your current return. Fidelity may also receive different and potentially greater compensation in connection with the alternative core position than was the case with your original Program Bank.

By signing the Fidelity Cash Management Account Application, you represent that you have read this Disclosure Statement and understand and consent to Fidelity changing your core position at its discretion to a money market mutual fund, a free credit balance position, or another cash investment vehicle, if available. You agree to hold Fidelity harmless for any actions that might result from Fidelity changing your core position, including any lower or different rate of return that may be paid by the new core position that Fidelity selects for you. You also acknowledge and agree to allow Fidelity to share personal information about you, including such things as your name, Social Security number or tax identification number, address, or date of birth, with certain entities that provide services to Fidelity in connection with the Program. These service providers, which include the Program Banks, will use such information solely to satisfy their own statutory or regulatory obligations, or obligations that attach to Fidelity.

You will be notified if we change the Program Banks into which your Cash Balance is swept. Your continued use of your Fidelity Cash Management Account after receiving notice of a change in one or more Program Banks will constitute your affirmative consent to Fidelity to the transfer of your Program Deposit into any Program Bank that Fidelity has disclosed to you. Because you are responsible for monitoring the total amount of your deposits at a Program Bank (including any Program Deposit held at such Program Bank and all deposits you may make at a Program Bank outside the Program), in order to determine the extent of FDIC insurance coverage available, you should carefully consider whether the change in the Program Bank has an impact on your deposit insurance coverage. Fidelity may add an affiliated bank to the list of Program Banks in the future, including making an affiliated bank the sole available Program Bank under the Program.

Statements and Confirmations

The statement for your Account will: (i) indicate your balance in your core account as well as your Program Deposit balance at each Program Bank as of the last business day of each monthly statement period; (ii) detail sweeps to and from your core account during the statement period; and (iii) reflect interest accrued on Program Deposits at each Program Bank separately. This information is provided in lieu of separate confirmations for each sweep into and from a Program Deposit Account. Transfers between your MMDA and NOW sub-accounts (each of which are further described below) will not be reflected in your Fidelity Cash Management Account statements.

Access to Your Cash Balance

You may only access your Cash Balance through your Fidelity Cash Management Account. You cannot access or withdraw your Program Deposit by contacting the Program Bank directly. Your Program Deposit is also subject to legal process such as a levy or a garnishment delivered to Fidelity to the same extent as if those funds were in your Fidelity Cash Management Account.

Your Program Deposit constitutes a direct obligation of the bank to you and is not an obligation of Fidelity. Fidelity does not guarantee in any way the financial condition of the Program Banks. Under federal banking regulations, each Program Bank has the right to require seven days' prior notice before permitting a withdrawal of any Program Deposits. Your interest in a Program Deposit Account is not transferable.

Deposit Accounts

Fidelity is taking certain steps outlined in this section to help Program Banks manage the reserves that the Federal Reserve Board requires them to maintain against certain types of deposit accounts. These steps are in accordance with established banking laws, regulations, and practices.

Each Program Bank uses one of the following two deposit account structures, either: (1) a master account with two linked legally separate sub-accounts: (a) an interest-bearing transaction sub-account (commonly referred to as a Negotiable Order of Withdrawal or "NOW" account), and (b) an interest-bearing savings deposit account (commonly referred to as a Money Market Deposit Account or MMDA account); or (2) legally separate linked NOW and MMDA accounts. Regardless of whether the Bank utilizes structure (1) or (2) noted above, the accounts will be referred to throughout this document as, respectively, the "NOW sub-account" and the "MMDA sub-account" and collectively the "sub-accounts," and Program Deposits at the Program Bank will be held in the sub-accounts. Interest will accrue on the combined balance of both sub-accounts at the same rate. The Program Administrator will allocate your Program Deposit (and those of each other Fidelity customer that participates in the Program) between the NOW sub-account and the MMDA sub-account on a daily basis. You will not have an individual NOW sub-account or MMDA sub-account at the Program Bank but, rather, your Program Deposit will be aggregated with the Program Deposits of other Fidelity customers that participate in the Program. For ease of

reference, however, the portion of your Program Deposit that is allocated to the NOW sub-account is referred to as "your" NOW sub-account and the portion of your Program Deposit that is allocated to the MMDA sub-account is referred to as "your" MMDA sub-account. The aggregated sub-accounts at a Program Bank are referred to as the "omnibus NOW sub-account" and the "omnibus MMDA sub-account." This will allow tracking and limitation of the number of withdrawals from your MMDA sub-account and, to the extent that Fidelity elects to limit such transfers from the omnibus MMDA sub-accounts that occur during any given statement cycle, will help ensure that the total number of either type of such withdrawals does not exceed the number permitted by law.

Under applicable Federal Reserve Board regulations, your NOW sub-account is considered to be like a "transaction account" from which an unlimited number of transfers of funds (i.e., withdrawals) may be made. While there is no limit on the number of withdrawals that may be made from your NOW sub-account, the only withdrawals that are permitted from your NOW sub-account under the Program are (1) transfers to your MMDA sub-account (to the extent funds in your NOW sub-account exceed any target balance that the Program Administrator and/or Program Bank may have established for that sub-account), and (2) transfers from the NOW sub-account back to your Fidelity Cash Management Account (to the extent needed to pay for transactions in that account, such as checks you write).

Conversely, under Federal Reserve Board regulations, your MMDA sub-account is considered to be like a "savings account" from which generally no more than six transfers of funds may be made per statement cycle. The only type of withdrawal that is permitted directly from your MMDA sub-account under the Program is a transfer to your NOW sub-account (to fund transfers from your NOW sub-account back to your Fidelity Cash Management Account or to maintain any target balance that the Program Administrator and/or Program Bank may have established for your NOW sub-account) and/or transfers of the remaining balance of your MMDA sub-account on the sixth transfer from the omnibus MMDA sub-account to the omnibus NOW sub-account at a Program Bank during any given monthly statement cycle as discussed below.

Your Program Deposit will always be credited to your NOW sub-account. However, to maximize the amount of funds that may be held in your MMDA sub-account, the Program Administrator and/or the Program Bank may from time to time establish a target balance for your NOW sub-account. The Program Administrator may change or vary target balances at any time and from time to time. To the extent funds in your NOW sub-account exceed any such target balance, the excess will be transferred to your MMDA sub-account unless the maximum number of transfers from your MMDA sub-account or the omnibus MMDA sub-account at a Program Bank for that monthly statement cycle have already occurred.

The target balance in your NOW sub-account may be initially set by the Program Administrator at 100%, which would result in all funds being placed and retained in your NOW sub-account until the Program Administrator changes the target balance, resulting in use of your MMDA sub-account, as described herein, at a later time.

Sweeps of the Program Deposit into your Fidelity Cash Management Account will be made from your NOW sub-account. If the amount to be swept exceeds the available balance in your NOW sub-account, funds from your MMDA sub-account will be transferred to your NOW sub-account (up to the full balance of available funds in your MMDA sub-account) to cover the shortfall (and to replenish any target balance that the Program Administrator and/or the Program Bank may have established for your NOW sub-account). No more than six of these transfers from your MMDA sub-account to your NOW sub-account are permitted per monthly statement cycle. If a sixth transfer is needed, it will be for the full balance of available funds in your MMDA sub-account (but not including accrued interest). In addition, Fidelity may elect to limit the number of transfers from the omnibus MMDA sub-account to the omnibus NOW sub-account at a Program Bank to six per monthly statement cycle. If this limitation is imposed and a sixth such transfer is needed, it will be for the full balance of available funds in the omnibus MMDA sub-account at that Program Bank, which would result in all funds in your MMDA sub-account at that Program Bank being transferred to your NOW sub-account and remaining there for the rest of that monthly statement cycle. In either case, at the beginning of the next monthly statement cycle, funds in your NOW sub-account that exceed any target balance that the Program Administrator and/or Program Bank may have established for your NOW sub-account will be transferred back to your MMDA sub-account.

Transfers between your NOW and MMDA sub-accounts of the Program Deposit Account are managed automatically. This process does not impact the interest rate earned on your Program Deposit and it does not affect the number of withdrawals you can make from your Fidelity Cash Management Account.

Interest

Each Program Bank that holds your Program Deposits will pay you the same rate of interest on funds in your NOW sub-account and your MMDA sub-account. The rate of interest paid by each Program Bank is variable and is tiered based in part on the value of your Eligible Assets. Fidelity determines the interest rates, tier levels, and Eligible Assets, all of which may change at any time in Fidelity's sole discretion and may be based on a number of factors, including general economic and business conditions. Customers with higher Eligible Assets generally will receive higher interest rates on their Program Deposits than customers with lower Eligible Assets. Interest on your Program Deposit will be paid by the Program Bank.

Over any given period, the interest rates on the Program Deposits may be lower than the rate of return on similar non-FDIC-insured investments or deposit accounts offered outside of the Program including deposit accounts held directly with a Program Bank. To compare current rates of return between your Program Deposit and similar, non-FDIC-insured cash balance options available at Fidelity, please visit Fidelity.com/FCMACoreRates.

Fidelity offers similar programs to account owners who maintain Other Accounts. While the same Program Banks may participate in the Program as well as the programs for these Other Accounts, the interest rate paid by a Program Bank in connection with the Program may be different from that paid by the same Program Bank in connection with similar programs offered to account owners who maintain Other Accounts with Fidelity.

Accounts and assets that qualify as Eligible Assets may be found on Fidelity's Web site at Fidelity.com/FCMA.

Please contact us at 800-544-6666 to find out more about how your Eligible Assets are determined and to ensure all eligible accounts are linked in your household.

Interest on your Program Deposit is accrued daily, compounded monthly, and is reflected on your Fidelity Cash Management Account monthly statement as of the last business day of the month. Interest on your Program Deposit begins to accrue on the business day those funds are received by the Program Bank, which will typically be the first business day (excluding bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday) after the day those funds are posted to your Fidelity Cash Management Account as reflected on your statement.

The current interest rate and Annual Percentage Yield (APY) on Program Deposits will vary over time and can change daily. Current rates and APYs can be found on our Web site, Fidelity.com, or by calling 800-544-6666.

The applicable interest rates, tier levels, and Eligible Assets may be changed from time to time without notice to you. Any change in these terms will be posted at Fidelity.com/FCMA. You agree to check for updates to these terms. You understand that by continuing to maintain your Fidelity Cash Management Account without objecting to any change in terms, you are accepting any new terms and you will be legally bound by all new terms and conditions. If required by applicable law, we will provide you with prior notice of changes to these terms.

Relationship Between Fidelity, the Program Administrator, and the Program Banks

Under the Program, FBS serves as your broker, maintains your Fidelity Cash Management Account, and provides certain services to you in connection therewith. NFS acts as your agent in establishing an interest-bearing omnibus Program Deposit Account at a Program Bank, sweeping the Cash Balance in your Fidelity Cash Management Account into the Program Deposit Account, and sweeping funds from your Program Deposit back into your Fidelity Cash Management Account. The Program Administrator provides certain recordkeeping, technology, and consulting services to Fidelity and the Program Banks with respect to the allocation of funds between your NOW and MMDA sub-accounts as referenced in the "Deposit Accounts" section of this Disclosure Statement. NFS will provide you a 1099 INT for interest earned on your Program Deposit at year-end.

Fidelity may be a customer of the Program Administrator or Program Bank and may have other financial interactions with the Program Administrator or other Program Banks. Fidelity may in the future designate one of its affiliates as the Program Administrator or a Program Bank or both.

Fees paid to Fidelity and the Program Administrator in connection with administering the Program are described below in the section entitled "Benefits to Fidelity and Others."

Benefits to Fidelity and Others

Fidelity receives a fee from each Program Bank in connection with the Program that is typically based on the average aggregate daily Program Deposits held by such Program Bank. The fee paid to Fidelity may vary from Program Bank to Program Bank and will generally increase as the aggregate amount on deposit with the Program Bank increases. Fidelity offers similar programs to account owners who maintain Other Accounts. The same Program Banks may participate in the Program as well as the programs for these Other Accounts and the fee paid to Fidelity by the same Program Bank in connection with this Program may be different from that paid in connection with similar programs for Other Accounts.

The fee paid to Fidelity by each Program Bank may vary over time and may range up to an annualized rate equivalent to 4% of the balance of all Program Deposits at that Program Bank. Fidelity may from time to time reduce or waive all or a portion of the fee the Program Bank is otherwise obligated to pay. You will receive notification of any increase in the fee above 4.0%.

The fee paid to Fidelity by each Program Bank, which is a function of the "Rate" (as described below) and the interest rate (as described above), is established by Fidelity in accordance with Fidelity's agreement with each Program Bank. The fee is calculated by multiplying the Program Deposits (or, in some cases, all or a portion of the Program Deposits held in each of the MMDA and NOW sub-accounts) at a Program Bank by that Bank's "Rate" and then subtracting total interest paid by the Program Bank to accounts with Program Deposits at that Program Bank. The "Interest Rates" section above describes how the interest rate is determined as well as how the interest paid to each customer is calculated. The total interest paid by the Program Bank will depend in part on the number of accounts with Program Deposits at that Program Bank as well as the level of Program Deposit balances at the Program Bank. The Rate is determined by Fidelity's contract with each Program Bank, and will vary depending on the identity of the Program Bank, but will generally be tied to the London Interbank Offered Rate (LIBOR), the Federal Funds Effective Rate (FFE), or Federal Funds Target Rate (FFT). Depending on the Program Bank, the Rate may be tiered based upon the level of Program Deposits and may span a spectrum of up to 0.75% above or below LIBOR, FFE, or FFT.

The Program Administrator will receive a service fee from Fidelity, which ranges between 0.010% and 0.035% of the aggregate daily balance of all Program Deposits for services rendered in connection with the Program, including technology and accounting services and assistance in compliance with regulatory requirements. This fee may be negotiated periodically.

The Program Banks use Program Deposits to fund current and new lending and for investment activities. The Program Banks earn net income from the difference between the interest they pay on Program Deposits and the fees paid to Fidelity and the income they earn on loans, investments, and other assets. As noted above, the Program Banks may pay rates of interest on Program Deposits that are lower than prevailing market interest rates.

FDIC Insurance Coverage/SIPC Protection

Your Program Deposit, together with any non-Program deposits you may have at the same Program Bank, which include deposits arising in connection with similar programs offered to account owners who maintain Other Accounts with Fidelity, as well as savings and checking accounts, money market deposit accounts, and CDs issued directly to you by the Program Bank, are insured by the FDIC, an independent agency of the U.S. government, up to a standard maximum amount in accordance with the rules of the FDIC. The applicable FDIC insurance limit depends upon the ownership capacity in which you hold the Program Deposit, and the relevant limit will be applied to all deposits (including Program Deposits and non-Program deposits) held in the same ownership capacity by you at the same Program Bank. Deposits held in different ownership capacities, as provided in FDIC rules, are insured separately. Single ownership accounts are insured up to \$250,000 and each co-owner's share of joint accounts is insured up to \$250,000. For retirement accounts such as IRAs, the limit is typically \$250,000. HSAs, unless they possess special features, are considered to be held in the same right and capacity as other single ownership accounts of a depositor, and are combined with such other single ownership accounts, for the purpose of applying the \$250,000 maximum limit. Special rules apply to insurance of trust deposits. If you have both a Program Deposit and non-Program deposits at the same Program Bank held in the same right and legal capacity as your Program Deposit, you must aggregate all such deposits with your Program Deposit for purposes of determining FDIC coverage. If your total funds on deposit at a Program Bank exceed the applicable FDIC insurance limit, the FDIC will not insure your funds in excess of the limit.

For more information, please visit fdic.gov or call 877-ASK-FDIC (877-275-3342).

Program Deposits (principal and accrued interest) at each Program Bank are eligible for FDIC insurance up to the applicable limits. Fidelity is not responsible for monitoring the amount of your Program Deposit in any Program Bank to determine whether it exceeds the limit of available FDIC insurance. You are responsible for monitoring the total amount of your assets on deposit with each Program Bank (including amounts in other accounts at the Program Bank held in the same right and legal capacity) in order to determine the extent of deposit insurance coverage available to you on those deposits, including your Program Deposit. If you are a trustee, you are responsible for determining the application of the insurance rules for you and your beneficiaries. If you expect to have total deposits at any Program Bank (including your Program Deposit and non-Program deposits) that exceed FDIC insurance coverage limits, you should carefully consider whether you should arrange for other investment options for amounts in excess of such coverage, in order to reduce your investment risk. Fidelity will not be responsible for any insured or uninsured portion of your Program Deposit. In the event that federal deposit insurance payments should become necessary, payments of FDIC-Insured principal plus unpaid and accrued interest will be made to you by the FDIC. There is no specific time period during which the FDIC must make insurance payments available to you and you may experience a significant delay in accessing your Program Deposits in the event that it becomes necessary for the FDIC to make such payments. You may be required to provide certain documentation to the FDIC and Fidelity before insurance payments are made.

Any securities held in your Account (as opposed to the Program Deposit) are investment products and as such: (i) are not insured by the FDIC; (ii) carry no bank or government guarantees; and (iii) have associated risks. By investing in securities you can lose your money, including the principal amount you invested. Securities held at Fidelity (as well as funds held at Fidelity and not at a Program Bank) are covered by SIPC. SIPC currently protects these funds and securities up to \$500,000, including \$250,000 for claims for cash. SIPC coverage does not cover fluctuations in the market value of your investments. Your Cash Balance is only eligible for FDIC insurance once it becomes a Program Deposit held by a Program Bank. Your Cash Balance while held by Fidelity and in transit to or from a Program Bank is not FDIC-insured but is covered by SIPC. For more information regarding FDIC insurance, please consult fdic.gov. For more information regarding SIPC coverage, or to request the SIPC brochure, please consult sipc.org or call 202-371-8300.

If Fidelity exercises its right to place your Cash Balance into a core position other than the FDIC-Insured Deposit Sweep, such as a money market mutual fund, a free credit balance position, or other available cash investment vehicle, your new core position would not be eligible for FDIC insurance, but may be protected by SIPC in accordance with applicable legal requirements and limitations.



Fidelity® Cash Management Account Fees

The Fidelity® Cash Management Account is 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® Cash Management Account.

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 (U.S.) 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).¹ For details on foreign stock trading, see the Foreign Stocks section.

In addition to the commission, there is an assessment charged on all sell orders. This assessment, which typically ranges from between \$0.01 to \$0.03 per \$1,000 of principal, is intended to cover what is sometimes referred to as a "regulatory fee" or "Section 31 Fee." Fidelity remits these fees to certain self-regulatory organizations and national securities exchanges, which in turn make payment to the SEC. These fees are intended to cover the costs incurred by the government, including the SEC, for supervising and regulating the securities markets and securities professionals. Because the fees may vary over time, and because these variations may not be immediately known to Fidelity, you acknowledge and agree that Fidelity shall have the right to determine the amount of such assessment in its sole and exclusive discretion, that the assessment may differ from or exceed the actual amount of the fee applicable to your transaction, and that Fidelity may retain any such excess for its benefit.

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 payer, source, and nature of any compensation received in connection with your particular transaction will vary based on the venue that a trade has been routed to for execution and will be disclosed upon written request to FBS. Please refer to Fidelity's customer agreement for additional information about order flow practices and to 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 has entered into a long-term, exclusive and significant arrangement with the advisor to the iShares Funds that includes but is not limited to FBS's promotion of iShares funds, as well as in some cases purchase of certain iShares funds at a reduced commission rate ("Marketing Program"). FBS receives compensation from the fund's advisor or its affiliates in connection with the 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. 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.

Short-term Trading Fees

Effective September 30, 2013, Fidelity will charge a short-term trading fee each time you sell iShares Funds purchased commission free that are sold within 30 days.

The short-term trading fee will be applied on a first-in, first-out basis, and will not apply to iShares Funds purchased through dividend reinvestment. The short-term trading fee is based on the following schedule:

• Online: \$7.95

• FAST®: \$12.95

Please note: Rep-Assisted trades for iShares Funds will be subject to the \$32.95 commission per trade, but will not be subject to the short-term trading fee.

Free commission offer applies to online purchases of Fidelity ETFs and select iShares ETFs in a Fidelity brokerage account, which may require a minimum opening balance of \$2,500. The sale of ETFs is subject to an activity assessment fee (of between \$0.01 and \$0.03 per \$1,000 principal). Fidelity ETFs and iShares ETFs are subject to a short-term trading fee by Fidelity if held less than 30 days.

NEW ISSUE

Fidelity makes certain new issue products available without a separate transaction fee. Fidelity may receive compensation for participating in the offering as a selling group member or underwriter. The compensation Fidelity receives from issuers 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.

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 may receive compensation from issuers for participating in the offering as a selling group member and/or underwriter. The compensation Fidelity receives from issuers 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.

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	• 0.01% to 2.5% of the investment amount	• 0.01% to 3.0% of the investment amount
Corporate Bond	• 0.01% to 2.5% of the investment amount	• 0.05% to 3.0% 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)	• 0.05% to 5.0% of the investment amount	N/A
Fixed-Rate Capital	2% of the invest- ment amount	3% of the invest- ment amount

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

¹A Financial Transaction Tax of 0.20% of principal per trade on purchases of French securities and 0.10% of principal per trade on purchases of Italian securities may be assessed.

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)	• 0.05% 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 **\$19.95**

All Other Bonds

Online \$1.00 per bond

Rep-Assisted \$1.00 per bond*

*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®.

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.

Foreign Fixed-Income Trading

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

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

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 certain 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, $^{\circ}$ your account provides access to over 5,700 mutual funds. At the time you purchase shares of funds, those shares will be assigned either a transaction fee (TF), a no transaction fee (NTF) or a load 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 affiliates, may receive compensation in connection with the purchase and/or the ongoing maintenance of positions in certain mutual funds in your account. FBS may also receive compensation for such things as systems development necessary to establish a fund on its systems, a fund's attendance at events for FBS's clients and/or representatives, and opportunities for the fund to promote its products and services. This compensation may take the form of sales loads and 12b-1 fees described in the prospectus, as well as program participation and maintenance fees, and infrastructure support paid by the fund, its investment advisor, or an affiliate.

FundsNetwork No Transaction Fee Funds.

All Methods No transaction fee* Most NTF Funds will have no load. Certain NTF Funds will be available load waived. Short-term Trading Fees

Fidelity charges a short-term trading fee each time you sell or exchange shares of a FundsNetwork NTF fund held less than 60 days. This fee does not apply to Fidelity funds, money market funds, FundsNetwork Transaction Fee funds, FundsNetwork load funds, funds redeemed through the Personal

Withdrawal Service, or shares purchased through dividend reinvestment. In addition, 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 \$49.95 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

Keep in mind that the short-term trading fee charged by Fidelity on FundsNetwork NTF funds is different and separate from a short-term redemption fee assessed by the fund itself. Not all funds have short-term redemption fees, so please review the fund's prospectus to learn more about a potential short-term redemption fee charged by a particular fund.

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

FundsNetwork Transaction-Fee Funds

Purchases

Online: **\$49.95** or **\$75** per purchase. To identify any applicable transaction fees associated with the purchase of a given fund, please refer to the "Fees and Distributions" tab on the individual fund page on Fidelity.com.

FAST®: **0.5625% of principal per purchase;** minimum \$75,

Rep-Assisted: **0.75% of principal per purchase;** 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

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. Depending on the service, different commissions, taxes and fees may apply as more fully described below. You can also call a Fidelity representative for further detail.

International Trading

International Trading allows customers to trade stocks from 25 countries and exchange between 16 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. The commission and additional charges that may apply for International Trading will vary as noted below, depending on the market and whether the trade is placed online or through a representative. Please also note that if a security trading on an exchange in one of the markets noted below is only listed for trading in a currency other than that country's local market's currency, then the commissions and fees that will be charged will be based on the currency the security is trading in instead of the local market's currency. The list of countries, currencies, taxes and fees provided below is subject to change without notice.

Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain

Online 19 EUR per trade

Rep-Assisted **€0 EUR per trade**

Note: There may be additional fees or taxes imposed on transactions in certain securities including: Financial Transaction Tax: 0.20% of principal per trade on purchases of French securities and 0.10% of principal per trade on purchases of Italian securities.

Stamp Tax 1.00% of principal per trade on purchases of Irish securities.

Australia

Online **\$32 AUD per trade**Rep-Assisted **\$70 AUD per trade**

Canada

Online **\$19 CAD per trade**Rep-Assisted **\$70 CAD per trade**

Denmark

Online **160 DKK per trade**Rep-Assisted **420 DKK per trade**

Hong Kong

Online **HK\$250 HKD per trade** Rep-Assisted **HK\$600 HKD per trade**

Note: Additional fees or taxes imposed on transactions in Hong Kong securities include:

Transaction Levy **0.003% of principal** per trade Trading Fee **0.005% of principal** per trade Stamp Duty **0.10% of principal** per trade

Japan

Online **¥3,000 JPY per trade**Rep-Assisted **¥8,000 JPY per trade**

Mexico

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

New Zealand

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

Norway

Online **kr160 NOK per trade** Rep-Assisted **kr400 NOK per trade**

Poland

Online **90 PLN per trade** Rep-Assisted **235 PLN per trade**

S. Africa

Online **225 ZAR per trade**Rep-Assisted **600 ZAR per trade**

Note: Additional fees or taxes imposed on transactions in S. African securities include:

Securities Transfer Tax: 0.25% of principal on purchases

Singapore

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

Note: Additional fees or taxes imposed on transactions in Singapore securities include:

Clearing fee 0.04% of principal per trade

Sweden

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

Switzerland

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

United Kingdom

Online **£9 GBP per trade**

Rep-Assisted ${f f30}$ GBP per trade

Note: Additional fees or taxes imposed on transactions in UK securities include: PTM Levy £1 GBP per trade where principal amount is >£10,000 GBP Stamp Duty 0.50% of principal only on purchases

There may also be further fees, taxes, or other charges assessed when conducting transactions in foreign securities beyond those described here. Details regarding these charges are available from a Fidelity representative. These fees, taxes, and charges, if any, will be disclosed on your trade confirmation (either individually or in the aggregate) and/or may be incorporated into the execution price.

Foreign Currency Exchange

In addition to the commissions, taxes, fees, and other charges noted above, a currency exchange fee (in the form of a markup or markdown **on the exchange rate**) will be charged based on the size of the currency conversion, pursuant to the following schedule:

 <\$100K</td>
 1.0% of principal

 \$100K-<\$250K</td>
 0.75% of principal

 \$250K-<\$500K</td>
 0.50% of principal

 \$500K-<\$1M</td>
 0.30% of principal

 \$1M+
 0-0.20% of principal

Foreign Ordinary Share Trading

Foreign Ordinary Share Trading allows customers to trade shares in foreign corporations on the over-the-counter (OTC) market using a five-character symbol ending in "F." Trades in foreign ordinary shares can be placed online or through a Fidelity representative. In either case, the domestic commission schedule for stocks/ETFs will apply. A \$50 fee will also be charged on each transaction in any foreign ordinary stock that is not Depository Trust Company eligible. Depending on the security and the market, additional charges will apply, as described below. There may also be further fees, taxes, or other charges assessed when conducting transactions in foreign securities beyond those described here. Details regarding these charges are available from a Fidelity representative. These fees and taxes, if any, will be disclosed on the trade confirmation (either individually or in the aggregate) and/or may be incorporated into the execution price.

Canada

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. If the order is routed to a Canadian broker, a local broker's fee of \$0.0015 CAD per share if the price of the stock is less than or equal to \$0.10 CAD, \$0.0025 CAD per share if the price of the stock is greater than \$0.10 and less than \$1 CAD, and \$0.005 per share if the price of the stock is greater than or equal to \$1 CAD, and a foreign exchange fee of up to 0.01% of the principal may also be incorporated into the execution price.

All Other Countries

For every country other than Canada, shares will be traded on the over-the-counter market through a U.S. market maker, unless you direct otherwise when you place your trade through a representative. In that situation (that is, if you direct that the transaction occur other than on the over-the-counter market), an additional foreign exchange fee of up to 0.30% of principal per trade may be incorporated into the execution price.

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).

OTHER FEES AND COMPENSATION

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

Bank Wire \$10 per online transaction, \$15 per transaction via form or representative; 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

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 and ATM Fees There is no annual fee for the Fidelity® Visa® Gold Check Card. Your Fidelity Cash Management Account will automatically be reimbursed for ATM fees charged and itemized by other institutions when using the card at any ATM displaying the Visa®, Plus®, or Star® logos. The reimbursement will be credited to your Fidelity Cash Management Account the same day the ATM fee is debited from the account. In rare instances, ATM owners may not itemize fees, which may cause disruption of individual automatic rebates. Should this occur, please contact Fidelity. Note: There is a foreign transaction fee of 1% that is not waived or reimbursed, and will be included in the amount charged to your account.

The Fidelity® Visa® Gold Check Card is issued by PNC Bank, NA, and administered by BNY Mellon Investment Servicing Trust Company, which are not affiliated with Fidelity.

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

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 \$10 Available by overnight delivery to customer's address by calling a Representative, or in person at the Boston Congress St. Investor Center. Cashier's Checks, which are purchased with funds from a Fidelity account, are subject to a \$10 fee (waived for Gold-level accounts)³

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® Personalized Portfolios 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 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.

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.

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

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: Social Security number and employment information assets and income account balances and transaction history When you are no longer our customer, we continue to share your information as described in this notice.			
HOW?	All financial companies need to section below, we list the reason reasons Fidelity Investments and and whether you can limit this s	ns financial companied the Fidelity Funds (es can share their customers	o' personal information, the
	WE CAN SHARE RSONAL INFORMATION		DOES FIDELITY SHARE?	CAN YOU LIMIT THIS SHARING?
such as to	eryday business purposes— process your transactions, maintain y court orders and legal investigation aus		Yes	No
	arketing purposes — r products and services to you		Yes	No
For joint m	narketing with other financial comp	panies	No	We don't share
	filiates' everyday business purposen about your transactions and experie		Yes	No
	filiates' everyday business purposen about your creditworthiness	es—	No	We don't share
For nonaff	iliates to market to you		No	We don't share
Call 800-544-6666. If we serve you through an investment profession please contact them directly. Specific Internet addresses, mailing addresses, and telephone numbers are listed on your statements and other correspondence.		t addresses, mailing		

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 FIAM 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. We may share medical information about you to learn if you qualify for coverage, to process claims, to prevent fraud, or otherwise at your direction, as permitted by law. You are entitled to receive, upon written request, a record of any disclosures of your medical record information. Please refer to your statements and other correspondence for mailing addresses.

If you establish an account in connection with your employer, your employer may request and receive certain information relevant to the administration of employee accounts.

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 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.; FIAM 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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