



Advisor Master Account and Block Trading Suspense Client Agreement

Retain for your records.

In this agreement, "Fidelity" and "you" refer to Fidelity Brokerage Services LLC and National Financial Services LLC and their affiliates, and their employees, agents, representatives, shareholders, successors, and assigns as the context may require; "I," "we" and "account owner" refer to the owner indicated on the account form or duly Authorized agent(s)/Advisor(s); and for any account with more than one owner (such as a joint or trust account), "I," "we" and "account owner" or "account owners" refer to all owners, collectively and individually, or duly Authorized agent(s)/Advisor(s).

1. Important Aspects of the Account

Upon approval by Fidelity, I understand that Fidelity will maintain an account for me and buy, sell or exchange securities or other products in accordance with instructions from me or my Authorized Individual(s). Certain administrative services will be provided to me or my Authorized Individual(s) by Fidelity. I understand that this Brokerage Account Client Agreement governs my account and my relationship with Fidelity and its affiliates. Without limiting any other provision of this Agreement, I understand and agree that as among me, my Authorized Individual(s) and Fidelity:

- A. My Authorized agents(s)/Advisor(s) may be a state or federally regulated investment advisor, a state or federally regulated bank or trust company, or another entity that is exempt from registration as an investment advisor under the Investment Advisors Act of 1940.
- B. All decisions relating to my investment or trading activity shall be made solely by me or my Authorized Individual(s) identified on my Brokerage Account Application or my Brokerage Account Application for Business Registrations (collectively, Fidelity Brokerage Application) or subsequently in writing; my Authorized Individual(s) has collected from me such information as is required to determine the suitability of my investment or trading activity;
- C. Fidelity is authorized to accept and act upon the instruction of my Authorized Individual(s) with respect to my account in accordance with this Agreement until you receive written notice revoking such authority;
- D. I understand deposits by check shall be made payable to Fidelity Brokerage Services LLC. Deposits to fund a new account may be attached to my account application. Subsequent deposits should be mailed directly to Fidelity Investments. Overnight mail may be sent to: 100 Crosby Parkway, Mailzone KC1J, Covington, KY 41015. Regular mail may be sent to: P.O. Box 770002, Cincinnati, OH 45277-0075;
- E. Fidelity has no responsibility and will not undertake to review, monitor or supervise the suitability or frequency of the investment or trading activity in my account;
- F. I acknowledge that if I reside outside the United States I have received this application and agreement as a result of my express request for them. I further acknowledge that nothing herein is an offer or solicitation of any security, product or service in any jurisdiction where its offer or sale would be contrary to local law or regulation;
- G. I shall indemnify and hold harmless Fidelity and its officers, directors, employees, agents and affiliates from and against any and all losses, claims or financial obligations that may arise from any act or omission of my Authorized Individual(s) with respect to my account.

To help the government fight financial crimes, federal regulation requires Fidelity to obtain my name, date of birth, address, and a government-issued ID number before opening my account, and to verify the information. In certain circumstances, fidelity may obtain and verify comparable information for any person authorized to make transactions in an account. Also, federal regulation requires Fidelity to obtain and verify the beneficial owners and control persons of legal entity customers. Requiring the disclosure of key individuals who own or control a legal entity helps law enforcement investigate and prosecute crimes. My account may be restricted or

closed if Fidelity cannot obtain and verify this information. Fidelity will not be responsible for any losses or damages (including, but not limited to, lost opportunities) that may result if my account is restricted or closed. Any information I provide to Fidelity may be shared with third parties for the purpose of validating my identity and may be shared for other purposes in accordance with Fidelity's Privacy Policy. Any information I give to Fidelity may be subject to verification, and I authorize Fidelity to obtain a credit report about me at any time. Upon written request, I will be provided the name and address of the credit reporting agency used. Fidelity also may monitor or tape-record conversations with me in order to verify data about any transactions I request, and I consent to such monitoring or recording.

I hereby acknowledge Fidelity Brokerage Services LLC ("FBS") as my broker and National Financial Services LLC ("NFS," together with FBS, "Fidelity") as custodian of the securities held in the account opened with this application, of which I am the beneficial owner. I also understand that my account is carried by NFS and that all terms of this Agreement also apply between me and NFS.

Industry regulations require that FBS and its clearing firm, NFS, allocate between them certain functions regarding the administration of my 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 and approving my account;
- (3) Acceptance of orders and other instructions from me or my Authorized agent/Advisor regarding my account, and for promptly and accurately transmitting those orders and instructions to NFS;
- (4) Determining that those persons placing instructions for my account are authorized to do so. Neither NFS nor FBS will give me advice about my investments or evaluate the suitability of investments made by me, my Authorized agent/Advisor or any other party;
- (5) Operating and supervising my account and its own activities in compliance with applicable laws and regulations, including compliance with federal, industry and NFS margin rules pertaining to my margin account and for advising me of margin requirements;
- (6) Maintaining the required books and records for the services it performs;
- (7) Investigating and responding to any questions or complaints I have about my account(s), confirmations, my periodic statement or any other matter related to my 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 my account (unless FBS has undertaken to do so);
- (4) Acting as custodian for funds and securities received by NFS on my behalf;
- (5) Following the instructions of FBS with respect to transactions and the receipt and delivery of funds and securities for my account;
- (6) Extending margin credit for purchasing or carrying securities on margin;
- (7) Maintaining the required books and records for the services it performs. If I have so indicated on the application, I authorize and instruct Fidelity to accept such votes regarding proxies from my Authorized Individual(s) on my behalf. Fidelity does not promote day-trading strategies. I understand that trading in volatile markets can present increased challenges and risks, which may include:

- the risk of market orders being executed at unexpectedly high prices. If I have limited assets to pay for a transaction, such as in a retirement account with contribution restrictions, I will consider placing a limit order. If I cannot pay for a transaction, Fidelity may be required to liquidate account assets at my risk.
- delays in quotes, order execution and reporting. In volatile markets, transmission of quotes, orders and execution reports may be delayed, even for information that appears to be real time. Security prices can change dramatically during such delays.

- it may not be possible to cancel an order previously submitted, even if I have received a confirmation that you have received my cancellation order. As a result, I understand that I will be sure my prior order is actually cancelled before entering a replacement order.
- certain securities, such as IPOs trading in the secondary market and Internet and other technology-related stocks, are subject to particular volatility. I will consider managing market risk with limit orders.
- access to Fidelity or my account can be delayed by factors such as high telephone volume or systems capacity limitations. I may have alternative ways of reaching Fidelity such as the Web and telephone representatives in addition to the automated telephone system.
- the effect of using margin is amplified during periods of high price volatility. If I am a margin investor, I will periodically examine how the use of margin fits within my investment objectives, risk tolerance and financial resources.

For more complete information regarding this topic, contact Fidelity.

If there are more than two account owner(s), I will make a copy of the Joint Owner/Minor/Trustee Personal Information page and complete with the additional account owners' information. All account owner(s) must sign the application in the Signature section. In order to establish my account, Fidelity is required to request the information in the Authorized Individual section for all account owner(s). Failure to provide this information will restrict my account, including transfer of assets.

2. Business Accounts

If this account is a trust or business account, or this account is not owned by individual person(s), "I" also refers to all account owner(s), trustees, corporate officers, partners, club members, custodians, guardians, executors, and any other authorized person(s) who holds any position of ownership or fiduciary responsibility for this account.

For Corporate, LLC and Unincorporated Accounts, the Authorized Individuals are authorized to purchase, trade, sell, assign, transfer and/or deliver any and all stocks, bonds, options, or any other securities, listed or unlisted, in said account and to execute any and all instruments necessary, proper and desirable for the purpose, including executing any and all documentation necessary to establish cash, margin and/or option account(s), and to receive notices, confirmations, statements, and shareholder and other communications of every kind on behalf of the entity, and consent to the electronic delivery of such communications in accordance with terms of the Electronic Delivery Agreement, which is incorporated by reference herein; further that any past action in accordance herewith is hereby ratified and confirmed.

For Partnership Accounts, the Authorized Individuals jointly and severally agree that each shall have authority on behalf of the partnership to establish and maintain one or more accounts (including, but not limited to, margin accounts) to buy, sell, trade and otherwise deal in, through you as brokers, stocks, bonds, options and any other securities, listed or unlisted on margin or otherwise (including short sales); to receive on behalf of the partnership account demands, notices, confirmations, reports, statements of account, and communications of every kind; to receive on behalf of the partnership account money, securities and property of every kind, and to dispose of same; to make on behalf of the partnership account agreements relating to any of the foregoing matters and to terminate or modify same or waive any of the provisions thereof; and generally to deal with you on behalf of the partnership account as fully and completely as if he alone were interested in said account, all without notice to the other or others interested in said account.

3. For Corporate and LLC Accounts: Corporate and LLC Resolution and Authorization

Copy of certain resolutions (certified in the Business Information section of the Brokerage Account Application for Business Registrations) adopted by the Board of Directors whereby the establishment and maintenance of trading accounts have been authorized.

Resolved

First: That the individuals listed in the Personal Information section of the Brokerage Account Application for Business Registrations are, and each of them hereby is, authorized and empowered, for and on behalf of this entity (herein called the "Entity"), to establish and maintain one or more accounts (which may be margin accounts) with Fidelity Brokerage Services LLC and National Financial Services LLC (herein called the "Brokers") for the purpose of purchasing, investing in, or otherwise acquiring, selling (including short-sales), possessing, transferring, exchanging, or otherwise disposing of, or turning to account of, or

realizing upon, and generally dealing in and with any and all forms of securities including, but not by way of limitation, shares, stocks, bonds, debentures, notes, scrip, participation certificates, rights to subscribe, options, warrants, certificates of deposit, mortgages, evidences of indebtedness, commercial paper, certificates of indebtedness and certificates of interest of any and every kind and nature whatsoever, secured or unsecured, whether represented by trust, participating and/or other certificates or otherwise.

The fullest authority at all times with respect to any such commitment or with respect to any transaction deemed by any of the said officers and/or agents to be proper in connection therewith is hereby conferred, including authority (without limiting the generality of the foregoing) to give written or oral instructions to the Brokers with respect to said transactions; to borrow money and securities and to borrow such money and securities from or through the Brokers, and to secure repayment thereof with the property of the Entity; to bind and obligate the Entity to and for the carrying out of any contract, arrangement, or transaction, which shall be entered into by any such officer and/or agent for and on behalf of the Entity with or through the Brokers; to pay by checks and/or drafts drawn upon the funds of the Entity such sums as may be necessary in connection with any of the said accounts; to deliver securities and contracts to the Brokers; to deliver securities to/and deposit funds with the Brokers; to order the transfer or delivery of securities to any other person whatsoever, and/or to order the transfer of record of any securities, to any name selected by any of the said officers or agents; to affix the corporate seal to any documents or securities to any name selected by any of the said officers or agents; to affix the corporate seal to any documents or agreements, or otherwise; to endorse any securities and/or contracts in order to pass title thereto; to direct the sale or exercise of any rights with respect to any securities; to sign for the Entity all releases, powers of attorney, and/or other documents in connection with any such account, and to agree to any terms or conditions to control any such account; to direct the Brokers to surrender any securities to the proper agent or party for the purpose of effecting any exchange or conversion, or for the purpose of deposit with any protective or similar committee, or otherwise; to accept delivery of any securities; to appoint any other person or persons to do any and all things which any of the said officers and/or agents is hereby empowered to do, and generally to do and take all action necessary in connection with the account, or considered desirable by such officer and/or agent with respect thereto.

Second: That the Brokers may deal with any and all of the persons directly or indirectly, by the foregoing resolution empowered, as though they were dealing with the Entity directly.

Third: That the Secretary of the Corporation or a duly appointed authorized officer of an LLC be, and he or she hereby is, authorized, empowered and directed to certify, under the seal of the Corporation, or otherwise, to the Brokers:

- a true copy of these resolutions;
- specimen signatures of each and every person by these resolutions empowered;
- a certificate (which, if required by the Brokers, shall be supported by an opinion of the general counsel of the Corporation, or other counsel satisfactory to the Brokers) that the Entity is duly organized and existing, that its charter empowers it to transact the business by these resolutions defined, and that no limitation has been imposed upon such powers by the By-Laws or otherwise.

Fourth: That the Brokers may rely upon any certification given in accordance with these resolutions, as continuing fully effective, unless and until the Brokers shall receive due written notice of a change in or the rescission of the authority so evidenced, and the dispatch or receipt of any other form of notice shall not constitute a waiver of this provision, nor shall the fact that any person hereby empowered ceases to be an officer of the Entity or becomes an officer under some other title, in any way affect the powers hereby conferred. The failure to supply any specimen signature shall not invalidate any transaction if the transaction is in accordance with authority actually granted.

Fifth: That in the event of any change in the office or powers of persons hereby empowered, the Secretary shall certify such changes to the Brokers in writing to the manner herein above provided, which notification, when received, shall be adequate both to terminate the powers of the persons theretofore authorized, and to empower the persons thereby substituted.

Sixth: That the foregoing resolutions and the certificates actually furnished to the Brokers by the Secretary of the Corporation or duly appointed officer of an LLC pursuant thereto be, and they hereby are, made irrevocable until written notice of the revocation thereof shall have been received by the Brokers.

4. Applicable Laws, Rules, Regulations, and Policies

All transactions through Fidelity are subject to the constitution, rules, regulations, customs and usages of the exchange, market or clearinghouse where executed; to any applicable policies and/or procedures of Fidelity; and to any applicable federal or state laws, rules and regulations.

I also understand that all transactions and instructions related to my account are subject to Fidelity's policies and procedures which may result in Fidelity's refusal to accept or execute any order, instruction or transfer related to my account for any reason at any time in its sole discretion. Fidelity reserves the right to restrict my account from withdrawals and/or trades for any reason, including but not limited to if there is a reasonable suspicion of fraud, diminished capacity, or inappropriate activity. Fidelity also reserves the right to restrict my 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. If I am funding this account from another account, I am aware that if I select an in kind transfer, certain shares may not be transferable. Non transferable shares will be liquidated. I am responsible for confirming the eligibility of shares to be transferred prior to giving funding instructions and understanding any tax or other impact of shares that are liquidated.

I also understand that Fidelity's policy is to not accept orders or instructions via email. Solely at the discretion of Fidelity, and as an accommodation to me, subject to affirmative prior approval from Fidelity, Fidelity may allow me to transmit orders or instructions to Fidelity via Fidelity electronic communications system ("email"); provided, however, that I acknowledge and agree to the following when I elect to transmit electronic orders or instructions: (i) no such order or instruction shall be deemed received or accepted by Fidelity unless and until Fidelity has replied electronically via Fidelity electronic communications system or otherwise in writing affirming that the order or instruction has been received and accepted; (ii) Fidelity in its discretion may reject any email order or wire instruction; and (iii) I am solely responsible for the security and confidentiality of the email order or instruction when I transmit the order or instruction to Fidelity.

I am aware that various federal and state laws or regulations may be applicable to transactions in my account regarding the resale, transfer, delivery, or negotiation of securities, including the Securities Act of 1933 ("Securities Act"), the Securities Exchange Act of 1934, and Rules 144, 144A, 145, and 701 thereunder. I agree that it is my responsibility to notify you of the status of such securities and to ensure that any transaction I effect with you will be in conformity with such laws and regulations. I will notify you if I am or become an "affiliate" or "control person" within the meaning of the Securities Act with respect to any security held in my account. I will comply with such policies, procedures, and documentation requirements with respect to "restricted" and "control" securities (as such terms are contemplated under the Securities Act) as you may require. In order to induce you to accept orders with respect to securities in my account, I represent and agree that, unless I notify you otherwise, such securities or transactions therein are not subject to the laws and regulations regarding "restricted" and "control" securities. I understand that if I engage in transactions that are subject to any special conditions under applicable law, there may be a delay in the processing of the transaction pending fulfillment of such conditions. I acknowledge that if I am an employee or "affiliate" of the issuer of a security, any transaction in such security may be governed by the issuer's inside trading policy, and I agree to comply with such policy.

5. Electronic Delivery

I agree to conduct business with Fidelity and its affiliates electronically, which necessarily includes having my personal financial information transmitted electronically, and to electronic delivery of all documents (including my initial notice of our privacy policy) and communications related to this and all my other Fidelity accounts as detailed in the Electronic Delivery Agreement, which is incorporated herein by reference. I also agree to provide and maintain as current both my mobile number and email address to assist with account security and for

the delivery of transactional alerts and communications, and I consent to Fidelity's use of my email address and/or mobile number to message, call, or text me for these purposes. Message and data rates apply and frequency may vary. For help with texts, reply HELP. To opt out of texts, reply STOP. I acknowledge that I can update my contact information through my profile on *Fidelity.com*.

6. Data Security

I agree to keep secure my account number, and will not share any username and password I use in connection with my account with others, including but not limited to my Authorized agent/Advisor. I understand that electronic (including wired and wireless) communications may not be encrypted, I acknowledge that there is a risk that data, including email, electronic and wireless communications, and personal data, may be accessed by unauthorized third parties when communicated between me and Fidelity or between me and other parties. I also agree to protect Fidelity against losses arising from my usage of market data and other information provided by third parties.

7. Security Interest

Any credit balances, securities, assets or related contracts, and all other property in which I may have an interest held by Fidelity or carried for my accounts shall be subject to a general lien for the discharge of my obligations to Fidelity, and Fidelity may sell, transfer, or assign any such assets or property to satisfy a margin deficiency or other obligation whether or not Fidelity has made advances with regard to such property.

Shares of any investment company in which I have an interest and for which Fidelity Management & Research Company serves as investment advisor and which are custodied, recordkept, or otherwise administered by an affiliate of Fidelity or NFS, also are subject to a general lien for the discharge of my obligations to Fidelity and NFS, and Fidelity and NFS may redeem any such shares to satisfy my obligation without further notice or demand. However, no provision of this agreement concerning liens or security interests shall apply to any account to the extent such application would be in conflict with any provisions of ERISA or the Internal Revenue Code relating to retirement accounts.

8. Settlement of Transactions

In the absence of a specific demand, all transactions in any of my accounts are to be paid for, securities delivered or required margin deposited no later than 2 p.m. ET on the settlement date. Fidelity reserves the right to cancel or liquidate, at my risk, any transaction not timely settled. Margin calls are due on or before the date indicated regardless of the settlement date of any transaction.

9. Account Protection

Securities in accounts carried by NFS, a Fidelity Investments company, are protected in accordance with the Securities Investor Protection Corporation ("SIPC") up to \$500,000. For claims filed on or after July 22, 2010, the \$500,000 total amount of SIPC protection is inclusive of up to \$250,000 protection for claims for cash, subject to periodic adjustments for inflation in accordance with terms of the SIPC statute and approval by SIPC's Board of Directors. NFS also has arranged for coverage above these limits. Neither coverage protects against a decline in the market value of securities, nor does either coverage extend to certain securities that are considered ineligible for coverage. For more details on SIPC, or to request a SIPC brochure, visit sipc.org or call 202-371-8300.

10. Fidelity Equity Dividend Reinvestment Service Agreement

Upon my enrollment, I agree to the following terms and conditions governing the Fidelity Equity Dividend Reinvestment Service (the "Service") to be provided by Fidelity ("you" or "Fidelity") and its affiliate, National Financial Services LLC ("NFS"):

Provision of Fidelity Equity Dividend Reinvestment Service

My enrollment in the Service will be activated on the day I notify you by telephone, or within 24 hours after receipt of any written notification, that I wish to enroll an eligible security. Upon activation of my enrollment, I agree to be bound by this Fidelity Equity Dividend Reinvestment Service Agreement (this "Agreement") as well as any other agreements between us that apply to my brokerage account.

I may direct you to add the Service to either all eligible securities in my account or selected eligible individual securities. My enrollment authorizes you to automatically reinvest cash dividends and capital gain distributions paid on such eligible securities held in my account (collectively, "dividends") in additional shares of the same security.

To add or remove the Service with respect to securities in my account, I must notify you of my election on or before 9 p.m. ET on the dividend record date for such security. If the dividend record date falls on a non-business day, then I must notify you on or before 9 p.m. ET one business day prior to the dividend record date for such security. Dividends will be reinvested on any shares of all enrolled securities provided that I own such shares on both the dividend record date and the dividend payable date.

Dividend reinvestment does not assure profits on my investments and does not protect against loss in declining markets.

You reserve the right to terminate or amend the Service and this Agreement at any time, including instituting commissions or transaction fees. Prior to the effective date of any such amendments, you shall send prior written notice thereof to me.

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.

Eligible Accounts

The Service is available to Fidelity Brokerage customers who maintain cash, margin, or retirement brokerage accounts.

Eligible Securities

To be eligible for the Service, the enrolled security must be a closed-end fund or domestic common stock (including ADRs), which is margin eligible (as defined by NFS). In order for my enrollment to be in effect for a given security, my position in that security must be settled on or before the dividend record date. Foreign securities and short positions are not eligible for the Service. Eligible securities must be held in street name by NFS or at a securities depository on behalf of NFS.

If I attempt to enroll a security for which I have placed a buy limit order which has not been filled, my enrollment election will be held for five (5) consecutive business days, at which point I must notify Fidelity of my desire to re-enroll the security for another five (5) consecutive business days.

If I am holding a security in my account that is ineligible for enrollment, and the security subsequently becomes eligible, any existing account-level reinvestment instructions will take effect for that security.

Eligible Cash Distributions for Reinvestment

Most cash distributions from eligible securities selected for participation in the Service may be reinvested in additional shares of such securities, including cash dividends and capital gain distribution. Cash-in-lieu payments, late ex-dividend payments, and special dividend payments, however, may not be automatically reinvested. If I enroll a security in the Service, I must reinvest all of its eligible cash distributions.

I understand that I cannot partially reinvest cash distributions. I also understand that I cannot use any other funds in my brokerage account to make automatic reinvestment purchases.

Dividend Reinvestment Transactions in Eligible Securities

On the dividend payable date for each security participating in the Service, you will credit my account in the amount of the cash dividend to be paid (less any amounts required by law or agreement to be withheld or debited). Two (2) business days prior to the dividend payable date, you will combine cash distributions from my account with those from other customers requesting dividend reinvestment in the same security and use these funds to purchase securities for me and the other customers on a best efforts basis. You will credit to my account the number of shares equal to the amount of my funds to be reinvested in a particular security divided by the purchase price per share. If several purchase transactions are required in order to reinvest my and other customers' eligible cash distributions in a particular security, the purchase price per share will be the weighted average price per share for all such shares purchased. Under certain conditions a dividend may be put on hold by the issuing company. If a dividend is on hold on the payable date, reinvestment will not be performed. If a dividend is released from hold status after dividend payable date, dividend reinvestment will be performed on the day the dividend is actually paid.

If I liquidate shares of an enrolled security between the dividend record and the business day prior to the payable date, such shares will not participate in the Service, and I will receive the dividend as cash in my core account. If I liquidate shares of an enrolled security on dividend payable date, such shares will participate in the Service.

I will be entitled to receive proxy voting materials and voting rights for an enrolled security based on my proportionate shares. For mandatory reorganizations, I will receive cash in lieu of my partial shares. For voluntary reorganizations, instructions I give you will be applied to my whole shares and the partial shares will be liquidated at market price.

Partial Shares

Automatic reinvestment of my eligible cash distributions may give me interests in partial shares of securities, which you will calculate to three decimal places. I will be entitled to receive dividend payments proportionate to my partial share holdings. If my account is transferred, if a stock undergoes a reorganization, or if stock certificates are ordered out of an account, partial share positions, which cannot be transferred, reorganized, or issued in certificate form, will be liquidated at the closing price on the settlement date. The partial share liquidation transaction will be posted to my account on the day following the settlement date. I may not liquidate partial shares at my discretion. If I enter an order to sell my entire whole share position, any remaining partial share position will be liquidated at the execution price of the sell and will be posted to my account on the settlement day. No commission will be charged for the liquidation of the partial share position.

Confirmations and Periodic Statements

In lieu of separate immediate trade confirmation statements, all transactions made through the Service will be confirmed on my regular periodic brokerage account statement. I may obtain immediate information regarding a dividend reinvestment transaction on the day after the reinvestment date by calling my local Fidelity Investor Center or Fidelity's 24-hour toll-free number.

Continuing Effect of Authorization; Termination

I authorize you to purchase, for my account, shares of the securities I have selected for the Service. Authorizations under this section will remain in effect until I give you notice to the contrary on or before 9 p.m. ET on the dividend record date. If the dividend record date falls on a non-business day, then notice must be given on or before 9 p.m. ET at least one business day prior to the dividend record date. Such notice will not affect any obligations resulting from transactions initiated prior to your receipt of the notice. I may withdraw completely or selectively from the program. If I transfer my account within Fidelity, I must re-enroll my securities for reinvestment. Enrollment elections for securities that become ineligible for the Service will be canceled after 90 days of continuous ineligibility.

Optional Dividends

At times certain issuers that pay dividends may offer shareholders an opportunity to elect to receive stock or cash, or a combination of both. This is known as an "Optional Dividend." The issuer will assign a default if no instruction is received. For example, the default option could be cash, stock, or a combination of both. I have the opportunity up until the applicable deadline to make an election to receive the payment of my choice. I have been advised, if I do not make an election prior to the deadline, my account will be assigned a default election based on the dividend reinvestment program instructions I established with respect to my account. **This default election will be utilized in lieu of the issuer's default option being applied to my account.**

Depository Trust Company's (DTC) Dividend Reinvestment Program

For certain securities, dividend reinvestment may occur through DTC's Dividend Reinvestment Program. This plan may be utilized if an issuer offers reinvestment at a discount. Eligibility for a security to be enrolled in the DTC Dividend Reinvestment Program or the Fidelity dividend reinvestment program is determined by Fidelity and may change without notice. A dividend reinvestment transaction will post to my account when the shares are made available to Fidelity by DTC. Such transactions are generally posted within 15 days after pay date.

Note that dividend reinvestment does not ensure a profit on my investments and does not protect against loss in declining markets. If I sell my dividend-generating shares before the posting date, the dividend will not be reinvested.

11. Receipt of Communications

Communications may be sent to me at the U.S. postal or electronic mail address of record listed on my application or at such other address I may hereafter give Fidelity, and all communications so sent to me shall be deemed given to me personally, whether actually received or not. I should carefully review the transaction confirmations and periodic

statements and promptly notify Fidelity immediately of any errors in writing. Information contained on transaction confirmations and account statements is conclusive unless I promptly object in writing.

All account communications for the account being established with this application will be sent to the account level mailing address and be deemed to have been received by all account owner(s) at such address.

12. Monitoring My Account and Notifying Fidelity of Errors

As an account owner, I am responsible for monitoring my account. This includes making sure that I am receiving transaction confirmations, account statements, and any other expected communications. It also includes reviewing these documents to see that information about my account is accurate and contains nothing suspicious. In addition, confirmations and statements are legally presumed to be accurate unless I specifically tell Fidelity otherwise. If I have not received a communication I expected, I will contact Fidelity, then follow up with written confirmation. I agree to notify Fidelity immediately if:

- I placed an order electronically but did not receive a reference number for it (an electronic order is not considered received until Fidelity has issued an acknowledgment)
- I received confirmation of an order I did not place, or any similar conflicting report
- there is any other type of discrepancy or suspicious or unexplained occurrence relating to my account
- my password or access device is lost or stolen, or I believe someone has been using it without authorization
- I did not authorize a fee my Authorized agent/Advisor deducted from my Account for its services

If any of these conditions occurs and I fail to notify Fidelity immediately, neither Fidelity nor any other Fidelity affiliate will be liable for any consequences. If I do immediately notify Fidelity, Fidelity's liability is limited as described in this agreement. With any feature or service that is governed by a separate agreement (such as an options trading agreement), note that different policies concerning error resolution and liability may apply, as described in the separate agreement. If, through any error, I have received property that is not rightfully mine, I agree to notify Fidelity and to immediately return the property and any earnings it may have yielded. If Fidelity identifies an error in connection with property I have received from or through us or a Fidelity affiliate and determine it is not rightfully mine, I agree that Fidelity may take action to correct the error, which may include returning such property to the rightful owner.

13. Periodic Reports

I will receive a statement of all transactions quarterly, and monthly in the months where there is activity in my account. I am responsible for monitoring my account.

I acknowledge that Fidelity has no responsibility for the trading activity in the account or for monitoring the trading in my account, and that Fidelity's role is limited to carrying out my instructions relating to the trading activity and investments in my account.

I can revoke these instructions with written notice to you. The brokerage statement will detail: securities bought or sold in my securities account, whether on margin or on a fully paid basis; all purchases of merchandise, services and cash advances made with the check or debit card; redemption checks; margin loans and repayments and interest charges, if any; the number of fund shares that were purchased or redeemed for me; and electronic funds transfers and monthly fees assessed.

14. Extraordinary Events

Fidelity shall not be liable for loss caused directly or indirectly by government restrictions, exchange or market rulings, suspension of trading, war, strikes or other conditions beyond its control, including, but not limited to, extreme market volatility or trading volumes.

15. Choice of Marketplace

I understand and acknowledge that when securities can be traded in more than one marketplace, in the absence of specific instructions from me, Fidelity may use its discretion in selecting the market in which to enter my orders.

16. Payment for Order Flow

Fidelity transmits customer orders for execution to various exchanges or market centers based on a number of factors. Such factors include: size of order, trading characteristics of the security, favorable execution prices (including the opportunity for price improvement), access to reliable

market data, speed of execution, liquidity enhancement opportunities, availability of efficient automated transaction processing, and reduced execution costs through price concessions from the market centers. Certain of the market centers may execute orders at prices superior to the publicly quoted market in accordance with their rules or practices.

While a customer may specify that an order be directed to a particular market center for execution, the order-routing policies, taking into consideration all of the factors listed above, are designed to result in favorable transaction processing for customers. Fidelity will furnish payment for order flow and order routing policies to you on an annual basis.

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

Note: Orders placed through Fidelity's telephone, electronic, wireless or online trading systems cannot specify a particular market center for execution.

17. Purchase of Precious Metals

If I direct Fidelity to purchase precious metals for me, I understand:

- a) the Securities Investor Protection Corporation (SIPC) does not provide protection for precious metals, but if stored through Fidelity, they are insured by the depository at market value;
- b) precious metals are not marginable;
- c) precious metal investments can involve substantial risk due to rapid and abrupt price changes and, therefore, Fidelity cannot guarantee an advantageous purchase or liquidation price; and
- d) if I take delivery of my metals, I am subject to delivery charges and applicable sales and use taxes.

18. Callable Securities Lottery

When street name or bearer securities held for me are subject to a partial call or partial redemption by the issuer, Fidelity may or may not receive an allocation of called/redeemed securities by the issuer, transfer agent and/or depository. If Fidelity is allocated a portion of the called/redeemed securities, Fidelity utilizes an impartial lottery allocation system, in accordance with applicable rules, that randomly selects the securities within customer accounts that will be called/redeemed. Fidelity's allocations are not made on a pro rata basis and it is possible for me to receive a full or partial allocation, or no allocation. I 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. A more detailed description of the Lottery Process may be accessed by visiting Fidelity.com/callable-securities. You may also request a hard copy of the Lottery Process by writing to National Financial Services LLC, P.O. Box 770001, Cincinnati, OH 45277.

19. Fractional Share Trading

Fidelity's fractional share trading functionality allows me to buy and sell fractional share quantities and dollar amounts of certain securities ("Fractional Trading"). Fractional Trading presents unique risks and has certain limitations that I should understand before placing my first trade.

Trading

Orders to buy or sell may be entered using either a fractional share quantity (e.g., 2.525 shares) or a dollar value (e.g., \$250.00). Share quantities can be specified to three decimal places (.001). Dollar-value orders will be converted into share quantities for execution, again, to three decimal places. In all cases, when converting dollar-value orders into share quantities, the share quantities will be rounded down. For a variety of reasons, including but not limited to this conversion convention, the actual amount of an executed dollar-value trade may be different from the requested amount. The actual amount of an executed order to buy or sell a dollar value of a security may also be lower than the amount requested due to the deduction of certain commissions, fees (e.g., the Additional Assessment), or taxes. Commissions are calculated on a per order basis and/or based on the number of shares traded. Fractional shares will be treated as whole shares for the commission calculation and any applicable commission charges will apply. I can contact my Authorized agent/Advisor for more information on the commissions and fees that apply to my account. Orders received in good form by Fidelity Brokerage Services LLC (FBS) will be accepted and transmitted to National Financial Services

LLC (NFS) for execution. I may attempt to cancel an order, but there is no ability to request that an order be "cancelled and replaced" (i.e., I cannot modify an order once it has been submitted). Instead, I will need to cancel my order and then submit a new one. Fractional Trading supports market and limit orders only for fractional share quantities of a security that are good for that day's trading session, or in the case of an order entered outside of market hours, that are good until the close of the next trading session. Because of this, my ability to buy or sell a security using Fractional Trading may be more restricted than if I were to buy or sell traditional whole share quantities of the same security. In the event of a trading halt of a security, Fractional Trading of that security will also be halted, and my order will be held until trading resumes. However, my order is good only for that day's trading session, or in the case of an order entered outside of market hours, good until the close of the next trading session. If trading does not resume or my order is not executed by the close of that day's Fractional Trading window, it will be cancelled. I can generally trade exchange-listed National Market System ("NMS") stocks using the Fractional Trading functionality. However, certain NMS stocks may not be made available for Fractional Trading, and Fidelity reserves the right to modify the list of eligible NMS stocks at any time without notice to me. Any modification to the list of eligible NMS stocks available for Fractional Trading will not affect any fractional share interests previously acquired by me. Additionally, I may not be able to place trades through some of Fidelity's order entry platforms (e.g., Fractional Trading may be available via mobile device and on *Fidelity.com* but not through the live representative channel, or if I work with an investment adviser or Family Office, may not be available through those representatives or the platforms they use).

Trade Execution

FBS will act as my agent and NFS will act in either a principal or a mixed capacity (i.e., both as agent and principal) when executing my order. The whole share component of any order will be executed by NFS as agent at the price NFS receives in the market. The fractional share component of any order will be executed by NFS as principal against its principal account. When a fractional share interest is allocated to my account, NFS will maintain custody of the whole share in which I have the fractional interest. Any fractional share interest in the whole share not allocated to my account may be allocated to other customers or to NFS as principal. All orders with a fractional share component will be marked "Not Held," which gives Fidelity the time and price discretion to execute the order without being held to the security's current quote. In connection therewith, each time I submit an order to buy or sell a fractional share quantity or dollar amount of a particular security, I authorize NFS to "work the order." If I do not wish my order to be handled on a Not Held basis, I should not engage in Fractional Trading. In the case of a sale of the fractional component of any order, that sale will be executed at the then current National Best Bid or Offer ("NBBO"). I am aware that this price may be higher or lower than the price at the time I place my order. In the case of a purchase of the fractional component of any order, if NFS has sufficient principal inventory, that purchase will also be executed at the then current NBBO. However, if NFS does not have sufficient principal inventory, that purchase will be executed at the price received in the market. For orders placed prior to market open, Fidelity may wait for the primary exchange to open before commencing trading in a particular security. When trading as principal for its own account, NFS may make a profit or incur a loss on each trade. Additionally, NFS may be required to correct or adjust trades that (for a variety of reasons) have been executed in amounts that either exceed or fall short of the amounts requested. These trade corrections and adjustments could arise in connection with either or both of the agency and principal components of the executed orders. Regardless, these trade corrections and adjustments will be executed by NFS in a principal capacity, and when trading as principal for its own account, NFS may make a profit or incur a loss.

Shareholder Rights

Fractional share interests in an NMS security generally have different rights from full share interests of the same NMS security. I will read the following information carefully to understand my rights regarding my fractional share interests. Fractional share positions cannot be transferred or certificated. The Automated Customer Account Transfer System does not support fractional share positions. If I want to transfer my account or specific share positions to another broker, I must sell

my fractional positions and transfer the cash proceeds. I hereby direct NFS, and NFS hereby agrees, not to vote or take any discretionary or voluntary action with respect to any fractional share position. Furthermore, I acknowledge that I cannot vote or take any discretionary or voluntary action with respect to any fractional share position. Accordingly, while NFS may notify me of issuer meetings, NFS will not solicit proxies in connection with fractional share positions, and neither my Authorized agent/Advisor nor I can vote proxies for fractional share positions. Fractional shareholders will not be able to provide instruction in connection with voluntary corporate actions (e.g., tenders), except for optional dividends; and NFS will not vote proxies for any fractional shares it holds as principal and will not affirmatively participate in any voluntary corporate actions.

In the case of a dividend paid on, or a redemption of, an NMS security, the dividend or redemption proceeds will be passed along to me in proportion to my ownership interest, inclusive of fractional share interests. NFS will only support payments that are equal to or greater than \$0.01 per share. Amounts smaller than that, or nondivisible amounts (based on the .001 rounding convention described above), will be handled in accordance with the process described in the section titled "Undistributable Interests" below.

Holders of fractional share positions may participate in dividend reinvestment programs ("DRIPS") to the same extent as if they owned a full share (adjusted for their fractional share interest in the dividend). In the event that the amount is too small to be reinvested (based on the .001 rounding convention described above), but large enough to be distributed as cash (i.e., at least \$0.01), it will be paid to me. Smaller amounts will be handled in accordance with the process described in the section titled "Undistributable Interests" below.

For mandatory reorganizations, such as mergers and acquisitions, or other involuntary corporate actions, such as stock splits or stock dividends, typically NFS will distribute interests in proportion to my ownership interest, inclusive of fractional share interests. NFS will distribute interests in fractional amounts to three decimal places. Amounts smaller than that, or nondivisible amounts, will be handled in accordance with the process described in the section titled "Undistributable Interests" below. The foregoing notwithstanding, these situations are in all cases subject to the terms contained in the materials prepared by the issuer describing the corporate action, as well as NFS's applicable policies and procedures, which may result in a different outcome from what is described herein. Because of the unpredictable nature of corporate actions, there may be situations that arise that are not described previously. Generally, these situations will be handled in accordance with the concepts applicable to dividends and reorganizations. Interests will be divided and distributed where possible in proportion to my ownership interest, and anything that cannot be divided will be handled in accordance with the process described in the section titled "Undistributable Interests" below. The foregoing notwithstanding, these situations are in all cases subject to the terms contained in the materials prepared by the issuer describing the corporate action, as well as NFS's applicable policies and procedures, which may result in a different outcome from what is described above.

Undistributable Interests

NFS will only support payments that are equal to or greater than \$0.01 per share. Amounts smaller than that, or nondivisible amounts (based on the .001 rounding convention described above), will not be distributed. Instead, it is generally but not always the case that when the aggregate value to be distributed is less than or equal to \$1.00, it will be retained by NFS, and when it exceeds \$1.00, it will be escheated.

Tax Treatment

NFS and I agree to treat me as the owner of all fractional share interests allocated to my account, to file all tax returns in accordance with such treatment, and to take no action inconsistent with such treatment.

Additional Considerations

Fractional share positions may be illiquid. NFS does not guarantee that there will be a market for fractional share positions and makes no representations or warranties about its ability or willingness to continue to trade as principal in fractional share quantities. If my account is closed, my fractional shares may be liquidated and the proceeds distributed to me as cash. The fractional share component of certain orders may not be eligible for "Price Improvement." Also,

Price Improvement will operate differently, and in some situations less advantageously, in connection with Fractional Trading from the way it would if I were trading in whole share quantities. Additionally, because in certain situations Price Improvement on the fractional share component of an order will affect the execution price rather than the share quantity of an order, the effect of the improvement on a dollar-value order in those situations will be to increase or decrease the value of the order outside of what was requested. If my account has been approved for margin, notwithstanding the terms of the Customer Agreement, Fidelity will not lend (hypothesize) my fractional share positions. If I hold fractional share positions in my account (these positions come about for a variety of reasons, such as DRIPs or corporate actions), it has been Fidelity's practice to automatically sell these holdings when I place an order to sell my entire whole share position ("Auto-liquidate"). The first time I place an order to buy or sell a security using the Fractional Trading functionality, Fidelity will turn off the Auto-liquidate feature in my account so that going forward, those positions will be handled like any other fractional share position acquired using Fractional Trading (i.e., I will need to affirmatively sell those fractional share positions if I wish to sell my entire position in that security).

20. Modifications and Miscellaneous

I understand that no provision of this Agreement can be amended or waived except by Fidelity, with notice to me. I agree to the terms and conditions set forth in this Client Agreement as they are today and as they be amended in the future. If any provision of this Agreement becomes inconsistent with any present or future law or regulation of any entity having regulatory jurisdiction over it, that provision will be superseded or amended to conform with such law and regulation, but the remainder of this Agreement remains in full force and effect.

The failure of Fidelity at any time to require performance by me of any provision of these terms and conditions will not limit the right to require such performance at any time thereafter. Fidelity reserves the right, at its sole discretion and without prior notice, to restrict or limit any transaction or series of transactions in any investment company advised or managed by Fidelity or its affiliates that Fidelity determines may adversely affect the investment company or its shareholders. Any failure to provide accurate trading or allocation instruction, including options transactions, may result in losses in my account. I may not assign this or any related agreement without the prior written consent of Fidelity.

This Agreement and its enforcement shall be governed by the laws of the Commonwealth of Massachusetts; shall cover individually and collectively all accounts that I may open or reopen with Fidelity; and shall inure to the benefit of Fidelity's successors and assigns, whether by merger, consolidation or otherwise. Fidelity may transfer my account to its successors and assigns, and this agreement shall be binding upon my heirs, executors, administrators, successors and assigns.

21. Core Transaction Account

I understand and agree that my Fidelity Account includes a Core Transaction Account that holds assets awaiting further investment or withdrawal. I understand that the Core Transaction Account option for my account is FCASH unless my account is not eligible for FCASH or if my Authorized agent/Advisor has authorization from Fidelity for my account to have access to a different Core Transaction Account option. I understand that FCASH is an interest-bearing free credit balance, it has no separate fees, it is not a money market mutual fund or a bank deposit account and it is not covered by FDIC insurance. FCASH is a different from the Intra-day Free Credit Balance described in this Agreement. Fidelity may, but is not required to, pay interest on my FCASH balance. Any interest paid on my FCASH balance is taxable. Eligibility for Core Transaction Account options may depend on my account type or if my Authorized agent/Advisor has an arrangement with Fidelity to use a different Core Transaction Account option.

I understand that Fidelity may receive an economic benefit from my Core Transaction Account. If my Core Transaction Account is invested in FCASH, Fidelity and its affiliates earn interest when investing the funds overnight. If my Core Transaction Account is invested in a Fidelity money market fund, Fidelity and its affiliates earn management and other fees as described in the fund's prospectus. If my Core Transaction Account

option is a Bank Deposit Sweep Program FDIC-insured deposit account, Fidelity and its affiliates receive a fee and interest payments from the bank receiving deposits through the program. For more information, please refer to the FDIC-Insured Deposit Sweep Program Disclosure document. Current interest rate tiers and yields on Core Transaction Account options are posted on *Fidelity.com*.

In certain circumstances, Fidelity and/or my Authorized agent/Advisor may choose to limit the Core Transaction Account product options available to me. I understand that the Core Transaction Account option for my account is FCASH and if I select a core transaction option on my account application that is not available to me, my Core Transaction Account will be established with FCASH. I understand that the Core Transaction Account option(s) available to me may compensate Fidelity more than other investment options and yield less to me. I understand that depending on a variety of factors, including but not limited to market conditions and the interest rate environment, certain Core Transaction Account product options may offer higher yields than others. I will consult with my Authorized agent/Advisor to determine if the Core Transaction Account product option(s) available to me through Fidelity are appropriate for me. I understand that I should compare the terms, interest rates, APY, rates of return, required minimum amounts, risks, insurance, charges and other features with other products and investment options before deciding to maintain balances in my Core Transaction Account. I understand that I and/or my Authorized agent/Advisor may take action to move cash from my Core Transaction Account into other investments, including other cash products or cash alternatives. Other products may pay a higher yield than is provided by the Core Transaction Account option available to me. I acknowledge, understand, and agree that the Core Transaction Account option(s) my Authorized agent(s)/Advisor(s) selects for me are appropriate based on my investor profile as such responsibility, obligations, and duty, falls solely with my Authorized agent(s)/Advisor(s).

I understand that the Core Transaction account is subject to prior payment by me, and on my behalf, of any outstanding margin loan balances or other debit items or authorized payments of securities account settlements. I authorize Fidelity to change my core transaction account option at its discretion with notice to me when required. I agree to indemnify and hold Fidelity harmless for any actions that might result from Fidelity changing my core transaction account option. My account statement details all activity in the Core Transaction Account. This is provided in lieu of a confirmation that might otherwise be provided by Fidelity with respect to those transactions. Any free credit balances in the securities account (i.e., any cash that may be transferred out of the securities account without giving rise to interest charges) automatically will be invested in my Core Transaction Account and be paid monthly. A variable rate of interest may be paid on free credit balances held overnight awaiting reinvestment (excluding any short credit balances) providing that accrued interest for any particular day equals or exceeds \$.0050. The variable rate of interest paid will be determined by the daily balance in the account. Fidelity reserves the right to increase or decrease the rate at any time without notice. I acknowledge that I have received the description of the Core Transaction Account and available options in the Account Application and Agreement, including Fidelity's right to change the options available to me, and consent to having free credit balances held or invested in the Core Transaction Account.

In the event I hold a money market mutual fund as my Core Transaction Account that is subject to a liquidity fee (as described in more detail in the fund's prospectus), upon notice to Fidelity by the fund that a liquidity fee has been imposed, Fidelity will remove the impacted fund from my Core Transaction Account and I will hold that fund as a non-core position in my account. Any future core transaction sweeps to the impacted money market mutual fund will cease and amounts in my account awaiting reinvestment will be held in a free credit balance as described in this agreement. The cash available and running collected balance in my account will be reduced by the amount of the value of the impacted money market mutual fund. Payment of debit items from my account will continue to be paid as described in this agreement, but Fidelity will only pay items from a money market fund that has imposed a liquidity fee as part of that payment process after the other sources are attempted. Fidelity and/or my Authorized agent/Advisor will help facilitate the selection of a different Core Transaction Account.

Government Money Market Funds

I understand I could lose money by investing in a money market fund. Although the fund seeks to preserve the value of my investment at \$1.00 per share, it cannot guarantee it will do so. An investment in the fund is not a bank account and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. The fund's sponsor is not required to reimburse the fund for losses, and I should not expect that the sponsor will provide financial support to the fund at any time, including during periods of market stress.

Fidelity's government and U.S. Treasury money market funds will not impose a fee upon the sale of my shares.

I understand and agree that Fidelity may change my core account selection with notice to me when required. I may make a different core account selection from available options. I can contact my Authorized agent/Advisor or Fidelity to change my core account option.

Fidelity may change the interest rates and annual percentage yields (APY) for the money market mutual fund options available for the Core Transaction Account without prior notice to me. Fidelity will notify me of changes to the terms and conditions of products available through the Core Transaction Account. The notice will describe the new terms, conditions or products. I may ask Fidelity to remit my available cash balances to me, or place them in another core account option for which I am eligible.

If my account is eligible (as defined in the Bank Deposit Sweep Program (BDSP) Disclosure documents), and a BDSP is available, a BDSP may be selected as the Core Position in my Account. If elected by me or my Authorized agent/Advisor at any time, the cash balance in my core account will be swept to an FDIC insurance-eligible interest-bearing account at a Bank(s), subject to applicable FDIC insurance coverage limits. Cash balances held at each Bank will be eligible for FDIC insurance up to \$250,000 (principal plus accrued interest) per depositor in each insurable capacity (i.e., individual, joint, etc.) per Bank, in accordance with applicable FDIC rules. All deposits (for example, deposits you may make at the Bank outside of the Bank Deposit Sweep Program plus the Bank Deposit Sweep Program cash balance) held by an individual in the same right and legal capacity and at the same Bank are insured up to \$250,000 as described above. Joint accounts owned by two individuals are insured up to \$250,000 as described above for each co-owner (again, in the aggregate for all joint account Bank Deposit Sweep Program and non-Bank Deposit Sweep Program joint account balances) at each Bank. Special rules apply to insurance of trust deposits. The amount of FDIC coverage will be limited by the number of Banks in the Bank Deposit Sweep Program, the number of Banks in which your money is deposited, and other factors as more fully described in the Bank Deposit Sweep Program Disclosure Documents. All FDIC insurance coverage is in accordance with FDIC rules. I understand my account must continue to remain eligible for the BDSP as defined in the BDSP Disclosure documents. Beginning on or around June 30, 2022, Cash Balances that cannot be placed at a Program Bank due to capacity limits, shall be swept to a Money Market Overflow as described herein. In the event that I have funds swept to a Money Market Overflow, it will have a material impact on my insurance coverage, how interest is calculated, and how funds are placed and withdrawn.

If at any time a Bank Deposit Sweep Program is not available for investment, including the Money Market Overflow, I understand the core account option will be the then-current default option for that applicable account type until such time as I or my Authorized agent/Advisor elect otherwise.

Bank(s) in a Bank Deposit Sweep Program are eligible to receive some or all of my cash balances as more fully described within the BDSP Disclosure Documents. Once deposited at a Bank(s), my cash balance is eligible for FDIC insurance subject to applicable FDIC insurance coverage limits. Note that the Bank Lists may be different for each Bank Deposit Sweep Program and for each account I own, and may change from time to time. I may contact my Authorized agent/Advisor or Fidelity at any time to request a copy of the BDSP Disclosure Documents or a Bank List, to obtain the current balances I may have in a Bank, or to opt out of a Bank in my list. I may not be able to opt out of all of the Banks in the program.

Cash balances held on my behalf at a Bank(s) earn a rate of interest that will vary over time and can change without prior notice to me. For more information about interest rates I can refer to the BDSP Disclosure Documents. For current interest rates and information about comparable investment options, I can contact my Authorized agent/Advisor or visit [Fidelity.com](https://www.fidelity.com).

IMPORTANT: In the event that my total assets at a Bank (including assets held in multiple accounts at Fidelity Brokerage Services or assets that I hold with a Bank(s) outside of the BDSP) exceed the FDIC insurance limits, my assets in excess of FDIC limits are not covered by SIPC or insured by FDIC.

A Bank Deposit Sweep Program is not a security and therefore not SIPC insured. Funds received into an account are immediately covered by SIPC (up to applicable SIPC coverage limits) but once my cash balance is deposited at a Bank(s), it is no longer covered by SIPC (subject to applicable SIPC rules). The deposit is eligible for FDIC insurance subject to FDIC insurance coverage limits and in accordance with FDIC rules. All of the account holder's assets at a Bank, including assets outside the BDSP, will generally be counted toward the FDIC aggregate limit. In accordance with the BDSP Disclosure Documents, customers are responsible for monitoring their total assets at a Bank to determine the extent of available FDIC insurance.

I understand that I am responsible for monitoring my total assets at a Bank(s) including assets held in multiple accounts at Fidelity or assets that I hold with Banks outside of a Bank Deposit Sweep Program to determine the extent of available FDIC insurance. Information regarding deposits at Banks can be found on account statements. All FDIC insurance coverage is in accordance with FDIC rules. For additional information see the Bank Deposit Sweep Program Disclosure Documents or the Bank Deposit Direct Investment Disclosure Document.

Amounts in excess of FDIC limits in any Bank, assets held in multiple accounts at Fidelity Brokerage Services or assets that I hold with Banks outside of a Bank Deposit Sweep Program or a Bank Deposit Direct Investment exceed the FDIC insurance limits, my assets in excess of FDIC limits are not covered by SIPC or insured by FDIC. For more information about FDIC insurance coverage, visit the FDIC website at [FDIC.gov](https://www.fdic.gov) or call 877-ASK-FDIC.

Money Market Overflow Component of the BDSP

Certain events will result in the sweeping of Cash Balances into a money market mutual fund instead of Program Banks—this feature is called the Money Market Mutual Fund Overflow ("MMKT Overflow"). The events for sweeping of funds into the MMKT Overflow may include: if the Program does not have sufficient deposit capacity to accept deposits, or a Program Bank(s) reduces the deposit capacity available to the Program, any Cash Balances that cannot be placed at a bank(s) will then be swept into the MMKT Overflow. The enhanced sweep process between my Account, the Program Deposit Account, and the MMKT Overflow is referred to together as the "Program" and may also be included in the definition of my "Core Transaction Account." The Fidelity Government Money Market: "S" Class fund is the money market mutual fund that will be utilized for the MMKT Overflow (the "MMKT Overflow Fund"). Balances will sweep into the Program Banks as described herein. If, however, the Program Banks are unwilling or unable to accept funds, these funds will be swept to the "MMKT Overflow" rather than the Program Bank(s).

My Program Deposit is also automatically "swept out of" a Program Deposit Account as necessary to satisfy debits in my Account. However, in the event I have Cash Balances in the MMKT Overflow, the Cash Balances will first be debited from the MMKT Overflow Fund, then from Program Banks.

Debits in my Account associated with certain actual or anticipated transactions to generate a debit in my Account during the business day will first be settled using proceeds from the redemption of any shares of the MMKT Overflow Fund first, then withdrawal of Program Deposits that are swept out on such business day. Other debits will be settled using proceeds from redemption of any shares of the MMKT Overflow Fund first, then the withdrawal of Program Deposits that are swept out on the next business day.

In the event that additional capacity becomes available at the Program Banks, any Cash balances in the MMKT Overflow Fund will remain and will not automatically be transferred or rebalanced into newly open and/or available Program Banks. Other than being used to satisfy debits or withdrawals in the account, funds will remain in the MMKT Overflow.

In the event there is a Cash Balance held in the MMKT Overflow, the rate of return for a money market fund is typically shown for a seven-day period. It is typically expressed as an annual percentage rate. It is referred to as the "7-day yield" and may change at any time based on the performance of the investments held by the money market fund. The effective yield on a money market fund reflects the effect of compounding of interest over a one-year period.

In general, a money market mutual fund earns interest, dividends, and other income from its investments, and distributes this income (less expenses) to shareholders as dividends. Each fund may also realize capital gains from its investments, and distributes these gains (less losses), if any, to shareholders as capital gain distributions.

Distributions from a money market fund consist primarily of dividends. A money market fund normally declares dividends daily and pays them monthly. Funds held in the MMKT Overflow begin earning the dividend accruals on the day they are received by the MMKT Overflow Fund and stop accruing dividends on the day they are withdrawn. For additional information on returns of the MMKT Overflow Fund, see the fund's prospectus. The statement for my Account will indicate the balance in my core account including my Program Deposit balance at each Program Bank and MMKT Overflow (if applicable) as of the last business day of each monthly statement period.

If funds are swept from a Program Deposit Account into the MMKT Overflow, such funds will no longer be eligible for FDIC insurance but will be subject to SIPC protection, up to certain limits as further described above. More details about the MMKT Overflow Fund can be found in the MMKT Overflow Fund's prospectus, which will be made available to me when applicable. From time to time, and as part of the management of the Program, if additional deposit capacity becomes available, Fidelity may periodically sweep funds out of the MMKT Overflow. I will be notified in advance of any MMKT Overflow Fund Rebalance Event. Notice will be provided to me in writing. In addition, the notice will inform me of approximately when such Rebalance Event will be implemented. Continued use of my Account and/or the Program after notice of a Rebalance Event will constitute my consent to such an event and the changes described therein.

The MMKT Overflow Fund is a money market mutual fund offered by Fidelity Management and Research Company ("FMR Co."). FMR Co. will receive management and other fees for assets held in the MMKT Overflow Fund, as more fully described in the fund's prospectus. I will review the BDSP Disclosure Document for more details.

Core Options for Non-U.S. Customers

If Fidelity determines that I am a non-U.S. customer at any point in time after I open this account (e.g., as a result of a subsequent change of address) and I use a core transaction option that is not available to non-U.S. customers, my core account will not operate as described above, but will be subject to the terms and conditions as described below.

If I have an existing account that utilizes any option for my core option other than the Taxable Interest Bearing Option, FCASH, the process of sweeping the Intra-day Free Credit Balance to my core account will be suspended. I will be able to liquidate that position should I elect to do so, I will generally be unable to add to it for so long as Fidelity determines I am a non-U.S. customer, except for automatically reinvested dividends on money market fund positions and the deposit of accrued interest in the case of a bank sweep. As a result, uninvested cash in the Account will be held in the Intra-day Free Credit Balance. I also may be unable to make any change to my core option election, except that I may change my election to the Taxable Interest Bearing Option, if that option is available to me. Should I make that change, my core account will operate as if I had an existing account that utilizes the Taxable Interest Bearing Option.

In the event I hold an offshore fund as my Core Transaction Account that is subject to changes that impact Fidelity's ability to support that fund as the core option, upon notice to Fidelity by the fund that such a change has been imposed, Fidelity will remove the impacted fund from my Core

Transaction Account and I will hold that fund as a non-core position in my account. Any future core transaction sweeps to the impacted money market mutual fund will cease and amounts in my account awaiting reinvestment will be held in a fee credit balance as described in this agreement. The cash available and running collected balance in my account will be reduced by the amount of the value of the impacted money market mutual fund. Payment of debit items from my account will continue to be paid as described in this agreement, but Fidelity may only pay items from a money market fund that has imposed a liquidity fee as part of that payment process after the other sources are attempted. Fidelity and/or my Authorized agent/Advisor will help facilitate the selection of a different Core Transaction Account.

Should Fidelity determine I am no longer a non-U.S. customer, if my account was subject to a suspension, this suspension will be lifted, the Intra-day Free Credit Balance will be swept to my core account and held in the core option that I selected or defaulted into, and on a going-forward basis my account will operate as otherwise described herein.

Credits to My Account

During normal business hours ("Intra-day"), activity in my account such as deposits and the receipt of settlement proceeds are credited to my account and may be held as a free credit balance (the "Intra-day Free Credit Balance").

Activity in my account such as deposits and the receipt of settlement proceeds may also occur after the cut-offs described above, or on days the market is not open and the Fedwire Funds Service is not operating (collectively "After-hours"). Those amounts are credited to my account and may be held as a free credit balance (the "After-hours Free Credit Balance").

Like any free credit balance, the Intra-day and After-hours Free Credit Balances represent amounts payable to me on demand by Fidelity. Subject to applicable law, Fidelity may use these free credit balances in connection with its business. Fidelity may, but is not required to, pay me interest on free credit balances held in my account overnight; 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 free credit balances will be labeled "Credit Interest" in the Investment Activity section of my account statement. Interest is calculated on a periodic basis and credited to my 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 my average overnight 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.

If I Utilize a Fidelity Money Market Fund As My Core Position

If I utilize a Fidelity money market fund as my core position, the Intra-day Free Credit Balance, if any, generated by activity occurring prior to the market close each business day (or 4:00 PM ET on business days when the market is closed and the Fedwire Funds Service is operating) is automatically swept into my core account and invested in my core position at the market close.

There will be additional automatic sweeps into my core account early in the morning prior to the start of business on each business day that will also be invested in my core position at that time. These will include my After-hours Free Credit Balance along with credit amounts attributed to certain actual or anticipated transactions that would otherwise generate an Intra-day Free Credit Balance on such business day.

If I Utilize the BDSP As My Core Position

If I utilize the BDSP as my core position, the Intra-day Free Credit Balance, if any, as well as any After-hours Free Credit Balance generated by activity occurring prior to Fidelity's nightly processing cycle are automatically swept into my core account as part of that nightly cycle (the "Evening Bank Sweep") and reflected in my Account as Program Deposits in anticipation of the deposit process described below occurring on the next business day.

There will be an additional automatic sweep into my core account early in the morning prior to the start of business on each business day that will also be invested in my core position at that time (the "Morning Bank Sweep"). This will include credit amounts attributed to certain actual or anticipated transactions that would otherwise generate an Intra-day Free Credit Balance on such business day.

The total amount of the Evening Bank Sweep and the Morning Bank Sweep is referred to as my Cash Balance. In the morning of the business day of the Morning Bank Sweep, my Cash Balance will be deposited in an FDIC-insured interest-bearing account (a "Program Deposit Account") at one or more participating banks (each, a "Program Bank"). The amounts on deposit are collectively referred to as my Program Deposits, and Program Deposits are eligible for FDIC insurance. My Program Deposit will earn interest, provided that the accrued interest for a given day is at least one cent.

If I Utilize the Interest Bearing Option (FCASH) As my Core Position

If I utilize FCASH as my core position, the Intra-day Free Credit Balance, if any, as well as any After-hours Free Credit Balance generated by activity occurring prior to Fidelity's nightly processing cycle is automatically swept into my core account as part of that nightly cycle and held in the Interest Bearing option.

Each check or Automated Clearing House deposit (ACH) deposited is promptly credited to my account. However, the money may not be available to use until up to six business days later, and Fidelity may decline to honor any debit that is applied against the money before the deposited check or ACH has cleared. If a deposited check or ACH does not clear, the deposit will be removed from my account, and I am responsible for returning any interest I received on it. Note that Fidelity only can accept checks denominated in U.S. dollars and drawn on a U.S. bank account (including a U.S. branch of a foreign bank). In addition, if Fidelity has reason to believe that assets were incorrectly credited to your account, Fidelity may restrict such assets and/or return such assets to the account from which they were transferred.

Debits to My 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) will be given priority over other debits, such as checks or debit card transactions.

As an account owner, I am responsible for satisfying all debits in my 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 Fidelity incurs collecting the debit. I am responsible for ensuring that checks issued to me representing distributions from my account are promptly presented for payment. If a check issued to me from my account remains uncashed and outstanding for at least six months, I authorize and instruct Fidelity, in its sole discretion, to cancel the check and return the underlying proceeds to me by depositing the proceeds into my account.

I agree that the Core Transaction Account shall be automatically redeemed to satisfy debit balances in the securities account, check usage, electronic funds transfers, over-drafts and other authorized debit items.

If I so elect, and upon my instructions, monies representing the redemption of Core Transaction Account shares may be transferred to a bank account designated by me. Such monies shall be submitted, at Fidelity's election, via the Federal Reserve wire system or an automated clearinghouse system.

I hereby ratify any instructions given on this account and any account of another Fidelity fund into or from which I exchange and agree that neither you nor the fund's transfer agent will be liable for any loss, cost or expense for acting upon such instructions (by telephone or writing) believed by you or them to be genuine and in accordance with the procedures described in the fund prospectus. I understand that it is my responsibility to read the prospectus of any other Fidelity or non-Fidelity fund into which I purchase or exchange.

I understand certain fees may be applicable for services, that you may change the amount of the fees, and that the Core Transaction Account will assume various charges in connection with the account.

Fidelity Management & Research Company will receive a fee for serving as investment advisor to the Fidelity Funds. I further understand that for any special services that are not part of your regular account and that are requested by me or my Authorized agent(s)/Advisor(s) and performed by you, I will pay your customer service charges. If I select a money market fund, it is a request for a prospectus which will be sent to me or will be available on *Fidelity.com*. Making the first investment into that fund is my acknowledgment that I have received and read a prospectus for that fund.

22. Payment of Items

If I Utilize a Fidelity Money Market Fund As My Core Position

If I utilize a Fidelity money market fund as my core position and there are debits in my account generated by account activity occurring prior to the market close each business day (or 4:00 PM ET on business days when the market is closed and the Fedwire Funds Service is operating) these debits will be settled at the market close using the following sources, in this order, subject to the qualifications below:

1. Free Credit Balance: any Intra-Day Free Credit Balances,
2. Core Position: redemption proceeds from the sale of my core position at the market close,
3. Auto-Liquidation: redemption proceeds from the sale of any shares of a Fidelity money market mutual fund held in the account that maintains a stable (i.e., \$1.00/share) net asset value and is not subject to a liquidity fee or similar fee or assessment,
4. Margin Surplus: if I have a margin account, any margin surplus available, which will increase my margin balance.

There will be additional sweeps early in the morning prior to the start of business on each business day, and certain unsettled debits in my account along with debits associated with certain actual or anticipated transactions that would otherwise generate a debit in your account during the business day will be settled using redemption proceeds from the sale my core position early in the morning prior to the start of business.

I understand and agree that Fidelity may, in its sole discretion, exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options. Further, I authorize my Authorized agent/Advisor to request Fidelity to exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options; however, such a request must be agreed to by Fidelity in its sole discretion.

If I Utilize the Bank Sweep As My Core Position

If I utilize the Bank Sweep as my core position and there are debits in my account generated by account activity occurring prior to Fidelity's nightly processing cycle these debits will be settled using the following sources, in this order, subject to the qualifications below:

1. Money Market Overflow: redemption proceeds from shares held in the MMKT Overflow Fund,
2. Free Credit Balance: any Intra-Day or After-Hours Free Credit Balances proceeds from the withdrawal of Program Deposits occurring on the next business day (not including bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday),
3. Auto-Liquidation: redemption proceeds from the sale of any shares of a Fidelity money market mutual fund held in the account that maintains a stable (i.e., \$1.00/share) net asset value and is not subject to a liquidity fee or similar fee or assessment,
4. Margin Surplus: if I have a margin account, any margin surplus available, which will increase my margin balance.

In addition, early in the morning prior to the start of business on each business day, certain unsettled debits in my account along with debits associated with certain actual or anticipated transactions that would otherwise generate a debit in my account during the business day will be settled using redemption proceeds from the sale of shares in the MMKT Overflow Fund, early in the morning prior to the start of business, if

applicable, and then the withdrawal of Program Deposits occurring that business day (not including bank holidays or days on which the New York Stock Exchange is closed, such as Good Friday).

I understand and agree that Fidelity may, in its sole discretion, exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options. Further, I authorize my Authorized agent/Advisor to request Fidelity to exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options; however, such a request must be agreed to by Fidelity in its sole discretion.

If I Utilize the Interest Bearing Option ("FCASH") As My Core Position

If I utilize the Interest Bearing option as my core position and there are debits in my account generated by account activity occurring prior to Fidelity's nightly processing cycle these debits will be settled using the following sources, in this order, subject to the qualifications below:

1. **FCASH Balance:** any Intra-Day or After-Hours Free Credit Balances funds held in FCASH,
2. **Auto-Liquidation:** redemption proceeds from the sale of any shares of a Fidelity money market mutual fund held in the account that maintains a stable (i.e., \$1.00/share) net asset value and is not subject to a liquidity fee or similar fee or assessment,
3. **Margin Surplus:** if I have a margin account, any margin surplus available, which will increase my margin balance.

In addition to the foregoing, we may turn to the following sources: redemption proceeds from the sale of any shares of a Fidelity money market fund held in another nonretirement account with the same registration (which I authorize you to sell for this purpose when I sign the application) any securities in any other account at Fidelity in which I have an interest.

I understand and agree that Fidelity may, in its sole discretion, exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options. Further, I authorize my Authorized agent/Advisor to request Fidelity to exclude sources for settling debits in my account, including limiting or removing certain auto-liquidation options; however, such a request must be agreed to by Fidelity in its sole discretion.

If I want to opt out of the foregoing, I will contact Fidelity for more information. In the event that my account does not contain sufficient cash, Fidelity may liquidate securities to satisfy a court order, levy, or any other legal process payment.

As used in this Agreement, the total cash and margin loan value shall be the "Collected Balance."

Fidelity shall not be responsible for the dishonor of any transaction due to insufficient Collected Balance. Other transactions that I initiate or to which I have consented may also reduce my Collected Balance. I understand that if funds in my account are insufficient to pay any item, such items will not be honored. I will promptly return to Fidelity any assets that Fidelity distributes to me but to which I am not entitled.

Note that at any time, Fidelity may reduce my 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 my account.

In the event I hold a money market mutual fund in my account that impacts my cash available and is subject to a liquidity fee (as described in more detail in the fund's prospectus), upon notice to Fidelity by the fund that a liquidity fee has been imposed, the cash available and running collected balance in my account will be reduced by the amount of the value of the impacted money market mutual fund and payment of debit items from my account will continue to be paid as described in this agreement, but Fidelity will only pay items from a money market fund that has imposed a liquidity fee as part of that payment process after the other sources are attempted.

I acknowledge that if a money market mutual fund held in my account imposes a liquidity fee, the money market mutual fund may not provide Fidelity with advance notice of such liquidity fee. As a result, I may not be notified of such liquidity fee when I submit a trade. However, as instructed by the fund (and disclosed in the fund prospectus), my trade will be subject to such liquidity fee, and it may be applied to my trade retroactively.

23. Liability for Costs of Collection

I am liable for payment upon demand of any debit balance or other obligation owed in any of my accounts or any deficiencies following a whole or partial liquidation, and I agree to satisfy any such demand or obligation. I agree to reimburse Fidelity for all reasonable costs and expenses incurred in the collection of any debit balance or unpaid deficiency in any of my accounts, including, but not limited to, attorneys' fees.

24. Trading Authorization

- A.** I have indicated on the Fidelity Brokerage Application that I have authorized one or more Authorized Individuals to execute trades on my account, and Fidelity is authorized and directed to accept any trading, servicing, account-related, or other instruction of the Authorized Individual(s) on my behalf. The Authorized Individual(s) may inquire in and trade in my account as specified, and Fidelity is authorized and directed to accept the instructions of the Authorized Individual(s). The authorization shall be applicable to all assets I hold in the specified account. Except as otherwise provided, the Authorized Individual(s) is not authorized to withdraw, or direct the withdrawal of, assets from my account.
- B.** I understand and agree that:
1. Fidelity is authorized and directed to accept the instructions of the Authorized Individual(s) on my behalf. This authorization shall be applicable to all assets I hold in the specified account. Fidelity reserves the right, but is not obligated, to confirm with me any of the Authorized Individual(s)'s instructions prior to acting on such instructions, **including requests to change the address or email address on my account.**
 2. By granting trading authorization to the Authorized Individual(s), I understand and agree that the Authorized Individual(s) will have the ability to instruct Fidelity to initiate transfers of cash from my bank account to my Fidelity account, based on standing written funds transfer instructions provided by me to Fidelity.
 3. Fidelity has no responsibility for and will not participate in or review the trading decisions or in any way review, monitor or supervise the suitability of the investment decision or activity of the Authorized Individual(s).
 4. Fidelity will have no duty to inquire into the authority of the Authorized Individual(s) to engage in particular transactions or investment strategies or to monitor the terms of any oral or written agreement between me and the Authorized Individual(s).
- C.** I agree to indemnify and hold harmless Fidelity, its affiliates and their respective officers, directors, employees and agents from and against any and all losses, claims or financial obligations that may arise from any act or omission of the Authorized Individual(s) with respect to my account.
- D.** This authorization is a continuing one and shall remain in full force and effect until Fidelity is notified in writing of my death, disability or incapacity or unless revoked through written notice actually received by Fidelity. Such revocation, however, shall not affect any prior liability in any way resulting from any transaction initiated before receipt of the revocation. Furthermore, it is understood that this authorization and indemnity is in addition to and in no way restricts any rights that may exist at law or under any other agreement(s) between me and Fidelity. This authorization and indemnity shall be construed, administered and enforced according to the laws of the Commonwealth of Massachusetts. It shall inure to the benefit of Fidelity and of any successor firm or firms (whether by merger, consolidation or otherwise) irrespective of any change(s) at any time in the personnel thereto for any cause whatsoever, and to the benefit of the affiliates and the assigns of Fidelity or any successor firm. It is further understood that Fidelity reserves the right, but is not obligated, to request authorization from me prior to executing any transaction requested from the Authorized Individual(s), and to cease accepting instructions from the Authorized Individual(s) at Fidelity's sole discretion and for its sole protection.

25. Asset Movement Authorization

Level I Limited (First Party Only)

By selecting Level I Limited asset movement authorization on my account application, I authorize and direct Fidelity to accept instructions from my Authorized Individual(s) for one time disbursements and the establishment of and changes to periodic disbursements (Periodic Distribution Plans) from my account, including: (1) for redemptions and payment of monies from my account by check made payable to me and sent to me at my address of record, (2) to disburse funds electronically, including bank wires and Electronic Funds Transfers (EFTs), to any first-party bank account pursuant to a standing written instruction provided to Fidelity and signed by me, and first-party check disbursements to any payee and address I have authorized through standing written instructions provided to Fidelity and signed by me, and (3) transfers of cash or securities from this account to other same-registration accounts at Fidelity, if this account is an individual or transfer on death account (accounts owned by me individually), contributions from this account to any IRA I own at Fidelity.

Level I (First and Third Party)

By selecting Level I asset movement authorization on my account application, I authorize and direct Fidelity to accept instructions from my Authorized Individual(s) as described in Level I Limited and, in addition, to accept instructions from my Authorized agent(s)/ Advisor(s), without receiving instructions directly from me, to (1) disburse funds electronically, including bank wires or Electronic Funds Transfers (EFTs) to any third-party account I have authorized through standing written instructions and third-party check disbursements to any payee and address I have authorized through standing written instructions, and (2) transfers of cash or securities from this account to other third-party accounts at Fidelity I have authorized through standing written instructions.

Level II

By Selecting Level II asset movement authorization on my account application, I authorize and direct Fidelity to accept instructions from the Authorized Individual(s) as described in Level I and, in addition, to accept instructions from my Authorized Individual(s), without receiving instructions directly from me, to transfer monies from my Fidelity account by wire to accounts at banks or other financial institutions that the Authorized Individual(s) represents to Fidelity have the same account owner or owners and the same registration type as this account. **By granting this authorization, I understand and agree that Fidelity will not undertake to confirm the Authorized Individual's(s') representations and cannot confirm the account registration at the receiving bank or financial institution. Therefore, Fidelity will not undertake to monitor the Authorized Individual's(s') compliance with my instructions to him or her and will rely solely upon the instructions of my Authorized Individual(s) for these transfers. I understand that I should carefully review my account documentation and monitor all activity on my account. Fidelity may require direct instructions from me for transactions over a certain amount.**

A. Upon requests for any account-related activity on my account from the Authorized Individual(s), including, but not limited to, requests for bank wires or EFTs, Fidelity reserves the right, but is not obligated to confirm with me any of the Authorized Individual's(s') instructions prior to acting on them and to restrict or not accept requests for these transfers, at its own discretion. The Authorized Individual(s) is authorized to act for me and on my behalf in the same manner and with the same force and effect as I might or could do to the extent necessary or incidental to the furtherance or conduct of the account, in accordance with this agreement or my separate standing instructions. This authorization shall apply only with respect to my brokerage account opened with this application. The Authorized Individual(s) will place no trading orders or conduct activity in my account that exceeds its authority under this authorization or any other agreement governing the account.

B. I understand and agree that:

1. Fidelity is authorized and directed to accept the instructions of the Authorized Individual(s) on my behalf. This authorization shall be applicable to all assets I hold in the specified account. Fidelity reserves the right, but is not obligated, to confirm with me any of the Authorized Individual's(s') instructions, at its own discretion.

2. Fidelity will have no duty to inquire into the authority of the Authorized Individual to engage in particular transactions or investment strategies or to monitor the terms of any oral or written agreement between me and the Authorized Individual(s).

C. I agree to indemnify and hold harmless Fidelity, its affiliates and their respective officers, directors, employees and agents from and against any and all losses, claims or financial obligations that may arise from any act or omission of the Authorized Individual(s) with respect to my account.

D. This authorization is a continuing one and shall remain in full force and effect until Fidelity is notified in writing of my death, disability or incapacity or unless revoked through written notice actually received by Fidelity. Such revocation, however, shall not affect any prior liability in any way resulting from any transaction initiated before receipt of the revocation. Furthermore, it is understood that this authorization and indemnity is in addition to and in no way restricts any rights that may exist at law or under any other agreement(s) between me and Fidelity. This authorization and indemnity shall be construed, administered and enforced according to the laws of the Commonwealth of Massachusetts.

It shall inure to the benefit of Fidelity and of any successor firm or firms (whether by merger, consolidation or otherwise) irrespective of any change(s) at any time in the personnel thereto for any cause whatsoever and to the benefit of the affiliates and the assigns of Fidelity or any successor firm. It is further understood that Fidelity reserves the right, but is not obligated, to request authorization from me prior to executing any transaction requested from the Authorized Individual(s), and to cease accepting instructions from the Authorized Individual(s) at Fidelity's sole discretion and for its sole protection.

26. Customer Fees

I understand that this Account will be used to receive Customer Fees, which are deducted from Customer Accounts pursuant to the terms and conditions of the written agreements between my Advisory Firm and my Customers. I understand that it is my responsibility to verify the fees and the accuracy of the fee calculation(s) and that Fidelity will not determine whether the fee(s) or calculation(s) is/are accurate and/or appropriate.

27. Consumer Reporting Agencies

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

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

Fidelity Investments
Attn: Customer Data Disputes
PO Box 770001
Cincinnati, OH 45277-0045

In order for Fidelity to investigate any dispute that I may submit to Fidelity with respect to information that Fidelity has provided, I will provide Fidelity with the following information:

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

28. Assignment

The Authorized agent(s)/Advisor(s) shall not assign this Agreement or any of its rights hereunder, nor delegate any of its obligations hereunder, without the prior written consent of me and Fidelity; provided, however, consent shall not be required in the case of assignment where Authorized agent(s)/Advisor(s) assigns its rights in whole (but not in part) under this Agreement in the event of any assignment by merger, acquisition, or otherwise by operation of law. Any assignment by the Authorized agent(s)/Advisor(s) in contravention of the foregoing shall be deemed null and void. The provisions of the Agreement will be binding upon and inure to the benefit of the respective successors and permitted assigns.

29. Termination of Account

My account may be terminated by me or Fidelity at any time. This agreement will remain in effect until its termination is acknowledged in writing by an authorized representative of Fidelity. I will remain responsible for all charges, debit items, or other transactions initiated or authorized by me, whether arising before or after termination. I understand that Fidelity reserves the right to charge an account liquidation termination fee whether the account is terminated by me or by Fidelity.

If my Fidelity brokerage account is terminated, whether by me or you, I will promptly destroy or return all unused checks and cards to you. I understand that failure to do so may result in a delay in complying with my instructions as to the disposition of assets in my account. Fidelity reserves the right to charge a service fee or close any account that fails to maintain minimum activity or balance requirements, and further reserves the right to close an account or remit credit balances because of insufficient investment-related activity. Fidelity may periodically review my account activity, and reserves the right to charge reasonable inactivity fees or to close or change the optional account features, fees, and services, or to cease paying interest on account credit balances for any reason, including, but not limited to, insufficient investment activity in accordance with the regulations of the New York Stock Exchange and Securities Investor Protection Corporation. Fidelity will notify me if any changes or charges are imposed. Termination will result in cancellation of my account and other features or privileges.

My account balance and certain uncashed checks issued from my 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.

30. Termination of Authorizations

The authorizations I have granted in this Agreement will remain effective until I have revoked any of them by giving written notice to Fidelity. Upon written notice of my death, I understand that any authorization that I have granted herein to my Authorized agent(s)/Advisor(s) will terminate. I understand that Fidelity will require the assets in the account be transferred to my estate or beneficiaries, as applicable, and no longer will accept instructions from my Authorized agent(s)/Advisor(s) on my account. Such revocation will not affect my obligation resulting from transactions initiated prior to Fidelity's receipt of such written notice.

31. Pre-Dispute Arbitration Agreement

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

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

All controversies that may arise between me and you concerning any subject matter, issue or circumstance whatsoever (including, but not limited to, controversies concerning any account, order, distribution, rollover, advice interaction or transaction, or the continuation, performance, interpretation or breach of this or any other agreement between me and you, 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 I may designate. If I designate the rules of a United States self-regulatory organization or United States securities exchange and those rules fail to be applied for any reason, then I shall designate the prevailing rules of any other United States securities self-regulatory organization or United States securities exchange of which the person, entity or entities against whom the claim is made is a member. If I do not notify you in writing of my designation within five (5) days after such failure or after I receive from you a written demand for arbitration, then I authorize you to make such designation on my behalf. The designation of the rules of a self-regulatory organization or securities exchange is not integral to the underlying agreement to arbitrate. I understand that judgment upon any arbitration award may be entered in any court of competent jurisdiction.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any pre-dispute arbitration agreement against any person who has initiated in court a putative class action; or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until:

- (i) the class certification is denied; or
- (ii) the class is decertified; or
- (iii) the customer is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this agreement except to the extent stated herein.



Important Information about Electronic Funds Transfer

This document provides important information regarding electronic funds transfers performed via the Automated Clearing House network, including transfers initiated by me or my Authorized agent(s)/Advisor(s). Such transfers are governed by Regulation E, as issued by the Bureau of Consumer Financial Protection pursuant to the Electronic Fund Transfer Act, and other related laws and regulations. This information is provided to me in compliance with these rules and regulations. Similar information regarding transfers initiated using a debit card will be sent to me separately with my debit card.

Privacy Statement

I understand Fidelity Brokerage Services LLC (Fidelity) will disclose information to third parties about my account or the transfers I or my Authorized agent(s)/Advisor(s) make:

- (i) Where it is necessary for completing transfers, or
- (ii) In order to verify the existence and condition of my account for a third party, such as a credit bureau or merchant, or
- (iii) In order to comply with a government agency or court order, or
- (iv) For my Authorized agent(s)/Advisor(s) give Fidelity written permission, or
- (v) For other purposes in accordance with Fidelity's privacy statement

Redemptions

The minimum Electronic Funds Transfer (EFT) transaction initiated on Fidelity.com is \$10 for redemptions and deposits, and the maximum is \$100,000 for redemptions.

Fees

There is no fee to transfer funds electronically, although my financial institution may charge transaction fees.

EFT Transactions Initiated on Fidelity.com

If I establish EFT on Fidelity.com, I or my Authorized agent(s)/Advisor(s) may be able to immediately transfer funds from my bank account to my Fidelity Brokerage Account ("Immediate Funding EFT"). All Immediate Funding EFTs processed during the first seven (7) business days after I or my Authorized agent(s)/Advisor(s) establish EFT on Fidelity.com, will be limited to a maximum transaction amount of \$25,000 per day for customers with an existing relationship; for new customers, the maximum transaction amount is \$15,000 per day. On the eighth business day following my or my Authorized agent(s)/Advisor(s)' request, the maximum transaction amount for EFTs initiated on Fidelity.com will increase to \$100,000 per day. Transfers from my Fidelity Brokerage Account to my bank account will not be allowed until the eighth business day.

EFT Transactions Initiated by my Authorized agent(s)/Advisor(s)

There are no minimums or maximums for EFT transactions initiated by my Authorized agent/Advisor on my behalf. However, Fidelity reserves the right, but is not obligated, to confirm with me any of my Authorized agent(s)/Advisor(s)' instructions prior to acting upon such instructions.

Brokerage Account Minimum Balances

There is no minimum account balance to process an EFT transaction; however, my core account must have adequate funds to cover the redemption of funds.

Business Days

For purposes of these disclosures, Fidelity's business days are Monday through Friday. Bank and New York Stock Exchange holidays are not included.

Documentation Periodic Statement

I will receive a monthly account statement from Fidelity. If there is no activity in my account, I can receive my statement quarterly if elected.

Direct Deposits

If I have arranged to have direct deposits made to my Fidelity Brokerage Account at least once every sixty (60) days from the same person or company, I can call Fidelity at 800-343-3548 to find out whether or not the deposit has been made.

Special Disclosure for Covered Transfers

In general, my use of the EFT service for transfer of funds electronically other than those for which the primary purpose is the purchase or sale of securities ("Covered Transfers") is covered under the Electronic Funds Transfer Act and the Bureau of Consumer Financial Protection's Regulation E and related laws and regulations. The following terms and disclosures apply to Covered Transfers:

Unauthorized Transfers:

I will tell Fidelity promptly if I believe my PIN to authorize an EFT has been lost or stolen or may have been used without my permission. Telephoning Fidelity at the number listed below is the best way of keeping my possible losses down. If I believe my PIN has been lost or stolen, and I tell Fidelity within two (2) business days after I learn of the loss or theft, I can lose no more than \$50 for transfers if someone used my PIN without my permission. If I do NOT tell Fidelity within two (2) business days after I learn of the loss or theft of my PIN, and Fidelity can prove Fidelity could have prevented any unauthorized use if I had told Fidelity, I could lose as much as \$500. Also, if my statement shows transfers that I or my Authorized agent(s)/Advisor(s) did not make, I will tell Fidelity promptly. If I do not tell Fidelity within sixty (60) days after the first statement was mailed to me, I may not get back any money I lost after sixty (60) days if Fidelity can prove that Fidelity could have stopped someone from taking the money if I had told Fidelity in time. In extenuating circumstances Fidelity may extend such time periods. Additional protection may be available from Fidelity for specific accounts under certain circumstances.

Stop Payment Procedures. If I or my Authorized agent(s)/Advisor(s) have told Fidelity in advance to make regular transfers out of my Fidelity Brokerage Account, I can stop any of these payments. Here's how: I can call or write to Fidelity using the Contact Information listed below. My notice must be made in time for Fidelity to receive my request at least three (3) business days or more before the payment is scheduled to be made. If I call, Fidelity may, as an additional measure, require me to put my request in writing and get it to Fidelity within fourteen (14) days after I call. Unless otherwise provided, I may not stop payment of electronic funds transfers; therefore I should not employ electronic access for purchases or services unless I am satisfied that I will not need to stop payment.

Fidelity's Liability for Failure to Complete a Transfer. If Fidelity does not complete a Covered Transfer to or from my Fidelity Brokerage Account on time or in the correct amount, according to Fidelity's agreement with me, Fidelity may reimburse me for my losses or damages. However, there are some exceptions. Fidelity will not be liable for instance:

- If, through no fault of Fidelity's, I do not have enough money in my Fidelity Brokerage Account to make the Covered Transfer.
- If the money in my Fidelity Brokerage Account is subject to legal process or other claim restricting such transfer.
- If the transfer would exceed my margin availability, if any.
- If the bank account information I or my Authorized agent(s)/Advisor(s) provided to Fidelity when I or my Authorized agent(s)/Advisor(s) established EFT was incorrect or has subsequently become incorrect.

- If circumstances beyond Fidelity's control (such as fire or flood) prevent the transaction, despite reasonable precautions taken by Fidelity.
- If there was a technical malfunction that was known to me at the time I or my Authorized agent(s)/Advisor(s) attempted to initiate a Covered Transfer or, in the case of a preauthorized Covered Transfer, at the time the transfer should have occurred.

There may be other exceptions stated in Fidelity's agreement with me.

Error Resolution. In the case of errors or questions about my Covered Transfers, I will call or write Fidelity using the contact information listed below. I will call or write Fidelity promptly if I think my statement is wrong or if I need more information about a Covered Transfer on the statement.

Fidelity must hear from me no later than 60 days after Fidelity sent the FIRST statement on which the problem or error appeared.

I will:

- Tell Fidelity my name and account number.
- Describe the error or the Covered Transfer that I am unsure about, and explain as clearly as I can why I believe it is an error or why I need more information.
- Tell Fidelity the dollar amount of the suspected error.

If I notify Fidelity verbally, Fidelity may require that I send my complaint or question in writing within ten (10) business days. Fidelity will tell me the results of its investigation within ten (10) business days after Fidelity hears from me and will correct any error promptly. If Fidelity needs more time, however, Fidelity may take up to forty-five (45) days to investigate my complaint or question. If Fidelity decides to do this, Fidelity will credit my account within ten (10) business days for the amount that I think is in error, so that I will have the use of the money during the time it takes Fidelity to complete its investigation. If Fidelity asks me to put my request or question in writing and does not receive it within ten (10) business days, or if my account is a brokerage account subject to Regulation T of the Board of Governors of the Federal Reserve System (Credit By Brokers and Dealers, 12 CFR 220), Fidelity may not credit my account. If Fidelity decides that there was no error, Fidelity will send me a written explanation within three (3) business days after Fidelity finishes the investigation. I may ask for copies of the documents that Fidelity used in the investigation.

Fidelity Contact Information

By Mail: Fidelity Investments
P.O. Box 770001
Cincinnati, OH 45277-0045

By Phone: 800-343-3548



Trade-Away Securities Transactions Supplement

To: Account Owner(s) ("I")

From: Fidelity Brokerage Services LLC and National Financial Services, LLC (collectively, "Fidelity")

Pursuant to the terms of my Client Agreement I have authorized Fidelity to accept any trading, servicing or account related instruction from my Authorized Agent(s)/Advisor(s), including authorizing my Authorized agent(s)/Advisor(s) to execute securities transaction directly with broker dealers that are not affiliated with Fidelity, including both domestic and foreign executing brokers ("Executing Brokers"). My Authorized agent (s)/Advisor(s) have indicated to Fidelity my Authorized agent(s)/Advisor(s) may engage in executing securities transactions with Executing Brokers. This notice is a supplement to my Brokerage Account Client Agreement and provides the details of the terms and conditions for Fidelity's role in securities transactions my authorized agent(s)/Advisor(s) execute with Executing Brokers. Defined terms have the same meaning as in my Client Agreement. I have read this information carefully and have contacted my Authorized agent(s)/Advisor(s) with any questions.

The terms of my Client Agreement authorize and direct Fidelity to accept any trading, servicing, account-related, or other instruction of my Authorized agent (s)/Advisor(s) on my behalf. This includes the execution of trade-away securities transactions ("Trade-Away Transactions") directly through Executing Brokers. If my Authorized agent(s)/Advisor(s) execute Trade-Away Transactions directly through Executing Brokers, I understand that I and my Authorized agent(s)/Advisor(s) are solely responsible for the selection of any Executing Brokers. Fidelity will have no obligation to select, monitor or supervise the Executing Brokers.

The Executing Broker will be entirely responsible for the execution and clearance of Trade-Away Transactions executed on my behalf. Fidelity, as custodian of my account, will act solely as settlement agent and will have no other responsibility whatsoever with regard to any Trade-Away Transactions. Fidelity's duties in this regard will be further conditioned on Fidelity having custody of or receiving the subject securities or other property (including cash) in good deliverable form before settlement. I understand that Fidelity has the right to cancel or disaffirm any Trade-Away Transaction in its sole discretion, including, but not limited to, if Fidelity does not receive subject securities or other property, including cash, to settle the Trade-Away Transaction, or if the locate requirement on a short transaction is not satisfied in a manner acceptable to Fidelity.

To facilitate settlement on my behalf, Fidelity may book Trade-Away Transactions through its systems in a manner that makes them appear as though they are "buys" and "sells," and may reflect this activity as a "trade" on standardized communications, including, but not limited to, periodic account statements and trade confirmations. I understand that, notwithstanding the presentation of this information on communications I receive from you, Fidelity is acting solely as settlement agent connection – Trade-Away Transactions.

I understand that I may be subject to additional trade-away fees for Trade-Away Transactions executed by Executing Brokers, including any penalties for failure to settle such transactions, and my Authorized agent(s)/Advisor(s) have informed me of the trade-away fees that may apply to my account and I agree to be bound thereby.

I understand that securities positions that are not in the possession or control of Fidelity are not covered by the SIPC protection or any additional insurance secured by Fidelity that covers positions held in my Fidelity brokerage account.

I understand that Fidelity may limit or restrict the number or volume of Trade-Away Transactions in my account. I also understand that I may be required to maintain minimum net equity levels in my Fidelity brokerage

account. I understand that any such limitations or requirements will be communicated to me on an initial and ongoing basis through my Authorized agent/Advisor.

I acknowledge that direct investments in foreign markets involve 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. Foreign securities trading also may be subject to various credit, settlement, operational, financial and legal risks that may affect the ability of my Authorized agent(s)/Advisor(s) to engage in foreign securities transactions on my behalf and may make it more costly to access foreign markets. These risks include:

- **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 carry an increased risk of fails.
- **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 with Foreign Executing Brokers can result in my Authorized agent(s)/Advisor(s) purchasing the wrong securities.
- **Non-DVP Transactions.** Local trading and settlement customs frequently require non-DVP ("delivery versus payment") transactions. Unlike DVP transactions, which involve a simultaneous exchange of securities and payment, non-DVP transactions can increase counterparty risk because the purchaser pays before securities are delivered or the seller delivers securities before payment is made.
- **Trading Days and Hours.** Differences in trading days and hours can also create operational issues and complicate clearance and settlement.
- **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.
- **Trading Restrictions and Market Operations.** Foreign markets often operate differently from U.S. markets. For example, there may be different periods for clearance and settlement of securities transactions and investments in foreign securities may be subject to local market trading restrictions.
- **Limited Recourse under Local Law.** A U.S. investor may not be able to sue a foreign issuer or a Foreign Executing Broker or to enforce a judgment in U.S. courts. The only available remedy may be the legal remedies that are available under foreign law, and those remedies may be limited.

I agree to indemnify and hold harmless Fidelity, its affiliates and their respective officers, directors, employees and agents from and against any and all losses, claims or financial obligations ("Losses") that may arise from any act or omission of my Authorized agent(s)/Advisor(s) with respect to my account, including Losses arising out of or relating to Trade-Away Transactions that my Authorized agent(s)/Advisor(s) may execute directly with Executing Brokers.



Statement of Business Resiliency

Continued service to our customers is the main tenet of Fidelity's business continuity management program. Priority is given to critical activities that include, but are not limited to, trading, account maintenance, and customer service. Business Continuity, Resiliency Planning & Testing are integrated to deliver customer service with minimal disruption. Fidelity implements the measures described below as part of our overall continuity plan to ensure that critical services are maintained for our customers.

Resiliency Program

Fidelity uses a resiliency model that includes architecting the environment with the ability to absorb shocks in the technologies being used. Our primary goal is to mitigate all failure points internally that would require us to activate contingency plans. Due to the critical nature of our processing, Fidelity's core systems, applications, and network infrastructure are designed with the objective of eliminating single points of failure. In addition, we have an oversight function, Enterprise Business Resiliency (EBR), as the second line of defense monitoring the Resiliency Program at Fidelity. EBR includes Business Continuity and Technology Resiliency and Recovery teams providing Business Recovery and Resiliency standards and compliance tracking. We apply our resiliency compliance standards across the Fidelity ecosystem, and as required with partners, and vendors.

Mainframe systems are in two redundant Fidelity-owned data centers, and distributed platforms are spread within two redundant data centers, across the United States. In addition, our applications in the Cloud utilize multiregional zones and multiple geo physical locations provided by our Cloud providers.

- The data centers are equipped with redundant power and cooling systems, high-speed network connectivity, and 24/7 on-site monitoring and maintenance.
- In the event of a hardware or application failure, the redundant node within these centers will assume processing capabilities of the failed node. Regional failure will result in switching to the alternate region.
- Fidelity uses multiple application replication techniques, advanced storage, and database replication technology to ensure continuous availability of storage and data resources to our systems.

Fidelity's online services rely on a distributed, redundant infrastructure and are architected to be available 24/7 apart from scheduled weekly and monthly maintenance windows. Design consideration is given to every system component so that each is highly available.

Our distributed consumer platforms are spread across redundant data centers, and redundancy is provided within and across sites. In the event of an outage, consumer application traffic is routed away from the impacted region and the remaining sites handle full production loads. This feature is exercised monthly, consistent with our software and infrastructure resiliency standards.

In the event of a complete site failure, traffic is redirected to the alternate region/zone using application and network load balancing technologies. Fidelity maintains a fault-tolerant, high-speed network:

- The availability and utilization of Fidelity's proprietary network is monitored 24/7/365, and we respond to changes in usage and business requirements.
- Our network capacity model provides adequate bandwidth, even in contingency situations.
- Our network is designed to be fully redundant. Components such as switches, routers, and load balancers have redundancy to mitigate single points of failure.
- We use redundant Internet Service Providers to mitigate potential provider network issues.

Fidelity executes multiple exercises throughout each calendar year. Fidelity's business processes, critical infrastructure, application and data environments are exercised based on defined criticality and in accordance with our Resiliency standards.

Business Continuity

Fidelity's business continuity management program focuses on maintaining and recovering critical business processes that enable uninterrupted service to customers.

- A Business Impact Analysis (BIA) is conducted annually to determine the criticality of business processes.
- Risk assessments are conducted to identify threats requiring mitigation, and recovery plans are adjusted accordingly.
- Customer-facing business processes operate in at least two geographically diverse locations that are fully equipped and staffed. For example, Fidelity hosts several call centers, which are distributed across the United States.
- Back-office operations operate in multiple locations and/or have capability to work remotely and/or move work.
- Business recovery exercises are required at least annually. Recovery strategies of critical processes are required semiannually. Quarterly Emergency Notification System tests are performed to assess the ability to contact key managers and associates. Recovery exercises consist of performing critical process activities and validating the operating status of working remotely, application accessibility, data accessibility, and business processing capability.
- Third-party suppliers are subject to contract provisions requiring information security and business continuity capabilities consistent with service expectations. Critical suppliers are subjected to periodic risk-based assessments, with additional actions taken as needed to ensure the resiliency of our supply chains.

In support of the business continuity programs, each Fidelity business unit is required to exercise recovery of critical functions at least annually. This includes, but is not limited to, employee notification validation, event management education and training, functional recovery exercises, and tabletop exercises.

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

Each Fidelity business unit 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. 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 NFS's business continuity plan include:

- Alternate physical locations and preparedness
- Alternative means to communicate with our customers and employees
- Strategies to address loss or impact to technology/applications

Fidelity is focused on addressing the potential risks associated with a contagious illness outbreak, including the impact on our employees, our customers, and continuity of operations. A firm-wide, cross-disciplinary team maintains a comprehensive, globally integrated strategy designed to prepare Fidelity Investments to respond effectively to a contagious illness. We are also in close contact with industry and health experts and closely monitor information provided by the Centers for Disease Control and Prevention and the World Health Organization.

Our approach centers around augmentation of our existing continuity program, which focuses on a variety of continuity solutions for process, system, and infrastructure outages, as well as reduced staffing scenarios.

Telecommuting

- Geographic diversification of critical functions
- Extended and flexible operating hours
- Regional work sharing

Because contagious illness scenarios can vary widely, our continuity teams work closely with management to implement any strategy

and take necessary steps to maintain business operations based on consultation with our enterprise teams and external resources.

Fidelity's Enterprise Business Resiliency program has been certified ISO 22301 compliant by BSI Americas.

This certification process requires regular program auditing by BSI Americas and, in addition to regular reviews by regulatory agencies and Corporate Audit, demonstrates the rigorous review of our resiliency program.

To obtain a copy of this notice at any time, contact NFS directly.

Clearing, custody or other brokerage services may be provided by National Financial Services LLC, Member NYSE, SIPC.

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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.

REASONS WE CAN SHARE YOUR PERSONAL INFORMATION	DOES FIDELITY SHARE?	CAN YOU LIMIT THIS SHARING?
For our everyday business purposes — such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — to offer our products and services to you	Yes	No
For joint marketing with other financial companies	No	We don't share
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	No	We don't share
For nonaffiliates to market to you	No	We don't share

QUESTIONS?

Call 800.343.3548. If we serve you through an investment professional, please contact them directly. Specific Internet addresses, mailing addresses, and telephone numbers are listed on your statements and other correspondence.

WHO WE ARE	
Who is providing this notice?	Companies owned by Fidelity Investments and 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?	<p>We collect your personal information, for example, when you</p> <ul style="list-style-type: none"> ■ 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 <p>We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.</p>
Why can't I limit all sharing?	<p>Federal law gives you the right to limit only</p> <ul style="list-style-type: none"> ■ 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 <p>State laws and individual companies may give you additional rights to limit sharing.</p>
DEFINITIONS	
Affiliates	<p>Companies related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> ■ Fidelity Investments affiliates include companies with the Fidelity name (excluding the Fidelity Funds), as listed below, and other financial companies such as Green Pier Fintech LLC, National Financial Services LLC, Strategic Advisers LLC, and FIAM LLC.
Nonaffiliates	<p>Companies not related by common ownership or control. They can be financial and nonfinancial companies.</p> <ul style="list-style-type: none"> ■ Fidelity does not share with nonaffiliates so they can market to you.
Joint marketing	<p>A formal agreement between nonaffiliated financial companies that together market financial products or services to you.</p> <ul style="list-style-type: none"> ■ Fidelity doesn't jointly market.
OTHER IMPORTANT INFORMATION	
<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>For additional information, please visit Fidelity.com/privacy.</p>	
WHO IS PROVIDING THIS NOTICE?	
<p>Empire Fidelity Investments Life Insurance Company®; FIAM LLC; Fidelity Brokerage Services LLC; Fidelity Distributors Company LLC; Fidelity Diversifying Solutions LLC; Fidelity Funds, which include funds advised by Strategic Advisers LLC and Fidelity Diversifying Solutions LLC; Fidelity Health Insurance Services, LLC; Fidelity Institutional Wealth Adviser LLC; Fidelity Insurance Agency, Inc.; Fidelity Investments Institutional Operations Company LLC; Fidelity Investments Life Insurance Company; Fidelity Management Trust Company; Fidelity Personal and Workplace Advisors LLC; Fidelity Personal Trust Company, FSB; Fidelity Wealth Technologies LLC; Green Pier Fintech LLC; National Financial Services LLC and Strategic Advisers LLC.</p>	