



Brokerage Account Application

FOR BRANCH USE ONLY	
Branch Prefix	Account Number
RR1/Rep of Record	RR2/Pay-To Rep
Agency	
Are holders employees of your B/D? <input type="checkbox"/> No <input type="checkbox"/> Yes	
Is this a Managed Account? <input type="checkbox"/> No <input type="checkbox"/> Yes	

Use this form to open a brokerage account with your Broker-Dealer to be held at National Financial Services LLC ("NFS"). Type on screen or fill in using CAPITAL letters and black ink. If you need more room for information or signatures, use a copy of the relevant page.

1. Account Setup *Choose only ONE account type.* Number of Account Holders _____

Types of ownership are governed by the laws of your state of residence.

Personal Accounts – Go to Section 2 to complete Primary Account Holder Information and Section 3, as applicable. If an Entity is an account holder, complete the information in Section 6.

Entity Accounts – Go to Section 6 to complete Entity Account Information. Trustees or Authorized Individuals can be captured in the Primary Account Holder, Additional Account Holder, and/or Account Stakeholder sections. Individuals captured in these sections may or may not be account owners. Any person(s) who qualify as an entity owner or control person can be captured in the Account Stakeholder section.

Additional paperwork is required for estate or entity accounts.

Individual

Transfer on Death:

- TOD – Individual
- TOD – Joint Tenants with Rights of Survivorship
- TOD – Joint Tenants by the Entirety

Estate:

- Administrator
- Executor
- Personal Representative

Corporations and Limited Liability Companies must also select the applicable tax classification. Entities with tax exempt 501(c)(3) status should choose Exempt (not applicable).

Corporation taxed as:

- C-Corp
- S-Corp
- Exempt (not applicable)

Joint:

- Tenants with Rights of Survivorship
- Tenants in Common
- Tenants by the Entirety
- Community Property
- Usufruct

Custodial:

- UGMA UTMA

Indicate where gift/transfer was made. Default: state where account is registered.

Indicate age of termination. Default: Age under applicable state statute for transfers by gift unless otherwise specified below with an age that is permissible under the applicable state statute.

Limited Liability Company (LLC)* taxed as:

- C-Corp
- S-Corp
- Exempt (not applicable)
- Partnership
- Sole Proprietorship

- Partnership
- Unincorporated Association (not for LLCs)
- Sole Proprietorship

Trust:

- Under Agreement
- Under Will

Non-Prototype:

- IRA
- Plan
- Trust

Other:

- Church
- Committee
- Conservator
- Bank
- Guardian
- Investment Club
- Other

Exempt Payee Code

If your entity qualifies for one of the 13 exempt payee codes, provide the code here. Refer to the last page of this application for a description of the codes.

** A domestic LLC solely owned by an individual that is a disregarded entity for tax purposes should provide the individual's name, the DBA company name and the individual's SSN in Section 6.*



2. Primary Account Holder *Trustee or authorized party information*

Enter full name as evidenced by a government-issued unexpired document (e.g., driver's license, passport, permanent resident card).
Refer to the eDelivery section for more information about how your email or phone number may be used.

First Name		Middle Name	Last Name	
Date of Birth MM DD YYYY		Email		
Primary Phone <input type="checkbox"/> Mobile		Alternate Phone		<input type="checkbox"/> Single/Divorced/Widowed <input type="checkbox"/> Married
# of Dependents				
Business Title <i>complete if applicable</i>				
Taxpayer ID Number		Required <input type="checkbox"/> SSN/ITIN <input type="checkbox"/> EIN/TIN		Country of Citizenship
Type of Government-Issued ID			ID Number	
State/Country of ID Issuance		ID Issuance Date	ID Expiration Date	

Legal Address

Cannot be a P.O. Box or Mail Drop.

Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

Mailing Address Same as Legal Address

Complete only if different from Legal Address above.

Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

Income Source, Affiliations, and Associations *Industry regulations require us to ask for this information.*

Check one. Employed Retired Not Employed

Provide Income Source if retired or not employed.

Occupation	Income Source	Employer Name		
Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

- Check all that apply.
- You are an accredited investor, as defined in Rule 501(a) of the Securities Act of 1933.
 - You are associated with a U.S. registered Broker-Dealer that is different than the Broker-Dealer that will hold this account.
 - You are a member of the board of directors, a 10% shareholder, a policy-making officer, or someone who can direct the management policies of a publicly traded company.
 - You are employed by or associated with the Broker-Dealer that will hold this account, as defined in Section 3(a)(18) of the Securities Exchange Act of 1934.
 - You are associated with a U.S. Registered Investment Advisor.

continued on next page



2. Primary Account Holder *Trustee or authorized party information continued*

Check all that apply and provide information.

- You are, or an immediate family/household member is, a senior foreign political figure.
- You are, your spouse, or any of your relatives (including parents, in-laws and/or dependents, etc.), living in your home (at the same address), is a member of the board of directors, is a 10% shareholder, or is a policy-making officer or can direct corporate management of policies of a publicly traded company (an "Affiliate"). You must provide the information below:

Company Name	CUSIP or Symbol

- Check this box if any of these scenarios apply to you. You are registered with or employed by a Financial Industry Regulatory Authority ("FINRA") member firm ("associated person"), you are the spouse of an associated person, you are a child who resides in the same household or is financially dependent on the associated person, you are related to an associated person who has control over your account or an associated person materially contributes financial support to you and has control over your account, or you are affiliated with or employed by FINRA, any other self-regulatory organization ("SRO") or a municipal securities dealer.

Same as employer above. *If different, provide the information below.*

Company Name			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country

Primary Trusted Contact *Optional*

If your Broker-Dealer has questions or concerns about your health or welfare due to potential diminished capacity, financial exploitation or abuse, endangerment and/or neglect, your Broker-Dealer may contact the person(s) you name as trusted contact. They will have no ability to transact on the account.

First Name	Middle Name	Last Name	
Email		Relationship to Account Owner	
Primary Phone		Alternate Phone	
		<input type="checkbox"/> Mobile	
Attention			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country

Alternate Trusted Contact *Optional*

First Name	Middle Name	Last Name	
Email		Relationship to Account Owner	
Primary Phone		Alternate Phone	
		<input type="checkbox"/> Mobile	
Attention			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country



3. Additional Account Holder *Copy and complete this section for each additional Account Holder.*

Enter full name as evidenced by a government-issued unexpired document (e.g., driver's license, passport, permanent resident card).
Refer to the eDelivery section for more information about how your email or phone number may be used.

First Name		Middle Name	Last Name	
Date of Birth MM/DD/YYYY		Email		
Primary Phone		Alternate Phone		<input type="checkbox"/> Single/Divorced/Widowed <input type="checkbox"/> Married
		<input type="checkbox"/> Mobile		# of Dependents
Business Title <i>complete if applicable</i>				
Taxpayer ID Number		Required		Country of Citizenship
		<input type="checkbox"/> SSN/ITIN <input type="checkbox"/> EIN/TIN		
Type of Government-Issued ID			ID Number	
State/Country of ID Issuance			ID Issuance Date	ID Expiration Date

Legal Address

Cannot be a P.O. Box or Mail Drop.

Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

Mailing Address Same as Legal Address

Complete only if different from Legal Address above.

Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

Income Source, Affiliations, and Associations *Industry regulations require us to ask for this information.*

Check one. Employed Retired Not Employed

Provide Income Source if retired or not employed.

Occupation	Income Source	Employer Name		
Address Line 1		Address Line 2		
City	State/Province	Zip/Postal Code	Country	

- Check all that apply.
- You are an accredited investor, as defined in Rule 501(a) of the Securities Act of 1933.
 - You are associated with a U.S. registered Broker-Dealer that is different than the Broker-Dealer that will hold this account.
 - You are a member of the board of directors, a 10% shareholder, a policy-making officer, or someone who can direct the management policies of a publicly traded company.
 - You are employed by or associated with the Broker-Dealer that will hold this account, as defined in Section 3(a)(18) of the Securities Exchange Act of 1934.
 - You are associated with a U.S. Registered Investment Advisor.

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3. Additional Account Holder *continued*

Check all that apply and provide information.

- You are, or an immediate family/household member is, a senior foreign political figure.
- You are, your spouse, or any of your relatives (including parents, in-laws and/or dependents, etc.), living in your home (at the same address), is a member of the board of directors, is a 10% shareholder, or is a policy-making officer or can direct corporate management of policies of a publicly traded company (an "Affiliate"). You must provide the information below:

Company Name	CUSIP or Symbol

- Check this box if any of these scenarios apply to you. You are registered with or employed by a Financial Industry Regulatory Authority ("FINRA") member firm ("associated person"), you are the spouse of an associated person, you are a child who resides in the same household or is financially dependent on the associated person, you are related to an associated person who has control over your account or an associated person materially contributes financial support to you and has control over your account, or you are affiliated with or employed by FINRA, any other self-regulatory organization ("SRO") or a municipal securities dealer.
 - Same as employer above. *If different, provide the information below.*

Company Name			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country

Primary Trusted Contact *Optional*

If your Broker-Dealer has questions or concerns about your health or welfare due to potential diminished capacity, financial exploitation or abuse, endangerment and/or neglect, your Broker-Dealer may contact the person(s) you name as trusted contact. They will have no ability to transact on the account.

First Name	Middle Name	Last Name	
Email		Relationship to Account Owner	
Primary Phone		Alternate Phone	
<input type="checkbox"/> Mobile		<input type="checkbox"/> Mobile	
Attention			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country

Alternate Trusted Contact *Optional*

First Name	Middle Name	Last Name	
Email		Relationship to Account Owner	
Primary Phone		Alternate Phone	
<input type="checkbox"/> Mobile		<input type="checkbox"/> Mobile	
Attention			
Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country



4. Suitability

Financial Position Choose the range that best describes your situation or provide the dollar amount.

Annual Income

From all sources

- \$0-\$25,000
- \$25,000-\$50,000
- \$50,000-\$100,000
- Over \$100,000

\$ _____

Estimated Net Worth

Excluding primary residence

- \$0-\$50,000
- \$50,000-\$100,000
- \$100,000-\$500,000
- Over \$500,000

\$ _____

Investable/Liquid Assets

Including cash and securities

- \$0-\$50,000
- \$50,000-\$100,000
- \$100,000-\$500,000
- Over \$500,000

\$ _____

Federal Tax Bracket

- 0%-15%
- 21%-27½%
- Over 27½%

Account Funding Source

Check all that apply.

- Asset appreciation
- Business revenue
- Inheritance
- Legal/insurance settlement
- Sale of assets
- Savings from earnings
- Other

Other

Annual Expenses

Recurring

- \$0-\$50,000
- \$50,000-\$100,000
- \$100,000-\$250,000
- \$250,000-\$500,000
- Over \$500,000

\$ _____

Special Expenses

Future and non-recurring

- \$0-\$50,000
- \$50,000-\$100,000
- \$100,000-\$250,000
- Over \$250,000

\$ _____

Timeframe

Required for Special Expenses

- Within 2 years
- 3-5 years
- 6-10 years

Investment Profile

Investment Purpose

- Save for education
- Save for retirement
- Save for short-term goal(s)
- Generate income
- Accumulate wealth
- Preserve wealth
- Market speculation
- Other

Other

Investment Objectives

Rank your investment objectives for this account in order of importance (1 being the highest). Review the attached Customer Agreement for important information on investment objectives. Select only the applicable objectives (consult with your investment professional for more information).

- ___ Preservation of capital
- ___ Income
- ___ Capital appreciation
- ___ Speculation
- ___ Trading profits
- ___ Growth and Income
- ___ Other

Other

Risk Tolerance

- Conservative
- Moderately Conservative
- Moderate
- Moderately Aggressive
- Aggressive
- Combination: _____

Investment Time Horizon

- Near Term
- Very Short
- Short
- Intermediate
- Long
- Combination: _____

General Investment Knowledge

- Limited
- Good
- Extensive

Product Knowledge

Investment Product Knowledge

Check either None, Limited, Good, or Extensive based on your knowledge of the following, **OR** provide your number of years of experience:

	None	Limited	Good	Extensive	OR	Number of Years	Transactions per Year
Stocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Bonds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Short Term	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Mutual Funds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Options	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Limited Partnerships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Variable Contracts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Futures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Annuities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Alternative Investments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Margin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Foreign Currency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Foreign Securities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Life Insurance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/> 0-5	<input type="checkbox"/> 6-15 <input type="checkbox"/> Over 15

continued on next page

4. Suitability *continued*

Additional Suitability Information

Decision-Making Experience

Check all that apply:

- I consult with my broker. Yes No
 I make my own decisions. Yes No
 I consult with my family/friends. Yes No

Additional Information

Assets Held Away – Provide total value of assets held away and percentages for each type of asset. Total of all percentages must equal 100%.

Total value of assets held away:	Stocks	Mutual Funds	Variable Contracts	Alternative Investments
\$	%	%	%	%
	Bonds	Options	Security Futures	Foreign Currency
	%	%	%	%
	Short Term	Limited Partnerships	Annuities	Foreign Security
	%	%	%	%
		Life Insurance	Other	Other explain
		%	%	

5. Account Characteristics

Service Instructions

Proceeds *Choose one.*

- Hold in core account investment vehicle (if specified) or in brokerage account
 Send by check to mailing address of account*
 Send by Autosweep (DBSX)*
Bank affiliates only. Consult Broker-Dealer for availability.
 Delivery vs. payment (DVP)

Security Purchases *Choose one.*

- Hold in street name
 Register certificates to account name and send to mailing address
 Delivery vs. payment (DVP)

Dividend/Distribution Income *Choose one.*

Note that any dividend/distribution income sent to a DVP account will remain there pending additional instructions.

- Handle all dividends and distributions like sales proceeds
 Reinvest mutual fund and equity dividends, handle all other distributions like sales proceeds
 Reinvest mutual fund dividends, handle all other distributions like sales proceeds
 Reinvest equity dividends, handle all other distributions like sales proceeds

* If you choose this option, any cash credit balance will be sent to you.

Bank Information

Required if you choose to send proceeds by Autosweep or can be used to establish standing instructions for electronic transfers between your brokerage account and your bank account.

Bank Account Type

- Checking
 Savings

ABA Number	Account Number
------------	----------------

Core Account Investment Vehicle

Consult your Broker-Dealer for a list of available core account investment vehicles. If you do not choose a core account investment vehicle, your Broker-Dealer may invest your cash/credit balances in Free Credit or in a default option as the core account investment vehicle. Different core account investment vehicles may have different rates of return and different terms and conditions. If you do not select a core account investment vehicle, your Broker-Dealer may not consider these differences when selecting a default core account investment vehicle for you. You authorize your Broker-Dealer and/or NFS to change the core account investment vehicle in your core account at its discretion. Ensure that you have read the money market mutual fund prospectus or bank sweep disclosure document, as applicable, before deciding on the appropriate core account investment vehicle selection.

If you are or become a non-U.S. customer, your options may become limited to free credits and/or the money market option made available by your Broker-Dealer and NFS.

Core Account Investment Vehicle Name	Core Account Investment Vehicle Symbol
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5. Account Characteristics *continued*

Duplicate Information

- To All Account Holders** If selected, New Account Profiles (NAPs) and Revised Account Profiles (RAPs) regarding changes to investment objectives, additional account holder address changes, and name changes will be sent to each account holder's mailing address. If not selected, these communications will be mailed to the mailing address of the account and deemed to have been delivered to all account holders.
- To Third Party** Attach additional sheet if necessary. Completing this section will be considered your request to your Broker-Dealer to instruct NFS to send the type(s) of duplicate documents checked to the party or parties indicated.

Check all that apply. Trade Confirmations Statements

Name			
Address			
City	State/Province	Zip/Postal Code	Country

eDelivery

- Paper delivery of account statements, trade confirmations and/or eligible letters can be suppressed and a reminder delivered to you electronically when they are ready to be viewed online. Selecting this option indicates your interest in this feature. A follow-up email will be sent to you with instructions on how to complete the enrollment process.
- Use the primary account holder's email address that is provided in Section 2.
- Use another account holder's email address. *Provide the email address below.*

Email

IMPORTANT: By signing this account application and executing the Electronic Delivery Agreement that will be emailed to you by NFS, you are consenting to receive all eligible account-related communications from your Broker-Dealer and NFS electronically. You agree that your Broker-Dealer and NFS may use your email and/or mobile number to message, call, or text you for this purpose. Message and data rates apply; frequency may vary. Consult your Broker-Dealer for more details.

Optional Features *You must qualify to add these features to your account. Additional applications will be required.*

Indicate any features in this section that you would like to request. **Consult your Broker-Dealer for availability and eligibility, and to obtain the appropriate additional application(s) to apply for the features(s) you want.**

Note: *Certain restrictions apply to Non-Prototype Accounts.*

Account Features

- Margin *See Important Information for Non-Prototype Accounts.*
- Options
- Fee-Based Account *Indicate type below.*

Cash Management and Banking Features *Choose one.*

- Premier Access
- Select Access

Account Type

Important Information for Non-Prototype Accounts

The following information does not apply to a nonretirement Trust account.

- Margin Account Feature on a Plan or IRA Account is limited to the purchase or sale of securities in the account.
- Non-Purpose Loans are not permitted on Plan or IRA Accounts.
- You, your plan trustee or IRA Custodian will be responsible for filing any taxes associated with unrelated business taxable income ("UBTI").
- You will also be responsible for any mandatory disclosures to Regulatory Agencies or plan participants, as applicable.

6. Entity Account Information

Provide information on any entity that is an account holder. If there is more than one entity, make a copy of this section and provide the additional entity, as needed. Be sure to provide personal information on at least one individual associated with the entity. Personal information can be provided in the Primary Account Holder, Additional Account Holder and/or Account Stakeholder sections.

Date of Trust		Tenants in Common Percentage	
		%	
Enter full entity name as evidenced by the relevant formation document (e.g., trust document, partnership agreement, corporate resolution). * For foreign entities ONLY. If providing a SSN, ensure that the person who is associated with the SSN is listed on application or supporting documents.			
Entity/Trust Name			
Taxpayer ID Number		Required	Country of Organization
		<input type="checkbox"/> SSN/ITIN <input type="checkbox"/> EIN/TIN	
Type of Government-Issued ID*		ID Number*	
State/Country of ID Issuance*	ID Issuance Date*	ID Expiration Date*	
Check any that apply. ► Entity is a: <input type="checkbox"/> Accredited Investor <input type="checkbox"/> U.S. Registered Broker-Dealer <input type="checkbox"/> U.S. Registered Investment Advisor <input type="checkbox"/> U.S. Registered Investment Company			

Legal Address

Cannot be a P.O. Box or Mail Drop.

Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country

Mailing Address Same as Legal Address

Complete only if different from Legal Address above.

Address Line 1		Address Line 2	
City	State/Province	Zip/Postal Code	Country



7. Account Stakeholder

A **control person** is an individual with significant responsibility for managing the legal entity (e.g., a Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, Managing Member, General Partner, President, Vice President, or Treasurer).

An **entity owner** is each individual, if any, who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, owns 25 percent or more of the equity interests of the legal entity opening the account. If there are no entity owners that are disclosed in this application, you are certifying that there are no individuals that own, directly or indirectly, 25% or more of the equity interests of the legal entity customer. You will notify your Broker-Dealer if or when beneficial ownership of the legal entity customer changes.

Stakeholder #1

Check all that apply. Individual with Appoint/Remove Authority Beneficial Owner Entity Owner
 Authorized Agent Control Person Grantor
 Authorized Agent/Beneficial Owner Deceased Grantor Individual with Revoke/Amend Authority

Personal Information

<p>Enter full name as evidenced by a government-issued, unexpired document (e.g., driver's license, passport, permanent resident card). If the account stakeholder is an entity, enter full entity name as evidenced by the relevant formation document (e.g., trust document, partnership agreement, corporate resolution).</p>	First Name		Middle Name	Last Name		
	Business Title					
	Country of Citizenship			Citizenship Status		
	<input type="checkbox"/> SSN/ITIN <input type="checkbox"/> EIN/TIN		Taxpayer ID Number	Date of Birth MM DD YYYY	% of Ownership	
	Type of Government-Issued ID	ID Number	Country of ID Issuance	ID Issuance Date	ID Expiration Date	

Legal Address

<p>Cannot be a P.O. Box or Mail Drop.</p>	Address Line 1		Address Line 2		
	City	State/Province	Zip/Postal Code	Country	

Stakeholder #2

Check all that apply. Individual with Appoint/Remove Authority Beneficial Owner Entity Owner
 Authorized Agent Control Person Grantor
 Authorized Agent/Beneficial Owner Deceased Grantor Individual with Revoke/Amend Authority

Personal Information

<p>Enter full name as evidenced by a government-issued, unexpired document (e.g., driver's license, passport, permanent resident card). If the account stakeholder is an entity, enter full entity name as evidenced by the relevant formation document (e.g., trust document, partnership agreement, corporate resolution).</p>	First Name		Middle Name	Last Name		
	Business Title					
	Country of Citizenship			Citizenship Status		
	<input type="checkbox"/> SSN/ITIN <input type="checkbox"/> EIN/TIN		Taxpayer ID Number	Date of Birth MM DD YYYY	% of Ownership	
	Type of Government-Issued ID	ID Number	Country of ID Issuance	ID Issuance Date	ID Expiration Date	

Legal Address

<p>Cannot be a P.O. Box or Mail Drop.</p>	Address Line 1		Address Line 2		
	City	State/Province	Zip/Postal Code	Country	

8. Beneficiary/FBO Information

This section is required for Transfer on Death Accounts, is optional for Trust and Non-Prototype accounts, and does not apply to any other types of accounts. Social Security/Taxpayer ID Number or Date of Birth is required for each beneficiary.

Primary Beneficiaries

For each beneficiary, check one and provide information. Social Security/Taxpayer ID Number or Date of Birth/Trust is required for each beneficiary. Use percentages only, not dollar amounts.

If beneficiary is a trust, provide trust name and date trust was established.

To designate additional beneficiaries, attach instructions with the necessary beneficiary information.

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

<input type="checkbox"/> Spouse <input type="checkbox"/> Non-Spouse <input type="checkbox"/> Trust	Beneficiary Name		<input type="checkbox"/> Per Stirpes
	<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY
			Share Percentage %
Country of Citizenship/Organization		Name of Trustees if applicable	

continued on next page

8. Beneficiary/FBO Information *continued*

Contingent Beneficiaries

For each beneficiary, check one and provide information. Social Security/Taxpayer ID Number or Date of Birth/Trust is required for each beneficiary.

Use percentages only, not dollar amounts.

If beneficiary is a trust, provide trust name and date trust was established.

To designate additional beneficiaries, attach instructions with the necessary beneficiary information.

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

- Spouse
 Non-Spouse
 Trust

Beneficiary Name			<input type="checkbox"/> Per Stirpes
<input type="checkbox"/> SSN <input type="checkbox"/> TIN	Social Security/Taxpayer ID Number	Date of Birth/Trust MM DD YYYY	Share Percentage %
Country of Citizenship/Organization		Name of Trustees <i>if applicable</i>	

9. Signature(s) and Date(s) *Form cannot be processed without signature(s) and date(s).*

Customer Identification Program Notice: To help the government fight financial crimes, Federal regulation requires your Broker-Dealer and us to obtain your name, date of birth, address, and a government-issued ID number before opening your account, and to verify the information. In certain circumstances, we may obtain and verify comparable information for any person authorized to make transactions in an account. Also, Federal regulation requires us to obtain and verify the beneficial owners, i.e., entity owners and control persons, of legal entity customers, as applicable. Requiring the disclosure of key individuals who own or control a legal entity helps law enforcement investigate and prosecute crimes. Your account may be restricted or closed if we or your Broker-Dealer cannot obtain and verify this information. We or your Broker-Dealer will not be responsible for any losses or damages (including, but not limited to, lost opportunities) that may result if your account is restricted or closed.

In the section below, "NFS," "us," and "we" refer to National Financial Services LLC and its officers, directors, employees, agents, affiliates, shareholders, successors, assigns, and representatives as the context may require; "you" refers to the account holder(s) indicated on the account form and any authorized individuals; "Broker-Dealer" refers to the financial institution with which you opened your account.

By signing below, you:

- Affirm that you are at least 18 years of age and are of full legal age in the state in which you reside.
- Affirm that you have received, read, understand, and agree to the current terms of Account Agreement and the account features you selected and agree to future amendments to these terms.
- Understand that unless you provide written notice to the contrary, NFS and your Broker-Dealer may supply your name and other information (including your Social Security/tax identification number) to issuers of securities held in your account so you can receive important information and participate in corporate actions regarding such securities.
- Represent and warrant that you have disclosed to your Broker-Dealer your employer information and affiliation status.
- Agree that if an entity is opening the account, you will notify your Broker-Dealer if or when beneficial ownership information of the entity changes.
- Understand that if this account is an entity, any person named in Sections 2 or 3 may or may not have ownership of the account.
- Indemnify and hold harmless your Broker-Dealer, NFS, their officers, directors, employees, agents, affiliates, shareholders, successors, assigns, and representatives from any claims or losses that may occur in the event that you fail to meet any requirements concerning your brokerage account.
- Certify that all information provided in this application is true, accurate, and complete.
- Affirm that you have also read, understand, and agree to the terms of the applicable prospectus or disclosure document for any mutual fund that you purchase or exchange or Bank Deposit Sweep Program into which you have funds transferred or invest, including any mutual fund or Bank Deposit Sweep Program that you choose for your core account and that you agree to future amendments to these terms.
- Agree that if you do not choose a core account investment vehicle for your account, you authorize your Broker-Dealer to select a default core account investment vehicle for you, and you shall hold your Broker-Dealer and us harmless for such default selection and any resulting consequences.
- Acknowledge that NFS is serving in the capacity of a clearing firm and is not responsible for any administration of the Plan or IRA.
- Agree that you are responsible for providing information about this account to your IRA Custodian, plan administrator or plan recordkeeper for any required reporting or disclosure.
- Understand that different core account investment vehicles may have different rates of return and terms and conditions, such as FDIC insurance or SIPC protection, and your Broker-Dealer may not have considered these differences when selecting a core account investment vehicle for you.
- Have instructed your Broker-Dealer to establish, as your agent, an account with us. You have appointed your Broker-Dealer as your exclusive agent to act for and on your behalf with respect to all matters regarding your account with us, including the placing of securities purchase and sale orders; the selection of your core account investment vehicle, including a Bank Deposit Sweep Program; and to act in all respects in connection with such core account investment vehicle; and, provided margin and/or options trading have/has been approved, delivery of margin and option instructions for your account. No fiduciary relationship exists with us. Understand that we will look solely to your Broker-Dealer and not you with respect to such orders or instructions, and you agree to hold us harmless from and against any losses, costs, or expenses arising in connection with the delivery or receipt of any such communication(s), provided we have acted in accordance with the above. The foregoing shall be effective until written revocation is received by us and your Broker-Dealer.

For a Non-Prototype Retirement Plan or IRA Account

- Acknowledge that this account may be governed by a plan document or custodial agreement and that you may have a fiduciary obligation with regard to the administration and investment of that plan.
- Agree that margin shall only be used to purchase or sell securities for this account.
- Agree to file any required tax form and pay applicable taxes from or with respect to this account.
- Agree to provide necessary disclosures associated with margin to Regulatory Agencies or plan participants, as necessary.
- Represent that margin does not constitute a Prohibited Transaction under the Employee Retirement Income Security Act of 1974, as amended ("ERISA") or the Internal Revenue Code of 1986, as amended ("IRC").
- Indemnify and hold harmless NFS from and against all claims, demands, proceedings, suits, and actions and all liabilities, losses, expenses and costs including legal fees and expenses related to (1) account holder's failure to comply with any of its fiduciary obligations to the plan for which this account is established, (2) misuse of margin and (3) failure to comply with any disclosure and/or filing requirements as set forth by the Internal Revenue Service from time to time.

If you are a U.S. person:

- You certify under penalties of perjury that: (1) the Social Security number or Taxpayer identification Number that you provided on this application is correct (or you are waiting for a number to be issued to you); and (2) you are not subject to backup withholding because: (a) you are exempt from backup withholding, or (b) you have not been notified by the Internal Revenue

Service (IRS) that you are subject to backup withholding for failure to report all interest or dividends, or (c) the IRS has notified you that you are no longer subject to backup withholding; and (3) you are a U.S. citizen or other U.S. person, including a U.S. resident alien; and (4) the FATCA code(s) entered on this form (if any) indicating that you are exempt from FATCA reporting are correct.

- If you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return, you must check this box to indicate that you do not certify Item 2.

If you are not a U.S. person:

- You are submitting the applicable Form W-8 with this form to certify your foreign status and, if applicable, claim tax treaty benefits.

continued on next page

9. Signature(s) and Date(s) *Form cannot be processed without signature(s) and date(s). continued*

The IRS does not require your consent to any provision of this document other than the certifications required to avoid backup withholding.

You acknowledge that this account is governed by a pre-dispute arbitration clause, which appears on the last page of the Brokerage Account Customer Agreement, and that you have read the pre-dispute arbitration clause.

All account holders (including authorized individuals and trustees) must sign and date in accordance with the signature requirements outlined in the account's supporting documents.

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

If this is a trust account and you have more than 6 trustees, sign below.

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

Print Name <i>Full First, Middle, Last Name</i>	
Signature	Date <i>MM - DD - YYYY</i>
SIGN X	

To Be Completed by the Correspondent

Account accepted in accordance with firm policies.

Registered Rep. Name	Signature	Date <i>MM - DD - YYYY</i>
Office Manager/Principal Name	Signature	Date <i>MM - DD - YYYY</i>

Backup Withholding Exemption Codes

Use the codes below to populate the Tax Exemption Code field in the Account Registration section of applicable new account applications.

The following is an excerpt from the IRS Form W-9. For more information, visit www.irs.gov/formspubs.

Exempt payee code. Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends. Corporations are not exempt from backup withholding for payments made in settlement of payment card or third-party network transactions.

The following codes identify payees that are exempt from backup withholding:

- 1 An organization exempt from tax under Section 501(a), any IRA, or a custodial account under Section 403(b)(7) if the account satisfies the requirements of Section 401(f)(2)
- 2 The United States or any of its agencies or instrumentalities
- 3 A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities
- 4 A foreign government or any of its political subdivisions, agencies, or instrumentalities
- 5 A corporation
- 6 A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States
- 7 A futures commission merchant registered with the Commodity Futures Trading Commission
- 8 A real estate investment trust
- 9 An entity registered at all times during the tax year under the Investment Company Act of 1940
- 10 A common trust fund operated by a bank under Section 584(a)
- 11 A financial institution
- 12 A middleman known in the investment community as a nominee or custodian
- 13 A trust exempt from tax under Section 664 or described in Section 4947

The following chart shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 13.

IF the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 7
Broker transactions	Exempt payees 1 through 4 and 6 through 11 and all C corporations. S corporations must not enter an exempt payee code because they are exempt only for sales of noncovered securities acquired prior to 2012.
Payments over \$600 required to be reported	Generally, exempt payees 1 through 5



Brokerage Account Customer Agreement

This is the agreement for your brokerage account. It describes the features and policies associated with the account. Review this document and keep it for your records. Do not return it with your application.

Who's Who in This Agreement

In this document, "us," "we," and "our" refer to your Broker-Dealer. "NFS" is National Financial Services LLC, a NYSE member, for whom we have engaged to provide custody and clearing services for us.

The terms "account owner," "you," and "your" refer to the owner(s) indicated on the account application. For joint accounts, these terms refer to all owners, collectively and individually. For accounts owned by entities, such as trust or business accounts, these terms refer both to the entity and to all account holders.

Commitments Between You and Us

Our Commitments to You

When we accept your account application, we are agreeing to serve as your broker and to maintain an account for you. We agree, subject to our acceptance of an authorized order, to buy, sell, or otherwise dispose of securities for you according to your instructions. We and NFS also agree to provide various services and features, as described below. Note that NFS has no fiduciary responsibilities to you or this account, and does not offer any tax, legal, or investment advice, or opinions on the suitability of any investment in connection with this account.

Your Commitments to Us

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

- to accept full responsibility for the content and accuracy of all authorized instructions placed on your account, and for all results and consequences of these instructions; this includes all investment decisions and trading orders, and all instructions placed by you or any other person you authorize
- to pay all fees, charges, and expenses incurred in your account
- to maintain enough assets in your account to satisfy all obligations as they become due, and to authorize us or NFS to take whatever steps we or NFS may consider necessary to resolve unpaid debts or other obligations
- if you (or, in the event you do not, we) choose a mutual fund for your core account investment vehicle ("core account"), to authorize liquidating shares of that account to satisfy any and all debits against your account
- to use the account and its features according to this agreement
- if you (or, in the event you do not, we) choose a Bank Deposit Sweep Program ("BDSP") for your core account investment vehicle, to authorize withdrawing the applicable balance in your Bank Deposit Sweep Program to satisfy any and all debits in your account
- to let us or NFS monitor and/or record any phone conversations with you
- to let us or NFS verify the information you provide and obtain credit reports and other credit-related information about you at any time, such as payment and employment information (whether for margin or any other purpose)
- to let us or NFS share with third parties any information you provide, but only as required by law or as permitted by our and/or NFS' privacy policy
- to resolve disputes concerning your relationship with us or NFS (other than class actions) through arbitration rather than in a court of law
- to understand that, whenever you invest in, or exchange into, any mutual fund (including any fund chosen for your core account), you are responsible for obtaining and reading that fund's prospectus, including its description of the fund, the fund's fees and charges, and the operation of the fund

- to understand that whenever you invest in or have funds transferred to any Bank Deposit Sweep Program, you are responsible for obtaining and reading that Bank Deposit Sweep Program's disclosure document, including:
 - the description of the Bank Deposit Sweep Program;
 - the list of eligible banks and process by which deposits will be made for a Bank Deposit Sweep Program, which list and process may change from time to time;
 - the Bank Deposit Sweep Program's fees and charges; and
 - the different protections and terms that may apply to investments in shares of a mutual fund and deposits of funds into a Bank Deposit Sweep Program, including the differences between Securities Investor Protection Corporation ("SIPC") protection and Federal Deposit Insurance Corporation ("FDIC") insurance
- to determine if any funds transferred to an account at a bank in the Bank Deposit Sweep Program and any separate bank accounts held at that same bank will affect FDIC insurance coverage for all your funds held at that bank
- to notify us in writing any time there is a material change in your financial circumstances or investment objectives
- to comply with all applicable laws and regulations concerning trading in restricted securities and securities of issuers of whom you are an affiliate
- to be bound by the current and future terms of this agreement, from the time you first use your account or sign your application, whichever happens first
- to understand that we or NFS can change the core account investment vehicles available for your account at any time, including changing the core account investment vehicle from a mutual fund to a bank deposit account
- to understand that NFS has the right to reject any transaction for any reason

Account Features

Core Account and Income Account

Your account includes a core account that is used for settling transactions and holding credit balances. Amounts credited to your core account will be invested in the core account investment vehicle you indicate on your account application. You understand that if you do not select a core account investment vehicle, or if you are or become a non-U.S. customer with a free credit balance who then returns to the U.S., you authorize us or NFS to use the default option as the core account investment vehicle. This will either be a specific money market mutual fund, in which event we will provide the prospectus for that fund, or a bank sweep product, in which event we will provide a disclosure document describing that product in detail.

If you become a non-U.S. customer and you are no longer eligible to invest in your current core account, note that the sweep to your core account will be suspended. Should NFS determine you no longer are a non-U.S. customer, this suspension will be lifted, and any free credit balance will resume being swept to your core account investment vehicle that had been suspended (or, if that core account investment vehicle is not available, a default core account investment vehicle) and on a going-forward basis your account will operate as otherwise described in your customer agreement or any amendments thereto.

Different core account investment vehicles may have different rates of return and different terms and conditions, such as FDIC insurance or SIPC protection. If you do not select a core account investment vehicle, your Broker-Dealer or NFS may not consider these differences when selecting a default core account investment vehicle for you.

Your account also includes an income account, which receives all non-reinvested income produced by securities held in your account (such as interest, dividends, and mutual fund distributions). Income paid into this account will accrue until paid out according to your instructions.

If the core account designated in your brokerage account becomes unavailable at any time for any reason, or if your core account is a money market fund that imposes a fee, you authorize your Broker-

Dealer and/or its agent to select an alternative core account in its (their) discretion. In this event, any or all of the credit balance in your account may be placed into the alternative core account at any time.

In the event the Fully Disclosed Clearing Agreement between your Broker-Dealer and NFS is terminated, and your account remains at NFS with NFS as your default Broker-Dealer, you consent to NFS selecting an alternative core account in its discretion. If applicable, NFS will provide notice of this change.

By signing the Brokerage Account Application, you represent that you have read this Brokerage Account Customer Agreement and understand, authorize and consent to your Broker-Dealer and/or its agent changing your core account investment vehicle at its discretion, at any time and for any reason to another money market mutual fund, a free credit balance position, or another cash investment vehicle, if available. You agree to hold NFS, your Broker-Dealer and/or their agents harmless for any actions taken in connection with or resulting from changing your core account investment vehicle, including but not limited to, any changes in the rate of return offered by the alternative core account investment vehicle that your Broker-Dealer and/or its agent selects for you.

Bank Deposit Sweep Program

If you (or, in the event you do not, we) choose a Bank Deposit Sweep Program as your core account investment vehicle, cash balances in your Account will be automatically swept into interest-bearing deposit accounts at one or more federally insured banking institutions that are participating in the Bank Deposit Sweep Program (each, a "Bank") as more fully described in the Disclosure Document. Your 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 document. All FDIC insurance coverage is in accordance with FDIC rules.

Cash Balances that cannot be placed at a Program Bank, including Excess Deposit Banks, due to capacity limits or in NFS's sole discretion, an imminent lack of capacity, shall be swept to a Money Market Mutual Fund Overflow as described herein. In the event that you have funds swept to a Money Market Mutual Fund Overflow, it will have a material impact on my insurance coverage, how interest is calculated and how funds are placed and withdrawn.

Neither NFS nor your Broker-Dealer will monitor the total amount of your Bank Deposit Sweep Program and other balances at each Bank to determine whether it exceeds the limit of applicable FDIC insurance.

You are responsible for monitoring the total amount of your assets on deposit with each Bank (including accounts at each Bank held in the same right and legal capacity) in order to determine the extent of FDIC insurance coverage available to you on those deposits, including your Bank Deposit Sweep Program balance held at each Bank. If you are a trustee or other fiduciary, you are responsible for determining the application of the insurance rules for the account and its beneficiaries. Information on account protection is set forth below. If your Broker-Dealer selects a Bank Deposit Sweep Program as its default core account investment vehicle, you may not be able to opt out of all of the Banks in the Program.

Refer to your Bank Deposit Sweep Program disclosure document for more information on FDIC insurance coverage. You may also contact your Investment Representative with any questions you may have about the Bank Deposit Sweep Program.

Statements

NFS will send to the address of record a statement of account:

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

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

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

Money Market Mutual Fund Overflow

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 new or maintain existing deposits, any balance that cannot be placed or maintained at a Program Bank(s), including Excess Deposit Banks, will then be swept into the MMKT Overflow.

The enhanced sweep process between your 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 your "Core Account Investment Vehicle". 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").

Summary: Balances will sweep into the Program Banks as described above in the "How the Program Works" section. 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 Banks.

Your Program Deposit is also automatically "swept out of" a Program Deposit Account as necessary to satisfy debits in your Account. However, in the event you 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 your Account associated with certain actual or anticipated transactions to generate a debit in your 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.

Rate of Return for Cash Balances Held 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 mutual fund consist primarily of dividends. A money market mutual 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.

Statements: The statement for your Account will (i) indicate your balance in your core account including your Program Deposit balance at each Program Bank and MMKT Overflow (if applicable) as of the last business day of each monthly statement period, (ii) detail sweeps to and from your core account during the statement period, and (iii) reflect the rate of return for the MMKT Overflow, if applicable. This information is provided in lieu of separate confirmations.

Insurance: 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 in the section titled "FDIC Insurance Coverage/SIPC Protection" above. More details about the MMKT Overflow Fund can be found in the MMKT Overflow Fund 's prospectus, which will be made available to you when applicable.

Rebalance Event: From time to time, and as part of the management of the Program, if additional deposit capacity becomes available, NFS, in collaboration with your Broker-Dealer may periodically sweep funds out of the MMKT Overflow and back to Banks on your Program Bank List to be held as a Program Deposit (a "Rebalance Event"). You will be notified in advance of any MMKT Overflow fund Rebalance Event. Notice will be provided to you in writing. In addition, the notice will inform you of approximately when such Rebalance Event will be implemented. Continued use of your Account and/or the Program after notice of a Rebalance Event will constitute your 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.

Money Market Fund Same-Day Trading and Settlement Program

You agree that your use of the Money Market Fund Same-Day Trading and Settlement Program (SDS) is governed by the terms and conditions in this section. You understand and acknowledge that: (1) SDS purchase trades (buy orders) are funded by cash wired into your account on the day you place an SDS purchase trade (buy), (2) you cannot use the available balance in your core account to fund an SDS purchase trade, (3) cash wired into your account and not used that day will settle overnight into your core account and becomes ineligible to fund SDS purchase trades, (4) NFS may cancel any purchase trade if you have not wired cash into your account by the last transmission intervals available for the SDS fund you want to buy, (5) transmission intervals are determined by NFS and the applicable fund company at their discretion, (6) sale/redemption (sell order) proceeds will not be released to you until the wire is received by NFS, (7) all orders must be placed during trading hours; overnight orders will not be accepted, (8) once an order has been transmitted to the fund company by NFS, it cannot be canceled, and (9) retirement accounts are not eligible for this program.

Account Protection

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

Transferring Money Electronically

Options for transferring cash in and out of your core account electronically include wires, which use the Federal Reserve wire system, and electronic funds transfers (EFTs), which work like an electronic check. These features are optional and require separate instructions from you, which we will relay to NFS.

Dividend Reinvestment

In addition to reinvestment of mutual fund dividends, reinvestment of dividends from eligible equities and closed-end funds is an option for most accounts, including retirement accounts and those with margin. You can choose to have the service apply to all eligible securities in your account, or only to certain ones, although during the time when a security is enrolled for reinvestment, all of that security's eligible distributions must be reinvested through this service.

With certain securities (such as mutual funds), the reinvestment options available in this account may be different than those you would have if you were to invest directly with the issuer.

Margin Account (Requires separate Application)

A margin account lets you borrow money from NFS, using as collateral eligible securities that are in your account. A margin account is designed primarily to finance additional purchases of securities, although it can also provide overdraft protection for your cash management activities.

Margin privileges on a Non-Prototype Plan Account or IRA may be limited to purchasing or selling securities. Securities purchased on margin may be considered "debt-financed property" and subject to unrelated business taxable income (UBTI). Any filing or taxes due, including UBTI, are the responsibility of the plan's trustee or IRA custodian.

Non-Purpose Loans are not permitted on Non-Prototype Plan or IRA accounts.

Consult one of our representatives for information on how to establish margin and the benefits and risks it offers.

Account Registration

Joint Registration

With joint registration accounts, any obligations or liabilities resulting from one account owner's actions are joint and several (in other words, are the responsibility of each account owner, both individually and jointly). We or NFS may enforce this agreement against all account owners or against any owner individually.

Each owner of a joint account may act as if he or she were the sole owner of the account, with no further notice or approval necessary from any joint owner. For example, a joint owner can — in his or her own name — write checks, buy and sell securities, withdraw or transfer assets, borrow against the account (such as through short sales or margin), arrange for account statements to be sent only to them, or change the account's features and services (although no account owner may remove another's name from the account).

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

Note also that neither we nor NFS have any obligation to question the purpose or propriety of any instruction of a joint account owner that appears to be authentic, or to let other owners know about any changes an owner has made to the account, unless we have received written notice to the contrary, in good order, from another account owner. We and NFS do each reserve the right to require, at any time, the written consent of all account owners before acting on an instruction from any account owner, but we or NFS will use this right only at our own discretion and for our own protection.

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

Transfer on Death Registration

With transfer on death (“TOD”) registration, you designate a beneficiary or beneficiaries who will receive all monies, securities, or other assets held in your account at the time of your death (or upon the death of the last surviving account holder, if this is a joint account).

You can change your beneficiary designation at any time by filling out a new Beneficiary Designation form. We will rely on the latest Beneficiary Designation in our possession. You cannot change your beneficiary by will, codicil, or trust or other testamentary document. If we consider it necessary, we may request additional documents from any beneficiaries before we transfer assets to them from your account. Note that although NFS may hold in a nominee name securities that are in a TOD account, NFS has no responsibility to determine the registration or ownership of the account as a whole, either before or after your death.

Note that Per Stirpes designation rules may vary from state to state. It is your responsibility to consult with an estate-planning attorney to determine whether this designation is available and/or appropriate. By checking the Per Stirpes box associated with a given beneficiary, you are agreeing that if that beneficiary predeceases you, his or her share of the account will pass through to his or her descendants as determined by state law.

If more than one person is named and no share percentages are indicated, payment will be made, in equal shares, to your primary beneficiary or beneficiaries who survive you. If a percentage is indicated for a primary beneficiary who does not survive you, and if you have not checked the Per Stirpes box, the percentage of that beneficiary's designated share will be divided equally among the surviving primary beneficiaries. If there is no primary beneficiary living at the time of your death, you hereby specify that the balance is to be distributed to the contingent beneficiary or beneficiaries listed.

Neither we nor NFS will advise you on whether TOD registration is appropriate for your tax or estate-planning purposes. Registering a securities account in TOD form is legal only in certain states, so it is important to consult your own legal or tax advisor before establishing or revoking a TOD registration.

Custodial Registration

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

Plan Registration

Trustee is responsible with regard to the administration of the retirement plan including its obligations to follow the governing plan document.

National Financial Services LLC (“NFS”) is not responsible for any tax filing on behalf of your plan or IRA. The plan trustee or IRA Custodian will be responsible for additional reporting, tax filing, and disclosures required on this account.

NFS does not perform any disclosures and/or filings on behalf of the plan.

For plan accounts, note that NFS in its capacity as a clearing firm may not be providing all the necessary information required for your plan's trustee to complete these additional filings and disclosures.

Investment Objectives

Below are five common investment objectives. As the account owner, it is up to you to select the account's investment objective. Neither we nor NFS can assure you that any given investment or strategy will achieve your investment objective. Note that the typical investments listed are only examples of the types of investments historically associated with each objective. Also note that the options strategies listed under “Trading Profits” and “Speculation” require margin (which requires a separate application and is not available on retirement accounts).

Preservation of Capital

- seek to maintain principal
- interested in investments with very low historical risk of loss of principal

Typical Investments

- money market funds
- high-quality short-term fixed-income investments

Income

- seek to generate income from investments
- interested in investments with low historical risk of loss of principal

Typical Investments

- high-quality short- and medium-term fixed-income investments
- short-term bond funds
- covered call options

Capital Appreciation

- seek to grow principal value over time
- willing to invest in securities with moderate to above-average historical risk of loss of principal

Typical Investments

- common stocks
- lower-quality medium-term fixed-income investments
- equity mutual funds or index funds

Speculation

- seek a significant increase in principal
- willing to accept a correspondingly greater degree of risk by investing in securities with high historical risk of loss of principal

Typical Investments

- lower-quality long-term fixed-income investments
- initial public offerings (IPOs)
- volatile or low-priced common stocks
- equity or index options strategies such as puts or calls, spreads, straddles, and combinations
- short-term or day-trading strategies

Trading Profits

- seek to take advantage of short-term trading opportunities (a high-risk strategy)

Typical Investments

- short-term purchases and sales of volatile or low-priced common stocks
- equity or index options strategies such as puts or calls, spreads, straddles, and combinations

Growth and Income

- seek a mix of growing principal value and generating income from investments
- willing to invest in securities with moderate historical risk of loss of principal while having the potential to pay income

Typical Investments

- common stocks
- medium-term fixed-income investments
- growth and Income mutual funds

Policies on Transactions

Credits to Your Account

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

Activity in your 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 your 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 you on demand by NFS. Subject to applicable law, NFS may use these free credit balances in connection with its business. NFS may, but is not required to, pay

you interest on free credit balances held in your 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 NFS, which may change from time to time at NFS's sole discretion.

Interest paid on free credit balances will be labeled "Credit Interest" in the Investment Activity section of your account statement. Interest is calculated on a periodic basis and credited to your account on the next business day after the end of the period. This period typically runs from approximately the 20th day of one month to the 20th day of the next month, provided, however, that the beginning and ending periods each year run, respectively, from the 1st of the year to approximately the 20th of January, and approximately the 20th of December to the end of the year. Interest is calculated by multiplying your average 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.

Each check or Automated Clearing House deposit (ACH) deposited is promptly credited to your account. However, the money may not be available to use until up to four (4) business days later, and NFS 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 your account, and you are responsible for returning any interest you received on it. Note that NFS 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 NFS has reason to believe that assets were incorrectly credited to your account, NFS may restrict such assets and/or return such assets to the account from which they were transferred.

If You Utilize a Fidelity Money Market Fund as Your Core Position or if You Have a Balance in the MMKT Overflow Fund

If you utilize a Fidelity money market fund as your 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 p.m. 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 your core position at the market close.

There will be an additional automatic sweep into your core account early in the morning prior to the start of business on each business day that will also be invested in your core position at that time. This will include your 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.

You understand these sweep procedures for your MMKT Overflow Fund may cease if Program Bank capacity becomes available and deposits sweep to Program Banks.

If You Utilize the BDSP as Your Core Position

If you utilize the BDSP as your 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 NFS's nightly processing cycle are automatically swept into your core account as part of that nightly cycle (the "Evening Bank Sweep") and reflected in your Account as Program Deposits (as defined below) in anticipation of the deposit process described below occurring on the next business day.

There will be an additional automatic sweep into your core account early in the morning prior to the start of business on each business day that will also be invested in your 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 your Cash Balance. In the morning of the business day of the Morning Bank Sweep, your 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 your Program Deposits, and Program Deposits are eligible for FDIC insurance. Your Program Deposit will earn interest, provided that the accrued interest for a given day is at least half a cent.

You understand Evening Bank Sweep and Morning Bank Sweep may be a substituted with similar sweeps to the MMKT Overflow Fund in the event there is a lack of capacity at Program Banks. You understand this is further explained in the section titled "Money Market Mutual Fund Overflow" component of the BDSP section in this agreement.

If You Utilize the Interest-Bearing Option (FCASH) as Your Core Position

If you utilize FCASH as your 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 NFS's nightly processing cycle is automatically swept into your core account as part of that nightly cycle and held in the interest-bearing option.

Debits to Your Account

Deferred debit card charges are debited monthly. All other debit items (including checks, debit card transactions, bill payments, securities purchases, electronic transfers of money, levies, court orders, or other legal process payments) are paid daily to the extent that sufficient funds are available. Note that debits to resolve securities transactions (including margin calls) will be given priority over other debits, such as checks or debit card transactions.

As an account owner, you are responsible for satisfying all debits in your account, including any debit balance outstanding after all assets have been removed from an account, any margin interest (at prevailing margin rates) that has accrued on that debit and any costs (such as legal fees) that NFS incurs collecting the debit. You are responsible for ensuring that checks issued to you representing distributions from your account are promptly presented for payment. If a check issued to you from your account remains uncashed and outstanding for at least six months, you authorize and instruct NFS, in its sole discretion, to cancel the check and return the underlying proceeds to you by depositing the proceeds into your account.

To help ensure the proper discharge of debits, it is NFS's policy to do the following when settling debits against your account.

During normal business hours, activity in your account, such as wire disbursements and bill payments, are debited from your account.

If You Utilize a Fidelity Money Market Fund as Your Core Position

If you utilize a Fidelity money market fund as your core position and there are debits in your account generated by account activity occurring prior to the market close each business day (or 4:00 p.m. 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:

1. any Intra-day Free Credit Balances
2. proceeds from the sale of your core position at the market close
3. 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. if you have a margin account, any margin surplus available, which will increase your margin balance

Note: NFS may modify the sources and order in which your debits are settled. Your Broker-Dealer may be authorized to exclude sources for settling debits in your account including limiting certain auto-liquidation options. Please contact your Broker-Dealer for more information.

There will be an additional sweep early in the morning prior to the start of business on each business day, and certain unsettled debits in your 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 your core position early in the morning prior to the start of business.

If You Utilize the Bank Sweep as Your Core Position

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

1. any Intra-day or After-hours Free Credit Balances
2. 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. 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. if you have a margin account, any margin surplus available, which will increase your margin balance

Note: NFS may modify the sources and order in which your debits are settled. Your Broker-Dealer may be authorized to exclude sources for settling debits in your account including limiting certain auto-liquidation options. Please contact your Broker-Dealer for more information.

In addition, early in the morning prior to the start of business on each business day, certain unsettled debits in your 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 proceeds from 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).

You understand that if you utilize the Bank Sweep as your core position and in the event, you have Cash Balances in the MMKT Overflow, the Cash Balances will first be debited from the MMKT Overflow Fund, then from Program Banks. You understand this is further explained in the section titled **"Money Market Mutual Fund Overflow"** component of the BDSP section in this agreement.

If You Utilize the Interest-Bearing Option ("FCASH") as Your Core Position

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

1. any Intra-day or After-hours Free Credit Balances
2. funds held in FCASH
3. 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. If you have a margin account, any margin surplus available, which will increase your margin balance

Note: NFS may modify the sources and order in which your debits are settled. Your Broker-Dealer may be authorized to exclude sources for settling debits in your account including limiting certain auto-liquidation options. Please contact your Broker-Dealer for more information.

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 non-retirement account with the same registration (which you authorize us to sell for this purpose when you sign the application)
- any securities in any other account at NFS in which you have an interest

Contact your Broker-Dealer for additional options for handling debits in your account if you utilize FCASH as your core position. In the event that your account does not contain sufficient cash, NFS may liquidate securities to satisfy a court order, levy, or any other legal process payment.

In the event you hold a money market fund in your account that is held outside of your core account that is subject to a liquidity fee (as described in more detail in the fund's prospectus), upon notice to NFS by the fund that a liquidity fee has been imposed, the cash available and running collective balance in your account will be reduced by the amount of the value of the impacted money market fund. Payment of debit items from your account will continue to be paid as described in this agreement, but NFS 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.

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

Interest on any margin debt will accrue beginning the day credit is extended and is subject to the terms of the Supplemental Application for NFS Margin Account Privileges. Money market fund shares used to pay debits are redeemed at the NAV in effect at the time. For disclosures concerning money market funds, see "Money Market Fund Investments" later in this agreement.

Resolving Unpaid Debts or Other Obligations

If your available balance is not enough to satisfy a given debit, we and NFS reserve the right to take action as we see fit, including any of the following:

- decline to honor the debit, which may result in fees (such as a returned check fee) or other consequences for you
- if you have a margin account and the unsatisfied debit is for a securities purchase, draw on the available balance of another account of yours that we hold

If you have a margin account, we or NFS may transfer to that account any unresolved debit from other accounts of yours.

Note that at any time, we or NFS may reduce your available balance based on obligations that have been incurred but not yet debited.

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

We or NFS may also use property to satisfy a margin deficiency or other obligation, whether or not we or NFS have made advances in connection with this property. This provision extends to any property held by you or carried for any account of yours, including any credit balances, assets, and contracts, as well as shares of any mutual funds or other investment companies for which we, NFS, or an affiliate of either one provides management or administrative services. Although we or NFS may use other methods when we determine they may be more appropriate, we or NFS reserve the right to use the provisions described in this section at any time, except in cases involving retirement accounts when these provisions would conflict with the Employee Retirement Income Security Act of 1974 (ERISA) or the Internal Revenue Code of 1986, both as amended.

When street name or bearer securities held for you are subject to a partial call or partial redemption by the issuer, NFS may or may not receive an allocation of called/redeemed securities by the issuer, transfer agent and/or depository. If NFS is allocated a portion of the called/redeemed securities, NFS utilizes an impartial lottery allocation system (the "Lottery Process"), in accordance with applicable rules, that randomly selects the securities within customer accounts that will be called/redeemed. NFS' allocations are not made on a pro rata basis and it is possible for you to receive a full or partial allocation, or no allocation. You have the right to withdraw uncalled fully paid securities at any time prior to the cutoff date and time established by the issuer, transfer agent and/or depository with respect to the partial call, and also to withdraw excess margin securities provided your account is not subject to restriction under Regulation T or such withdrawal will not cause an undermargin condition. A more detailed description of the Lottery Process may be accessed by visiting <http://www.mybrokerageinfo.com> and clicking on "Callable Securities Lottery." 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.

Use of Funds Held Overnight

As compensation for services provided with respect to accounts, NFS receives use of: amounts from the sale of securities prior to settlement; amounts that are deposited in the accounts before investment; and disbursement amounts made by check prior to the check being cleared by the bank on which it was drawn. Any above amounts will first be netted against outstanding account obligations. The use of such amounts may generate earnings (or "float") for NFS or instead may be used by NFS to offset its other operational obligations. Information concerning the time frames during which NFS may have use of such amounts and rates at which float earnings are expected to accrue is provided as follows:

- (1) **Receipts.** Amounts that settle from the sale of securities or that are deposited into an account (by wire, check, EFT or other means) will generally be invested in the account's core account investment vehicle by close of business on the business day following NFS' receipt of such funds. NFS gets the use of such amounts from the time it receives funds until the core account purchase settles on the next business day. Note that amounts disbursed from an account (other than as referenced in Section (2) below) or purchases made in an account will result in a corresponding "cost" to NFS. This occurs because NFS provides funding for these disbursements or purchases one day prior to the receipt of funds from the account's core account. These "costs" may reduce or eliminate any benefit that NFS derived from the receipts described previously.
- (2) **Disbursements.** NFS gets the use of amounts disbursed by check from accounts from the date the check is issued by NFS until the check is presented and paid.
- (3) **Float Earnings.** To the extent that such amounts generate float earnings, such earnings will generally be realized by NFS at rates approximating the Target Federal Funds Rate.

Transaction Settlement Deadlines

Unless notified to the contrary, you need to pay for all transactions by 2 p.m. Eastern Time on the settlement date, and deliver all securities in time for us to receive them one business day before the settlement date. We and NFS reserve the right to cancel or liquidate, at your risk, any transaction not settled in a timely way.

Bank Wires and EFT Transactions

Bank wire transfers to your bank are normally processed the same day, depending on the time received. A wire may be for between \$10,000 and \$999,999,999.99.

EFTs are normally completed within three business days of your request. Money deposited via EFT is normally not available for withdrawal for four to six business days. An EFT transfer may be for between \$10 and \$999,999,999.99. The two accounts involved in an EFT transaction must have at least one owner's name in common (and that name must match exactly).

For EFT transactions, you hereby grant us limited power of attorney for purposes of redeeming any shares in your accounts (with the right to make any necessary substitutions), and direct us to accept any orders to make payments to an authorized bank account and to fulfill these orders through the redemption of shares in your account. You agree that the above appointments and authorizations will continue until either the account is terminated, we receive written notice of any change, or we have sent 30 days' written notice to your account's address of record indicating that we will cease to act as agents to the above appointments.

Dividend Reinvestment

With this feature, all dividends paid by securities that you designate for reinvestment are automatically reinvested in additional shares of the same security. ("Dividends" here means cash dividends and capital gain distributions, but not cash-in-lieu payments, late ex-dividend payments, and special dividend payments.) In designating any security for reinvestment, you authorize NFS to purchase shares of that security for your account.

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

- be a closed-end fund, domestic common stock, or ADR
- be margin-eligible (as defined by NFS)
- be held in street name by NFS (or at a securities depository on its behalf)
- not be held as a short position

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

- the security is eligible
- you own the shares on the dividend record date
- you own the shares on the dividend payable date (or the posting date, for shares handled through the Depository Trust Company ("DTC") program described below), even if you sell them that day
- your position in the security has been settled on or before the record date
- the shares are designated for reinvestment as of 9:00 p.m. Eastern Time on the record date (or, if the record date is not a business day, then the last business day before the record date)

If you designate securities on an account-wide basis, any ineligible securities you own will automatically be designated if and when they become eligible.

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.

If you designate securities individually, and want to designate a new security you are buying, you can do so when you place your order to buy the security; however, if you are buying through a limit order, you will have to reconfirm the designation at the end of every business week that your order remains unfilled.

If an issuer delays a dividend, the reinvestment will occur on the day the dividend is actually paid.

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

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

If you transfer or reregister your account with us (for example, by changing from individual to joint registration), you need to re-designate any securities whose dividends you want reinvested.

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. You have the opportunity up until the applicable deadline to make an election to receive the payment of their choice. Please be advised, if you do not make an election prior to the deadline, your account will be assigned a default election based on the dividend reinvestment program instructions you established with respect to your account. This default election will be utilized in lieu of the issuer's default option being applied to your account.

Depository Trust Company's (DTC) Dividend Reinvestment Program

NFS may buy reinvestment shares through a program offered by the Depository Trust Company ("DTC") that offers a share price discount of up to 5%. To find out which securities are currently available through the DTC, contact us. Note that the availability through this program of any given security may change without notice. Also note that DTC program transactions take longer to process: Although the transactions are effective as of the dividend payable date, they are generally not posted to your account until 10 to 15 days later. If you sell your dividend-generating shares before the posting date, the dividend will not be reinvested.

To remove securities from the dividend reinvestment service, notify us in writing or during business hours. We must receive your notification by 9:00 p.m. Eastern Time one business day before the record date (or, if the record date is not a business day, then two business days before the record date).

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

Precious Metals

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

Monitoring Your Account

As an account owner, you are responsible for monitoring your account. This includes making sure that all transactions are accurate and that you are receiving confirmations, account statements, and any other expected communications. It also includes reviewing these documents to see that information about your account is accurate and contains nothing suspicious. You understand that NFS does not monitor your account for you and has no duty to advise you of any issue regarding your account or us.

If you have a Bank Deposit Sweep Program as your core account investment vehicle, you are responsible for monitoring the total amount of your assets on deposit with each Bank in the Bank Deposit Sweep Program (including amounts in other accounts at each Bank held in the same right and legal capacity) in order to determine the extent of deposit insurance coverage available to you. If you are a trustee or other fiduciary, you are responsible for determining the application of the insurance rules for the account and its beneficiaries.

So long as we or NFS send communications to you at the physical or electronic address of record given on the application, or to any other address given to us by an owner, the communications are legally presumed to have been delivered, whether you actually received them or not. In addition, confirmations are legally presumed to be accurate unless you specifically tell us otherwise within five days of when they were sent to you; account statements, within ten days.

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

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

If we identify an error in connection with property you have received from or through us or an affiliate and determine it is not rightfully yours, you agree that we may take action to correct the error, which may include returning such property to the rightful owner.

Limits of Responsibility

Although all entities that provide services to your account strive to ensure the quality and reliability of those services, neither we nor NFS can be responsible for the availability, accuracy, timeliness, completeness, or security of any service related to your account.

You therefore agree that we and NFS are not responsible for any losses (meaning claims, damages, actions, demands, investment losses, or other losses, as well as any costs, charges, attorneys' fees, or other fees and expenses) that you incur as a result of conditions beyond our control or any agreement between the parties. This includes, for example:

- any action that is done in accordance with the procedures described in this agreement or an applicable mutual fund or securities prospectus or Bank Deposit Sweep Program disclosure document or other investment description

- the acceptance and processing of any order placed on your account, whether received electronically or through other means, as long as the order reasonably appears to be authentic
- investment decisions or instructions placed in your account, or other such actions attributable to you or any authorized person
- occurrences related to governments or markets, such as restrictions, suspensions of trading, bank closures or bank regulatory, legal or other limitations or restrictions, or high market volatility or trading volumes
- uncontrollable circumstances in the world at large, such as wars, earthquakes, power outages, or unusual weather conditions
- occurrences related to computers and communications, such as a network or systems failure, a message interception, or an instance of unauthorized access or breach of security
- the storage and use of information about you and your account(s) by our systems and transmission of this information between you and us; these activities occur entirely at your risk
- telephone requests for money transfers, so long as we transmit the proceeds to you or the bank account number identified
- any checks or other debits to your account that are not honored because the account has insufficient funds

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

Indemnification

You agree to indemnify us from, and hold us harmless for, any losses (as defined in "Limits of Responsibility") resulting from your actions or failures to act, whether intentional or not, including losses resulting from actions taken by third parties.

Beyond taking reasonable steps to verify the authenticity of instructions, we have no obligation to inquire into the purpose, wisdom, or propriety of any instruction we receive.

Terms Concerning This Agreement

Applicability

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

Governing Laws and Policies

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

All transactions through NFS are subject to the rules, guidelines, and customs of the marketplace where they are executed, and those of any clearing facility NFS may use, as well as applicable state and federal laws and any NFS trading policies and limitations that are in effect at the time.

Modification and Enforcement

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

We or NFS may transfer our interests in this account or agreement to any of our successors and assigns, whether by merger, consolidation, or otherwise. You may not transfer your interests in your account or agreement except with our prior written approval, or through inheritance, corporate dissolution, or similar circumstance, as allowed by law, in which case any rights and obligations in existence at the time will accrue to, and be binding on, your heirs, executors, administrators, successors, or assigns.

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

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

If for any reason (such as the termination of a contract between us and NFS) your account is held directly by NFS, it may be restricted, and there may be new or different fees and commissions. Examples of restrictions include the ability to place sell orders only and the loss of electronic trading.

NFS may offset regulatory transaction or activity fees that are assessed by certain self-regulatory organizations or regulatory authorities against NFS ("Activity Assessment Fees"). You acknowledge that NFS has the right to determine such offset of Activity Assessment Fees in its sole and exclusive discretion and that such offset of Activity Assessment Fees may differ from or exceed the regulatory transaction or activity fees in connection with your transactions. Such differences may be caused by various factors including, among other things, the rounding methodology used by NFS, the use of allocation accounts, transactions or settlement movements for which a regulatory transaction or activity fee may not be assessed, differences between the dates of fee rate changes and various other reasons. You acknowledge that NFS has made no representation that Activity Assessment Fees assessed to you will equal the regulatory transaction fees assessed against NFS in respect of or resulting from your transactions.

Termination

We or NFS can terminate your account or this agreement at any time, for any reason, upon written notice to you. You can close your account, or terminate any optional feature, by notifying us in writing or calling us on a recorded line. When an account is closed, all debit cards, checkwriting, and other features associated with it are terminated.

Regardless of how or when your account is closed, you will remain responsible for all unpaid obligations of your account. This includes charges, debit items, or other transactions you initiated or authorized, whether arising before or after termination, as well as any fees incurred but not yet charged to your account. Payment for these obligations will be deducted from your final account balance.

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

Texas Residents only: In accordance with Texas House Bill 1454, you, as an account owner, may designate a representative for the purpose of receiving a due diligence notice. If you add a designated representative, NFS is required to mail the written notice upon presumption of abandonment to the representative, in addition to mailing the notice to you, the account owner.

In the event that we or NFS determine that the Bank Deposit Sweep Program is no longer an eligible core account investment vehicle, you authorize the withdrawal of your account balance from the Bank Deposit Sweep Program and agree that such funds may be invested in a different core account investment vehicle at the sole discretion of us or NFS. You understand and agree that the new core account investment vehicle (i) may not be a Bank Deposit Sweep Program, (ii) may not be eligible for FDIC insurance and (iii) may not provide the same interest rate and/or rate of return as your previous core account investment vehicle. In the event of such occurrence, you may contact your Broker-Dealer for information on any such core account investment vehicle.

Notices and Disclosures

Account Administration

FINRA Rule 4311 requires that we identify the various account administration functions that we and NFS each agree to perform. Below is a summary of this information; for a more complete description, contact us.

As your Broker-Dealer, we will:

- open, approve, and monitor your brokerage account
- transmit accurate, timely instructions to NFS regarding your brokerage account
- determine the suitability of any investment recommendations and advice
- operate your brokerage account in compliance with applicable laws and regulations
- if you have a margin account, advise you of margin requirements and ensure that your account remains in compliance with all applicable federal, industry, and NFS margin requirements including, but not limited to, any additional requirements or limitations as a result of establishing an account for an employer-sponsored non-prototype plan or IRA
- maintain proper books and records of all services we perform for you

At our direction, NFS will:

- execute, clear, and settle transactions that we process through them
- send you transaction confirmations and periodic brokerage account statements, if we don't do this ourselves
- act as custodian for all funds and securities they receive on your behalf
- carry out our instructions regarding the transactions, and the receipt and delivery of securities, on your brokerage account
- extend margin credit, if you have applied, and been approved, for margin borrowing
- maintain proper books and records of all services they perform in connection with your account

Note that NFS may not have verified certain pricing information that we or third parties provide to you. For more information on the allocation of services, speak with one of our representatives.

Non-Transferable Securities

In the event that any securities in your account become non-transferable, NFS may remove them from your account without further notice. Non-transferable securities are those where transfer agent services have not been available for six or more years. A lack of transfer agent services may be due to a number of reasons, including that the issuer of such securities may no longer be in business and may even be insolvent.

Note the following:

- There are no known markets for these securities.
- NFS is unable to deliver certificates to you representing these positions.
- These transactions will not appear on Form 1099 or any other tax reporting form.
- The removal of the position will not be reported as a taxable distribution and any reinstatement of the position will not be reported as a contribution.
- If transfer agent services become available sometime in the future, NFS will use its best efforts to have the position reinstated in your account.
- Positions removed from your account will appear on your next available account statement following such removal as an "Expired" transaction.

By opening and maintaining an account with NFS, you consent to the actions as described above, and you waive any claims against your Broker-Dealer or NFS arising out of such actions. You also understand

that your Broker-Dealer does not provide tax advice concerning your account or any securities that may be the subject of removal from or reinstatement into your account and you agree to consult with your tax advisor concerning any tax implications that may arise as a result of any of these circumstances.

Routing of Orders

Brokerage orders (including those generated by reinvested dividends) are routed through NFS, who in turn sends orders to various exchanges or market centers for execution. In deciding where to send an order, NFS looks at a number of factors, such as size of order, trading characteristics of the security, favorable execution prices (including the opportunity for price improvement), access to reliable market data, availability of efficient automated transaction processing, and execution cost. Some market centers may execute orders at prices superior to the publicly quoted market. Although you can give instructions with a written order (though not an order placed through any telephone, electronic, or online trading system) that the order be sent to a particular marketplace, NFS' order-routing policies are designed to result in transaction processing that is favorable for you.

Note that we and NFS may receive monetary payments or other consideration (such as financial credits or reciprocal business) for directing equity trades to particular Broker-Dealers or market centers for execution.

Credit-Related Information

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

Government Money Market Funds

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

Customer Identification Program Notice

To help the government fight financial crimes, Federal regulation requires your Broker-Dealer and us to obtain your name, date of birth, address, and a government-issued ID number before opening your account, and to verify the information. In certain circumstances, we may obtain and verify comparable information for any person authorized to make transactions in an account. Also, Federal regulation requires us 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. Your account may be restricted or closed if we or your Broker-Dealer cannot obtain and verify this information. We or your Broker-Dealer will not be responsible for any losses or damages (including, but not limited to, lost opportunities) that may result if your account is restricted or closed.

NFS does not permit bearer-share entity accounts known to NFS on its platform. If it comes to NFS' attention that an entity account has issued or is permitted to issue bearer shares, NFS will restrict the account to permit liquidations only.

Pre-Dispute Arbitration Clause

This agreement contains a pre-dispute arbitration clause. Under this clause, which becomes binding on all parties when you sign your account application, You, your Broker-Dealer, and NFS 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, my Broker-Dealer and NFS 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, my Broker-Dealer and NFS 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 and/or NFS to make such designation on my behalf. The designation of the rules of a United States self-regulatory organization or United States 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 predispute 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.