

Client Relationship Agreement

To simplify the documentation of your household's relationship with Merrill Lynch and to help you understand the nature of the agreements underlying many of our accounts and services, we have prepared a Client Relationship Agreement ("Agreement"). This Agreement, as well as the underlying agreements for our various products and services, details the nature of our mutual obligations for the services you are about to use and those you may choose to use in the future. Filling out the relevant portions of this Agreement will complete your enrollment in a new account or service covered by this Agreement.

You can work with a Merrill Lynch financial advisor that you choose to achieve your unique goals and select from a broad network of accounts, retirement plans, pricing alternatives, cash access services, payment services and credit facilities that address a range of financial needs and objectives. As part of a full-service relationship with your financial advisor you will communicate with your chosen financial advisor to receive financial resources, insights, product offers and services to help you build and implement your financial strategy. This communication with you as part of the service we offer, will override any other privacy choice(s) you may have made or will make outside of Merrill Lynch. Once you have completed this Agreement, you will be able to add certain accounts and services to your Merrill Lynch relationship by indicating your choices to your financial advisor. You will, as appropriate, receive additional materials that document the specifics of the particular service(s) you choose. In most cases, however, you won't have to sign additional forms or keep track of repetitive documents. We will update our records with the information relevant to any new service and avoid duplicative paperwork.

THINGS TO KNOW BEFORE YOU BEGIN

- With this Agreement, you'll have the ability to open one or more accounts and, where permitted, to authorize the Margin Lending Program on non-retirement accounts.
- You'll be asked to designate beneficiaries for your retirement accounts.
- If you're opening an account in a capacity other than as an individual, such as a trustee, executor, custodian or guardian, you may need to sign more than one Client Relationship Agreement and additional paperwork.
- If you're not a U.S. citizen, or not a U.S. resident for tax purposes, you'll need to complete the appropriate IRS Form W-8 based on your status.
- Merrill Lynch has the right to amend this Client Relationship Agreement at any time with advance notice in writing.

WHO CAN ENTER INTO THIS AGREEMENT

Individuals

You can enter into this Agreement and open both non-retirement and retirement accounts in an individual capacity (e.g., single or joint accounts). If you open a joint account, we will ask you to designate a type of ownership. This designation will remain in effect and apply to all future joint accounts, unless you inform us otherwise in writing.

Non-individual entities and fiduciaries

You can also enter into this Agreement in a non-individual capacity (e.g.,

trustee of a trust, executor of an estate, custodian of a UTMA, or guardian for an incapacitated person). In these cases, you may need to sign and complete additional paperwork.

INFORMATION YOU PROVIDE

Like all U.S. financial institutions, Merrill Lynch is required to follow all U.S. federal regulations, and obtain and record specific information to establish an account. This includes certain information about you or anyone else you may authorize to transact, control, influence or manage an account, whether directly or indirectly. This information assists the government in its efforts to fight money laundering and other financial crimes and to counter terrorist financing efforts in the U.S. and globally.

For individuals

Merrill Lynch, like all U.S. financial institutions, is required by Federal law to obtain, verify, and record information that identifies each client who opens an account with us. When you open an account with us, we will ask you for your name, address and other information that will allow us to identify you. We may also ask to see a government issued photo identification or other identifying documents.

For entities (non-individuals)

Merrill Lynch, like all U.S. financial institutions, is required by Federal law to obtain, verify, and record information that identifies each client who opens an account. When an entity opens an account, we will ask for its legal name, address, tax identification number and other identifying information. We may also ask for copies of business licenses or other documents evidencing the existence and good standing of the entity. For sole proprietors, we may ask for the owner's date of birth, and may also ask to see a government issued photo identification or other identifying documents.

For more information, see the [Bank of America U.S. Consumer Privacy Notice](#) on page 5.

PRICING OF OUR SERVICE MODELS

Merrill Lynch offers its products, accounts and services through different service models (e.g., self-directed or full-service). Based on the service model, the same or similar products, accounts and services may vary in their prices or fees charged to a client. We have provided you with the Summary of Programs and Services attached to this Agreement. You can also review this document and the Brokerage Relationship Summary and the Explanation of fees at ml.com/knowthedetails.

Completing this Agreement

GETTING STARTED FOR INDIVIDUALS

- Look for the Merrill Lynch Client Relationship Agreement Form for Individual, Joint or Retirement Accounts.
- For individual ownership, check the box for Client 1, and complete all information.
- For joint ownership, check the boxes for both Client 1 and Client 2, and complete all information.

Keep in mind that, for joint accounts, Client 1 will be the individual who receives all mailings and whose Social Security number will be used for tax reporting.

Eligible joint account designations include:

- JTWROS—Joint Tenancy With Right of Survivorship
If one owner dies, his/her interest passes to the surviving owner(s).
(Not available for Louisiana residents.)
- TIC—Joint Tenancy Without Right of Survivorship, also known as Tenants in Common
If one owner dies, his/her interest passes to his/her estate.
- ATBE—As Tenants by Entirety
For married persons, only in states where applicable.
- COMMPROP—Community Property
For married persons, only in states where applicable.
- WI MAR PROP—Wisconsin Marital Property
for married residents of Wisconsin only
- WI SURV MAR PROP—Wisconsin Survivorship Marital Property
for married residents of Wisconsin only

Joint ownership of property is an important element of estate planning and entails important legal and tax consequences. Joint ownership laws vary from state to state. You are responsible for knowing if your designation is valid in your state. In addition, state laws regarding community property vary. Please consult your attorney, if you have any questions regarding the joint ownership or community property laws that may be applicable to your account(s).

All joint account owners must sign and date this agreement which may be signed in counterparts.

GETTING STARTED FOR FIDUCIARIES

- Look for the Merrill Lynch Client Relationship Agreement Form for Fiduciary Accounts.
- Please print the name and/or title of the Account (e.g., The John Doe Living Trust or The Estate of Mary Smith) and the name of each fiduciary in the spaces provided (e.g., John Doe, Guardian or Mary Smith, Executor).
- Please print the name and title of each fiduciary (trustee, executor, administrator, custodian) in the Client Name line(s) in the Fiduciary Information section, e.g., John Doe, Guardian, Mary Smith, Executor, or Bob Jones and Sue Brown, Co-trustees.

Keep in mind that this Agreement must be signed by each fiduciary in his/her proper capacity. Be sure to sign and date this Agreement.

ACCOUNTS: CMA® ACCOUNT OR CMA SUBACCOUNT®

A Merrill Lynch Cash Management Account® (CMA® account) is a securities account that offers access to a full range of investment products and services. Through a CMA account, you can invest in almost any kind of security available, including stocks, bonds, mutual funds and options. If you wish to segregate investments (for another family member, for instance, or for a specific purpose such as college funding), additional CMA "SubAccounts" can be opened. These have the same investment capabilities as CMA accounts but do not offer Visa® cards, check writing and certain optional services.

CMA and CMA SubAccount sweep arrangements

Once you complete and return this Agreement to us, cash you choose not to invest is automatically swept into the Merrill Lynch Bank Deposit Program. For clients that are non-U. S. residents and non-U. S. citizens, cash may also be swept into the International Bank Variable Rate Deposit Facility. Please see page 2, section 5 for additional details. Until that time, your cash balances will not earn interest. Additionally, if your account is enrolled in a Merrill Lynch investment advisory program, you should understand that Merrill Lynch may charge an asset-based advisory fee on the cash in the account even though you are not earning any interest on that cash.

The following automatic cash sweep options are available for the CMA account and CMA SubAccount®:

- **Merrill Lynch Bank Deposit Program (the "MLBD Program"):** Cash may be "swept" to bank accounts with Bank of America, N.A. and/or Bank of America California, N.A. under the MLBD Program, where it may earn interest. Deposits in the MLBD Program are insured by the Federal Deposit Insurance Corporation ("FDIC"), up to the Standard Maximum Deposit Insurance Amount ("SMDIA").
- **International Bank Variable Rate Deposit Facility:** This option is only available to non-U. S. residents who are also non-U. S. citizens. Cash may be "swept" to Merrill Lynch Bank and Trust Company (Cayman) Limited ("MLBTC"), a Merrill Lynch Affiliated bank incorporated in the Cayman Islands.

No Sweep Option

You may elect that any cash balances do not sweep to one of the Primary Money Accounts available. Cash balances will not earn interest or dividends. These balances will be covered by the Securities Investor Protection Corporation ("SIPC") up to \$250,000 per customer and by our excess-SIPC coverage, as described in your account agreement, but they are not insured by the FDIC.

Margin Lending Program

This service allows investors to borrow against the value of eligible securities (margin). Your CMA account or CMA SubAccount will be established with the Margin Lending Program, unless you check the decline box on the appropriate Merrill Lynch Client Relationship Agreement Form.

RETIREMENT ACCOUNTS

Instructions

- Check the appropriate box to designate the type of retirement account for each client.
- If the original IRA owner has died and you do not intend to treat the IRA as your own (i.e., you are not requesting a spousal rollover), select the box under "check if inherited".

Naming beneficiaries for your retirement accounts

- Because designating a beneficiary has important tax consequences, we recommend that you first consult your attorney or tax advisor.
- You can name one or more primary and contingent beneficiaries by completing the beneficiaries section for each retirement account.
- If you designate multiple beneficiaries, you must designate the percentage each is to receive, making sure that the percentage totals 100%. Percentages up to the hundredth decimal may be used.
- If you are naming a trust as a beneficiary, you must provide the names of the trustees, the date of the trust and the trust's tax identification number. "As per will" and "as per trust" designations are not valid.
- Please consult a tax professional for further explanation of "per stirpes" or "per capita". **Per Stirpes** is a method of dividing an account where surviving descendants of a deceased beneficiary effectively take the place of their deceased ancestor as primary beneficiary(ies) so they take the share to which their deceased ancestor was entitled (had they lived). A **Per Capita** division of property is an equal division among all named beneficiaries and surviving descendants of deceased ancestors.
- You can change your beneficiary designation at any time in writing, as often as you wish by completing a Beneficiary Designation Form.

Retirement account sweep arrangements

Once you complete and return this Agreement to us, cash held in retirement accounts will sweep to Bank of America, N.A. and/or Bank of America California, N.A. under the Retirement Asset Savings Program (the "RASP Program"). Please see page 2, section 5 for additional details. Until that time, your cash balances will not earn interest. Additionally, if your account is enrolled in a Merrill Lynch investment advisory program, you should understand that Merrill Lynch may charge an asset-based advisory fee on the cash in the account even though you are not earning any interest or dividends on that cash.

Additional information about retirement accounts

The balance of your retirement account will be paid to your primary beneficiaries upon your death, according to the share percentages you designate. Your designation will not be effective until we receive and accept it.

If a primary beneficiary should die before you and there are living primary beneficiaries, we will distribute the deceased beneficiary's share to the remaining beneficiaries in proportion to their share percentages. If no primary beneficiary is living at the time of your death, we'll distribute the balance to your contingent beneficiaries in the same manner.

If you don't name a beneficiary, or none are alive at the time of your death, we'll distribute the balance of your Account to your spouse. If you're not survived by a spouse, we'll pay the balance to your estate.

UNIFORM TRANSFER TO MINOR ACCOUNTS (UTMAs) OR UNIFORM GIFT TO MINOR ACCOUNTS (UGMAs)

Instructions

- You must provide the minor's name, Social Security number and date of birth in the spaces provided.
- In the space marked Termination Age, you may indicate at which age the UTMA or UGMA will terminate, as permitted by state statute.
- You may appoint a Successor Custodian. If you decide to do so, please print the names of the Custodian and Successor Custodian in the spaces provided. The signature of the Custodian must then be witnessed by a third party other than the Successor Custodian.
- Keep in mind there can only be one Custodian per UTMA or UGMA (except in Tennessee and Virginia).

TAX CERTIFICATION AND ACKNOWLEDGEMENTS

Note to all clients

- Please be sure to sign and date this document, after reading the Tax Certification and Acknowledgments.

Merrill Lynch Client Relationship Agreement Form for Individual, Joint or Retirement Accounts

Office Use Only					
MERRILL LYNCH RELATIONSHIP NO.			FINANCIAL ADVISOR NO.		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Client Information

CLIENT 1 NAME	DATE OF BIRTH	SOCIAL SECURITY NUMBER
CLIENT 1 ADDRESS	<input type="text"/>	
CLIENT 2 NAME	DATE OF BIRTH	SOCIAL SECURITY NUMBER
CLIENT 2 ADDRESS	<input type="text"/>	

CMA® account or CMA SubAccount® If you are opening a CMA account or CMA SubAccount, please complete this section.

ACCOUNT FOR: JOINT ACCOUNTS ONLY (Choose one ownership type and list the name(s) of additional joint account owners, if signing in counterparts)

Client 1	Client 2	JTWROS	TIC	ATBE	COMM- PROP	WI MAR PROP	WI SURV MAR PROP	NAME(S) OF ADDITIONAL JOINT ACCOUNT HOLDERS (if signing Agreement in counterparts)	MARGIN LENDING Decline	ACCOUNT NUMBER (Office Use Only)
First Account	<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>							
Second Account	<input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/>							

Unless "Decline Margin Lending" is checked above, you may request margin capabilities by contacting your financial advisor. Please carefully review the terms and conditions regarding the Margin Lending Program found in your CMA Disclosures and Account Agreement.

SWEEP PROGRAM

Residents of the United States of America (U.S. and Non-U.S. citizens)

Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. If electing to not sweep your cash balances will not earn interest or dividends.

First Account	Second Account
<u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	<u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.

Non-Residents of the United States of America

The following sweep choices are available only to clients who are not residents of the United States of America and are not available to all clients. Jurisdictional restrictions apply. Please contact your financial advisor to determine if you are eligible to participate before selecting from the following sweep choices. Alternatively, you may elect below to not sweep your cash balances. If electing to not sweep, your cash balances will not earn interest or dividends.

First Account	Second Account
Non- U.S. Citizens: <u>Bank Deposits</u> <input type="checkbox"/> International Bank Variable Rate Deposit Facility ² <input type="checkbox"/> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	Non- U.S. Citizens: <u>Bank Deposits</u> <input type="checkbox"/> International Bank Variable Rate Deposit Facility ² <input type="checkbox"/> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.
First Account	Second Account
U.S. Citizens: Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. If electing not to sweep, your cash balances will not earn interest or dividends. <u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	U.S. Citizens: Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. If electing not to sweep, your cash balances will not earn interest or dividends. <u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ <u>No Sweep</u> ³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.

¹ Cash balances sweep into one or more bank deposit accounts at Bank of America, N.A. and Bank of America California, N.A.

² Account holders who, according to our records are, or could be resident for tax purposes in the United States are unable to participate in this sweep option. Deposits in this sweep option are placed with Merrill Lynch Bank and Trust Company (Cayman) Limited ("MLBC"), a Merrill Lynch Affiliated bank incorporated in the Cayman Islands. Please see your account agreement for further details.

³ If your account is enrolled in a Merrill Lynch investment advisory program and you choose the No Sweep Option, you should understand that Merrill Lynch may charge an asset-based advisory fee on the cash in the account even though you are not earning any interest or dividends on that cash.

Retirement If you are opening a Retirement account, please complete this section.

Sweep Program – available cash balances are automatically swept into the Retirement Asset Savings Program (RASP).

Client 1 Information	Client 1 Retirement Accounts		ACCOUNT TYPES (Choose one)		SEP IRA/SIMPLE IRA ONLY		INHERITED ACCOUNTS ONLY		OFFICE USE ONLY			
	IRA	Rollover	ROTH IRA	SEP IRA	SIMPLE IRA	Employee? (Office Use Only - Write employer account number below)	CHECK IF INHERITED	For an Inherited Account, indicate the original deceased account owner	ACCOUNT NUMBER (One account per line)			
	Account 1		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
	Account 2		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>					
	Beneficiaries I hereby designate the person(s) named below as my beneficiary(ies) to receive payment of the balance of my account upon my death. You may choose only "per stirpes" or "per capita", (but not both) in this section. Please refer to the instructions page within this document or consult a tax professional for further explanation about per stirpes and per capita. Only use this section if beneficiaries apply to all Retirement accounts listed for Client 1. If beneficiaries should not apply to all, please complete a separate Beneficiary Designation Form (Code 1217) for each account.										Optional	
	Name of Primary Beneficiary(ies)				Date of Birth	Relationship		Share (Total 100%)	Tax Identification Number	Per Stirpes	Per Capita	
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>	
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>	
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>	
								<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>	
<i>If there is no primary beneficiary living at the time of death, I hereby specify that the balance is to be distributed to my contingent beneficiary(ies) listed below</i>										Optional		
Name of Contingent Beneficiary(ies)				Date of Birth	Relationship		Share (Total 100%)	Tax Identification Number	Per Stirpes	Per Capita		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
IRA	Rollover	ROTH IRA	SEP IRA	SIMPLE IRA	Employee? (Office Use Only - Write employer account number below)	CHECK IF INHERITED	For an Inherited Account, indicate the original deceased account owner	ACCOUNT NUMBER (One account per line)				
Account 1		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>						
Account 2		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>						
Beneficiaries I hereby designate the person(s) named below as my beneficiary(ies) to receive payment of the balance of my account upon my death. You may choose only "per stirpes" or "per capita", (but not both) in this section. Please refer to the instructions page within this document or consult a tax professional for further explanation about per stirpes and per capita. Only use this section if beneficiaries apply to all Retirement accounts listed for Client 2. If beneficiaries should not apply to all, please complete a separate Beneficiary Designation Form (Code 1217) for each account.										Optional		
Name of Primary Beneficiary(ies)				Date of Birth	Relationship		Share (Total 100%)	Tax Identification Number	Per Stirpes	Per Capita		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
<i>If there is no primary beneficiary living at the time of death, I hereby specify that the balance is to be distributed to my contingent beneficiary(ies) listed below</i>										Optional		
Name of Contingent Beneficiary(ies)				Date of Birth	Relationship		Share (Total 100%)	Tax Identification Number	Per Stirpes	Per Capita		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		
							<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> %		<input type="checkbox"/>	<input type="checkbox"/>		

Tax Certification and Acknowledgments

Under penalties of perjury, I certify: 1. that the taxpayer identification number I have shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me) and 2. that I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest and dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and 3. that I am a U.S. citizen or other U.S. person (defined in the instructions), and 4. the Foreign Account Tax Compliance Act (FATCA) code entered on this form (if any) indicating that I am exempt from FATCA reporting is correct. Certification Instructions. You must cross out item (2.) above if you have been notified by the IRS that you are subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but must provide your correct TIN.

BY SIGNING BELOW, I AGREE TO THE TERMS OF THE MERRILL LYNCH CLIENT RELATIONSHIP AGREEMENT AND:

1. THAT, UNLESS I HAVE CHECKED "DECLINE MARGIN LENDING" IN THE "ACCOUNTS" SECTION ABOVE, MARGIN LOANS MAY BE EXTENDED TO ME FROM TIME TO TIME, AND CERTAIN OF MY SECURITIES MAY BE LOANED TO MERRILL LYNCH OR LOANED OUT TO OTHERS, PURSUANT TO SECTION 6, PAGE 3 OF THE CLIENT RELATIONSHIP AGREEMENT AND THE APPLICABLE PARAGRAPHS OF THE CMA® FINANCIAL SERVICE, CASH MANAGEMENT ACCOUNT® DISCLOSURES AND ACCOUNT AGREEMENT; AND
2. THAT, IN ACCORDANCE WITH SECTION 4, PAGE 2 OF THE CLIENT RELATIONSHIP AGREEMENT, I AM AGREEING IN ADVANCE TO ARBITRATE ANY CONTROVERSIES THAT MAY ARISE WITH MERRILL LYNCH; AND
3. THAT I HEREBY ACKNOWLEDGE THAT I AM OF LEGAL AGE UNDER THE LAWS OF MY PLACE OF RESIDENCE; AND
4. THAT I ACKNOWLEDGE AND UNDERSTAND THAT NON-DEPOSIT INVESTMENT PRODUCTS ARE PROVIDED BY MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED ("MLPF&S"), A REGISTERED BROKER-DEALER AND WHOLLY OWNED SUBSIDIARY OF BANK OF AMERICA CORPORATION, AND THAT INVESTMENT PRODUCTS OFFERED THROUGH MLPF&S AND INSURANCE AND ANNUITY PRODUCTS OFFERED THROUGH ITS SUBSIDIARY, MERRILL LYNCH LIFE AGENCY INC. (II) ARE NOT INSURED BY THE FDIC OR ANY FEDERAL GOVERNMENT AGENCY, (III) ARE NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, ISSUED OR UNDERWRITTEN BY BANK OF AMERICA, N.A. OR ANY OF ITS BANK AFFILIATES, (IV) ARE SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED, AND (V) ARE NOT A CONDITION TO ANY BANKING SERVICE OR ACTIVITY; AND
5. VERMONT LAW REQUIRES THE FOLLOWING: I AUTHORIZE MERRILL LYNCH AND ITS AFFILIATES TO REQUEST A CONSUMER REPORT OR CREDIT REPORT ABOUT ME FROM ONE OR MORE CONSUMER REPORTING AGENCIES TO VERIFY THE INFORMATION PROVIDED IN THIS CLIENT RELATIONSHIP AGREEMENT AND FOR ANY OTHER LEGITIMATE BUSINESS PURPOSES.
6. THAT I HAVE REVIEWED THE SUMMARY OF PROGRAMS AND SERVICES.
7. THAT I AFFIRMATIVELY CONSENT TO HAVING AVAILABLE CASH BALANCES INCLUDED IN THE SWEEP PROGRAM AND THAT I UNDERSTAND THAT FOR ANY LATER OPENED ACCOUNT, THE SAME SWEEP PROGRAM CHOICE AND/OR RASP WILL APPLY, UNLESS I OTHERWISE INSTRUCT MY FINANCIAL ADVISOR.

THE INTERNAL REVENUE SERVICE DOES NOT REQUIRE MY CONSENT TO ANY PROVISION OF THIS DOCUMENT OTHER THAN THE CERTIFICATIONS REQUIRED TO AVOID BACKUP WITHHOLDING.

CLIENT 1 SIGNATURE

DATE

CLIENT 2 SIGNATURE

DATE

Merrill Lynch Client Relationship Agreement Form for Fiduciary Accounts (*Trust, Estate, Guardianship, Custodial, etc.*)

Office Use Only

MERRILL LYNCH RELATIONSHIP NO.

FINANCIAL ADVISOR NO.

Account Information

ADDRESS

Fiduciary Information

FIDUCIARY 1 NAME DATE OF BIRTH SOCIAL SECURITY NUMBER EMPLOYER IDENTIFICATION NUMBER
OR

ADDRESS

FIDUCIARY 2 NAME DATE OF BIRTH SOCIAL SECURITY NUMBER EMPLOYER IDENTIFICATION NUMBER
OR

ADDRESS

ADDRESS

ADDRESS

CMA® account or CMA SubAccount® If you are opening a CMA account or CMA SubAccount, please complete this section.

MARGIN LENDING

MARGIN LENDING		
ACCOUNT FOR:	DECLINE	ACCOUNT NUMBER (Office Use Only)
First Account	<input type="checkbox"/>	
Second Account	<input type="checkbox"/>	

Unless "Decline Margin Lending" is checked above, you may request margin capabilities by contacting your financial advisor. Please carefully review the terms and conditions regarding the Margin Lending Program found in your CMA Disclosures and Account Agreement.

SWEEP PROGRAM

Residents of the United States of America (U.S. and Non-U.S. citizens)

Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. By electing to not sweep, your cash balances will not earn interest or dividends.

First Account	Second Account
<u>Bank Deposits</u>	<u>Bank Deposits</u>
Merrill Lynch Bank Deposit Program ¹	Merrill Lynch Bank Deposit Program ¹
No Sweep² <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	No Sweep² <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.

¹ Cash balances sweep into one or more bank deposit accounts at Bank of America, N.A. and Bank of America California, N.A.

² If your account is enrolled in a Merrill Lynch investment advisory program and you choose the No Sweep Option, you should understand that Merrill Lynch may charge an asset-based advisory fee on the cash in the account even though you are not earning any interest or dividends on that cash.

SWEET PROGRAM

Non-Residents of the United States of America

The following sweep choices are available only to clients who are not residents of the United States of America and are not available to all clients. Jurisdictional restrictions apply. Please contact your financial advisor to determine if you are eligible to participate before selecting from the following sweep choices. Alternatively, you may elect below to not sweep, your cash balances will not earn interest or dividends.

First Account	Second Account
Non- U.S. Citizens: <u>Bank Deposits</u> <input type="checkbox"/> International Bank Variable Rate Deposit Facility ² <input type="checkbox"/> Merrill Lynch Bank Deposit Program ¹ No Sweep³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	Non- U.S. Citizens: <u>Bank Deposits</u> <input type="checkbox"/> International Bank Variable Rate Deposit Facility ² <input type="checkbox"/> Merrill Lynch Bank Deposit Program ¹ No Sweep³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.
First Account U.S. Citizens: Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. If electing to not sweep, your cash balances will not earn interest or dividends. <u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ No Sweep³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.	Second Account U.S. Citizens: Available cash balances are automatically swept into the Merrill Lynch Bank Deposit Program where cash balances may earn interest. Alternatively, you may elect below to not sweep your cash balances. If electing to not sweep, your cash balances will not earn interest or dividends. <u>Bank Deposits</u> Merrill Lynch Bank Deposit Program ¹ No Sweep³ <input type="checkbox"/> By checking this box, you elect not to sweep your cash balances and you understand that your cash balances will not earn interest or dividends.

¹ Cash balances sweep into one or more bank deposit accounts at Bank of America, N.A. and Bank of America California, N.A.

² Account holders who, according to our records are, or could be resident for tax purposes in the United States are unable to participate in this sweep option. Deposits in this sweep option are placed with Merrill Lynch Bank and Trust Company (Cayman) Limited ("MLBTC"), a Merrill Lynch Affiliated bank incorporated in the Cayman Islands. Please see your account agreement for further details.

³ If your account is enrolled in a Merrill Lynch investment advisory program and you choose the No Sweep Option, you should understand that Merrill Lynch may charge an asset-based advisory fee on the cash in the account even though you are not earning any interest or dividends on that cash.

UTMA or UGMA *If you are opening an UTMA or UGMA account as a custodian on behalf of a minor, please complete this section.*

First Account Choose one UTMA UGMA

MINOR'S NAME	MINOR'S SOCIAL SECURITY NUMBER	DATE OF BIRTH	TERMINATION AGE (Optional)	ACCOUNT NUMBER (Office Use Only)
CUSTODIAN'S NAME	SUCCESSOR CUSTODIAN'S NAME (Optional)			
<i>Sign here to appoint a Successor Custodian.</i> If for any reason I am unable or unwilling to act as Custodian, I appoint the above Successor Custodian.				
CUSTODIAN SIGNATURE	DATE	WITNESS SIGNATURE	DATE	

Second Account Choose one UTMA UGMA

MINOR'S NAME	MINOR'S SOCIAL SECURITY NUMBER	DATE OF BIRTH	TERMINATION AGE (Optional)	ACCOUNT NUMBER (Office Use Only)
CUSTODIAN'S NAME	SUCCESSOR CUSTODIAN'S NAME (Optional)			
<i>Sign here to appoint a Successor Custodian.</i> If for any reason I am unable or unwilling to act as Custodian, I appoint the above Successor Custodian.				
CUSTODIAN SIGNATURE	DATE	WITNESS SIGNATURE	DATE	

Tax Certification and Acknowledgments

Under penalties of perjury, I certify: 1. that the taxpayer identification number I have shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me) and 2. that I am not subject to backup withholding because (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest and dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and 3. that I am a U.S. citizen or other U.S. person (defined in the instructions), and 4. the Foreign Account Tax Compliance Act (FATCA) code entered on this form (if any) indicating that I am exempt from FATCA reporting is correct. Certification Instructions: You must cross out item (2.) above if you have been notified by the IRS that you are subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but must provide your correct TIN.

BY SIGNING BELOW, I AGREE TO THE TERMS OF THE MERRILL LYNCH CLIENT RELATIONSHIP AGREEMENT AND:

1. THAT, UNLESS I HAVE CHECKED "DECLINE MARGIN LENDING" IN THE "ACCOUNTS" SECTION ABOVE, MARGIN LOANS MAY BE EXTENDED TO ME FROM TIME TO TIME, AND CERTAIN OF MY SECURITIES MAY BE LOANED TO MERRILL LYNCH OR LOANED OUT TO OTHERS, PURSUANT TO SECTION 6, PAGE 3 OF THE CLIENT RELATIONSHIP AGREEMENT AND THE APPLICABLE PARAGRAPHS OF THE CMA® FINANCIAL SERVICE, CASH MANAGEMENT ACCOUNTS DISCLOSURES AND ACCOUNT AGREEMENT; AND
2. THAT, IN ACCORDANCE WITH SECTION 4, PAGE 2 OF THE CLIENT RELATIONSHIP AGREEMENT, I AM AGREEING IN ADVANCE TO ARBITRATE ANY CONTROVERSIES THAT MAY ARISE WITH MERRILL LYNCH; AND
3. THAT I HEREBY ACKNOWLEDGE THAT I AM OF LEGAL AGE UNDER THE LAWS OF MY PLACE OF RESIDENCE; AND
4. THAT I ACKNOWLEDGE AND UNDERSTAND THAT NON-DEPOSIT INVESTMENT PRODUCTS ARE PROVIDED BY MERRILL LYNCH, PIERCE, FENNER & SMITH INCORPORATED ("MLPFS&S"), A REGISTERED BROKER-DEALER AND WHOLLY OWNED SUBSIDIARY OF BANK OF AMERICA CORPORATION, AND THAT INVESTMENT PRODUCTS OFFERED THROUGH MLPFS&S AND INSURANCE AND ANNUITY PRODUCTS OFFERED THROUGH ITS SUBSIDIARY, MERRILL LYNCH LIFE AGENCY, INC. (I) ARE NOT INSURED BY THE FDIC OR ANY FEDERAL GOVERNMENT AGENCY, (II) ARE NOT A DEPOSIT OR OTHER OBLIGATION OF, OR GUARANTEED BY, ISSUED OR UNDERWRITTEN BY BANK OF AMERICA, N.A. OR ANY OF ITS BANK AFFILIATES, (III) ARE SUBJECT TO INVESTMENT RISKS, INCLUDING POSSIBLE LOSS OF THE PRINCIPAL AMOUNT INVESTED, AND (IV) ARE NOT A CONDITION TO ANY BANKING SERVICE OR ACTIVITY; AND
5. VERMONT LAW REQUIRES THE FOLLOWING: I AUTHORIZE MERRILL LYNCH AND ITS AFFILIATES TO REQUEST A CONSUMER REPORT OR CREDIT REPORT ABOUT ME FROM ONE OR MORE CONSUMER REPORTING AGENCIES TO VERIFY THE INFORMATION PROVIDED IN THIS CLIENT RELATIONSHIP AGREEMENT AND FOR ANY OTHER LEGITIMATE BUSINESS PURPOSES.
6. THAT I HAVE REVIEWED THE SUMMARY OF PROGRAMS AND SERVICES.
7. THAT I AFFIRMATIVELY CONSENT TO HAVING AVAILABLE CASH BALANCES INCLUDED IN THE SWEET PROGRAM AND THAT I UNDERSTAND THAT FOR ANY LATER OPENED ACCOUNT, THE SAME SWEET PROGRAM CHOICE AND/OR RASP WILL APPLY, UNLESS I OTHERWISE INSTRUCT MY FINANCIAL ADVISOR.

THE INTERNAL REVENUE SERVICE DOES NOT REQUIRE MY CONSENT TO ANY PROVISION OF THIS DOCUMENT OTHER THAN THE CERTIFICATIONS REQUIRED TO AVOID BACKUP WITHHOLDING.

FIDUCIARY 1 SIGNATURE AND TITLE (E.G., TRUSTEE, GUARDIAN, EXECUTOR)	DATE	FIDUCIARY 2 SIGNATURE AND TITLE (E.G., TRUSTEE, GUARDIAN, EXECUTOR)	DATE
FIDUCIARY 3 SIGNATURE AND TITLE (E.G., TRUSTEE, GUARDIAN, EXECUTOR)	DATE	FIDUCIARY 4 SIGNATURE AND TITLE (E.G., TRUSTEE, GUARDIAN, EXECUTOR)	DATE

Terms and Conditions

For the purpose of this Client Relationship Agreement ("Agreement"), "you" and "your" refers to each person who has agreed to the terms in this Agreement. "Merrill Lynch," "we," "our" and "us" refer to Merrill Lynch, Pierce, Fenner & Smith Incorporated, a registered broker-dealer and a wholly owned subsidiary of Bank of America Corporation. "Account" refers to any securities account you open with Merrill Lynch.

For purposes of the Margin Lending Program and Liens sections described below, "securities and other properties" means, without limitation, money, securities, financial instruments and commodities of every kind and nature and related contracts and options held in any of your Accounts carried or maintained by Merrill Lynch or any of its affiliates in which you may have an interest.

1. WHAT YOU ARE AGREEING TO

This Agreement provides you with access to a range of Accounts, Products and Services. When you agree to the terms of this Agreement, you're agreeing that its terms will apply to all of your Accounts, transactions and services while you are our client. In particular, you agree that:

- You will resolve any controversies with us through arbitration.
- We have a lien on your non-retirement Accounts and assets in those Accounts for the payment of any obligation you have with us.
- New York law governs your agreements and transactions, unless we indicate otherwise.
- Merrill Lynch has the right to amend this Agreement at any time with advance notice in writing. Any amendments will be effective on the date specified in the notice.
- If you're enrolled in the Margin Lending Program, you agree and understand that:
 - You may borrow money from Merrill Lynch secured by a pledge of your eligible securities and other property in your Account.
 - You will be charged interest on debit balances at a rate permitted by the laws of the state of New York.
 - Certain securities in your Account may be loaned to Merrill Lynch or others to the extent not prohibited by applicable laws, rules or regulations.
- Limits may be placed on your ability to buy, sell, transfer and hold certain securities, like low-priced securities, as identified by Merrill Lynch.
- Merrill Lynch may in its sole discretion and without notice to you, to the extent permissible under applicable law and other governing documents applicable to your account, decline, cancel or reverse your orders or instructions, or place trading, disbursement and other restrictions on any of your accounts.
- If you trade and hold non-U.S. issued securities you agree and acknowledge that:
 - Merrill Lynch or its affiliates are, or may be, required to disclose your name and other identifying information, including but not limited to, Social Security number or tax identification number, to regulators (including taxing authorities) and/or issuers to comply with local law and/or custom or practice. For example, we may be required to provide personal information in order to meet local regulations that require the submission of investor names to the local stock exchange, or an issuer may request residence and taxpayer identification information in order to obtain favorable tax treatment, such as lower withholding rates, for shareholders.
- If you trade and hold shares of Italian companies whose equity securities are traded in any regulated market you hereby represent that:
 - You only hold "Non-Qualified Equity Investments" (Partecipazioni Non Qualificate). You agree, and acknowledge that it is your responsibility, to immediately inform Merrill Lynch if this representation is inaccurate or untrue or if it becomes inaccurate or untrue.
- If you've requested a Visa® Card, you agree that:
 - Merrill Lynch is authorized to issue you the Visa® Card you requested for use with eligible accounts, and you understand that Merrill Lynch or an affiliate may obtain a credit report due to your request.
- If you're establishing your relationship in a joint capacity, you agree that:
 - Any joint Accounts you open in the future held by the same owners will have the same ownership designation you establish on this Agreement, unless you notify us otherwise in writing.
- Communications that your financial advisor sends to you regarding Merrill Lynch and/or Bank of America products and services are a component of the Merrill Lynch full-service financial planning relationship, and are considered service or transactional in nature. To the extent that these communications may be considered marketing under certain local

law(s) or regulation(s), and your consent is required; you hereby consent to receive these communications by entering into this agreement. These communications may occur in various forms, including but not limited to, telephone, postal mail, web, SMS/text, and/or email. By providing any or all of these contact methods to your financial advisor, you agree to be communicated with via any of these channels. You can change your contact methods at any time by speaking with your financial advisor directly. The marketing limitations described in the U.S. Consumer Privacy Notice and in the Federally Required Affiliate Marketing Notice are not applicable to the services that you receive from your Merrill Lynch financial advisor. Note: This section does not apply to accounts opened or held with Merrill Edge.

• Compliance with Applicable Laws

You represent that you and any beneficial owner(s) if signed in a representative capacity have complied, and you agree that you and any such beneficial owner(s) will comply for so long as this Agreement is in effect, with all applicable laws (including obligations related to tax payments and reporting and to currency exchange controls) related to (i) the assets deposited, acquired or otherwise held in any securities account held at Merrill Lynch now or in the future or (ii) any other transaction you enter into with Merrill Lynch or its affiliates. You further agree and acknowledge that you and any beneficial owner(s) if signed in a representative capacity are responsible for timely paying any taxes owed to any tax authority and for timely filing all relevant tax returns in relation to assets held in any securities account held at Merrill Lynch now or in the future or any other transaction you enter into with Merrill Lynch or its affiliates.

• Investment Policy Statements - Responsibility to Review and Monitor

You acknowledge that it is your sole responsibility to adhere to any investment policy statement (IPS) or similar document that applies to you. You further acknowledge that, in connection with your Merrill Lynch Account(s), Merrill Lynch shall not have any responsibility to review, monitor, or adhere to your IPS or similar document.

• Read and Understand English

You acknowledge that (i) you can read and fully understand English; (ii) that written documents, agreements, and information (collectively referred to as "Materials") concerning your relationship with Merrill Lynch, including but not limited to products, services, transactions, and other account details, will typically be provided to you in English; and (iii) on occasion we may provide certain Materials to you in Chinese, Spanish, French or Portuguese, as applicable.

關注客戶

變化的通知在其自己的與MLPF & S的關係

您承认 (i) , 你可以阅读并完全理解英语;

(ii) 有关与美林 (Merrill Lynch)

的关系的书面文件，协议，以及信息（统称为“材料”），

包括但不限于产品，服务，交易，和其他帐户，

通常会以英语向您提供，(iii) 有时出于尊重，

我们可能会向您提供某些非英文的翻译材料。

Atención a Nuestros Clientes:

Notificación de cambios en la relación de su cuenta con MLPF&S

Ud. reconoce que (i) puede leer y entender el idioma inglés a cabalidad; (ii) que, en general, todos los documentos escritos, contratos y demás información (denominada, en conjunto, como "Materiales"), que tengan que ver con la relación que sostiene con Merrill Lynch, incluyendo pero sin limitar a los productos, servicios, transacciones y demás detalles relacionados con su cuenta le serán entregados en el idioma inglés; y (iii) en ocasiones, podremos entregarle traducciones de ciertos materiales a otros idiomas distintos al inglés, como un gesto de cortesía hacia Ud.

À l'attention de tous nos clients:

Notification de changements à votre contrat de compte bancaire avec MLPF&S:

Le client reconnaît que (i) il lit et comprend pleinement la langue anglaise; (ii) tous écrits, contrats ou notifications (repris sous l'expression générique de 'Documents') concernant votre relation avec Merrill Lynch, y compris des produits, services, transactions et autres informations sur votre compte, notamment, vous sont remis normalement en langue anglaise, et (iii) à titre de courtoisie, nous pouvons parfois fournir certains Documents traduits dans d'autres langues que l'anglais.

Atenção, todos os clientes:

Notificação das mudanças realizadas nos contratos de suas contas com MLPF&S:

Você declara que (i) pode ler e compreender o idioma inglês perfeitamente; (ii) que aceita que, em geral, todos os documentos escritos, os contratos e as outras informações (juntamente designados "Materiais"), que tenham a ver com a relação que você mantém com a Merrill Lynch, inclusive, mas sem se limitar a, os produtos, serviços, transações e outros detalhes relacionados a sua conta sejam entregues em idioma inglês; e que (iii), em ocasiões, poderemos entregar traduções de alguns materiais em outros idiomas diferentes do inglês, como gesto de cortesia para você.

2. YOUR SIGNATURE

The signature you provide on this Agreement governs the terms of the Accounts or Services you are establishing now and that you add in the future. We will provide additional and necessary confirmation and disclosure information when you enroll, but in many cases, you will not need to sign an additional Account agreement or other form. If the terms governing an Account or Service are different from the terms outlined here, the terms of that Account or Service will apply.

When you open a new Account or enroll in a service, we will provide you with the agreement and any disclosures for that Account or service and confirm your enrollment in that Account or service in writing. Those agreements and disclosures are incorporated into this Agreement by reference. This means that your initial signature acts as your agreement to the terms of the new Account or service. As a result, in many cases, you will not need to sign an additional Account agreement or other form. For example, if you enroll in the CMA® Financial Service, the disclosures and Account agreement for that service are incorporated into this Agreement. We will provide the applicable documents to you when you enroll.

We may require you to sign additional agreements or other documents when opening an Account or to designate or change beneficiaries, begin Options trading, engage in Financial Planning, establish managed money services or services involving the transfers of money or securities. Particularly if you are selecting:

- Beneficiaries for an Individual Retirement Account or an Account with the Transfer On Death service.
- Ownership of a joint Account.
- Options trading.
- Financial planning, managed money services or services involving the transfers of money or securities.

3. LAWS AND POLICIES GOVERNING YOUR ACCOUNT

Your Account ownership and capacity

You represent that no one except the person(s) signing this Agreement, or the beneficial owner(s) if signed in a representative capacity, has an interest in this Account or any additional Accounts opened in the future for you or for such beneficial owner(s). If this Account is beneficially owned by any person who is a U.S. Securities and Exchange Act Section 16 reporting person of a U.S. public company, you represent that no funds or assets belonging to such U.S. public company, or any entity affiliate of such U.S. public company, will be invested through this Account. You represent that you are of legal age under the laws of your place of residence and that you are not employed by a broker-dealer or other employer whose consent is required to open and maintain this Account by regulation or otherwise, unless such consent has been provided to you. If any of the foregoing representations is inaccurate or becomes inaccurate, you will promptly advise us in writing.

You acknowledge that you fully understand English and that written documents, agreements and information concerning your relationship with Merrill Lynch, including but not limited to products, services, transactions and your Accounts, will be provided to you in English.

Governing law

Unless otherwise specified in this Agreement, it and all of your transactions with Merrill Lynch will be governed by and interpreted under the laws of the State of New York. Your Accounts are also governed by the rules and regulations of the Securities and Exchange Commission (SEC), the Federal Reserve System and the Financial Industry Regulatory Authority (FINRA) as well as Merrill Lynch's own policies and procedures.

Prohibited use of your Account

You may not use your Account or relationship to Merrill Lynch to process transactions that are prohibited by law, including those prohibited by the Unlawful Internet Gambling Enforcement Act of 2006.

4. AGREEMENT TO ARBITRATE CONTROVERSIES

This Agreement contains a predispute arbitration clause. By signing an arbitration agreement the parties agree as follows:

- 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.
- Arbitration awards are generally final and binding; a party's ability to have a court reverse or modify an arbitration award is very limited.
- The ability of the parties to obtain documents, witness statements and other discovery is generally more limited in arbitration than in court proceedings.
- 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.
- The panel of arbitrators may include a minority of arbitrators who were or are affiliated with the securities industry.
- 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.
- The rules of the arbitration forum in which the claim is filed, and any amendments thereto, shall be incorporated into this Agreement.

You agree that all controversies that may arise between us shall be determined by arbitration. Such controversies include, but are not limited to, those involving any transaction in any of your accounts with Merrill Lynch, or the construction, performance or breach of any agreement between us, whether entered into or occurring prior, on or subsequent to the date hereof.

Any arbitration pursuant to this provision shall be conducted only before the Financial Industry Regulatory Authority, Inc. (FINRA) or an arbitration facility provided by any other exchange of which Merrill Lynch is a member, and in accordance with the respective arbitration rules then in effect in FINRA or such other exchange.

You may elect in the first instance whether arbitration shall be conducted before FINRA or another exchange of which Merrill Lynch is a member, but if you fail to make such election by registered letter addressed to Merrill Lynch at the office where you maintain your Account before the expiration of five days after receipt of a written request from Merrill Lynch to make such election, then Merrill Lynch may make such election.

Judgment upon the award of arbitrators may be entered in any court, state or federal, having jurisdiction.

No person shall bring a putative or certified class action to arbitration, nor seek to enforce any pre-dispute arbitration agreement against any person who has initiated in court a putative class action or who is a member of a putative class who has not opted out of the class with respect to any claims encompassed by the putative class action until: (i) the class certification is denied; or (ii) the class is decertified; or (iii) the customer is excluded from the class by the court. Such forbearance to enforce an agreement to arbitrate shall not constitute a waiver of any rights under this Agreement except to the extent stated herein.

5. SWEEP PROGRAM

The deposit of checks, the sale of securities, and other activity will periodically generate cash in your Account. For U.S. residents, cash balances in your Account are automatically deposited into the Merrill Lynch Bank Deposit Program. If you are not a U.S. resident and not a U.S. citizen, you have the option to have cash balances automatically deposited into the International Bank Variable Rate Deposit Facility (the "Sweep Program"). Alternatively, you may elect that cash balances do not sweep. If you choose not to sweep your cash balances, they will not earn interest or dividends. These balances will be covered by SIPC coverage (up to \$250,000 per customer) and excess-SIPC, as described in your account agreement, but not FDIC coverage. Speak to your financial advisor, or see your Account agreement for details.

Interest rates in MLBG and RASP Programs are tiered based upon your relationship with Merrill Lynch, as determined by the total value of assets in your Account, or if you link your Accounts through our statement link service, the total value of assets in all of your eligible linked Accounts.

Rates may change daily for the MLBG and RASP Programs. Clients with higher total eligible assets generally receive a higher yield on their bank deposits. The current yield on any deposits held under the MLBG and RASP Programs will be included on your Account statement. You can also access current yield information on MyMerrill.com®, or by contacting your financial advisor.

Deposits held in Bank of America, N.A. and Bank of America California, N.A. (the "Merrill Lynch Affiliated Banks"), and Merrill Lynch Bank and Trust Company (Cayman) Limited ("MLBTC") are financially beneficial to Merrill Lynch

and its affiliates. Interest rates paid on deposits are determined at the discretion of the Merrill Lynch Affiliated Banks and MLBTC based on economic and business conditions.

Your cash in the MLBD Program and the RASP Program is insured by the Federal Deposit Insurance Corporation ("FDIC") up to a total of the Standard Maximum Deposit Insurance Amount ("SMDIA"). The SMDIA is \$250,000 per depositor, per ownership category, per bank. Since there are two banks in the MLBD Program, each individual depositor receives up to twice the SMDIA of FDIC insurance and each joint Account with two depositors receives up to four times the SMDIA of FDIC insurance. Since there are two banks in the RASP Program, each individual depositor receives up to twice the SMDIA of FDIC insurance. Although information about FDIC insurance is available from your financial advisor, it is your responsibility to monitor the total amount of your deposits with the Merrill Lynch Affiliated Banks to determine the extent of insurance coverage available on your deposits. It is important to note that uninvested cash held in more than one Merrill Lynch Account (such as a CMA Account and a CMA SubAccount) may be deposited to the same Merrill Lynch Affiliated Banks. Also, amounts in excess of the applicable FDIC insurance limit may be deposited to the Merrill Lynch Affiliated Banks from the same Merrill Lynch Account. Any certificates of deposit that you own issued by a Merrill Lynch Affiliated Banks will also count towards the FDIC insurance limits. Deposits placed within MLBTC are not insured by the FDIC or any other deposit protection program.

The assets held in your Merrill Lynch brokerage account are protected by the Securities Investor Protection Corporation ("SIPC"). SIPC does not cover cash on deposit at the Merrill Lynch Affiliated Banks, or MLBTC. You may obtain further information about SIPC, including the SIPC Brochure, via SIPC's website at <http://www.sipc.org> or by calling SIPC at 1.202.371.8300.

Additional information about linking Accounts for higher interest rates, FDIC insurance, investment alternatives for your cash balances, and the benefits to Merrill Lynch of bank deposits is available through your financial advisor and will also be included in the written materials you will receive in connection with the establishment of your Account.

Merrill Lynch reserves the right to offer different Sweep Programs for different Accounts or clients. Merrill Lynch, may, with 30 days prior written notice, (i) make changes to the terms and conditions of our Sweep Program; (ii) make changes to the terms and conditions of any money account; (iii) change, add or remove the money account available as sweep product; (iv) transfer your money account from one sweep product to another.

Additional Money Accounts

Under the Sweep Program, you may only establish one primary money account for the automatic deposit of cash balances in your account. However, you may establish multiple additional money accounts and make deposits at any time by speaking to your financial advisor. If you have established money accounts in addition to your primary money account, and you do not have sufficient balances in your primary money account, your additional money account balances will be withdrawn to satisfy securities and cash management transactions, including check writing and Visa card activity, in or through your account. Ask for the applicable deposit account program disclosures for details on deposits.

Various deposit accounts are available as additional money accounts based on account type. Please contact your financial advisor to determine if a particular option is available to you to determine applicable rules and minimums (if any).

Automatic Liquidation of Additional Money Accounts

If you have a retirement account and the funds within your primary money account are depleted, we will automatically liquidate your Additional Money Accounts in the following order to satisfy obligations to your account(s): Retirement Reserves I, Retirement Reserves II, Ready Asset Trust.

If you have a CMA account and the funds within your primary money account are depleted, you may select the order in which your Additional Money Accounts are automatically liquidated to satisfy obligations to your account(s) by speaking with your financial advisor.

6. SELECT PROGRAMS AND SERVICES

Margin Lending Program

If you choose to enroll in the Margin Lending Program, you understand that you may borrow funds from Merrill Lynch using securities in your Account as collateral and that we'll charge interest on the balances we loan you as long as the amount is outstanding. Please refer to the Margin Lending Program Client Agreement for more detail.

Electronic Funds Transfers

If you're the owner on more than one Account, you may authorize Merrill Lynch to make transfers between your Accounts based on instructions you give by phone or through MyMerrill.com. If you are a trustee or other fiduciary, you agree that the terms of the trust or fiduciary agreement or governing document authorizes you to electronically transfer funds and that Merrill Lynch may conclusively rely on your representation.

7. LIENS

All of your securities and other property in any Account—margin or cash—in which you have an interest, or which at any time are in your possession or under your control, other than retirement Accounts, such as IRAs, will be subject to a lien for the discharge of any and all indebtedness or any other obligations you may have to Merrill Lynch.

However, securities and other property held in retirement Accounts, such as IRAs, are not subject to this lien and are not used as security for the payment of your obligations or indebtedness for other Accounts—margin or cash—you maintain with Merrill Lynch, nor are assets in non-retirement Accounts held as security for the payment or indebtedness in your retirement Accounts with Merrill Lynch (such as IRAs).

Merrill Lynch, subject to applicable laws, may at any time and without giving you prior notice, use and/or transfer any or all securities and other property in any Account in which you have an interest, other than retirement Accounts, such as IRAs, without regard to Merrill Lynch having made any advances in connection with such securities and other property and without regard to the number of Accounts you may have with Merrill Lynch. In enforcing the lien, Merrill Lynch, at its sole discretion, may determine which securities and other property are to be sold or which contracts are to be closed.

8. FEES

You agree to pay your Account fees, service fees, processing and other fees for the transactions and other services you receive from Merrill Lynch. You understand that these fees will be charged to your Accounts.

You agree that Merrill Lynch may satisfy any amounts you owe to Merrill Lynch from available free credit balances and assets in your Account. If necessary, Merrill Lynch is permitted to sell assets in your Accounts to pay those amounts due.

Securities transactions

When you purchase or sell securities, you may pay for each securities transaction on a per trade basis. This is called transaction-based pricing. Under this type of pricing, you are charged a commission or other compensation for each transaction. This compensation varies based on a number of factors, such as the type and number of securities purchased or sold.

Visa card issued by Bank of America, N.A.

There is no annual fee for the CMA Access® Visa® Card.

You authorize Merrill Lynch to issue the Visa card that you have requested for use with eligible Accounts, and you understand that Merrill Lynch or an affiliate may obtain a credit report in connection with your request.

9. ACCESS TO THIRD PARTY RESEARCH

From time to time, we may offer you access to third party research on certain U.S. and non-U.S. equity and fixed income securities. We provide access to this research for informational purposes only and not as investment advice. You understand that we're not responsible or liable for the third party research and that you assume full responsibility for any trading decisions you make based on the provided information.

10. CUSTODY OF SECURITIES

Merrill Lynch will hold all securities for the Securities Account in a control location acceptable to the Securities and Exchange Commission, which may include, but is not limited to: (i) a securities depository, such as the federally-regulated Depository Trust Company for U.S. issuers and Euroclear for European issuers, (ii) a Federal Reserve member bank, or (iii) a mutual fund's Transfer Agent. Securities are commingled in a Merrill Lynch book-entry account, generally held in nominee name at the control location, along with securities belonging to other Merrill Lynch customers. Your securities will at all times be separately identified on the books and records of Merrill Lynch as belonging to you, and Merrill Lynch will provide you with account statements that reflect your holdings. This method of custody, which has significantly increased efficiencies and reduced the risks associated with holding customer securities, is used by all major banks, trust companies and brokerage firms and has been recognized as providing unsurpassed safety for holders of securities. With regard to the custody of your securities, Merrill Lynch acts as your agent and transmits your instructions through the appropriate control location.

Where securities are not held in nominee name, the issuer or control location, as appropriate, recognizes Merrill Lynch as your agent and honors instructions provided by Merrill Lynch on your behalf.

11. REFERRAL POLICY

Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S") is an affiliate of Bank of America, N.A. and other subsidiaries of Bank of America Corporation (collectively, "Merrill Lynch"). Merrill Lynch is one of the world's largest financial institutions, serving individual consumers, small- and middle-market

businesses, institutional investors, large corporations and governments with a full range of banking, investing, asset management and other financial and risk management products and services. In the event Merrill Lynch refers your business among its affiliates to provide you with certain products or services, Merrill Lynch (or its employees or representatives) may receive financial or other benefits for such referrals.

12. CONVERSION TO MERRILL EDGE SELF-DIRECTED INVESTING (MESD)

Certain Accounts may be eligible to convert to an MESD Account. If your Account is converted to an MESD Account, the additional terms in subsection (a), below, will apply to your Account upon conversion.

(a) TERMS APPLICABLE TO MERRILL EDGE SELF-DIRECTED INVESTING ACCOUNTS

Upon conversion to MESD, your Account will be subject to the terms of the MESD Client Relationship Agreement ("CRA") and MESD Terms of Service ("TOS"). To obtain a copy of those documents, please contact your advisor or visit www.merrilledge.com/cra and www.merrilledge.com/tos. Copies of the MESD CRA and TOS will be provided to you upon conversion of your Account to MESD.

MESD is designed for U.S.-based investors who wish to make their own investment choices in a Merrill Lynch brokerage account. Neither Merrill Lynch, nor MESD, nor any Merrill Lynch or MESD representative, will provide you with investment advice, including any recommendation, or offer any opinion regarding the suitability of any security, order, transaction, or strategy in your MESD Account, or monitor your investments or the appropriateness of your account or service level, or alert you to any recommended change to your investments, investment accounts, or services. Neither Merrill Lynch nor MESD, nor any Merrill Lynch or MESD representative or agent, will provide you with any tax or legal advice.

No Merrill Lynch Research opinion, Independent Research opinion, the inclusion of a security on any list, or any information provided to you either on the Merrill Edge website or by mail or any other means constitutes a recommendation to you to purchase, hold or sell any investment.

You agree that any transactions executed through your MESD Account, whether based on information obtained from Merrill Lynch or elsewhere, will be solely your own decision and based on your own evaluation of your personal financial situation, needs, and investment objective(s).

In addition to retaining the sole responsibility for investment decisions, you understand and agree that you are responsible for knowing the rights and terms of all securities in your Account, specifically including valuable rights that expire unless the holder takes action. This includes, but is not limited to, warrants, stock rights, convertible securities, bonds, and securities subject to a tender or exchange offer. You understand and agree that Merrill Lynch accepts no obligation to notify you of any upcoming expiration or redemption dates, or, except as required by applicable law or regulation, to take any action on your behalf without specific instructions from you. You also agree that all dividends and interest payments credited to your Account shall accumulate rather than be paid to you upon receipt, but shall be subject to your withdrawal from time to time upon request for a check or other funds transfer.

You hereby acknowledge and agree that none of Merrill Lynch, MESD, or any Merrill Lynch or MESD representative will act as a fiduciary within the meaning of section 4975(e)(3) of the Internal Revenue Code, section 3(21) of the Employee Retirement Income Security Act, or under any state law, with respect to your Account after it is converted to MESD, or has made any recommendations to you to open or transfer assets to an MESD account.

Moreover, you understand and acknowledge that Merrill Lynch generally believes that all retirement investors benefit from the receipt of ongoing, professional investment advice designed to help them meet their investment goals through a Merrill Lynch investment advisory program. By entering into an MESD arrangement, through conversion or otherwise, you understand and agree that you will not be receiving any such professional investment advice, recommendations or management from us or any of our representatives and we have not recommended that you fund or transfer assets into an MESD account or otherwise convert your Account into an MESD account.

13. FREEZING ACCOUNTS

If at any time Merrill Lynch believes that your account may be subject to irregular, unauthorized, fraudulent or illegal activity, we may, in our discretion, freeze the assets in the account and in other accounts you maintain with us until such time as we are able to complete our investigation of the account and transactions. If we do freeze your account assets, we will provide notice to you as soon as reasonably possible. Notice may be made by mail or verbally or provided by other means such as via MyMerrill or MerrillEdge.com where applicable. We may not provide this notice to you prior to freezing the account if we believe that such notice could result in a security risk to us or to the owner of the funds in the account.

14. "RECOGNITION OF THE U.S. SPECIAL RESOLUTION REGIMES APPLICABLE TO A NON-U.S. DOMICILED CLIENT

(a) In the event that the Merrill Lynch entity (or entities) that is the counterparty to this Agreement (the "Covered Entity") becomes subject to a proceeding under a U.S. Special Resolution Regime, the Non-U.S. Domiciled Client hereby agrees that the transfer from the Covered Entity of this Agreement, and any interest and obligation in or under, and any property securing, this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any interest and obligation in or under, and any property securing, this Agreement were governed by the laws of the United States or a state of the United States.

(b) In the event that the Covered Entity or a Covered Affiliate becomes subject to a proceeding under a U.S. Special Resolution Regime, any Default Rights under the Agreement that may be exercised against the Covered Entity by a Non-U.S. Domiciled Client are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Agreement were governed by the laws of the United States or a state of the United States.

(c) The following terms as used in this section entitled "Recognition of the U.S. Special Resolutions Regimes Applicable to a Non-U.S. Domiciled Client" will have the following meanings only in this provision:

"Agreement" means this Agreement and all transactions entered into under or pursuant to this Agreement, together with any related credit enhancements between the parties or provided by one to the other

"Covered Affiliate" means a BHC Affiliate of the Covered Entity. The term "BHC Affiliate" has the same meaning as the term "affiliate" of a bank holding company as defined in, and shall be interpreted in accordance with, Section 2(k) of the Bank Holding Company Act, (12 U.S.C. 1841(k)).

"Default Right" means the right of any party to terminate, cancel, or rescind the agreement or transactions thereunder and other rights as defined in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

"Non-U.S. Domiciled Client " means any client that is a party to this Agreement (as applicable) that does not meet any of these definitions: (i) an individual that is domiciled in the United States or any of its states, commonwealths, territories or possessions, including the District of Columbia (each a "State"); (ii) a company that is incorporated in or organized under the laws of the United States or any State; (iii) a company, the principal place of business of which is located in the United States, including any State, or (iv) a U.S. branch or agency of a foreign bank.

"U.S. Special Resolution Regime" means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder. ■

U.S. Consumer Privacy Notice

Rev. 01/2018

FACTS	WHAT DOES BANK OF AMERICA DO WITH YOUR PERSONAL INFORMATION?	
Why?	Financial companies choose how they share your personal information. Under federal law, that means personally identifiable information. Federal law gives consumers the right to limit some but not all sharing. Federal law also requires us to tell you how we collect, share, and protect your personal information. Please read this notice carefully to understand what we do.	
What?	The types of personal information we collect and share depend on the product or service you have with us. This information can include: <ul style="list-style-type: none"> • Social Security number and employment information • account balances, transaction history and credit information • assets and investment experience 	
How?	All financial companies need to share customers' personal information to run their everyday business. In the section below, we list the reasons financial companies can share their customers' personal information; the reasons Bank of America chooses to share; and whether you can limit this sharing.	

Reasons we can share your personal information	Does Bank of America share?	Can you limit this sharing?
For our everyday business purposes — such as to process your transactions, maintain your account(s), respond to court orders and legal investigations, or report to credit bureaus	Yes	No
For our marketing purposes — with service providers we use to offer our products and services to you (please see below to limit the ways we contact you)	Yes	No
For joint marketing with other financial companies	Yes	No
For our affiliates' everyday business purposes — information about your transactions and experiences	Yes	No
For our affiliates' everyday business purposes — information about your creditworthiness	Yes	Yes
For nonaffiliates to market to you — for all credit card accounts	Yes	Yes
For nonaffiliates to market to you — for accounts and services endorsed by another organization (e.g., debit card co-branded with a baseball team) "Sponsored Accounts"	Yes	Yes
For nonaffiliates to market to you — for accounts other than credit card accounts and Sponsored Accounts, such as insurance, investments, deposit and lending	No	We don't share

To limit our sharing	<ul style="list-style-type: none"> • Visit us online: bankofamerica.com/privacy • Call 888.341.5000 — our menu will prompt you through your choices • Talk to your assigned financial advisor <p>Please note: If you are a <i>new</i> customer, we can begin sharing your information 45 days from the date we sent this notice. When you are <i>no longer</i> our customer, we continue to share your information as described in this notice. However, you can contact us at any time to limit our sharing.</p>
To limit direct marketing contact	<ul style="list-style-type: none"> • Visit us online: bankofamerica.com/privacy • Call 888.341.5000 — our menu will prompt you through your choices • Talk to your assigned financial advisor <p>Please note: Direct marketing is email, postal mail and telephone marketing. Your telephone and postal mail opt-out choices will last for five years, subject to applicable law. Even if you limit direct marketing, we may still contact you to service your account or as otherwise allowed by law.</p>
Questions?	Call 888.341.5000 or go to bankofamerica.com/privacy

Who we are	
Who is providing this notice?	Bank of America U.S. legal entities that utilize the names: Bank of America, Banc of America, U.S. Trust or Merrill Lynch, as well as the entities listed in the <i>Bank of America U.S. legal entities</i> section.

What we do	
How does Bank of America protect my personal information?	To protect your personal information from unauthorized access and use, we use security measures that comply with federal law. These measures include computer safeguards and secured files and buildings. For more information visit bankofamerica.com/security or ml.com/security .
How does Bank of America collect my personal information?	We collect your personal information, for example, when you: <ul style="list-style-type: none"> • open an account or perform transactions • apply for a loan or use your credit or debit card • seek advice about your investments We also collect your personal information from others, such as credit bureaus, affiliates, or other companies.
Why can't I limit all sharing?	Federal law gives you the right to limit some but not all sharing related to: <ul style="list-style-type: none"> • affiliates' everyday business purposes — information about your creditworthiness • affiliates from using your information to market to you • nonaffiliates to market to you State laws and individual Bank of America companies may give you more rights to limit sharing. See <i>Other important information</i> section for your rights under state law.
What happens when I limit sharing for an account I hold jointly with someone else?	Your choices will apply to you alone unless you tell us otherwise. However, your choice to limit sharing with nonaffiliates to market to you for credit card accounts or Sponsored Accounts will apply to all joint account holders. If you have more than one credit card account or Sponsored Account and you choose to opt out, you will need to do so for each account.

Definitions	
Affiliates	Companies related by common ownership or control. They can be financial and nonfinancial companies. <ul style="list-style-type: none"> • Our affiliates include companies that utilize the names Bank of America, Banc of America, U.S. Trust or Merrill Lynch, as well as financial companies such as General Fidelity Life Insurance Company.
Nonaffiliates	Companies not related by common ownership or control. They can be financial and nonfinancial companies. <ul style="list-style-type: none"> • Nonaffiliates we share with can include financial services companies such as insurance agencies or mortgage brokers, nonfinancial companies such as retailers, travel companies and membership groups, other companies such as nonprofit groups.
Joint marketing	A formal agreement between nonaffiliated financial companies that together market financial products or services to you. <ul style="list-style-type: none"> • Our joint marketing partners include financial service companies.

Other important information	
Do Not Call Policy.	This notice is the Bank of America Do Not Call Policy under the Telephone Consumer Protection Act. We do not solicit via telephone numbers listed on the state or federal Do Not Call lists, unless the law allows. Bank of America employees receive training on how to document and process telephone marketing choices. Consumers who ask not to receive telephone solicitations from Bank of America will be placed on the Bank of America Do Not Call list and will not be called in any future campaigns, including those of Bank of America affiliates.
Call Monitoring and Recording.	If you communicate with us by telephone, we may monitor or record the call.

For Nevada residents only. We are providing you this notice under state law. You may be placed on our internal Do Not Call List by following the directions in the *To limit direct marketing contact* section. Nevada law requires we provide the following contact information: Bureau of Consumer Protection, Office of the Nevada Attorney General, 555 E. Washington St., Suite 3900, Las Vegas, NV 89101; Phone number: 702.486.3132; email: aginfo@ag.nv.gov; Bank of America, P.O. Box 25118 Tampa, FL 33622-5118; Phone number: 888.341.5000; Click on "Contact Us" at bankofamerica.com/privacy.

Vermont: Under Vermont law, we will not share information we collect about Vermont residents with companies outside of our corporate family, unless the law allows. For example, we may share information with your consent, to service your accounts or under joint marketing agreements with other financial institutions with which we have joint marketing agreements. We will not share information about your creditworthiness within our corporate family except with your consent, but we may share information about our transactions or experiences with you within our corporate family without your consent.

California: Under California law, we will not share information we collect about you with companies outside of Bank of America, unless the law allows. For example, we may share information with your consent, to service your accounts, or to provide rewards or benefits you are entitled to. We will limit sharing among our companies to the extent required by California law.

For Insurance Customers in AZ, CA, CT, GA, IL, ME, MA, MN, MT, NV, NJ, NC, OH, OR and VA only. The term "Information" in this part means customer information obtained in an insurance transaction. We may give your Information to state insurance officials, law enforcement, group policy holders about claims experience or auditors as the law allows or requires. We may give your Information to insurance support companies that may keep it or give it to others. We may share medical Information so we can learn if you qualify for coverage, process claims or prevent fraud or if you say we can. To see your Information, write Insurance Services, TX2-980-01-43, 4200 Amon Carter Blvd., Fort Worth, TX 76155, Attn: Data Request. You must state your full name, address, the insurance company, policy number (if relevant) and the Information you want. We will tell you what Information we have. You may see and copy the Information (unless privileged) at our office or ask that we mail you a copy for a fee. If you think any Information is wrong, you must write us. We will let you know what actions we take. If you do not agree with our actions, you may send us a statement.

For MA Insurance Customers only. You may ask, in writing, for the specific reasons for an adverse underwriting decision. An adverse underwriting decision is where we decline your application for insurance, offer to insure you at a higher than standard rate or terminate your coverage.

Bank of America U.S. legal entities

Bank of America U.S. legal entities that utilize the names: Bank of America, Banc of America, U.S. Trust or Merrill Lynch, as well as the following entities: BACAP Alternative Advisors, Inc., General Fidelity Life Insurance Company, Managed Account Advisors LLC, NationsCredit Financial Services Corporation.

Summary of programs and services

At Merrill, we make available the tools, the people and the know-how to help you create a personalized strategy to help pursue your financial goals. You choose how you want to work with us, knowing you have access to a full range of investing solutions as your life and financial needs evolve.

Merrill Edge Self-Directed	Merrill Guided Investing	Merrill Lynch Wealth Management
Utilize a self-directed investing platform where you enter your own trades, with access to research and insights, guided tools and market information, for a per trade charge.	Engage in goals-based investing with investment portfolios built, rebalanced and monitored by Merrill investment professionals for an annual asset-based fee.	Work one-on-one with your dedicated advisor team who will help you build a comprehensive financial strategy and give you recommendations to grow and preserve your wealth, for an asset-based fee and/or a per trade charge depending on how you want to work with us.

Investment Solutions	Merrill Edge Self-Directed	Merrill Guided Investing		Merrill Lynch Wealth Management	
	Brokerage	Online (MGI)	Online with Advisor (MGI with Advisor)	Brokerage	Investment Advisory Program (MLIAP)
Online and mobile investing tools	✓	✓	✓	✓	✓
Access to BofA Merrill Lynch Global Research and insights	✓	✓	✓	✓	✓
Fiduciary advice and services		✓	✓		✓
Access to a wide range of stocks, ETFs, options, bonds and funds	✓			✓	✓
Access to investment portfolios managed by Merrill investment professionals		✓	✓		✓
Establish goals online and receive a recommended investment strategy		✓	✓		
Advisor helps you establish goals and determine your investment strategy			✓	✓	✓
Dedicated advisor team offers a wide range of investing solutions, as well as individualized planning and advice				✓	✓
Access to private equity, hedge funds, annuities and insurance				✓	✓
Access to investment portfolios managed by approved third-party investment managers					✓

There are certain managed investment strategies that are offered in each of MLIAP, MGI and MGI with Advisor (a similar program, Merrill Edge Advisory Account (MEAA), is available for certain account types). Each of these investment advisory programs offers different service models, advisory services, access to investment solutions and minimum investment requirements. These programs are also available for different annual asset-based fees.

Overview of the programs and services available

	Merrill Edge Self-Directed	Merrill Guided Investing		Merrill Lynch Wealth Management	
		Online	Online with Advisor	Brokerage	Investment Advisory Program ²
Approach to advice and services	<ul style="list-style-type: none"> Self-directed brokerage 	<ul style="list-style-type: none"> Investment advisory program with fiduciary advice and services 	<ul style="list-style-type: none"> Investment advisory program with fiduciary advice and services 	<ul style="list-style-type: none"> Brokerage services¹ 	<ul style="list-style-type: none"> Investment advisory program with fiduciary advice and services
Key features and services	<ul style="list-style-type: none"> You make your own investment decisions and place your own trades in an online investment account Tools and resources to inform your investing No recommendations, advice or ongoing monitoring provided 	<ul style="list-style-type: none"> Online, guided investment experience with access to risk-based professionally managed investment strategies aligned to your goals Ongoing monitoring 	<ul style="list-style-type: none"> Online, guided investment experience with assistance from Financial Solutions Advisors (FSA) FSA assists in the selection of a managed strategy aligned to your goals Ongoing monitoring 	<ul style="list-style-type: none"> Your dedicated advisor team provides investment recommendations related to a transaction You authorize all trades No ongoing monitoring 	<ul style="list-style-type: none"> You work with your dedicated advisor team to develop a strategy personalized to your goals, with advisory services Choice of discretion over investment decisions Ongoing monitoring
Fees charged ³	<ul style="list-style-type: none"> Commission-based fees for trade execution and/or sales charges⁴ 	<ul style="list-style-type: none"> Annual fee of 0.45% of assets invested in program⁵ 	<ul style="list-style-type: none"> Annual fee of 0.85% of assets invested in program⁵ 	<ul style="list-style-type: none"> Commission-based fees for trade execution and/or sales charges 	<ul style="list-style-type: none"> Negotiated annual fee, based on relationship and assets invested in the program
Investment choices	<ul style="list-style-type: none"> Stocks & options Bonds, Brokered Certificates of Deposit (CDs) & Preferreds Exchange traded funds (ETFs) Mutual Funds and money market mutual funds ("Funds") 	<ul style="list-style-type: none"> A set of managed strategies utilizing ETFs and mutual funds designed to provide an investment solution based on your risk profile for the account 	<ul style="list-style-type: none"> A set of managed strategies utilizing ETFs and mutual funds designed to provide an investment solution based on your risk profile for the account 	<ul style="list-style-type: none"> Stocks & options Bonds, CDs & Preferreds ETFs Funds, unit investment trusts (UITs) and closed end funds Market-linked investments Annuities Alternative Investments (i.e., private equity, hedge funds, managed futures, etc.) 	<ul style="list-style-type: none"> Third party and firm managed strategies Discretionary & client-directed personalized strategies Stocks & options Bonds, CDs & Preferreds ETFs Funds, UITs & closed-end funds Market-linked investments Annuities Alternative Investments (i.e., private equity, hedge funds, managed futures, etc.)

¹ For more information about brokerage services available, see ml.com/brokerage-summary.

² We also offer investment advisory services through the Merrill Lynch Strategic Portfolio Advisor Service ("SPA") for certain investment strategies offered by third-party investment managers that provide discretionary management through a separate agreement.

³ For additional information on fees and commissions, see ml.com/explanation-fees and ml.com/schedule-fees.

⁴ Qualify for \$0 online stock and ETF trades with Preferred Rewards.

⁵ May qualify for discounted pricing with Preferred Rewards.

Overview of certain applicable fees and charges to consider

	Merrill Edge Self-Directed	Merrill Guided Investing		Merrill Lynch Wealth Management	
		Online	Online with Advisor	Brokerage	Investment Advisory Program ²
Annual account fee	• None	• Not applicable	• Not applicable	• At a rate of \$125/\$25 per year for CMA master account and sub-account (waiver may apply) ¹	• Not applicable
Asset-based annual fee	• Not applicable	• 0.45% ³	• 0.85% ³	• Not applicable	• A rate agreed upon between you and your advisor, based on client relationship, up to a maximum rate ²
Transaction-based fees charged by Merrill	<ul style="list-style-type: none"> • For online trades in: <ul style="list-style-type: none"> - Stocks and ETFs: \$6.95⁴ - Options: \$6.95 + \$0.75 per contract - Fixed Income: \$1 per bond (\$10 min, \$250 max) - CDs: 0.02% - 0.30% annualized rate based on tenor, of notional 	<ul style="list-style-type: none"> • Not applicable, but certain charges will apply as described in the Program Brochure 	<ul style="list-style-type: none"> • Not applicable, but certain charges will apply as described in the Program Brochure 	<ul style="list-style-type: none"> • For advisor-assisted support and trade execution in: <ul style="list-style-type: none"> - Stocks and ETFs: 0.50% - 5.00% of principal value - Options: Varies, most trades at 3.00% - 6.00% of premium - Fixed Income: 0.00% - 2.00% of notional value, based on bond type - CDs: 0.02% - 0.30% annualized rate based on tenor, of notional 	<ul style="list-style-type: none"> • Not applicable, but certain charges will apply as described in the MLIAP Program Brochure

The following money market (MMF) & mutual fund (MF) fees are charged against your investments in the fund and are payable to Merrill. The sales charges and other fees depend on the particular fund and share class purchased. See the applicable fund prospectus for details.

Front end sales charge or "load"	<ul style="list-style-type: none"> • MMFs: None • MFs: Both no load and front load share classes are available 	<ul style="list-style-type: none"> • Fees are covered by the asset-based fee above 	<ul style="list-style-type: none"> • Fees are covered by the asset-based fee above 	<ul style="list-style-type: none"> • MMFs: None • MFs: Sales charge is either payable upfront or in arrears 	<ul style="list-style-type: none"> • Fees are covered by the asset-based fee above
Ongoing 12b-1 fees	<ul style="list-style-type: none"> • MMFs: From 0.00% - 0.125% per year • MFs: From 0.00% - 1.00% per year 	<ul style="list-style-type: none"> • Generally not included in the share class available 	<ul style="list-style-type: none"> • Generally not included in the share class available 	<ul style="list-style-type: none"> • MMFs: From 0.00% - 0.125% per year • MFs: From 0.10% - 1.00% per year 	<ul style="list-style-type: none"> • Generally not included in the share class available
Sub accounting/shareholder servicing/transfer agency fee ⁵	<ul style="list-style-type: none"> • MMFs: Up to \$15 per position or up to 0.10% of investment • MFs: Up to \$21 per position or 0.15% of investment 	<ul style="list-style-type: none"> • For MMFs & MFs, up to \$21 per position or 0.15% of investment 	<ul style="list-style-type: none"> • For MMFs & MFs, up to \$21 per position or 0.15% of investment 	<ul style="list-style-type: none"> • MMFs: Up to \$15 per position or up to 0.10% of investment • MFs: Up to \$21 per position or 0.15% of investment 	<ul style="list-style-type: none"> • MMFs & MFs: Up to \$21 per position or 0.15% of investment

¹ The account fees will differ depending on the type of account and the account program. For more information, see ml.com/schedule-fees.

² The maximum Merrill Lynch Fee Rate in MLIAP is 2.0%. Asset-based annual fee rates for Trusted IRA accounts (TIRAs) enrolled in MLIAP differ due to the differences in the programs, offerings and services.

³ May qualify for discounted pricing with Preferred Rewards.

⁴ Other fees may apply and sell trades are subject to a transaction fee of between \$0.01 and \$0.03 per \$1,000 of principal. Qualify for \$0 online stock and ETF trades with Preferred Rewards.

⁵ Certain retirement accounts may receive a fee rebate.

Important information

This *Summary of Programs and Services* summarizes, for informational purposes only, the type of advice, investments and fees associated with the various programs and services available to you. It is an overview and is not meant to replace your close review of the terms and conditions of the Merrill programs and account types and services available. This Summary does not constitute a modification of, or amendment to, the charges, fees and terms set forth in any other account and/or program agreements and disclosures.

Merrill Lynch, Pierce, Fenner and Smith Incorporated (“MLPF&S” or “Merrill”) is both a full service broker-dealer and a registered investment adviser, and offers a wide variety of brokerage and investment advisory products and services. We offer a number of investment advisory services, which include both discretionary and non-discretionary management of your account. As a registered investment adviser, Merrill is obligated to provide specific disclosures and act in accordance with fiduciary obligations as required by applicable law and regulation. When you engage Merrill to provide brokerage services through your advisor, we are obligated to execute transactions in your account as you instruct, deal fairly with you, and make recommendations that are suitable based on, among other things, your stated risk tolerance, financial situation, and needs and investment objectives.

Before enrolling in a particular investment advisory program, you should review the applicable program brochure for details. For MGI and MGI with Advisor, you can access them at merrilledge.com/guided-investing. You can access the MLIAP Program Brochure at mymerrill.com/ADV/materials. MLPF&S and Managed Account Advisors LLC (“MAA”) are registered investment advisers for these programs.

There are certain managed investment strategies that are offered in each of MLIAP, MGI, MGI with Advisor and MEAA. Each of these investment advisory programs offers different service models, advisory services, access to investment solutions and minimum investment requirements. These programs are also available for different annual asset-based fees. In these programs, we offer strategies built and managed by Merrill professionals in the Chief Investment Office (“CIO”) and MAA, our affiliate, is the overlay portfolio manager responsible for implementing the Merrill managed strategies for client accounts, including facilitating the purchase and sale of ETFs and Funds in client accounts and updating account asset allocations when the CIO’s recommendations change while also implementing any applicable individual client or firm restriction.

Clients seeking trust services may open Trusteed IRA accounts (TIRAs) with Bank of America, N.A. and then enroll in IAP and BlackRock Sub-advised Strategies to receive certain specialized trust services. We also offer investment advisory services through the Merrill Lynch Strategic Portfolio Advisor Service (“SPA”) for certain investment strategies offered by third-party investment managers that provide discretionary management through a separate agreement. Talk to your advisor or a trust specialist for more information.

The investment choices available to you depend on the type of account and product eligibility requirements. Certain account types may enroll in the MEAA investment advisory program which provides similar investment services as MGI with Advisor. Only qualified clients may invest in certain alternative investments. Additional expenses, fees and charges apply as provided in the applicable program documents.

Fee ranges are provided for informational purposes only. The fee information included in this Summary does not cover all available investment types or solutions. They have their own payment schedules. In addition, there are other fees and charges that apply to securities activities in your account.

Certain commissions may be discounted by your advisor. Individual circumstances will determine commission prices and whether you qualify for any waivers or discounts. To learn more about Merrill Lynch fees and expenses, see ml.com/explanation-fees and ml.com/schedule-fees. For fees associated with the Merrill Guided Investing programs and MESD accounts, see merrilledge.com/pricing.

Mutual funds are offered in various share classes that have different fees and expenses. The share classes available for purchase vary among the Merrill investment programs and account offerings. Many mutual funds offer various sales charges, discounts or waivers depending on the terms of the relevant prospectus. Because fees change frequently and are sometimes waived, you should examine the fund prospectus carefully for specific information before investing. In addition, please review the “Mutual Fund Investing at Merrill Lynch Brochure,” which is provided to you at account opening and can be obtained from your advisor. This Brochure also contains information on money market funds.

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L-06-19

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