

Merrill Edge® Self-Directed Investing Terms of Service

These Merrill Edge® Self-Directed Investing Terms of Service (the "Terms of Service") are made between Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch") and you and govern your Merrill Edge Self-Directed Investing Account Relationship. "You" and "your" refers to each Merrill Edge Self-Directed Investing Account owner.

In the case of an entity, "you" and "your" refers to the entity, and by enrolling, the entity agrees that access to Merrill Edge Self-Directed Investing shall be restricted to Authorized Representatives (as defined in the Account Agreement) for such entity and that the entity will be liable for all acts or omissions of such Authorized Representatives in violation of these Terms of Service.

Merrill Edge Self-Directed Investing (also referred to herein as "MESD") is the marketing name for certain brokerage services offered to clients on a self-directed basis through Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch"). For the purpose of the Merrill Edge Self-Directed Terms of Service, Merrill Edge and MESD, which are made available through Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"), refer to certain brokerage services offered to clients on a self-directed basis through Merrill Lynch, Pierce, Fenner & Smith Incorporated ("Merrill Lynch") and which are the subject of these Terms.

When you agree to these Terms of Service, you are agreeing that such terms will apply to all of your MESD Accounts, transactions and services.

These Terms of Service incorporate all disclosures displayed on the Merrill Edge Self-Directed Investing website from time to time, including our fees and commissions, and they supplement the Merrill Edge Client Relationship Agreement which you are required to sign as well as your Merrill Edge Self-Directed Investing Cash Management Account Agreement and/or your Merrill Lynch traditional IRA or IRA Rollover Custodial Agreement or Roth Individual Retirement Account Agreement and/or your Merrill Edge Self-Directed Investing Business Investor Account Financial Service Account Agreement and/or your Merrill Lynch Retirement Cash Management Financial Service Account Agreement and/or your Merrill Lynch Simple Retirement Account Custodial Agreement and/or your Merrill Lynch Simplified Employee Pension Program Agreements, as applicable, which otherwise remain in full force (and all such account types, and any account types that may be introduced by MESD from time to time, will herein be referred to as "Account"). By using Merrill Edge Self-Directed Investing, you are representing to Merrill Lynch and its licensors and Information Providers that you are at least eighteen years old (or the minimum legal age in your jurisdiction).

Merrill Lynch reserves the right to add, delete or modify MESD functionality and trading rules and to amend or supplement these Terms of Service or any other agreement among or between the parties upon notice, such notice delivered by regular mail, by email, by an on-screen alert or via the Merrill Lynch websites. In particular, Merrill Lynch reserves the right upon notice to change its fees, to add fees for items for which it does not currently charge and to institute an inactivity fee for periods in which there is no fee-generating activity in your Account. Merrill Lynch also reserves the right to terminate your enrollment in Merrill Edge Self-Directed Investing at any time for any reason without notice.

Merrill Lynch, Pierce, Fenner & Smith Incorporated offers its products, accounts and services through different service models (e.g., self-directed, full-service). Based on the service model, the same or similar products, accounts and services may vary in their price or fee charged to a client.

1. Nature of the Merrill Edge Self-Directed Investing Service

Merrill Edge Self-Directed Investing is designed for U.S.-based investors who wish to make their own investment choices in a Merrill Lynch, Pierce, Fenner & Smith Incorporated brokerage account.

Neither Merrill Lynch, nor MESD, nor any Merrill Lynch or MESD representative will provide you with investment advice, including any recommendations, or offer any opinion regarding the suitability of any security, order, transaction, or strategy in a Merrill Edge Self-Directed Investing Account, or monitor your investment 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, will provide 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. By entering into this Agreement, you agree that any transactions executed through your Merrill Edge Self-Directed Investing 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.

Notwithstanding the foregoing, in its capacity as an investment adviser Merrill Lynch may provide investment advice or recommend securities transactions or investment strategies to you within certain investment advisory programs. To enroll in such an investment advisory program, such as the Merrill Guided Investing Program, you may be required to establish and maintain a Merrill Edge Self-Directed Investing Account. Merrill Lynch acts as an investment adviser and not a broker-dealer for the investment advisory services provided within these investment advisory programs. To the extent that Merrill Lynch provides investment advice or recommends any securities transactions or investment strategies to you within any such investment advisory program, you understand and agree that Merrill Lynch does so in its capacity as an investment adviser and not as a broker-dealer. You will be required to enter into a separate agreement with Merrill Lynch and its affiliates to participate in an investment advisory program. The terms governing any such investment advisory program will control if there are any inconsistencies with the terms of these Terms of Service. If your account serves as the securities account for a Merrill Lynch investment advisory program, certain features of Merrill Edge Self-Directed Investing, such as the Margin Lending Program, check writing, and Visa cards, may not be available to you. If your account serves as the securities account for a Merrill Lynch investment advisory program and if, for any reason, you terminate from the investment advisory program without transferring the securities and assets out of your account, your account will be a Merrill Edge Self-Directed Investing Account without any investment advisory relationship. As such, and as explained more fully in the preceding paragraphs, neither Merrill Lynch, nor any Merrill Lynch representative, will provide any investment advice or give any advice or offer any opinion regarding the suitability of any security, order or transaction in a Merrill Edge Self-Directed Investing Account.

2. Account Data Access; User ID and Password; Safeguarding Credentials

Merrill Edge Self-Directed Investing is intended to be delivered to you via the Internet using commercially available third-party web browsers. Merrill Edge Self-Directed Investing permits you to view account data for your primary Merrill Lynch Account and any other accounts that are linked to such primary Account from time to time. By using Merrill Edge Self-Directed Investing, you represent on a continuing basis that you are authorized to have viewing access to any Account for which you and other linked account parties have requested linking of Accounts. Merrill Lynch allows each account holder to create a separate User ID and Password for each Merrill Edge Self-Directed Investing Account. You agree that each account holder shall be responsible at all times for maintaining the confidentiality of their personal information and their User ID and Password and will not make them available to other account holders or any third parties. If you do allow other account holders or third parties to access Merrill Edge Self-Directed Investing (including your accounts) using your personal information or your User ID and Password, you

agree to hold Merrill Lynch, its directors, officers, employees, agents and affiliates (collectively, "Other Persons") harmless and to indemnify Merrill Lynch and all Other Persons against any liability, costs or damages arising out of claims or suits by any account holder, including yourself, or such third parties based upon or relating to such access. If you believe that someone has used your credentials, such as your User ID and Password, to access Merrill Edge Self-Directed Investing without your authorization, you agree to contact our Merrill Edge Self-Directed Investment Center immediately at 877.653.4732.

All daily Account data is provided as a convenience and for your information, but it is not the official record of your Account activity with Merrill Lynch; your Merrill Lynch Account statement provided to you online each month (or by mail quarterly or monthly as required) is such official record. Account data provided through Merrill Edge Self-Directed Investing is generally updated as of the prior business day's close of business, but is subject to adjustment and correction.

Merrill Lynch may also collect and/or use certain information from or through your browser or device. Most browsers and/or devices (including your computer, tablet and mobile phone) collect certain information, including but not limited to your Media Access Control (MAC) address, device type, screen resolution, operating system version, internet browser type and version, local date and time, and the prior web page visited leading you to our websites. Merrill Lynch uses this information to ensure our websites function properly, for fraud detection and prevention, and security purposes. For more information about our privacy and security practices and a link to our Privacy Notice for U.S. Consumer Customers and U.S. Online Privacy Notice, go to our website at www.ml.com/privacy.

3. Account Application Process and Delivery of Communications

You may be able to apply for an Account by completing the Account application process (1) via the internet; (2) via a hardcopy paper application; or (3) via an iPad or other device that is owned and provided by Bank of America and/or Merrill Edge in a Bank of America, N.A. Financial Center. You must have a valid email address to open any Merrill Edge Self-Directed Investing Account. You agree that you will provide us with a valid email and postal mailing address, and that you will immediately notify us of any changes to your email or mailing addresses.

With the exception of Small Business 401(k) accounts (which are discussed in more detail below), if you complete the Account application process via the internet, you must consent to the Electronic Communications Disclosure ("eCommunications Disclosure"). Your consent to the eCommunications Disclosure allows us to provide communications to you electronically. The eCommunications Disclosure also provides important information about paperless delivery, such as, among other things, the types of communications you can receive electronically and the hardware and software required to receive communications electronically. As discussed in Section 4 of the eCommunications Disclosure, we may, at times and in our sole discretion, mail you a paper copy of certain communications even if you agree to electronic delivery by consenting to the eCommunications Disclosure.

If you complete the Account application process via a hardcopy paper application or via the iPad or other device that is provided by Bank of America and/or Merrill Edge in a Bank of America, N.A. Financial Center, you agree to receive all notices, statements, disclosures and other information regarding your Account in paper form, delivered to your last-designated postal mailing address unless and until you elect to change the method of delivery for documents and other written communications to electronic delivery. In order to make that change, you will be required to (1) enroll in merrilledge.com, which is an internet-based service that provides 24-hour access to Account information, Merrill Lynch research and investment information, market data, and news; (2) demonstrate access to the information available via merrilledge.com; and (3) affirmatively consent to the eCommunications Disclosure.

Note regarding Small Business 401(k) accounts: You must complete the application process via the internet, but you will not be required to consent to the eCommunications Disclosure as you do not have the option to exclusively receive communications related to this Account electronically. Some communications, such as Account statements, may be retrieved via the internet, but all communications will be delivered in paper.

4. Hyperlinks

Merrill Lynch may make available links from its websites to other third-party websites or electronic services providers that are not affiliated with Merrill Lynch. Merrill Lynch does not control these other websites or services, and Merrill Lynch has not adopted and makes no representations or endorsements whatsoever concerning those websites or services. The fact that Merrill Lynch has provided a link to a website is not an endorsement, authorization, sponsorship, or affiliation with respect to such website, its owners, or its providers. There are risks in using any information, software, service or product found on the Internet and Merrill Lynch cautions you to make sure you understand these risks before retrieving, using, or relying upon anything via the Internet. You agree that under no circumstances will you hold Merrill Lynch liable for any loss or damage caused by use of or reliance on any content, goods or services available on such other websites.

5. Quotes, News and Research; Use of Data and Information

Quotes, news, research, ratings and other information provided through Merrill Edge Self-Directed Investing are obtained from sources we believe to be reliable, but we cannot guarantee the accuracy, timeliness or completeness of such information for any particular purpose. Such data and information and any Merrill Lynch Research or independent research opinions provided do not constitute investment advice, or a solicitation by Merrill Lynch for the purchase or sale of any securities, or a representation that any securities are suitable for you.

All such data and information is protected by copyright and other intellectual property laws and may only be used for personal and non-commercial use, and not for providing professional investment advice or for providing securities processing services or other similar back office functions. If you download any information from Merrill Edge Self-Directed Investing for your personal reference, you agree that you will not remove or obscure any copyright or other notices contained in any such information. Except as provided in the preceding sentence, you agree not to copy, reproduce, modify, sell, distribute, transmit, display, perform, circulate, transfer, broadcast, create derivative works from, publish, or use for any commercial or unlawful purpose any quotes, news, research, text images, audio, video or other information you receive through Merrill Edge Self-Directed Investing. Merrill Lynch and its licensors and Information Providers (as defined in Section 14 below) may change or discontinue any quotes news, research or other information at any time provided within Merrill Edge Self-Directed Investing at any time.

Merrill Lynch offers you access to Independent Research on all domestic and selected international stocks covered by Merrill Lynch Research under the terms of an agreement with regulators. The providers of this independent Research are chosen by an Independent Consultant, not by Merrill Lynch. You agree that Merrill Lynch will not be responsible or liable for (i) the procurement decisions of the Independent Consultant with respect to the Independent Research, (ii) the Independent Research or its content (iii) customer transactions, to the extent based on the Independent Research, or (iv) claims arising from or in connection with the inclusion of Independent Research ratings in confirmations and Account statements, to the extent such claims are based on those ratings. You also agree that Merrill Lynch will not be required to supervise the production of the Independent Research procured by the Independent Consultant and will have no responsibility to comment on the content of the Independent Research.

6. Financial Tools, Education and Calculators

Merrill Edge Self-Directed Investing may also provide you with financial tools and education, including calculators. The tools and calculators may allow you to model "what-if" scenarios for various financial goals, the results of which are illustrative and are based on the information and assumptions identified. There is no guarantee that the results shown will be achieved, and changes in tax laws, financial markets or your financial situation may cause actual results to deviate substantially from those reflected in these tools. In addition, these tools and calculators are not part of any financial report for which you may have paid a fee, even if the tools and calculators include information derived from or contained in the financial report. In addition, no tools, education or calculators are intended to provide individual product recommendations or investment strategies.

7. Phone Service

Merrill Edge Self-Directed provides you with phone-based service using either an automated service or phone-based representatives, both of which are available 24 hours per day, 7 days per week. Both allow you to perform several transactional functions that do not require formal written authorization in accordance with applicable law or Merrill Edge policies.

Automated Phone Service

Merrill Edge Self-Directed provides an automated phone service referred to as the MESD IVR. When first accessing the MESD IVR, you are required to (1) speak or enter your MESD Account number; (2) speak or enter the five-digit ZIP Code associated with your Account; and then (3) speak or enter the last four digits of your Social Security Number. Through the MESD IVR, you are able to perform the following actions:

- Request security quotes
- Trade securities
- Review Account information

In addition to these items, you may request to speak directly with a Merrill Edge phone-based representative.

Phone-Based Representatives

Merrill Edge Self-Directed Investing phone-based representatives are available 24 hours per day, 7 days per week. These representatives are available to assist you with various administrative functions related to applying for and opening Accounts and providing you with access to [merrilledge.com](https://www.merrilledge.com). They can also assist with various requests related to your Account, such as address changes, name changes, changes to the beneficiaries designated on your Account (if applicable), and money movement requests, among other things.

Merrill Edge Self-Directed Investing phone-based representatives are also available to you for technical support between the hours of 7:30 a.m. and 6:00 p.m. Eastern, Monday through Friday. You understand and agree that the services described above are only examples of the types of services that the phone-based representatives may be able to perform, and that Merrill Lynch reserves the right to change the services and functions that the phone-based representatives may perform from time to time.

Merrill Edge Self-Directed Investing phone-based representatives will not provide investment advice or investment recommendations or offer any opinion regarding the suitability of any security, order, transaction or strategy in a Merrill Edge Self-Directed Investing Account. Merrill Edge Self-Directed Investing phone-based representatives will not provide any tax or legal advice.

8. Email

Two email or electronic mail options are available via [merrilledge.com](https://www.merrilledge.com), unsecured email and electronic mail via the Secure Message Center. You agree that neither unsecured email nor the Secure Message Center is to be used to request, authorize or effect the purchase or sale of any securities or other investments, to send funds transfer instructions, or for any other financial transactions that require real-time communication or more formal written authorization in accordance with applicable law or Merrill Edge policies. Any such requests, orders, or instructions that you send via email in contravention of the foregoing agreement will not be accepted and will not be processed by Merrill Edge. Merrill Edge will not be responsible for any loss or damage that could result from your supplying us with personal information via email or your requests, orders or instructions not being accepted or processed in accordance with the preceding sentence.

Unsecured Email

Unsecured email is available via the Help & Support link prior to client login. Unsecured email provides individuals with the opportunity to send messages concerning Merrill Edge procedures and general Merrill Edge questions. No Account-specific information will be provided in response to a message received via unsecured email. Additionally, Merrill Lynch will not open any documents or files that are attached to or submitted via unsecured email.

Secure Message Center

The Secure Message Center is available to you after logging in to [merrilledge.com](https://www.merrilledge.com) as a secure email tool to contact Merrill Edge representatives. Through the Secure Message Center, you can submit Account-specific inquiries to Merrill Lynch. You can also submit documents to Merrill Lynch via the Secure Message Center and perform or request certain administrative functions. You understand and agree that Merrill Lynch may change the functionality of the Secure Message Center from time to time.

9. Order Entry Security

Merrill Lynch allows each Account holder to create a separate User ID and Password for each Merrill Edge Self-Directed Investing Account. You agree that each Account holder shall be responsible for all orders entered through Merrill Edge Self-Directed Investing using the User ID and Password initially created or changed by the Account holder regardless of who enters such orders. You agree that each account holder shall be responsible at all times for maintaining the confidentiality of their personal information and their User ID and Password and will not make them available to other account holders or any third parties. If you do allow other account holders or third parties to access Merrill Edge Self-Directed Investing (including your accounts) using your personal information or your User ID and Password, you agree to hold Merrill Lynch, its directors, officers, employees, agents and affiliates (collectively, "Other Persons") harmless and to indemnify Merrill Lynch and all Other Persons against any liability, costs or damages arising out of claims or suits by any account holder, including yourself, or such third parties based upon or relating to such access.

10. Order Entry Trading Rules

Merrill Edge Self-Directed Investing allows you to enter orders to buy and sell U.S. market traded equities, including exchange-listed and widely-held over-the-counter stocks, a wide selection of mutual funds, and certain bonds and certificates of deposit. Merrill Edge Self-Directed Investing is not designed to be a brokerage service for investors who trade in low-priced securities or foreign securities. Merrill Lynch intends to maintain an order entry policy for low-priced stocks and other trading rules, which will be subject to change from time to time upon posting on the Merrill Edge Self-Directed Investing site or the optional Merrill Lynch Mobile Brokerage service. Merrill Edge Self-Directed Investing is intended to be available for order entry seven (7) days a week, twenty four (24) hours a day, except for brief maintenance periods; however, Merrill Lynch does not warrant that the service will be uninterrupted. Orders sent outside of regular U.S. Market hours will be held and entered on the primary market during market hours on the next trading day. Certain orders may be blocked or subject to pre-review by Merrill Lynch, which may take up to several minutes to process. Merrill Lynch reserves the right to place restrictions on your Account in its sole discretion, and to cancel any order that we believe would violate federal credit regulations or other regulatory limitations; however, Merrill Lynch will have no responsibility or liability for failing to cancel any order.

11. Your Responsibilities Regarding Order Entry

All orders entered through Merrill Edge Self-Directed Investing shall be subject to the applicable rules, customs and usages of the exchange or market, and its clearinghouse, on which such orders are transacted by Merrill Lynch, including our affiliates, including cancellation of orders in certain circumstances. Whether or not funds are available in your Account on trade date, you agree to pay by settlement date for any trade for which you place an order through Merrill Edge Self-Directed Investing. You agree that you will immediately notify Merrill Lynch by telephone and confirm the same in writing if you become aware of any discrepancy in your Account balance or security positions or if you have reason to believe that a third party is using your User ID and Password without your authority. If you fail to notify Merrill Lynch when any of the above conditions occur, neither Merrill Lynch nor any Other Persons shall have any responsibility or liability to any account holder or any other person claiming through any account holder for any claims with respect to the handling, mishandling or loss of any order. You agree to accept full responsibility for the monitoring of your Account with respect to all transactions entered.

12. Limitation on Merrill Lynch's Responsibilities and Liability

You agree that Merrill Lynch will not be responsible for the accuracy, completeness or use of any market data news or research information provided through Merrill Edge and Merrill Lynch does not make any warranty concerning such information. You further agree that all orders placed through Merrill Edge Self-Directed Investing are at your sole risk and responsibility based on your own evaluation of your financial circumstances and investment objectives. Merrill Edge Self-Directed Investing may display on the order entry screen Merrill Lynch Research's quality rating and investment opinion on companies, if available, as well as Independent Research opinions; however, such information and opinions by themselves do not constitute investment advice, or a solicitation or recommendation by us for the purchase or sale of any securities, or a representation that any securities are suitable for you.

You understand and agree that Merrill Edge Self-Directed Investing utilizes the Internet to transport data and communications. Merrill Lynch will take reasonable security precautions to safeguard data and communications; however, Merrill Lynch disclaims any liability for interception and/or use of any such data or communications. You agree that neither Merrill Lynch nor any third party working with Merrill Lynch to provide services hereunder shall be responsible for any damages caused by communications line failure, systems failure, and other occurrences beyond their control, or from any unauthorized trading or theft by any third party who gains access to your Account by use of your User ID and Password as a result of your intentional or unintentional conduct, including negligence by you. Merrill Lynch will not be responsible for any access costs you incur to connect to Merrill Edge Self-Directed Investing.

Neither Merrill Lynch nor any third party makes any representations or warranties expressed or implied with respect to Merrill Edge Self-Directed Investing, including without limitation, any implied warranties of merchantability or fitness for a particular purpose. To the extent permitted by law, under no circumstances, including negligence, will Merrill Lynch or any of its affiliates, directors, officers or employees, or any third party vendor be liable or have any responsibility of any kind for any loss or damage that you incur in the event of any failure or interruption of Merrill Edge Self-Directed Investing, or resulting from the act or omission of any other party involved in making Merrill Edge Self-Directed Investing available to you, or from any other cause relating to your access to or use of Merrill Edge Self-Directed Investing, whether or not the circumstances giving rise to such cause may have been within the control of Merrill Lynch or of any vendor providing software or services support for Merrill Edge Self-Directed Investing. In no event will Merrill Lynch or any such parties be liable to you for any special, indirect, consequential or incidental damages even if Merrill Lynch or any other party have been advised of the possibility thereof. Any liability arising out of any action or omission by Merrill Lynch or any such parties shall be limited to an amount equal to the benefit which the transaction would have resulted in during the period between the date of a trade and the applicable time for settlement of such trade.

13. Notice Regarding Payment for Order Flow and Order Execution and Routing Disclosures

In accordance with SEC customer disclosure rules, Merrill Lynch is hereby informing you that it does not receive payment for order flow from venues to which Merrill Lynch routes its customer orders in equity securities. Merrill Lynch may receive rebates from and pays fees to certain registered securities exchanges for providing or taking liquidity on those exchanges, according to those exchanges' published fee schedules approved by the SEC. We handle your order so as to obtain a competitive execution price and we regularly monitor the quality of our executions. SEC regulations require that Merrill Lynch disclose the venues to which we route our customers' orders for equity securities, as well as certain material aspects of our relationships with those venues. For both exchange listed and over-the-counter equity transactions, Merrill Lynch equity trading desks are market making desks and may be one of those venues where our customer orders may be routed for execution. If an order is executed with a Merrill Lynch equity trading desk, the trade confirmation will indicate that Merrill Lynch executed such order in a principal capacity. If you would like a written copy of this information, or information concerning where your individual orders were routed and executed, please contact your Merrill Lynch representative. Our order routing information is updated quarterly and is available online at <http://corp.bankofamerica.com/business/ci/best-execution>.

**Please note: Orders placed through any automatic telephone trading service, electronic, or online trading systems cannot specify a particular market center for execution.*

Exchange-listed securities—When you buy or sell round lots (usually 100 shares) of listed stocks, or when you buy or sell listed options, we generally route your order through a routing system to what is expected as the best execution venues for the order. We handle your order so as to obtain a competitive execution price in line with our regulatory obligations.

Our electronic order-processing system automatically channels your order to an appropriate market center given the characteristics of the order, market data and trading statistics. Our trading desks may be one of those market centers or venues where the execution may occur. If that is the case, your confirmation will indicate we acted as principal in connection with the purchase or sale transaction.

We have in place effective internal controls, including information barriers, to prevent the inappropriate sharing of order information among our equity trading desks. In this regard each of our equity trading desks independently conducts its trading activities. To the extent permitted by rule or law, when a desk or trading unit (e.g., including a market making desk which engages in block positioning and provides firm bid/offer quotes) handles your equity orders, other Merrill Lynch equity trading units or desks may separately transact—without knowledge of your orders—for their principal accounts at prices that would satisfy your orders. Conversely if your orders are handled by another of our equity trading desks or units and no attempt is made to obtain liquidity for your orders from the market making desk, you should understand that the market making desk may separately transact—without knowledge of your orders—for its principal accounts at prices that would satisfy your orders. In either case, the relevant equity trading desk or unit's execution prices could be better, the same, or worse than the prices you receive for the same security.

Under FINRA rules, we are required to disclose to you descriptions of stop quote, stop quote limit, trailing stop quote and trailing stop quote limit orders. Depending on your Merrill Lynch services channel, you may have the option to place one or more of these order types. Stop quote and stop quote limit orders can be placed for both equities and options.

Equities—a sell stop quote order is placed at a stop price below the current market price and will trigger if the national best bid quote is at or lower than the specified stop price. A buy stop quote order is placed at a stop price above the current market price and will trigger if the national best offer quote is at or higher than the specified stop price. Once triggered, a stop quote order becomes a market order (buy or sell, as applicable), and execution prices can deviate significantly from the specified stop price.

A stop quote limit order combines the features of a stop quote order and a limit order. A sell stop quote limit order is placed at a stop price below the current market price and will trigger if the national best bid quote is at or lower than the specified stop price. A buy stop quote limit order is placed at a stop price above the current market prices and will trigger if the national best offer quote is at or higher than the specified stop price. Once triggered, a stop quote limit order becomes a limit order (buy or sell, as applicable) at a specified limit price, and execution may not occur as the market price can move away from the specified limit price.

Options—a sell stop quote order is placed at a stop price below the current market price and will trigger if the national best offer quote is at or lower than the specified stop price. A buy stop quote order is placed at a stop price above the current market price and will trigger if the national best bid quote is at or higher than the specified stop price. Once triggered, a stop quote order becomes a market order (buy or sell, as applicable), and execution prices can deviate significantly from the specified stop price.

A stop quote limit order combines the features of a stop quote order and a limit order. A sell stop quote limit order is placed at a stop price below the current market price and will trigger if the national best offer quote is at or lower than the specified stop price. A buy stop quote limit order is placed at a stop price above the current market prices and will trigger if the national best bid quote is at or higher than the specified stop price. Once triggered, a stop quote limit order becomes a limit order (buy or sell, as applicable) at a specified limit price, and execution may not occur as the market price can move away from the specified limit price.

Trailing stop quote and trailing stop quote limit orders may only be placed for equities. A sell trailing stop quote order is placed with either a dollar or percentage stop trail amount that initially sets a stop price below the current market price. The stop price may adjust with changes to the national best bid quote. Only upticks in the national best bid quote may affect the stop price and the order will activate if the national best bid quote is at or lower than the current calculated stop price. A buy trailing stop quote order is placed with either a dollar or percentage stop trail amount that initially sets a stop price above the current market price. The stop price may adjust with changes to the national best offer quote. Only downticks in the national best offer quote will affect the stop price and the order will activate if the national best offer quote is at or higher than the current calculated stop price. Once activated, a trailing stop quote order becomes a market order (buy or sell, as applicable) and will execute at the next available market price, which could be substantially different than expected and significantly different from the current calculated stop price.

A trailing stop quote limit order combines the features of a trailing stop quote order and a limit order. A sell trailing stop quote limit order is placed with either dollar or percentage stop and limit trail amounts that initially set stop and limit prices below the current market price. The stop and limit prices may adjust with changes to the national best bid quote. Only upticks in the national best bid quote may affect the stop and limit prices and the order will activate if the national best bid quote is at or lower than the current calculated stop price. A buy trailing stop quote limit order is placed with either dollar or percentage stop and limit trail amounts that initially set stop and limit prices above the current market price. The stop and limit prices may adjust with changes to the national best offer quote. Only downticks in the national best offer quote may affect the stop and limit prices and the order will activate if the national best offer quote is at or higher than the current calculated stop price. Once activated, a trailing stop quote limit order becomes a limit order (buy or sell, as applicable) at the current calculated limit price, and execution may not occur as the market price can move away from the limit price.

Note there are increased risks with trailing stop quote and trailing stop quote limit orders. Trailing stop quote and trailing stop quote limit orders rely on market data to calculate the current stop and limit prices based on your stop and limit trail amounts and the national best bid or offer. Volatile market fluctuations, system outages and market data errors and omissions including misquotes (e.g., "bad ticks") could unexpectedly activate or delay your order. Orders received when the markets are closed will have initial stop and limit prices set with the next available best bid or offer quote on the primary exchange. Trailing stop quote and trailing stop quote limit orders may not be available for all securities, including certain over-the-counter securities and those trading at prices below \$1.00.

Over-the-counter markets — Securities that are not listed on an exchange may be traded in the over-the-counter markets. Merrill Lynch fully complies with SEC and FINRA order handling requirements. We handle your order so as to obtain a competitive execution price. We may be a participant in the over-the-counter market and execute your order as principal. We regularly monitor the quality of our executions. In addition, we execute customer limit orders in NASDAQ securities at prices equal to the limit price or better than the limit price.

For those securities in which Merrill Lynch makes a market, we will execute automatically market orders up to an amount determined by us at the National Best Bid or Offer (NBBO) or better. We manually execute orders larger than these parameters, using discretion to seek best execution for our customers.

Often for those securities in which Merrill Lynch makes a market, we will use best efforts to execute larger-sized client orders by testing whether, and how much, stock can be bought at currently displayed quotes, in addition to what is reflected in Merrill Lynch's quote. We may then manually execute client orders based on the liquidity we are able to access, which may involve the simultaneous execution of one or more client orders received over a period of time. Those orders may receive executions at prices that approximate the volume-weighted average price during that period. Merrill Lynch routes orders in securities in which we do not make a market to other market makers.

The Securities and Exchange Commission ("SEC") adopted a rule requiring market centers to publicly disclose, on a monthly basis, uniform statistical measures of order execution quality. These measures include, but are not limited to, how market orders of various sizes are executed relative to the public quotes and information about the spreads paid by investors. The SEC has also adopted a rule requiring all brokerage firms to make publicly available quarterly reports on their order routing practices. In accordance with these rules, Merrill Lynch's execution reports and order routing statistics are available for public review by visiting www.ml.com/legal_info.htm and clicking through the link provided in the "SEC Order Execution and Routing Disclosure" section.

Note: Under SEC rules, we are required to inform you that Merrill Lynch does not receive payment for order flow from other broker-dealers, any U.S. exchange or NASDAQ for routing your orders in securities quoted on U.S. exchanges or NASDAQ trading systems.

14. Agreement With Information Providers Regarding Market Data

The securities prices, quotations, research, ratings, news and other information provided on Merrill Edge Self-Directed Investing are provided by various third party sources that include, but are not limited to, the New York Stock Exchange, Inc., American Stock Exchange Inc., NASDAQ Stock Market, Inc., The Options Price Reporting Authority, and its participant exchanges, Dow Jones & Company, Inc., Standard & Poor's Financial Services, LLC, Moody's Investor Services, Inc., Morningstar Inc., and their respective affiliates, agents and

others, including persons or entities that act as data processors on behalf of the foregoing (collectively, "Information Providers"). By using the Merrill Edge Self-Directed Investing website, you acknowledge and agree that: (1) securities prices, quotations research, ratings, news and other information received from Information Providers ("Market Data") are solely for your individual use and you will not retransmit or furnish Market Data to any other person or entity, except to other officers, partners or employees if you are an entity; (2) the Market Data is and shall remain the property of the respective Information Providers or of the market on which a reported transaction took place or a reported quotation was entered; (3) at any time, Information Providers may discontinue disseminating any category of Market Data, may change or eliminate any transmission method and may change transmission speeds or signal characteristics, and you shall not hold the Information Providers liable for any resulting liability, loss or damages that may arise there from; and (4) your agreements set forth herein and the disclaimers of warrant, and disclaimers of liability set forth below are for the express benefit of the Information Providers as third party beneficiaries and they may enforce these provisions against you.

Notwithstanding any provisions to the contrary contained herein, with respect to Dow Jones & Company, Inc. only: (1) you may, on an occasional and irregular basis, reproduce, distribute, display or transmit an insubstantial portion of the Market Data provided by Dow Jones & Company, Inc. (the "Dow Jones information"), for a non-commercial purpose and without charge, to a limited number of individuals, provided you include all copyright and other proprietary rights notices with such portion of the Dow Jones information in the same form in which the notices appear on the Dow Jones information, the original source attribution, and the phrase "Used with permission from Dow Jones & Company"; (2) if you are an entity, you may only retransmit or furnish the Dow Jones information to officers, partners or employees in accordance with the foregoing sentence.

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These Terms of Service shall remain in effect as to the Information Providers for so long as you have the ability to receive Market Data through the Merrill Edge Self-Directed Investing website as contemplated hereby. In addition, either you or Merrill Lynch may terminate your access to Market Data at any time. You understand that Merrill Lynch is obligated to terminate access to this site as to the provision of any or all of the Market Data pursuant to this paragraph upon notice to that effect from any of the Information Providers. The foregoing provisions regarding the proprietary nature of Market Data, third party beneficiary enforcement by the Information Providers, and the disclaimer of liability and disclaimer of warranty by the information Providers survive termination of your access to Market Data. These Terms of Service supersede each previous agreement between you and the Information Providers insofar as the superseded agreement pertains to Market Data provided to you through the Merrill Edge Self-Directed Investing website.

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Incorporation of Market Data Agreements With Exchanges

BY ACKNOWLEDGING THESE TERMS OF SERVICE, YOU AGREE (A) THAT YOU UNDERSTAND, AND AGREE TO BE BOUND BY, THE AGREEMENT FOR MARKET DATA DISPLAY SERVICES (THE "EXCHANGE AGREEMENT"), THE MATERIAL TERMS AND CONDITIONS OF WHICH ARE INCORPORATED HEREIN; (B) THAT MERRILL LYNCH IS NOT AN AGENT OF ANY OF THE EXCHANGES OR OF NASDAQ AND IS NOT AUTHORIZED TO DEPART FROM THE EXCHANGE AGREEMENT; AND (C) THAT NO PROVISION MAY BE ADDED TO OR DELETED FROM THE EXCHANGE AGREEMENT AND THAT NO MODIFICATIONS HAVE BEEN MADE TO IT ON YOUR BEHALF. YOU WARRANT THAT YOU ARE LEGALLY ABLE TO UNDERTAKE THE OBLIGATIONS SET FORTH IN, AND THE SIGNATORY IS DULY AUTHORIZED TO BIND YOU TO, THE EXCHANGE AGREEMENT.

THE NASDAQ STOCK MARKET, INC. IS A THIRD PARTY BENEFICIARY TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. TO THE EXTENT THAT YOU HAVE ANY CLAIMS AGAINST NASDAQ ARISING OUT OF THIS AGREEMENT OR THE NASDAQ SUBSCRIBER AGREEMENT, THOSE CLAIMS SHALL BE GOVERNED BY AND CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE STATE OF MARYLAND WITHOUT REFERENCE TO PRINCIPLES OF CONFLICTS OF LAW, AND YOU CONSENT TO SUBMIT TO THE JURISDICTION OF THE COURTS OF OR FOR THE STATE OF MARYLAND IN CONNECTION WITH ANY SUCH CLAIM.

BY ACKNOWLEDGING THESE TERMS OF SERVICE, YOU CERTIFY TO THE INFORMATION PROVIDERS, AND TO MERRILL LYNCH, THAT YOU HAVE READ, UNDERSTAND AND INTEND TO BE BOUND BY THESE TERMS OF SERVICE.

Note: The Funds Transfer Service and Bill Payment Services are governed by separate enrollment terms and conditions, which are available in the Documents & Forms Library, and are not governed by the above Merrill Edge Self-Directed Investing Terms of Service.

15. Callable Securities/ Procedures for a partial redemption

If you hold securities with us that may be redeemed or called prior to maturity and a partial call occurs, a fair and impartial approach will be used among impacted clients to allocate the securities selected to be called.

For Merrill Lynch's allocation procedures, please go to the following link or you may request a hard copy by contacting the Investment Center at 1.877.653.4732.

<https://olui2.fs.ml.com/Publish/Content/application/pdf/GWMOL/PartialCallProcessNotice.pdf>

16. Extended Hours Trading Agreement

IMPORTANT INFORMATION ABOUT EXTENDED HOURS TRADING THROUGH ELECTRONIC COMMUNICATION NETWORKS.

Due to the nature of the extended hours trading market, trading in the pre-market and after hours through an ECN may pose certain risks which are greater than those present during normal market hours.

Risk of Lower Liquidity

Liquidity refers to the ability of market participants to buy and sell securities. Generally, the more orders that are available in a market, the greater the liquidity. Liquidity is important because with greater liquidity it is easier for investors to buy or sell securities, and as a result, investors are more likely to pay or receive a competitive price for securities purchased or sold. There may be lower liquidity in extended hours trading as compared to regular trading hours. As a result, your order may only be partially executed, or not at all.

Risk of Higher Volatility

Volatility refers to the changes in price that securities undergo when trading. Generally, the higher the volatility of a security, the greater its price swings. There may be greater volatility in extended hours trading than in regular trading hours. As a result, your order may only be partially executed, or not at all, or you may receive an inferior price when engaging in extended hours trading than you would during regular trading hours.

Risk of Changing Prices

The prices of securities traded in extended hours trading may not reflect the prices either at the end of regular trading hours, or upon the opening the next morning. As a result, you may receive an inferior price when engaging in extended hours trading than you would during regular trading hours.

Risk of Unlinked Markets

Depending on the extended hours trading system or the time of day, the prices displayed on a particular extended hours trading system may not reflect the prices in other concurrently operating extended hours trading systems dealing in the same securities. Accordingly, you may receive an inferior price in one extended hours trading system than you would in another extended hours trading system.

Risk of News Announcements

Normally, issuers make news announcements that may affect the price of their securities after regular trading hours. Similarly, important financial information is frequently announced outside of regular trading hours. In extended hours trading, these announcements may occur during trading, and if combined with lower liquidity and higher volatility, may cause an exaggerated and unsustainable effect on the price of a security.

Risk of Wider Spreads

The spread refers to the difference in price between what you can buy a security for and what you can sell it for. Lower liquidity and higher volatility in extended hours trading may result in wider than normal spreads for a particular security.

Time and Price Priority of Orders

Orders entered into the extended hours session are generally handled in the order in which they were received at each price level. Therefore, orders transmitted to the ECN by other investors before your order may match an existing order that you were attempting to match, thereby removing that order from the ECN order book. Similarly, your order may not be first in line to be executed if a matching order comes into the ECN. This may prevent your order from being executed, in whole or in part, or from receiving as favorable a price as you might receive during normal market hours.

Communication Delays

Delays or failure in communications due to a high volume of orders or communications, or other computer system problems, may cause delays in, or prevent execution of your order.

Terms and Conditions

Trading through ECN Extended Hours session on the ECN is subject to the terms and conditions ("Terms") and policies set forth by Merrill Lynch and subject to change without notice. Trading in the pre-market session may not be available to all users. Users of the extended hours trading session should contact an investment specialist to determine the availability of pre-market trading. By using the ECN Extended Hours trading facility, you acknowledge your understanding of the risks set forth above and your agreement to the Terms set forth below.

We reserve the right not to accept an order for the ECN Extended Hours session at their discretion and will attempt to notify you if your order is not accepted.

We will only accept limit orders for ECN Extended Hours trading. You must indicate a specific price at which you are willing to buy or sell the security you are interested in. You may not trade against an order entered by you. In other words, you may not buy securities you offered for sale in the ECN, and vice versa.

The maximum order size is 100,000 shares.

Prices must be entered in decimals.

Only certain securities will be eligible for trading through the ECN Extended Hours session, so all orders must be for securities traded on the ECN. If a stock normally traded on the ECN closes on a trading halt in its primary market, or trading is later halted by its primary exchange or a regulatory authority, trading of that stock will be suspended on the ECN.

If ECN pre-market trading is available, orders can be placed from 7:30 to 9:30 a.m. Eastern. Orders entered between 7:30 and 8:00 a.m. will be collected and transmitted together to the pre-market session at 8:00 a.m. and will be given priority according to time received. After this time, we will continue to send ECN pre-market orders as they are received until 9:30 a.m. Eastern unless trading is halted prior to 9:30 a.m.

ECN after hours orders can be placed from 4:01 to 8:00 p.m. Eastern (After Hours Orders). After Hours Orders we receive will be sent to the ECN for execution in the order in which they are received. We will continue to send After Hours Orders to the ECN until 8:00 p.m. Eastern unless trading is halted prior to 8:00 p.m. Eastern.

If ECN pre-market trading is available, orders not filled during the ECN pre-market session are automatically canceled if they are not filled by the end of the session (i.e., 9:30 a.m. Eastern unless trading is halted prior to 9:30 a.m.) during which they were placed. You must re-enter these orders during normal market hours if you still wish to have the trades executed.

Orders not filled during the ECN after hours session are automatically canceled if they are not filled by the end of the session (i.e., 8:00 p.m. Eastern unless trading is halted prior to 8:00 p.m.) during which they were placed. You must re-enter these orders during normal market hours if you still wish to have the trades executed.

Merrill Lynch is not liable for delays in the transmission of orders due to a breakdown or failure of transmission, communication or data processing facilities, or for any other cause beyond our reasonable control.

Transactions are subject to the applicable rules and regulations of the self-regulatory organizations and governmental authorities.

Transactions are subject to all other agreements applicable to your account(s).



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Investment products:

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