Terms and Disclosures of Foreign Broker

Customer Agreement: This Agreement ("Agreement") governs the relationship between Customer and US ("Broker"). If this Agreement varies from the Broker website, this Agreement controls. This Agreement cannot be amended or waived except in writing by an broker officer. Customer Service employees cannot amend or waive any part of this Agreement. Customer acknowledges that Broker may revise this Agreement by sending notice of the revised Agreement by e-mail or upon Customer log-in. Customer's use of Broker after such notice constitutes acceptance of the revised Agreement.

No Investment, Tax or Trading Advice: Broker representatives are not authorized to provide investment, tax or trading advice or to solicit orders. Nothing on Broker ‘s website is a recommendation or solicitation to buy or sell securities, futures or other investments.

Responsibility for Customer Orders/Trades: Customer acknowledges that BROKER does not know whether someone entering orders with Customer's user name/password is Customer. Unless BROKER is notified and agrees, Customer will not allow anyone to access Customer's account. Customer is responsible for the confidentiality and use of Customer's user name/password and agrees to report any theft/loss of such user name/password, or any unauthorized access to Customer's account, immediately by telephone or electronically through the BROKER website. Customer remains responsible for all transactions entered using Customer's user name/password.

Order Routing: Unless otherwise directed, BROKER will select the market/dealer to which to route Customer's orders. For products traded at multiple markets, BROKER may provide "Smart Routing", which seeks the best market for each order through a computerized algorithm. Customer should choose Smart Routing if available. If Customer directs orders to a particular market, Customer assumes responsibility for knowing and trading in accordance with the rules and policies of that market (e.g., trading hours, order types, etc.). BROKER cannot guarantee execution of every order at the best posted price: BROKER may not have access to every market/dealer; other orders may trade ahead; market centers may not honor posted prices or may re-route orders for manual handling; or market rules, decisions or system failures may prevent/delay execution of Customer's orders or cause orders not to receive the best price.

Order Cancellation/Modification: Customer acknowledges that it may not be possible to cancel/modify an order and that Customer is responsible for executions notwithstanding a cancel/modify request.

Order Execution: BROKER shall execute Customer orders as agent, unless otherwise confirmed. BROKER can execute Customer orders as principal. BROKER may use another broker, or an affiliate, to execute orders, and they have benefit of all BROKER's rights hereunder. BROKER may decline any Customer order, or terminate Customer's use of BROKER's services at any time in BROKER's discretion. All transactions are subject to rules and policies of relevant markets and clearinghouses, and applicable laws and regulations. BROKER IS NOT LIABLE FOR ANY ACTION OR DECISION OF ANY EXCHANGE, MARKET, DEALER, CLEARINGHOUSE OR REGULATOR.

Confirmations:

Customer agrees to monitor each order until BROKER confirms execution or cancellation. Customer acknowledges that confirmations of executions or cancellations may be delayed or may be erroneous (e.g. due to computer system issues) or may be cancelled/adjusted by an exchange. Customer is bound by the actual order execution, if consistent with Customer's order. If BROKER confirms execution or cancellation in error and Customer delays reporting such error, BROKER reserves the right to remove the trade from the account or require Customer to accept the trade, in BROKER's discretion.

Customer agrees to notify BROKER immediately by telephone or electronically through the BROKER website if: i) Customer fails to receive an accurate confirmation of an execution or cancellation; ii) Customer receives a confirmation that is different than Customer's order; iii) Customer receives a confirmation for an order that Customer did not place; or iv) Customer receives an account statement, confirmation or other information reflecting inaccurate orders, trades, balances, positions, margin status or transaction history. Customer acknowledges that BROKER may adjust Customer's account to correct any error. Customer agrees to promptly return to BROKER any assets erroneously distributed to Customer.

Proprietary Trading - Display of Customer Orders: Subject to all laws and regulations, Customer authorizes BROKER to execute proprietary trades of itself and its affiliates, though BROKER may simultaneously hold unexecuted Customer orders for the same products at the same price.

Customer Qualification: Customer warrants that his, her or its application is true and complete; will promptly notify BROKER of any information changes; and authorizes BROKER to make any inquiry to verify information.

Natural Persons: Customer warrants that Customer is over 18; is under no legal incapacity; and has sufficient knowledge and experience to understand the nature and risks of the products to be traded.

Organizations: Customer and its authorized representatives warrant that Customer: (i) is authorized under its governing document(s) and in the jurisdictions in which it is organized and/or regulated to enter this Agreement and trade (including on margin if applicable); (ii) is under no legal incapacity; and (iii) that persons identified to enter orders have proper authority and have sufficient knowledge and experience to understand the nature and risks of the products to be traded.

Trusts: "Customer" refers to the Trust and/or Trustees. Trustee(s) represent(s) that there are no Trustees other than listed in the application and certifies(y) that BROKER may follow instructions from any Trustee and deliver funds, securities, or any other assets to any Trustee or on any Trustee's instructions, including delivering assets to a Trustee personally. BROKER, in its discretion, may require written consent of any or all Trustee(s) prior to following instructions of any Trustee. Trustee(s) certify that Trustee(s) has (have) the power under the Trust documents and applicable law to enter this Agreement, open the type of account applied for, and enter transactions and issue instructions. Such powers include, without limit, authority to buy, sell (including short), exchange, convert, tender, redeem and withdraw assets (including delivery of securities to/from the account) to trade securities on margin or otherwise (including purchase/sale of options), and trade futures and/or options on futures, for the Trust. Should only one Trustee execute this Agreement, Trustee represents that Trustee has the authority to execute this Agreement, without consent by the other Trustees. Trustee(s) certifies(y) that all transactions for this account will comply with the Trust documents and applicable law and that all trading in this Account will be consistent with the powers delegated to the Trustee(s) by the Trust document(s) and with the fiduciary duties of the Trustee(s) to the Trust and/or the beneficiary(ies) of the Trust. Trustee(s) also certifies(y) that Trustee(s) will inform any beneficiary(ies) of the Trust of the activity in the Trust's account(s) as required by the Trust document and applicable law. Trustee(s), jointly and severally, shall indemnify IB and hold BROKER harmless from any claim, loss, expense or liability for effecting any transactions, and acting upon any instructions given by the Trustee(s). Trustee(s) will notify Broker promptly if the authority of the Trustee(s) change in any manner material to this Agreement, including but not limited to any change affecting the accuracy of any warrants made herein.

Regulated Persons and Entities: Unless Customer notifies BROKER otherwise, Customer represents that Customer is not a broker-dealer; futures commission merchant; or affiliate, associated person or employee thereof. Customer agrees to notify BROKER immediately by telephone or electronically through the BROKER website if Customer becomes employed or associated with a broker-dealer or futures commission merchant.

Joint Accounts: Each joint account holder agrees that each joint holder has authority, without notice to the other, to: (i) buy/sell securities, futures or other products (including on margin); (ii) receive account confirmations and correspondence; (iii) receive and dispose of money, securities or other assets; (iv) enter, terminate, or agree to modify this Agreement; (v) waive any part of this Agreement; and (vi) deal with BROKER as if each joint holder was the sole holder. Notice to any joint holder constitutes notice to all joint holders. Each joint account holder is jointly and severally liable to BROKER for all account matters. BROKER may follow instructions of any joint holder and make delivery to any joint account holder individually of any account property.

Upon death of any joint holder, the surviving holder shall give BROKER notice by telephone or electronically through the BROKER website and BROKER may, before or after notice, initiate proceedings, require documents, retain assets and/or restrict transactions as it deems advisable to protect itself against any liability or loss. The estate of any deceased joint account holder shall be liable and each survivor will be liable, jointly and severally, to BROKER for any debt or loss in the account or upon liquidation of the account. Unless Customers indicate otherwise, BROKER may presume that account holders are joint tenants with rights of survivorship. Upon death of any joint holder, the account shall be vested in the surviving holders, without in any manner releasing the deceased joint holder's estate from liability.

Margin:

Risk of Margin Trading: Margin trading is highly risky and may result in a loss of funds greater than Customer has deposited in the account. Customer represents that he or she has read the "Disclosure of Risks of Margin Trading" provided separately by BROKER.

Requirement to Maintain Sufficient Margin Continuously: Margin transactions are subject to initial and maintenance margin requirements of exchanges, clearinghouses and regulators and also to any additional margin requirement of BROKER, which may be greater ("Margin Requirements"). BROKER MAY MODIFY MARGIN REQUIREMENTS FOR ANY OR ALL CUSTOMERS FOR ANY OPEN OR NEW POSITIONS AT ANY TIME, IN BROKER'S SOLE DISCRETION. Customer shall monitor his, her or its account so that at all times the account contains sufficient equity to meet Margin Requirements. BROKER may reject any order if the account has insufficient equity to meet Margin Requirements, and may delay processing any order while determining margin status. Customer shall maintain, without notice or demand, sufficient equity at all times to continuously meet Margin Requirements. Formulas for calculating Margin Requirements on the BROKER website are indicative only and may not reflect actual Margin Requirements. Customer must at all times satisfy whatever Margin Requirement is calculated by BROKER.

BROKER Will Not Issue Margin Calls: BROKER does not have to notify Customer of any failure to meet Margin Requirements prior to BROKER exercising its rights under this Agreement. Customer acknowledges that BROKER generally will not issue margin calls; generally will not credit Customer's account to meet intraday or overnight margin deficiencies; and is authorized to liquidate account positions in order to satisfy Margin Requirements without prior notice.

D. Liquidation of Positions and Offsetting Transactions:

IF AT ANY TIME CUSTOMER'S ACCOUNT HAS INSUFFICIENT EQUITY TO MEET MARGIN REQUIREMENTS OR IS IN DEFICIT, BROKER HAS THE RIGHT, IN ITS SOLE DISCRETION, BUT NOT THE OBLIGATION, TO LIQUIDATE ALL OR ANY PART OF CUSTOMER'S POSITIONS IN ANY OF CUSTOMER'S BROKER NON-IRA ACCOUNTS, INDIVIDUAL OR JOINT, AT ANY TIME AND IN ANY MANNER AND THROUGH ANY MARKET OR DEALER, WITHOUT PRIOR NOTICE OR MARGIN CALL TO CUSTOMER. CUSTOMER SHALL BE LIABLE AND WILL PROMPTLY PAY BROKER FOR ANY DEFICIENCIES IN CUSTOMER'S ACCOUNT THAT ARISE FROM SUCH LIQUIDATION OR REMAIN AFTER SUCH LIQUIDATION. BROKER HAS NO LIABILITY FOR ANY LOSS SUSTAINED BY CUSTOMER IN CONNECTION WITH SUCH LIQUIDATIONS (OR IF THE BROKER SYSTEM DELAYS EFFECTING, OR DOES NOT EFFECT, SUCH LIQUIDATIONS) EVEN IF CUSTOMER RE-ESTABLISHES ITS POSITION AT A WORSE PRICE.

BROKER may allow Customer to pre-request the order of liquidation in event of a margin deficiency, but such requests are not binding on BROKER and BROKER retains sole discretion to determine the assets to be liquidated and the order/manner of liquidation. BROKER may liquidate through any market or dealer, and BROKER or its affiliates may take the other side of the transactions consistent with laws and regulations. If BROKER liquidates any/all positions in Customer's account, such liquidation shall establish Customer's gain/loss and remaining indebtedness to BROKER, if any. Customer shall reimburse and hold BROKER harmless for all actions, omissions, costs, fees (including, but not limited to, attorney's fees), or liabilities associated with any such transaction undertaken by BROKER. If BROKER executes an order for which Customer did not have sufficient equity, BROKER has the right, without notice, to liquidate the trade and Customer shall be responsible for any resulting loss and shall not be entitled to any resulting profit.

If BROKER does not, for any reason, liquidate under-margined positions, and issues a margin call, Customer must satisfy such call immediately by depositing funds. Customer acknowledges that even if a call is issued, BROKER still may liquidate positions at any time.

Customer acknowledges that BROKER also has the right to liquidate all or part of Customer's positions without prior notice: (i) if any dispute arises concerning any Customer trade, (ii) upon any "Default" as described in 17 below, or (iii) whenever BROKER deems liquidation necessary or advisable for BROKER's protection.

Universal Accounts: An BROKER Universal Account is two underlying accounts: an SEC-regulated securities account and a CFTC-regulated commodity account. Customer authorizes transfers between the securities and commodity accounts to cover Margin Requirements and other obligations, and acknowledges BROKER may liquidate positions to cover obligations in the other account. Customer authorizes BROKER to provide combined confirmations/statements for both accounts. Customer acknowledges that only assets in the securities account are covered by SIPC protection and excess coverage and not assets in the commodity account.

Short Sales: Customer acknowledges that short sales must be done in a margin account, subject to Margin Requirements; that prior to selling short, BROKER must believe it can borrow stock for delivery; and that if BROKER cannot borrow stock (or re-borrow after a recall notice) BROKER may buy-in stock on Customer's behalf, without notice to Customer, to cover short positions and Customer is liable for any losses/costs.

BROKER's Right to Loan/Pledge Customer Assets: As allowed by law, BROKER is authorized by Customer to lend to itself or others Customer securities or assets. BROKER may, without notice, pledge, re-pledge, hypothecate or re-hypothecate Customer's securities and assets, separately or together with those of other customers, for any amount due in any BROKER account in which Customer has an interest, without retaining in BROKER's possession or control a like amount of assets. For loans of securities, BROKER may receive financial and other benefits to which Customer is not entitled. Such loans could limit Customer's ability to exercise securities' voting rights.

Security Interest: All assets of any kind held by or on behalf of BROKER for Customer's account are hereby pledged to BROKER and are subject to a perfected first priority lien and security interest in BROKER's favor to secure performance of obligations and liabilities to BROKER arising under this or any other Agreement.

No Restricted Securities. Unless Customer has notified BROKER to the contrary, no assets held as Collateral are restricted securities, as such term is defined pursuant to Rule 144 under the Securities Act of 1933, (the Securities Act), or securities of an issuer with which Customer is an affiliate, and Customer will not attempt to sell such shares through BROKER without prior notice to and consent of BROKER.

Event of Default: A "Default" occurs automatically, without notice upon: (i) Customer breach/repudiation of any agreement with BROKER; (ii) Customer failure to provide assurance satisfactory to BROKER of performance of an obligation, after request from BROKER in BROKER's sole discretion; (iii) proceedings by/against Customer under any bankruptcy, insolvency, or similar law; (iv) assignment for the benefit of Customer's creditors; (v) appointment of a receiver, trustee, liquidator or similar officer for Customer or Customer property; (vi) Customer representations being untrue or misleading when made or later becoming untrue; (vii) legal incompetence of Customer; (viii) proceeding to suspend Customer's business or license by any regulator or organization; (ix) BROKER having reason to believe that any of the foregoing is likely to occur imminently.

Customer unconditionally agrees that, upon a Default, BROKER may terminate any or all BROKER's obligations to Customer and BROKER shall have the right in its discretion, but not the obligation, without prior notice, to liquidate all or any part of Customer's positions in any BROKER account, individual or joint, at any time and any manner and through any market or dealer. Customer shall reimburse and hold BROKER harmless for all actions, omissions, costs, fees (including, but not limited to, attorney's fees), or liabilities associated with any Customer Default or any transaction undertaken by BROKER upon Default.

Suspicious Activity: If BROKER in its sole discretion believes that a Customer account has been involved in any fraud or crime or violation of laws or regulations, or has been accessed unlawfully, or is otherwise involved in any suspicious activity (whether victim or perpetrator or otherwise), BROKER may suspend or freeze the account or any privileges of the account, may freeze or liquidate funds or assets, or may utilize any of the remedies in this Agreement for a "Default".

Multi-Currency Function in BROKER Accounts:

Customers may be able to trade products denominated in different currencies using a base currency chosen by Customer. Upon purchase of a product denominated in a different currency from the base currency, a margin loan is created to fund the purchase, secured by the assets in Customer's accounts. If Customer maintains positions denominated in foreign currencies, BROKER will calculate Margin Requirements by applying exchange rates specified by BROKER. BROKER WILL APPLY "HAIRCUTS" (A PERCENTAGE DISCOUNT ON THE FOREIGN CURRENCY EQUITY AMOUNT) TO REFLECT THE POSSIBILITY OF FLUCTUATING EXCHANGE RATES BETWEEN THE BASE CURRENCY AND THE FOREIGN CURRENCY. CUSTOMER MUST CLOSELY MONITOR MARGIN REQUIREMENTS AT ALL TIMES, PARTICULARLY FOR POSITIONS DENOMINATED IN FOREIGN CURRENCIES, BECAUSE FLUCTUATION IN THE CURRENCY AND THE VALUE OF THE UNDERLYING POSITION CAN CAUSE A MARGIN DEFICIT.

Customer agrees that BROKER’s obligations to Customer shall be denominated in: (i) the United States dollar; (ii) a currency in which funds were deposited by Customer or were converted at the request of Customer, to the extent of such deposits and conversions; or (iii) a currency in which funds have accrued to the customer as a result of trading conducted on a designated contract market or registered derivatives transaction execution facility, to the extent of such accruals. Information regarding Customer’s currency conversions is provided on the BROKER customer statements. Customer further agrees that BROKER may hold customer funds in: (i) the United States; (ii) a money center country as defined by the US Commodity Exchange Act & regulations thereunder; or (iii) the country of origin of the currency. In addition, Customer acknowledges and authorizes BROKER to hold Customer’s funds outside the United States, in a jurisdiction that is neither a money center country nor the country of origin of the currency in order to facilitate Customer’s trading in investments denominated in that currency.

Foreign Currency Exchange ("Forex") Transactions:

HIGH RISKS OF FOREX TRADING: FOREX TRADING IS GENERALLY UNREGULATED, IS HIGHLY RISKY DUE TO THE LEVERAGE (MARGIN) INVOLVED, AND MAY RESULT IN LOSS OF FUNDS GREATER THAN CUSTOMER DEPOSITED IN THE ACCOUNT. Customer represents that he or she has read and acknowledges the "Risk Disclosure Statement for Forex Trading and Multi-Currency Accounts" provided separately by BROKER.

For Forex transactions, BROKER generally will act as agent or riskless principal and charge a fee. BROKER may effect Forex transactions through an affiliate or third party, which may profit or loss from such transactions. Customer agrees that BROKER may transfer to or from Customer's regulated futures or securities account(s) from or to any of Customer's non-regulated Forex account any funds or assets that may be required to avoid margin calls, reduce debit balances or for any other lawful reason.

Netting: (i) Netting by Novation. Each Forex transaction between Customer and BROKER will immediately be netted with all then-existing Forex transactions between Customer and BROKER for the same currencies to constitute one transaction. (ii) Payment Netting. If on any delivery date more than one delivery of a currency is due, each party shall aggregate the amounts deliverable and only the difference shall be delivered. (iii) Close-Out Netting. If Customer: (a) incurs a margin deficit in any BROKER account, (b) defaults on any obligation to BROKER, (c) becomes subject to bankruptcy, insolvency or other similar proceedings, or (d) fails to pay debts when due, BROKER has the right but not the obligation to close out Customer's Forex transactions, liquidate all or some of Customer's collateral and apply the proceeds to any debt to BROKER. (iv) Upon Close-Out Netting or any "Default", all outstanding Forex transactions will be deemed terminated as of the time immediately preceding the triggering event, petition or proceeding. (v) BROKER's rights herein are in addition to any other rights BROKER has (whether by agreement, by law or otherwise).

Nothing herein constitutes a commitment of BROKER to offer Forex transactions generally or to enter into any specific Forex transaction. BROKER reserves the unlimited right to refuse any Forex order or to decline to quote a two-way market in any currency.

Commodity Options and Futures Not Settled in Cash: Customer acknowledges that: (A) commodity options cannot be exercised and must be closed out by offset; and (B) for futures contracts that settle not in cash but by physical delivery of the commodity (including currencies not on BROKER's Deliverable Currency List), Customer cannot make or receive delivery. If Customer has not offset a commodity option or physical delivery futures position prior to the deadline on the BROKER website, BROKER is authorized to roll or liquidate the position or liquidate any position or commodity resulting from the option or futures contract, and Customer is liable for all losses/costs.

Commissions and Fees, Interest Charges, Funds: Commissions and fees are as specified on the BROKER website unless otherwise agreed in writing by an officer of BROKER. Customer acknowledges that BROKER deducts commissions/fees from Customer accounts, which will reduce account equity. Positions will be liquidated if commissions or other charges cause a margin deficiency. Changes to commissions/fees are effective immediately upon either of: posting on the BROKER website or email or other written notice to Customer. BROKER shall pay credit interest to and charge debit interest from Customer at interest rates and terms on the BROKER website. Customer funds will not be disbursed until after transactions are settled. Terms and conditions for deposit and withdrawal of funds (including holding periods) are as specified on the BROKER website.

Account Deficits: If a cash account incurs a deficit, margin interest rates will apply until the balance is repaid, and BROKER has the right, but not the obligation, to treat the account as a margin account. Customer agrees to pay reasonable costs of collection for any unpaid Customer deficit, including attorneys' and collection agent fees.

Risks of Foreign Markets; After Hours Trading: Customer acknowledges that trading securities, options, futures, currencies or any product on a foreign market is speculative and involves high risk. There also are special risks of trading outside ordinary market hours, including risk of lower liquidity, higher volatility, changing prices, un-linked markets, news announcements affecting prices and wider spreads. Customer represents that Customer is knowledgeable and able to assume these risks.

Knowledge of Securities, Warrants and Options; Corporate Actions: Customer acknowledges Customer's responsibility for knowing the terms of any securities, options, warrants or other products in Customer's account, including upcoming corporate actions (e.g., tender offers, reorganizations, stock splits, etc.). BROKER has no obligation to notify Customer of deadlines or required actions or dates of meetings, nor is BROKER obligated to take any action without specific written instructions sent by Customer to BROKER electronically through the BROKER website.

Quotes, Market Information, Research and Internet Links: Quotes, news, research and information accessible through BROKER (including through links to outside websites) ("Information") may be prepared by independent Providers. The Information is the property of BROKER, the Providers or their licensors and is protected by law. Customer agrees not to reproduce, distribute, sell or commercially exploit the Information in any manner without written consent of BROKER or the Providers. BROKER reserves the right to terminate access to the Information. None of the Information constitutes a recommendation by BROKER or a solicitation to buy or sell. Neither BROKER nor the Providers guarantee accuracy, timeliness, or completeness of the Information, and Customer should consult an advisor before making investment decisions. RELIANCE ON QUOTES, DATA OR OTHER INFORMATION IS AT CUSTOMER'S OWN RISK. IN NO EVENT WILL BROKER OR THE PROVIDERS BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES ARISING FROM USE OF THE INFORMATION. THERE IS NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE INFORMATION, INCLUDING WARRANTY OF MERCHANTIBILITY, WARRANTY OF FITNESS FOR A PARTICULAR USE OR WARRANTY OF NON-INFRINGEMENT.

License to Use BROKER Software: BROKER grants Customer a non-exclusive, non-transferable license to use BROKER Software solely as provided herein. Title to BROKER Software and updates shall remain the sole property of BROKER, including all patents, copyrights and trademarks. Customer shall not sell, exchange or transfer the BROKER Software to others. Customer shall not copy, modify, translate, decompile, reverse engineer, disassemble or reduce to a human readable form, or adapt, the BROKER Software or use it to create a derivative work, unless authorized in writing by an officer of BROKER. BROKER is entitled to immediate injunctive relief for threatened breaches of these undertakings.

LIMITATION OF LIABILITY AND LIQUIDATED DAMAGES PROVISION: CUSTOMER ACCEPTS THE BROKER SYSTEM "AS IS", AND WITHOUT WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, PURPOSE OR APPLICATION; TIMELINESS; FREEDOM FROM INTERRUPTION; OR ANY IMPLIED WARRANTIES ARISING FROM TRADE USAGE, COURSE OF DEALING OR COURSE OF PERFORMANCE. UNDER NO CIRCUMSTANCES SHALL BROKER BE LIABLE FOR ANY PUNITIVE, INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL LOSS OR DAMAGES, INCLUDING LOSS OF BUSINESS, PROFITS OR GOODWILL. BROKER SHALL NOT BE LIABLE TO CUSTOMER BY REASON OF DELAYS OR INTERRUPTIONS OF SERVICE OR TRANSMISSIONS, OR FAILURES OF PERFORMANCE OF THE BROKER SYSTEM, REGARDLESS OF CAUSE, INCLUDING, BUT NOT LIMITED TO, THOSE CAUSED BY HARDWARE OR SOFTWARE MALFUNCTION; GOVERNMENTAL, EXCHANGE OR OTHER REGULATORY ACTION; ACTS OF GOD; WAR, TERRORISM, OR BROKER'S INTENTIONAL ACTS. CUSTOMER RECOGNIZES THAT THERE MAY BE DELAYS OR INTERRUPTIONS IN THE USE OF THE BROKER SYSTEM, INCLUDING, FOR EXAMPLE, THOSE CAUSED INTENTIONALLY BY BROKER FOR PURPOSES OF SERVICING THE BROKER SYSTEM. IN NO EVENT SHALL BROKER'S LIABILITY, REGARDLESS OF THE FORM OF ACTION AND DAMAGES SUFFERED BY CUSTOMER, EXCEED THE HIGHEST TOTAL MONTHLY COMMISSIONS PAID BY CUSTOMER TO BROKER OVER THE 6 MONTHS PRIOR TO ANY INCIDENT.

Customer Must Maintain Alternative Trading Arrangements: Computer-based systems such as those used by BROKER are inherently vulnerable to disruption, delay or failure. CUSTOMER MUST MAINTAIN ALTERNATIVE TRADING ARRANGEMENTS IN ADDITION TO CUSTOMER'S BROKER ACCOUNT FOR EXECUTION OF CUSTOMER'S ORDERS IN THE EVENT THAT THE BROKER SYSTEM IS UNAVAILABLE. By signing this Agreement, Customer represents that Customer maintains alternative trading arrangements.

BROKER and Its Affiliates: A copy of BROKER's audited financial statements shall be posted on the BROKER website and, upon request, mailed to Customer. Customers shall rely only on the financial condition of BROKER, and not on its affiliates, which are not liable for BROKER's acts and omissions.

DISCLOSURE STATEMENT: THIS STATEMENT IS FURNISHED TO YOU BECAUSE RULE 190.10(c) OF THE COMMODITY FUTURES TRADING COMMISSION REQUIRES IT FOR REASONS OF FAIR NOTICE UNRELATED TO BROKER'S CURRENT FINANCIAL CONDITION: (A) YOU SHOULD KNOW THAT IN THE UNLIKELY EVENT OF THIS COMPANY'S BANKRUPTCY, PROPERTY, INCLUDING PROPERTY SPECIFICALLY TRACEABLE TO YOU, WILL BE RETURNED, TRANSFERRED OR DISTRIBUTED TO YOU, OR ON YOUR BEHALF, ONLY TO THE EXTENT OF YOUR PRO RATA SHARE OF ALL PROPERTY AVAILABLE FOR DISTRIBUTION TO CUSTOMERS; (B) NOTICE CONCERNING THE TERMS FOR THE RETURN OF SPECIFICALLY IDENTIFIABLE PROPERTY WILL BE MADE BY PUBLICATION IN A NEWSPAPER OF GENERAL CIRCULATION; (C) THE COMMISSION'S REGULATIONS CONCERNING BANKRUPTCIES OF COMMODITY BROKERS CAN BE FOUND AT TITLE 17 OF THE CODE OF FEDERAL REGULATIONS PART 190.

Consent To Accept Electronic Records And Communications

BROKER provides electronic trade confirmations, account statements, tax information, proxy materials and other Customer records and communications (collectively, "Records and Communications") in electronic form to the maximum extent permitted by applicable law. Electronic Records and Communications may be sent to Customer's Trader Workstation ("TWS") or to Customer's e-mail address, or for security purposes may be posted on the BROKER website or on the secure website of one of BROKER's service providers and customer will need to log in and retrieve the Communication. By entering into this Agreement, Customer consents to the receipt of electronic Records and Communications. Such consent will apply on an ongoing basis and for every tax year unless withdrawn by Customer. Customer may withdraw such consent at any time by providing electronic notice to BROKER through the BROKER website. If Customer withdraws such consent, BROKER will provide required Records and Communications (e.g., tax documents, proxy materials, etc.) in paper form upon request by telephone or via the BROKER website. However, BROKER reserves the right to require Customer to close Customer's account if Customer withdraws consent to receiving electronic delivery of Records and Communications.

In order to trade using the BROKER TWS, and to receive Records and Communications through the TWS, there are certain system hardware and software requirements, which are described on the BROKER website. Since these requirements may change, Customer must periodically refer to the BROKER website for current system requirements. To receive electronic mail from BROKER, Customer is responsible for maintaining a valid Internet e-mail address and software allowing customer to read, send and receive e-mail. Customer must notify BROKER immediately of a change in Customer's e-mail address by using those procedures to change a Customer e-mail address that may be available on the BROKER website.

Miscellaneous:

This Agreement is governed by the laws of the State of New York, without giving effect to conflict of laws provisions. Courts of New York have exclusive jurisdiction over disputes relating to this Agreement, except when arbitration is provided. IN ALL JUDICIAL ACTIONS, ARBITRATIONS OR DISPUTE RESOLUTION METHODS, THE PARTIES WAIVE ANY RIGHT TO PUNITIVE DAMAGES.

Customer agrees to the provision of this Agreement in English and represents that Customer understands its terms and conditions. This Agreement contains the entire agreement between the parties, who have made no other representations or warranties. If any provision of this Agreement is unenforceable, it shall not invalidate other provisions. Failure of BROKER to enforce any term or condition of this Agreement is not a waiver of the term/condition.

Customer consents to recording of all telephone conversations. Customer acknowledges the BROKER Privacy Statement and consents to collection/use of Customer information as described therein.

Customer may not assign or transfer any rights or obligations hereunder without the prior written consent of BROKER. Upon notice to Customer BROKER may assign this Agreement to another broker-dealer or futures commission merchant. This Agreement shall inure to the benefit of BROKER's successors and assigns. BROKER may terminate this Agreement or its services to Customer at any time. Customer may close its account upon notice to BROKER electronically through the BROKER website, but only after all positions are closed and all other requirements specified on the BROKER website regarding account closure are satisfied.

Customer authorizes BROKER, directly or through third parties, to make any inquiries that BROKER considers necessary to conduct business with Customer. This may include ordering a credit report and performing other credit checks in the event of any default or breach of the obligations herein by Customer, or verifying the information Customer provides against third party databases. Any information obtained is maintained in accordance with the Brokeractive Brokers Group Privacy Statement.

Mandatory Arbitration:

This agreement contains a pre-dispute 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 WILL TYPICALLY 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.

Customer agrees that any controversy, dispute, claim, or grievance between BROKER, any BROKER affiliate or any of their shareholders, officers, directors employees, associates, or agents, on the one hand, and Customer or, if applicable, Customer's shareholders, officers, directors employees, associates, or agents on the other hand, arising out of, or relating to, this Agreement, or any account(s) established hereunder in which securities may be traded; any transactions therein; any transactions between BROKER and Customer; any provision of the Customer Agreement or any other agreement between BROKER and Customer; or any breach of such transactions or agreements, shall be resolved by arbitration, in accordance with the rules then prevailing of any one of the following: (a) The Financial Industry Regulatory Authority; or (b) any other exchange of which BROKER is a member, as the true claimant-in-interest may elect. If Customer is the claimant-in-interest and has not selected an arbitration forum within ten days of providing notice of Customer's intent to arbitrate, BROKER shall select the forum. The award of the arbitrators, or a majority of them, shall be final, and judgment upon the award rendered 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:

the class certification is denied; or

the class is decertified; or

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.

THIS AGREEMENT CONTAINS A PRE-DISPUTE ARBITRATION CLAUSE IN PARAGRAPH 34. BY SIGNING THIS AGREEMENT I ACKNOWLEDGE THAT THIS AGREEMENT CONTAINS A PRE-DISPUTE ARBITRATION CLAUSE AND THAT I HAVE RECEIVED, READ AND UNDERSTOOD THE TERMS THEREOF.

Algorithmic Execution Venue Disclosure

By selecting an algorithmic execution destination or algorithm for your orders, you are directing "BROKER" to execute orders on your behalf using the algorithm provided by the designated broker-dealer, but you understand that you are not establishing a brokerage relationship with that broker-dealer and the broker-dealer has no obligations to you with respect to your orders. BROKER will continue to be your broker on these orders, even if you have a separate account directly with the designated broker-dealer providing the algorithmic execution venue, and orders that you enter through BROKER's order entry system will be executed and cleared in the same manner as other trades BROKER executes on your behalf. If you have any questions about an order you have placed with BROKER, whether directed to an algorithmic execution venue destination or any other destination, please contact an BROKER Customer Service Representative immediately.

BROKER Disclosure Pursuant to FINRA Rule 5350 Regarding Stop and Stop-Limit Orders in U.S. Listed Stocks and Warrants

("BROKER") is furnishing this document to you to provide information about the manner in which stop and stop-limit orders that you submit to Broker to buy or sell stocks and warrants will be managed.

The U.S. Securities & Exchange Commission (the "SEC") has stated that a stop order, also referred to as a "stop-loss order", is "an order to buy or sell a stock once the price of the stock reaches a specified price, known as the stop price. When the stop price is reached, a stop order becomes a market order. A buy stop order is entered at a stop price above the current market price. A sell stop order is entered at a stop price below the current market price. Investors generally use a sell stop order to limit a loss or to protect a profit on a stock that they own."

The SEC has described a stop-limit order as "an order to buy or sell a stock that combines the features of a stop order and a limit order. Once the stop price is reached, a stop-limit order becomes a limit order that will be executed at a specified price (or better)."

BROKER offers its customers several ways to submit stop and stop-limit orders in stocks and warrants. On most exchanges, Broker implements and manages stop (or stop-limit) orders in the firm's systems, submitting market (or limit) orders to the exchange when the customer-specified trigger price has been reached and passed. On some exchanges, Broker may submit stop and/or stop-limit orders using the exchange's native order type. For each exchange on which a customer may trade, Broker specifies on the Broker Brokers website whether stop and stop-limit orders are managed (i.e., "simulated") by BROKER or submitted using the exchange's native order type. (This information is available under "Order Type" on the page on the BROKER website concerning each exchange.)

For stop and stop-limit orders that BROKER simulates, the order will be triggered and a market (or limit) order will be submitted for execution when the following occurs (unless the customer specifies otherwise when submitting the order):

The Primary Exchange on which the stock trades is open, is holding regular trading hours, and has a valid bid/ask quote for the stock. Regular trading hours are usually between 9:30 a.m. - 4:00 p.m. Eastern Time, Monday through Friday for exchange-listed stocks. (Please note that OTCBB- and Pink-listed securities are not subject to these limitations.); and

The last sale price for the specific stock is at or above (for buy stop orders) or at or below (for sell stop orders) the customer's specified trigger price; and

The last trade price is within, or not more than 0.5% outside of, the consolidated bid/ask for the stock.

These additional requirements are subject to change, including the leeway percentage of 0.5% outside of the consolidated bid/ask for the stock. Please check the BROKER website for the most current information.

Broker also allows customers to customize the manner in which their stop and stop-limit orders are triggered. Customers may change the trigger method to include or exclude certain trigger criteria (e.g., last price, bid/ask, midpoint of bid/ask, regular trading hours only, etc.) based on the customer's specific trading objectives. Information on how to customize the trigger methodology for stop and stop-limit orders is provided on the Broker Brokers website and in the BROKER Trader Workstation User's Guide.

Important notes concerning stop and stop-limit orders:

Native Stop or Stop-Limit Order Types Offered by Exchanges May Differ from the Traditional Order Type. Stop and stop-limit orders submitted using an exchange's native order type may have additional non-standard attributes or be managed in a way different than the traditional definition of a stop or stop-limit order. Please review the exchange's own website and/or contact the exchange for more information about how an exchange may handle a stop or stop-limit order submitted using the exchange's native order type. Among other things, exchanges may include attributes in native stop orders that result in the order not executing at all.

There is No Guarantee That a Stop or Stop-Limit Order Will Be Executed At or Near the Trigger Price or Will Be Executed At All. Please be aware that a stop or stop-limit order may not be triggered or be executed at or near the specified trigger price. Among other things, execution venues may fail to honor their posted prices or may experience delays or failures that may prevent or delay a stop order from being executed. In addition, market events may result in a stop order executing far from the customer's specified trigger price. For instance, in situations where many customers submit a stop order with a similar trigger point or there is a lack of liquidity in the market, a stop order may execute a significant amount away from the specified trigger price and a stop-limit order may not execute at all.

DISCLOSURE OF RISKS OF MARGIN TRADING

Broker Brokers (“BROKER”) is furnishing this document to you to provide some basic facts about purchasing securities and futures contracts on margin, and to alert you to the risks involved with trading in a margin account. “Margin trading” can mean engaging in a transaction in which securities are purchased partially through a margin loan extended to you by BROKER, for which the securities act as collateral. Margin trading can also mean trading investment products such as futures or options in which an initial “margin” deposit is made to secure your obligations and further margin may be required to secure your obligations as the value of your positions changes.

This document also describes special risks associated with trading on margin in an IRA account, as described below.

Before trading stocks, futures or other investment products in a margin account, you should carefully review the margin agreement provided by BROKER and you should consult BROKER regarding any questions or concerns you may have with your margin accounts.

When you purchase securities, you may pay for the securities in full or you may borrow part of the purchase price from BROKER. If you choose to borrow funds from BROKER, you will open a margin account with the firm. The securities purchased are BROKER's collateral for the loan to you. If the securities or futures contracts in your account decline in value, so does the value of the collateral supporting your loan, and, as a result, BROKER can take action, such as sell securities or other assets in any of your accounts held with BROKER or issue a margin call, in order to maintain the required equity in the account.

You should understand that pursuant to the BROKER Margin Agreement, BROKER generally will not issue margin calls, that BROKER will not credit your account to meet intraday margin deficiencies, and that BROKER generally will liquidate positions in your account in order to satisfy margin requirements without prior notice to you and without an opportunity for you to choose the positions to be liquidated or the timing or order of liquidation.

In addition, it is important that you fully understand the risks involved in trading securities or futures contracts on margin. These risks include the following:

You can lose more funds than you deposit in the margin account. A decline in the value of securities or futures contracts that are purchased on margin may require you to provide additional funds to BROKER or you must put up margin to avoid the forced sale of those securities or futures contracts or other assets in your account(s).

BROKER can force the sale of securities or other assets in your account(s). If the equity in your account falls below the maintenance margin requirements, or if BROKER has higher "house" requirements, BROKER can sell the securities or futures contracts or other assets in any of your accounts held at the firm to cover the margin deficiency. You also will be responsible for any shortfall in the account after such a sale.

BROKER can sell your securities or other assets without contacting you. Some investors mistakenly believe that a firm must contact them for a margin call to be valid, and that the firm cannot liquidate securities or other assets in their accounts to meet the call unless the firm has contacted them first. This is not the case. As noted above, BROKER generally will not issue margin calls and can immediately sell your securities or futures contracts without notice to you in the event that your account has insufficient margin.

You are not entitled to choose which securities or futures contracts or other assets in your account(s) are liquidated or sold to meet a margin call. BROKER has the right to decide which positions to sell in order to protect its interests.

BROKER can increase its “house” maintenance margin requirements at any time and is not required to provide you with advance written notice. These changes in firm policy often take effect immediately. Your failure to maintain adequate margin in the event of an increased margin rate generally will cause BROKER to liquidate or sell securities or futures contracts in your account(s).

If BROKER chooses to issue a margin call rather than immediately liquidating undermargined positions, you are not entitled to an extension of time on the margin call.

Special Risks of Trading on Margin in an IRA Account:

Margin Trading in an IRA Account May Not Be Suitable Depending on Your Financial Circumstances. Trading requiring margin (including futures trading and short option trading) involves a high degree of risk and may result in a loss of funds greater than the amount you have deposited in your IRA account. You must determine whether trading on margin in an IRA account is advisable based on your financial circumstances, your tolerance for risk, the number of years until your retirement, and other factors. You should consult a professional financial advisor to determine if margin trading in your IRA account is consistent with your financial goals.

You Must Closely Monitor Your Account and Your Trading to Avoid Adverse Tax Consequences: Trading requiring margin (including futures trading and short option trading) may require the deposit of additional funds to your account to maintain sufficient margin. At the same time, provisions of the Internal Revenue Code place limits on the amount of funds that can be deposited to an IRA account. Deposits to the account in excess of such limits may cause adverse tax consequences, including but not limited to, forfeiture of the tax-advantaged status of the IRA account and/or penalties. As described above, BROKER will liquidate positions in your account in the event that you cannot or do not deposit sufficient funds to satisfy margin requirements.

Day Trading Risk Disclosure Statement

This Day Trading Risk Disclosure Statement is being provided to you in the event your Broker Brokers (BROKER) margin account becomes, or already is, classified as a Pattern Day Trader account. As required by current SEC and SRO rules and regulations, BROKER will classify an account that effects three (3) day trades within a five (5) day period as a Pattern Day Trader account. (A day trade is a buy and sell of the same security on the same day). The regulations prohibit BROKER from permitting a Pattern Day Trader account from effecting any transactions unless such account maintains a Minimum Equity Requirement of at least $25,000.

You should consider the following points before engaging in a day-trading strategy. For purposes of this notice, a "day-trading strategy" means an overall trading strategy characterized by the regular transmission by a customer of intra-day orders to effect both purchase and sale transactions in the same security or securities.

Day trading can be extremely risky. Day trading generally is not appropriate for someone of limited resources and limited investment or trading experience and low risk tolerance. You should be prepared to lose all of the funds that you use for day trading. In particular, you should not fund day-trading activities with retirement savings, student loans, second mortgages, emergency funds, funds set aside for purposes such as education or home ownership, or funds required to meet your living expenses. Further, certain evidence indicates that an investment of less than $50,000 will significantly impair the ability of a day trader to make a profit. Of course, an investment of $50,000 or more will in no way guarantee success.

Be cautious of claims of large profits from day trading. You should be wary of advertisements or other statements that emphasize the potential for large profits in day trading. Day trading can also lead to large and immediate financial losses.

Day trading requires knowledge of securities markets. Day trading requires in-depth knowledge of the securities markets and trading techniques and strategies. In attempting to profit through day trading, you must compete with professional, licensed traders employed by securities firms. You should have appropriate experience before engaging in day trading.

Day trading requires knowledge of a firm's operations. You should be familiar with a securities firm's business practices, including the operation of the firm's order execution systems and procedures. Under certain market conditions, you may find it difficult or impossible to liquidate a position quickly at a reasonable price. This can occur, for example, when the market for a stock suddenly drops, or if trading is halted due to recent news events or unusual trading activity. The more volatile a stock is, the greater the likelihood that problems may be encountered in executing a transaction. In addition to normal market risks, you may experience losses due to systems failures.

Day trading will generate substantial commissions, even if the per trade cost is low. Day trading involves aggressive trading, and generally you will pay commission on each trade. The total daily commissions that you pay on your trades will add to your losses or significantly reduce your earnings. For instance, assuming that a trade costs $16 and an average of 29 transactions are conducted per day, an investor would need to generate an annual profit of $111,360 just to cover commission expenses.

Day trading on margin or short selling may result in losses beyond your initial investment. When you day trade with funds borrowed from a firm or someone else, you can lose more than the funds you originally placed at risk. A decline in the value of the securities that are purchased may require you to provide additional funds to the firm to avoid the forced sale of those securities or other securities in your account. Short selling as part of your day-trading strategy also may lead to extraordinary losses, because you may have to purchase a stock at a very high price in order to cover a short position.

Potential Registration Requirements. Persons providing investment advice for others or managing securities accounts for others may need to register as either an "Investment Advisor" under the Investment Advisors Act of 1940 or as a "Broker" or "Dealer" under the Securities Exchange Act of 1934. Such activities may also trigger state registration requirements.

Risks of After-Hours Trading

There are special characteristics and unique risks associated with trading in securities at times that are outside the ordinary trading hours for the exchange(s) upon which such securities are traded ("After-Hours Trading" or "Extended Hours Trading"). Customers must familiarize themselves with these risks and determine whether After-Hours Trading is appropriate in light of their objectives and experience. Customers are responsible for familiarizing themselves with the hours of the relevant markets upon which they trade and for determining when to place orders for particular securities, how they wish to direct those orders, and what types of orders to use. Broker Brokers' offer of After-Hours Trading does not constitute a recommendation or conclusion that After-Hours Trading will be successful or appropriate for all customers or trades.

Some risks associated with After-Hours Trading are as follows:

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 market 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 market hours. As a result, your order may only be partially executed, or not at all, or you may receive an inferior price in extended hours trading than you would during regular markets 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 market hours, or upon the opening of the next morning. As a result, you may receive an inferior price in extended hours trading than you would during regular market 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 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 market hours. Similarly, important financial information is frequently announced outside of regular market 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.

Risk of Lack of Calculation or Dissemination of Underlying Index Value or Intraday Indicative Value ("IIV"). For certain Derivative Securities Products, an updated underlying index value or IIV may not be calculated or publicly disseminated in extended trading hours. Since the underlying index value and IIV are not calculated or widely disseminated during the pre-market and post-market sessions, an investor who is unable to calculate implied values for certain Derivative Securities Products in those sessions may be at a disadvantage to market professionals. Additionally, securities underlying the indexes or portfolios will not be regularly trading as they are during Regular Trading Hours, or may not be trading at all. This may cause prices during Extended Trading Hours to not reflect the prices of those securities when they open for trading.

Index Values.The Exchange will not report a value of an index underlying an index option trading during Extended Trading Hours, because the value of the underlying index will not be recalculated during or at the close of Extended Trading Hours.

During After-Hours Trading, "BROKER" may provide quotations from and execute Customer trades through various Electronic Communications Networks ("ECNs"), exchanges or other trading systems ("After-Hours Trading Facilities"). Quotations provided during After-Hours Trading may be different than quotations provided during exchange trading hours. Likewise, it is possible that the quotations displayed by BROKER from After-Hours Trading Facilities on which BROKER can execute Customer trades may be less favorable than those on other After-Hours Trading Facilities to which BROKER does not have access. Last sale information provided by BROKER may not reflect the prices of the most recent trades on all of the various After-Hours Trading Facilities.

RISK DISCLOSURE STATEMENT FOR FOREX TRADING AND BROKER MULTI-CURRENCY ACCOUNTS

Rules of the U.S. National Futures Association ("NFA") require "BROKER" to provide you with the following Risk Disclosure Statement:

RISK DISCLOSURE STATEMENT

OFF-EXCHANGE FOREIGN CURRENCY ("FOREX") TRANSACTIONS INVOLVE THE LEVERAGED TRADING OF CONTRACTS DENOMINATED IN FOREIGN CURRENCY CONDUCTED WITH A FUTURES COMMISSION MERCHANT OR A RETAIL FOREIGN EXCHANGE DEALER AS YOUR COUNTERPARTY. BECAUSE OF THE LEVERAGE AND THE OTHER RISKS DISCLOSED HERE, YOU CAN RAPIDLY LOSE ALL OF THE FUNDS YOU DEPOSIT FOR SUCH TRADING AND YOU MAY LOSE MORE THAN YOU DEPOSIT.

YOU SHOULD BE AWARE OF AND CAREFULLY CONSIDER THE FOLLOWING POINTS BEFORE DETERMINING WHETHER SUCH TRADING IS APPROPRIATE FOR YOU.

(1) TRADING IS NOT ON A REGULATED MARKET OR EXCHANGE—YOUR DEALER IS YOUR TRADING PARTNER WHICH IS A DIRECT CONFLICT OF INTEREST. BEFORE YOU ENGAGE IN ANY RETAIL FOREIGN EXCHANGE TRADING, YOU SHOULD CONFIRM THE REGISTRATION STATUS OF YOUR COUNTERPARTY.

The off-exchange foreign currency trading you are entering into is not conducted on an interbank market, nor is it conducted on a futures exchange subject to regulation as a designated contract market by the Commodity Futures Trading Commission ("CFTC"). The foreign currency trades you transact are trades with the futures commission merchant or retail foreign exchange dealer as your Counterparty. WHEN YOU SELL, THE DEALER IS THE BUYER. WHEN YOU BUY, THE DEALER IS THE SELLER. As a result, when you lose money trading, your dealer is making money on such trades, in addition to any fees, commissions, or spreads the dealer may charge.

(2) AN ELECTRONIC TRADING PLATFORM FOR RETAIL FOREIGN CURRENCY TRANSACTIONS IS NOT AN EXCHANGE. IT IS AN ELECTRONIC CONNECTION FOR ACCESSING YOUR DEALER. THE TERMS OF AVAILABILITY OF SUCH A PLATFORM ARE GOVERNED ONLY BY YOUR CONTRACT WITH YOUR DEALER.

Any trading platform that you may use to enter off-exchange foreign currency transactions is only connected to your futures commission merchant or retail foreign exchange dealer. You are accessing that trading platform only to transact with your dealer. You are not trading with any other entities or customers of the dealer by accessing such platform. The availability and operation of any such platform, including the consequences of the unavailability of the trading platform for any reason, is governed only by the terms of your account agreement with the dealer.

(3) YOUR DEPOSITS WITH THE DEALER HAVE NO REGULATORY PROTECTIONS.

All of your rights associated with your retail forex trading, including the manner and denomination of any payments made to you, are governed by the contract terms established in your account agreement with the futures commission merchant or retail foreign exchange dealer. Funds deposited by you with a futures commission merchant or retail foreign exchange dealer for trading off-exchange foreign currency transactions are not subject to the customer funds protections provided to customers trading on a contract market that is designated by the CFTC. Your dealer may commingle your funds with its own operating funds or use them for other purposes. In the event your dealer becomes bankrupt, any funds the dealer is holding for you in addition to any amounts owed to you resulting from trading, whether or not any assets are maintained in separate deposit accounts by the dealer, may be treated as an unsecured creditor's claim.

(4) YOU ARE LIMITED TO YOUR DEALER TO OFFSET OR LIQUIDATE ANY TRADING POSITIONS SINCE THE TRANSACTIONS ARE NOT MADE ON AN EXCHANGE OR MARKET, AND YOUR DEALER MAY SET ITS OWN PRICES.

Your ability to close your transactions or offset positions is limited to what your dealer will offer to you, as there is no other market for these transactions. Your dealer may offer any prices it wishes, and it may offer prices derived from outside sources or not in its discretion. Your dealer may establish its prices by offering spreads from third party prices, but it is under no obligation to do so or to continue to do so. Your dealer may offer different prices to different customers at any point in time on its own terms. The terms of your account agreement alone govern the obligations your dealer has to you to offer prices and offer offset or liquidating transactions in your account and make any payments to you. The prices offered by your dealer may or may not reflect prices available elsewhere at any exchange, interbank, or other market for foreign currency.

(5) PAID SOLICITORS MAY HAVE UNDISCLOSED CONFLICTS

The futures commission merchant or retail foreign exchange dealer may compensate introducing brokers for introducing your account in ways which are not disclosed to you. Such paid solicitors are not required to have, and may not have, any special expertise in trading, and may have conflicts of interest based on the method by which they are compensated. Solicitors working on behalf of futures commission merchants and retail foreign exchange dealers are required to register. You should confirm that they are, in fact registered. You should thoroughly investigate the manner in which all such solicitors are compensated and be very cautious in granting any person or entity authority to trade on your behalf. You should always consider obtaining dated written confirmation of any information you are relying on from your dealer or a solicitor in making any trading or account decisions.

FINALLY, YOU SHOULD THOROUGHLY INVESTIGATE ANY STATEMENTS BY ANY DEALERS OR SALES REPRESENTATIVES WHICH MINIMIZE THE IMPORTANCE OF, OR CONTRADICT, ANY OF THE TERMS OF THIS RISK DISCLOSURE. SUCH STATEMENTS MAY INDICATE POTENTIAL SALES FRAUD.

THIS BRIEF STATEMENT CANNOT, OF COURSE, DISCLOSE ALL THE RISKS AND OTHER ASPECTS OF TRADING OFF-EXCHANGE FOREIGN CURRENCY TRANSACTIONS WITH A FUTURES COMMISSION MERCHANT OR RETAIL FOREIGN EXCHANGE DEALER.

PERFORMANCE OF BROKERS RETAIL CUSTOMER FOREX ACCOUNTS FOR THE PAST FOUR CALENDAR QUARTERS:

The table below sets forth the percentage of non-discretionary retail forex customer accounts maintained by Brokers that were profitable and unprofitable for the past four calendar quarters. The accounts were identified and these statistics were calculated according to the definitions and interpretations set forth by the CFTC and NFA1.

TIME PERIOD

NUMBER OF ACCOUNTS

PERCENTAGE OF PROFITABLE ACCOUNTS

PERCENTAGE OF UNPROFITABLE ACCOUNTS

Q2 2018

26,068

44.59%

55.41%

Q1 2018

25,948

47.86%

52.14%

Q4 2017

28,790

47.75%

52.25%

Q3 2017

28,545

48.03%

51.97%

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

FURTHER INFORMATION PROVIDED BY BROKER:

A. Overview: Broker Multi-Currency enabled accounts allow BROKER Customers to trade investment products denominated in different currencies using a single BROKER account denominated in a "base" currency of the customer's choosing. BROKER Customers can also use their Multi-Currency enabled accounts to conduct foreign exchange transactions in order to manage credits or debits generated by foreign securities, options or futures trading, to convert such credits or debits back into the Customer's base currency, or to hedge or speculate. BROKER foreign exchange transactions offered to retail customers are forex spot transactions.

B. Nature of Your Account and Whether SIPC Covers Foreign Currency: Foreign currency trading at Broker takes place in a securities account. Your BROKER securities account is governed by rules of the U.S. Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority. In addition, BROKER observes the rules of the National Futures Association in connection with foreign currency trading.

Broker is a member of the Securities Investor Protection Corporation ("SIPC"). SIPC protects cash and securities held with Broker as specified in the Securities Investor Protection Act. SIPC protects cash, including US dollars and foreign currency, to the extent that the cash was deposited with Brokers for the purpose of purchasing securities. Whether foreign currency in your BROKER account would be protected by SIPC would depend in part on whether the cash was considered to be deposited with Brokers for the purpose of purchasing securities. Brokers expects that at least one factor in deciding this would be whether and the extent to which the customer engages in securities trading in addition to or in conjunction with forex trading, but, as discussed in section 3 above, funds deposited specifically for forex trading have no regulatory protections under NFA rules or CFTC regulations. For further information, you must contact your own legal counsel or SIPC.

Customer money held in the securities account is subject to Securities Exchange Act Rule 15c3-3 governing customer reserve requirements. Although relevant regulations only require computation of the 15c3-3 reserve requirement and associated segregation of customer funds to be performed weekly, BROKER performs such calculations and segregation on a daily basis.

C. General Risk: Customer understands and acknowledges that buying and selling securities, options, futures and other financial products that are denominated in foreign currencies or traded on foreign markets is inherently risky and requires substantial knowledge and expertise. Customers applying for Brokers Multi-Currency enabled accounts represent that they are aware of and understand the risks involved in trading foreign securities, options, futures and currencies and that they have sufficient financial resources to bear such risks.

D. Customer Responsibility for Investment Decisions: Customer acknowledges that BROKER representatives are not authorized to provide investment, trading or tax advice and therefore will not provide advice or guidance on trading or hedging strategies in the Multi-Currency enabled account. Customers must evaluate carefully whether any particular transaction is appropriate for them in light of their investment experience, financial objectives and needs, financial resources, and other relevant circumstances and whether they have the operational resources in place to monitor the associated risks and contractual obligations over the term of the transaction. In making these assessments, BROKER strongly recommends that Customers obtain independent business, legal, and accounting advice before entering into any transactions.

E. Exchange Rate Risk: Exchange rates between foreign currencies can change rapidly due to a wide range of economic, political and other conditions, exposing the Customer to risk of exchange rate losses in addition to the inherent risk of loss from trading the underlying financial product. If a Customer deposits funds in a currency to trade products denominated in a different currency, Customer's gains or losses on the underlying investment therefore may be affected by changes in the exchange rate between the currencies. If Customer is trading on margin, the impact of currency fluctuation on Customer's gains or losses may be even greater.

F. Currency Fluctuation: When Customer uses the foreign exchange facility provided by BROKER to purchase or sell foreign currency, fluctuation in currency exchange rates between the foreign currency and the base currency could cause substantial losses to the Customer, including losses when the Customer converts the foreign currency back into the base currency.

G. Nature of Foreign Currency Exchange Transactions Between Customer and BROKER: When Customer enters into a foreign exchange transaction with BROKER, BROKER, as the counterparty to Customer's trade, may effectuate that transaction by entering into an offsetting transaction with one of BROKER's affiliates, with another customer that enters quotes into BROKER's system, or with a third party bank (BROKER's "Forex Providers"). In such transactions, the Forex Provider is not acting in the capacity of a financial adviser or fiduciary to Customer or to BROKER, but rather, is taking the other side of BROKER's offsetting trade in an arm's length contractual transaction. Customer should be aware that the Forex Provider may from time to time have substantial positions in, and may make a market in or otherwise buy or sell instruments similar or economically related to, foreign currency transactions entered into by Customer. BROKER's Forex Providers may also undertake proprietary trading activities, including hedging transactions related to the initiation or termination of foreign exchange transactions with BROKER, which may adversely affect the market price or other factors underlying the foreign currency transaction entered into by Customer and consequently, the value of such transaction.

H. Prices on the BROKER Forex Platforms: The prices quoted by BROKER to Customers for foreign exchange transactions on BROKER's IdealPro platform will be determined based on Forex Provider quotes and are not determined by a competitive auction as on an exchange market. Prices quoted by BROKER for foreign currency exchange transactions therefore may not be the most competitive prices available. For purposes of maintaining adequate scale and competitive spreads, a minimum size is imposed on all IdealPro orders (USD $25,000 as of June 2018 but this is subject to change at any time). Orders below the minimum size are considered odd lots and limit prices for these odd lot-sized orders are not displayed through IdealPro. Retail leveraged forex orders for odd lot-sized orders are generally executed within 1 pip of the best bid and best offer of the Interbank spread (NBBO). However, if the best quote for such orders is more than 1 pip outside of the NBBO, BROKER will generally route the order to execute against a bank or dealer bid or offer regardless of the order size in order to get an improved price. Customers may also enter a Request for Quote ("RFQ") on the system. BROKER will charge transaction fees as specified by BROKER for foreign currency exchange transactions. BROKER's Forex Providers will try to earn a spread profit on transactions with BROKER (differential between the bid and ask prices quoted for various currencies).

I. Price Slippage; Order Cancellation and Adjustment: Prices quoted on BROKER's system generally reflect the prices at which BROKER's Forex Providers are willing to trade. Prices quoted on BROKER's system reflect changing market conditions and therefore quotes can and do change rapidly. As such, when a Customer order is received and processed by BROKER's system, the quote on BROKER's platform may be different from the quote displayed when the order was sent by Customer. This change in price is commonly referred to as "slippage." BROKER generally will not execute a Customer order at a certain price unless BROKER is able to trade at that price against one of BROKER's Forex Providers.

If Customer sends an order for a forex transaction to BROKER's system but Customer's requested price is no longer available and therefore the order is non-marketable, BROKER will not execute the order then but will place it in BROKER's limit order book in accordance with Customer's time-in-force instructions. Other customers can then trade against this order when it becomes the National Best Bid and Offer ("NBBO") or BROKER may execute the order if it becomes marketable based on prices received from BROKER's Forex Providers.

If Customer sends an order for a forex transaction to BROKER's system and the current price is more favorable for Customer than what Customer requested in the order, the order will generally be executed at the available better price.

Although BROKER attempts to obtain the best price for Customer orders on forex transactions, because of the inherent possibility of transmission delays between and among Customers, BROKER and Forex Providers, or other technical issues, execution prices may be worse than the quotes displayed on the BROKER platform.

To execute your order, Broker engages in back-to-back transactions with one or more counterparties. These counterparties on occasion may cancel or adjust forex trades with us in the event of market or technical problems. In these cases we may have to cancel or adjust forex trades that you have executed.

J. Other Risks: There are other risks that relate to trading foreign investment products and trading foreign currencies that cannot be described in detail in this document. Generally, however, foreign securities, options, futures and currency transactions involve exposure to a combination of the following risk factors: market risk, credit risk, settlement risk, liquidity risk, operational risk and legal risk. For example, there can be serious market disruptions if economic or political or other unforeseen events locally or overseas affect the market. Also, the settlement date of foreign exchange trades can vary due to time zone differences and bank holidays. When trading across foreign exchange markets, this may necessitate borrowing funds to settle foreign exchange trades. The interest rate on borrowed funds must be considered when computing the cost of trades across multiple markets. In addition to these types of risk there may be other factors such as accounting and tax treatment issues that Customers should consider.

(1)Information regarding the performance of Broker retail forex customers for the past 5 years is available upon request.

Broker Order Routing and Payment for Order Flow Disclosure

BROKER's Order Routing System: BROKER does not sell its order flow to another broker to handle and route. Instead, BROKER has built a real-time, high-speed Best Execution Order Routing System (SmartRoutingSM), which is designed to optimize execution price, speed and total cost of execution for stocks and options. BROKER constantly changes and enhances the SmartRouting system to adapt to changes in markets, new exchanges, new trading rules, etc. BROKER's SmartRouting system continually scans competing market centers and automatically seeks to route orders to the best market, taking into account factors such as quote size, quote price, exchange or ATS transaction fees or rebates and the availability of price improvement (execution at a better price than the National Best Bid or Offer (NBBO). The BROKER SmartRouting system continually reevaluates market conditions and prices for pending BROKER customer orders and dynamically re-routes orders as necessary.

For some products, BROKER customers may directly route their orders to a particular market of their choice, although BROKER recommends that our customers use the BROKER SmartRouting system.

BROKER also operates an Alternative Trading System (ATS) in accordance with SEC Regulation ATS, on which it executes BROKER customer trades against each other or against one or more professional liquidity providers who send orders into the BROKER ATS. Order executions on BROKER's ATS are faster, eliminate exchange fees and may offer price improvement compared to the NBBO. Statistical information regarding the quality of executions for orders effected through BROKER's ATS (e.g., average execution speed, percentage of orders receiving price improvement, etc.)

Compliance with Regulation NMS: For U.S. stocks, BROKER's SmartRouting system is designed to comply with Reg NMS and with our duty as a broker-dealer to provide best execution for customer orders. BROKER's SmartRouting system connects to and receives market data feeds directly from most or all exchanges and public market centers. The BROKER SmartRouting system also has access to ATS's. Therefore BROKER can attempt to route an order directly to the most favorable overall market(s) taking into account relevant conditions. If an order is not executed immediately, BROKER's system then monitors the open order and in most cases will cancel and reroute it if market conditions or prices change and another market center becomes more favorable for the order. If an order is too large to be executed at the best price at a single exchange or market center, BROKER's SmartRouting system generally will split the order and send it to multiple destinations to attempt to get the fastest fill at the most favorable price.

Intermarket Sweep Orders for U.S. National Market System Stocks: Because BROKER's system monitors the available markets and is designed to send orders to the markets posting the best price, orders routed to exchanges by the BROKER SmartRouting system generally will be marked as "Intermarket Sweep Order" (ISO), meaning that an exchange that receives such an order will be able to execute the order in reliance that the BROKER system did not identify any better prices for the order, or that other orders sent at or around the same time by BROKER have already taken out any better quotes on other exchanges or market centers. BROKER has certain processes in place to monitor its connections to various exchanges and market centers, the quality of its market data feeds and the quality of its order executions. If an exchange system or the BROKER system is experiencing technical problems, or if BROKER is not connected to the market that is posting the best price, BROKER may route an order to an exchange without marking the order as ISO. This will allow the receiving market to re-route the order to a market offering a better price, if necessary.

Orders Sent Near the Opening of Trading: Please note that markets can be especially volatile near the opening of a trading session, with prices and available volume often changing rapidly and with data feeds from various markets potentially being slow or temporarily unavailable. BROKER cannot guarantee that orders sent near the opening of trading necessarily will receive the best posted price. You may want to consider the use of limit orders at the open, although market orders should be used if you want a higher certainty of getting a fill.

Order Conversion and Designation: Broker may convert certain order types or apply conditions to certain BROKER customer orders in order to facilitate an execution. For example, BROKER may simulate certain order types using order designations. Simulated order types may be used in cases where an exchange does not offer an order type or in cases where BROKER has decided not to offer a certain order type offered "natively" by an exchange. In addition, orders may be sent Immediate or Cancel, Fill-Or-Kill, All-Or-None, etc. in order to facilitate an immediate automatic execution, consistent with the objectives of the customer order. To protect customer orders from significant and rapidly changing prices, BROKER may simulate market orders on exchanges by establishing an execution cap at a percentage beyond the inside bid/ask. While this cap is set at a level intended to balance the objectives of execution certainty and minimized price risk, there exists a remote possibility that an execution will be delayed or may not take place. In addition, BROKER is required by exchanges and regulators to maintain "filters" in its systems that prevent executions at prices that might be deemed to be disruptive to an orderly market (or exchanges may have such filters in their systems). These filters may cause an otherwise marketable order not to be executed or to be delayed in execution, even if the customer might want the order to be executed at a certain price immediately. In accordance with our regulatory obligations as a broker, BROKER may also cap the size of your order to a quantity in line with the normal volume in the product.

Important Characteristics and Risks of Using Stop Orders: A Stop Order - i.e., a Stop (Market) Order - is an instruction to buy or sell at the market price once your trigger ("stop") price is reached. Please note that a Stop Order is not guaranteed a specific execution price and may execute significantly away from its stop price, especially in volatile and/or illiquid markets. Stop Orders may be triggered by a sharp move in price that might be temporary. If your Stop Order is triggered under these circumstances, you may buy or sell at an undesirable price. Sell Stop Orders may make price declines worse during times of extreme volatility. If triggered during a sharp price decline, a Sell Stop Order also is more likely to result in an execution well below the stop price. Placing a limit price on a Stop Order may help manage some of these risks. A Stop Order with a limit price - a Stop (Limit) Order - becomes a limit order when the stock reaches the stop price. By using a Stop (Limit) Order instead of a regular Stop Order, you will receive more certainty regarding the execution price, but there is the possibility that your order will not be executed at all if your limit price is not available in the market when the order is triggered.

Important Characteristics and Risks of Using Market Orders: Please note that a Market Order is an instruction to execute your order at any price available in the market. A Market Order is not guaranteed a specific execution price and may execute at an undesirable price. If you would like greater control over the execution prices you receive, please submit your order using a Limit Order, which is an instruction to execute your order at or better than the specified limit price.

Payment for Orders, Dark Pools, Liquidity Provider and Affiliate Relationships: Broker does not sell its order flow to another broker to handle and route. Through its SmartRouting system, BROKER evaluates each individual order and determines the best execution venue(s), from the perspective of the customer, where that order may be executed.

Dark Pool and ATS Executions for Stock and ETF Orders: BROKER maintains connections to "dark pool" ATS's (including the BROKER ATS) that execute a portion of BROKER customer stock orders. BROKER customers benefit from BROKER's access to dark pools. Dark pools provide a source of substantial additional liquidity. Dark pools charge no execution fees or lower execution fees than exchanges. Dark pools also provide fast executions and the possibility of executions at prices more favorable than the prevailing NBBO.

BROKER receives rebate payments for routing certain BROKER customer orders to dark pools. BROKER shares the benefit with BROKER customers as follows: As of April 2016, for customers using the Fixed commission schedule, customers pay no venue transaction fee and BROKER reduces the BROKER commission to $.004 per share from $.005 per share (a 20% commission savings). For BROKER customers using the Tiered commission schedule, customers pay no venue transaction fee and BROKER passes roughly 50% of the average rebates received from all dark pools/ATS's and liquidity providers to customers whose orders are routed to any such venue.

Liquidity Provider Relationships in the BROKER ATS: BROKER has entered arrangements with certain institutions under which such institutions may send orders to the BROKER ATS at or near the NBBO. These orders are held within the BROKER system and are not displayed in the national market. If an BROKER customer order could be immediately executed against such an order held in the BROKER system (at the NBBO or at a better price than the NBBO), the orders may be crossed and the execution reported to the National Market System. This arrangement provides extra potential liquidity (size) for BROKER customer orders and leads to faster executions (since the orders do not have to be routed out to an exchange), as well as providing the possibility of price improvement (since the orders may be executed at a better price than available on an exchange).

BROKER may receive payment in the form of commissions or commission equivalents from the liquidity providers for these executions in the BROKER ATS. BROKER shares the benefit with BROKER customers in the same manner as described above (Fixed commission schedule customers receive a commission reduction to $.004 per share from $.005 per share and Tiered commission schedule customers receive roughly 50% of any average payments received from all dark pools/ATS's and liquidity providers to customers whose orders are routed to the BROKER ATS).

Routing of Certain Non-Marketable Stock and ETF Orders: When BROKER receives a non-marketable customer order, BROKER may route some portion of the order for display on a public market and may retain the remaining portion of the order on BROKER's ATS, where it may be matched against a conditional order of a liquidity provider that has committed to trade against the remaining portion of the customer order in the event that the portion of the customer order that was routed to a public market is executed. When a liquidity provider has been committed to trade against a portion of a customer order as described above, such liquidity provider cannot cancel its order (or the portion of its order that has been committed to trade against the customer order if the publicly-displayed portion of the customer order is executed). If the liquidity provider attempts to cancel some or all of the committed size, it will receive a message rejecting the cancellation (i.e., the liquidity provider will be told that there is an BROKER customer order that the liquidity provider is committed to trade against). The liquidity provider is not told the size or price of the customer order. This arrangement provides potential additional liquidity for BROKER customer orders. In addition, BROKER will share with the customer a portion of the commission or commission equivalent BROKER receives from the liquidity provider for these executions, reducing the total cost of execution to the customer.

Tiered Commission Structure: Under BROKER's Tiered commission model, BROKER passes to Tiered commission customers some or all of certain rebate payments BROKER receives for executing stock orders, although the Tiered commission model is not intended to be a direct pass-through of exchange and third-party fees and rebates. For example, BROKER may receive enhanced rebate payments for exceeding volume thresholds on particular markets, but typically will not directly pass these enhancements to customers. Likewise BROKER does not pass to customers all of the rebates BROKER may receive for orders executed in dark pools, or orders in pink or OTCBB stocks.

Options: Broker does not sell its option orders to another broker to handle and route. Rather, BROKER employs its SmartRouting system to try to achieve the best execution for customer option orders. The SmartRouting system attempts to achieve an execution price at NBBO or better than the NBBO by utilizing relationships with affiliates and other liquidity providers, who may provide price improvement through the various auction and price improvement mechanisms offered under U.S. option exchange rules.

Broker’s affiliate Timber Hill LLC (Timber Hill) is a significant market maker on U.S. options exchanges. If

Timber Hill is offering the best price in the national market or is willing to provide an execution at a better price for an BROKER customer than the NBBO, BROKER generally will route the order to an options exchange where Timber Hill is more likely to trade with the order. This will benefit the customer -- who receives an execution at NBBO or better - and will also benefit Timber Hill, which increases its market share in options contracts, from which it attempts to earn a market making spread.

In cases where the customer is eligible for a rebate for the order under BROKER's Tiered commission schedule, if routing to an exchange where Timber Hill is active would reduce the rebate to be paid to the customer (or increase a fee paid by the customer) compared to a different exchange, BROKER generally will adjust the rebate paid to the customer (or the fee paid by the customer) to match the higher rebate (or lower fee), although BROKER does not guarantee this. As a specialist on various options exchanges, Timber Hill may be responsible for allocating payments for orders that are generated in its assigned options classes, depending on the design of the applicable exchange's SEC-approved payment plan. Consistent with these plans, Timber Hill pays such funds to Broker.

BROKER also maintains relationships with other liquidity providers who may provide executions at the NBBO or a better price than the NBBO for BROKER customer option orders. These relationships benefit BROKER customers, who may receive price improvement for their options orders. BROKER may receive payment in the form of commissions or other payments from the liquidity providers for these executions.

Several options exchanges impose "maker-taker" fees and rebates, in which exchange members are charged for orders that take liquidity (i.e., marketable orders that trade against a posted quote or limit order) and receive a rebate for orders that add liquidity to the exchange (i.e., non-marketable limit orders that are posted and then trade against incoming marketable orders), or vice versa. The charges imposed or rebates offered by these exchanges affect the total cost of execution, and BROKER's SmartRouting System takes this into account in determining where to route option orders - trying to minimize the costs that customers incur. In addition, if multiple exchanges are quoting at the NBBO for an option order and BROKER has discretion as to where to send the order or a portion of it, BROKER generally will "break the tie" by sending the order to an exchange where it will receive the most payment for the order.

Under certain circumstances, BROKER may route a marketable option order to an exchange that is not currently posting the NBBO but which may be willing to execute the order at the NBBO. Generally, BROKER will do this in order to avoid or reduce the fee for executing the order, compared to routing to a different exchange. BROKER generally will share the economic benefit of routing orders in this manner with customers in the form of reduced execution fees, although BROKER does not guarantee that it will share such benefit. In addition, in the limited circumstances where BROKER routes orders in this manner, BROKER generally guarantees a fill at the NBBO at the time the order was routed.

Under BROKER's Tiered commission model, BROKER passes to Tiered commission customers some or all of certain rebate payments BROKER receives for executing option orders, although the Tiered commission model is not intended to be a direct pass-through of exchange and third-party fees and rebates. For example, BROKER may receive enhanced rebate payments for exceeding volume thresholds on particular markets, but typically will not directly pass these enhancements to customers. Likewise BROKER does not pass to customers all of the rebates BROKER may receive for liquidity taking orders, complex orders or orders executed in price improvement auctions. Traditional exchange payment for order flow programs result in payments to specialists or primary market makers, some portion of which may be paid on to BROKER. BROKER does not pass these payments directly to customers.

Affiliate Investments in Exchanges: An affiliate or affiliates of Broker minority interests in OneChicago (security futures exchange), ISE Stock Exchange, CBOE Stock Exchange and a substantial, minority investment in the Boston Options Exchange Group LLC, which operates the BOX Options Exchange.

Quarterly Order Routing Reports and Other Order Routing Information Available upon Request: U.S. Securities and Exchange Commission rules require all brokerage firms to make publicly available quarterly reports describing their order routing practices.

In addition to the basic quarterly reports, under Rule 606 of SEC Regulation NMS, a broker-dealer is required upon a customer request to provide information regarding the identity of the market center to which the customer's orders were routed in the six months prior to the request; whether the order was a directed or non-directed order, and the time of the transaction, if any, that resulted from such order.

As long as consistent with applicable securities laws and regulations, we may share anonymized account information or anonymized delayed order information with third parties (and/or share such information among our affiliates) for the purpose of analysis, research, market data compilation, product creation, establishing order routing and execution relationships, or for any other lawful purpose.

Penny Stock Trading Risk Disclosure

This disclosure contains additional important information regarding the characteristics and risks associated with trading small-cap (penny) stocks.

What is a "Penny" Stock?

Generally, penny stocks are low-priced shares of small companies that are not traded on an exchange or quoted on NASDAQ. Penny stocks generally are traded over-the-counter, such as on the OTC Bulletin Board or Pink Sheets, and are historically more volatile and less liquid than other equities. For these and other reasons, penny stocks are considered speculative investments and customers who trade in penny stocks should be prepared for the possibility that they may lose their entire investment, or an amount in excess of their investment if they purchased penny stocks on margin. Before investing in a penny stock, you should thoroughly review the company issuing the penny stock. In addition, you should be aware of certain specific risks associated with trading in penny stocks.

Risks Associated With Penny Stocks

There are a number of risks of trading penny stocks, including the following:

You Can Lose All or Much of Your Investment Trading Penny Stocks. All investments involve risk but penny stocks are among the most risky and are generally not appropriate for investors with low risk tolerance. Many penny stock companies are new and do not have a proven track record. Some penny stock companies have no assets, operations or revenues. Others have products and services that are still in development or have yet to be tested in the market. Penny stock companies therefore have a greater risk of failure and those who invest in penny stocks have a greater risk that they may lose some or all of their investment.

Lack of Publicly Available Information. Most large, publicly-traded companies file periodic reports with the SEC that provide information relating to the company's assets, liabilities and performance over time. In addition, these companies provide their financial information and operational results online. In contrast, information about penny stock companies can be extremely difficult to find, making them more likely to be the subject of an investment fraud scheme and making it less likely that quoted prices in the market will be based on full and complete information about the company.

No Minimum Listing Standards. Companies that offer shares of their stock on exchanges can be subject to stringent listing standards that require the company to have a minimum amount of net assets and shareholders. Most penny stock companies do not list their shares on exchanges and are not subject to these minimum standards.

Risk of Lower Liquidity. Liquidity refers to the ability of market participants to buy and sell securities. Generally, the more demand there is for a particular security, the greater the liquidity for that security. Greater liquidity makes it easier for investors to buy or sell securities so investors are more likely to receive a competitive price for securities purchased or sold if the security is more liquid. Penny stocks are often traded infrequently and have lower liquidity. You may therefore have difficulty selling penny stocks once you own them. Moreover, because it may be difficult to find quotations for certain penny stocks, they may be difficult, or even impossible, to accurately price.

Risk of Higher Volatility. Volatility refers to changes in price that securities undergo when they are being traded. Generally, the higher the volatility of a security, the greater its price swings. Due to their lower liquidity, penny stocks are subject to greater volatility and price swings. A customer order to purchase or sell a penny stock may not execute or may execute at a substantially different price than the prices quoted in the market at the time the order was placed. In addition, the market price of any penny stock shares you obtain can vary significantly over time.

Penny Stocks Can Be Subject to Scams. Penny stocks are frequent vehicles for scams and/or market manipulation due to their generally lower prices and less stringent listing requirements. You should be wary of advertisements, unsolicited e-mails, newsletters, blogs or other promotional reports that emphasize the potential for large profits in penny stocks generally or certain penny stocks. These promotional materials are often used to manipulate or "pump up" the price of penny stocks before selling a large volume of shares. Customers are therefore strongly encouraged to do their own due diligence with respect to any penny stock company they invest in and to not rely on any outside promotional reports or newsletters.

Further information concerning penny stocks and the risks involved in trading them is available on the SEC's website at http://www.sec.gov/investor/pubs/microcapstock.htm.

Delayed Market Data Timing

Overview:

Market data vendors typically offer exchange data in two categories, real-time and delayed. Real-time market data is disseminated as soon as the information is publicly available. Delayed market data is on a time lag that is usually 10-20 minutes behind real-time quotes.

Some exchanges allow delayed data to be displayed without any market data subscription, free of charge. A list of the exchanges we provide delayed data for at no cost and without formal request (i.e., the delayed data will be displayed upon entry of the product symbol on the trading platform) are outlined in the table below. The table also includes the corresponding real-time subscription, the fees for which are posted on IBKR's public website.

Note, these quotes should be used for indicative purposes and not necessarily for trading. The times mentioned may be subject to further delays without notice.

The Americas

External Exchange Name	IB Exchange Name	Delay Period	Real Time Subscription
CBOT	ECBOT	10 minutes	CBOT Real-Time
CBOE Futures Exchange	CFE	10 minutes	CFE Enhanced
Market Data Express (MDX)	CBOE	10 minutes	CBOE Market Data Express Indices

CME	GLOBEX	10 minutes	CME Real-Time
COMEX	NYMEX	10 minutes	COMEX Real-Time
ICE US	NYBOT	10 minutes	ICE Futures U.S. (NYBOT)
Mexican Derivatives Exchange	MEXDER	15 minutes	Mexican Derivatives Exchange
Mexican Stock Exchange	MEXI	20 minutes	Mexican Stock Exchange
Montreal Exchange	CDE	15 minutes	Montreal Exchange
NASDAQ (UTP)	NASDAQ	15 minutes	NASDAQ (Network C/UTP)
NYMEX	NYMEX	10 minutes	NYMEX Real-Time
NYSE (CTA Tape A)	NYSE	15 minutes	NYSE (Network A/CTA)

NYSE American (CTA Tape B)	AMEX	15 minutes	AMEX (Network B/CTA)
NYSE GIF	NYSE	15 minutes	NYSE Global Index Feed
One Chicago	ONE	10 minutes	OneChicago
OPRA	OPRA	15 minutes	OPRA Top of Book (L1) (US Option Exchanges)
OTC Markets	PINK	15 minutes	OTC Markets
Toronto Stock Exchange	TSE	15 minutes	Toronto Stock Exchange
Venture Exchange	VENTURE	15 minutes	TSX Venture Exchange

Europe

External Exchange Name	IB Exchange Name	Delay Period	Real Time Subscription
BATS Europe	BATE/CHIX	15 minutes	European (BATS/Chi-X) Equities
Boerse Stuttgart	SWB	15 minutes	Stuttgart Boerse incl. Euwax (SWB)
Bolsa de Madrid	BM	15 minutes	Bolsa de Madrid
Borsa Italiana	BVME/IDEM	15 minutes	Borsa Italiana (BVME stock / SEDEX / IDEM deriv)
Budapest Stock Exchange	BUX	15 minutes	Budapest Stock Exchange
Eurex	DTB/SOFFEX	15 minutes	Eurex Real-Time Information
Euronext	AEB/SBF/MATIF/BELFOX	15 minutes	Euronext Cash
Euronext	AEB/SBF/MATIF/BELFOX	15	Euronext Data Bundle

		minutes	
Frankfurt Stock Exchange and XETRA	FWB/IBIS/XETRA	15 minutes	Spot Market Germany (Frankfurt/Xetra)
ICE Futures Europe (Commodities)	IPE	10 minutes	ICE Futures E.U. - Commodities (IPE)
ICE Futures Europe (Financials)	ICEEU	10 minutes	ICE Futures E.U. – Financials (LIFFE)
LSE	LSE	15 minutes	LSE UK
LSEIOB	LSEIOB	15 minutes	LSE International
MEFF	MEFF	15 minutes	BME (MEFF)
NASDAQ OMX Nordic Derivatives	OMS	15 minutes	Nordic Derivatives
Prague Stock Exchange	PRA	15 minutes	Prague Stock Exchange Cash Market
SWISS Exchange	EBS/VIRTX	15	SIX Swiss Exchange

		minutes	
Turquoise ECN	TRQXCH/TRQXDE/TRQXEN	15 minutes	Turquoise ECNs
Warsaw Stock Exchange	WSE	15 minutes	Warsaw Stock Exchange

Asia

External Exchange Name	**IB Exchange Name**	**Delay Period**	**Real Time Subscription**
Australian Stock Exchange	ASX	20 minutes	ASX Total
Hang Seng Indices	HKFE-IND	15 minutes	Hang Seng Indexes
Hong Kong Futures Exchange	HKFE	15 minutes	Hong Kong Derivatives (Fut & Opt)
Hong Kong Stock Exchange	SEHK	15 minutes	Hong Kong Securities Exchange (Stocks, Warrants & Bonds)

Korea Stock Exchange	KSE	20 minutes	Korea Stock Exchange
National Stock Exchange of India	NSE	15 minutes	National Stock Exchange of India, Capital Market Segment
Osaka Securities Exchange	OSE.JPN	20 minutes	Osaka Exchange
SGX Derivatives	SGX	10 minutes	Singapore Exchange (SGX) - Derivatives
Shanghai Stock Exchange	SEHKNTL	15 minutes	Shanghai Stock Exchange
Shenzhen Stock Exchange	SEHKSZSE	15 minutes	Shenzhen Stock Exchange
Singapore Stock Exchange	SGX	10 minutes	Singapore Exchange (SGX) - Stocks
Sydney Futures Exchange	SNFE	10 minutes	ASX24 Commodities and Futures
Tokyo Stock Exchange	TSEJ	20 minutes	Tokyo Stock Exchange