INTERACTIVE BROKERS (U.K.) LTD. AGREEMENTS AND DISCLOSURE DOCUMENTS

The documents in this package contain the terms and conditions of your customer account with Interactive Brokers (U.K.) Ltd. and also contain important information regarding the risks and characteristics of the securities, commodities and other investment products that may be traded in your account. Please read all these documents carefully.

This package contains:

- **Interactive Brokers (U.K.) Ltd. Customer Agreement**
- **Options Clearing Corporation Characteristics and Risks of Standardized Options**
- **Disclosure of Risks of Margin Trading**
- **Portfolio Margin Risk Disclosure Statement**
- **Disclosure Regarding IB's Procedures for Allocating Equity Option Exercise Notices**
- **Day Trading Risk Disclosure**
- **Disclosure Regarding IB's Business Continuity Plan**
- **FINRA/NFA Disclosure for Security Futures Trading**
- **Australian Futures Risk Disclosure**
- **Euronext Amsterdam Derivative Markets Risk Disclosure Statement**
- **Euronext Derivatives Explanatory Memorandum**
- **Euronext Liffe Risk Disclosure**
- **French Risk Disclosure**
- **German Risk Disclosure**
- **Hong Kong Regulations**
- **Swiss Franc Denominated Account Risk Disclosure-Futures**
- **Swiss Franc Denominated Account Risk Disclosure-Options**
- **Risk Disclosure Statement for Forex Trading and IB Multi-Currency Accounts**
- **CFTC Rule 15.05 Notice to Non-U.S. Traders**

Notice Regarding Anti-Money Laundering and Customer Identification Procedures: To help the U.S. government fight the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify, and record information that identifies each person or entity who opens an account. We are required by law to ask you to provide your name, address, date of birth and other information about you, your organization or persons related to your organization that will allow us to identify you before we approve your account. We also will ask you to provide certain identifying documents, such as your driver's license or passport or your organization's articles of incorporation and may obtain credit and other consumer reports to assist us in verifying your identity and in determining whether you satisfy our account criteria. Unless you provide the requested information and documentation, we may not be able to open your account. By applying for an IB account, you agree to provide accurate and truthful information as requested by IB and you consent to IB's acquisition of credit and other consumer reports about you for the purposes described above.

Notice of Execution and Clearing Agreement

1. This Notice applies only to persons who are parties to the Customer Agreement Among Customer, Interactive Brokers (U.K.) Limited and Interactive Brokers LLC ("IB UK Customer Agreement") and/or persons who have opened an account ("IB UK Account") with Interactive Brokers (U.K.) Limited ("IB UK Customers").

2. Interactive Brokers (U.K.) Limited ("IB UK") has been authorised by the Financial Conduct Authority ("FCA") to conduct investment business in the U.K. and Europe and is regulated in the U.K. by the FCA.

3. Interactive Brokers LLC ("IB LLC") is a U.S.-located affiliate of IB UK. IB LLC is registered as a broker-dealer with the U.S. Securities and Exchange Commission and as a futures commission merchant with the U.S. Commodity Futures Trading Commission.

4. IB UK and IB LLC are parties to an Execution and Clearing Agreement pursuant to which IB LLC performs certain services with respect to IB UK Customers, IB UK Accounts and IB UK Transactions ("Execution and Clearing Agreement"). The Execution and Clearing Agreement permits IB LLC to satisfy its obligations thereunder by using the services of other affiliates of IB UK ("IB UK Affiliates") or unaffiliated third parties. By executing an IB UK Customer Agreement, an IB UK Customer enters into a contractual relationship with IB UK and, for the limited purposes stated therein, with IB LLC. The relationships between IB UK Customers and IB UK and between IB UK Customers and IB LLC are not altered by the Execution and Clearing Agreement.

5. This Notice is intended to be a general disclosure of the relationship between IB UK and IB LLC, not a definitive enumeration of each and every service that may be performed by IB LLC with respect to IB UK Customers, IB UK Accounts and/or IB UK Transactions. Such services may include the performance of any or all of IB UK's responsibilities under the terms and conditions of the IB UK Customer Agreement, although nothing in this Notice obligates IB LLC or other IB UK Affiliates to perform such services. The relationship between IB UK and IB LLC or other IB UK Affiliates may change from time to time.

6. IB UK generally shall be responsible for the following:

    a. Obtaining and verifying new IB UK Customer and IB UK Account information and documentation and opening and closing IB UK Accounts.

    b. Providing software or otherwise arranging for the transmission through the IB system of orders (and modifications and cancellations thereof) submitted by IB UK Customers for the specified securities, options, futures, currencies and other investment products that IB UK may make available from time to time for IB UK Customer trading and arranging for the execution and/or clearance of such orders.

c. Accepting instructions regarding voluntary corporate actions (e.g., tender or exchange offers) from IB UK Customers and transmitting them to IB LLC for processing. Neither IB UK nor IB LLC shall be responsible for providing IB UK Customers with notice of voluntary corporate actions.

d. Determining the commissions and other fees charged to IB UK Customers. Commission and fee payments owed by IB UK Customers may be shared and allocated between IB UK and IB LLC as IB UK and IB LLC agree from time to time.

7. IB LLC generally shall be responsible for the following:

a. Accepting IB UK Customer orders (and modifications and cancellations thereof) and transmitting them for execution on various exchanges through IB LLC, IB UK, another Interactive Brokers Group affiliate or a third party intermediate broker. Pursuant to the IB UK Customer Agreement, IB UK and IB LLC reserve the right to reject any IB UK Customer order that may be transmitted to either of them for execution and/or clearing.

b. In the case of any IB UK Account for which IB UK has agreed to provide clearing services for the Customer, acting as a self-clearing broker for the Customer's orders or arranging for the clearing and settlement of the Customer's executed transactions by IB UK, IB LLC, another IB UK Affiliate or a third party. IB UK Customers that hold IB UK accounts for which IB UK acts only as an executing broker are required to be either a self-clearing exchange member or a client of an exchange clearing member. The exchange-executed trades of such IB UK Customers are taken up for clearing and settlement by the IB UK Customers' respective clearing brokers.

c. Performing certain cashiering, client money and custody services for IB UK Customers, IB UK Accounts and IB UK Transactions. Such services include, without limitation: (1) accepting and holding all money submitted to fund IB UK Accounts (including, without limitation, funds submitted for the purpose of satisfying IB UK's initial and maintenance margin requirements [collectively, "Margin Requirements"]); (2) receiving, delivering and transferring securities purchased and sold, borrowed and loaned and receiving and distributing payment therefor; (3) holding in custody and safekeeping all securities and payments so received (provided that, with respect to securities, such securities are delivered via the book entry system of a clearing organization acceptable to IB UK); (4) paying and charging interest on IB UK Accounts; (5) receiving and distributing dividends and other distributions; (6) processing securities as a result of corporate actions; (7) transferring funds to Customers; and (8) as set forth in the IB UK Customer Agreement, effectuating the liquidation of IB UK Customer positions or assets.

d. Extending credit to IB UK Customers, including complying with the Margin Requirements of IB UK and any relevant regulatory, self-regulatory or governmental body; and effecting stock loan and borrowing transactions in accordance with applicable law.

e. Performing certain collection services with respect to IB UK Accounts, including the collection of all commissions and fees and other monies or assets due from IB UK Customers under the terms of the IB UK Customer Agreement.

f. Performing certain back-office and record keeping and reporting functions with respect to IB UK Accounts, including the preparation of confirmations (contract notes) and account statements

for IB UK Transactions, distributing such confirmations and account statements directly to IB UK Customers, maintaining books and records of all IB UK Transactions, and reporting such information as may be required by relevant regulatory or self-regulatory organizations or applicable law.

g. Performing technical services related to the IB Trader Workstation, the IB System, or certain computer hardware or software related thereto.

8. IB UK requires IB UK Customers to remit all funds related to their IB UK Transactions or to their IB UK Accounts, or otherwise tendered pursuant to the IB UK Customer Agreement, either: (a) directly to IB LLC or (b) to a designated financial institution with which IB LLC maintains a customer account. Funds maintained by IB LLC are maintained in customer accounts that are held in the name of IB LLC and are located outside of the U.K.

9. IB UK and IB LLC share responsibility for the provision of certain portions of the IB UK website and for the provision of customer service facilities. IB UK has ultimate responsibility for responding to customer complaints regarding any IB UK Transaction or any IB UK Account, but IB LLC is authorized to accept, process and respond to such complaints.

10. IB UK and IB LLC are authorized to disclose information or documentation relating to IB UK Customers or IB UK Accounts and IB UK Transactions to each other and to their respective affiliates. IB UK, IB LLC and their affiliates are authorized to use, store, or process personal information provided by IB UK customers (or their employees, agents or representatives) or otherwise acquired from them as set forth in the IB UK Customer Agreement.

11. IB LLC does not control, audit or supervise the activities of IB UK or its registered representatives, nor does it verify any information provided by IB UK regarding any IB UK Customers, orders, Transactions, or Accounts.

Interactive Brokers (UK) Limited Customer Agreement

1. **Application of this Agreement:**

A. **Scope of this Agreement:** This Agreement ("Agreement") governs the relationship between Customer and Interactive Brokers (UK) Limited ("IB UK") and between Customer and Interactive Brokers LLC ("IB LLC") including, without limitation, the terms and conditions of the performance of the services set forth in Section 1.B of this Agreement and matters relating to Customer's IB UK account.

B. **Services Provided:**

(1) IB UK shall provide the following services to Customer: (a) Through the Interactive Brokers System ("IB System"), IB UK shall accept orders from Customer for the specified securities, options, futures, and other investment products that IB UK may make available from time to time to the type of customer account for which Customer has been approved and (b) Through its execution and clearing agreement with IB LLC ("Execution and Clearing Agreement"), IB UK shall provide for the execution and clearing of such transactions ("Transactions"). Pursuant to the

Execution and Clearing Agreement, Transactions may be executed and/or cleared by IB UK, IB LLC, another affiliate of IB UK, or a non-affiliated third party.

(2) As set forth in Section 10 of this Agreement, IB LLC shall provide client money and custody services for Customers and, with respect to the provision of such services only, Customer shall be a customer of IB LLC, and not of IB UK. With respect to the provision of all other services under this Agreement, Customer shall be a customer of IB UK. IB LLC is located in the United States.

C. **No Advice, Solicitation, or Discretion:** Representatives of IB UK and IB LLC are not authorized to, and shall not be under any obligation to provide, any investment, tax, trading or other advice or recommendations or to solicit orders. None of the information, research, or other materials provided by IB UK, provided by any of IB UK's affiliates (IB UK affiliates, including IB LLC, shall be collectively referred to as "Affiliates") or on the IB UK website constitutes advice, a recommendation or a solicitation to buy or sell securities, options, futures or other investment products. Neither IB UK nor any of its Affiliates have any discretionary authority with respect to any Transactions entered into by Customer, except for the discretion to select the marketplace to which to route a Customer order described in Section 3.B.(2) of this Agreement and Customer retains full responsibility for making all trading decisions with respect to Customer's account.

D. **Treatment of Customer:** IB UK shall treat Customer as a private customer for the purposes of the rules of the Financial Conduct Authority ("FCA Rules").

E. **Amendments to this Agreement:** No provision of this Agreement can be amended or waived by Customer, in any respect, except in a writing by an officer of IB UK that has been confirmed by IB UK's secretary (or, in the case of Section 10 of this Agreement, in a writing by an officer of IB LLC that has been confirmed in writing by IB LLC's Secretary) and, in entering into this Agreement, Customer has not relied on, or been otherwise induced by, any matter not contained in such writing. IB Customer Service Department employees are not authorized to amend or to waive the terms of this Agreement in any respect. Customer understands and agrees that IB UK or IB LLC may modify or change the terms and conditions of this Customer Agreement (in each instance, a "Revised Agreement") by providing Customer with notice of a Revised Agreement via e-mail. The terms and conditions of any Revised Agreement shall be deemed to be accepted by Customer and the Revised Agreement shall become effective five (5) business days after the date of the e-mail notice to the Customer ("5 Day Period") unless, within the 5 Day Period, Customer has sent a written notice of objection via an e-mail to the IB Customer Service Department at help@interactivebrokers.com and IB UK has received such objection. If Customer objects to any term or condition of any Revised Agreement, Customer must promptly cease using the services of IB UK and IB LLC, except as necessary to close Customer's account. Customer's continued use of the services of either IB UK or IB LLC after the 5 Day Period also shall constitute acceptance of the terms and conditions of the Revised Agreement.

2. Applicable Regulations:

A. This Agreement and any orders or Transactions placed or executed under it are subject to all applicable laws and regulations including, without limitation, the constitutions, articles, by-laws, rules, regulations, policies, procedures and interpretations (collectively, "Rules") of the exchanges, markets and clearing houses to which orders are routed or Transactions are executed or cleared; of the Financial Conduct Authority ("FCA"); and any other applicable Rules of a regulatory, self-regulatory or governmental authority ("Applicable Regulations"). **IN NO EVENT SHALL IB UK OR ANY OF ITS AFFILIATES BE LIABLE TO CUSTOMER FOR ANY ACTION, INACTION, DECISION OR RULING OF ANY EXCHANGE, MARKET, CLEARING HOUSE OR REGULATORY OR SELF-REGULATORY AUTHORITY.**

B. IB UK or its Affiliates may take or omit any action they consider reasonable to comply with Applicable Regulations. Customer specifically acknowledges that exchange Rules may afford the exchange wide powers in various situations, including, but not limited to, in an emergency, in an otherwise undesirable situation, or in the event of a default (not necessarily on the part of IB UK, IB LLC, their Affiliates, or Customer), to close-out a transaction, to require the exercise of set-off rights or to take such other steps or combination of steps as the exchange thinks fit. Customer agrees that, if a relevant exchange (or intermediate broker acting at the direction of, or as a result of any action taken by, any exchange) takes any action which affects any Transaction, then IB UK or its Affiliates may take any action which IB UK or its Affiliate, in its absolute discretion, considers desirable to respond to such action or to mitigate any loss incurred as a result of such action. Any such action taken by IB UK or its Affiliates will be binding on Customer. In no event shall IB UK or its Affiliates be liable to Customer for any action, inaction, decision or ruling of any exchange, market, clearing house or regulatory, self-regulatory, governmental or supra national authority.

3. Customer Orders:

A. **Responsibility for Customer Orders and Customer Trades:** IB UK and its Affiliates shall be entitled to act for Customer upon any instructions given or purported to be given by Customer. Once given, instructions may only be withdrawn by Customer with consent. Customer understands that neither IB UK nor any of its Affiliates is able to know whether someone other than Customer has entered, or is entering, orders using Customer's user name and password. Unless specified to and agreed to by IB UK, Customer shall not permit any other person to have access to Customer's account for any purpose. Customer shall be responsible for the confidentiality and use of, and any Customer orders entered with, Customer's user name and password. Customer agrees to report any loss or theft of Customer's user name or password, or any unauthorized access to Customer's account, immediately by e-mail to the IB Customer Service Department at help@interactivebrokers.com. However, Customer shall remain responsible for all orders entered using Customer's user name and password.

B. **Order Routing:**

(1) Unless otherwise directed by Customer, IB UK and its Affiliates have the discretion to select the marketplace to which to route any Customer order. To the extent that IB UK or any of its Affiliates provide execution services for Customer, it shall provide best execution in accordance with Applicable Regulations.

(2) For investment products that are traded at multiple market centers, IB UK may provide an order-by-order best execution order-routing option whereby the IB System attempts to seek the best available terms for a Customer's order using a proprietary, computerized routing algorithm ("Smart Routing"). Customer is advised to choose Smart Routing when trading products for which Smart Routing is available. If Customer elects to direct orders to a particular market center, Customer assumes responsibility for examining and directing Customer's trading in accordance with the relevant Rules of the market center to which the orders are routed (e.g., Rules regarding trading hours, bidding and offering, types of orders accepted, short sale restrictions, odd-lot trading restrictions, etc.). Customer acknowledges that, if Customer elects to direct orders to a particular market center, Customer does so at Customer's risk, including the risk that such orders may be executed on less advantageous terms.

(3) IB UK and its Affiliates cannot and do not warrant or guarantee that every Customer order will be executed at the best posted price. Among other things: (a) neither IB UK nor its Affiliates may have access to every market at which a particular product may trade; (b) other orders may trade

ahead of Customer's order and exhaust available volume at a posted price; (c) exchanges or market makers may fail to honor their posted prices; (d) exchanges may re-route customer orders out of automated execution systems for manual handling (in which case, execution or representation of Customer's order may be substantially delayed); or (e) exchange Rules or decisions or systems delays or failures may prevent Customer's order from being executed, may cause a delay in the execution of Customer's order, or may cause Customer's order not to be executed at the best posted price.

C. **Order Execution:**

(1) IB UK and its Affiliates shall act as agent on Customer's behalf, unless otherwise confirmed. However, IB UK and its Affiliates are authorized to execute Customer orders as principal. IB UK may utilize another executing broker, including an Affiliate or a non-affiliated third party, to execute Customer orders. Such executing brokers shall have the benefit of all of IB UK's rights and remedies and limitations on liability under this Agreement. IB UK or its Affiliates may decline any Customer order, at any time, in their respective sole discretion.

(2) IB UK and its Affiliates may decline any Customer order or terminate this Agreement and/or customer's use of the facilities and services provided by IB UK or its Affiliates for the transmission and execution of Customer orders at any time in their discretion. Customer shall be responsible for monitoring all Customer orders until IB UK confirms execution or cancellation of the order to Customer.

D. **Order Cancellation and Modification:** Customer acknowledges that it may not be possible to cancel or modify an order. Any attempt to cancel or modify an order is simply a request to cancel or modify. Neither IB UK nor its Affiliates shall be liable to Customer if IB UK or its Affiliates are unable to cancel or modify an order. Customer further acknowledges that attempts to modify or cancel and replace an order can result in an over-execution of the order, or the execution of duplicate orders, and Customer shall be responsible for all such executions.

4. Particular Products or Orders:

A. **Volume Weighted Average Price Orders:** IB UK may accept Volume Weighted Average Price ("VWAP") orders for certain securities or futures products. VWAP stock transactions will be executed after the close of trading at the average price for the security during the reference period, as calculated by a third-party pricing service ("Pricing Service"). The average price reported to Customer on the relevant confirmation may not reflect the actual trading level of the security at any point during the trading day, but rather reflects an average price based upon transactions effected during the reference period, as calculated by the Pricing Service. In VWAP transactions, IB UK or IB LLC, as agent or riskless principal, generally will forward the transactions for execution to an IB UK Affiliate which will act as principal in the transaction. Customers entering VWAP orders agree to accept the VWAP price for the reference period as calculated by the Pricing Service. Neither IB UK nor its Affiliates have any control over the methodology used by the Pricing Service to calculate VWAP prices and do not warrant the accuracy of those prices. IB UK and its Affiliates reserve the right NOT to execute a VWAP transaction at the close of trading in the following circumstances: (1) Customer's VWAP order violates exchange Rules or securities or commodities laws, regulations or Rules, or is intended to defraud or manipulate the market; (2) a significant disruption in or premature close of trading in the market on which the security or futures product is traded; (3) acts of God, war (declared or undeclared), terrorism, fire or action by an exchange, regulatory or governmental authority that disrupts trading in the relevant security or the Pricing Service's calculation of the VWAP; or (4) if the Pricing Service's calculation of VWAP prices is clearly erroneous. In such cases, neither IB UK nor its Affiliates shall have any obligation to execute Customer's VWAP order.

B. **Penny Shares:** Customer understands that there is an extra risk of losing money when shares

are bought in some smaller companies including penny shares. There is a big difference between the buying price and selling price of these shares. Customer further understands that, if such shares have to be sold immediately, Customer may get back much less than the Customer paid for them. The price may change quickly and it may go down as well as up.

C. **Warrants and Derivatives:** Customer represents that Customer has received, read and understands the "Warrants and Derivatives Risk Warning Notice" set forth as Addendum 1 hereto.

D. **Commodity Options:** Customer acknowledges and agrees that commodity option contracts may not be exercised and must be closed out by offset. Except for cash-settled commodity options, if Customer has not offset commodity options contract positions at least one (1) hour prior to the time specified by an exchange for final settlement, IB UK or its Affiliates are authorized to do so, or to sell any position into which the option position is converted upon expiration, or to otherwise liquidate the resulting positions, and credit or debit Customer's account accordingly. Customer shall pay IB UK or its Affiliates for all costs and expenses related to such liquidations and shall hold IB UK and its Affiliates harmless for any actions taken, or not taken, in connection therewith.

E. **Close-Out Deadline for Futures Contracts Not Settled in Cash:** For futures contracts that are not settled in cash, but are settled by actual physical delivery of the underlying commodity (including those foreign currency contracts that call for actual delivery of the physical currency and are not on the IB Deliverable Currency List). Customer may not make or receive delivery of the underlying commodity. For long positions not settled in cash, Customer agrees to roll forward or to close-out any position by offset three (3) business days prior to the exchange-specified first notice day (the long "Close-Out Deadline"). For short positions not settled in cash, Customer agrees to roll forward or close-out the position by offset three (3) business days prior to the exchange-specified last trade day (the short "Close-Out Deadline"). It is Customer's responsibility to make itself aware of the last trading date for such contracts and the Close-Out Deadline. If Customer has not closed out any position in a futures contract not settled in cash by the Close-Out Deadline, IB UK and its Affiliates shall have the right to liquidate Customer's position in the expiring contract, at any time and in any such manner as IB UK or its Affiliates deem necessary, without prior notice to Customer. If Customer fails to close out a futures position and IB UK or its Affiliates are unable to close out the position prior to the expiration of the contract, then Customer shall be liable for any and all costs of delivery and the liquidation of the resulting physical currency position.

F. **Non-Readily Realisable Investments:** Customer understands that there is a restricted market for designated investments that are not readily realisable investments and that, therefore, it may be difficult to deal in such designated investments or to obtain reliable information about their value. Customers who choose to trade designated investments that are not readily realisable investments do so at their own risk.

5. Short Sales: Customer acknowledges that: (A) short sales may only be effected in a margin account and are subject to initial and maintenance Margin Requirements; (B) prior to effecting a short sale for Customer, IB UK, IB LLC or their Affiliate, as the case may be, must have reasonable assurance that it will be able to borrow such stock on Customer's behalf to effect delivery of such stock to the purchaser; (C) if IB UK, IB LLC or their Affiliate, as applicable, is unable to borrow stock to enable Customer to effect delivery on a short sale, or if IB UK, IB LLC or their Affiliate, as applicable, is unable to re-borrow stock in order to satisfy a re-call notice from a stock lender, then IB UK, IB LLC or their Affiliate may be subject to a buy-in pursuant to regulatory or clearing house Rules. Customer understands that, if IB UK, IB LLC or their Affiliate, as applicable, is unable to borrow or re-borrow such stock, then IB UK, IB LLC and their Affiliates, without notice to Customer, are authorized by Customer to cover Customer's short position by

purchasing stock on the open market at the then-current market price and Customer shall be liable for any resulting losses and all associated costs incurred by IB UK, IB LLC or their Affiliate.

6. Corporate Actions: Except with respect to proxy materials which IB UK or its Affiliate shall transmit to Customer in accordance with Applicable Regulations, Customer acknowledges that Customer is responsible for knowing the rights and terms of any securities, options, futures, currencies and investment products in Customer's account including, but not limited to, corporate actions (e.g., whether a security is the subject of a tender or exchange offer, a reorganization, a stock split or reverse stock split) and that neither IB UK nor its Affiliates has any obligation to notify Customer of dates of meetings or to take any other action without specific written instructions that have been sent by Customer to the IB Customer Service Department at help@interactivebrokers.com and have been received by the IB Customer Service Department. The consequences of Customer's failure to timely provide such instructions are entirely the Customer's own responsibility.

7. Consent to Electronic Records and Communications: Customer consents to the receipt of electronic instructions, notices, messages, trade confirmations, account statements and other records and communications (collectively, "Records and Communications") relating to this Agreement; any other agreement between customer and IB UK, IB LLC or their Affiliates; any of Customer's orders, Transactions or accounts; or any of Customer's dealings with IB UK, IB LLC or any of their Affiliates, in lieu of the receipt of Records and Communications in any other form.

8. Confirmations and Account Statements:

A. IB UK or its Affiliates shall send a summary of the trading activity in Customer's account to Customer via e-mail on a daily basis. IB UK or its Affiliates shall send to Customer valuation statements of Customer's account via e-mail on a monthly basis. The valuation shall not include a measure of the performance of Customer's total IB UK portfolio.

B. IB UK and its Affiliates may elect to confirm the execution or cancellation of any Customer order by the sole methods of transmitting an electronic confirmation to Customer via e-mail or through the IB System or, for security purposes, by posting the information on the IB UK website with a notification sent to Customer to login and retrieve the information. Customer agrees to accept electronic trade confirmations in lieu of printed confirmations.

C. Customer agrees to monitor each open order until IB UK or one of its Affiliates confirms the execution or cancellation of the order to Customer. Confirmations may be subject to delays. Customer understands that reports and confirmations of order executions or cancellations may be erroneous for various reasons including, but not limited to, cancellation or adjustment by an exchange. Confirmations also are subject to change by IB UK or its Affiliates, in which case, Customer shall be bound by the actual order execution, so long as it is consistent with Customer's order.

D. Customer agrees to notify IB UK by telephone at the telephone number(s) specified on the IB UK website or by e-mail to the IB Customer Service Department at help@interactivebrokers.com as soon as reasonably possible after Customer has become aware, or should have become aware, that: (1) Customer has failed to receive an accurate confirmation of an execution or cancellation; (2) Customer has received a confirmation that is not consistent with Customer's order; (3) Customer has received confirmation of execution or cancellation of an order that Customer did not place; or (4) Customer has received a confirmation; account statement; or other information

reflecting inaccurate orders, trades, account balances, securities, options or futures positions, funds, margin status or transaction history.

E. In the event that IB UK or any of its Affiliates confirms an execution or cancellation in error and Customer unreasonably delays in reporting such error, IB UK and its Affiliates reserve the right to require Customer to accept the trade, or to remove the trade from Customer's account, in their respective sole discretion.

F. Customer understands and agrees that IB UK or its Affiliates may adjust Customer's account to correct any error. Customer agrees to promptly return to IB UK or its Affiliates, as the case may be, any assets distributed to Customer to which Customer was not entitled.

9. Margin: The following provisions apply to margin-enabled accounts:

A. **Risk of Margin Trading: Customer understands that trading on margin involves a high degree of risk and may result in a loss of funds greater than the amount Customer has deposited in Customer's account. Customer represents that Customer has read and understands the "Disclosure of Risks of Margin Trading" provided separately by IB UK.**

B. **Requirement to Maintain Sufficient Margin:** Customer margin Transactions are subject to IB UK initial margin and maintenance margin in accordance with the margin requirements which have been established by IB UK or the applicable exchange, whichever is greater ("Margin Requirements"). IB UK's Margin Requirements may exceed the margin required by any exchange or clearing house. IB UK's Margin Requirements shall be posted on the IB UK website. The general formulas for calculating Margin Requirements provided on the IB UK website are only indicative and may not accurately reflect the actual Margin Requirements in effect at a particular time for Customer's portfolio. Customer must at all times satisfy whatever Margin Requirements are calculated by IB UK. Customer shall maintain, without notice or demand from IB UK, IB LLC or their Affiliates, a sufficient account balance at all times so as to continuously satisfy the applicable Margin Requirements. As set forth herein, Customer shall submit all payments made by Customer to satisfy Margin Requirements directly to IB LLC in accordance with the instructions then set forth on the IB UK website and then in effect.

C. **Modification of Margin Requirements:** IB UK may modify the Margin Requirements for any Customer, for open and new positions, at any time, in IB UK's sole discretion. Customer shall be required to supplement margin any time that IB UK increases Customer's Margin Requirements.

D. **Acceptable Margin:** Margin shall be provided by or on behalf of Customer in the acceptable forms then listed on the IB UK website and in effect. IB UK reserves the right to alter the acceptable forms of margin, in its sole discretion, by posting the amended acceptable margin forms on the IB UK website.

E. **Failure to Satisfy Margin Requirements:** Customer shall monitor Customer's account so that, at all times, the account shall contain a sufficient account balance to continuously satisfy the Margin Requirements, without notice or demand. IB UK or its Affiliates may reject any Customer order if Customer does not have a sufficient account balance to satisfy the Margin Requirements and may delay the processing of any order while determining the correct margin status of Customer's account. Failure by Customer to satisfy the Margin Requirements constitutes an Event of Default and provides IB UK the right, but not the obligation, to pursue all rights and remedies available to it pursuant this Agreement, including the right to liquidate Customer's positions.

F. **IB UK Shall Not Issue Margin Calls: IB UK, IB LLC, and their Affiliates shall not have any obligation to notify Customer of any failure to meet the Margin Requirements in Customer's account prior to IB UK, IB LLC or any of their Affiliates exercising any of their respective rights and remedies under this Agreement. Customer understands that IB UK, IB LLC, and their Affiliates shall not issue margin calls and that IB UK, IB LLC and their Affiliates shall not credit Customer's account to meet intraday margin deficiencies. Customer understands that IB UK (through IB LLC or another IB UK Affiliate) is authorized to liquidate positions in Customer's account in order to satisfy the Margin Requirements without prior notice to Customer.**

G. **Margin Trading Acknowledgement:** Customer acknowledges that where credit is extended to Customer pursuant to margin loan facilities provided under the terms of this Agreement, it is likely to exceed a sum equivalent to GBP25,000, at some stage. The maximum amount of the margin loan will be based on the account equity.

H. **Use of Margin:** Customer acknowledges and agrees that:

(1) IB UK, IB LLC or their Affiliates may use any margin in the form of securities for their own accounts or the accounts of any of their other Customers for the purposes of settling trades, in which event IB UK, IB LLC and its Affiliates shall not be liable for any loss or expense whatsoever that is suffered or incurred by Customer arising out of such use;

(2) IB UK may return to Customer (through IB LLC) margin in the form of securities which are equivalent, but not identical to, the securities Customer originally deposited with IB LLC; and

(3) Margin in the form of securities may be registered in the name of IB LLC, an IB LLC Affiliate, or such other person as IB LLC may determine. Any investments or documents of title will be held by IB LLC or any third party as IB LLC shall determine in relation to margin in the form of securities. IB LLC, IB UK and their Affiliates shall not be liable for any default by any other person holding such margin.

10. Client Money and Custody:

A. **IB LLC to Provide Client Money and Custody Services:**

(1) IB LLC shall provide certain client money and custody services for Customer and with respect to Customer's Transactions and IB UK accounts ("Client Money and Custody Services"). The Client Money and Custody Services shall include, without limitation: (a) accepting and holding all money submitted to fund Customer's account (including, without limitation, funds submitted for the purpose of satisfying Margin Requirements; (b) holding Customer's securities and other assets (including, without limitation, collateral and safe custody investments); (c) applying the Margin Requirements to Customer's account; (d) conducting stock lending activity with or for the Customer; (e) crediting Customer's account for any credit interest owed to Customer from IB UK; (f) debiting Customer's account for any daily or debit interest owed by Customer to IB UK; (g) transferring funds to Customer (e.g., upon Customer's request for a withdrawal of funds from Customer's account); and (h) under the circumstances set forth in this Agreement, effectuating the liquidation of Customer's positions or assets.

(2) Notwithstanding any other services provided by IB LLC to IB UK or to Customer pursuant to the Execution and Clearing Agreement referenced in this Agreement, Customer shall be a Customer of IB LLC, and not of IB UK, for the purposes of the provision of the Client Money and Custody Services only. The terms and conditions of this Agreement shall apply to IB LLC's provision of the Client Money and Custody Services to Customer. Notwithstanding the foregoing,

IB LLC may be a third party beneficiary to any portion of this Agreement or any other agreement between IB UK and Customer.

B. **United Kingdom Client Money and Custody Rules:**

(1) IB LLC is located outside of the United Kingdom and IB LLC may deposit and hold money, securities, and other assets (including, but not limited to, collateral and safe custody investments) on behalf of Customer in accounts that are located outside of the United Kingdom. The legal, regulatory, and settlement regime applicable to IB LLC and to the entities in which Customer's money, securities and other assets will be held will be different from that of the United Kingdom (i.e., any client money and custody Rules promulgated by the FCA will not apply). Among other things, different practices for the separate identification of Customer's money, securities, and assets may apply and, in the event of a default of IB LLC or the entity in which Customer's money, securities and other assets are held, Customer's money, securities and assets may be treated differently from the position that would apply if the money, securities or assets were held in the United Kingdom.

(2) To the extent that IB LLC holds Customer money, securities, or other assets, IB LLC will hold such money, securities, and assets in accordance with the rules of the U.S. Securities and Exchange Commission ("SEC") and the U.S. Commodity Futures Trading Commission ("CFTC"), as applicable.

C. **Use of Another Intermediate Broker, Agent, Settlement Agent, or OTC Counterparty Outside of the United Kingdom:** IB LLC may pass money, securities, or other assets held on Customer's behalf to another intermediate broker or agent, settlement agent, or OTC counterparty that also is located in a jurisdiction outside of the United Kingdom. In such circumstances, the legal, regulatory, and settlement regime applying to the intermediate broker, settlement agent, or OTC counterparty with which Customer's money, securities or other assets are held will be different from that of the United Kingdom (i.e., any client money and custody Rules promulgated by the FCA will not apply). Among other things, different practices for the separate identification of Customer's money, securities, and assets may apply, and, in the event of a default of the intermediate broker, settlement agent or OTC counterparty, the Customer's money, securities and assets may be treated differently from the position which would apply if such money, securities and assets were held by an intermediate broker, settlement agent or OTC counterparty in the United Kingdom.

D. **Submission and Disbursement of Funds:**

(1) **Funds to IB LLC:** Customer agrees to submit all funds related to any Transaction or to Customer's account or otherwise made pursuant to this Agreement (including, but not limited to, funds submitted to satisfy Margin Requirements) directly to IB LLC or to a designated financial institution with which IB LLC maintains an account, in accordance with the instructions then set forth on the IB UK website and in effect. IB UK reserves the right to amend such instructions, in its sole discretion, at any time, upon notice made by posting the amended instructions on the IB UK website.

(2) **Disbursement of Funds:** (a) Funds shall not be disbursed to Customer until after positions are settled and (b) Funds received by cheque shall not be disbursed prior to twelve (12) business days from the date of deposit by IB LLC.

E. **Delivery:** If, at any time, either: (1) Customer fails to deliver to IB LLC or to any of its Affiliates any property previously sold by IB LLC or its Affiliates on Customer's behalf, or fails to deliver any property in compliance with any transaction; or (2) IB LLC or any of its Affiliates is required or reasonably deems it advisable (whether by reason of the requirements of any

exchange, clearing organization or otherwise) to replace any property delivered by IB LLC or its Affiliates for Customer's account with other property of like or equivalent kind or amount, then: Customer authorizes IB LLC and its Affiliates, in their respective discretion, to borrow or to buy any property necessary to make delivery of property in compliance with any transaction or to replace any such property previously delivered and to deliver the same to such purchaser or other party to whom delivery is to be made, and if IB LLC or any of its Affiliates borrows or otherwise acquires property from a third party for such purposes, IB LLC and its Affiliates may subsequently pay for, or repay the loan of, such property with securities purchased or otherwise acquired for Customer's account.

F. **Stock Lending Activity:**

(1) Customer consents to IB LLC and its Affiliates undertaking, or otherwise engaging in, stock lending activity and the lending of Customer collateral, securities or other property (including, but not limited to, safe custody investments) including, but not limited to, using Customer collateral, securities or other property for their own accounts or for the accounts of other Customers, and lending, either to themselves, to their Affiliates, or to others, any Customer collateral, securities and other property held by IB LLC in Customer's accounts. Pursuant to Applicable Regulations, IB LLC or its Affiliates may, from time to time and without notice to Customer, deposit all collateral, securities and/or other Customer property with third parties and may pledge, re-pledge, hypothecate or re-hypothecate, all Customer collateral, securities and/or other Customer property, either separately or together with other securities and/or other property of other Customers of IB UK, IB LLC or their Affiliates, for any amount due to IB UK, IB LLC, their Affiliates or other persons, in any IB UK account in which Customer has an interest. IB LLC or its Affiliates, may so pledge, re-pledge, hypothecate or re-hypothecate Customer collateral, securities and/or other property without retaining in IB LLC's or its Affiliate's possession or under its control for delivery a like amount of similar collateral, securities and/or other property and IB LLC or its Affiliates may return to Customer collateral, securities and/or other property other than the original, or original type of, collateral, securities and/or property that Customer deposited with IB LLC. Collateral that is registered with a third party may not be in Customer's name.

(2) To the extent that IB LLC or its Affiliates undertakes any stock lending activity with or for Customer, Customer should be advised that:

(a) Such activity may affect Customer's tax position and Customer should consult his tax advisor prior to any involvement in this activity; and

(b) There may be consequences to such activity, including in relation to Customer's rights as holder of the designated investments.

G. **Interest:** IB UK (through IB LLC) shall pay credit interest to Customer and shall charge debit interest to Customer at such interest rates and on such credit or debit balances as are then set forth on the IB UK website. IB UK reserves the right, in its sole discretion, to amend its credit and debit interest policies, interest rates and the frequency with which interest is charged, at any time, upon notice made by posting the amended policies or rates on the IB UK website.

H. **Taxes:** IB UK, through IB LLC, may, in its discretion, deduct or withhold from any Customer account or from any amount due to Customer all forms of tax (whether a tax of the United Kingdom or elsewhere in the world and whenever imposed) in accordance with Applicable Regulations. In accounting for taxes or in making deductions or withholdings of tax, IB UK may estimate the amounts concerned. Any excess of such estimated amounts over the final confirmed liability shall be credited to the Customer's account. Any deficiency of such estimated amounts under the final confirmed liability may be deducted or retained from any amounts that IB UK or its Affiliates may owe to, or be holding for, Customer.

11. **Cash Account Deficits:** If a cash (non-margin) account incurs a deficit for any reason, margin interest will be charged on the debit balance owed by Customer to IB UK until the deficit is repaid. In their respective discretion, IB UK and its Affiliates shall have the right, but not the obligation, to treat a cash (non-margin) account that has incurred a deficit as a margin account, in which case the terms and conditions specified in this Agreement relating to margin shall apply. For any Customer deficit in any account type that remains unpaid, Customer agrees to pay and shall be liable for the reasonable costs and expenses of the collection of the debit balance, including, but not limited to, attorneys' fees and/or collection agent fees.

12. Universal Accounts:

A. Customer acknowledges that an IB UK Universal Account consists of two underlying accounts: (1) an account for trading securities and equity options, which is carried by IB LLC pursuant to SEC regulations and (2) an account for trading futures and options on futures, which is carried by IB LLC pursuant to CFTC regulations. Customer understands and acknowledges that the Universal Account is actually two separate accounts for bookkeeping and regulatory purposes. Customer authorizes IB UK, IB LLC and their Affiliates to combine information regarding the separate securities/equity options and futures/options on futures accounts including but not limited to, trade confirmations and position and margin information, into a single statement sent to Customer.

B. Customers utilizing IB UK’s Universal Account functionality authorize IB UK (through IB LLC) to transfer cash, at any time, between and among any of Customer’s underlying securities/equity options and futures/options on futures accounts to cover any obligations (e.g., funds needed for the purchase of investment products) or Margin Requirements in any other of Customer's accounts. Customer acknowledges the right of IB UK and its Affiliates to liquidate positions in any of Customer's underlying securities/equity options or futures/options on futures accounts to cover any deficit in any other account, in accordance with the provisions of this Agreement.

C. Customer’s utilizing IB UK’s Universal Account functionality acknowledge that the funds and positions in the underlying futures/options on futures account are not entitled to any U.S. Securities Investor Protection Corporation ("SIPC") protection nor to any excess SIPC-type insurance coverage that may be provided by IB UK or its Affiliates.

13. Provisions Relating to Multi-Currency Enabled Margin Accounts:

A. **Operation of Multi-Currency Accounts:** The IB Multi-Currency Account function gives IB UK Customers the ability to trade securities or futures contracts that are denominated in different currencies using a single IB UK account that is denominated in a "base" currency of the Customer's choosing. When a Customer purchases a security or futures contract denominated in a currency other than the base currency, a margin loan is established to fund the purchase. This margin loan is secured by Customer funds held by IB UK (through IB LLC) in the Customer's base currency and in other currencies and by Customer's securities and futures contract positions to the extent allowed by law.

B. **Foreign Currency Exchange Transaction Facility:** Customers with Multi-Currency enabled accounts may exchange cash funds between the base currency and other currencies through spot foreign exchange transactions executed through the IB system. Customers can use these spot foreign exchange transactions to convert funds to repay margin balances, to convert gains generated on investments denominated in foreign currency back into the base currency, or to take positions in particular currencies for purposes of investment or speculation.

C. **Foreign Currency Exchange Transactions:** For foreign currency exchange transactions

executed through IB UK's spot foreign currency exchange facility, IB UK, IB LLC or one of their Affiliates generally will act as agent or riskless principal and may effect such transactions through an IB UK Affiliate, which may earn a profit (or suffer a loss) in connection with such transactions. Customer shall pay a transaction fee to IB UK (through IB LLC) for each foreign exchange transaction, which IB UK (through IB LLC) may deduct from Customer's account. IB UK may modify the transaction fee rates upon notice to Customer via the IB UK website or otherwise.

D. **Margin:** Customer is obligated to maintain sufficient funds in Customer's Multi-Currency enabled account at all times to meet the Margin Requirements set by IB UK, or be subject to liquidation of positions as described in this Agreement. If Customer maintains positions denominated in foreign currencies, the IB system will calculate the margin required to carry those positions by applying exchange rates specified by IB UK and translating the foreign currency margin balances into the base currency specified by the Customer (Customer understands that this is a pro forma calculation - no funds will actually be converted for purposes of margin calculations). **IN TRANSLATING THE CUSTOMER'S FOREIGN CURRENCY MARGIN REQUIREMENTS INTO THE BASE CURRENCY, IB UK (THROUGH IB LLC) WILL APPLY "HAIRCUTS" (A PERCENTAGE DISCOUNT ON THE FOREIGN CURRENCY EQUITY AMOUNT) TO REFLECT THE POSSIBILITY OF FLUCTUATION IN EXCHANGE RATES BETWEEN THE BASE CURRENCY AND THE FOREIGN CURRENCY. CUSTOMER THEREFORE MUST CLOSELY MONITOR MARGIN REQUIREMENTS AT ALL TIMES, PARTICULARLY FOR POSITIONS DENOMINATED IN FOREIGN CURRENCIES (BECAUSE CURRENCY FLUCTUATION, IN ADDITION TO FLUCTUATION IN THE VALUE OF THE UNDERLYING POSITION, CAN CAUSE CUSTOMER TO INCUR A MARGIN DEFICIT).**

E. **Foreign Currency Exchange Rates:** If IB UK or any of its Affiliates enters into a Transaction that is effected in a currency other than the currency provided by Customer to IB UK (through IB LLC), then any loss arising from a fluctuation in the exchange rate affecting the foreign currency will be at Customer's risk. Upon liquidation of such transaction, IB UK (through IB LLC), in its discretion, may debit or credit Customer's account, in such foreign currency or other currency at the rate then prevailing at the time of the liquidation as IB UK shall reasonably select.

F. **Right to Refuse Orders:** These provisions do not evidence the commitment of IB UK or IB LLC to enter into foreign currency exchange transactions generally or to enter into any specific foreign currency exchange transaction. IB UK and IB LLC reserve the right, exercisable at any time in their sole respective discretion, to refuse: (1) acceptance of Customer's orders, or (2) to quote a two-way market.

G. **Authorization to Transfer Funds:** Customer agrees that IB UK (through IB LLC) may transfer to or from Customer's regulated securities/equity options account or futures/ options on futures account(s) from or to any of Customer's non-regulated foreign currency account, funds or securities that may be required to avoid margin calls, reduce debit balances or for any other reason that is not in conflict with Applicable Regulations.

H. **Netting Provisions:**

(1) Netting by Novation. Each foreign currency transaction made between Customer and IB UK, IB LLC or any of their Affiliates will immediately, upon its being entered into, be netted with all then existing foreign currency transactions between Customer and IB UK, IB LLC and their Affiliates for the same currencies so as to constitute a single foreign currency transaction.

(2) Payment Netting. If on any delivery date more than one delivery of a particular currency is to be made between Customer and IB UK, IB LLC or one of their Affiliates pursuant to a foreign currency transaction, each party shall aggregate the amounts deliverable by it and only the

difference, if any, between these aggregate amounts shall be delivered by the party owing the larger amount to the other party.

(3) Close-Out Netting. In the event Customer: (a) incurs a margin deficit in any IB UK account, (b) defaults in the payment or performance of any obligation to IB UK or IB LLC under any agreement with IB UK or IB LLC, (c) becomes the subject of a bankruptcy, insolvency or other similar proceeding, or (d) fails to pay its debts generally as they become due, IB UK, IB LLC and their Affiliates shall be entitled, in their discretion, immediately and at any time, to close-out all Customer's foreign currency transactions by converting them to the base currency, and may, in their respective discretion, at any time or from time to time, liquidate all or some of Customer's collateral in the possession or control of IB UK, IB LLC or their Affiliates on any commercially reasonable basis and apply the proceeds of such collateral to any amounts owing by Customer to IB UK or IB LLC resulting from the close-out of such foreign currency transactions.

(4) Notwithstanding anything to the contrary set forth above regarding the rights of IB UK, IB LLC or their Affiliates to close-out foreign currency transactions, if an event specified in clause (c) of sub-section (3) has occurred, then upon the occurrence of such event, all outstanding foreign currency transactions will be deemed to have been automatically terminated as of the time immediately preceding the institution of the relevant proceeding, or the presentation of the relevant petition upon the occurrence with respect to Customer of such specified event.

(5) The rights of IB UK, IB LLC and their Affiliates under this section shall be in addition to, and not in limitation or exclusion of any other rights that IB UK, IB LLC or their Affiliates may have (whether by agreement, operation of law or otherwise).

14. IB UK and its Affiliates:

A. Relationship between IB UK and IB LLC: Customer acknowledges that it has read and understands the Notice of Execution and Clearing Agreement set forth above consents to the relationship between IB UK and IB LLC as described therein.

B. Regulation of IB UK: IB UK is regulated in the United Kingdom by the FCA. IB UK's principal place of business in the United Kingdom is located at: One Carey Lane, Fifth Floor, London EC2 V8AE.

C. Regulation of IB LLC: IB LLC is regulated in the United States by the SEC, the CFTC and various self-regulatory organizations. IB LLC's principal place of business in the United States is located at One Pickwick Plaza, Greenwich, CT 06830.

D. Financial statements: A copy of IB LLC's audited financial statements, as prepared, are available to Customer through IB LLC's website and, upon request, by mail. Customer shall rely only upon the financial condition of IB UK or IB LLC, as applicable, in connection with their respective obligations and responsibilities under this Agreement. Under no circumstances, shall Customer rely on the financial condition of their respective Affiliates.

E. Affiliates' Rights and Liabilities: Affiliates of IB UK and IB LLC are not liable for the acts and omissions of IB UK and IB LLC, respectively. All of IB UK's and IB LLC's rights, remedies and limitations on liability under this Agreement shall inure to the benefit of their affiliated companies.

15. Proprietary Trading and Display of Customer Orders: Subject to Applicable Regulations, Customer authorizes IB UK and IB LLC to engage in proprietary trading, and to execute the proprietary trades of their respective Affiliates, even though IB UK or IB LLC may simultaneously hold unexecuted Customer orders for the same products which could be executed at the same price.

16. Material Interest: IB UK or its Affiliates may, when arranging deals or dealing for Customer, have an interest relationship or arrangement that is material including, without limitation: (A) Dealing in the investment concerned or a related investment or an asset underlying the investment, as principal for IB UK's or the Affiliate's own account or that of someone else, including selling to or buying from Customer; (B) Combining Customer's orders with IB UK's own orders, the orders of IB UK's Affiliates, or the orders of the Customers of IB UK or its Affiliates; (C) Matching (e.g., by way of a cross) Customer's order with that of another Customer by acting on his behalf as well as that of Customer; (D) Buying from Customer and either selling or not selling immediately to another Customer or vice versa; (E) Holding a position (including a short position in the investment concerned, a related investment or an asset underlying the investment); (F) Quoting prices to the market in the investment, a related investment or the asset underlying the investment; and (G) Arranging deals and providing other services to associates or Customers who may have interests in investments or underlying assets which conflict with Customer's own. Customer authorizes IB UK, its Affiliates, or their customers, to act as buyers with respect to orders given by Customer to IB UK to sell for Customer's accounts, or as sellers with respect to orders given by Customer to IB UK to buy for Customer's accounts. Customer accepts that IB UK and/or its Affiliates may have interests which conflict with Customer's interests and may owe duties which conflict with duties which would otherwise be owed to Customer and consents to the same. This consent is subject to the Rules of the exchanges or markets on which such transactions occur and other Applicable Regulations.

17. IB UK Website: Customer agrees to monitor the IB UK website at www.interactivebrokers.co.uk for information regarding IB UK's services. Customer understands that, to the extent that this Agreement varies from material on the IB UK website, this Agreement controls.

18. Risks: Customer acknowledges that trading securities, options, futures, currencies and investments traded on foreign markets is a highly speculative activity involving a high degree of risk, arising from the use of leverage and rapidly fluctuating markets. Customer represents that Customer is willing and able to assume these risks. Customer hereby agrees to hold IB UK; IB UK's Affiliates; and their respective directors, officers, partners, employees, associates, and agents harmless against any costs, expenses, losses, claims, liabilities or damages that result from Customer's trading. Customer acknowledges that there are special characteristics and unique risks associated with trading in securities, options, futures and other investment products at times that are outside the ordinary trading hours for the exchanges or markets upon which such products are traded. Such risks include, but are not limited to, the risk of lower liquidity, the risk of higher volatility, the risk of changing prices, the risk arising from unlinked markets, the risk of news announcements affecting prices, and the risk of wider spreads.

19. Alternative Trading Arrangements: Electronic and computer-based facilities and systems such as those provided to Customer and used by IB UK and its Affiliates are inherently vulnerable to disruption, delay or failure and such facilities and systems may be unavailable to Customer as a result of foreseeable and unforeseeable events. **CUSTOMER MUST MAINTAIN ALTERNATIVE TRADING ARRANGEMENTS IN ADDITION TO CUSTOMER'S ACCOUNT FOR THE PLACEMENT AND EXECUTION OF CUSTOMER'S ORDERS IN THE EVENT THAT THE IB SYSTEM IS UNAVAILABLE.** By signing this Agreement, Customer represents that Customer shall maintain such alternative trading arrangements.

20. Price Quotations, Market Information, News, Research and Internet Links:

A. The price quotations, market information, news and research accessible through the IB UK website, through the websites of IB UK Affiliates, or through the other services or facilities

provided IB UK or its Affiliates including, without limitation, the "Trader Toolbox" (collectively, "Information") may be prepared by exchanges or other information providers that are independent of IB UK and IB UK's Affiliates ("Third Party Information Providers"). None of the Information constitutes advice or a recommendation by IB UK or its Affiliates or a solicitation of any offer to buy or sell any securities, options, futures, or other investment products.

B. IB UK, its Affiliates, and the Third Party Information Providers do not guarantee the accuracy, timeliness, or completeness of the Information. Reliance on the quotes, data and Information is at Customer's own risk. Customer should conduct further research and analysis or consult an investment advisor before making investment decisions and Customer retains full responsibility for making all trading decisions with respect to Customer's account. **IN NO EVENT SHALL IB UK, IB UK'S AFFILIATES, OR THE THIRD PARTY INFORMATION PROVIDERS BE LIABLE FOR COSTS, EXPENSES, FEES, PENALTIES, CLAIMS, LOSSES, DAMAGES OR LIABILITIES, OF ANY KIND, ARISING FROM THE USE OF THE INFORMATION, INCLUDING, BUT NOT LIMITED TO, CONSEQUENTIAL, INCIDENTAL, SPECIAL OR INDIRECT DAMAGES. THERE IS NO WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, REGARDING THE INFORMATION, INCLUDING A WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR A PARTICULAR USE OR WARRANTY OF NON-INFRINGEMENT.**

C. The Information is the property of IB UK, IB UK's Affiliates, the Third Party Information Providers, or their licensors and is protected by applicable intellectual property law (e.g., patent, copyright and trademark law). Customer agrees not to reproduce, re-transmit, disseminate, sell, distribute, publish, broadcast, circulate or commercially exploit the Information, in any manner, without the express written consent of IB UK, IB UK's Affiliates, or the Third Party Information Providers, as applicable. IB UK and its Affiliates reserve the right to terminate access to the Information, at any time, without notice to Customer.

D. Links to outside websites ("Outside Websites") are provided for the convenience of Customers and other IB UK website visitors only and do not constitute advice or a recommendation by IB UK or its Affiliates or a solicitation of any offer to buy or sell any securities, options, futures, or other investment products. Such links lead to third-party websites that are independent of IB UK and its Affiliates. Neither IB UK nor its Affiliates guarantee or warrant the accuracy, timeliness or completeness of any information provided on the Outside Websites. Reliance on the information on the Outside Websites is at Customer's own risk. In no event shall IB UK or its Affiliates be liable for costs, expenses, losses, claims or damages, of any kind, arising from the use of the Outside Websites including, but not limited to, consequential, incidental, special or indirect damages. IB UK and its Affiliates reserve the right to terminate any link to any Outside Website, at any time, without notice to Customer.

21. License to Use IB Software and Related Restrictions: IB UK and its Affiliates grant to Customer and Customer accepts a non-exclusive and non-transferable license to use IB's proprietary software to communicate with the IB System ("IB Software"), solely as provided herein. Title to the IB Software shall remain the sole property of IB UK and its Affiliates, including without limitation, all applicable rights to patents, copyrights and trademarks. Customer shall secure and protect the IB Software in a manner consistent with the maintenance of IB UK's and its Affiliates' ownership and rights therein and shall not sell, exchange, or otherwise transfer the IB Software to others. IB UK and its Affiliates shall be entitled to obtain immediate injunctive relief against threatened breaches of the foregoing undertakings. Customer shall not copy, modify, translate, decompile, reverse engineer, disassemble or otherwise reduce to a human readable form, or adapt, the IB Software or use it to create a derivative work, unless authorized to do so by an officer of IB UK in a writing that has been confirmed by IB UK's Secretary. Any updates, replacements, revisions, enhancements, additions or conversions to the IB Software supplied to Customer by IB UK or its Affiliates shall become subject to this Agreement.

22. Account Application Materials:

A. Customer acknowledges that: (1) the Customer's account application and any information and documentation submitted by Customer in relation thereto (collectively, "Account Application Materials") are incorporated herein by reference and made a material part of this Agreement and (2) all of the information contained in the Account Application Materials is true and complete.

B. Customer agrees that, if any information provided by Customer in the Account Application Materials changes, ceases to be true, or becomes materially misleading (including, but not limited to, the ownership or beneficial interest in Customer's account), Customer shall make the appropriate change to Customer's account information using the procedures available on the IB UK website or shall contact the IB Customer Service Department for further instructions via an e-mail addressed to help@interactivebrokers.com, specifying "Attn: IB UK Compliance Director" in the subject field. Customer authorizes IB UK and its Affiliates to make any inquiry they deem appropriate, at any time, to verify any Customer information. Customer agrees to provide to IB UK, upon IB UK's request, any additional information or documentation that it deems necessary or desirable including, but not limited to, any information or documentation requested to verify or re-verify the identity of Customer or related persons.

23. Other Customer Representations and Warranties:

A. If Customer is an individual, Customer represents and warrants that, as at the date of this Agreement and each time Customer places an order and or executes a Transaction, Customer: (1) has attained eighteen [18] years of age; (2) has all necessary legal capacity to enter into this Agreement and to place orders under this Agreement; (3) is financially sophisticated; (4) has sufficient experience with the securities, options, futures, and other investment products to be traded in Customer's account; and (5) is knowledgeable about the risks and characteristics of such products.

B. If Customer is not an individual (e.g., is a corporation, unincorporated business, partnership or trust), Customer and each of Customer's authorized representatives represent and warrant that, as of the date of this Agreement and each time they place an order and/or execute a Transaction: (1) it is duly incorporated and validly existing under the laws of its place of organization or formation; (2) it has, and will have, pursuant to its articles of incorporation, partnership agreement, charter, by-laws, operating agreement or other governing document(s) ("Governing Documents") and the jurisdictions in which Customer is registered, authorized, and/or regulated, the power and authority to enter into, exercise its rights, and perform or comply with its obligations under this Agreement and each order; (3) it has, and will have, pursuant to its Governing Documents and the jurisdictions in which Customer is registered, authorized, and/or regulated, the power and authority to trade the securities, options, futures, and other investment products to be traded in Customer's account; (4) it has and will have taken all necessary action to authorise the exercise, performance, and execution of this Agreement and any other document relating to this Agreement to which Customer is a party; (5) it is under no legal incapacity; (6) it is financially sophisticated; (7) it has sufficient experience with, and is knowledgeable about, the risks and characteristics of the securities, options, futures, and other investment products to be traded in Customer's account; and (8) the persons which Customer identifies to IB UK as authorized to enter orders and trade on behalf of Customer have full authority to do so.

C. If Customer is a trust, "Customer" as used herein refers to the Trust and/or the Trustees. The Trustee(s) hereby represent(s) that: (1) There are no other Trustees of the Trust other than those identified in the Account Application Materials; (2) IB UK and its Affiliates have the authority to accept orders and other instructions relative to this account from the Trustee(s). Trustee(s) hereby certifies(y) that IB UK and its Affiliates are authorized to follow the instructions of any Trustee and to deliver funds, securities, or any other assets in this account to any Trustee or on

any Trustee's instructions, including delivering assets to a Trustee personally. IB UK and any of its Affiliates, in their respective sole discretion and for their respective sole protection, may require the written consent of any or all Trustee(s) prior to acting upon the instructions of any Trustee; (3) Trustee(s) have (have) the power under the Trust, the documents governing the Trust ("Trust Agreement") and applicable law to enter into this Agreement and open the type of IB UK account applied for, and to enter into Transactions and issue instructions for this account. To the extent that the following activities are permitted for the type of account being opened, such powers may include, without limitation, the authority to buy, sell (including short sales), exchange, convert, tender, redeem and withdraw assets (including delivery of securities to and from the account) to trade securities on margin or otherwise (including the purchase and/or sale of option contracts), and/or the authority to trade futures and/or options on futures, for and at the risk of the Trust; (4) Should only one Trustee execute this Agreement, it shall be a representation that such Trustee has the authority, pursuant to the Trust Agreement, to execute this Agreement and to enter into transactions and issue instructions for this account as described above, without acknowledgement or consent by the other Trustees; (5) Trustee(s) certifies(y) that any and all Transactions effected and instructions given regarding this account will be in full compliance with the Trust, the Trust Agreement, and Applicable Regulations; (6) Trustee(s), jointly and severally, shall indemnify IB UK and its Affiliates and hold IB UK and its Affiliates harmless from any claim, loss, expense or other liability for effecting any Transactions, and acting upon any instructions given by the Trustee (s); (7) Trustee(s), agree(s) to inform IB UK of any material change in any information provided in the Account Application Materials by an e-mail addressed to the IB UK Customer Service Department at help@interactivebrokers.com; and (8) Trustee(s) represent(s) that the statements and certifications made herein and the information provided in the account application process are true and correct, and authorizes IB UK and any of its Affiliates to confirm their accuracy as it deems necessary.

D. If Customer is a regulated entity or affiliated with a regulated entity: Customer represents and warrants to IB UK that, as at the date of this Agreement and each time it places an order and/or executes a Transaction, unless Customer has notified IB UK to the contrary in its Account Application Materials, Customer is not: (1) a broker-dealer, futures commission merchant, or comparable securities, futures or investment professional; (2) an affiliate, associated person or employee of a broker-dealer, futures commission merchant, or comparable securities, futures or investment professional; or (3) an affiliate, associated person, or employee of any exchange, clearing house or regulatory agency or self-regulatory organization. Customer agrees to notify IB UK immediately by an e-mail addressed to the IB Customer Service Department at help@interactivebrokers.com if Customer becomes employed by, affiliated with, or associated with, a broker-dealer, futures commission merchant, or comparable securities, futures or investment professional, or if Customer becomes registered with, or authorized by, the National Association of Securities Dealers, Inc. ("NASD"); the National Futures Association ("NFA"); the SEC; the CFTC; the FCA; or any other financial regulatory agency or self-regulatory organization.

E. Customer shall promptly notify IB UK in an e-mail addressed to help@interactivebrokers.com, specifying "Attn: IB UK Compliance Director" in the subject heading, in the event that any of the above representations or warranties materially changes or ceases to be true and correct. Without limiting the generality of the foregoing, Customer specifically agrees to notify IB UK immediately in the event that: (1) If Customer is a corporation, unincorporated business, partnership, or trust, there is a significant change in the nature of Customer's business or ownership; (2) If Customer is an unincorporated business or partnership, the authorized signatories of the business or partnership change; and (3) if Customer is a trust, any trustee is replaced. In all of the foregoing events, Customer agrees to provide to IB UK any additional information or documentation that IB UK deems necessary or desirable, upon IB UK's request.

24. Joint Accounts: For joint accounts, each joint account holder agrees that each joint account holder shall have authority, without notice to the other joint account holder to: (A) buy and sell securities, options, futures, or other investment products on margin, or otherwise, depending upon the type of account; (B) receive confirmations, statements, and Records and Communications of every kind related to the account; (C) receive and dispose of money, securities and/or other investments, assets or property in the account; (D) make, terminate, or agree to a modification of this Agreement; (E) waive any of the provisions of this Agreement; and (F) generally to deal with IB UK, IB LLC and their Affiliates as if each joint account holder alone was the sole holder of the account. Each joint account holder agrees that notice to any joint account holder shall constitute notice to all joint account holders. Each joint account holder further agrees that he or she shall be jointly and severally liable to IB UK and its Affiliates with respect to all matters relating to the account. IB UK and its Affiliates may follow the instructions of any of the joint account holders concerning the account and make delivery to any of the joint account holders of any and all securities and/or other property in the account, and make payments to any of the joint account holders, of any or all monies in the account as any of the joint account holders may order and direct, even if such deliveries and/or payments shall be made to only one of the joint account holders personally.

In the event of the death of any of the joint account holders, the surviving joint account holders shall immediately give IB UK notice by registered mail to "Interactive Brokers (U.K.) Limited - Attn: Compliance Director" and IB UK and its Affiliates, may, before or after receiving such notice, initiate such proceedings, require such documents, retain such portion and/or restrict transactions in the account as it deems advisable, in its sole discretion, to protect themselves against any tax, liability, penalty or loss under any present or future laws or otherwise. The estate of any deceased joint account holder shall be liable and each survivor shall be liable, jointly and severally, to IB UK and its Affiliates for any debt or loss in the account or debt or loss incurred in the liquidation of the account or the adjustment of the interests of the joint account holders. Unless the joint account holders indicated to the contrary when the IB UK account was opened, IB UK and its Affiliates may presume that it is the express intention of the joint account holders to hold the account as joint tenants with rights of survivorship. In the event of the death of any of the joint account holders, the entire interest in the account shall be vested in the surviving joint account holders on the same terms and conditions as theretofore held, without in any manner releasing the deceased joint account holder's estate from liability.

25. Default:

A. **Events of Default:** An "Event of Default" hereunder shall occur automatically, without notice to Customer, if:

(1) Customer breaches, repudiates, or fails to perform any obligations under the terms of this Agreement (including, without limitation, Customer's agreement to provide margin), any agreement with any third party or any Transaction, or fails to timely discharge any other obligation to IB UK, IB LLC or their Affiliates;

(2) Customer's account balance, at any time, has zero equity, is in deficit, or is insufficient to satisfy Margin Requirements;

(3) Customer, at any time, fails to make payment of any other amount or make or take delivery of any property when due under any Transaction or pursuant to this Agreement;

(4) IB UK or any of its Affiliates executes an order for which the Customer did not have sufficient funds;

(5) Customer has not offset a commodity options contract position at least one (1) hour prior to the time specified by an exchange for final settlement;

(6) Customer has not closed-out any position in a futures contract not settled in cash by the close-out deadline;

(7) Any dispute arises concerning any Customer trade;

(8) IB UK or any of its Affiliates, in their respective sole discretion, determine that it has sufficient grounds for insecurity with respect to Customer's performance of any obligation to any person including, but not limited to, Customer's obligations under any Transaction or pursuant to this Agreement and, immediately after demand, Customer fails to provide assurance of performance of the obligation satisfactory to IB UK;

(9) IB UK or any of its Affiliates consider liquidation necessary or desirable for its own protection or to prevent what IB UK or any of its Affiliates may, in its discretion, consider to be a violation of any Applicable Regulations or good standards of market practice;

(10) Customer is unable to pay its debts as they fall due or is bankrupt or insolvent, as defined under any bankruptcy or insolvency law applicable to Customer; or any indebtedness of Customer is not paid on the due date or becomes capable, at any time, of being declared due and payable under agreements or instruments evidencing such indebtedness before it would otherwise have been due and payable;

(11) Customer commences a voluntary case or other procedure seeking or proposing liquidation, protection from creditors, reorganization, an arrangement or composition, a freeze or moratorium or other similar relief with respect to Customer or its debts under any bankruptcy, insolvency, regulatory, supervisory or similar law (including any corporate or other law with potential application to Customer, if insolvent), or seeking the appointment of a receiver, liquidator, conservator, administrator, custodian, examiner, trustee or other similar official (each a "Custodian") of Customer or any part of Customer's assets; or if Customer takes any corporate action to authorize any of the foregoing and, in the case of a reorganization, arrangement or composition, IB UK or any of its Affiliates do not consent to the proposals;

(12) An involuntary case or other procedure is commenced against Customer seeking or proposing reorganization, or an administration order, liquidation, an arrangement or composition, a freeze or moratorium, or other similar relief with respect to Customer or its debts is imposed under any bankruptcy, insolvency, regulatory, supervisory or similar law (including any corporate or other law with potential application to Customer if insolvent);

(13) Any other proceedings are commenced by or against Customer under any bankruptcy, insolvency, relief of debtors, or similar law; or any proceedings are commenced for any execution, any attachment or garnishment, or any distress against, or an encumbrancer takes possession of, the whole or any part of Customer’s property, undertakings or assets (whether tangible or intangible);

(14) A Custodian is appointed for Customer or any of Customer's property;

(15) Customer makes an assignment for the benefit of creditors;

(16) Customer or any organization of which Customer is a member suspends or threatens to suspend the transaction of its usual business;

(17) Customer is dissolved, or, if its existence is dependent upon a form of registration or authorization, such registration or authorization is removed or ends, or any procedure is commenced seeking or proposing its dissolution or the removal or ending of such registration or authorization;

(18) An application for ancillary relief is made, relating to the property or entitlement under any contract of Customer in any matrimonial proceedings relating to Customer;

(19) Any other proceeding is commenced with respect to any of Customer's property or involving any organization of which Customer is a member;

(20) Any representation or warranty made or given, or deemed to have been made or given, by Customer, to IB UK or any of its Affiliates, whenever or wherever made, or any Transaction, was false or misleading at the time it was made or given, or deemed to be made or given, or later becomes untrue;

(21) Customer dies, becomes legally incompetent, becomes of unsound mind or becomes incapable, by reason of mental disorder, of managing and administering his property and affairs;

(22) Customer fails to provide to IB UK, upon request, any information or documentation requested by IB UK for purposes of verifying the identity of Customer or any of the Customer's directors, principals, shareholders, owners, authorized signatories or traders, settlors, trustees or other persons whose identity IB UK wishes to identify for purposes of detecting money laundering; or

(23) IB UK or any of its Affiliates has reason to believe that any of the foregoing is likely to occur imminently.

B. **Default Action:** Customer absolutely and unconditionally agrees that, after the occurrence of any Event of Default, IB UK and its Affiliates shall have the right, in their respective sole discretion, but not the obligation, to take any one or more of the following actions, by themselves or through IB LLC or another IB UK Affiliate, at any time, without prior notice or demand to Customer: (1) to terminate this Agreement, any or all of IB UK's and/or IB LLC's obligations to Customer for future performance thereunder, and/or Customer's use of the facilities and services provided by or through IB UK or any of its Affiliates; (2) to liquidate, sell, or close-out any or any part of Customer's Transactions or open positions or the cash, security or other property in any of Customer's accounts, whether carried individually or jointly with others, at any time, in any such manner (including by the entry of offsetting transactions), and in any market as IB UK or its Affiliates deem necessary; (3) to hedge and/or offset such Transactions, open positions, cash, securities and other property in the cash or other market, including a related but separate market; (4) to cancel any open orders for the purchase of any Transactions; (5) to borrow and/or buy any property required to make delivery against any sales, including short sales, effected for Customer; or (6) to exercise any or all option contracts to which Customer is a party. In the event of a liquidation upon an Event of Default, Section 26 of this Agreement will apply.

C. **Set-off Rights:** IB UK and its Affiliates shall be entitled, through IB LLC, at any time, in its discretion, and without notice to Customer, to, (1) debit any sums due to IB UK, IB LLC, or their Affiliates under this Agreement (including any sums due pursuant to any Transaction) to any of Customer's accounts which are held on the books of IB UK, IB LLC, or their Affiliates; (2) convert any sums at such current rates as IB UK, IB LLC, or their Affiliates consider appropriate into such currencies as IB UK, IB LLC, or their Affiliates may consider appropriate; and (3) merge, consolidate or combine all or any such accounts and set off any amount (whether actual or

contingent, present or future) at any time owing to IB UK, IB LLC, or their Affiliates to Customer or standing to the credit of Customer on any account against any amount (whether actual or contingent, present or future) owing by Customer to IB UK , IB LLC, or their Affiliates. Any security given to IB UK, IB LLC or to any of their Affiliates by or with respect to Customer, for any purpose, shall extend to any amount owing from Customer to IB UK, IB LLC or their Affiliates, after such exercise of such right of set-off.

D. **Additional Rights:** The rights set forth in Sections 25.B and 25.C of this Agreement shall be in addition to, and not in limitation or exclusion of, any other rights IB UK or its Affiliates may have under this Agreement or Applicable Regulations.

26. Liquidation of Positions and Offsetting Transactions:

A. **IB UK, IB LLC, AND THEIR AFFILIATES SHALL HAVE THE RIGHT, IN THEIR RESPECTIVE SOLE DISCRETION, BUT NOT THE OBLIGATION, TO LIQUIDATE ALL OR ANY PART OF CUSTOMER'S ASSETS OR POSITIONS IN ANY OF CUSTOMER'S ACCOUNTS, WHETHER CARRIED INDIVIDUALLY OR JOINTLY WITH OTHERS (INCLUDING BY THE ENTRY OF OFFSETTING TRANSACTIONS), AT ANY TIME, IN ANY SUCH MANNER, AND IN ANY MARKET, AS IB UK, IB LLC, OR THEIR AFFILIATES DEEM NECESSARY, WITHOUT PRIOR NOTICE OR MARGIN CALL TO CUSTOMER IN THE EVENT THAT; (1) CUSTOMER'S ACCUONT HAS ZERO EQUITY; (2) CUSTOMER'S ACCOUNT IS IN DEFICIT; (3) CUSTOMER'S ACCOUNT DOES NOT HAVE A SUFFICIENT ACCOUNT BALANCE TO MEET MARGIN REQUIREMENTS; (4) AN EVENT OF DEFAULT HAS OCCURRED; (5) THIS AGREEMENT HAS BEEN TERMINATED; (6) IF IB UK, IB LLC OR ANY OF THEIR AFFILIATES EXECUTES AN ORDER FOR WHICH THE CUSTOMER DID NOT HAVE SUFFICIENT FUNDS; OR (7) WHENEVER IB UK, IB LLC OR ANY OF THEIR AFFILIATES DEEMS LIQUIDATION NECESSARY OR ADVISABLE FOR THE PROTECTION OF IB UK, IB LLC OR ANY OF THEIR AFFILIATES.**

B. Customer acknowledges and agrees that IB UK (through IB LLC) deducts commissions and various other fees (including, but not limited to, market data fees) from Customer accounts and that such deductions may affect the amount of equity in Customer's account to be applied against the Margin Requirements. Customer positions are subject to liquidation as described herein if deduction of the commissions, fees or other charges causes Customer's account to have an insufficient balance to satisfy the Margin Requirements.

C. Customer expressly waives any rights to receive prior notice or demand from IB UK, IB LLC or their Affiliates and agrees that any prior demand, notice, announcement or advertisement shall not be deemed a waiver of the rights of IB UK, IB LLC or their Affiliates to liquidate any Customer positions or assets. Customer understands that, in the event that IB UK, IB LLC or any of their Affiliates liquidate any of Customer's positions or assets, Customer shall have no right or opportunity to determine the securities to be liquidated or the order or manner of liquidation. IB UK, IB LLC or any of their Affiliates may, in their sole respective discretion, effect a liquidation on any exchange, Electronic Communications Network ("ECN") or other market, and IB UK, IB LLC or any of their Affiliates may take the other side of such liquidating transaction. In the event that IB UK, IB LLC or their Affiliates liquidates any or all positions or assets in Customer's account, such liquidation shall establish the amount of Customer's gain or loss and indebtedness to IB, if any.

D. **CUSTOMER AGREES TO BE RESPONSIBLE FOR, AND TO PROMPTLY PAY TO IB UK, IB LLC OR THEIR AFFLIATES (THROUGH IB LLC), ANY DEFICIENCIES IN CUSTOMER'S ACCOUNT THAT ARISE FROM A LIQUIDATION OR REMAIN AFTER A LIQUIDATION. IB UK, IB LLC, AND THEIR AFFILIATES MAY APPLY ANY AND ALL PROCEEDS FROM ANY LIQUIDATION IN SETTLEMENT, SATISFACTION OR REIMBURSEMENT OF ANY COSTS, EXPENSES, FEES (INCLUDING, BUT NOT LIMITED TO, ATTORNEYS' FEES), PENALTIES,**

CLAIMS, LOSSES, DAMAGES OR OTHER AMOUNT INCCURRED BY IB UK, IB LLC OR THEIR AFFILIATES UNDER, OR IN CONNECTION WITH, ANY OF THE CUSTOMER'S ACCOUNTS OR TRANSACTIONS.

E. **IB UK, IB LLC AND THEIR AFFILIATES SHALL NOT BE LIABLE TO CUSTOMER FOR ANY COSTS, EXPENSES, FEES, PENALTIES, CLAIMS, LOSSES, DAMAGES OR LIABILITIES SUSTAINED BY CUSTOMER IN CONNECTOIN WITH ANY LIQUIDATION (INCLUDING, BUT NOT LIMITED TO, LOSSES ON CUSTOMER'S POSITIONS) OR BECAUSE OF ANY DELAY IN, OR FAILURE TO EFFECT, THE LIQUIDATION ON THE PART OF IB UK, IB LLC OR ANY OF THEIR AFFILIATES OR (2) CUSTOMER SUBSEQUENTLY RE-ESTABLISHES CUSTOMER'[S POSITION AT A LESS FAVORABLE PRICE.**

F. Customer shall reimburse and hold IB UK, IB LLC and their Affiliates harmless for all actions, omissions, costs, expenses, fees (including, but not limited to, attorneys' fees), penalties, losses, claims, damages or liabilities related to any liquidation or transaction related thereto undertaken by IB UK, IB LLC, or any of their Affiliates. If IB UK, IB LLC, or any of their Affiliates executes an order for which Customer's account did not contain sufficient funds and liquidates the trade, Customer shall be responsible for any costs, expenses, fees (including, but not limited to, attorneys' fees), penalties, claims, losses, damages or liabilities as a result of such liquidation and shall not be entitled to any profit that results from such liquidation.

G. If the IB System does not, for any reason, effect a liquidation, and IB UK, IB LLC or any of their Affiliates issues a margin call to Customer by e-mail or any other method, Customer must satisfy such margin call immediately. Customer agrees to monitor e-mail messages and to satisfy any margin call issued by IB UK, IB LLC or any of their Affiliates by immediately depositing funds in Customer's account to pay, in full, the under-margined position. Notwithstanding such margin call, Customer acknowledges that IB UK, IB LLC or their Affiliates, in their respective sole discretion, may liquidate Customer's positions at any time.

27. Security Interest: Any and all securities, cash, investments, contracts, foreign currency, collateral and/or property of Customer (including, but not limited to, Customer's safe custody investments) and all proceeds of the foregoing, held by or on behalf of IB UK, IB LLC or their Affiliates for Customer's account, are hereby pledged to IB and shall be subject to a perfected first priority lien and security interest in favor of IB UK or IB LLC, as applicable, to secure performance of Customer's obligations and liabilities to IB UK and IB LLC arising under this Agreement, any other agreement between Customer and IB UK or IB LLC, or any transaction under such agreements. IB UK, IB LLC, and its Affiliates, without notice to Customer, may use, transfer or sell or otherwise realise any or all of Customer's property to enforce their lien including, but not limited to, by applying the proceeds of such transfer or realisation in satisfaction of such indebtedness or obligation. Customer agrees that, on demand, Customer shall execute and sign all documents (including, without limitation, any stock transfer forms) which IB UK, IB LLC, or its Affiliates may determine to be necessary or expedient.

28. Termination: IB UK or IB LLC may terminate this Agreement and/or Customer's use of the facilities and brokerage or other services provided by IB UK or its Affiliates, at any time, in their sole respective discretion. Upon Termination, IB UK, IB LLC and their Affiliates shall have the right, in their discretion, but not the obligation, at any time, to take any one or more actions specified in Sections 25.B, 25.C, 25.D, 26 and 27.

29. Closing Accounts: Customer may close its account only if all positions in the account have been closed and only pursuant to a written instruction sent by e-mail addressed to the IB Customer Service Department at help@interactivebrokers.com.

30. Indemnification: Customer shall indemnify and hold IB UK, IB LLC, and their Affiliates harmless for all actions, omissions, claims, costs, expenses, fees (including, but not limited to, attorneys' fees), penalties, losses, damages, taxes, imposts, levies and other liabilities which IB UK, IB LLC or their Affiliates may incur or be subjected to in connection with: (A) any of Customer's accounts or any Transaction or any matching transaction on an exchange or market, or with an intermediate broker or agent; (B) the exercise of any right or remedy under this Agreement; (C) the care of the collateral and defending or asserting the rights and claims of IB UK, IB LLC, or their Affiliates with respect thereto; (D) the inability of IB UK, IB LLC, or their Affiliates to borrow or buy property pursuant to this Agreement; and (E) meeting any obligation of IB UK, IB LLC, or any of their Affiliates which either IB UK, IB LLC, or any of their Affiliates fails to perform by reason of an Event of Default.

31. Currency Indemnification: If IB UK or any of its Affiliates receives or recovers any amount with respect to an obligation of Customer in a currency other than that in which such amount was payable, whether pursuant to a judgment of any court or otherwise, Customer shall indemnify IB UK and its Affiliates and hold IB UK and its Affiliates harmless from and against any cost (including the cost of conversion) and loss suffered by IB UK or its Affiliates as a result of receiving such amount in a currency other than the currency in which it was due.

32. Limitation of Liability:

A. **IB UK, IB LLC, THEIR AFFILIATES, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AFFILIATES, ASSOCIATES, OR AGENTS SHALL NOT BE LIABLE FOR ANY DIRECT OR INDIRECT COSTS, EXPENSES, FEES (INCLUDING, BUT NOT LIMITED TO, ATTORNEY'S FEES, LOSSES, DAMAGES, CLAIMS OR LIABILITIES INCURRED OR SUFFERED BY CUSTOMER UNDER THIS AGREEMENT UNLESS ARISING DIRECTLY FROM ITS GROSS NEGLIGENCE, WILLFUL DEFAULT, OR FRAUD OR CAUSING PERSONAL INJURY TO DEATH TO CUSTOMER. UNDER NO CIRCUMSTANCES SHALL IB UK, IB LLC, THEIR AFFILIATES, NOR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AFFILIATES, ASSOCIATES, OR AGENTS HAVE ANY LIABILITY FOR ANY PUNITIVE, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL LOSS OR DAMAGES, INCLUDING ANY LOSS OF BUSINESS, PROFITS, OR GOODWILL.**

B. **CUSTOMER ACCEPTS THE IB 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 IB UK, IB LLC, THEIR AFFILIATES, NOR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AFFILIATES, ASSOCIATES, OR AGENTS BE LIABLE TO CUSTOMER BY REASON OF DELAYS OR INTERRUPTIONS OF SERVICE OR TRANSMISSIONS, OR MALFUNCTIONS OR FAILURES OF PERFORMANCE OF THE IB SYSTEM OR ANY TRANSMISSION, COMMUNICATION OR COMPUTER FACILITY OR SYSTEM USED IN CONNECTION WITH THE PROVISION OF SERVICES UNDER THIS AGREEMENT, REGARDLESS OF CAUSE, INCLUDING, BUT NOT LIMITED TO, THOSE CAUSED BY HARDWARE OR SOFTWARE MALFUNCTION, SUPRA NATIONAL, GOVERNMENTAL, EXCHANGE OR OTHER REGULATORY OR SELF-REGULATORY RULES OR ACTIONS, ACTS OF GOD, ACTS OF WAR (DECLARED OR UNDECLARED), ACTS OF TERRORISM, OR THE INTENTIONAL ACTS OF IB UK, IB LLC, OR THEIR AFFILIATES. CUSTOMER RECOGNIZES THAT THERE MAY BE DELAYS OR INTERRUPTIONS IN THE USE OF THE IB SYSTEM, INCLUDING, FOR EXAMPLE, THOSE INTENTIONALLY CAUSED BY IB UK, IB LLC OR THEIR AFFILIATES FOR THE PURPOSE OF SERVICING THE IB SYSTEM.**

CUSTOMER ACKNOWLEDGES THAT CUSTOMER IS RESPONSIBLE FOR MAINTAINING ALTERNATIVE TRADING ARRANGEMENTS IN ADDITION TO CUSTOMER'S IB UK ACCOUNT.

C. **IB UK, IB LLC, THEIR AFFILIATES, AND THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AFFILIATES, ASSOCIATES OR AGENTS SHALL NOT BE LIABLE TO CUSTOMER FOR ANY PARTIAL OR NON-PERFORMANCE OF THEIR OBLIGATIONS UNDER THIS AGREEMENT BY REASON OF ANY CAUSE BEYOND ITS REASONABLE CONTROL INCLUDING, BUT NOT LIMITED TO, LABOR DISPUTES OR INDUSTRIAL ACTIONS; THE RULES OR ACTIONS OF ANY SUPRA NATIONAL, GOVERNMENTAL OR REGULATORY OR SELF-REGULATORY AUTHORITY; ACTS OF WAR (DECLARED OR UNDECLARED); ACTS OF TERRORISM; OR THE FAILURE BY ANY INTERMEDIATE BROKER OR AGENT, OR PRINCIPAL OF IB UK, IB LLC, OR THEIR AFFILIATES OR ANY OR ANY CUSTODIAN, SUB-CUSTODIAN, DEALER, EXCHANGE, CLEARING HOUSE OR SUPRA NATIONAL, GOVERNMENTAL, REGULATORY OR SELF-REGULATORY BODY, FOR ANY REASON, TO PERFORM ITS OBLIGATIONS.**

D. **IN NO EVENT SHALL ANY LIABILITY OF IB UK, IB LLC, THEIR AFFILIATES, OR ANY OF THEIR RESPECTIVE DIRECTORS, OFFICERS, EMPLOYEES, AFFILIATES, ASSOCIATES OR AGENTS, REGARDLESS OF THE FORM OF ACTION OR DAMAGES SUFFERED BY CUSTOMER, EXCEED THE HIGHEST AGGREGATE MONTHLY COMMISSIONS AND FEES PAID BY CUSTOMER TO IB UK.**

33. Confidentiality and Data Protection:

A. **Confidentiality, Recording of Telephone Calls and Data Use:** IB UK attaches great importance to Customer confidentiality. However, IB UK and its Affiliates recognize that, in certain circumstances, information may need to be disclosed or transmitted, for example, to regulatory authorities. Accordingly, without prejudice to any right or obligation, whether having the force of law or not, by virtue of which IB UK, its Affiliates or connected persons may be entitled, required or requested to disclose or transmit to any person information confidential to Customer, IB UK or its Affiliates or any connected person shall not, without Customer’s prior consent, disclose or transmit any information, or produce any documents, relating to Customer or Customer’s affairs (including Customer’s dealings with IB UK and IB LLC) except:

(1) as required or permitted by law or judicial process;

(2) as required or requested by any competent authority, including, without limitation, the Board of Inland Revenue, any regulatory, self-regulatory, or enforcement organization (including, without limitation, the Bank of England, the FCA, the Panel on Takeovers and Mergers, the CFTC, the NFA, the SEC, and the NASD), any investment exchange, or any person or body providing clearing and/or settlement services, in each case, whether or not acting pursuant to any statutory authority, whether based in the U.K. or abroad, and whether such authority, organization, exchange, person or body has required or requested that disclosure be made to it or to any other person;

(3) where Customer has defaulted in the performance of its obligations under this Agreement or under any other agreement with IB UK, IB LLC, or their Affiliates, or under any agreement into which IB UK, IB LLC, or their Affiliates have entered on Customer’s behalf, whereupon IB UK, IB LLC, and their Affiliates may disclose to any interested person Customer’s name, address and such other information as IB UK, IB LLC, or their Affiliates deem necessary or as that person reasonably requests;

(4) where a counterparty to a transaction into which IB UK or one of its Affiliates is to enter on Customer's behalf reasonably requests information about Customer to enable him to assess the credit risk Customer represents;

(5) where IB UK, IB LLC or their respective Affiliates believe it is necessary or desirable in connection with the performance or exercise by them of their respective duties and/or rights under this Agreement or the terms of any other agreement IB UK or any of its Affiliates have with Customer;

(6) the connected companies, Affiliates or professional advisers of IB UK and IB LLC;

(7) to those directors, officers, employees, associates, agents, or advisers engaged, in the course of their duties or employment, in activities relating to the performance or exercise by IB UK, IB LLC, or their Affiliates of their obligations or rights under, or pursuant to, this Agreement or the terms of any other agreement IB UK, IB LLC, or any of their Affiliates have with Customer or with each other;

(8) in connection with the provision of any Trader Toolbox services available through the IB UK website; and

(9) where the information previously has been publicly disclosed otherwise than as a result of a breach of this section of this Agreement.

B. IB UK, IB LLC, their Affiliates, and any connected person thereto are not obliged to disclose to Customer or to take into consideration or utilize for Customer's benefit any fact, matter or thing:

(1) if, in IB UK, IB LLC, their Affiliates, or the connected person's opinion, disclosure or transmission of the information would or might be a breach of duty or confidence to any other person or render IB UK, IB LLC, their Affiliates, or their respective directors, officers, employees, associates, agent, or advisers liable to criminal or civil proceedings; or

(2) which comes to the notice of a director, officer, employee, associate, agent or adviser of IB UK, IB LLC, their Affiliates, or of any connected person thereto and does not come to the actual notice of the individual or individuals making the decision or taking or not taking the step in question.

C. Customer, and any person connected to or representing Customer, accepts that all telephone conversations between IB UK, IB LLC, or their Affiliates, on the one hand, and Customer or such other person, on the other hand, may be recorded without the use of a warning tone. Such recordings will be IB UK's sole property.

D. IB UK and its Affiliates may use, store, disclose, transmit or otherwise process ("Process") any personal information such as the name, address or age ("Personal Information") provided by Customer or its directors, officers, employees, associates, agents, trustees, traders, or representatives to IB UK, IB LLC, or their Affiliates under this Agreement or otherwise acquired by IB UK, IB LLC, or their Affiliates from Customer or its directors, officers, employees, associates, agents, advisers, trustees, traders or representatives. Such Personal Information may be Processed by IB UK, IB LLC, or their Affiliates for the purpose of administering this Agreement, providing services to Customer or otherwise marketing financial services and products from IB UK, IB LLC, their Affiliates or third parties ("Purposes") to Customer. Should these Purposes change, IB UK will notify Customer. For these Purposes, IB UK, IB LLC, and their Affiliates may transfer or disclose ("Disclosure") Personal Information to any connected company, wherever located throughout the world; to any person acting on behalf of IB UK, IB LLC or any of their Affiliates;

and to any person to whom IB UK, IB LLC or any of their Affiliates is permitted to delegate any of their respective functions. By agreeing to this Agreement, Customer freely consents to the Process and Disclosure of Personal Information for the Purposes and agrees to procure such consent from its directors, officers, employees, associates, agents, trustees, traders, and representatives. Customer also agrees that the Purposes may be amended to include other uses, transmissions, or disclosures of Personal Information following notification to Customer.

E. Customer understands and accepts that any Personal Information or any other information or documents relating to Customer or Customer's affairs (including Customer's dealings with IB UK and IB LLC) that are disclosed, transmitted or Processed pursuant to this Agreement may be sent outside the U.K. and/or to persons or entities that are not subject to the same legal or regulatory requirements regarding data protection as are provided by U.K. law.

34. Investor Compensation Schemes:

A. Customers who trade certain products on U.S. exchanges in an IB UK account that is carried by IB LLC may be eligible for certain protections with respect to the equity in those accounts which is provided by the U.S. Securities Investor Protection Corporation ("SIPC").

B. Customers also may be eligible for protection afforded by the U.K. Investors Compensation Scheme ("ICS") which compensates private customers in the event that a U.K. company that is engaged in investment business becomes insolvent. However, to the extent that Customer seeks, or could seek, compensation from SIPC or any other third party, Customer's claim to ICS may be barred. ICS coverage generally does not extend to cash losses and is limited to £48,000 (100% of the first £30,000 and 90% of the next £20,000 of any claim). For further information, Customer should contact the ICS or the FCA.

35. Commissions, Fees, and Other Charges:

A. Upon transmission and/or execution of a Customer order, Customer shall pay to IB UK (through direct payment to IB LLC) IB UK's commissions, fees and other charges (collectively, "Charges") as are then set forth on the IB UK website and are in effect at the time such Charges are incurred, which IB UK (through IB LLC) may deduct from Customer's account. IB UK may modify the Charges chargeable to Customer upon notice to Customer made by posting the modified Charges upon the IB UK website.

B. IB UK may share Charges with its Affiliates or other third parties or receive remuneration from them with respect to transactions carried out on Customer's behalf. Details of any such sharing arrangements or remuneration may not be set forth in the relevant confirmation or contract note, but can be made available to Customer upon request.

36. DISCLOSURE STATEMENT: **THIS STATEMENT IS FURNISHED TO YOU BECAUSE CFTC RULE 190.10(c) OF THE U.S. COMMODITY FUTURES TRADING COMMISSION ("CFTC") REQUIRES IT FOR REASONS OF FAIR NOTICE UNRELATED TO IB UK'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 CFTC'S REGULATIONS CONCERNING BANKRUPTCIES OF COMMODITY BROKERS CAN BE FOUND AT 17 U.S. CODE OF FEDERAL REGULATIONS PART 190.

37. Privacy Policy: Customer represents that Customer has read and understood the information contained in the "Interactive Brokers Group Privacy Statement" ("IBG Privacy Statement"), attached hereto, and consents to the collection and use of the personal information that Customer has shared with IB UK, IB LLC and its Affiliates in accordance therewith. Customer further consents to the receipt of annual notice of the IBG Privacy Statement via the IB UK website and shall monitor the IB UK website for revisions to the IBG Privacy Statement.

38. Complaint Procedures: A summary of IB UK's Internal Complaint Handling Procedures shall be made available to Customers through the IB UK website.

39. Governing Law and Jurisdiction:

A. Customer irrevocably agrees that this Agreement shall be governed by, and construed in accordance with, the laws of England without giving effect to conflicts of law provisions. Customer also irrevocably agrees that, except with respect to controversies or claims that are properly submitted to arbitration in accordance with this Agreement, the courts of England shall have exclusive jurisdiction over all disputes relating to or arising from the execution or performance of this Agreement, any Transaction hereunder or any of Customer's accounts and irrevocably submits to the jurisdiction of such courts. Customer waives any objection which it may have, at any time, to the bringing of any proceedings in any such court and agrees not to claim that such proceedings have been brought in an inconvenient forum or that such court does not have jurisdiction over it. However, the foregoing shall not prevent IB UK or any of its Affiliates from bringing an action in any court of any other jurisdiction, in their discretion.

B. **IN ALL JUDICIAL ACTIONS, ARBITRTIONS, OR DISPUTE RESOLUTION METHODS, THE PARTIES WAIVE ANY RIGHT TO PUNITIVE DAMAGES.**

40. Miscellaneous:

A. English Language: Customer agrees to the provision of this Agreement in the English language and represents that Customer understands all of the terms and conditions contained herein.

B. Headings: Headings are for ease of reference only and do not form part of this Agreement.

C. Entire Agreement: This Agreement contains the entire agreement between the parties, who have made no representations or warranties other than as expressly provided therein.

D. Severability: If any provision of this Agreement is deemed unenforceable, such provision shall be ineffective only to the extent of such unenforceability, without invalidating the remaining provisions of this Agreement.

E. No Waiver: The failure of IB UK or IB LLC to enforce, at any time or for any period, any one or more of the terms or conditions of this Agreement shall not constitute a waiver of such terms or conditions or of the right, at any time subsequently, to enforce all terms and conditions of this Agreement.

F. Assignment: Subject to applicable regulations, upon notice to Customer, IB UK (or in the case of the provisions of Section 10 of this Agreement, IB LLC) may assign this Agreement to another duly registered or authorized broker-dealer, futures commission merchant or comparable investment professional.

G. Successors and Assigns: This Agreement shall inure to the benefit of IB UK's and IB LLC's successors and assigns and binds Customer's successors and assigns. Customer may not assign or transfer any rights or obligations hereunder without the prior written consent of IB UK (or, in the case of the provisions of Section 10 of this Agreement, IB LLC). In the event of any assignment or transfer of this Agreement, or any of Customer's rights hereunder, the assignee or transferee shall be liable for all of Customer's past and present debts and obligations to IB UK, IB LLC and their Affiliates.

H. Third Party Rights: Aside from IB UK's Affiliates, a person who is not a party to these terms has no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any of the terms of this Agreement but this does not affect any right or remedy of any third party which exists or was available apart from that act.

41. Arbitration:

A. This Agreement contains a predispute arbitration clause which is located immediately below in this section on this page. 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, INCUDING 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.**
- **THE PANEL OF ARBITRATORS WILL TYPICALLY INCLUDE A MINORITY OF ARBITRATORS WHO WERE OR ARE AFFILIATED WITH THE SECURITES 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.**

B. **Disputes with IB UK:** Any controversy or claim between IB UK or any of its respective directors, officers, shareholders, employees, associates or agents, on the one hand, and Customer or, if applicable, Customer's directors, officers, shareholders, employees, associates, agents, or trustees, on the other hand, arising out of, or relating to, this Agreement, any other Agreement between Customer and IB UK, any Transaction under such agreements, or any of Customer's accounts, may be settled by arbitration, in accordance with the rules then prevailing of any one of the following arbitration schemes, as Customer may elect and to the extent that the claim or controversy properly falls within the scope of the arbitration scheme:

(1) If the dispute involves a Transaction in a security, option to purchase or sell a security, or an option on a securities index that is traded on a U.S. exchange, the arbitration schemes of: (a) The American Arbitration Association; (b) The New York Stock Exchange; (c) if the dispute involves IB LLC, any exchange of which IB LLC is a member, or (d) the NASD;

(2) If the dispute involves a Transaction in a futures contract or an option on a futures contract that is traded on a U.S. exchange, any one of three or more "qualified forums" provided by IB UK. A "qualified forum" is an organization whose procedures for conducting arbitration comply with the requirements of CFTC Rules;

(3) In any other type of dispute, the arbitration schemes of: (a) The American Arbitration Association; (b) any exchange of which IB UK is a member; or (c) a securities or futures association, as applicable; or

(4) In all cases, the FCA's Consumer Arbitration Scheme or any other arbitration forum that IB UK may suggest. Customer may obtain information regarding the FCA's Consumer Arbitration Scheme by requesting such information via an e-mail addressed to the IB Customer Service Department at help@interactivebrokers.com, specifying "Attn: IB UK Compliance Director" in the subject heading.

C. **Disputes with IB LLC:**

(1) Any controversy or claim between IB LLC or its directors, officers, shareholders, employees, associates or agents, on the one hand, and Customer or, if applicable, Customer's directors, officers, shareholders, employees, associates, agents, or trustees, on the other hand, arising out of, or relating to, this Agreement, any other agreement between Customer and IB LLC, any Transaction under such agreements or any of Customer's accounts shall be settled as follows:

(a) **Securities/Equity Options Accounts:** If the controversy, dispute, claim or grievance involves Customer's securities/equity options account:

i. Customer agrees that any dispute, controversy, claim or grievance between IB LLC or any of its directors, officers, shareholders, employees, associates, agents or Affiliates (other than IB UK) on the one hand, and Customer or, if applicable, Customer's directors, officers, shareholders, employees, associates, agents, or trustees, on the other hand, arising out of, or relating to, this Agreement, any other agreement between Customer and IB LLC or IB LLC's Affiliates (except IB UK), any Transaction thereunder, or any of Customer's accounts shall be settled by arbitration, in accordance with the rules then prevailing of any one of the following: (1) The American Arbitration Association; (2) The New York Stock Exchange, Inc.; (3) any other exchange of which IB LLC (or the IB LLC Affiliate, as the case may be) is a member; (4) the National Association of Securities Dealers, Inc.; or (4) any other arbitration venue agreed to by IB LLC, as the true claimant-in-interest may elect. If Customer is the true claimant-in-interest and has not selected an arbitration forum within ten [10] days of providing the Customer's intent to arbitrate, then IB LLC (or its Affiliate, as the case may be) 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.

ii. 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, who is a member of a putative class, and 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;
- 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.

(b) **Futures Accounts:** If dispute, controversy, claim or grievance involves a futures/options on futures account, Customer agrees to the following:

i. Except as provided below, Customer agrees that any dispute, controversy, claim or grievance between IB LLC or any of its directors, officers, shareholders, employees, associates, agents or Affiliates (other than IB UK) on the one hand, and Customer or, if applicable, Customer's directors, officers, shareholders, employees, associates, agents, or trustees, on the other hand, arising out of, or relating to, this Agreement, any other agreement between Customer and IB LLC or IB LLC's Affiliates (except IB UK), any Transaction thereunder, or any of Customer's accounts shall be settled by arbitration, in accordance with the rules then prevailing of a forum chosen in accordance with the procedure set out below. If, by reason of any applicable statute, regulation, exchange rules, or otherwise, Customer's advance agreement to submit a controversy or claim to arbitration would not be enforceable by IB LLC or its Affiliate, as the case may be, this provision shall not permit Customer to enforce the advance agreement of IB LLC or its Affiliate to submit to arbitration. Any award rendered in any arbitration conducted pursuant to this arbitration agreement shall be final, binding, and enforceable and judgment may be entered on any such award by any court having jurisdiction thereof.

ii. At such time as Customer notifies IB LLC or IB LLC's Affiliate that Customer intends to submit a controversy to arbitration, or at such times as IB LLC or IB LLC's Affiliate notifies Customer that IB LLC or its Affiliate intends to submit a controversy to arbitration, Customer will have the opportunity to choose a forum from a list of three or more qualified forums provided by IB LLC or the Affiliate. A "qualified forum" is an organization whose procedures for conducting arbitrations comply with the requirements of the Commodity Futures Trading Commission ("CFTC") Rules.

iii. As required by CFTC Rules, IB LLC shall pay any incremental fees which may be assessed by a qualified forum for provision of a mixed arbitration panel, unless the arbitrators hearing the controversy determine that Customer has acted in bad faith in initiating or conducting the arbitration. A "mixed arbitration panel" is an arbitration panel composed of one or more persons, a majority of whom are not members or associated with a member of a contract market or employee thereof, and who are not otherwise associated with a contract market.

iv. In connection with this arbitration agreement, IB LLC is required to furnish to Customer the following statement, pursuant to CFTC Rules (for the purposes of the following, "you" or "your" means Customer):

THREE FORUMS EXIST FOR THE RESOLUTION OF COMMODITY DISPUTES: CIVIL COURT LITIGATION, REPARATIONS AT THE COMMODITY FUTURES TRADING COMMISSION ("CFTC"), AND ARBITRATION CONDUCTED BY A SELF-REGULATORY OR OTHER PRIVATE ORGANIZATION. THE CFTC RECOGNIZES THAT THE OPPORTUNITY TO SETTLE DISPUTES BY ARBITRATION MAY IN SOME CASES PROVIDE MANY BENEFITS TO CUSTOMERS, INCLUDING THE ABILITY TO OBTAIN AN EXPEDITIOUS AND FINAL RESOLUTION OF DISPUTES WITHOUT INCURRING SUBSTANTIAL COSTS. THE CFTC REQUIRES, HOWEVER, THAT EACH CUSTOMER INDIVIDUALLY EXAMINE THE RELATIVE MERITS OF ARBITRATION AND THAT YOUR CONSENT TO THIS ARBITRATION AGREEMENT BE VOLUNTARY.

BY SIGNING THIS AGREEMENT, YOU: (1) MAY BE WAIVING YOUR RIGHT TO SUE IN A COURT OF LAW; AND (2) ARE AGREEING TO BE BOUND BY ARBITRATION OF ANY CLAIMS OR COUNTERCLAIMS WHICH YOU OR IB LLC MAYSUBMIT TO ARBITRATION UNDER THIS AGREEMENT. YOU ARE NOT, HOWEVER, WAIVING YOUR RIGHT TO ELECT INSTEAD TO PETITION THE CFTC TO INSTITUTE REPARATIONS PROCEEDIGNS UNDER SECTION 14 OF THE COMMODITY EXCHANGE ACT WITH RESPECT TO ANY DISPUTE WHICH MAY BE ARBITRATED PURSUANT TO THIS AGREEMENT. IN THE EVENT A DISPUTE ARISES, YOU WILL BE NOTIFED IF IB LLC INTENDS TO SUBMIT THE DISPUTE

TO ARBITRATON. IF YOU BELIEVE A VIOLATION OF THE COMMODITY EXCHANGE ACT IS INVOLVED AND IF YOU PREFER TO REQUEST A SECTION 14 "REPARATIONS" PROCEEDING BEFORE THE CFTC, YOU WILL HAVE 45 DAYS FROM THE DATE OF SUCH NOTICE IN WHICH TO MAKE THAT ELECTION.

YOU NEED NOT SIGN THIS ARBITRATION AGREEMENT TO OPEN AN ACCOUNT WITH IB LLC.

I understand and acknowledge that I have read this Customer Agreement and agree with its terms and conditions.

BY SIGNING THIS AGREEMENT, I ACKNOWLEDGE THAT THIS AGREEMENT CONTAINS AN OPTIONAL PRE-DISPUTE ARBITRATION CLAUSE SET FORTH IN THE SECTION ABOVE AND THAT I HAVE RECEIVED, READ AND UNDERSTOOD THE TERMS THEREOF.

ADDENDUM 1

WARRANTS AND DERIVATIVES RISK WARNING NOTICE

This notice is provided to you, as a private customer, in compliance with the rules of The Financial Conduct Authority (FCA). Private customers are afforded greater protections under these rules than other customers are and you should ensure that your firm tells you what this means to you. This notice cannot disclose all of the risks and other significant aspects of warrants and/or derivative products such as futures, options, and contracts for differences. You should not deal in these products unless you understand their nature and the extent of your exposure to risk. You should also be satisfied that the product is suitable for you in light of your circumstances and financial position. Certain strategies, such as a "spread" position or a "straddle," may be as risky as a simple "long" or "short" position.

Although warrants and/or derivative instruments can be utilized for the management of investment risk, some of these products are unsuitable for many investors. Different instruments involve different levels of exposure to risk and in deciding whether to trade in such instruments you should be aware of the following points.

1. Warrants

A warrant is a time-limited right to subscribe for shares, debentures, loan stock or government securities, and is exercisable against the original issuer of the securities. A relatively small movement in the price of the underlying security results in a disproportionately large movement, unfavourable or favourable, in the price of the warrant. The prices of warrants can therefore be volatile. It is essential for anyone who is considering purchasing warrants to understand that the right to subscribe which a warrant confers is invariably limited in time with the consequence that if the investor fails to exercise his right within the predetermined time-scale then the investment becomes worthless. You should not buy a warrant unless you are prepared to sustain a total loss of the money you have invested plus any commission or other transaction charges. Some other instruments are also called warrants but are actually options (for example, a right to acquire securities which is exercisable against someone other than the original issuer of the securities, often called a "covered warrant").

2. Off-Exchange Transactions

Transactions in off-exchange warrants may involve greater risk than dealing in exchange traded warrants because there is no exchange market through which to liquidate your position, or to assess the value of the warrant or the exposure to the risk. Bid and offer prices need not be quoted, and even where they are, they will be established by dealers in these instruments and consequently it may be difficult to establish what is a fair price. Your firm must make it clear to you if you are entering into an off-exchange transaction and advise you of any risks involved.

3. Futures

Transactions in futures involve the obligation to make, or to take, delivery of the underlying asset of the contract at a future date, or in some cases to settle the position with cash. They carry a high degree of risk. The "gearing" or "leverage" often obtainable in futures trading means that a small deposit or down payment can lead to large losses as well as gains. It also means that a relatively small movement can lead to a proportionately much larger movement in the value of your investment, and this can work against you as well as for you. Futures transactions have a contingent liability, and you should be aware of the implications of this, in particular the margining requirements, which are set out in paragraph 8.

4. Options

There are many different types of options with different characteristics subject to the following condition.

Buying options:

Buying options involves less risk than selling options because, if the price of the underlying asset moves against you, you can simply allow the option to lapse. The maximum loss is limited to the premium, plus any commission or other transaction charges. However, if you buy a call option on a futures contract and you later exercise the option, you will acquire the futures. This will expose you to the risks described under "futures" and "contingent liability investment transactions."

Writing options:

If you write an option, the risk involved is considerably greater than buying options. You may be liable for margin to maintain your position and a loss may be sustained well in excess of the premium received. By writing an option, you accept a legal obligation to purchase or sell the underlying asset if the option is exercised against you, however far the market price has moved away from the exercise price. If you already own the underlying asset which you have contracted to sell (when the options will be known as "covered call options") the risk is reduced. If you do not own the underlying asset ("uncovered call options") the risk can be unlimited. Only experienced persons should contemplate writing uncovered options, and then only after securing full details of the applicable conditions and potential risk exposure.

Traditional options:

Certain London Stock Exchange member firms under special exchange rules write a particular type of option called a "traditional option." These may involve greater risk than other options. Two-way prices are not usually quoted and there is no exchange market on which to close out an open position or to effect an equal and opposite transaction to reverse an open position. It may be difficult to assess its value or for the seller of such an option to manage his exposure to risk. Certain options markets operate on a margined basis, under which buyers do not pay the full premium on their option at the time they purchase it. In this situation you may subsequently be called upon to pay margin on the option up to the level of your premium. If you fail to do so as required, your position may be closed or liquidated in the same way as a futures position.

5. Contracts for Differences

Futures and options contracts can also be referred to as contracts for differences. These can be options and futures on the FTSE 100 index or any other index, as well as currency and interest rate swaps. However, unlike other futures and options, these contracts can only be settled in cash. Investing in a contract for differences carries the same risks as investing in a future or an option and you should be aware of these as set out in paragraphs 3 and 4 respectively. Transactions in contracts for differences may also have a contingent liability and you should be aware of the implication of this as set out in paragraph 8.

6. Off-exchange transactions in derivatives

It may not always be apparent whether or not a particular derivative is arranged on exchange or in an off-exchange derivative transaction. Your firm must make it clear to you if you are entering into an off-exchange derivative transaction.

While some off-exchange markets are highly liquid, transactions in off-exchange or "non-transferable" derivatives may involve greater risk than investing in on-exchange derivatives because there is no exchange market on which to close out an open position. It may be impossible to liquidate an existing position, to assess the value of the position arising from an off-exchange transaction or to assess the exposure to risk. Bid prices and offer prices need not be quoted, and, even where they are, they will be established by dealers in these instruments and consequently it may be difficult to establish what is a fair price.

7. Foreign markets

Foreign markets will involve different risks from the U.K. markets. In some cases the risks will be greater. On request, your firm must provide an explanation of the relevant risks and protections (if any) which will operate in any foreign markets, including the extent to which it will accept liability for any default of a foreign firm through whom it deals. The potential for profit or loss from transactions on foreign markets or in foreign denominated contracts will be affected by fluctuations in foreign exchange rates.

8. Contingent liability investment transactions.

Contingent liability investment transactions, which are margined, require you to make a series of payments against the purchase price, instead of paying the whole purchase price immediately. If you trade in futures contracts for differences or sell options, you may sustain a total loss of the margin you deposit with your firm to establish or maintain a position. If the market moves against you, you may be called upon to pay substantial additional margin at short notice to maintain the

position. If you fail to do so within the time required, your position may be liquidated at a loss and you will be responsible for the resulting deficit. Even if a transaction is not margined, it may still carry an obligation to make further payments in certain circumstances over and above any amount paid when you entered the contract.
Save as specifically provided by the FCA, your firm may only carry out margined or contingent liability transactions with you or for you if they are traded on or under the rules of a recognized or designated investment exchange. Contingent liability investment transactions which are not so traded may expose you to substantially greater risks.

9. Collateral

If you deposit collateral as security with your firm, the way in which it will be treated will vary according to the type of transaction and where it is traded. There could be significant differences in the treatment of your collateral, depending on whether you are trading on a recognized or designated investment exchange, with the rules of that exchange (and the associated clearing house) applying or trading off-exchange. Deposited collateral may lose its identity as your property once dealings on your behalf are undertaken. Even if your dealings should ultimately prove profitable, you may not get back the same assets which you deposited, and may have to accept payment in cash. You should ascertain from your firm how your collateral will be dealt with.

10. Commissions

Before you begin to trade, you should obtain details of all commissions and other charges for which you will be liable. If any charges are not expressed in money terms (but, for example, as a percentage of contract value), you should obtain a clear and written explanation, including appropriate examples, to establish what such charges are likely to mean in specific money terms. In the case of futures, when commission is charged as a percentage, it will normally be as a percentage of the total contract value, and not simply as a percentage of your initial payment.

11. Suspensions of trading

Under certain trading conditions it may be difficult or impossible to liquidate a position. This may occur, for example, at times of rapid price movement if the price rises or falls in one trading session to such an extent that under the rule of the relevant exchange trading is suspended or restricted. Placing a stop-loss order will not necessarily limit your losses to the intended amounts, because market conditions may make it impossible to execute such an order at the stipulated price.

12. Clearing house protections

On many exchanges, the performance of a transaction by your firm (or third party with whom his dealing on your behalf) is "guaranteed" by the exchange or clearing house. However, this guarantee is unlikely in most circumstances to cover you, the customer, and may not protect you if your firm or another party defaults on its obligations to you. On request, your firm must explain any protection provided to you under the clearing guarantee applicable to any on-exchange derivatives in which you are dealing. There is no clearing house for traditional options, nor normally for off-exchange instruments which are not traded under the rules of a recognized or designated investment exchange.

ADDENDUM 2

CUSTOMER CONSENT TO ACCEPT ELECTRONIC RECORDS AND COMMUNICATIONS

In the interests of timeliness, efficiency and lower costs for its Customers, Interactive Brokers U.K. Limited ("IB UK") and its affiliated companies including, but not limited to, Interactive Brokers LLC ("IB LLC") (collectively, "Affiliates") provide electronic notices, messages, trade confirmations, account statements, records and other Customer records and communications (collectively, "Records and Communications") in electronic form. 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 IB UK website, notification sent to Customer to login and retrieve the Records and Communications.

By entering into this Agreement, Customer consents to the receipt of electronic Records and Communications regarding this Agreement, any other agreement between Customer and IB UK, IB LLC or their Affiliates, all Customer Transactions under such agreements, all of Customer's accounts and all of Customer's dealings with IB UK, IB LLC or their Affiliates, including Records and Communications of any kind. Customer may withdraw such consent at any time by an e-mail addressed to the IB Customer Service Department at help@interactivebrokers.com. If Customer withdraws such consent, however, IB UK reserves the right to require Customer to close Customer's account.

In order to trade using the IB UK TWS, and to receive Records and Communications through the TWS, there are certain system hardware and software requirements, which are described on the IB UK website at www.interactivebrokers.co.uk. Since these requirements may change, Customer must periodically refer to the IB UK website for current system requirements. To receive electronic mail from IB UK, 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 IB UK immediately of a change in Customer's e-mail address by: (i) using those procedures to change a Customer e-mail address that may be available on the IB UK website or (ii) contacting the IB Customer Service Department at help@interactivebrokers.com for further instructions.

ADDENDUM 3

INTERACTIVE BROKERS GROUP PRIVACY STATEMENT

The Interactive Brokers Group does not sell or license information about Interactive Brokers customers to third parties, nor do we sell customer lists or customer e-mail addresses to third-party marketers.
At the IB Group, we understand that the confidentiality and security of the personal information that you have shared with us is important to you. That's why we have developed specific policies and practices that are designed to protect the privacy of your personal information. By opening an account with an IB Group member company or by utilizing the products and services that are available through an IB Group member company, you have consented to the collection and use of your personal information in accordance with the privacy policy set forth below. We encourage you to read this privacy statement carefully.

In order to provide brokerage services and in compliance with regulatory requirements, IB Group member companies collect certain personal, non-public information from you. This includes information that you provide during the IB account application process (e.g., your name, e-mail

address, telephone number, birth date, social security number, investment objectives, etc.), and acquired as a result of the transactions you conduct through the IB system. We safeguard the confidentiality of your information in a number of ways. For example:

- We do not sell or license lists of our customers or the personal, non-public information that you provide to us.
- We restrict access to the personal, non-public information that you have shared with us to those IB Group employees, agents, and affiliates who need to know such information in connection with the services that IB provides to you.
- We maintain strict employment policies that prohibit employees who have access to your personal, non-public information from using or disclosing such information except for business purposes.
- We take substantial precautions to safeguard your personal, nonpublic information. For example, the IB system can be accessed only by authorized IB Group personal via valid user names and passwords. In addition, our Internet-based systems include security measures such as encryption and firewalls.

IB uses the personal, nonpublic information that we collect from you to service your account (e.g., to qualify you for trading the products and using the services available through the IB system and to execute and confirm your IB transactions). In doing so, we may share such information with our employees, agents, and affiliates.

IB also collects and uses information acquired from "cookies." "Cookies" are bits of textual information that are sent electronically from a web server to your browser and are stored on your computer. They do not identify you individually nor do they contain personal information about you, unless you have identified yourself or provided the information by, for example, opening an account or registering for an on-line service. IB may use cookies to measure and identify website traffic patterns and to track the performance of web features and advertisements. By providing IB with a better understanding of how you and others use IB's websites and other web services, cookies enable IB to improve the navigation and functionality of its websites and to present the most useful information and offers to you. IB may share information obtained from cookies with its employees, agents and affiliates, but does not sell such information to unaffiliated third parties. IB may permit other companies or their third party ad servers to set cookies on your browser when you visit an IB website. Such companies generally use these cookies as we do.

We do not disclose personal, nonpublic information to individuals or entities that are not affiliated with the IB Group, except as provided by law. For example, among other reasons we may disclose or report such information: where necessary to authorize, effect, administer, or enforce transactions that you request or authorize; to maintain and administer your account; to provide you with account confirmations, statements and records; to maintain appropriate archival records; where we believe that disclosure is required by applicable law, rules or regulations; to cooperate with law enforcement or regulatory or self-regulatory organizations; to enforce our customer and other agreements; to meet our obligations, or to protect our rights and property.

Finally, if you choose to subscribe to any of the Trader's Toolbox suite of third-party services that are provided through an IB Group member website, we may disclose such information to the service providers as necessary for them to provide the services that you have requested. The IB Group requires these service providers to enter into confidentiality agreements with IB entities that limit their use of the information that they receive. Such agreements prohibit the service provider from using IB Group customer information that they receive other than to carry out the purposes for which the information was disclosed.

If you have any questions about these policies, please contact the IB Customer Service Department at help@interactivebrokers.com.

[9-9-05]

CHARACTERISTICS AND RISKS OF STANDARDIZED OPTIONS

February 1994

1997 through 2012
Supplements included

BATS Exchange, Inc.
8050 Marshall Drive
Lexena, Kansas 66214

C2 OPTIONS EXCHANGE, INCORPORATED
400 South LaSalle Street
Chicago, Illinois 60605

CHICAGO BOARD OPTIONS EXCHANGE, INCORPORATED
400 South LaSalle Street
Chicago, Illinois 60605

INTERNATIONAL SECURITIES EXCHANGE, LLC
60 Broad Street
New York, New York 10004

NASDAQ OMX BX, INC.
101 Arch Street
Boston, Massachusetts 02110

NASDAQ OMX PHLX, INC.
1900 Market Street
Philadelphia, Pennsylvania 19103

NASDAQ STOCK MARKET, LLC
One Liberty Plaza
165 Broadway
New York, New York 10006

NYSE AMEX LLC
11 Wall Street
New York, New York 10005

NYSE ARCA, INC.
100 South Wacker Drive
Chicago, Illinois 60606

© 1994 American Stock Exchange, LLC, Chicago Board Options Exchange, Incorporated, New York Stock Exchange, Inc., NYSE Arca, Inc. and Philadelphia Stock Exchange, Inc.

CHARACTERISTICS AND RISKS OF STANDARDIZED OPTIONS

TABLE OF CONTENTS

	Page
CHAPTER I—INTRODUCTION	1
CHAPTER II—OPTIONS NOMENCLATURE	5
CHAPTER III—OPTIONS ON EQUITY SECURITIES	18
Features of Stock Options	18
CHAPTER IV—INDEX OPTIONS	23
About Indexes	23
Features of Index Options	26
CHAPTER V—DEBT OPTIONS	29
Rates, Yields and Prices of Debt Securities	29
Treasury Securities	31
Yield-Based Options	32
CHAPTER VI—FOREIGN CURRENCY OPTIONS	35
Market for Foreign Currencies	36
Special Characteristics of Foreign Currency Options	37
Special Features of Dollar-Denominated Foreign Currency Options	38
Cross-Rate Foreign Currency Options	41
Special Features of Cross-Rate Options	42
Cash-Settled Foreign Currency Options	43
CHAPTER VII—FLEXIBLY STRUCTURED OPTIONS	45
Special Features of Flexibly Structured Options	46
CHAPTER VIII—EXERCISE AND SETTLEMENT	49
How to Exercise	49
Assignment	51
Settlement	51
CHAPTER IX—TAX CONSIDERATIONS, TRANSACTION COSTS AND MARGIN REQUIREMENTS	54
Tax Considerations	54
Transaction Costs	55
Margin Requirements	55
CHAPTER X—PRINCIPAL RISKS OF OPTIONS POSITIONS	57
Risks of Option Holders	58
Risks of Option Writers	62
Other Risks	67
Special Risks of Index Options	73
Special Risks of Debt Options	78
Special Risks of Foreign Currency Options	83
Special Risks of Flexibly Structured Options	87
CHAPTER XI—SCOPE AND LIMITATIONS OF THIS BOOKLET	89
SUPPLEMENTS	
December 1997	95
March 2000	96
January 2004	98
April 2007	100
May 2007	105
June 2007	114
June 2008	122
December 2009	148
May 2010	161
January 2011	167
March 2011	175
January 2012	183

CHAPTER I

INTRODUCTION

This booklet relates solely to options issued by The Options Clearing Corporation ("OCC"), and all references to "options" in this booklet are applicable only to such options. As of the date of this booklet, options are traded on the United States markets listed on the inside front cover page and on the European Options Exchange in Amsterdam, The Netherlands. In the future, options may be traded on other markets within or outside the United States. The markets on which options are traded at any given time are referred to in this booklet as the "options markets."

OCC is a registered clearing agency, and each U.S. options market is a national securities exchange, that is subject to regulation by the Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934. Foreign options markets, and their members, are not generally subject to regulation by the SEC or to the requirements of the securities or other laws of the U.S. and may not be subject to the jurisdiction of U.S. courts.

What is an option? An option is the right either to buy or to sell a specified amount or value of a particular underlying interest at a fixed exercise price by exercising the option before its specified expiration date. An option which gives a right to buy is a call option, and an option which gives a right to sell is a put option. Calls and puts are distinct types of options, and the buying or selling of one type does not involve the other.

EXAMPLE: An option to buy 100 shares of common stock of the XYZ Corporation at a specified exercise price would be an XYZ call option. An option to sell 100 shares of common stock of the XYZ Corporation at a specified exercise price would be an XYZ put option.

There are two different kinds of options—physical delivery options and cash-settled options. A physical delivery option gives its owner the right to receive physical delivery (if it is a call), or to make physical delivery (if it is a put), of the underlying interest when the option is exercised. A cash-settled option gives its owner the right to receive a cash payment based on

the difference between a determined value of the underlying interest at the time the option is exercised and the fixed exercise price of the option. A cash-settled call conveys the right to receive a cash payment if the determined value of the underlying interest at exercise—this value is known as the exercise settlement value—exceeds the exercise price of the option, and a cash-settled put conveys the right to receive a cash payment if the exercise settlement value is less than the exercise price of the option.

Each options market selects the underlying interests on which options are traded on that market. Options are currently available covering four types of underlying interests: equity securities, stock indexes, government debt securities, and foreign currencies. Options on other types of underlying interests may become available in the future.

Most options have standardized terms—such as the nature and amount of the underlying interest, the expiration date, the exercise price, whether the option is a call or a put, whether the option is a physical delivery option or a cash-settled option, the manner in which the cash payment and the exercise settlement value of a cash-settled option are determined, the multiplier of a cash-settled option, the style of the option, whether the option has automatic exercise provisions, and adjustment provisions. These standardized terms are generally described in Chapter II. Each U.S. options market publishes specification sheets setting forth the particular standardized terms of the options traded on that options market. (The options markets may also provide for trading in options whose terms are not all fixed in advance. Rather, subject to certain limitations, the parties to transactions in these options may designate certain of the terms. These flexibly structured options are discussed in Chapter VII of this booklet.)

Options having the same standardized terms are identical and comprise an options series. The standardization of terms makes it more likely that there will be a secondary market in which holders and writers of options can close out their positions by offsetting sales and purchases. By selling an option of the same series as the one he bought, or buying an option of the same series as the one he wrote, an investor can close out his position in that option at any time there is a functioning secondary options market in options of that series.

In some instances, options of the same series may be traded on more than one options market at the

same time. Options that are so traded are called multiply-traded options. Options traded on a U.S. options market may also be traded on a foreign options market. These options are referred to as internationally-traded options. Multiply-traded and internationally-traded options can ordinarily be purchased and written, and positions in these options can ordinarily be liquidated in offsetting closing transactions, in any of the options markets in which the options are traded. However, because premiums are affected by market forces, the premiums for identical multiply-traded or internationally-traded options may not be the same in all markets at any given time.

If an options market learns that a particular underlying interest no longer meets its requirements for options trading or is not eligible for trading in all U.S. jurisdictions, or if an options market decides to discontinue trading in a particular options series for another reason, the options market may stop introducing new options on that underlying interest and may in certain circumstances impose restrictions on transactions that open new positions in options series that have been previously introduced, although trading in the options series will ordinarily continue on at least one options market until its expiration.

Options generally are traded on U.S. options markets during normal day-time business hours of U.S. securities exchanges and for a short period afterward. However, trading in options may not be confined to those hours. Trading in evening and night trading sessions occurs in options on foreign currencies and may in the future occur in other types of options. Moreover, when there are unusual market conditions, an options market may authorize trading to continue for a substantially longer period than under normal conditions. Trading in an expiring option may close at an earlier time than trading in other options. Trading hours for options are also subject to change from time to time. Readers should ascertain the trading hours of the particular options they are interested in trading from the options markets where those options are traded. Readers should also be aware that trading in underlying interests is not confined to normal exchange trading hours. For example, underlying foreign currencies and debt securities are traded in international markets on virtually an around-the-clock basis, and underlying equity securities may be traded in foreign markets when U.S. markets are closed and in some U.S. markets after the close of their normal trading hours.

Readers should be aware that this booklet has been written to meet the requirements of an SEC rule that requires the U.S. options markets to prepare, and brokerage firms to distribute, a booklet that briefly and generally describes the characteristics of options and the risks to investors of maintaining positions in options. Options are versatile instruments that can be used in a wide variety of investment strategies. They give the investor the ability to create positions that reflect the investor's opinion of an underlying interest and to select investment strategies that reflect the investor's tolerance for risk. This booklet is not designed to describe the various potential benefits of options or how investors may use options to enhance their investment strategies or to reduce risk. Numerous other publications, including some prepared by the U.S. options markets that are available upon request, contain discussions of the uses and potential benefits of options and of the various trading and investment strategies that can be employed with options. Readers who wish to balance the general discussion of risks that is contained in this booklet with a discussion of options uses, benefits and strategies should consult one or more of these other publications.

Readers should read and understand this booklet in its entirety, since a number of the separate chapters will be relevant to every reader interested in buying or writing options. For example, a reader who is interested in options on equity securities should fully read not only Chapter III, but also should read Chapters II, VIII and IX, as well as the discussion of risks in Chapter X. Readers should also be aware that, although this booklet seeks to describe the various characteristics of options and the risks that are unique to being an investor in options, there are many matters which are beyond the scope of this booklet that are not discussed. Chapter XI contains a discussion of the scope and limitations of this booklet.

CHAPTER II

OPTIONS NOMENCLATURE

This chapter contains a description of the standardized terms, and of some of the special vocabulary, applicable to options. Most of the nomenclature is the same for options on the various types of underlying interests. Differences that are applicable to options on a particular underlying interest will be described in the chapter devoted to that underlying interest.

Certain terms—options, options markets, call options, put options, physical delivery options, cash-settled options, options series, multiply-traded options and internationally-traded options—have been defined in Chapter I. Readers interested in those definitions should consult that chapter.

OPTION HOLDER; OPTION WRITER—The option holder is the person who buys the right conveyed by the option.

EXAMPLE: The holder of a physical delivery XYZ call option has the right to purchase shares of XYZ Corporation stock at the specified exercise price upon exercise prior to the expiration of the option. The holder of a physical delivery XYZ put option has the right to sell shares of XYZ Corporation at the specified exercise price upon exercise prior to the expiration of the option. The holder of a cash-settled option has the right to receive an amount of cash equal to the cash settlement amount (described below) upon exercise prior to the expiration of the option.

The option writer is obligated—if and when assigned an exercise—to perform according to the terms of the option. The option writer is sometimes referred to as the option seller. An option writer who has been assigned an exercise is known as an assigned writer.

EXAMPLE: If a physical delivery XYZ call option is exercised by the holder of the option, the assigned writer must deliver the required number of shares of XYZ common stock. He will be paid for the shares at the specified exercise price regardless of their current market price.

If a physical delivery put option is exercised, the assigned writer must purchase the required number of shares at the specified exercise price regardless of their current market price. If a cash-settled option is exercised, the assigned writer must pay the cash settlement amount.

No certificates are issued to evidence options. Investors look to the confirmations and statements that they receive from their brokerage firms to confirm their positions as option holders or writers. An option holder looks to the system created by OCC's rules, rather than to any particular option writer, for performance of the option he owns. Similarly, option writers must perform their obligations under the OCC system and are not obligated to any particular option holder. Since every options transaction involves both a holder and a writer, it follows that the aggregate rights of option holders under the system are matched by the aggregate obligations of option writers.

The OCC system is designed so that the performance of all options is between OCC and a group of firms called Clearing Members that carry the positions of all option holders and option writers in their accounts at OCC. To qualify as a Clearing Member, a firm must meet OCC's financial requirements. In addition, Clearing Members must provide OCC with collateral for the positions of option writers that they carry and must contribute to Clearing Funds that protect OCC against a Clearing Member's failure. The Clearing Members' guarantees of the performance of options writers' obligations, the financial strength of the Clearing Members, the collateral that they deposit, the obligations of correspondent clearing corporations, and the Clearing Funds together make up the OCC system backing the performance of options. This system is discussed in more detail in the OCC prospectus referred to in paragraph 1 of Chapter XI.

EXERCISE PRICE—In the case of a physical delivery option, the exercise price (which is sometimes called the "strike price") is the price at which the option holder has the right either to purchase or to sell the underlying interest.

EXAMPLE: A physical delivery XYZ 40 call option gives the option holder the right to purchase 100 shares of XYZ stock at an exercise price of $40 a share. A physical delivery XYZ 40 put option gives the option holder the right to sell 100 shares of XYZ common stock at an exercise price of $40 a share.

The exercise price of a cash-settled option is the base for the determination of the amount of cash, if any, that the option holder is entitled to receive upon exercise (see the discussion of "Cash Settlement Amount and Exercise Settlement Value" below).

Exercise prices for each options series are established by the options market on which that series is traded at the time trading in the series is introduced, and are generally set at levels above and below the then market value of the underlying interest. The options markets generally have authority to introduce additional series of options with different exercise prices based on changes in the value of the underlying interest, or in response to investor interest, or in unusual market conditions, or in other circumstances.

EXPIRATION DATE—This is the date on which the option expires. If an option has not been exercised prior to its expiration, it ceases to exist—that is, the option holder no longer has any rights, and the option no longer has any value. The expiration dates for the various options series are fixed by the options market on which the series trades. Readers should learn the expiration date of each option they wish to buy or write.

STYLE OF OPTION—The style of an option refers to when that option is exercisable. At the date of this booklet there are three different styles of options—American-style, European-style and capped. Subject to certain limitations prescribed in the rules of OCC or the options markets and subject to applicable law, these three styles are exercisable at the following times:

An American-style option may be exercised at any time prior to its expiration.

A European-style option may be exercised only during a specified period before the option expires. Every European-style option being traded at the date of this booklet is exercisable only on its expiration date.

A capped option will be automatically exercised prior to expiration if the options market on which the option is trading determines that the value of the underlying interest at a specified time on a trading day "hits the cap price" for the option. Capped options may also be exercised, like European-style options, during a specified period before expiration.

This period is the expiration date for all capped options traded at the date of this booklet. The special terminology applicable to capped options is discussed at the end of this chapter.

European-style or capped options having an expiration period that is longer or shorter than their expiration date may be introduced for trading in the future.

UNIT OF TRADING; CONTRACT SIZE—The unit of trading (which is sometimes referred to as the contract size) of a physical delivery option is the amount of the underlying interest that is subject to being purchased or sold upon the exercise of a single option contract. For example, the unit of trading for most options on equity securities is 100 shares. Thus, a physical delivery XYZ 50 call will give its holder the right upon exercise to purchase 100 shares of XYZ at $50 per share. If the option is trading at a premium of, say, $4 per share, then the aggregate premium for a single option contract would be $400.

The contract size of a cash-settled option is determined by the multiplier that is fixed by the options market on which the options series is traded. The multiplier determines the aggregate value of each point of the difference between the exercise price of the option and the exercise settlement value of the underlying interest. For example, a multiplier of 100 means that for each point by which a cash-settled option is in the money upon exercise, there is a $100 increase in the cash settlement amount. Similarly, if an option with a multiplier of 100 is trading at a premium of, say, $4, then the aggregate premium for a single option contract would be $400.

EXERCISE—If the holder of a physical delivery option wishes to buy (in the case of a call) or sell (in the case of a put) the underlying interest at the exercise price—or, in the case of a cash-settled option, to receive the cash settlement amount—his option must be exercised. In order to exercise most options, option holders must give exercise instructions to their brokerage firm in accordance with the firm's procedures prior to the firm's exercise cut-off time. The exercise process is discussed in Chapter VIII. Every option holder should understand this process and should learn his brokerage firm's procedures concerning exercise, and its exercise cut-off time, for each option he may buy.

Although an option holder must assure that action is taken to exercise most options, capped options and

certain cash-settled options provide for automatic exercise in specified circumstances. Other options having automatic exercise provisions may be introduced for trading in the future.

The rules of the options markets generally limit the total number of puts or calls on the same underlying interest that a single investor or group of investors acting in concert may exercise during a specified time period. Information concerning the exercise limits for particular options is available from the options market on which those options are traded or from brokerage firms.

The right to exercise an option may be restricted in certain circumstances. This is discussed under "Risks of Option Holders" in Chapter X.

When an option has been exercised, OCC will assign the exercise in accordance with its rules to a Clearing Member whose account with OCC reflects the writing of an option of the same series. The Clearing Member may, in turn, assign this exercise to one of its customers who is a writer in accordance with the Clearing Member's procedures, and the assigned writer will then be obligated to perform the obligations of the option--that is, to sell (in the case of a physical delivery call) or buy (in the case of a physical delivery put) the underlying interest at the exercise price, or, in the case of a cash-settled option, to pay the cash settlement amount. The assignment process is discussed further in Chapter VIII.

CASH SETTLEMENT AMOUNT, SETTLEMENT CURRENCY and EXERCISE SETTLEMENT VALUE—The cash settlement amount is the amount of cash that the holder of a cash-settled option is entitled to receive upon exercise. It is the amount by which the exercise settlement value of the underlying interest of a cash-settled call exceeds the exercise price, or the amount by which the exercise price of a cash-settled put exceeds the exercise settlement value of the underlying interest, multiplied by the multiplier for the option.

EXAMPLE: Assume that a holder of a cash-settled call on the XYZ index that has an exercise price of 80 exercises it when the exercise settlement value of the index is 85. If the multiplier for XYZ index options is 100, the assigned writer would be obligated to pay,

and the exercising holder would be entitled to receive, a cash settlement amount of $500 ($85 minus $80 multiplied by 100 = $500).

The currency in which the cash settlement amount is payable is called the settlement currency. The settlement currency for all cash-settled options with standardized terms that are trading at the date of this booklet is U.S. dollars. It is possible that another currency will be the settlement currency for some options introduced in the future.

The manner of determining the exercise settlement value for a particular option series is fixed by the options market on which the series is traded. The exercise settlement values for options on a particular underlying interest traded in one options market will not necessarily be determined in the same manner as the exercise settlement values for options or futures on the same underlying interest that may be traded in other markets.

Options markets may change the method of determining exercise settlement values for particular options series on specified days or on all days. These changes may be made applicable to series outstanding at the time the changes become effective. Alternatively, an options market might phase in a change in the method of determining exercise settlement values by opening new series of options identical to outstanding series in all respects other than the method for calculating exercise settlement values. Such new series would trade alongside the old series until both series expire, but the two series would not be interchangeable. In the future, options markets may, subject to regulatory approval, introduce options whose exercise settlement values may not exceed a specified maximum amount.

ADJUSTMENT and ADJUSTMENT PANEL—Adjustments may be made to some of the standardized terms of outstanding options upon the occurrence of certain events. Adjustments that may be made to a particular type of options are discussed in the chapter relating to that type.

The determination of whether to adjust outstanding options in response to a particular event, and, if so, what the adjustment should be, is made by a majority vote of an adjustment panel. An adjustment panel for an options series consists of two representatives of each U.S. options market on which the series is traded

and one representative of OCC, who votes only to break a tie. Every determination by an adjustment panel is within its sole discretion and is binding on all investors.

PREMIUM—The premium is the price that the holder of an option pays and the writer of an option receives for the rights conveyed by the option. It is the price set by the holder and writer, or their brokers, in a transaction in an options market where the option is traded. It is not a standardized term of the option. The premium does not constitute a "down-payment." It is simply and entirely a nonrefundable payment in full—from the option holder to the option writer—for the rights conveyed by the option.

The premium is not fixed by the options markets or by OCC. Premiums are subject to continuous change in response to market and economic forces, including changes in the trading conditions on the markets where the particular options are traded. The factors which may generally affect the pricing of an option include such variables as the current value of the underlying interest and the relationship between that value and the exercise price, the current values of related interests (*e.g.*, futures on the underlying interest or other interests related to the underlying interest), the style of the option, the individual estimates of market participants of the future volatility of the underlying interest, the historical volatility of the underlying interest, the amount of time remaining until expiration, cash dividends payable on the underlying stock (in the case of stock and stock index options), current interest rates, current currency exchange rates (in the cases of foreign currency options and options whose premiums or cash settlement amounts are payable in a foreign currency), the depth of the market for the option, the effect of supply and demand in the options market as well as in the markets for the underlying interest and for related interests, the information then available about current prices and operations in the markets for the underlying interest and related interests, the individual estimates of market participants of future developments that might affect any of the foregoing, and other factors generally affecting the prices or volatility of options, underlying interests, related interests or securities generally. Also see the discussion below of "Intrinsic Value and Time Value." Readers should not assume that options premiums will necessarily conform or correlate with any theoretical options pricing

formula, chart, last sale, or the prices of the underlying interest, related interests or other options at any particular time.

The currency in which the premium is payable is called the premium currency. The premium currency for most options is U.S. dollars. However, the premium currency for cross-rate foreign currency options, which are discussed in Chapter VI, is a foreign currency, and other options with premiums payable in a foreign currency may be introduced after the date of this booklet.

OPENING TRANSACTION—This is a purchase or sale transaction by which a person establishes or increases a position as either the holder or the writer of an option.

CLOSING TRANSACTION—This is a transaction in which, at some point prior to expiration, the option holder makes an offsetting sale of an identical option, or the option writer makes an offsetting purchase of an identical option. A closing transaction in an option reduces or cancels out an investor's previous position as the holder or the writer of that option.

EXAMPLE: In June an investor buys a December XYZ 50 call at an aggregate premium of $500. By September the market price of the option has increased to $700. To seek to realize his $200 profit, the investor can direct his broker to sell an offsetting December XYZ 50 call in a closing transaction. On the other hand, if by September the market price of the option has decreased to $300, the investor might still decide to sell the option in a closing transaction, thereby limiting his loss to $200.

Although holders of American-style options have the right to exercise at any time before expiration, holders frequently elect to realize their profits or losses by making closing transactions because the transaction costs of the closing transactions may be lower than the transaction costs associated with exercises, and because closing transactions may provide an opportunity for an option holder to realize the remaining time value (described below) of the option that would be lost in an exercise. The limited period of exercisability of a European-style or capped option means that (except for the possibility of automatic exercise of a capped option) the holder's only means of realizing profit or loss on the option when the option is not exercisable is by selling the option in a closing transaction.

POSITION LIMITS—The rules of the options markets generally limit the maximum number of options on the same side of the market (*i.e.*, calls held plus puts written, or puts held plus calls written) with respect to a single underlying interest that may be carried in the accounts of a single investor or group of investors acting in concert. These limits—which are called position limits—differ for options on different underlying interests. Information concerning the position limits for particular options is available from the options market on which those options are traded or from brokerage firms.

COMBINATIONS; SPREADS and STRADDLES—Combination positions are positions in more than one option at the same time. Spreads and straddles are two types of combination positions. A spread involves being both the buyer and writer of the same type of option (puts or calls) on the same underlying interest, with the options having different exercise prices and/or expiration dates. A straddle consists of purchasing or writing both a put and a call on the same underlying interest, with the options having the same exercise price and expiration date.

LONG and SHORT—The word long refers to a person's position as the holder of an option, and the word short refers to a person's position as the writer of an option.

COVERED CALL WRITER—If the writer of a physical delivery call option owns or acquires the amount of the underlying interest that is deliverable upon exercise of the call, he is said to be a covered call writer.

EXAMPLE: An individual owns 100 shares of XYZ common stock. If he writes one physical delivery XYZ call option—giving the call holder the right to purchase 100 shares of the stock at a specified exercise price—this would be a covered call. If he writes two such XYZ calls, one would be covered and one would be uncovered.

The distinction between covered and uncovered call writing positions is important since uncovered call writing can involve substantially greater exposure to risk than covered call writing. A call option writer who is not a covered writer may hold another option in a spread position and thereby offset some or all of the risk of the option he has written. However, the spread may not offset all of the risk of the uncovered writing position. For example, if the long portion of the spread has a

higher exercise price than the exercise price of the short, or if the long has an earlier expiration date than the expiration date of the short, then the writer may still be exposed to significant risks from his uncovered writing position.

AT THE MONEY—This term means that the current market value of the underlying interest is the same as the exercise price of the option.

IN THE MONEY—A call option is said to be in the money if the current market value of the underlying interest is above the exercise price of the option. A put option is said to be in the money if the current market value of the underlying interest is below the exercise price of the option.

EXAMPLE: If the current market price of XYZ stock is $43, an XYZ 40 call would be in the money by $3.

OUT OF THE MONEY—If the exercise price of a call is above the current market value of the underlying interest, or if the exercise price of a put is below the current market value of the underlying interest, the option is said to be out of the money by that amount.

EXAMPLE: With the current market price of XYZ stock at $40, a call with an exercise price of $45 would be out of the money by $5—as would a put with an exercise price of $35.

INTRINSIC VALUE and TIME VALUE—It is sometimes useful to consider the premium of an option as consisting of two components: intrinsic value and time value. Intrinsic value reflects the amount, if any, by which an option is in the money. Time value is whatever the premium of the option is in addition to its intrinsic value. An American-style option may ordinarily be expected to trade for no less than its intrinsic value prior to its expiration, although occasionally an American-style option will trade at less than its intrinsic value. Because European-style and capped options are not exercisable at all times, they are more likely than American-style options to trade at less than their intrinsic value when they are not exercisable.

EXAMPLE OF A CALL WITH INTRINSIC VALUE: At a time when the current market price of XYZ stock is $46 a share, an XYZ 40 call would have an intrinsic value of $6 a share. If the market price of the stock were to decline to $44, the intrinsic value of the

call would be only $4. Should the price of the stock drop to $40 or below, the call would no longer have any intrinsic value.

EXAMPLE OF A PUT WITH INTRINSIC VALUE: At a time when the current market price of XYZ stock is $46 a share, an XYZ 50 put would have an intrinsic value of $4 a share. Were the market price of XYZ stock to increase to $50 or above, the put would no longer have any intrinsic value.

EXAMPLE OF TIME VALUE: At a time when the market price of XYZ stock is $40 a share, an XYZ 40 call may have a current market price of, say, $2 a share. This is entirely time value.

An option with intrinsic value may often have some time value as well—that is, the market price of the option may be greater than its intrinsic value. This could occur with an option of any style.

EXAMPLE: With the market price of XYZ stock at $45 a share, an XYZ 40 call may have a current market price of $6 a share, reflecting an intrinsic value of $5 a share and a time value of $1 a share.

An option's time value is influenced by several factors (as discussed above under "Premium"), including the length of time remaining until expiration. An option is a "wasting" asset; if it is not sold or exercised prior to its expiration, it will become worthless. As a consequence, all else remaining the same, the time value of an option usually decreases as the option approaches expiration, and this decrease accelerates as the time to expiration shortens. However, there may be occasions when the market price of an option may be lower than the market price of another option that has less time remaining to expiration but that is similar in all other respects.

An American-style option's time value is also influenced by the amount the option is in the money or out of the money. An option normally has very little time value if it is substantially in the money. Although an option that is substantially out of the money has only time value, the amount of that time value is normally less than the time value of an option having the same underlying interest and expiration that is at the money.

Another factor influencing the time value of an option is the volatility of the underlying interest. All else being

the same, options on more volatile interests command higher premiums than options on less volatile interests.

Time value is also influenced by the current cost of money. Increases in prevailing interest rates tend to cause higher premiums for calls and lower premiums for puts, and decreases in prevailing interest rates tend to cause lower premiums for calls and higher premiums for puts.

The following is a description of the terminology applicable to capped options:

CAP INTERVAL—The cap interval is a constant established by the options market on which a series of capped options is traded. The exercise price for a capped-style option plus the cap interval (in the case of a call), or minus the cap interval (in the case of a put), equals the cap price for the option. For example, if a capped call option with an exercise price of 360 has a cap interval of 30, then the cap price at which the option will be automatically exercised would be 390.

CAP PRICE—The cap price is the level that the automatic exercise value of a capped option must reach in order for the option to be automatically exercised. The cap price of a call option is above, and of a put option below, the exercise price of the option.

EXAMPLE: A 360 ABC capped call index option has an exercise price of 360 and a cap interval of 30. The call option has a cap price of 390.

EXAMPLE: A 310 XYZ capped put index option has an exercise price of 310 and a cap interval of 20. The put option has a cap price of 290.

AUTOMATIC EXERCISE VALUE—The automatic exercise value of a capped option is the price or level of the underlying interest determined in a manner fixed by the options market on which the option is traded for each trading day as of a specified time of that day.

EXAMPLE: A 310 XYZ capped put index option has a cap interval of 20, and therefore has a cap price of 290. Assume that the options market on which the option is traded has specified the close of trading on each trading day as the time for determining the automatic exercise value on the XYZ index, and that the index level reaches a low of 289 during a particular trading day, but is at 291 at the close. The automatic

exercise value has not reached the cap price, and the automatic exercise feature of the option is not triggered, because the index level was not at or below the cap price at the time of day specified by the options market for determining the automatic exercise value.

CASH SETTLEMENT AMOUNT—This is the cash amount that the holder of a cash-settled capped option is entitled to receive upon the exercise of the option. In the case of a capped option that has been automatically exercised, the cash settlement amount is equal to the cap interval times the multiplier for the option, even if the automatic exercise value on the day that the automatic exercise feature is triggered exceeds (in the case of a call) or is less than (in the case of a put) the cap price. If the capped option is voluntarily exercised at expiration, the cash settlement amount is determined in the same manner as for other styles of cash-settled options.

EXAMPLE: A 360 ABC capped call index option has a cap interval of 30 and a multiplier of 100. The automatic exercise value of the ABC index is 396 on a particular trading day. The call option is automatically exercised, and the cash settlement amount is $3000 (equal to the cap interval of 30 times the multiplier of 100).

EXAMPLE: A 360 ABC capped call index option has a cap interval of 30 and a multiplier of 100. The automatic exercise value of the ABC index never equals or exceeds the cap price of 390 during the life of the option, and the exercise settlement value of the option is 367 on the final trading day. Upon exercise of the option, the holder is entitled to receive a cash settlement amount of $700 (equal to the multiplier of 100 times the difference between the exercise settlement value of 367 and the exercise price of 360).

CHAPTER III

OPTIONS ON EQUITY SECURITIES

The term "stock options" is used broadly in this booklet to include not only options on common stocks but also options on all other types of equity securities, such as limited partnership interests, "American Depository Receipts" and "American Depository Shares" representing interests in foreign entities, and preferred stocks. Options are available on exchange-traded equity securities, on unlisted equity securities traded in the NASDAQ stock market and designated as national market system securities, and on equity securities traded both in the NASDAQ stock market and on exchanges. The NASDAQ stock market is primarily an inter-dealer trading system as contrasted with exchange auction markets.

Issuers of underlying equity securities do not participate in the selection of their securities for options trading (although some options markets may determine not to select an underlying security without the consent of the issuer of that security). Issuers of underlying equity securities have no responsibility regarding the issuance, the terms, or the performance of options, and option holders have no rights as security holders of such issuers.

The principal risks of holders and writers of stock options are discussed in Chapter X. Readers interested in buying or writing stock options should carefully read that chapter.

FEATURES OF STOCK OPTIONS

Each stock option generally covers 100 shares of the underlying security, although, as described below, the number of underlying shares may be adjusted as a result of certain events.

The exercise prices of the stock options that are traded at the date of this booklet are stated in U.S. dollars per share. The exercise price of an option must each be multiplied by the number of shares underlying the option in order to determine the aggregate exercise price and aggregate premium of that option.

EXAMPLE: An XYZ 40 call gives the buyer the right to purchase 100 shares of XYZ stock at a price of $40 per share, or a total price of $4,000.

In the future, stock options may, with regulatory approval, be introduced that have exercise prices in a foreign currency.

Adjustments may be made to certain of the standardized terms of outstanding stock options when certain events occur, such as a stock dividend, stock distribution, stock split, reverse stock split, rights offering, distribution, reorganization, recapitalization, reclassification in respect of an underlying security, or a merger, consolidation, dissolution or liquidation of the issuer of the underlying security. In the following discussion, there is a brief description of a number of general adjustment rules applicable to stock options that are in effect at the date of this booklet. Such rules may be changed from time to time with regulatory approval. An adjustment panel has the authority to make such exceptions as it determines to be appropriate to any of the general adjustment rules.

As a general rule, no adjustment is made for ordinary cash dividends or distributions. A cash dividend or distribution by most issuers will generally be considered "ordinary" unless it exceeds 10% of the aggregate market value of the underlying security outstanding. The options markets are considering an amendment to the general rules which, if adopted and approved by the regulators, would provide that a cash dividend or distribution by an issuer that is a closed-end investment company may not be considered to be "ordinary" if it exceeds 5% of such aggregate market value. Determinations whether to adjust for cash dividends or distributions in excess of those amounts are made on a case-by-case basis.

Because stock options are not generally adjusted for ordinary cash dividends and distributions, covered writers of calls are entitled to retain dividends and distributions earned on the underlying securities during the time prior to exercise. However, a call holder becomes entitled to the dividend if he exercises the option prior to the ex-dividend date even though the assigned writer may not be notified that he was assigned an exercise until after the ex-date. Because call holders may seek to "capture" an impending dividend by exercising, a call writer's chances of being assigned an exercise may increase as the ex-date for a dividend on the underlying security approaches.

As a general rule, stock dividends, stock distributions and stock splits can result in an adjustment in the number of underlying shares or the exercise price, or both.

EXAMPLE: An investor bought an XYZ 60 option—either a call or a put—and XYZ Corporation subsequently effected a 3 for 2 stock distribution. Instead of covering 100 shares of stock at an exercise price of $60 a share, each outstanding option could be adjusted to cover 150 shares at an exercise price of $40 per share.

However, when a stock distribution results in the issuance of one or more whole shares of stock for each outstanding share—such as a 2 for 1 stock split—as a general rule the number of underlying shares is not adjusted. Instead, the number of outstanding options is proportionately increased and the exercise price is proportionately decreased.

EXAMPLE: Before a 2 for 1 stock split, an investor holds an option on 100 shares of XYZ stock with an exercise price of $60. After adjustment for the split, he will hold two XYZ options, each on 100 shares and with an exercise price of $30.

An adjustment panel may make an exception to the general rule to adjust for stock dividends. For example, in cases where the issuer of the underlying security announces or exhibits a policy of declaring regular stock dividends that do not individually exceed 10% of the amount of the underlying security outstanding, an adjustment panel may determine to treat the stock dividends as though they were ordinary cash dividends and to make no adjustment for them.

As a general rule, adjustments in exercise prices are rounded to the nearest 1/8 of a dollar, and adjustments in the number of underlying shares are rounded down to eliminate fractional shares. In the latter case, the exercise price may be further adjusted to compensate for the elimination of the fractional shares.

Distributions of property other than the underlying security may require different adjustments. For example, outstanding options might be adjusted to include the distributed property.

EXAMPLE: If XYZ "spins off" its subsidiary ABC by distributing to its stockholders 2.5 shares of ABC

stock for each share of XYZ stock, outstanding XYZ options might be adjusted to require delivery of 100 shares of XYZ stock plus 250 shares of ABC stock.

Alternatively, the exercise prices of outstanding options might be reduced by the value, on a per-share basis, of the distributed property, as determined by the adjustment panel.

Events other than distributions may also result in adjustments. If all of the outstanding shares of an underlying security are acquired in a merger or consolidation, outstanding options will as a general rule be adjusted to require delivery of the cash, securities, or other property payable to holders of the underlying security as a result of the acquisition.

EXAMPLE: If XYZ is acquired by PQR in a merger where each holder of XYZ stock receives $50 plus 1/2 share of PQR stock for each share of XYZ stock held, XYZ options might be adjusted to call for the delivery of $5,000 in cash and 50 shares of PQR stock instead of 100 shares of XYZ stock.

When an underlying security is wholly or partially converted into a debt security or a preferred stock, options that have been adjusted to call for delivery of the debt security or preferred stock may, as a general rule, be further adjusted to call for any securities distributed as interest or dividends on such debt security or preferred stock.

When an underlying security is converted into a right to receive a fixed amount of cash, options on that security will generally be adjusted to require the delivery upon exercise of a fixed amount of cash, and trading in the options will ordinarily cease when the merger becomes effective. As a result, after such an adjustment is made all options on that security that are not in the money will become worthless and all that are in the money will have no time value.

As a general rule, adjustments are not made for tender offers or exchange offers, whether by the issuer or a third party, and whether for cash, securities (including issuer securities), or other property. This presents a risk for writers of put options, because a successful tender offer or exchange offer (whether by the issuer or by a third party) may have a significant effect on the market value of the security that the put writers would be obligated to purchase if the put options are exercised after the expiration of the offer.

As a general rule, adjustments will not be made to reflect changes in the capital structure of the issuer where all of the underlying securities outstanding in the hands of the public (other than dissenters' shares) are not changed into another security, cash or other property.

As a general rule, an adjustment that is made in an option will become effective on the ex-date established by the primary market for trading in the underlying security.

CHAPTER IV

INDEX OPTIONS

ABOUT INDEXES

As referred to in this booklet, an index is a measure of the prices of a group of securities* or other interests. Although indexes have been developed to cover a variety of interests, such as stocks and other equity securities, debt securities and foreign currencies, and even to measure the cost of living, indexes on equity securities (which are called stock indexes) are among the most familiar, and they are the only indexes that underlie options trading at the date of this booklet. The following discussion refers only to stock indexes and stock index options.

Stock indexes are compiled and published by various sources, including securities markets. An index may be designed to be representative of the stock market of a particular nation as a whole, of securities traded in a particular market, of a broad market sector (*e.g.*, industrials), or of a particular industry (*e.g.*, electronics). An index may be based on the prices of all, or only a sample, of the securities whose prices it is intended to represent. Indexes may be based on securities traded primarily in U.S. markets, securities traded primarily in a foreign market, or a combination of securities whose primary markets are in various countries.

A stock index, like a cost of living index, is ordinarily expressed in relation to a "base" established when the index was originated.

EXAMPLE: On the starting or "base" date for a new value-weighted index, the total market values of the component securities (market price times number of shares outstanding) is $50 billion. The publisher of the index will assign an arbitrary index level—say 100—to that base value. If the total market value of the component stocks increases by 2% the next day (*i.e.*, to $51 billion), the index level would rise to 102 (102% of the base level of 100).

*Some indexes reflect values of companies, rather than securities, by taking into account both the prices of constituent securities and the number of those securities outstanding.

The base may be adjusted from time to time to reflect such events as capitalization changes affecting the constituent securities of the index (*e.g.*, issuance of new shares) or to maintain continuity when securities are added to or dropped from the index. These adjustments are generally designed so that the index level will change only as a result of price changes of constituent securities during trading.

Securities may be dropped from an index because of events such as mergers and liquidations or because a particular security is no longer thought to be representative of the types of stocks constituting the index. Securities may also be added to an index from time to time. Adjustments in the base level of an index, additions and deletions of constituent securities, and similar changes are within the discretion of the publisher of the index and will not ordinarily cause any adjustment in the terms of outstanding index options. However, an adjustment panel has authority to make adjustments if the publisher of the underlying index makes a change in the index's composition or method of calculation that in the panel's determination, may cause significant discontinuity in the index level.

Different stock indexes are calculated in different ways. Accordingly, even where indexes are based on identical securities, they may measure the relevant market differently because of differences in methods of calculation. Often the market prices of the securities in the index group are "capitalization weighted." That is, in calculating the index value, the market price of each constituent security is multiplied by the number of shares outstanding. Because of this method of calculation, changes in the prices of the securities of larger corporations will generally have a greater influence on the level of a capitalization weighted index than price changes affecting smaller corporations.

Other methods may be used to calculate stock indexes. For example, in one method known as "equal-dollar weighting," the index is established by establishing an aggregate market value for every constituent security of the index and then determining the number of shares of each security by dividing such aggregate market value by the then current market price of the security. The base level of the index is established by dividing the total market value of all constituent securities by a fixed index divisor. Thereafter, the number of shares of the constituent securities and the index divisor are adjusted at periodic intervals in order to have

each constituent security continue to represent an approximately equal dollar value in the index without distorting the level of the index.

Another method of calculation is simply to add up the prices of the securities in the index and divide by the number of securities in the index, disregarding numbers of shares outstanding. Another method measures daily percentage movements of prices by averaging the percentage price changes of all securities included in the index.

Investors should keep in mind that an index can respond only to reported price movements in its constituent securities. An index will therefore reflect the stock market as a whole, or particular market segments, only to the extent that the securities in the index are being traded, the prices of those trades are being promptly reported, and the market prices of those securities, as measured by the index, reflect price movements in the relevant markets. The index level will be affected by all of the factors that may at the time affect prices in the relevant markets for the constituent securities of the index, including, among other things, applicable laws, regulations and trading rules, the market-making and order processing systems of those markets, the liquidity and efficiency of those markets, and the prices and price behavior of futures contracts on that index or a related index.

Certain trading strategies involving purchases and sales of index options, index futures, options on index futures or portfolios of certain of the securities in an index can affect the value of the index, the prices of the index futures, and, therefore, the prices of index options. These transactions and the resulting impact may occur at any time—and may accompany significant changes in the prices or volatilities of the stock and derivative markets—including at or shortly before an expiration. For example, traders holding positions in expiring index options or futures contracts hedged by positions in securities included in the index may attempt to liquidate their securities positions at or near the time for determining the final exercise settlement value of the options or futures contracts. The resulting orders to liquidate these securities might result in significant changes in the level of the index. Index options investors should be aware of the potential impact that these trading strategies can have on index levels at or near expiration, and the possibility that the values of index option positions will be affected accordingly.

Readers who intend to trade index options should familiarize themselves with the basic features of the underlying indexes, including the general methods of calculation. Readers who are attempting to follow a precise and sophisticated strategy involving index options may wish to inform themselves about the exact method for calculating each index involved. Information regarding the method of calculation of any index on which options are traded, including information concerning the standards used in adjusting the index, adding or deleting securities, and making similar changes, is generally available from the options market where the options are traded.

The value level of every index underlying an option—including the exercise settlement value—is the value of the index as reported by the reporting authority designated by the options market where the option is traded as the official source for determining that index's value. Unless OCC directs otherwise, every value as initially reported by the reporting authority is conclusively presumed to be accurate and deemed to be final for the purpose of calculating the cash settlement amount, even if the value is subsequently revised or determined to have been inaccurate.

Most indexes on which options are traded are updated during the trading day, and updated index levels are disseminated at frequent intervals. Investors may determine current index levels from their brokerage firms; in addition, the closing levels of many underlying stock indexes are published in daily newspapers such as "The Wall Street Journal." However, an index option may be traded in the options markets at a time when some, or even a substantial portion, of the constituent securities of the underlying index are not trading or when there is a lag in the reporting of prices in some or all of the constituent securities. In those circumstances, the current reported index level will be based on non-current information, since its calculation will be based on the last reported prices for all constituent securities even though trading or price reporting in some of those securities is not current.

FEATURES OF INDEX OPTIONS

All index options that are traded at the date of this booklet are cash-settled. Cash-settled index options do not relate to a particular number of shares. Rather, the "size" of a cash-settled index option contract is determined by the multiplier of the option. If the option

market on which an option series is traded should decrease the multiplier for the series, an adjustment panel may adjust outstanding options of that series.

The exercise prices and premiums of the index options that are traded at the date of this booklet are expressed in U.S. dollars. Subject to regulatory approval, trading in index options whose exercise prices or premiums are expressed in a foreign currency may be introduced in the future. The total exercise price for a single option is the stated exercise price multiplied by the multiplier.

Premiums for index options are expressed in points and fractions of points. Each point of premium of the options trading at the date of this booklet represents an amount equal to one U.S. dollar. In order to determine the aggregate premium for a single index option, the quoted premium must be multiplied by the multiplier.

EXAMPLE: An investor purchases a December 110 index call at 2⅛. The multiplier for that option is 100. The aggregate dollar amount of the premium is $212.50 ($2⅛ times 100 = $212.50). Had the options market used a multiplier of 200, a premium of 2⅛ would have meant an aggregate premium of $425.00.

The exercise settlement values of stock index options are determined by their reporting authorities in a variety of ways. The exercise settlement values of some index options are based on the reported level of the index derived from the last reported prices of the constituent securities of the index at the closing on the day of exercise. The exercise settlement values of other options are based on the reported level of the index derived from the opening prices of the constituent securities on the day of exercise. If an option is exercised on a day that is not scheduled as a trading day for the constituent securities of the index, the exercise settlement value is based on the reported level of the index derived from the opening or closing prices (depending on the options series) of the constituent securities on the last prior day that is scheduled as a trading day. If a particular constituent security does not open for trading on the day the exercise settlement value is determined, the last reported price of that security is used. Other means for determining the exercise settlement values of some index options series have been, and may continue to be, established. For example, the exercise settlement values for options on an index of foreign securities may be fixed in relation to a value fixed by a foreign exchange.

Investors should be aware that the exercise settlement value of an index option that is derived from the opening prices of the constituent securities may not be reported for several hours following the opening of trading in those securities. A number of updated index levels may be reported at and after the opening before the exercise settlement value is reported, and there could be a substantial divergence between those reported index levels and the reported exercise settlement value.

Investors should also be aware that there is no single opening or closing price for securities primarily traded in the NASDAQ stock market. A price of a NASDAQ security that is used in determining the level on a particular day of an index that includes the security will not necessarily be the price at which a majority of opening or closing trades in that security were effected on that day.

The principal risks of holders and writers of index options are discussed in Chapter X. Readers interested in buying or writing index options should carefully read that chapter, particularly the discussions under the headings "Risks of Option Holders," "Risks of Option Writers," "Other Risks," and "Special Risks of Index Options."

CHAPTER V

DEBT OPTIONS

Two kinds of debt options have been approved for trading at the date of this booklet. One kind, called price-based options, are options which give their holders the right either to purchase or sell a specified underlying debt security or to receive a cash settlement payment based on the value of an underlying debt security (depending on whether the options are physical delivery or cash-settled options). The other kind, called yield-based options, are options that are cash-settled based on the difference between the exercise price and the value of an underlying yield. The distinctions between price-based and yield-based options are fundamental and should be understood by readers interested in investing in debt options.

At the date of this booklet, only yield-based options are being traded. Although price-based options have traded in the past and may be traded in the future, no price-based option is traded at the date of this booklet.

The principal risks of holders and writers of debt options are discussed in Chapter X. Readers interested in buying or writing debt options should not only read this chapter but should also carefully read Chapter X, particularly the discussions under the headings "Risks of Option Holders," "Risks of Option Buyers," "Other Risks," and "Special Risks of Debt Options."

RATES, YIELDS AND PRICES OF DEBT SECURITIES

To understand debt options, an investor should understand the relationship between the rates or yields, which are different ways of expressing return on debt securities, and prices of debt securities. (Coupon interest rates of a debt security express return as a percentage of the principal amount (par value) of the security. Yields express return (or projected return) as a percentage of the amount invested.) This relationship, simply stated, is that prices of debt securities move inversely to changes in rates. Declining rates, whether

on long-term bonds or money market instruments, will generally cause prices of outstanding debt securities to increase. Conversely, rising rates across a particular maturity spectrum will generally cause the prices of outstanding debt securities of that maturity to decline.

EXAMPLE: A 30-year Treasury bond pays interest at a 12% coupon rate. The only time prior to maturity that investors will pay a price of 100 (that is, 100% of par value) for the bond is when the prevailing yield on such long-term Treasury bonds is exactly 12%. Should rates move higher to, say, 14% for such Treasury bonds, the price of an outstanding 12% bond would have to decline to about 86 in order for the bond to yield 14%. If rates on such bonds subsequently decline to 10%, the price of the 12% bond could be expected to rise substantially above par, since it would yield 10% at a price of 120.

Price-based call options become more valuable as the prices of the underlying debt securities increase, and price-based puts become more valuable as the prices of the underlying debt securities decline. The relationship between interest rate changes, prices, and the value of price-based debt options can be expressed as follows:

Interest Rates (Yields) ↓ = Prices ↑ = Call ↑ / Put ↓

Interest Rates (Yields) ↑ = Prices ↓ = Call ↓ / Put ↑

In contrast, the exercise settlement value of a yield-based option is based on the difference between the value of an underlying yield and the exercise price of the option. Since the underlying yields of yield-based options will increase as interest rates increase, and vice-versa, it follows that yield-based calls become more valuable as yields rise (*i.e.*, as the prices of the debt securities from which the underlying yield is derived decline), and puts become more valuable as yields decline (and prices of such securities increase). These relationships can be expressed as follows:

Interest Rates (Yields) ↓ = Prices ↑ = Call ↓ / Put ↑

Interest Rates (Yields) ↑ = Prices ↓ = Call ↑ / Put ↓

TREASURY SECURITIES

The underlying debt securities of price-based options and the debt securities from which the underlying yields of yield-based options are derived are all Treasury securities—*e.g.*, 30-year Treasury bonds, 10-year Treasury notes, 5-year Treasury notes and Treasury bills.

Treasury bonds and notes are direct obligations of the United States that pay a fixed rate of interest semi-annually. Bonds are issued for maturities of more than ten years (although many issues are callable prior to maturity). Notes are issued for maturities of one to ten years, and are non-callable. New issues of bonds and notes are sold periodically by the Treasury, usually on an auction basis. The auction price is established by bidding and may be above or below par value. Occasionally the Treasury will "reopen" an outstanding issue by auctioning additional principal amounts. Government securities dealers make secondary markets in virtually all outstanding issues, but market activity and liquidity tend to center on the most recently auctioned issues.

Unlike Treasury bonds and notes, Treasury bills do not pay interest. Instead, the Treasury sells bills at a discount from their principal amount (par value). The investment return consists of the difference between the discounted purchase price and the principal amount payable at maturity. Treasury bills are issued in maturities of 13, 26 or 52 weeks.

Return on Treasury bills is commonly expressed in terms of a discount rate which represents an annualization (based on a 360-day year) of the percentage discount at which the bills are sold.

EXAMPLE: If a 13-week (91-day) Treasury bill with a principal amount of $1,000,000 is sold for $970,000, the actual discount would be $30,000 or 3% and the discount rate would be approximately 11.9% (360/91 times 3%).

Bills are auctioned by the Treasury on a regular basis, typically at weekly intervals for 13-week and 26-week bills and every four weeks for 52-week bills. While dealers maintain secondary markets in all outstanding Treasury bills, activity tends to center in the

most recently auctioned issues. These are commonly referred to as the "current" 13-week, 26-week, and "year" bills, respectively.

YIELD-BASED OPTIONS

All yield-based options being traded at the date of this booklet are cash-settled European-style options. The underlying yield of these options is the annualized yield to maturity of the most recently issued Treasury security of a designated maturity—*e.g.*, 30-year, 10-year, 5-year—based upon quotations or prices determined in accordance with a method specified by the options market on which the option is traded. If such security is a Treasury bill, the underlying yield is the annualized discount of the Treasury bill. (A discount represents a percentage of principal amount, rather than a return on investment, and is therefore not a true yield.) Underlying yield is stated in terms of a yield indicator, which is the percentage yield multiplied by ten. For example, if the yield is based on a Treasury bill having an annualized discount of 8.715%, the yield indicator would be 87.15.

The designated maturity of the Treasury security from which the underlying yield is determined is a standardized term of every yield-based option that is traded at the date of this booklet. The specific Treasury security having that maturity is not fixed; rather, the underlying yield is derived from the outstanding security of the designated maturity that has the longest remaining life. Newly-auctioned securities having the longest remaining life will replace old issues on the first trading day following their auction. Thus, the specific Treasury security from which the underlying yield is derived may change during the life of the option. Because yield-based options are European-style options, investors ordinarily will know prior to the time an option is exercisable the specific Treasury security from which its exercise settlement value will be determined. However, an option may often be traded for weeks or months before that specific security is auctioned by the Treasury. During that time, trading in the option will be based upon the yield for the Treasury security of the designated maturity that then has the longest remaining life.

EXAMPLE: Yield-based options whose yield is based on 5-year Treasury notes expiring in December

are opened for trading on the business day following the September auction of 5-year notes. Trading in the options will be based upon current yields for the September issue until the October auction of 5-year notes. Beginning on the trading day following the October auction, trading will be based upon current yields for the new 5-year notes. The same process will occur in November. If the options expire on or after the auction date for 5-year notes in December, their exercise settlement value will be based upon the then current yield for the December issue.

Current bid and asked quotations for recently issued Treasury securities of particular maturities are available from normal market sources. Current yield indicator values based upon a sampling of bid and asked quotations from primary dealers are disseminated at frequent intervals during the trading day by an options reporting source. Exercise settlement values for yield-based options whose underlying yields are derived from Treasury securities are based upon the spot yield for the security at a designated time on the last trading day of the option, as announced by the Federal Reserve Bank of New York.

The aggregate cash settlement amount that the assigned writer of a yield-based option is obligated to pay the exercising option holder is the difference between the exercise price of the option and the exercise settlement value of the underlying yield on the last trading day before expiration, as reported by a designated reporting authority, multiplied by the multiplier for the option. Different yield-based options may have different multipliers.

The exercise prices of yield-based options are expressed in terms of the yield indicator. For example, an exercise price of 82.50 would represent a yield of 8.25%.

Each point of premium will correspond to .1% in yield. The dollar value of the premium for a single yield-based option will equal the quoted premium multiplied by the dollar value of the option multiplier. Thus, a premium of 2½ would equal a premium of $250 for an option having a multiplier of 100, or $5000 for an option having a multiplier of 2000.

The premiums of yield-based options are affected by the factors discussed under "Premium" in Chapter II.

Because yield-based options are European-style options and the underlying yield is determined from the most recently auctioned Treasury security with the longest remaining life, a major factor affecting the pricing of such options is likely to be the estimates of market participants of the anticipated yield at expiration, and current yield may be a less significant pricing factor.

Settlement of exercises of yield-based options takes place on the business day immediately following the day of exercise. Investors may determine from their brokerage firms when and how settlement amounts will be credited or debited to their brokerage accounts.

If the U.S. Department of the Treasury ceases to issue, or changes the terms or the schedule of issuance of, Treasury securities of a designated maturity, an adjustment panel has discretion to adjust the terms of the series by substituting other Treasury securities or to make such other adjustment as the adjustment panel may determine. If the options market on which a particular yield-based option is traded should decrease the multiplier for the option, the adjustment panel has discretion to adjust outstanding options affected by the change by proportionately subdividing them or by taking other action.

Rules of the options market on which yield-based options are traded may permit or require suspension of trading in the options if current quotations for the last-auctioned Treasury securities of the designated maturity become unavailable or unreliable. For a discussion of the risks involved in trading halts, see the discussion in Chapter X under "Other Risks."

CHAPTER VI

FOREIGN CURRENCY OPTIONS

Foreign currency options—sometimes referred to simply as currency options—are options to purchase or sell one currency at a price denominated in another currency. The price of one currency in terms of another currency is known as an exchange rate. The exercise price of a currency option thus represents an exchange rate. The currency in which the premium and exercise price are denominated is referred to as the trading currency. The currency to be purchased or sold at the exercise price is the underlying currency.

Certain of the foreign currency options discussed in this chapter, which are referred to as dollar-denominated foreign currency options, are options to purchase or sell underlying foreign currencies for U.S. dollars, and their exercise prices represent the exchange rates of the underlying foreign currencies with respect to the U.S. dollar. Other options (which are referred to as cross-rate foreign currency options or cross-rate options) that are discussed below under "Cross-Rate Foreign Currency Options" are options to purchase or sell an underlying foreign currency at an exercise price that is denominated in another foreign currency. The exercise price of a cross-rate option therefore represents an exchange rate between two foreign currencies.

While most of the foreign currency options that are traded at the date of this booklet are physical delivery options, trading has been introduced in cash-settled foreign currency options. These options are discussed below under "Cash-Settled Foreign Currency Options."

The term "foreign currency" includes not only the currencies of individual nations, but also the European Currency Unit ("ECU"). The ECU, which is composed of specified amounts of various European currencies, is the official medium of exchange of the European Economic Community's European Monetary System and is primarily intended for use in international commerce. As used in this booklet, the term "sovereign government" includes the European Economic Community.

The principal risks of holders and writers of foreign currency options are discussed in Chapter X. Readers interested in buying or writing foreign currency options should not only read this chapter but should also carefully read Chapter X, particularly the discussions under the headings "Risks of Option Holders," "Risks of Option Buyers," "Other Risks," and "Special Risks of Foreign Currency Options."

MARKET FOR FOREIGN CURRENCIES

Understanding the risks inherent in foreign currency options requires familiarity with the characteristics of the markets for the underlying currencies. Readers will find extensive literature on the subject, and this chapter can do no more than briefly summarize the most fundamental characteristics of those markets as they pertain to foreign currency options.

Foreign exchange rates can be free floating or may be subject to a variety of formal or informal governmental exchange rate control mechanisms. Exchange rates of most Western nations are permitted to fluctuate in value relative to the U.S. dollar and to each other. It must be kept in mind, however, that sovereign governments rarely voluntarily allow their currencies to float freely in response to economic forces. To the contrary, sovereign governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls, to affect the exchange rates of their currencies. Thus, a special risk in trading options on foreign currencies is that governmental actions might be instituted which could interfere with freely determined currency valuation or even with movement of currencies across borders. These risks are specifically addressed under "Special Risks of Foreign Currency Options" in Chapter X.

The market in foreign currencies exists in every large financial center in the world, and primarily consists of trading by the world's international banks. In contrast to the stock market, the market for foreign currencies is decentralized, essentially free from government regulation designed to protect investors (although, as noted above, governments may take various actions that affect their own currencies and the markets on which they are traded), and extremely large. Trading is generally conducted in units equivalent to $1 million to $5 million, and the market is not structured for trading or delivery of small amounts of currency. While a "retail market" for foreign currencies is available for tourists and others engaged in smaller transactions, the

prices available in that market are only generally related to prices in the "wholesale" interbank market, and it is unlikely that the prices in the retail market will be as favorable as the prices for transactions in large amounts of foreign currency.

SPECIAL CHARACTERISTICS OF FOREIGN CURRENCY OPTIONS

Foreign currency options, like other options, provide opportunities for investment and pose risks to investors as a result of fluctuations in the value of the underlying interest. Just as certain options on equity securities are priced in relation to the price of the underlying security, dollar-denominated foreign currency option prices will generally depend in significant part on the U.S. dollar value of the underlying foreign currency. Similarly, the prices of cross-rate options will tend to depend on the relative values of the underlying currency and the trading currency.

The relationship between the value of an underlying foreign currency relative to the trading currency and the prices of options on that underlying foreign currency can be summarized as follows:

1. If the value of an underlying foreign currency rises in relation to the trading currency, call premiums will normally increase and put premiums decrease.

2. If the value of an underlying foreign currency decreases in relation to the trading currency, call premiums will normally decrease and put premiums increase.

EXAMPLE: Assume a dollar-denominated call option gives its holder the right to purchase British pounds at $1.35 each. At expiration, that option will have intrinsic value if the price of the British pound is above $1.35. At the same time, it will have no intrinsic value if the price of the pound is equal to or below $1.35. The change in the price of British pounds may result from a change in the value of the U.S. dollar relative to all other currencies ("strong" dollar, "weak" dollar), from a change peculiar to the British pound ("strong" pound, "weak" pound), or from a combination of the two. In any case, the final measure of the intrinsic value of the option will be the value of the British pound relative to the U.S. dollar.

EXAMPLE: Assume a cross-rate call option gives its holder the right to purchase British pounds at 2.50 German marks ("DM") each. At expiration, that option will have intrinsic value if the price of the British pound in German marks is above DM2.50. It will have no

intrinsic value if the price is equal to or below DM2.50 at that time. Changes in the exchange rate between German marks and British pounds may result from changes in the value of German marks relative to other currencies generally, from changes in the value of the British pound, or from a combination of the two. In any case, the intrinsic value of the option will be determined by the value of the British pound relative to the German mark, and not to the U.S. dollar or any other currency. However, as is noted in the following section, fluctuations in the value of the trading currency relative to other currencies may significantly affect investors who intend to convert their gains or losses into one of those other currencies.

Readers should note that the various expiration dates for foreign currency options are different from the expiration dates for options on other underlying interests. Readers should determine the expiration date of each foreign currency option they wish to buy or write.

SPECIAL FEATURES OF DOLLAR-DENOMINATED FOREIGN CURRENCY OPTIONS

The amount of the foreign currency underlying each foreign currency option (*i.e.*, the unit of trading) is specified by the options market on which the option is traded.

Exercise prices for currently available dollar-denominated options on foreign currencies other than the Japanese yen are stated in U.S. cents per unit of foreign currency. Exercise prices for dollar-denominated Japanese yen options are expressed in hundredths of U.S. cents per unit. In order to determine the total exercise price per contract, it is necessary to multiply the stated exercise price by the unit of trading of the particular option.

EXAMPLE: A dollar-denominated put covering 31,250 British pounds with an exercise price of 130 would entitle the holder to sell the underlying pounds for an aggregate exercise price of $40,625 ($1.30 multiplied by 31,250).

EXAMPLE: A dollar-denominated call covering 6,250,000 Japanese yen with an exercise price of 94 would entitle the holder to buy the underlying yen for an aggregate exercise price of $58,750 ($.0094 multiplied by 6,250,000).

Because the issuer of a particular foreign currency may unilaterally issue a new currency to replace its existing currency or alter the exchange rate or exchange characteristics of its existing currency with respect to other currencies, an adjustment panel has the discretion to adjust the terms of the options on such foreign currency. (At the date of this booklet, the representative of OCC on an adjustment panel has the power to vote on adjustments to all foreign currency options whether or not the votes of the other panel members result in a tie.) Ordinarily, the terms of foreign currency options will not be adjusted to reflect a devaluation or revaluation of a currency. The monetary authorities of the European Economic Community may change the weighting and identity of the currencies comprising the ECU from time to time. Except in extraordinary circumstances, the terms of ECU options will not be adjusted to reflect such changes.

Premiums for currently available dollar-denominated options on foreign currencies other than the French franc and the Japanese yen are expressed in U.S. cents per unit of foreign currency.

EXAMPLE: If a dollar-denominated option covering 62,500 Swiss francs is purchased at a premium of .81, the cost of the option will be $506.25 (.81 cents, or $.0081, times the unit of trading of 62,500).

Premiums for currently available dollar-denominated French franc options are expressed in tenths of U.S. cents.

EXAMPLE: If a dollar-denominated option covering 250,000 French francs is purchased at a premium of .65, the cost of the option will be $162.50 (.065 cents, or $.00065, times the unit of trading of 250,000).

Premiums for currently available dollar-denominated Japanese yen options are expressed in hundredths of U.S. cents.

EXAMPLE: If a dollar-denominated option covering 6,250,000 Japanese yen is purchased at a premium of .42, the cost of the option will be $262.50 (.0042 cents, or $.000042, times the unit of trading of 6,250,000).

Settlement of exercises of physical delivery dollar-denominated and cross-rate options is significantly different from settlement of exercises of other types of options. The following is a description of the settlement procedures pertaining to such options.

Exercises are settled through the facilities of OCC. For this purpose, OCC has established banking arrangements permitting it to receive and deliver each underlying foreign currency in the country of origin in satisfaction of option exercises. (Exercises and assignments of ECU options settle within a country or countries designated by OCC.) Clearing Members ordinarily deliver or receive foreign currency on the fourth business day after exercise that is also a banking day for OCC's correspondent bank in the country of origin. In the case of dollar-denominated options, cash settlement between OCC and Clearing Members (*i.e.*, payment or receipt of the net exercise price for each day's exercises) takes place in the United States or other locations approved by OCC. In some cases, a wholly-owned subsidiary of OCC—The Intermarket Clearing Corporation—which has the same settlement procedures as OCC, may act as OCC's agent in making foreign currency settlements with Clearing Members.

For purposes of settlement between an investor and his brokerage firm, applicable rules require a holder exercising a physical delivery put option and an assigned writer of a physical delivery call option to arrange for the deposit of the requisite units of the underlying foreign currency into a designated bank account in the country issuing that currency no later than the time by which OCC requires delivery to it of foreign currency by its Clearing Members. Through this procedure, investors ordinarily rely upon their brokerage firms to make settlement with them. However, OCC has established procedures whereby Clearing Members may permit customers to make settlement directly with an OCC correspondent bank. (At the date of this booklet, such procedures are not yet available in the case of cross-rate options.) Investors should consult their brokerage firms with respect to these procedures.

At the date of this booklet, OCC expects, subject to regulatory approval, to adopt exercise settlement procedures whereby OCC's obligation to deliver or pay for underlying foreign currencies in satisfaction of option exercises may be discharged by transferring the foreign currency to be delivered, or the net exercise price for foreign currency to be received, to an OCC correspondent bank that is obligated to complete the settlement. Brokerage firms and their customers would then be relying on the correspondent bank to deliver or pay for the underlying foreign currency.

If OCC should determine that foreign governmental restrictions or taxes would prevent the orderly settlement of delivery foreign currency option exercises or would result in undue burdens on OCC or its Clearing Members, OCC has the authority to impose special exercise settlement procedures. These could range from technical changes in delivery procedures to the fixing of U.S. dollar settlement prices. OCC's authority to fix cash settlement prices for foreign currency options applies to both calls and puts. Thus, OCC could authorize exercising foreign currency put holders, as well as assigned call writers, to pay a U.S. dollar settlement price in lieu of delivering the underlying foreign currency. However, OCC also has the authority to prohibit exercises of foreign currency puts by holders who would be unable to deliver the underlying foreign currency. The potential effects of such a prohibition are discussed in paragraph 5 under "Risks of Option Holders" in Chapter X. If special exercise settlement procedures are imposed, investors may determine the nature of such procedures from their brokers.

CROSS-RATE FOREIGN CURRENCY OPTIONS

As noted at the beginning of this chapter, a cross-rate foreign currency option is an option to purchase or sell a foreign currency at an exercise price that is denominated in another foreign currency. An example of a cross-rate option is an option to purchase British pounds at an exercise price denominated in Japanese yen—that is, the trading currency would be the Japanese yen and the underlying currency would be the British pound. The exercise price would be expressed as a certain number of yen per pound. Premiums for cross-rate options are denominated in the trading currency. Thus, in the above example, premiums would be in yen.

The cross-rate options that have been approved for trading as of the date of this booklet are physical delivery European-style options. It is possible that other kinds of cross-rate options will be traded in the future.

Investors in cross-rate options should bear in mind that the magnitude and direction of any change in the value of the underlying currency in relation to the trading currency may be quite different from the magnitude and direction of any contemporaneous change in the value of either of those currencies in relation to a third currency, such as the U.S. dollar. Thus, for example, the British pound may appreciate in relation to the

Japanese yen at the same time that the pound depreciates in relation to the U.S. dollar. As discussed in Chapter X under "Special Risks of Cross-Rate Options," this is of particular significance to investors who intend to convert their profits or losses on cross-rate options into U.S. dollars.

All of the previous discussion in this chapter relating to foreign currency options in general applies equally to cross-rate options except to the extent that it is specifically limited to dollar-denominated options. Certain special features of cross-rate options are discussed below.

SPECIAL FEATURES OF CROSS-RATE OPTIONS

The amount of the foreign currency underlying each cross-rate option (*i.e.*, the unit of trading) is specified by the options market on which the option is traded.

The exercise price of a physical delivery cross-rate option is the price (denominated in the trading currency) at which the underlying currency may be purchased or sold upon exercise of the option. Exercise prices for cross-rate options are generally expressed in terms of units (or fractions of units) of the trading currency per unit of the underlying currency. Therefore, in order to determine the total exercise price per contract, it is necessary to multiply the stated exercise price by the unit of trading of the particular option.

EXAMPLE: The exercise prices of yen-denominated options covering underlying German marks are expressed in yen per mark. Therefore, a put covering 1,000,000 German marks with an exercise price of 93 Japanese yen ("JY") would entitle the holder to sell the underlying marks for an aggregate exercise price of JY93,000,000 (JY93 multiplied by 1,000,000).

The discussion in this chapter of adjustments under the caption "Special Features of Foreign Currency Options" is applicable also to cross-rate options, except that adjustments in the terms of cross-rate options might be made to reflect events affecting the trading currency as well as events affecting the underlying currency.

Premiums for currently available cross-rate options are expressed in units and decimals of the trading currency per unit of the underlying currency.

EXAMPLE: If a yen-denominated option covering 500,000 British pounds is purchased at a premium of 2.63, the cost of the option will be JY1,315,000 (JY2.63 times the unit of trading of 500,000).

Premium settlements of cross-rate options are effected in a trading currency other than U.S. dollars. Similarly, in the event of exercise, the exercise price is paid in the trading currency. OCC has established banking arrangements permitting it to receive and pay foreign currencies in the country of origin for purposes of both premium and exercise settlement of cross-rate options between OCC and its Clearing Members. Customers ordinarily settle with their brokerage firms, although OCC may establish procedures whereby Clearing Members may permit customers to make exercise settlement directly with an OCC correspondent bank. Each customer should consult his brokerage firm to determine the procedures and time requirements for payment of foreign currencies on settlement of transactions in, and exercises of, cross-rate options.

If OCC should determine that foreign governmental restrictions or taxes or other events beyond the control of OCC would prevent the orderly settlement of exercises of, or premium payments with respect to transactions in, cross-rate options or would result in undue burdens on OCC or its Clearing Members, OCC has the authority to impose special settlement procedures. These could range from technical changes in payment procedures for the trading currency or underlying foreign currency to the fixing of U.S. dollar settlement prices payable in lieu of either currency. OCC also has the authority to prohibit exercises of cross-rate options by holders who would be unable to meet the settlement obligations resulting from the exercise. The potential effects of such a prohibition are discussed in paragraph 5 under "Risks of Option Holders" in Chapter X. If special exercise settlement procedures are imposed, investors may determine the nature of such procedures from their brokerage firms.

CASH-SETTLED FOREIGN CURRENCY OPTIONS

At the date of this booklet, cash-settled foreign currency options are also traded. These options are dollar-denominated, European-style options. Each cash-settled foreign currency option has an expiration date not more than approximately two weeks following the initiation of trading in the option. Cash-settled foreign currency options having longer expirations may be traded in the future.

The discussion above in this chapter relating to dollar-denominated foreign currency options generally applies to cash-settled foreign currency options except to the extent that such discussion specifically applies to physical delivery options.

The contract size of a cash-settled foreign currency option, like the size of other foreign currency options, is expressed in terms of the amount of the underlying currency covered by the option.

EXAMPLE: If the exercise price of a cash-settled call option on German marks is 60 (expressed as U.S. cents per mark), the exercise settlement value of the underlying currency is reported as 65, and the unit of trading is 62,500 marks, then the cash settlement amount of the option will be ($.65 minus $.60) multiplied by 62,500 = $3,125.

A cash-settled foreign currency option that, based on its exercise settlement value, is in the money on the expiration date will be automatically exercised on the expiration date. In the future, cash-settled foreign currency options may provide that they will be automatically exercised only if they are in the money by a specified amount on the expiration date.

At the date of this booklet, the exercise settlement value for cash-settled foreign currency options is based upon bid and offer quotations from a sampling of participants in the interbank spot market for the underlying foreign currency at a specified time on the expiration date. The time as of which the exercise settlement value is calculated and the method of calculation is determined by the options market on which the options are traded and may be changed by it at any time. Any such change may be made applicable to options outstanding at the time of the change.

Another special feature of cash-settled foreign currency options having an expiration date of not more than two weeks following the initiation of trading is that option writers must deposit required margin with their brokerage firms within two business days of the trade date. It should be noted that this is a shorter period than the normal period required for other options transactions.

CHAPTER VII

FLEXIBLY STRUCTURED OPTIONS

Flexibly structured options, like the other options discussed in this booklet, are traded on the U.S. options markets and are issued by OCC. However, unlike other options, the terms of flexibly structured options are not all standardized. When a flexibly structured option is purchased and sold in an opening transaction, the parties to the transaction have the flexibility, within limitations set forth in the rules of the options market on which the transaction occurs, to fix certain of the option's terms. The terms of a flexibly structured option which may be fixed by the parties are called variable terms. The flexibility to fix these variable terms is what makes flexibly structured options different from other options.

The principal risks of holders and writers of flexibly structured options are discussed in Chapter X. Readers who are interested in buying or writing flexibly structured options should read not only this chapter but also all of Chapter X.

Because many of the terms of flexibly structured options are not standardized, it is less likely that there will be an active secondary market in which holders and writers of such options will be able to close out their positions by offsetting sales and purchases. See paragraph 1 under "Special Risks of Flexibly Structured Options" in Chapter X.

The trading procedures established by the options markets for transactions in flexibly structured options differ from the procedures for transactions in other options. Readers desiring information about the trading procedures of an options market for flexibly structured options may obtain that information from that market.

The options markets may fix minimum size or minimum monetary values for transactions in flexibly structured options. Flexibly structured options may be useful to sophisticated investors seeking to manage particular portfolio and trading risks. However, as a result of these minimums, as well as the special trading procedures and reduced likelihood of there being a

secondary market, flexibly structured options transactions are not suitable for investors who are not financially able to bear the risks of maintaining such minimum positions in flexibly structured options.

SPECIAL FEATURES OF FLEXIBLY STRUCTURED OPTIONS

DESIGNATION OF TERMS—The parties to an opening transaction in flexibly structured options may designate the option's variable terms in accordance with the rules of the options market where the transaction occurs. Included among the terms that an options market may identify as variable terms are the specification and amount of the underlying interest, whether the transaction involves a put, call or spread, the style of the option, the exercise price, the cap interval of a capped option, the expiration date, the method for determining the exercise settlement value of a cash-settled option that is exercised on the expiration date, the settlement currency of a cash-settled option, the premium currency, and the trading currency of a foreign currency option.

Only those terms identified as variable terms by the options market where the opening transaction occurs may be designated by the parties. All other terms are standardized in accordance with the rules of OCC and the options market. The rules of an options market may impose limitations on the variable terms which the parties may designate. For example, an options market may require that the expiration date of a flexibly structured option not fall within a specified period of time or that the life of the option not exceed a maximum permissible term. As another example, if the exercise settlement value of an index option is based on a specified average, an options market may require that the average conform with the averaging parameters established by the market. In addition, the underlying interest, the settlement currency, the premium currency and the trading currency, may be designated only from those available for flexibly structured options on the options market, and an options market may require that the premium currency be the same as the settlement currency.

MINIMUM SIZE REQUIREMENTS—Every transaction in flexibly structured options must satisfy the minimum size or monetary value requirements of the options market where the transaction occurs. The minimum requirements may be larger for an opening

transaction in a series in which there is no open interest than for other transactions (whether opening or closing) in that series. An options market may also impose minimum size or monetary value requirements on exercises of flexibly structured options. Information as to such minimums may be obtained from the options market where the options are traded.

POSITION and EXERCISE LIMITS—The options markets may establish special position and exercise limits for flexibly structured options. Such limits may differ from the limits applicable to other options, although an options market may require that positions in certain flexibly structured options be aggregated with positions in certain other options. Information concerning position and exercise limits of particular flexibly structured options may be obtained from the options market where the options are traded or from brokerage firms.

TRADING PROCEDURES—The trading hours and trading procedures for flexibly structured options may differ from the trading hours and procedures for other options. These special procedures may mean that the market-making systems that are applicable to other options may not be applicable to flexibly structured options, that there may not be continuous quotations for flexibly structured options, and that quotations may be provided only in response to a specific request as the basis for trading with the party making the request.

EXERCISES and SETTLEMENTS—In general, the exercise, assignment and settlement of flexibly structured options occurs in the same manner as, and are subject to the same time frames and procedures that are applicable to, other options of the same style and having the same underlying interest. See Chapter VIII. However, unlike most other options, flexibly structured options (other than foreign currency options) that are in the money on the expiration date may be exercised automatically. In the future it may be provided that flexibly structured options will be exercised automatically only if they are in the money by a specified amount.

EXERCISE SETTLEMENT VALUE—The method of determining the exercise settlement value on the expiration date of a flexibly structured index option is a variable term that is fixed by the parties in their opening transaction. For example, the parties may specify that such exercise settlement value will be determined with reference to opening prices of the constituent securities of the index, their closing prices, an average of

their high and low prices, an average of opening and closing prices, an average over a stated period of time, or another average that conforms with the parameters established by the options market. However, under the OCC rules in effect at the date of this booklet, the method of determining the exercise settlement value for an exercise that occurs on a day other than the expiration date is not a variable term. The exercise settlement value for such exercises of flexibly structured index options will be the value derived from the closing prices of the constituent securities on the day of exercise (as reported by the reporting authority), and the exercise settlement value of other flexibly structured options will be determined in the same manner as it is determined for other options on the same underlying interest that are traded on the options market where the opening transaction in the flexibly structured option occurred.

SETTLEMENT CURRENCY—The settlement currency may be a variable term to be fixed by the parties out of those currencies specified by the options market on which the transaction occurs as being available for flexibly structured options. The settlement currency may be the currency in which the premium is payable. In addition, brokerage firms may require their customers to make margin payments in the settlement currency.

If the settlement currency and premium currency are not U.S. dollars, settlement of premiums and exercises is generally made through the procedures and arrangements established by OCC for cross-rate foreign currency options. See "Special Features of Cross-Rate Options" in Chapter VI. If ECUs are the settlement currency, settlements can occur in the country or countries designated by OCC.

CHAPTER VIII

EXERCISE AND SETTLEMENT

Although most option holders and writers close out their options positions by an offsetting closing transaction, investors should nonetheless be familiar with the rules and procedures applicable to exercise. Such an understanding can help an option holder determine whether exercise might be more advantageous than an offsetting sale of the option. An option writer needs to understand exercise procedures because of the possibility of being assigned an exercise. Once an exercise of an option has been assigned to an option writer—even though he may not yet have been notified of the assignment—the writer can no longer effect a closing transaction in that option but must instead purchase or sell the underlying interest for the exercise price (or, in the case of a cash-settled option, pay the cash settlement amount).

HOW TO EXERCISE

The period during which an option is exercisable depends on the style of the option. This is discussed under "Style of Option" in Chapter II.

In order to exercise most options traded at the date of this booklet, action must be taken by the option holder prior to the expiration of the option. However, some options may be subject to automatic exercise. For example, capped options are subject to automatic exercise if the automatic exercise value of the underlying interest hits the cap price for the option, and certain other options are subject to automatic exercise at expiration if they are then in the money (or, in the case of some options, in the money by a specified amount).

To exercise an option that is not subject to automatic exercise, the holder must direct his brokerage firm to give exercise instructions to OCC. In order to ensure that an option is exercised on a particular day, the holder must direct his brokerage firm to exercise before the firm's cut-off time for accepting exercise

instructions for that day. Different firms may have different cut-off times for accepting exercise instructions from customers, and those cut-off times may be different for different options.

A brokerage firm's cut-off time for accepting exercise instructions becomes critical on the last trading day before an option expires. An option that expires unexercised becomes worthless. An option holder who intends to exercise an option before expiration must give exercise instructions to his brokerage firm before the firm's cut-off time for accepting exercise instructions on the last trading day before expiration. Many brokerage firms accept standing instructions to exercise, or have procedures for the exercise of, every option which is in the money by a specified amount at expiration. These procedures often incorporate by reference OCC's administrative procedures that provide for the exercise of every option that is in the money by a specified amount at expiration unless the Clearing Firm carrying the option in its accounts instructs OCC not to exercise the option. Investors should determine from their brokerage firm the applicable cut-off times, the firm's procedures for submitting exercise instructions, and whether any of their options are subject to automatic exercise. Investors should also determine whether the exercise of their options is subject to standing instructions of their brokerage firm, and, if so, they should discuss with the firm the potential consequences of such instructions.

In highly unusual circumstances (*e.g.*, where a brokerage firm is unable to receive instructions from its customers), a firm may be authorized under applicable rules to make an exception to its regular cut-off time. However, in order for an option to be exercised, the brokerage firm must in any event pass on its customer's exercise instructions to OCC before expiration. OCC may allow exercises for a limited time after expiration in the unlikely event that OCC is unable to follow its normal procedures for receiving exercise instructions from Clearing Members on the expiration date. Subject to that very limited exception, OCC has no authority to extend the expiration of any option.

Once an exercise instruction is given by a Clearing Member to OCC, it cannot ordinarily be revoked except to correct a bona fide error that is specified in a request filed by the Clearing Member prior to a deadline specified in OCC's rules.

ASSIGNMENT

OCC assigns exercises in standardized lots to Clearing Member accounts that reflect the writing of options identical to the exercised options. A description of OCC's assignment procedures is available from OCC on request at the address set forth in paragraph 1 of Chapter XI of this booklet. Assignments are ordinarily made prior to the commencement of trading on the business day following receipt by OCC of the exercise instruction. In the case of options traded in evening sessions, exercise instructions received by OCC on a business day are ordinarily assigned prior to the opening of trading in that day's evening session.

If exercises are assigned by OCC to a Clearing Member's customers' account, the Clearing Member must then assign them to customers maintaining positions as writers of the exercised options series. The rules of the options markets require their member firms to allocate assignments to customers either on a random selection basis or on a "first-in, first-out" basis and to inform their customers which method is used and how it works. Regardless of the method used, option writers are subject to the risk each day their options are exercisable that some or all of them may be assigned. (See the discussion in Chapter X under "Risks of Option Writers.")

It is possible that an option writer will not receive notification from its brokerage firm that an exercise has been assigned to him until one or more days following the date of the initial assignment to the Clearing Member by OCC. This creates a special risk for uncovered writers of physical delivery call stock options. This is discussed in paragraph 8 under "Risks of Options Writers" in Chapter X and under "Settlement" in this chapter.

SETTLEMENT

Settlements between brokerage firms or their agents on virtually all exercised physical delivery stock options are routinely handled through stock clearing corporations in much the same way as ordinary purchases and sales of the underlying equity security. Promptly after the exercise and assignment of a physical delivery stock option, OCC reports it to the designated stock clearing corporations of the Clearing Members representing the exercising holder and the assigned writer. If neither stock clearing corporation rejects the transaction by a time specified in their

agreements with OCC, settlement is effected pursuant to the rules of those clearing corporations, and OCC has no further responsibility to either the exercising holder or the assigned writer.

In a few cases—which usually occur because an underlying equity security is no longer eligible for clearance through a stock clearing corporation—settlements calling for the delivery of that security are made directly between Clearing Members. OCC's rules provide protect procedures for exercise settlements made directly between Clearing Members that involve the delivery of securities which either have been called for redemption, are due to expire or with respect to which a call or expiration date is impending, or are subject to an offer which will expire, if the expiration time (as defined in OCC's rules) is on or after the exercise settlement date for the option. Under these protect procedures, the Clearing Member entitled to receive the securities may give a liability notice to the delivering Clearing Member by a specified cut-off time prior to the expiration time. If a liability notice is so given and the securities are not delivered sufficiently in advance of the expiration time to permit the receiving Clearing Member to obtain their benefit, the delivering Clearing Member will be liable for any resulting damages. If the failure to deliver was the fault of the Clearing Member's customer, the Clearing Member may (depending on its own procedures) pass that liability on to the customer. Investors should be aware that correspondent clearing corporations may have protect procedures in respect of the settlements made through them.

At the date of this booklet, the regular exercise settlement date for physical delivery stock options is the fifth business day after exercise, but the SEC has adopted a rule that requires the regular settlement date to be the third business day after an exercise that takes place on or after June 1, 1995. The regular exercise settlement dates for all other types of physical delivery options traded at the date of this booklet are described in the separate chapters of the booklet discussing those options.

At the date of this booklet, settlements of exercises of cash-settled options and foreign currency options are effected by Clearing Members through OCC. Settlement of exercises of cash-settled options—through the payment in cash of the cash settlement amount—ordinarily takes place on the business day immediately following the day of exercise. However, cash-settled

capped options that have been automatically exercised on any trading day other than the one immediately prior to expiration are settled on the second business day after the automatic exercise is triggered. The settlement of exercises of cash-settled options that have a settlement currency that is not U.S. dollars is discussed under "Settlement Currency" in Chapter VII.

OCC has authority to postpone settlement of any option on any type of underlying interest when OCC considers such action to be necessary in the public interest or to meet unusual conditions.

Each brokerage firm involved in an exercise or assignment settles with its own customer. Neither OCC nor any options market has any responsibility to customers with respect to funds or securities that have been received by brokerage firms for their customers. Investors may determine from their brokerage firms when and how settlement amounts will be credited or debited to their brokerage accounts.

In certain unusual circumstances, it might not be possible for uncovered call writers of physical delivery stock and stock index options to obtain the underlying equity securities in order to meet their settlement obligations following exercise. This could happen, for example, in the event of a successful tender offer for all or substantially all of the outstanding shares of an underlying security or if trading in an underlying security were enjoined or suspended. In situations of that type, OCC may impose special exercise settlement procedures. These special procedures, applicable only to calls and only when an assigned writer is unable to obtain the underlying security, may involve the suspension of the settlement obligations of the holder and writer and/or the fixing of cash settlement prices in lieu of delivery of the underlying security. In such circumstances, OCC might also prohibit the exercise of puts by holders who would be unable to deliver the underlying security on the exercise settlement date. When special exercise settlement procedures are imposed, OCC will announce to its Clearing Members how settlements are to be handled. Investors may obtain that information from their brokerage firms.

CHAPTER IX

TAX CONSIDERATIONS, TRANSACTION COSTS AND MARGIN REQUIREMENTS

Options investing, like other forms of investing, involves tax considerations, transaction costs and margin requirements that can significantly affect the profit or loss results of buying and writing options. These are only briefly mentioned in this chapter, but should be understood and taken into account by everyone considering transactions in options.

Notwithstanding the importance of tax considerations, transaction costs and margin requirements, for the sake of simplicity, the examples in this booklet do not take these matters into account. Nevertheless, it should be remembered that their impact may significantly reduce the opportunity for profit and the rate of return obtainable from particular options trading strategies; indeed, their effect may in some instances turn an apparent profit into a loss.

TAX CONSIDERATIONS

The tax consequences of an options transaction depend, in part, on the tax status of the investor and also may differ depending upon the type of underlying interest involved—since the tax rules are not the same for each type of underlying interest—and upon such factors as whether an option is exercised or is the subject of a closing transaction or is allowed to expire or whether an option that is written is covered or uncovered. Some options markets have publications that deal specifically with the tax treatment of various options transactions. These may be obtained from brokerage firms as well as the markets themselves. Readers should also be aware that options transactions effected in foreign markets could subject the parties to tax liability under the laws of the country in which the foreign market is located. Because of the importance of tax considerations to all options transactions, it cannot be emphasized too strongly that the reader considering options should consult with his tax adviser as to how taxes may affect the outcome of contemplated options transactions.

TRANSACTION COSTS

The transaction costs of options investing consist primarily of commissions (which are imposed in opening, closing, exercise and assignment transactions), but may also include margin and interest costs in particular transactions. The impact of transaction costs on profitability is often greater for options transactions than for transactions in the underlying interests because these costs are often greater in relation to options premiums than in relation to the prices of underlying interests. Transaction costs are especially significant in option strategies calling for multiple purchases and sales of options, such as spreads and straddles. Transaction costs may be different for transactions effected in foreign options markets than for transactions effected in U.S. markets. Readers should always discuss transaction costs with their brokerage firms before engaging in options transactions.

MARGIN REQUIREMENTS

Writers of options, other than certain covered call option writers and certain writers of cash secured puts (discussed below), must comply with applicable margin requirements.

In the stock market, margin refers to buying stock or selling stock short on credit. Margin customers are required to keep securities on deposit with their brokerage firms as collateral for their borrowings. But options, unlike stock, cannot be bought on credit under current regulations. In the options market, margin means the cash or securities required to be deposited by an option writer with his brokerage firm as collateral for the writer's obligation to buy or sell the underlying interest, or in the case of cash-settled options to pay the cash settlement amount, if assigned an exercise. Minimum margin requirements are currently imposed by the Board of Governors of the Federal Reserve System, the options markets and other self-regulatory organizations, and higher margin requirements may be imposed—either generally or in individual cases—by the various brokerage firms.

Uncovered writers may have to meet calls for substantial additional margin in the event of adverse market movements. Even if a writer has enough equity in his account to avoid a margin call, increased margin requirements on his option positions will make that equity unavailable for other purposes.

If a holder of a physical delivery call option exercises and wishes to purchase the underlying interest on credit, the holder may be required to deposit margin with the holder's brokerage firm. Holders of physical delivery options on a foreign currency should be aware that, at the date of this booklet, foreign currency has no value for margin purposes except to the extent that credit has been extended on the same foreign currency.

Margin requirements are complex and are not the same for writers of options on different types of underlying interests. Margin requirements are subject to change, and may vary from brokerage firm to brokerage firm. Consequently, the examples in this booklet do not take margin requirements into account. However, margin requirements can have an important effect on an option writer's risks and opportunities.

Persons considering writing options (whether alone or as part of options combinations, such as spreads or straddles) should determine the applicable margin requirements from their brokerage firms and be sure that they have sufficient liquid assets to meet those requirements in the event of adverse market movements.

CHAPTER X

PRINCIPAL RISKS OF OPTIONS POSITIONS

This chapter discusses the principal risks of holders and writers of options. The risks discussed are those that are unique to being an option holder or writer. Risks that relate to such matters as the trading of securities generally; the state of the economy; the supply and demand factors in the options markets and in other related markets; the factors affecting the values of the various underlying interests; the factors affecting the volatility, liquidity and efficiency of the options markets or of other markets or other factors that may affect the pricing of particular options; the quality or operations of the various options markets at any particular time; and the procedures of the various options markets and of brokers in transmitting orders and effecting executions are not within the scope of this booklet and are not discussed. (See the discussion in Chapter XI as to the scope and limitations of this booklet.)

It should also be noted that new types of options and new options strategies are constantly being developed and that some of the risks of new options products and new options strategies do not become apparent until there has been significant experience in trading and using the new options and strategies. Accordingly, readers should be aware that there is a risk in newness, particularly if the new option or strategy is complicated or complex, that cannot always be identified or described.

Readers should also be aware that not all options strategies will necessarily be suitable for them and that certain strategies may expose them to very significant potential losses. For example, the risks associated with the writing of puts or uncovered calls expose investors to such potential losses, and this type of strategy is therefore not suitable for all investors.

Many of the risks are the same for options on all types of underlying interests, although some special risks may apply only to options on particular types of underlying interests. The first three sections of this chapter describe risks that apply generally to options on all types of underlying interests. They are followed

by sections discussing the special risks associated with options on the particular types of underlying interests.

RISKS OF OPTION HOLDERS

1. An option holder runs the risk of losing the entire amount paid for the option in a relatively short period of time. This risk reflects the nature of an option as a wasting asset which becomes worthless when it expires. An option holder who neither sells his option in the secondary market nor exercises it prior to its expiration will necessarily lose his entire investment in the option. (As noted in Chapter VIII, many brokerage firms have procedures for the exercise of options at expiration that are then in the money by a specified amount.)

The fact that options become valueless upon expiration means that an option holder must not only be right about the direction of an anticipated price change in the underlying interest, but he must also be right about when the price change will occur. If the price of the underlying interest does not change in the anticipated direction before the option expires to an extent sufficient to cover the cost of the option, the investor may lose all or a significant part of his investment in the option. This contrasts with an investor who purchases the underlying interest directly and may continue to hold his investment, notwithstanding its failure to change in price as anticipated, in the hope of waiting out an adverse price move and eventually realizing a profit.

The significance of this risk to an option holder depends in large part upon the extent to which he utilizes the leverage of options to control a larger quantity of the underlying interest than he could have purchased directly with the same investment amount. This is illustrated in the following example, which compares the consequences of three different approaches to investing the same amount of money in stock or options, with each approach involving a different degree of leverage.

EXAMPLE: Assume that Investors A, B and C each have $5,000 to invest and that each anticipates an increase in the market price of XYZ stock, which is currently $50 a share. Investor A invests his $5,000 in 100 shares of XYZ. Investor B invests $500 in the purchase of an XYZ 50 call (covering 100 shares of

XYZ at a premium of $5 a share) and invests the remaining $4,500 in a relatively risk-free investment such as Treasury bills. (For purposes of this example, it is assumed that all of the calls are purchased when they have six months remaining until expiration, and that the risk-free investment bears interest at an annual rate of, say, 3.25% —which means that a $4,500 investment will earn approximately $73 in interest over six months.) Investor C invests his entire $5,000 in 10 XYZ 50 calls.

If each option is held for six months and, if it is profitable, is either sold or exercised immediately before it expires, the following table illustrates the dollar and percentage profit or loss that each investor would realize on his $5,000 investment, depending upon the price of XYZ stock when the option expires.

Price of XYZ stock at expiration of option	Investor A		Investor B		Investor C	
	Profit or Loss	% Return	Profit or Loss	% Return	Profit or Loss	% Return
62	+ 1,200	+ 24%	+ 773	+ 15.5%	+ 7,000	+ 140%
58	+ 800	+ 16%	+ 373	+ 7.5%	+ 3,000	+ 60%
54	+ 400	+ 8%	− 27	− 0.5%	− 1,000	− 20%
50	0	0	− 427	− 8.5%	− 5,000	− 100%
46	− 400	− 8%	− 427	− 8.5%	− 5,000	− 100%
42	− 800	− 16%	− 427	− 8.5%	− 5,000	− 100%
38	− 1,200	− 24%	− 427	− 8.5%	− 5,000	− 100%

The table demonstrates how increased leverage results in greater profit potential on the upside and greater risk of loss on the downside. Investor C, as the most leveraged investor, would realize the highest percentage return if the price of XYZ increased to 62, but would incur a 20% loss even if the price of XYZ increased to 54 (assuming he did not sell his options while they had significant remaining time value), and would lose all of his investment if the price of XYZ stayed at or below 50.

2. The more an option is out of the money and the shorter the remaining time to expiration, the greater the risk that an option holder will lose all or part of his investment in the option. The greater the price movement of the underlying interest necessary for the option to become profitable (that is, the more the option is out of the money when purchased and the greater the cost of the option) and the shorter the time within which this price movement must occur, the greater the likelihood that the option holder will realize a loss. This does not necessarily mean that an option must be worthwhile to exercise in order for a holder to realize a profit. Instead, it may be possible for the holder to realize a profit by selling an option prior to its expiration

for more than its original cost even though the option never becomes worthwhile to exercise. (The shorter the time remaining until expiration the less likely it is that this will be possible.)

3. Prior to the period when a European-style option or a capped option is exercisable, the only means through which the holder can realize value from the option (unless the capped option is automatically exercised) is to sell it at its then market price in an available secondary market. If a secondary market for such an option is not available during the time the option is not exercisable, it will not be possible for its holder to realize any value from the option at that time.

4. The exercise provisions of an option may create certain risks for the option holders. If the option does not have an automatic feature, a holder who wishes to exercise must assure that action is taken in a timely manner. See the discussion of "How to Exercise" in Chapter VIII.

On the other hand, if the option has an automatic exercise feature—such as one that will cause the option to be automatically exercised at the expiration if it is in the money by a specified amount—the option may be exercised at a price at which the holder would not voluntarily choose to exercise in view of the transactions costs of exercise or other factors. The transaction costs associated with the exercise could even exceed the cash settlement amount of the option, with the result that the holder would realize a net loss from the exercise. Conversely, an option that has a cash settlement amount that is less than the threshold amount cannot be exercised even though the option holder's transaction costs may be low enough to permit the option to be exercised profitably. In such a case, the option may expire unexercised.

The automatic exercise feature of capped options imposes a maximum value that a holder of these options can receive. Even if the option holder expects the value of the underlying interest to continue to move in a favorable direction prior to its expiration, the automatic exercise feature will prevent the holder from realizing any gain from the option in excess of the cap interval times the multiplier for the option.

5. The courts, the SEC, another regulatory agency, OCC or the options markets may impose exercise restrictions. While an American-style option can normally be exercised at any time prior to its expiration,

OCC and the options markets have authority to restrict the exercise of options at certain times in specified circumstances. The options markets often exercise such authority with respect to an option in which trading has been halted. If a restriction on exercise is imposed at a time when trading in the option has also been halted, holders of that option will be locked into their positions until either the exercise restriction or the trading halt has been lifted.

Exercise restrictions imposed by OCC and the options markets affecting cash-settled options generally cannot be continued in effect beyond the opening of business on the last trading day before their expiration. Such exercise restrictions affecting physical delivery options generally cannot be continued beyond the opening of business on the tenth business day before their expiration, but with one important exception. If OCC determines that the available supply of a security underlying a physical delivery option appears to be insufficient to permit delivery of the security by the writers of all outstanding calls in the event of exercise, or that foreign government restrictions would prevent or unduly burden the orderly settlement of exercises of foreign currency options, OCC may indefinitely prohibit the exercise of puts by holders who would be unable to deliver the underlying security. The holder of such a put could lose his entire investment in the option if the prohibition remained in effect until the put's expiration and the holder was unable either to acquire the underlying interest or to sell his put in the market. The put holder might be unable to do either because the very event that caused OCC to impose the exercise prohibition—*e.g.*, a suspension of trading in an underlying stock—might not only make it difficult or impossible to obtain the underlying interest, but might also impair the market in options on that interest.

It is also possible that a court, the SEC or another regulatory agency having jurisdiction would impose a restriction which would have the effect of restricting the exercise of an option. In such a case the option would not be exercisable until the restriction was terminated. In the remote possibility that the restriction were to remain in effect until the expiration of the option—which has never yet occurred—the option would expire worthless, and the holder would lose the entire amount that he paid for the option.

RISKS OF OPTION WRITERS

1. An option writer may be assigned an exercise at any time during the period the option is exercisable. Starting with the day it is purchased, an American-style option is subject to being exercised by the option holder at any time until the option expires. This means that the option writer is subject to being assigned an exercise at any time after he has written the option until the option expires or until he has closed out his position in a closing transaction. By contrast, the writer of a European-style or capped option is subject to assignment only when the option is exercisable or, in the case of a capped option, when the automatic exercise value of the underlying interest hits the cap price.

An assigned writer may not receive notice of the assignment until one or more days after the assignment has been made by OCC. Once an exercise has been assigned to a writer, the writer may no longer close out the assigned position in a closing purchase transaction, whether or not he has received notice of the assignment. In that circumstance, an attempted closing purchase would be treated as an opening purchase transaction.

If an option that is exercisable is in the money, the option writer can anticipate that the option will be exercised, especially as expiration approaches. Once he is assigned an exercise, the assigned writer must deliver (in the case of a call) or purchase (in the case of a put) the underlying interest (or pay the cash settlement amount in the case of an in the money cash-settled option). The consequences of being assigned an exercise depend upon whether the writer of a call is covered or uncovered, as discussed below.

2. The writer of a covered call forgoes the opportunity to benefit from an increase in the value of the underlying interest above the option price, but continues to bear the risk of a decline in the value of the underlying interest. Unlike a holder of the underlying interest who has not written a call against it, the covered call writer has (in exchange for the premium) given up the opportunity to profit from an increase in the value of the underlying interest above the exercise price. If he is assigned an exercise, the net proceeds that he realizes from the sale of the underlying interest pursuant to the exercise could be substantially below its prevailing market price.

EXAMPLE: When XYZ stock was $50, the investor collected a $4 a share premium by writing an XYZ 50 delivery call. As expiration approaches, the stock has risen to $58 and he is assigned an exercise. His total return, in addition to any dividends received, will be the $50 exercise price he is paid for the stock plus the $4 premium collected when the option was written—$4 a share less than the $58 he could have sold the stock for if he had not written the option.

On the other hand, if the value of the underlying interest declines substantially below the exercise price, the call is not likely to be exercised and, depending upon the price paid for the underlying interest, the covered call writer could have an unrealized loss on the underlying interest. However, that loss will be wholly or partially offset by the premium he received when he wrote the option.

3. The writer of an uncovered call is in an extremely risky position and may incur large losses if the value of the underlying interest increases above the exercise price. The potential loss is unlimited for the writer of an uncovered call. When a physical delivery uncovered call is assigned an exercise, the writer will have to purchase the underlying interest in order to satisfy his obligation on the call, and his loss will be the excess of the purchase price over the exercise price of the call reduced by the premium received for writing the call. (In the case of a cash-settled option, the loss will be the cash settlement amount reduced by the premium.) Anything that may cause the price of the underlying interest to rise dramatically, such as a strong market rally or the announcement of a tender offer for an underlying stock at a price that is substantially above the prevailing market price, can cause large losses for an uncovered call writer.

EXAMPLE: An investor receives a premium of $4 a share for writing an uncovered XYZ 50 call option and the stock price jumps to $69 as the option approaches expiration. If the investor liquidates his option position at, say, $19, in an offsetting closing purchase transaction, he will incur a loss of $1,500 (the $1,900 paid in the offsetting purchase transaction less the $400 option premium received when the option was written).

The writer of an uncovered call is in an extremely risky position and may incur large losses. Moreover, as discussed in Chapter IX, a writer of uncovered calls must meet applicable margin requirements (which can rise substantially if the market moves adversely to the

writer's position). Uncovered call option writing is thus suitable only for the knowledgeable investor who understands the risks, has the financial capacity and willingness to incur potentially substantial losses, and has sufficient liquid assets to meet applicable margin requirements.

4. As with writing uncovered calls, the risk of writing put options is substantial. The writer of a put option bears a risk of loss if the value of the underlying interest declines below the exercise price, and such loss could be substantial if the decline is significant. The writer of a put bears the risk of a decline in the price of the underlying interest—potentially to zero. A put writer of a physical delivery option who is assigned an exercise must purchase the underlying interest at the exercise price—which could be substantially greater than the current market price of the underlying interest—and a put writer of a cash-settled option must pay a cash settlement amount which reflects the decline in the value of the underlying interest below the exercise price. Unless the put is a cash-secured put (discussed below), its writer is required to maintain margin with his brokerage firm. Moreover, the writer's purchase of the underlying interest upon being assigned an exercise of a physical delivery option may result in an additional margin call.

A requisite for writing puts is an understanding of the risks, the financial capacity and willingness to incur potentially substantial losses, and the liquidity to meet margin requirements and to buy the underlying interest, or to pay the cash settlement amount, in the event the option is exercised. A writer of an American-style put can be assigned an exercise at any time during the life of the option until such time as he enters into a closing transaction with respect to the option. Since exercise will ordinarily occur only if the market price of the underlying interest is below the exercise price of the option, the put writer of a physical delivery option can expect to pay more for the underlying interest upon exercise than its then market value.

EXAMPLE: At a time when XYZ stock is $50, an investor receives a $300 premium ($3 a share) by writing an XYZ 50 put. Subsequently the stock price declines to $40 and he is assigned an exercise. The investor must purchase the stock at $50. Even though the $3 a share premium reduces his effective cost to $47, that is still substantially higher than the $40 market price of the stock.

The put writer's exposure to margin requirements can be eliminated if the put writer elects to deposit cash equal to the option exercise price with his brokerage firm. Under this strategy, known as cash-secured put writing, the option writer is not subject to any additional margin requirements regardless of what happens to the market value of the underlying interest. In the meantime, the option writer might earn interest by having the cash invested in a short-term debt instrument—for example, in a Treasury bill. However, a cash-secured put writer is still subject to a risk of loss if the value of the underlying interest declines.

EXAMPLE: An investor receives a $500 premium for writing an XYZ 50 put option with six months remaining until expiration and deposits with his broker $5,000 invested in Treasury bills which, over the six month option life, will earn interest of $250. If he has not been assigned an exercise by expiration, the investor will have a total return of $750 (option premium of $500 and interest of $250). On the other hand, if the price of XYZ stock were to fall below $42-1/2 and the investor is then assigned an exercise, he would have a net loss—that is, the market price of the XYZ stock he would be required to purchase would be below the exercise price by more than the combined premium income and interest earned.

5. The risk of being an option writer may be reduced by the purchase of other options on the same underlying interest—and thereby assuming a spread position—or by acquiring other types of hedging positions in the options markets or other markets. However, even where the writer has assumed a spread or other hedging position, the risks may still be significant. See paragraph 1 under "Other Risks" below.

6. The obligation of a writer of an uncovered call or of a put that is not cash-secured to meet applicable margin requirements creates additional risks. If the value of the underlying interest moves against the writer's position, or if there is a significant change in the volatility or liquidity of the underlying interest, related interests, or the option, or if the writer's brokerage firm otherwise requires, the firm may request significant additional margin payments. If those payments are not made, the firm may have the right to liquidate the options positions and other securities positions in the writer's account with little or no prior notice.

7. Since the leverage inherent in an option can cause the impact of price changes in the underlying

interest to be magnified in the price of the option, a writer of an option that is uncovered and unhedged may have a significantly greater risk than a short seller of the underlying interest. This is illustrated by the table set forth in paragraph 2 under "Risks of Option Holders" above. If an investor had sold short 100 shares of XYZ to investor A in that table in order to receive $5,000 in proceeds, the investor would have lost $1,200 if the market price of XYZ had increased to 62. On the other hand, if, in order to receive $5,000 in proceeds, the investor had written 10 XYZ 50 uncovered calls, he would have lost $7,000 if the market price of XYZ had increased to 62.

8. The fact that an option writer may not receive immediate notification of an assignment creates a special risk for uncovered writers of physical delivery call stock options that are exercisable when the underlying security is the subject of a tender offer, exchange offer, or similar event. A writer who fails to purchase the underlying security on or before the expiration date for the offer may learn after the expiration date that he has been assigned an exercise filed with OCC on or before that date. At that point, neither the purchase of the underlying security for regular settlement nor the exercise of another option (*e.g.*, the long leg of a spread) will enable the assigned writer to deliver the security on the settlement date for the option exercise (see "Settlement" in Chapter VIII). If the assigned writer fails to make timely settlement, he may be liable for, among other things, the value of the offer (because his nondelivery may have prevented the exercising holder from making timely delivery of the security to the offeror). This risk can be avoided only by purchasing the underlying security on or before the expiration date for the offer. Occasionally, an offer will require that tendered securities be delivered in less than the normal settlement time for exchange transactions after the offer's expiration date. In those cases, call writers will need to purchase the underlying equity security at an earlier point—*i.e.*, at least the number of days equal to the normal settlement time before the offeror's delivery deadline—in order to protect themselves.

9. Although the rules of the options markets establish exercise cut-off times by which exercise instructions of expiring options must be received by brokerage firms from their customers, OCC must accept all exercises which it receives before expiration—even if those exercises are filed with OCC in violation of an options market's rules. Accordingly, there is a risk

that an option writer will be assigned an exercise that is made based on news that is published after the established exercise cut-off time and that the writer may not have an effective remedy to compensate for the violation of the options market's rules.

10. If a trading market in an option should become unavailable, or if the writers of the option are otherwise unable to engage in closing transactions, the writers of that option would remain obligated until expiration or assignment. See the discussions in paragraphs 2 and 3 under "Other Risks" below.

11. A sudden development may cause a sharp upward or downward spike in the value of the interest underlying a capped option. Such a spike could cause the capped option to be automatically exercised, and writers of the option to become obligated to pay the cash settlement amount, even if the effect of the development on the value of the underlying interest completely disappears on the day after the automatic exercise is triggered.

OTHER RISKS

1. Transactions that involve buying and writing multiple options in combination, or buying or writing options in combination with buying or selling short the underlying interests, present additional risks to investors. Combination transactions, such as option spreads, are more complex than buying or writing a single option. And it should be further noted that, as in any area of investing, a complexity not well understood is, in itself, a risk factor. While this is not to suggest that combination strategies should not be considered, it is advisable, as is the case with all investments in options, to consult with someone who is experienced and knowledgeable with respect to the risks and potential rewards of combination transactions under various market circumstances.

The investor considering strategies involving combination transactions should recognize several other risk-related considerations in addition to those already mentioned: the fact that it may at times be impossible simultaneously to execute transactions in all of the options involved in the combination, the difficulty that may be involved in attempting to execute simultaneously two or more buy or sell orders at the desired prices, the possibility that a loss could be incurred on

both sides of a combination transaction, and the increased risk exposure that would result from the exercise or closing out of one side of the trade while the other side of the trade remains outstanding. Also, the transaction costs of combination transactions can be especially significant, since separate costs are incurred on each component of the combination. This can have the effect of requiring a substantial favorable price movement in the underlying interest before a profit can be realized.

Where a combination transaction involves the writing of an in the money American-style option, an investor must keep in mind the possibility of being assigned an exercise, which would eliminate that component of the transaction and could materially change the investor's risk position.

In the case of straddle writing, where the investor writes both a put and a call on the same underlying interest at the same exercise price in exchange for a combined premium on the two writing transactions, the potential risk is unlimited (except in the case of capped options). To the extent that the price of the underlying interest is either below the exercise price by more than the combined premium, or above the exercise price by more than the combined premium, the writer of a straddle will incur a loss when one of the options is exercised. Indeed, if the writer is assigned an exercise on one option position in the straddle and fails to close out the other position, subsequent fluctuations in the price of the underlying interest could cause the other option to be exercised as well, causing a loss on both writing positions.

Combinations involving different styles of options present added complexities. For example, the assigned writer of an American-style option would be unable to cover by exercising a European-style or capped-style option that he holds unless the assignment happened to occur during the exercise period of that option.

Combination transactions involving all cash-settled options also pose the same risks that are discussed for index options under "Special Risks of Index Options" below.

2. If a trading market in particular options were to become unavailable, investors in those options could no longer engage in closing transactions. Moreover, even if the market were to remain available, there may

be times when options prices will not maintain their customary or anticipated relationships to the prices of the underlying interests and related interests. The options markets attempt to provide secondary markets in which holders and writers of options can close out their positions at any time prior to expiration—by making offsetting sales or purchases—but there is no guarantee that such a market will at all times exist for every option. Lack of investor interest, changes in volatility, or other factors or conditions might adversely affect the liquidity, efficiency, continuity or even the orderliness of the market for particular options. Or an options market might permanently discontinue trading of a particular option or of options generally (although it has ordinarily been the practice, when an options market decides to discontinue trading of options on a particular underlying interest, to do so only after all outstanding series of those options have expired if the options are not traded on another options market). A market could become temporarily unavailable if unusual events—such as volume in excess of trading or clearing capability, computer malfunction, fire or natural disaster—were to interrupt normal market operations. As discussed in paragraph 3 below, an options market may also become unavailable in the event trading in the underlying interest is formally suspended or halted. It is also possible that an options market will not open, or will delay opening, trading in certain options even though trading is taking place in the underlying security (or in the constituent securities of an underlying index).

In addition, an options market may at times determine to impose restrictions on particular types of options transactions, such as opening transactions or uncovered writing transactions. For example, if an underlying interest ceases to meet qualifications imposed by the options market or OCC, new series of options on that interest may no longer be opened to replace expiring series, and opening transactions in existing series may be prohibited.

The accounts of options market makers and specialists are carried and guaranteed by a relatively few firms. If one of these firms were to fail, be suspended by OCC, be restricted in its operations, determine or be required to discontinue or reduce its operations, or have a significant reduction in its capital, the markets for particular options, or even for all options, could be disrupted or possibly forced to discontinue trading.

Similarly, in the event an options specialist or a significant group of options market makers should fail or have a significant reduction in capital, the markets in the particular options in which the specialist or market makers traded could be adversely affected. The suspension by OCC of any Clearing Member that maintains significant positions in a particular options series in its accounts could also disrupt the market for that options series.

An options market could also become unavailable because of its own financial problems. For example, if an options market were to be declared bankrupt or if creditors were to take possession of its principal trading systems, it might be unable to continue to operate as an options market.

If a secondary market in a particular option were to become unavailable, a holder of that option would be able to realize his profits or limit his losses only by exercising at a time when the option is exercisable, and a writer of that option would remain subject to assignment until expiration. However, as noted above in paragraph 5 under "Risks of Options Holders," an options market may also restrict exercises of that option.

3. Disruptions in the markets for underlying interests could result in losses for options investors. Each of the options markets has discretion to halt trading in an option in certain circumstances—such as when the market determines that the halt would be advisable in maintaining a fair and orderly market in the option. If trading is halted or suspended in one or more of the markets for an underlying interest, the trading of options on that interest may also be halted. Similarly, if dissemination of the current level of an underlying index is interrupted, or if trading is interrupted in stocks accounting for a substantial portion of the value of an index, the trading of options on that index may be halted. In addition, the rules of the options markets may require them to halt trading in particular types of options in certain circumstances. At the date of this booklet, the U.S. options markets are required (1) to halt trading in all stock options and stock index options when trading in all stocks on the New York Stock Exchange ("NYSE") has been halted by the activation of "circuit breakers" by the NYSE, and (2) to halt trading in all stock options and stock index options for a specified period of time if the Dow Jones Industrial Average ("Average") is calculated at a value of 250 or more points below its closing value on the previous trading

day, or for at least two hours if the Average is subsequently calculated on the same day at a value of 400 or more points below such closing value. These requirements may be changed from time to time.

When trading in an option is halted or suspended, holders and writers of that option will be unable to close out their positions until trading resumes, and they may be faced with substantial losses if the value of the underlying interest moves adversely during that time. For example, if a trading halt in an underlying stock is followed by the announcement of a tender offer at a substantial premium, and the stock reopens at a price reflecting the offer, uncovered call writers may sustain large losses.

Even if options trading is halted, holders of American-style options would still be able to exercise unless exercises were restricted. (However, OCC or an options market may restrict the exercise of an option while trading in the option has been halted, and the restriction may remain in effect until shortly before expiration. See paragraph 5 under "Risks of Option Holders" above.) If the option is exercisable while trading has been halted in the underlying interest, option holders may have to decide whether to exercise without knowing the current market value of the underlying interest. This risk can become especially important if an option is close to expiration, and failure to exercise will mean that the option will expire worthless. If exercises do occur when trading of the underlying interest is halted, the party required to deliver the underlying interest may be unable to obtain it, which may necessitate a postponed settlement and/or the fixing of cash settlement prices (see Chapter VIII).

4. All cash-settled options have certain special risks. These risks, as they apply to cash-settled index options, are discussed under "Special Risks of Index Options" below. That discussion is also applicable to other types of cash-settled options.

If a cash-settled option has a settlement currency other than U.S. dollars, holders and writers will be subject to the same kinds of risks with respect to the foreign currency and the settlement of an exercise as are discussed in paragraphs 1 through 9 under "Special Risks of Foreign Currency Options" below.

5. Holders and writers of a capped option bear the risk that an automatic exercise value will be reported

erroneously by the official reporting source. As a consequence of the error, the options market on which the option is traded may not determine on a timely basis that the automatic exercise feature has been triggered. In that event, the option will not be automatically exercised unless the options market determines on a subsequent trading day that the automatic exercise value for the option has hit the cap price. Alternatively, the options market may determine on the basis of an erroneous report that the automatic exercise feature has been triggered. If the options market makes such a determination and does not correct it on a timely basis, the option will be automatically exercised and the short positions of all writers will be assigned based on the erroneous report.

6. The insolvency of a brokerage firm could present risks for that firm's customers, whether they are investors in options or in other securities. If a brokerage firm or the OCC Clearing Member that carries the firm's accounts at OCC were to become insolvent, the firm's customers could have some or all of their options positions closed out without their consent. Customers whose options positions were not closed out under these circumstances might experience delays or other difficulties in attempting to close out or exercise affected options positions. Similarly, the insolvency of an associate clearing house could present risks for the customers of brokerage firms whose accounts are carried through that associate clearing house.

7. Special risks are presented by internationally-traded options. Because of time differences between the United States and various foreign countries, and because different holidays are observed in different countries, foreign options markets may be open for trading during hours or on days when U.S. markets are closed. Investors buying or writing options in foreign markets at such times should understand that options premiums may not reflect current prices of the underlying interests in the United States. For a discussion of risks pertaining to index options traded in foreign markets, see paragraph 13 under "Special Risks of Index Options" below.

8. Although OCC's rules and procedures have been designed for the purpose, among others, of facilitating the prompt settlement of options transactions and exercises, there is a risk that OCC and its backup system will fail. For example, if Clearing Member insolvencies are substantial or widespread, OCC's ability to honor

all exercises could be impaired. As noted in Chapter XI, the prospectus of OCC relating to options is available from OCC or any of the U.S. options markets, and the registration statement of OCC, which includes OCC's financial statements, is available for inspection at OCC's office and may be obtained from the SEC.

SPECIAL RISKS OF INDEX OPTIONS

1. Writers of cash-settled index call options cannot provide in advance for their potential settlement obligations by acquiring and holding the underlying interest. A call writer can offset some of the risk of his writing position by holding a diversified portfolio of securities similar to those on which the underlying index is based. However, except where the underlying index is a specialized one based on relatively few securities, most investors cannot, as a practical matter, acquire and hold a portfolio containing exactly the same securities in the same proportions as the underlying index. Most writers of cash-settled index calls who also hold positions in securities will therefore bear the risk that the market prices of those securities will not increase as much as the index.

2. Even if the writer of a cash-settled index call option could assemble a securities portfolio that exactly reproduced the composition of the underlying index, the writer still would not be fully covered from a risk standpoint because of the "timing risk" inherent in writing cash-settled options. When a cash-settled index option is exercised, the amount of cash that the holder is entitled to receive is determined by the difference between the exercise price and the exercise settlement value, which is based on the prices of the constituent securities at a particular time on or in relation to the date on which the option is exercised. As with most other kinds of options, the writer will not learn that he has been assigned until the next business day, at the earliest. The time lag between exercise and notice of assignment poses no risk for the writer of a covered physical delivery call, because that writer's obligation is to deliver the underlying interest and not to pay its value as of a fixed time in the past. So long as the writer of a physical delivery call already owns the underlying interest, he can satisfy his settlement obligations simply by delivering it, and the risk that its value may decline after the exercise date is borne by the exercising holder. In contrast, even if the writer of a cash-settled index call holds securities that exactly match the composition of the underlying index, he will

not be able to satisfy his assignment obligations by delivering those securities against payment of the exercise price. Instead, he will be required to pay cash in an amount based on the exercise settlement value on the exercise date; and by the time he learns that he has been assigned, the index may have declined, with a corresponding decline in the value of the securities portfolio. This "timing risk" is an inherent limitation on the ability of writers of cash-settled calls to cover their risk exposure by holding positions in the underlying interest. This risk applies only to American-style options. The writer of a European-style capped call that is exercisable only on the expiration date runs the risk of assignment only with respect to exercises filed on that day. If the call is more than marginally in the money on the preceding trading day, the writer can ordinarily assume that it will be exercised and take market action to protect himself against a subsequent decline in the value of his position in the underlying interest.

3. The timing risk discussed in the preceding paragraph makes spread positions and certain other multiple option strategies involving cash-settled American-style index options substantially riskier than similar strategies involving physical delivery options. With physical delivery options, a person in a spread position can ordinarily satisfy his settlement obligations on the short leg of the spread merely by exercising the long leg if it is in the money. That is, the cash or underlying interest that he obtains by exercising the long leg will ordinarily be sufficient to enable him to meet his settlement obligations on the short leg. With cash-settled index options, however, an investor in a spread position runs the risk that by the time he receives notice of an exercise assignment on the option he has written, the index value will have changed such that exercising the long leg of the spread will not yield sufficient cash to satisfy his obligation on the exercise assignment. Thus, an investor who holds a spread position in cash-settled index options and is assigned an exercise is at risk for any adverse movement in the prices of the constituent securities of the index after the time the exercise settlement value of the assigned short is determined unless the investor is able to exercise the long leg of the spread in time to receive that same exercise settlement value. Other multiple options strategies involving cash-settled options can present similar risks.

4. Readers intending to use index options to hedge against the market risk entailed in investing in individual securities should recognize the complexities of utilizing index options in this manner. Market risk is the risk that factors affecting the stock market as a whole may have a similar effect on the price of a particular equity security. Historically, some securities have tended to be highly sensitive to factors influencing the market generally; others less so. As a result, different securities may be viewed as involving different levels of market risk. In addition, a security's sensitivity to broad market influences may change over time, so that the same security may involve different levels of market risk at different times.

Investors using index options in this manner should also understand that they remain subject to company risk—that is, the risk that factors affecting a particular company, such as its market position or the quality of its management, may cause its securities to perform differently than the market as a whole.

In addition, readers intending to utilize index options to hedge a diversified securities portfolio against market risk should understand that unless the securities in the portfolio exactly mirror the securities in an underlying index, the portfolio and the index may respond differently to a given market influence. For this reason, the use of index options for hedging purposes involves special risks that are not present with "true" hedges—*i.e.*, hedges composed of options on the specific securities in the hedged position. These risks are greatest when options on broad-based indexes are used to hedge a nondiversified securities position. Except where the composition of the position to be hedged is very similar to that of an underlying index, index options may best be understood as a means of reducing some but not all of the risks of a securities portfolio position.

Readers should also be aware that it may not be possible to purchase or liquidate a portfolio of securities at prices that exactly converge with the prices used in determining the exercise settlement values of some index options. For example, if the underlying index is comprised in whole or part of securities whose primary market is the NASDAQ stock market, an investor cannot be certain that he will be able to effect transactions in those securities at the opening or closing prices (as the case may be) used in determining the exercise settlement value.

5. Just as holders and writers of stock options bear the risk that transactions in the underlying security may be erroneously reported, holders and writers of index options bear the risk that the reported current index level may be in error. A person who buys or sells an index option at a premium based on an erroneously reported index level is bound by the trade and has no remedy under the rules of the options markets. Similarly, persons who exercise cash-settled index options or are assigned exercises based on erroneously reported index levels will ordinarily be required to make settlement based on the exercise settlement value as initially reported by the official source of the index, even if a corrected value is subsequently announced. References herein to index values "as initially reported" refer to the values initially reported by the source of the index as definitive, and not to any tentative or preliminary values that may be announced at an earlier time subject to adjustment. In extraordinary circumstances (*e.g.*, where an exercise settlement value as initially reported is obviously wrong and inconsistent with values previously reported, and a corrected value is promptly announced), OCC has discretion to direct that exercise settlements be based on a corrected exercise settlement value. Ordinarily, however, the exercise settlement value as initially reported by the official source of the index will be conclusive for exercise settlement purposes.

6. A holder of a cash-settled index option who exercises it before the exercise settlement value of the index for that day is available runs the risk that the level of the underlying index may subsequently change. If such a change causes the exercised option to fall out of the money, the exercising holder will be required to pay the difference between the exercise settlement value and the exercise price of the option (times the applicable multiplier) to the assigned writer.

EXAMPLE: A holder of an index put option that settles based on the closing prices of the constituent securities and that has an exercise price of 30 directs his broker to exercise at 10:00 A.M., when the level of the underlying index is 28. If the underlying index stays at that level until the close of trading that day, the holder will be entitled to receive $200 in settlement (assuming a multiplier of 100). If, however, the index level rises to 32 based on the closing prices of the constituent securities, the holder will be required to pay $200 to the assigned writer, thereby sustaining a $200 loss on the exercise.

A holder who plans to exercise a cash-settled index option that settles based on closing prices can minimize this risk by withholding exercise instructions until just before the daily exercise cut-off time fixed by his brokerage firm. However, he may not be able to eliminate it entirely. Daily exercise cut-off times for index options may be earlier than those fixed for other types of options and may occur before definitive exercise settlement values have been determined. In the case of the exercise of a cash-settled index option that settles based on opening prices of the constituent securities, this risk applies if the holder submits exercise instructions before the definitive exercise settlement index value has been announced, which may be different from index levels that are initially disseminated at the time of the opening and which may not be available in some cases until several hours after the opening.

7. Cash-settled index options whose exercise settlement values are based on the opening prices of the constituent securities are not traded on the last scheduled trading day for those securities prior to the option expiration date. An option holder will be able to realize value from his option on that day only if the option is in the money and he exercises it. A writer of this type of option who has not previously closed out his position will be unable to do so on that last trading day for the constituent securities and will be at risk of being assigned an exercise.

8. Current index levels will ordinarily continue to be reported even when trading is delayed or interrupted in some or all of the constituent securities of the index or when the reporting of transactions in those securities has been delayed. In that event, the reported index levels will be based on the most recent reported prices of the constituent securities—whether or not those securities are being currently traded. As a result, reported index levels may at times be based on non-current price information with respect to some or even all of the constituent securities of an index. If this condition existed at the time of determining the exercise settlement value of an exercised option, that exercise would be settled on the basis of an index level that might not reflect current price information with respect to constituent securities accounting for a significant portion of the value of the index. (Indeed, as noted in Chapter IV, an exercise settlement value that is based on the opening prices of the constituent securities may not coincide with, and may diverge substantially from, the index values that are reported at the time of the

opening.) Moreover, if the index underlay a capped index option, that option would or would not be automatically exercised based on an index level that might not reflect the true state of the market at the time.

9. OCC has no authority, and the options markets on which capped index options are traded do not intend as of the date of this booklet, to restrict the automatic exercise of capped index options. It is therefore possible that automatic exercise of a capped index option could occur on a day when OCC or an options market has imposed restrictions on the exercise of other styles of options on the same underlying index. It is also possible that automatic exercise of a capped index option could occur on a day when the options market has suspended trading in the option. Either of these possibilities could limit the ability of a writer to take action to limit the cost of being assigned an automatic exercise.

10. The purchase and sale of index options in foreign markets at times when U.S. markets are closed may present special risks. Although an underlying index may be based on securities primarily traded in U.S. markets, the index levels reported in foreign options markets at such times may be based on the trading of some or all of the constituent securities in foreign markets, and, in any case, option premiums in the foreign market will not reflect current prices of the constituent securities in U.S. markets. In addition, if a cash-settled index option is exercised through the foreign office of a brokerage firm on a day when U.S. markets are closed, the exercise settlement value of the option will not be known until the time fixed for determining exercise settlement values on the next day on which U.S. markets are open. The corresponding risks would apply to the trading in U.S. markets of options based on indexes of securities primarily traded in foreign markets.

SPECIAL RISKS OF DEBT OPTIONS

1. Many of the special risks associated with debt options result from the character of the markets in which the underlying debt securities are issued and traded and the distinctive characteristics of debt securities. The vast majority of the trading activity in bonds and money market instruments takes place in a dealer market. Dealers typically maintain markets in all outstanding issues of Treasury securities, but most of the

activity tends to center on recently issued securities. Liquidity is generally greater and quotations are generally tighter on recent issues than on older issues.

There are numerous dealers in all of the Treasury securities from which the yield on the options now traded is determined, but at the date of this booklet there is no comprehensive consolidation of bids and offers or public reporting of transaction prices in those securities such as exists in the markets for stocks. While there is some dissemination of representative bids and offers, at the date of this booklet anyone interested in buying or selling a Treasury security usually must have his brokerage firm or bank contact one or more dealers individually to learn their current quotations.

The absence of last sale information and the limited availability of quotations for debt instruments can make it difficult for many investors to obtain timely, accurate data about the state of the market for the underlying debt securities. At the same time, dealers in the underlying securities have access to private quotation networks that give actual current bids and offers of other dealers. This information is not available to most investors. As a result, these dealers may have a significant advantage over other participants in the debt options markets.

2. Another important difference between the stock market and the market for Treasury securities is that stock quotations are generally keyed to a 100-share round lot while the basic unit of trading in the debt securities market typically involves much larger dollar amounts. A round lot for most dealers in Treasury securities is, at a minimum, $1,000,000 of principal amount; and on Treasury bills it can be larger. Most dealers are oriented toward doing business with large institutional customers or other dealers. As a result, investors buying or selling debt securities in amounts smaller than round lots can expect to pay more and receive less than dealer quotations for round lot transactions.

The unit of trading for price-based debt options is likely to involve larger dollar amounts of the underlying debt security than is the case with stock options. In general, this means that: (a) premiums for such an option will tend to be higher than for a stock option, and (b) the increase or decrease in the price of an

option that is associated with any given change in the price of the underlying security will tend to be larger for many such debt options.

If the unit of trading for a physical delivery price-based debt option is smaller than $1,000,000, investors who buy or write options covering principal amounts other than a multiple of $1,000,000 may be disadvantaged by having to deal in an odd-lot market for the underlying debt security at prices that are less favorable than for round lots.

3. In the event of a shortage of the underlying debt security deliverable on exercise of a physical delivery price-based debt option, OCC has the authority to permit other generally comparable securities to be delivered in fulfillment of the delivery obligation. If OCC exercises its authority to allow such other securities to be delivered, it may also adjust the exercise prices of the affected options by setting different prices at which otherwise non-eligible securities may be delivered. As an alternative to permitting such substitute deliveries, OCC may impose special exercise settlement procedures similar to those applicable to stock options, including the fixing of a cash settlement price payable by writers who would otherwise be unable to meet their delivery obligations (see "Settlement" in Chapter VIII), and/or prohibit the exercise of puts by holders who would be unable to meet the resulting settlement obligations (see paragraph 5 under "Risks of Option Holders" above).

4. The hours of trading for debt options may not conform to the hours during which the debt securities are traded. To the extent that the options markets close before the markets for the underlying or other related instruments, significant price and rate movements can take place in the underlying markets that may not be reflected in the options markets. The possibility of such movements should be taken into account in relating closing prices in the options markets to those in the underlying markets. In addition, there is a risk that debt options may be exercised on the basis of price movements in the underlying security after the close of trading in the options markets when writers are no longer able to close out their short positions.

5. Because exercises of yield-based options are settled in cash, option writers cannot fully provide in advance for their potential settlement obligations by acquiring and holding the Treasury security from which the underlying yield is determined. A writer of a yield-

based option can theoretically offset most of the risk of his writing position by acquiring Treasury securities of the designated maturity period on which the underlying yield is based. Offsetting risk in this way may be difficult to do in practice, however. While it is possible at any given time to calculate the principal amount of Treasury securities needed to assure that the risk of the option position is offset, such calculations are based upon complex mathematical relationships. Moreover, the principal amount of Treasury securities needed to assure that the risk of an options position is fully offset will generally not remain constant throughout the life of the option, but instead will fluctuate as a result of changes in yields and remaining time to maturity. For a given percentage change in yield, this fluctuation will be greater for securities of longer maturity periods than for securities of shorter maturity periods. Furthermore, there can be no assurance that an option writer will be able to sell the Treasury securities that he holds at the option's expiration at the same average yield that is used in calculating the exercise settlement value of the option. Prices, and therefore yields, could differ from dealer to dealer. Moreover, when dealer quotations are averaged in obtaining a yield, they may result in a value which varies from the value that would be obtained by averaging yields representing actual transactions for the same securities during the same time period.

6. Investors in yield-based debt options run the risk that reported yields may be in error. The values disseminated by the designated reporting authority of the options markets during trading and for exercise settlement purposes will ordinarily be averages or medians of dealer quotations or prices, and it is possible that errors could be made in the gathering or averaging of these values. A person who buys or sells an option at a premium based on an erroneous reported yield value is bound by the trade and has no remedy under the rules of the options markets. Similarly, persons who exercise options or are assigned exercises based on erroneous reported yields will ordinarily be required to make settlement based on the value as initially reported by the reporting authority, even if a corrected value is subsequently announced. In extraordinary circumstances (*e.g.*, where a value as initially reported is obviously wrong and inconsistent with values previously reported, and a corrected value is promptly announced), OCC may direct that exercise settlements

be based on a corrected value. Ordinarily, however, the value as initially reported by the official source will be conclusive for exercise settlement purposes.

7. A holder of a yield-based option who exercises it before the exercise settlement value of the underlying yield is available runs the risk that the level of the underlying yield may subsequently change. If such a change causes the exercised option to fall out of the money, the exercising holder will be required to pay the difference between the exercise settlement value and the exercise price of the option (times the applicable multiplier) to the assigned writer. A holder who plans to exercise an option may be able to minimize this risk by withholding exercise instructions until just before the exercise cut-off time fixed by his brokerage firm. However, he may not be able to eliminate the risk entirely. Exercise cut-off times for yield-based options may occur before definitive exercise settlement values are announced. Because exercise cut-off times may vary from brokerage firm to brokerage firm, and there may be different exercise cut-off times for different yield-based options, option holders who anticipate exercising should determine the applicable cut-off times from their brokers.

8. If for any reason there are no quotations available for the Treasury security from which underlying yields of a yield-based option are determined, trading in the option may be halted. If trading is not halted, reported yields may be based on non-current price information for the Treasury security.

9. If OCC determines that the exercise settlement value of the underlying yield for any series of yield-based options is unreported or otherwise unavailable for purposes of calculating the cash-settlement amount of such series, OCC has the authority to suspend the settlement obligations of the exercising and assigned Clearing Members of options of such series or to fix the cash settlement amount for exercised options of such series based on the best information available to OCC, or to do both. Accordingly, there is a risk to both holders and writers of such options that the settlement of exercised options may be postponed and may be based on a determination by OCC rather than by the pricing actions of the market for the Treasury security from which the underlying yield is determined.

SPECIAL RISKS OF FOREIGN CURRENCY OPTIONS

1. The value of any currency, including U.S. dollars as well as foreign currencies, may be affected by complex political and economic factors applicable to the country issuing that currency. The price of a foreign currency option is dependent upon the value of the underlying foreign currency relative to the trading currency as well as the value of both currencies relative to other currencies generally. Fluctuations in the value of the trading currency—whether it is the U.S. dollar (in the case of a dollar-denominated option) or a foreign currency (in the case of a cross-rate option)—will affect exchange rates and the prices of foreign currency options, even in the case of an otherwise stable underlying foreign currency. Conversely, fluctuations in the value of an underlying foreign currency will affect exchange rates and the prices of foreign currency options even if the value of the trading currency remains relatively constant. Investors should consider factors affecting the economies and currency values of both the country of origin for the trading currency and the country of origin for the underlying currency. Although these same considerations apply to dollar-denominated options and cross-rate options, cross-rate options involve factors affecting the economies of at least two foreign countries and may involve consideration by U.S. investors of factors affecting the U.S. economy as well. Accordingly, a U.S. investor in cross-rate options may need to consider a broader range of economic developments than a U.S. investor in dollar-denominated foreign currency options.

2. Even though the intrinsic value of an option is determined by the value of the underlying currency relative to the trading currency, investors who intend to convert gains or losses into U.S. dollars or other currencies may be particularly affected by changes in the exchange rates between their "home" currency and either the trading or the underlying currency.

EXAMPLE: Assume that an investor purchases a yen-denominated, at-the-money call option on British pounds by converting U.S. dollars to Japanese yen. The British pound then appreciates relative to the yen, and at expiration the exercise price is more favorable than the then current exchange rate between yen and pounds. The investor could realize a gain in yen by converting dollars to yen in order to purchase pounds at the exercise price and then reselling the pounds for

yen at the current exchange rate. If the amount of that gain exceeds the premium that the investor paid for the option, the investor will realize a gain in yen on his investment in the option. However, if the yen has depreciated relative to the dollar since the investor purchased the option, the gain may be reduced or even converted to a loss when the yen are converted back to dollars. This is so because, although the yen received upon the sale of the pounds may exceed the exercise price plus the premium paid in yen, there is no guarantee that, when the yen are converted back to dollars at the current rate, the dollars received will exceed the exercise price plus the premium paid in dollars. If the investor converts the pounds directly into dollars rather than to yen and then to dollars, the result would be the same since the amount of the dollars received would be expected to be approximately the same, ignoring any difference in transaction costs and any timing differences in the two-step process.

Similar considerations will apply if the investor liquidates his investment in a cross-rate option by selling it rather than by exercising it.

EXAMPLE: Assume in the previous example that the premium value of the call option has increased permitting the investor to liquidate his investment in the option by selling it for more yen than he paid for it. If the exchange rate between the U.S. dollar and the Japanese yen has not changed, the investor should be able to convert the yen received on the sale of the option to a U.S. dollar amount greater than his original investment. If, on the other hand, the yen has declined in value relative to the U.S. dollar, the investor's gain in yen may be reduced or converted to a loss when the premium received on the sale of the option is converted to dollars.

3. The exchange rates of foreign currencies (and therefore the prices of foreign currency options) could be significantly affected, fixed or supported directly or indirectly by government actions. Government actions could increase risks to investors in both dollar-denominated and cross-rate options if exchange rates were not free to fluctuate in response to other market forces. Investors in options involving currencies of countries that participate in the European Monetary System ("EMS") should note that, as of the date of this booklet, exchange rates among EMS currencies are subject to exchange rate agreements and intervention mechanisms of the EMS. The monetary authorities of other countries may also intervene, either independently or

in concert with others, to attempt to affect the exchange rates between their currencies and other currencies.

4. Because foreign currency transactions occurring in the interbank market involve substantially larger amounts than those likely to be involved in the exercise of individual foreign currency option contracts, investors who buy or write foreign currency options may be disadvantaged by having to deal in an odd lot market for the underlying foreign currencies at prices that are less favorable than for round lots. Because this price differential may be considerable, it should be taken into account when assessing the profitability of a foreign currency option transaction that will involve the exchange of one currency for another.

5. There is no systematic reporting of last sale information for foreign currencies. There is reasonably current, representative bid and offer information available on any market where foreign currency options are traded, in certain brokers' offices, in bank foreign currency trading offices, and to others who wish to subscribe for this information. There is, however, no regulatory requirement that those quotations be firm or be revised on a timely basis. The absence of last sale information and the limited availability of quotations to individual investors may make it difficult for many investors to obtain timely, accurate data about the state of the underlying market. In addition, the quotation information that is available is representative of very large round lot transactions in the interbank market and does not reflect exchange rates for smaller odd lot transactions. Since the relatively small amount of currency underlying a single foreign currency option would be treated as an odd lot in the interbank market, available pricing information from that market may not necessarily reflect prices pertinent to a single foreign currency option contract.

The quotation information available to investors may be from sources that are different from those used to calculate the exercise settlement value of cash-settled foreign currency options. An investor who attempts to realize the intrinsic value of such an option through an exercise rather than by selling the option in a closing transaction runs the risk that the exercise settlement value may be less than appears from the information then available to him.

6. Foreign governmental restrictions or taxes could result in adverse changes in the cost of acquiring or

disposing of foreign currencies. If OCC determines that such restrictions or taxes would prevent the orderly settlement of delivery foreign currency option exercises or would impose undue burdens on parties to exercise settlements, it has authority to impose special exercise settlement procedures, which could adversely affect some investors.

7. The interbank market in foreign currencies is a global, around-the-clock market. Therefore, the hours of trading for foreign currency options do not conform to the hours during which the underlying currencies are traded. To the extent that the options markets are closed while the market for the underlying currencies remains open, significant price and rate movements may take place in the underlying markets that cannot be reflected in the options markets. The possibility of such movements should be taken into account in relating closing prices in the options markets to those in the underlying markets. In addition, this creates a risk that foreign currency options may be exercised on the basis of price movements in the underlying currency after the close of trading in the options markets, when writers are no longer able to close out their short positions.

8. Since exercise settlement of physical delivery foreign currency options—whether they are dollar-denominated or cross-rate options—occurs within the country issuing the underlying foreign currency, investors must accept or make delivery of the trading and underlying foreign currencies through their brokerage firms in conformity with any U.S. or foreign restrictions or regulations regarding the maintenance of foreign banking arrangements by U.S. residents, and may be required to pay any fees, taxes or charges associated with such deliveries.

9. Exercise settlement of physical delivery foreign currency options—whether they are dollar-denominated or cross-rate options—is made through OCC's correspondent banks in the country of origin. Investors may be exposed to losses in the event that a correspondent bank should fail during the settlement process.

10. As in the case of other cash-settled options, writers of cash-settled foreign currency call options cannot fully provide in advance for their potential settlement obligations by acquiring and holding the underlying interest. Although a call writer may hold the quantity of

the currency underlying the option, there is no assurance that if he is assigned an exercise he will be able to sell such currency at the exercise settlement value.

11. If a cash-settled foreign currency option is exercised based upon a reported exercise settlement value that is in error, the holder and the writer will ordinarily be obligated to make settlement based on the exercise settlement value as originally reported, even if the value is subsequently revised or determined to have been inaccurate. In extraordinary circumstances (*e.g.*, where the value as initially reported is obviously wrong and inconsistent with other available price information and a corrected value is promptly announced), OCC has discretion to direct that the exercise settlement be based on the corrected value.

12. If cash-settled foreign currency options expire on a trading day—as is the case with the cash-settled options traded at the date of this booklet—there will ordinarily be an abbreviated trading session in those options on the morning of their expiration date. If the opening of the options market should be delayed for any reason on that day, there may be no trading at all that day in those options. Accordingly, holders and writers who wait until the last trading day to close out their positions in closing transactions in those options run a risk that they may be unable to do so.

13. If OCC determines that the exercise settlement value for any cash-settled foreign currency option is unavailable for purposes of calculating the cash settlement amount, OCC has the authority to suspend the settlement obligations of the exercising holder and assigned writer of such option or to fix the cash settlement amount based on the best information available to OCC, or to do both. Accordingly, there is a risk to both holders and writers that the settlement of exercised cash-settled foreign currency options may be postponed and may be based on a determination by OCC rather than by the procedures specified by the options market on which the options are traded.

SPECIAL RISKS OF FLEXIBLY STRUCTURED OPTIONS

In addition to the risks discussed above, the following special risks are applicable to flexibly structured options.

1. Because flexibly structured options have variable terms that are fixed by the parties, there are no pre-

established series of flexibly structured options. Rather, many different series of flexibly structured options may be created and outstanding at any given time as a result of the various designations of variable terms that are made in different transactions. Secondary trading interest in flexibly structured options may therefore be spread over a larger number of series than the trading interest in other options, the trading interest in any particular series of flexibly structured options may be very limited, the secondary markets in flexibly structured options may be less deep, liquid and continuous than the markets in other options on the same underlying interests, and the premiums for flexibly structured options may not correlate with premiums for such other options.

2. OCC may base its calculations of the margin requirements of OCC's Clearing Members for positions in a series of flexibly structured options on an estimate derived from data and factors OCC deems pertinent in respect of quotations and transactions in that options series and in other options series. Alternatively, OCC may fix such margin requirements at a level it deems necessary to protect the respective interests of OCC, the Clearing Members and the public. As a result, the Clearing Member's margin requirements for positions in flexibly structured options may differ from—and may be significantly greater than—the margin requirements applicable to similar positions in other options on the same underlying interest. Such differences may cause Clearing Members to require customers that maintain positions in flexibly structured options to deposit more margin for flexibly structured options positions than for positions in other options. To the extent OCC's estimate of the current value of a flexibly structured option is used in the determinations of the margin requirements of the Board of Governors of the Federal Reserve System, the options markets and other self-regulatory organizations, it may also cause such margin requirements to be greater than they would be for other options.

CHAPTER XI

SCOPE AND LIMITATIONS OF THIS BOOKLET

Readers should be aware of the scope and limitations of this booklet set forth below:

1. This booklet has been prepared by the U.S. options markets for distribution pursuant to the requirements of SEC Rule 9b-1 under the Securities Exchange Act of 1934 and the rules of the U.S. options markets. This booklet is not intended to meet other requirements which may be in effect in any jurisdiction and should not be relied upon for that purpose.

Under the applicable SEC regulatory scheme for options, this booklet is not a prospectus. Nothing in this booklet should be construed as furnishing investment advice or as being a recommendation, solicitation or offer to buy or sell any option or any other security. A prospectus of OCC relating to options is available without charge upon request addressed to OCC, One Financial Place, 440 S. LaSalle Street, 24th Floor, Chicago, Illinois 60605, or any of the U.S. options markets. The OCC registration statement relating to options, which includes the OCC prospectus and the financial statements of OCC, is available for inspection at the offices of OCC, and copies may be obtained from the SEC, Room 1024, 450 5th Street, N.W., Washington, D.C. 20549, upon payment of the fees prescribed by the SEC. Additional information concerning OCC—but not the options markets—is included in the OCC prospectus and registration statement.

2. Only the U.S. options markets on which an option is authorized to be traded are responsible for the statements in this booklet concerning that option.

3. The options markets do not intend this booklet to be incorporated by reference into the OCC prospectus or into any other publication that may be prepared or distributed by OCC, an options market or any other person (other than a document that has been specifically designated to be a supplement to this booklet and that has been filed with the SEC pursuant to Rule 9b-1). The fact that another document states that this

booklet is available, or states from whom this booklet may be obtained, or recommends that this booklet be read and understood, does not mean that this booklet has been incorporated by reference into that other document.

4. No other publication is incorporated by reference into this booklet. The fact that this booklet refers to information that may be available in other publications does not mean that any of those other publications has been incorporated into this booklet.

5. This booklet does not attempt to present a complete description of all of the provisions governing options. These are set forth in applicable laws, in the rules and regulations of the SEC and other regulatory agencies, and in the rules, interpretations, policies and procedures (collectively called "rules") of OCC, the options markets and the foreign clearing houses that act as "associate clearing houses" of OCC that may be in force from time to time.

This booklet also does not attempt to describe either the rules that govern the structure or conduct of options trading or the forms and procedures for trading in the various options markets. These matters differ from one options market to another, and they may change from time to time. As examples, the various options markets may utilize different market-making systems (with some markets using a specialist system, others a competing market-maker system, and others a combination of the two), order routing systems, and automatic order execution systems. Moreover, as advances are made in computer technology, the trading and market-making systems and the other trading procedures of the options markets are likely to evolve and change—or even be radically different from what they now are.

At particular times—such as when unusual conditions or circumstances exist, which for example may occur on and after days on which there have been substantial or volatile price movements in the securities markets generally or in the markets for underlying or related interests—the options markets may have authority under their rules to modify the application of some or all of their trading rules and procedures or to take such actions as they may deem appropriate in the circumstances. Such actions could include, among other things, changing the manner in which trading in particular options is conducted, extending trading hours for particular options, halting trading in particular

options, restricting the types of orders that may be employed, and modifying or eliminating the bid/asked differential at which market-makers or specialists may quote. The taking of such actions by an options market often is promptly disclosed to the trading crowd in that options market, to representatives of brokerage firms that are members of the options market, and/or to price vendors, but the actions may be taken without public notice, and there can be no assurance that disclosure will be made in a manner that will permit investors to learn of the actions in a timely way.

OCC and the options markets have broad discretion under their rules to take a variety of actions in particular circumstances, and readers should not assume that any organization will exercise its discretion in a particular way in any particular circumstance. A statement in this booklet to the effect that OCC or an options market has authority or discretion to take a particular action does not mean that it will necessarily take that action. To the contrary, it should be understood from such a statement that the organization also has authority not to take that action. Moreover, it should be understood that OCC and the options markets have broad discretion in the manner in which they interpret their own rules.

OCC and the options markets have no duty to enforce, or to oversee the enforcement of, each other's rules. OCC and each U.S. options market has a general statutory obligation to enforce compliance with its own rules by its own members. However, there can be no assurance that all such rules will always be complied with by members, since frequently the only means of enforcing compliance with rules is to impose disciplinary sanctions after the fact on those who have violated them.

Readers desiring information concerning the rules of OCC or any of the options markets as to the terms of options, the manner in which options are traded or in which a market functions, the trading hours of a particular options market, or other related matters, or information concerning any of the other matters referred to herein, may obtain the information from the relevant organization. Information concerning a foreign options market or associate clearing house is generally available from that organization.

6. The U.S. options markets have rules applicable to the handling of customer accounts and the execution

of buy and sell orders that impose special requirements with respect to approval of customer accounts for options trading and recommendations of particular option transactions. This booklet does not attempt to describe those requirements, the laws and rules governing brokerage firms and other securities professionals, or the agreements, procedures and internal rules of brokerage firms that are applicable to the approval and opening of customer accounts, the handling and execution of orders, the transmission to brokerage firms of instructions to exercise or not to exercise options, the manner or time in which writers of options are notified by their brokerage firms that options have been assigned an exercise, the handling of customers' funds, securities and accounts, the safeguarding of customers' positions in options, or other matters relating to the handling of options transactions by brokerage firms. Readers should consult with their own brokerage firms for information concerning such matters.

7. This booklet does not attempt to describe the risks to investors that may be associated with the way trading is conducted in any particular options market or in any market for an underlying or related interest. The reader should not assume that either the options markets or the markets for underlying or related interests will be efficient, liquid, continuous and orderly in all circumstances or that they will be or remain open at all times. Even on relatively normal days, there will be variances in the market-making performance of specialists and market makers in the various markets which derive primarily from differences in individual skills, capital, willingness to accept risk, ability to hedge risk, trading strategies, and market-making obligations, and these variances are likely to be exacerbated during times of greatly increased volume or volatility. Although specialists and market makers in some markets have certain obligations to assist in the maintenance, so far as is practicable, of a fair and orderly market, traditional indicators of orderliness are difficult to apply to the trading of derivative products such as options and there is a risk that the market-making system of a particular market will not operate effectively, efficiently or in an orderly manner at particular times. The nature and scope of that risk are not among the types of risk discussed further in this booklet.

It is also possible that the systems of an options market, or of a market for an underlying or related

interest, may fail or may not work effectively or efficiently at times. During the past few years, for example, the operations of various U.S. markets have been disrupted by earthquake, flood, fire, electricity outages, and computer failure. Moreover, no system can be expected to work perfectly at all times. The options markets may rely on manual methods to record trade information, and errors or omissions can occur in their reports of price, volume and other information, and these can be expected to be exacerbated on days of significant volume or volatility.

It is also beyond the scope of this booklet to discuss the risks that may result to investors from the use by market participants of options pricing theories. There are a number of publications that are commercially available which discuss such theories.

8. This booklet does not attempt to describe risks that may be inherent in an investment in the underlying interest. It is obvious that the investment potential of an option can be dependent on the performance of the underlying interest and that investors in options are therefore subject to the risks that may affect the value of that interest. For example, one of the risks undertaken by a purchaser of a call option (or a writer of a put option) on XYZ stock is that XYZ may decline in price during the life of the option. The risk of this decline is dependent on the risks that may affect the economy or the stock market generally or XYZ specifically. Similarly, the holder of a dollar-denominated option on a foreign currency is subject to the risk factors affecting the relative values of the U.S. dollar and the foreign currency. A discussion of these types of risks is beyond the scope of this booklet.

9. This booklet does not attempt to describe systemic risks that could affect the options markets and the investors in those markets. The options markets, like all securities markets, are interrelated with, and frequently interdependent upon, other aspects of national and international financial and capital systems and upon the national and world economy. Any disturbance or crisis of one part of these interrelated systems could severely disrupt or even threaten the performance of the options markets or of OCC. Bank failures, payments breakdowns, large and sudden economic shocks, the failure of a large securities firm, market or clearing organization, or other such events could cause other failures on a widespread basis and

could affect the liquidity and solvency of the participants in the options markets. The specific causes of systemic failure or disruption are not easy to predict, and a discussion of them is beyond the scope of this booklet.

10. All examples in this booklet are based on hypothetical values that are not necessarily indicative of the prices in an actual transaction. Readers should not assume that options will necessarily be priced in accordance with any example in this booklet or in accordance with any pricing formula or model. As noted in the discussion of "Premium" in Chapter II, option premiums are not fixed by OCC or any of the options markets.

11. The examples in this booklet do not include tax consequences, commissions or other transaction costs, nor do they include the impact of applicable margin requirements. As discussed in Chapter IX, these items can be very significant and should be taken into account by all investors.

SUPPLEMENTS

appear on the following pages

DECEMBER 1997 SUPPLEMENT

To accommodate the introduction of trading in cash-settled options on indexes of mutual funds, the February 1994 edition of the booklet entitled *Characteristics and Risks of Standardized Options* is amended by adding the following disclosure to Chapter IV, Index Options, following the third full paragraph on p. 26:

Index options may be traded on underlying indexes designed to reflect the net asset values of selected mutual funds in specified categories. For example, an underlying index may be designed to reflect the net asset value of a selected group of growth funds, or a selected group of growth and income funds. These indexes are calculated and disseminated based on the reported net asset values of the mutual funds included in the index. Mutual funds typically report their net asset values only once per day following the close of trading in the primary markets for the securities held in the funds' investment portfolios. Mutual fund indexes are based on these closing values and are not updated during the trading day. Mutual fund indexes as reported during the trading day will thus be based on non-current information, not only because the funds' portfolios may have changed since the previous day's close, but also because the values of the funds' portfolio securities during the trading day may vary from their values at the previous day's close. Therefore, reported fund index values should not be relied upon as indicative of the current values of the mutual funds included in the indexes. In this respect, mutual fund indexes are comparable to other indexes that are not updated during the trading day, including certain foreign stock indexes. These other indexes are not updated because their component stocks may not be traded in their primary home country markets during all or part of the options trading day.

MARCH 2000 SUPPLEMENT

The February 1994 edition of the booklet entitled *Characteristics and Risks of Standardized Options* (the "options booklet") is amended as follows:

1. The second full paragraph after the example on page 21 of the options booklet is amended to read:

When an underlying security is converted into a right to receive a fixed amount of cash, options on that security will generally be adjusted to require the delivery upon exercise of a fixed amount of cash, and trading in the options will ordinarily cease when the conversion becomes effective. As a result, after such an adjustment is made all options on that security that are not in the money will become worthless and all that are in the money will have no time value. If the option is European-style (as may be the case for a flexibly structured stock option designated as a European-style option), the expiration date of the option will ordinarily be accelerated to fall on or shortly after the date on which the conversion of the underlying security to a right to receive cash occurs. Holders of an in the money option whose expiration date is accelerated must be prepared to exercise that option prior to the accelerated exercise cut off time in order to prevent the option from expiring unexercised. Writers of European-style options whose expiration date is subject to being accelerated bear the risk that, in the event of such an acceleration, they may be assigned an exercise notice and be required to perform their obligations as writers prior to the original expiration date. When the expiration date of a European-style option is accelerated, no adjustment will be made to reflect the accelerated expiration date. There is no assurance that the exercise settlement date for an accelerated option will coincide with the date that the cash payment to the

holders of the underlying security becomes available from the issuer of the underlying security. Covered writers of an accelerated option may therefore be required to pay the cash amount in respect of the option before they receive the cash payment on the underlying security.

2. The third and fourth sentences of the paragraph under "Exercises and Settlements" on page 47 of the options booklet are amended to read:

However, unlike most other options, flexibly structured index options that are in the money on the expiration date may be exercised automatically. In the future it may be provided that flexibly structured index options will be exercised automatically only if they are in the money by a specified amount.

This supplement supersedes the October 1996 supplement to the options booklet.

JANUARY 2004 SUPPLEMENT

This supplement supersedes and replaces the November 1995 Supplement to, and amends specified portions of, Characteristics and Risks of Standardized Options (the "Booklet").

To permit greater flexibility in the methods used for assigning options exercises, the Booklet is amended by replacing the first two paragraphs following the caption "Assignment" in Chapter VIII of the Booklet with the following:

OCC follows established procedures for assigning exercises to Clearing Member accounts that contain short option positions identical to the exercised options. These procedures may be different for different classes of options. A description of OCC's assignment procedures and the options classes to which they apply is available on request from OCC at One North Wacker Drive, Suite 500, Chicago, Illinois 60606.

Assignments are ordinarily made prior to the commencement of trading on the business day following receipt by OCC of the exercise instruction. In the case of options traded in evening sessions, exercise instructions received by OCC on a business day are ordinarily assigned prior to the opening of trading in that day's evening session.

Exercises may be assigned by OCC to a Clearing Member's customers' account. In that event, the Clearing Member must in turn assign those exercises to its customers maintaining positions as writers of the exercised options series. The rules of the options markets require their member firms to establish fixed procedures for allocating assignments to customers (e.g., random selection or "first-in, first-out") and to inform their customers of the method used and how it works.

Regardless of the method used, an option writer is subject to the risk each day the option is exercisable

that some or all of his short position may be assigned. (See the discussion in Chapter X under "Risks of Option Writers.") However, if less than all of the open interest in an options series is exercised, OCC's procedures for assigning exercises to Clearing Members and brokers' procedures for allocating assignments to customers may affect the likelihood that a customer's position will be assigned and the potential size of the assignment.

To address special considerations with respect to the deadlines for the exercise of certain options that expire on a day on which an options market is open for trading, the fourth paragraph under the caption "How to Exercise" in Chapter VIII of the Booklet is amended to read as follows:

A brokerage firm's cut-off time for accepting exercise instructions becomes critical on the last trading day before an option expires. An option that expires unexercised becomes worthless. An option holder who intends to exercise an option before expiration must give exercise instructions to his brokerage firm before the firm's cut-off time for accepting exercise instructions on the last trading day before expiration. If the expiration date of an option falls on a day on which an options market is open for trading in that option, a brokerage firm's last cut-off time for accepting exercise instructions prior to the option's expiration may be on the expiration date. Investors should be aware of their brokerage firm's policies in this regard. Many brokerage firms accept standing instructions to exercise, or have procedures for the exercise of, every option which is in the money by a specified amount at expiration. These procedures often incorporate by reference OCC's administrative procedures that provide for the exercise of every option that is in the money by a specified amount at expiration unless the Clearing Firm carrying the option in its accounts instructs OCC not to exercise the option. Investors should determine from their brokerage firm the applicable cut-off times, the firm's procedures for submitting exercise instructions, and whether any of their options are subject to automatic exercise. Investors should also determine whether the exercise of their options is subject to standing instructions of their brokerage firm, and, if so, they should discuss with the firm the potential consequences of such instructions.

APRIL 2007 SUPPLEMENT

The February 1994 edition of the booklet entitled *Characteristics and Risks of Standardized Options* (the "booklet") is amended as provided below. The changes pertain to non-rate modified cash-settled foreign currency options and rate-modified cash-settled foreign currency options. This supplement supersedes and replaces the January 2007 supplement.

On page 38, the second paragraph under the heading "Special Features of Dollar-Denominated Foreign Currency Options" is deleted and replaced with the following:

NON-RATE-MODIFIED CASH-SETTLED FOREIGN CURRENCY OPTIONS

Exercise prices for currently available dollar-denominated options on foreign currencies (other than rate-modified currency options, as described below) are stated in units of U.S. currency (*e.g.*, cents or hundredths of a cent) per unit of foreign currency. In order to determine the total exercise price per contract, it is necessary to know the unit of U.S. currency used for options on the particular foreign currency, and to multiply the stated exercise price by the unit of trading for such options. For example, at the date of this booklet, dollar-denominated British pound options are expressed in U.S. cents per unit, and dollar-denominated Japanese yen options are expressed in hundredths of U.S. cents per unit.

On page 38, the following is inserted immediately following the second "EXAMPLE" at the end of the page:

Readers should note, however, that certain exchanges may express exercise prices in other unconventional ways. For example, an exercise price stated as $100.50 may in reality mean $1.0050. Readers need to be sure they fully understand the various conventions used by the exchanges on which they trade in quoting exercise prices.

On page 39, the second paragraph is deleted and replaced with the following:

Premiums for currently available dollar-denominated options on foreign currencies (other than rate-modified currency options, as described below) are expressed in units of U.S. currency per unit of foreign currency. In order to calculate the cost of the option, it is necessary to know the unit of U.S. currency used for options on the particular

foreign currency. For example, at the date of this booklet, premiums for currently available dollar-denominated Swiss franc options are expressed in U.S. cents, and premiums for currently available dollar-denominated Japanese yen options are expressed in hundredths of U.S. cents.

On page 39, the following are deleted: (a) the sentence immediately following the first "EXAMPLE," (b) the second "EXAMPLE," and (c) the sentence immediately following the second "EXAMPLE."

On page 39, the following is inserted immediately before the last paragraph:

Readers should note, however, that certain exchanges may express premiums in other unconventional ways. Readers need to be sure they fully understand the various conventions used by the exchanges on which they trade in quoting premiums.

The first paragraph under the heading "Cash-Settled Foreign Currency Options," which is the last paragraph on page 43, is deleted and the following sentence is added at the beginning of the first paragraph on page 44:

At the date of this booklet, dollar-denominated cash-settled foreign currency options have also been approved for trading.

The last four paragraphs on page 44 are deleted and replaced with the following:

EXAMPLE: If the exercise price of a cash-settled, dollar-denominated call option on euros is $1.2500 per euro, the exercise settlement value of the euro is determined to be $1.2607 and the option covers 10,000 euros, then the cash settlement amount for the option will be ($1.2607 − $1.2500) × 10,000 = $107.00.

Cash-settled foreign currency options may be automatically exercised on the expiration date if in the money or if in the money by a certain amount. See the discussion in Chapter VIII under "How to Exercise."

The exercise settlement value for cash-settled foreign currency options will be based on an exchange rate for the underlying foreign currency from a source selected by the market on which the options trade as set forth in exchange rules. In the case of rate-modified foreign currency options, the options market on which the options are traded would calculate and disseminate the underlying rate. In either case this rate may be based on a rate announced by the Federal Reserve Bank of New York, bid and offer quotations from a sampling of participants in the interbank spot market for the underlying foreign currency, the rate reported by a recognized pricing service, or some

other widely-available rate. The time as of which the exercise settlement value is calculated and the method of calculation are determined by the options market on which the options are traded and may be changed by it at any time. Any such change may be made applicable to options outstanding at the time of the change.

If OCC determines that the exercise settlement value of the underlying foreign currency for any series of cash-settled foreign currency options is unreported, inaccurate, unreliable, unavailable, or inappropriate for purposes of calculating the cash settlement amount of such series, OCC has the authority to suspend the settlement obligations of the exercising and assigned Clearing Members of options of such series or to fix the cash settlement amount for exercised options of such series or to do both. In the event of such a suspension, OCC will fix a new settlement date after OCC determines that the exercise settlement value is available or after OCC fixes the cash settlement amount.

If OCC determines to fix the cash settlement amount, it will act through an adjustment panel that will use its judgment as to what is appropriate for the protection of investors and the public interest. For a description of adjustment panels, see "Adjustment and Adjustment Panels" in Chapter II. The panel may fix the cash settlement amount using the reported price or value of the underlying foreign currency at such time, or representing a combination or average of prices or values at such time or times, and reported in such manner, as the panel deems appropriate.

If an adjustment panel delays fixing a cash settlement amount for a series of cash-settled foreign currency options past the last trading day before expiration of that series, normal expiration exercise procedures will not apply to the affected series. Instead, exercise settlement will be postponed until the next business day following the day when the adjustment panel fixes the cash settlement amount, and each long position in the affected series will be treated as having been exercised if the cash settlement amount per contract for that series is $1.00 or more. If the cash settlement amount per contract is less than $1.00, the option will be treated as having expired unexercised. As a result of these procedures, holders of expiring cash-settled foreign currency options may not know whether their options have been exercised, and writers of such options may not know whether they have been assigned an exercise, until after the expiration date. An adjustment panel's determinations shall be conclusive, binding on all investors, and not subject to review.

RATE-MODIFIED CASH-SETTLED FOREIGN CURRENCY OPTIONS

A rate-modified currency option is a type of foreign currency option that may be thought of as an option on an underlying exchange rate between two currencies. The holder of a rate-modified currency option receives in U.S. dollars the difference between the modified rate and the exercise price multiplied by a multiplier (*e.g.*, USD $100). In this respect, rate-modified currency options resemble cash-settled index options where the index is an exchange rate between two currencies. Exchange rates in the spot market are expressed as the number of units of one currency ("currency 1") required to purchase a single unit of a second currency ("currency 2"), and for each pairing of the world's major currencies, there is a convention as to which currency is currency 1 and which is currency 2. You should be aware that the exchange rates underlying rate-modified currency options may or may not be stated in the same way that they are conventionally quoted in the spot market. For example, exchange rates between the U.S. dollar and the euro are generally quoted as the number of dollars required to purchase a single euro; but the rate underlying a rate-modified currency option could be stated as the number of euros required to purchase a single dollar. You should therefore be certain that you understand the meaning of an underlying exchange rate.

In the case of rate-modified currency options, the underlying exchange rate may be multiplied by a "rate-modifier," such as 1, 10 or 100, to create an underlying value that more closely resembles a conventional index value. Exercise prices would, of course, also be expressed in terms of the rate-modified values.

EXAMPLE: A rate-modifier of 100 may be applied to the exchange rate between U.S. dollars ("USD") and Swiss francs ("CHF") in order to obtain the underlying exchange rate for USD/CHF rate-modified currency options. If the current exchange rate in the USD/CHF spot market is 1.24 Swiss francs per dollar, the current rate-modified exchange rate would be stated as (1.24 × 100) = 124. For example, an exercise price of 1.25 Swiss francs per dollar would be expressed as 125.

As in the case of an index option, the premiums and exercise settlement values of rate-modified currency options are determined using a multiplier, *e.g.*, USD $100.

EXAMPLE: A rate-modified USD/CHF call option has an exercise price of 125. The USD/CHF exchange rate in the spot market at the time the exercise settlement value is fixed is 1.27 Swiss francs per dollar, meaning that the

underlying rate-modified value is (1.27 × 100) = 127. The option is in the money. The exercise settlement value of the option is (127 − 125) × $100 = $200.

Do not confuse the rate-modifier with the multiplier. They serve different purposes and may or may not have the same numeric value.

EXAMPLE: Assume that the exchange rate underlying a rate-modified call option on the exchange rate between the U.S. dollar and the Mexican peso is stated as Mexican pesos per U.S. dollar (USD/MXN). The rate-modifier could be 10 and the multiplier could be $100. If the exercise price of the option is 11 Mexican pesos per U.S. dollar, it is stated as 11 × 10 = 110. If the underlying exchange rate is 11.2 at the time the option is exercised, the exercise settlement value is (112 − 110) × $100 = $200.

Note that, as in the case of index options, the multiplier determines the cash value of an option that is in the money by a specified amount. Like index options, and unlike other cash-settled currency options, a rate-modified currency option has no unit of trading—it does not relate to a specified quantity of an underlying currency.

The multiplier is also used in determining the total premium for a rate-modified currency option. For example, if a premium is quoted as .50 and the multiplier is $100, the total premium for a single option is $50.

The paragraph numbered 12 on page 87 is deleted.

MAY 2007 SUPPLEMENT

The February 1994 edition of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as follows to reflect certain changes in OCC's rules as well as the rules of certain options markets.

The changes in Part I reflect modifications made to the definition of "ordinary cash dividend or distribution" (*i.e.*, cash dividends and distributions for which no adjustment is made). The changes in Part II reflect changes made to eliminate the need to round adjusted exercise prices in certain circumstances and to provide more precise compensation for fractional shares eliminated by rounding.

Parts III-V of this Supplement supersede and replace the February 2003 Supplement to the Booklet. Part III pertains to options on interests in investment companies and similar entities. Part IV pertains to special exercise settlement procedures or restrictions that may be imposed upon the occurrence of certain extraordinary events. Part V discloses that a registration statement and prospectus for the options covered by the Booklet are no longer available.

Part VI pertains to an expansion of OCC's authority to adjust the multiplier for yield-based Treasury options and to fix the cash settlement amount for such options in certain circumstances. Part VII reflects the adoption of rules by certain options markets that permit, in very limited circumstances, the cancellation or adjustment of a transaction entered into at a premium based on an erroneously reported value for the underlying interest. Part VIII, which supersedes paragraph 1 of the March 2000 Supplement to the Booklet, pertains to the acceleration of the expiration date of options on equity securities in certain circumstances.

Part I. Definition of Ordinary Cash Dividend or Distribution.

The fourth paragraph on page 19 is amended to read as follows:

<u>As a general rule, no adjustment is made for ordinary cash dividends or cash distributions.</u> A cash dividend or distribution announced *prior to* February 1, 2009, will generally be considered "ordinary" unless it exceeds 10% of the aggregate market value of the underlying security outstanding as of the close of trading on the declaration date. The same rule will continue to apply on and after that

date with respect to options series designated by OCC as "grandfathered" for purposes of this rule (*i.e.*, series opened prior to publication of this Supplement that remain outstanding on February 1, 2009). In the case of all other options series, a cash dividend or distribution announced *on or after* February 1, 2009, will generally be considered "ordinary," regardless of size, if OCC believes that it was declared pursuant to a policy or practice of paying such dividends or distributions on a quarterly or other regular basis (and no adjustment will normally be made for any cash dividend or distribution that amounts to less than $12.50 per contract). As an exception to the general rule, options on fund shares will generally be adjusted for capital gains distributions even if made on a regular basis, and adjustments may be made for certain other distributions in respect of fund shares in special circumstances described in OCC's rules, provided in each case that the amount of the adjustment would be $.125 or more per fund share. Determinations whether to adjust for cash dividends or distributions not covered by the preceding rules, or when other special circumstances apply, are made on a case-by-case basis.

Part II. Adjustment of Exercise Prices.

The first seven paragraphs on page 20 of the Booklet are deleted in their entirety, and the following material is inserted in lieu thereof.

Stock dividends, stock distributions and stock splits may result in an adjustment of the number of options held or written or the number of underlying shares, and in some cases may also result in an adjustment of the exercise price.

Stock Options with Exercise Prices Stated in Fractions

As of the date of this Supplement, exercise prices for stock options are stated in points and fractions of a point (*e.g.*, 20⅝ or 30½). The smallest fraction is ⅛. The following adjustment rules apply to any series of stock options whose exercise price is stated in points and fractions of a point:

As a general rule, a 2 for 1 or a 4 for 1 stock split, stock distribution or stock dividend will result in the number of outstanding options being proportionately increased and the exercise price being proportionately decreased.

EXAMPLE: Before a 2 for 1 stock split, an investor holds an option on 100 shares of XYZ stock with an exercise price of $60. After adjustment for the split, he will hold two XYZ options, each on 100 shares and each with an exercise price of $30.

A stock dividend, stock distribution or stock split other than a 2 for 1 or a 4 for 1 distribution or split will normally result in an adjustment in the number of shares deliverable upon exercise, while the aggregate exercise price for the contract remains unchanged.

EXAMPLE: An investor holds a call option covering 100 shares of XYZ stock with an exercise price of $50 resulting in an aggregate exercise price for the contract of $5,000 ($50 × 100). After a 3 for 2 split, the deliverable could be increased to 150 shares while the nominal exercise price remained $50. In that case, upon exercise of the adjusted option, the investor would still pay $5,000 ($50 × 100, not $50 × 150), but would receive 150 shares of XYZ stock instead of 100.

Note in the preceding example that, although the number of shares deliverable was adjusted to be 150, the number by which the unadjusted exercise price of $50 was multiplied to determine the total exercise price continued to be 100 rather than 150. Similarly, premium quotations would continue to be multiplied by 100 to obtain the total premium to be paid for a single option.

Stock Options with Exercise Prices Stated in Decimals

In the future, the exchanges may introduce stock options with exercise prices stated in points and decimals (*e.g.*, 20.15 or 30.80). The following adjustment rules would apply to any series of stock options whose exercise price is stated in points and decimals:

When a stock distribution, stock split or stock dividend results in the issuance of one or more whole shares of stock for each outstanding share—such as a 2 for 1 or a 3 for 1 stock split—as a general rule the number of underlying shares will not be adjusted. Instead, the number of outstanding options will be proportionately increased and the exercise price will be proportionately decreased. (See the example of a 2 for 1 stock split under "Stock Options with Exercise Prices Stated in Fractions" above.)

Other stock dividends, stock distributions and stock splits may result in an adjustment in the number of underlying shares and the exercise price.

EXAMPLE: An investor bought an XYZ 50 option—either a call or a put—and XYZ Corporation subsequently effected a 3 for 2 stock distribution. Instead of covering 100 shares of stock at an exercise price of $50 a share, each outstanding option could be adjusted to cover 150 shares at an exercise price of $33.33 per share. The aggregate exercise price remains substantially the same before and after the adjustment ($50 × 100 = $5,000 and $33.33 × 150 = $4,999.50).

All Stock Options

As a general rule, adjustments in exercise prices are rounded to the nearest exercise price increment (⅛ or one cent, as the case may be), and adjustments in the number of underlying shares are rounded down to eliminate fractional shares. In the latter case, the property deliverable upon exercise may be adjusted to include the value of the eliminated fractional share, as determined by OCC.

Note that in the preceding example where the exercise price of the adjusted XYZ option was rounded down, the exercising put holder or assigned call writer would lose $.50 as a result of the rounding. Rounding up could result in losses to exercising call holders and assigned put writers.

A reverse stock split, combination of shares, or similar event will generally result in an adjustment in the number of shares deliverable upon exercise, while the aggregate exercise price remains unchanged.

EXAMPLE: An investor holds a call option covering 100 shares of XYZ stock with an exercise price of 50 resulting in an aggregate exercise price for the contract of $5,000 ($50 × 100). After a 1 for 10 reverse split, the deliverable could be reduced to 10 shares while the nominal exercise price remained $50. In that case, upon exercise of the adjusted option, the investor would still pay $5,000 ($50 × 100, not $50 × 10), but would receive 10 shares of XYZ stock instead of 100.

As a general rule, no adjustment is made for ordinary stock dividends or distributions. A stock dividend or distribution will generally be considered "ordinary" if (i) the number of shares distributed does not exceed 10% of the number of shares outstanding on the declaration date and (ii) it is declared pursuant to a policy or practice of paying such dividends or distributions on a quarterly basis.

Distributions of property other than the underlying security may result in the adjustment of outstanding options to include the distributed property.

Part III. Options on Fund Shares.

To reflect a broadening of the definition of "fund shares," the Booklet is amended as follows:

The first full paragraph on page 2 of the Booklet is amended to read:

Each options market selects the underlying interests on which options are traded on that market. Options are currently available covering four types of underlying interests: equity securities (which term includes "fund shares" described in Chapter III), stock indexes, government debt securities, and foreign currencies. Options on other types of underlying interests may become available in the future.

The first paragraph of Chapter III, appearing on page 18 of the Booklet, is amended to read:

The term "stock options" is used broadly in this Booklet to include not only options on common stocks but also options on all other types of equity securities, such as limited partnership interests, "American Depositary Receipts" and "American Depositary Shares" representing interests in foreign entities, preferred stocks, and fund shares. The term "fund shares" includes interests in exchange-traded funds and other entities holding or trading in one or more types of investments, and as used in this Booklet the term "equity securities" includes fund shares.

The first paragraph under the caption "FEATURES OF STOCK OPTIONS" on page 18 of the Booklet is amended to read:

As a general rule, a single stock option covers 100 shares of the underlying security, although in the case of options covering fund shares, options covering 100 or 1000 shares may be available. Other stock options departing from the general rule may be introduced in the future. The number of underlying shares covered by any stock option may be adjusted after the option is issued if certain events occur, as described below.

The fourth paragraph on page 19 of the Booklet is amended as set forth in Part I of this Supplement.

Part IV. Special Exercise Settlement Procedures/Restrictions.

Three new paragraphs are added on page 78 of the Booklet at the end of the section headed "8." The new paragraphs read:

If OCC determines that the primary market(s) for one or more component securities of an underlying index did not open or remain open for trading, or that the component security or securities did not open or remain open for trading on the primary market(s), on a trading day at or before the time when the exercise settlement value for that trading day would ordinarily be determined, or that a current index value or other price or value needed to calculate the exercise settlement value for an index option is otherwise unreported, inaccurate, unreliable, unavailable or inappropriate for purposes of calculating the cash settlement amount, then OCC may suspend settlement obligations for exercised and assigned contracts of the affected series. In the event of such a suspension, OCC will fix a new settlement date after OCC determines that the exercise settlement value is available or after OCC fixes the exercise settlement value.

If OCC determines to fix the exercise settlement value, it will act through an adjustment panel that will use its judgment as to what is appropriate for the protection of investors and the public interest. For a description of adjustment panels, see "Adjustment and Adjustment Panels" in Chapter II. The panel may fix the exercise settlement value using the reported price or value of the relevant security or securities or index (i) at the close of regular trading hours (as determined by OCC) on the last preceding trading day for which a price or value was reported by the reporting authority, or (ii) at the opening of regular trading hours (as determined by OCC) on the next trading day for which a price or value was reported by the reporting authority. Alternatively, the panel may fix the exercise settlement value using a price or value for the relevant security or securities or index, or using a combination or average of such prices or values, at or during such time or times that the panel sees fit.

If an adjustment panel delays fixing an exercise settlement value for a series of index options past the last trading day before expiration of that series, normal expiration exercise procedures will not apply to the affected series. Instead, exercise settlement will be postponed until the next business day following the day when the adjustment panel fixes the exercise settlement value, and each long position in the affected series will be treated as having been exercised if the exercise settlement amount per contract for that series is $1.00 or more. If the exercise settlement amount per contract is less than $1.00, the option will be treated as having expired unexercised. As a result of these procedures, holders of expiring index options may not know whether their options have been exercised, and writers of such options may not know whether they have been assigned an exercise notice, until after the expiration date. An adjustment panel's determinations shall be conclusive, binding on all investors, and not subject to review.

The first paragraph on page 41 of the Booklet is amended to read:

If OCC should determine that foreign governmental restrictions or taxes would prevent the orderly settlement of delivery foreign currency option exercises or would result in undue burdens on OCC or its Clearing Members, OCC has the authority to impose special exercise settlement procedures. These could range from technical changes in delivery procedures to the fixing of U.S. dollar settlement prices. If special exercise settlement procedures are imposed, investors may determine the nature of such procedures from their brokers.

The last paragraph on page 53 of the Booklet is amended to read:

In certain unusual circumstances, an event may threaten to reduce the available supply of an underlying security to a level insufficient to allow settlement if all of the outstanding option contracts for the affected security were exercised. This could happen, for example, in the event of a successful tender offer for all or substantially all of the outstanding shares of an underlying security or if trading in an underlying security were enjoined or suspended. If OCC in its discretion determines that a situation of that type exists, OCC may impose special exercise settlement procedures. These special procedures, applicable only when an assigned call writer or an exercising put holder is unable to obtain the underlying security, may involve the suspension of the settlement obligations of the holder and writer and/or the fixing of cash settlement prices in lieu of delivery of the underlying security. When special exercise settlement procedures are imposed, OCC will announce to its Clearing Members how settlements are to be handled. Investors may obtain that information from their brokerage firms.

On page 61 of the Booklet, the second paragraph of the section headed "5." is amended to read:

Exercise restrictions imposed by OCC and the options markets affecting cash-settled options generally cannot be continued in effect beyond the opening of business on the last trading day before their expiration. Such exercise restrictions affecting physical delivery options generally cannot be continued beyond the opening of business on the tenth business day before their expiration.

Part V. Exemption of Standardized Options from 1933 Act Registration.

Effective January 2, 2003, the SEC exempted standardized options issued by a registered clearing agency and traded on a registered national securities exchange or association from the Securities Act of 1933, except for the antifraud provisions of Section 17 of that Act. Effective January 10, 2003, the SEC approved an amendment to OCC's most recent registration statement under that Act terminating the registration of all unsold put and call options. As a result of these actions, the standardized options covered by this Booklet are no longer required to be registered under that Act; an OCC registration statement will no longer be available for inspection at OCC's office; and copies of an OCC prospectus for standardized options will no longer be available from OCC or the U.S. options markets.

Part VI. Yield-Based Treasury Options.

The second full paragraph on page 34 is replaced with the following paragraph:

If the U.S. Department of the Treasury ceases to issue, or changes the terms or the schedule of issuance of, Treasury securities on which underlying yields are based, an adjustment panel has discretion to adjust the terms of the series by substituting other Treasury securities or to make such other adjustment as the adjustment panel may determine. If the options market on which a particular yield-based option is traded should increase or decrease the multiplier for the option, the adjustment panel has discretion to adjust outstanding options affected by the change by proportionately consolidating or subdividing them or by taking other action.

The paragraph numbered 9. on page 82 is replaced with the following:

9. If OCC determines that the exercise settlement value of the underlying yield for any series of yield-based options is unreported, inaccurate, unreliable, unavailable, or inappropriate for purposes of calculating the cash settlement amount of such series, OCC has the authority to suspend the settlement obligations of the exercising and assigned Clearing Members of options of such series or to fix the cash settlement amount for exercised options of such series or to do both. In the event of such a suspension, OCC

will fix a new settlement date after OCC determines that the exercise settlement value is available or after OCC fixes the cash settlement amount.

If OCC determines to fix the cash settlement amount, it will act through an adjustment panel that will use its judgment as to what is appropriate for the protection of investors and the public interest. For a description of adjustment panels, see "Adjustment and Adjustment Panels" in Chapter II. The panel may fix the cash settlement amount using the reported value of the underlying yield (i) at the close of regular trading hours (as determined by OCC) on the last preceding trading day for which such a value was reported by the reporting authority or (ii) at the opening of regular trading hours (as determined by OCC) on the next trading day for which such a value was reported by the reporting authority. Alternatively, the panel may fix the cash settlement amount using the value for the underlying yield, or using a combination or average of such values, at or during such time or times that the panel sees fit.

If an adjustment panel delays fixing a cash settlement amount for a series of yield-based options past the last trading day before expiration of that series, normal expiration exercise procedures will not apply to the affected series. Instead, exercise settlement will be postponed until the next business day following the day when the adjustment panel fixes the cash settlement amount, and each long position in the affected series will be treated as having been exercised if the cash settlement amount per contract for that series is $1.00 or more. If the cash settlement amount per contract is less than $1.00, the option will be treated as having expired unexercised. As a result of these procedures, holders of expiring yield-based options may not know whether their options have been exercised, and writers of such options may not know whether they have been assigned an exercise notice, until after the expiration date. An adjustment panel's determinations shall be conclusive, binding on all investors, and not subject to review.

Part VII. Erroneously Reported Index Levels.

The paragraph numbered 5. on page 76 is replaced with the following paragraph, which omits a statement that a person who buys or sells an index option at a premium based on an erroneously reported index level is bound by the trade and has no remedy. The omission reflects the adoption of rules by certain options markets that permit, in very limited circumstances, the cancellation or adjustment of a transaction entered into at a premium based on an erroneously reported value for the underlying interest:

5. Holders and writers of index options generally bear the risk that the reported current index level may be in error. Persons who exercise cash-settled index options or are assigned exercises based on erroneously reported index levels will ordinarily be required to make settlement based on the exercise settlement value as initially

reported by the official source of the index, even if a corrected value is subsequently announced. References herein to index values "as initially reported" refer to the values initially reported by the source of the index as definitive, and not to any tentative or preliminary values that may be announced at an earlier time subject to adjustment. In extraordinary circumstances (*e.g.*, where an exercise settlement value as initially reported is obviously wrong and inconsistent with values previously reported, and a corrected value is promptly announced), OCC has discretion to direct that exercise settlements be based on a corrected exercise settlement value. Ordinarily, however, the exercise settlement value as initially reported by the official source of the index will be conclusive for exercise settlement purposes.

Part VIII. Accelerated Expiration of Certain Equity Options.

The second paragraph after the "EXAMPLE" on page 21 of the Booklet, as amended by paragraph 1 of the March 2000 Supplement to the Booklet, is further amended to read:

When an underlying security is converted into a right to receive a fixed amount of cash, options on that security will generally be adjusted to require the delivery upon exercise of a fixed amount of cash, and trading in the options will ordinarily cease when the conversion becomes effective. As a result, after such an adjustment is made all options on that security that are not in the money will become worthless and all that are in the money will have no time value. If the option is European-style, the expiration date of the option will ordinarily be accelerated to fall on or shortly after the date on which the underlying security is converted into a right to receive cash. After January 1, 2008, the same treatment will be extended to American-style options. Holders of an in-the-money option whose expiration date is accelerated must be prepared to exercise that option prior to the accelerated exercise cut-off time in order to prevent the option from expiring unexercised. See the discussion in Chapter VIII under "How to Exercise." Writers of options whose expiration date is subject to being accelerated bear the risk that, in the event of such an acceleration, they may be assigned an exercise notice and be required to perform their obligations as writers prior to the original expiration date. When the expiration date of an option is accelerated, no adjustment will be made to compensate for the accelerated expiration date. There is no assurance that the exercise settlement date for an accelerated option will coincide with the date on which the cash payment to the holders of the underlying security becomes available from the issuer. Covered writers of an accelerated option may therefore be required to pay the cash amount in respect of the option before they receive the cash payment on the underlying security.

JUNE 2007 SUPPLEMENT

The February 1994 edition of the booklet entitled *Characteristics and Risks of Standardized Options*, as amended (the "booklet"), is further amended as provided below. The changes pertain to the trading of credit default options.

Credit default options, including credit default basket options, have characteristics that are different from those of any other options described in the booklet at the date of this Supplement. Accordingly, some of the statements and terms in Chapters I and II of the booklet are inapplicable to credit default options. For example, as further described in this booklet, the sentence at the bottom of page 1 and the top of page 2 which notes that the owner of a cash-settled option has "the right to receive a cash payment based on the difference between a determined value of the underlying interest at the time the option is exercised and the fixed exercise price of the option" is not applicable to credit default options. The description of credit default options in this Supplement supersedes material in the booklet applicable to other standardized options to the extent such material is inconsistent with statements in this Supplement. Credit default options are described by amendment to Chapter V of the booklet as follows:

The title of Chapter V (on page 29 of the booklet) is changed to "DEBT OPTIONS AND CREDIT DEFAULT OPTIONS".

On page 29, the second and third paragraphs are deleted and replaced with the following paragraphs:

A third kind of options, called credit default options, are cash-settled options that are related to the creditworthiness of issuers or guarantors of debt securities, and are exercised upon confirmation of a credit event affecting an underlying debt security or securities.

The principal risks of holders and writers of debt options and credit default options are discussed in Chapter X. Readers interested in buying or writing debt options or credit default options should not only read this chapter but should also carefully read Chapter X, particularly the discussions under the headings "Risks of Option Holders," "Risks of Option Writers," "Other Risks," "Special Risks of Debt Options" and "Special Risks of Credit Default Options."

On page 34, the following is inserted immediately following the last paragraph:

Credit Default Options and Credit Default Basket Options

Credit default options are based on debt securities of one or more issuers or guarantors other than the U.S. Treasury. A significant difference between such debt securities and Treasury securities is the non-negligible risk that an issuer or guarantor of debt securities other than Treasury securities may default on its obligations. For example, the issuer might not pay the full interest and face amount of the securities when due or might file for bankruptcy, thereby making it nearly certain that it will not make timely payment of the full interest and face amount. Financial market participants call this credit risk. Credit risk is an important component of the value of most debt securities.

Credit default options relate to the credit risk presented by one or more specified debt securities, called reference obligation(s), of one or more specified issuers or guarantors, each of which is called a reference entity. The reference obligation(s) and each reference entity for a class of credit default options are selected by the listing options market. When a credit default option is based on reference obligation(s) of more than one issuer or guarantor, it is referred to as a credit default basket option. There are further variations on credit default basket options as described below.

A credit default option is automatically exercised and pays a fixed cash settlement amount if a credit event is confirmed for one or more reference obligations of a reference entity prior to expiration of the option. The reference obligations of a reference entity may include all of the outstanding debt securities constituting general obligations of the reference entity or direct claims on the reference entities (excluding any non-recourse debt). A credit event includes a failure to make a payment on a reference obligation as well as certain other events that the listing options market may specify at the time a class of credit default options is listed. The specified credit events will be defined in accordance with the terms of the reference obligation(s). However, not every event that might constitute an event of default by the reference entity under the terms of the reference obligations will necessarily be specified by the listing options market as a credit event. Investors should be certain that they understand the various possible events that will or will not constitute credit events. The determination of whether a particular event meets the criteria of a credit event, however defined, for a specific credit default option is within the sole discretion of the listing options market.

In order to result in automatic exercise of the option, a credit event must be confirmed to have occurred during the covered period (*i.e.*, the period between the initial listing of the series of options and the time specified by the options market as the last day of trading of the option series prior to the expiration date). An event that would otherwise be deemed a credit event will not result in an exercise of the option if it occurs either before or after this period. A series of credit default options ordinarily does not expire until a specified number of business days following the end of the covered period in order to provide the listing options market an opportunity to confirm whether or not a credit event

occurred within the covered period. If an event otherwise meeting the definition of a credit event occurs after the end of the covered period but before the option expires, the option will not be exercised and will expire worthless.

If the listing options market determines that a credit event has occurred within the covered period for a class of credit default options, it will provide a credit event confirmation to OCC, and the options will be automatically exercised. Holders of the exercised options will receive, and writers will be obligated to pay, the fixed cash settlement amount. If OCC does not receive a credit event confirmation from the listing options market before expiration of a series of credit default options, the options will expire worthless.

Credit default options are binary options in that they have a specified, all-or-nothing cash settlement amount. Credit default options, however, have additional unique characteristics. For example, credit default options have no exercise price and cannot be in the money and have no intrinsic value. The discussion of these terms in Chapter I and/or Chapter II of the booklet is therefore inapplicable to credit default options. In addition, a credit default option is automatically exercised whenever a credit event occurs within the covered period. Credit default options are thus a unique style of options and are neither American-style nor European-style.

A credit default basket option is similar to an aggregation of individual credit default options, each based on one or more reference obligations of a different reference entity. All of the outstanding debt securities constituting general obligations of each reference entity or direct claims on reference entities (excluding non-recourse debt) in the basket may be included in the reference obligations.

There are two different kinds of credit default basket options. A single payout credit default basket option is automatically exercised and pays a specified cash settlement amount upon the confirmation of the first credit event to occur with respect to a reference obligation of any one of the basket's reference entities. It is exercised only once. Once exercised, the expiration of the option will be accelerated to correspond to the exercise date. A multiple payout credit default basket option automatically pays a specified cash settlement amount each time a credit event is confirmed with respect to a reference obligation of any one of the reference entities during the covered period. In the case of either single payout or multiple payout credit default basket options, the listing options market may specify a different cash settlement amount for different reference entities or may specify the same cash settlement amount for each reference entity in the basket. The percentage of the total cash settlement amount that is attributable to any individual reference entity is referred to as its weight in the basket. Investors should note that the options markets on which credit default basket options trade may determine "weight" according to their own specified rules, and investors should contact the listing options market for information about how it determines weight. In the case of a multiple payout credit default basket option, a cash settlement amount will be paid only once with respect to any particular reference entity, after which time

the affected reference entity will be removed from the credit default basket.

Premiums for both credit default options and credit default basket options are expressed in points and decimals. In order to obtain the aggregate premium for a single option, the quoted premium is multiplied by a premium multiplier specified by the listing options market.

ADJUSTMENT OF CREDIT DEFAULT OPTIONS

Adjustments may be made to the standardized terms of outstanding credit default options when certain events occur, such as a succession event or a redemption event, both of which will be defined by the listing options market in accordance with the terms of the reference obligations. Adjustments of credit default options will be within the sole discretion of the listing options market. Investors should familiarize themselves with the listing options market's rules and procedures governing credit default option adjustments. The listing option market's rules governing adjustments of outstanding options may be changed with regulatory approval, and the listing options market may have authority to make such exceptions as it deems appropriate to its general adjustment rules.

Redemption Event Adjustments. A redemption event occurs when reference obligations of a reference entity are redeemed (or paid in full) by, or on behalf of, the issuer. In the case of all types of credit default options, if only some of the reference obligations are redeemed, the option is ordinarily adjusted such that the remaining reference obligations are the reference obligations for the option and no other adjustment will ordinarily be made. If all of the reference obligations of a reference entity are redeemed and there are other debt obligations of the reference entity that the listing options market deems appropriate to specify as successor reference obligations, then they will be substituted as the reference obligations. If, however, all of the reference obligations of a reference entity are redeemed and there are no other debt obligations of the reference entity that the listing options market deems appropriate to specify as successor reference obligations for the reference entity (a complete redemption), then the adjustment will depend upon whether or not there are other reference entities for the options.

Adjustment of credit default options for a complete redemption. If there is a complete redemption affecting a credit default option, the option will cease trading on the date that the redemption event is confirmed by the listing options market. Expiration of the option will be accelerated to a specified number of days following the confirmation date of the redemption, and the option will expire unexercised if, prior to such expiration, no credit event is confirmed to have occurred prior to the effective date of the redemption event.

EXAMPLE: Company XYZ is the reference entity for a credit default option contract and its 8% May 15, 2022 bond issue is the only reference obligation. During the life of the option, Company XYZ redeems the 8% May 15, 2022 bond issue and there are no other obligations of Company XYZ

that the listing options market deems to be suitable for specifying as successor reference obligations. The option will cease trading on the confirmation date, and its expiration date will be accelerated. If no credit event is confirmed to have occurred within the covered period, the option will expire worthless.

Adjustment of credit default basket options for a complete redemption. In the case of a single or multiple payout credit default basket option, if a complete redemption event occurs with respect to one of the reference entities in the basket and no credit event is confirmed, pursuant to the rules of the listing options market, to have occurred prior to the effective date of such redemption event, the options will be adjusted by removing the affected reference entity from the basket of reference entities. When a reference entity is deleted from the basket of reference entities because of a redemption event, the cash settlement amount of the option will be reduced by an amount reflecting the weight of the deleted reference entity in the basket. The *relative* weights of the other components in the basket will remain unchanged, although each will represent a proportionally larger percentage of the adjusted cash settlement amount.

EXAMPLE: Company XYZ is one of ten reference entities for a class of multiple payout credit default option contracts and its 8% May 15, 2022 bond issue is specified as its only reference obligation. Company XYZ was assigned a weight of 15% when the credit default option was opened for trading. During the life of the option, Company XYZ redeems the 8% May 15, 2022 bond issue. No reference obligations remain and the listing options market determines that there are no other outstanding debt obligations of the issuer suitable for specification as reference obligations. The basket component will be removed from the credit default basket, and the cash settlement amount will be reduced by 15%.

Succession Event Adjustments. A succession event occurs when one or more new entities assume one or more reference obligations of a reference entity or become the obligor with respect to any obligation that is substituted for the original reference obligations. This may occur, for example, when a reference entity is merged into a new entity or spins off a part of its business into a new entity. If, as the result of a succession event, more than one entity is the obligor of the original reference obligations, or obligations that were substituted for the original reference obligations, all of those obligors, including, as the case may be, the original reference entity, are referred to as successor reference entities.

Adjustment of credit default options after a succession event. Where a succession event results in assumption of all reference obligations by a single entity, the listing options market will ordinarily adjust the option by substituting the entity that assumes the reference obligation(s) as the new reference entity. Where a succession event results in more than one successor reference entity, the credit default option may be adjusted by dividing it into two or more options.

EXAMPLE: Company XYZ is the reference entity for a credit default option contract, and its 8% May 15, 2022 bond issue is the only reference obligation. During the life of the

option, Company XYZ spins off Company LMN. Company XYZ remains the obligor with respect to 70% of the principal amount of the original reference obligation. Company LMN becomes the obligor of a new reference obligation that is issued to holders of the remaining 30% of the original reference obligation. Company XYZ and LMN are identified by the listing options market as the successor entities. Following the succession event, the credit default option based on Company XYZ is adjusted into two separate credit default option contracts that specify Company XYZ and Company LMN as reference entities. The cash settlement amount of the original credit default option and the premium multiplier are allocated between the new credit default options in accordance with the 70/30 division of the reference obligation as specified by the listing options market.

Adjustment of credit default basket options after a succession event. When a succession event occurs with respect to a reference entity that is included in a single payout or multiple payout credit default basket option, the listing options market will ordinarily adjust the option by replacing the affected reference entity with the successor entity or entities, and, if one or more new obligations are issued to replace some or all of the existing reference obligations, the new obligations will be substituted as the reference obligations. The listing options market will specify the weight of each new reference entity, and the sum of the weights will equal the weight of the original reference entity.

EXAMPLE: Company XYZ is one of ten equally weighted reference entities for a multiple payout default basket option and its 8% May 15, 2022 bond issue and its 8.5% September 1, 2030 bond issue are specified as its only reference obligations. During the life of the option, Company XYZ spins off Company LMN. Company XYZ remains the obligor for the 2022 bond issue and LMN becomes the obligor of a debt security issued to holder of the 2030 bond issue. The listing options market adjusts the option by specifying XYZ and LMN as the successor reference entities. The reference obligations are the original 2022 bond issue and the replacement for the 2030 bond issue. The listing options market determines the appropriate basket weight for the successor reference entities is 7.5% and 2.5%. The sum of the newly specified weights equals the 10% weight of the predecessor basket reference entity (Company XYZ) replaced by the successor reference entities (Company XYZ and Company LMN).

On page 88, the following is inserted immediately following the last paragraph:

SPECIAL RISKS OF CREDIT DEFAULT OPTIONS

1. Pricing of credit default options is complex. As stated elsewhere in this document, complexity not well understood is, in itself, a risk factor. In order to price these options, investors must estimate the probability of default from available security or other prices, primarily bond and credit default swap ("CDS") prices. Models typically used by market professionals to infer the probability of default from prices may be more complex than the average investor is used to.

2. The sources of price information used to price credit default options are subject to a lack of transparency and, at times, illiquid markets. This is attributable to, among other things: (1) the absence of last sale information and the limited availability of quotations for the reference obligation(s), (2) lack of ready availability of information on related products traded primarily in the over-the-counter market, and (3) the fact that related over-the-counter market credit derivative transactions are privately negotiated and may not be made public in a timely fashion or at all.

3. Dealers in the underlying debt securities and in the over-the-counter credit derivatives markets have access to private quotation networks that give actual current bids and offers of other dealers. This information is not available to most investors. As a result, these dealers may have an advantage over participants with regard to credit default options.

4. If the listing options market determines that a credit default option is subject to a redemption event (*i.e.*, the issuer or guarantor pays off the reference obligation), the option will expire worthless unless a credit event has been confirmed to have occurred prior to the effective date of the redemption event. As a result, purchasers of such options will lose their premium since there is no chance of occurrence of a credit event for the reference entity. On the other hand, if a redemption event occurs but a credit event is confirmed to have occurred prior to the effective date of the redemption event, a seller would be obligated to pay the cash settlement amount even though a holder of the reference obligation may not incur a loss.

5. Since succession events are determined by the listing options market, credit default options may be modified to specify a different reference entity or several different reference entities. As a result, there may be new reference obligations that have higher or lower credit quality than the original reference obligation. In addition, other factors may exist that could affect the likelihood of the occurrence of a credit event. As a result, the occurrence of a succession event could affect the price of these options. Moreover, since the listing options market determines whether a succession event occurred and the adjustment resulting from such an event, the adjustment made to these options may be at variance with the treatment given to the same succession event with respect to related credit derivative products.

6. The occurrence of a credit event must be confirmed by the listing options market. This means that there will be a lag time between the actual occurrence of a credit event and the listing options market's confirmation of the credit event. Rules of the options market may provide a specified time period (*e.g.*, four business days) between the end of the covered period and the expiration date for a series of credit default options to allow the options market to confirm whether a credit event occurred during the covered period. There is a risk, however, that the sources used to monitor a credit event may not identify and report a credit event in a timely fashion. For example, it is possible that a credit event could occur on the last day of trading, but the sources which report the occurrence of a credit event do not

make this information publicly available until *after* the expiration date. In this case, the cash settlement value of a credit default option would be zero. There is also a risk that the listing options market may determine that a credit event has occurred based on information available to it when in fact no credit event has occurred. This could happen, for example, if the sources used to confirm the credit event are erroneous. The rules of OCC and/or the listing options market may provide that a confirmation of a credit event or other contract adjustment may be revoked up to a specified time prior to exercise settlement. Settlements based on a listing options market's confirmation of a credit event are irrevocable even if no credit event has occurred.

7. Every determination by the listing options market of a redemption event, succession event or credit event will be within the listing options market's sole discretion and will be conclusive and binding on all holders and sellers and not subject to review. OCC shall have no authority to make such determinations and shall have no responsibility therefor.

8. Prior to the period when a credit default option has been automatically exercised, the only means through which the holder can realize value from the option is to sell it at its then market price in an available secondary market. If a secondary market for such an option is not available, it will not be possible for its holder to realize any value from the option at that time.

9. There is no underlying interest for credit default options that is quoted in the marketplace. Because of this, there are no underlying interest prices to provide a reference to investors for pricing credit default options.

10. As discussed above under the caption "Other Risks," options markets have discretion to halt trading in an option in certain circumstances — such as when the market determines that the halt would be advisable in maintaining a fair and orderly market in the option. In the case of credit default options, options markets may take into consideration, among other factors, that current quotes for debt securities or other securities of the reference entity are unavailable or have become unreliable.

11. The risk that a trading market for particular options may become unavailable and the potential consequences are also discussed above under the caption "Other Risks." The SEC has approved certain credit default options for listing and trading on a national securities exchange as securities. OCC filed its rules for clearing credit default options with the CFTC, and the CFTC issued an exemption permitting OCC to clear such options when traded on a national securities exchange whether or not they are within the CFTC's jurisdiction. By its terms, the exemption is revocable, and its revocation would be one of the events that could lead to the unavailability of a trading market for credit default options.

JUNE 2008 SUPPLEMENT

This supplement supersedes and replaces the April 2008 Supplement to the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet"). This supplement adds information regarding the following new options products: delayed start options, binary stock options, binary index options, and range options.

The third paragraph on page 1 of the Booklet is replaced with the following paragraph:

What is an option? An option is the right to buy or sell a specified amount or value of a particular underlying interest at a fixed exercise price by exercising the option before its specified expiration date. An option which gives the right to buy is a call option, and an option which gives a right to sell is a put option. Calls and puts are distinct types of options, and buying or selling of one type does not involve the other. Certain special kinds of options may give a right to receive a cash payment if certain criteria are met.

The last paragraph on page 1 of the Booklet, which continues on the top of page 2, is replaced with the following paragraph:

There are two different kinds of options — physical delivery options and cash settled options. A physical delivery option gives its owner the right to receive physical delivery (if it is a call), or to make physical delivery (if it is a put), of the underlying interest when the option is exercised. A cash-settled option other than a binary option or a range option gives its owner the right to receive a cash payment based on the difference between a determined value of the underlying interest at the time the option is exercised and the fixed exercise price of the option. A cash-settled call conveys the right to receive a cash payment if the determined value of the underlying interest at exercise — this value is known as the exercise settlement value — exceeds the exercise price of the option, and a cash-settled put conveys the right to receive a cash payment if the exercise settlement value is less than the exercise price of the option. Binary options and range options are special kinds of cash-settled options described in Chapter II. The examples in this booklet generally refer to options other than binary options or range options except as otherwise stated.

The second full paragraph on page 2 of the Booklet is replaced with the following paragraph:

Most options have standardized terms — such as the nature and amount of the underlying interest, the expiration date, the exercise price, whether the option is a call or a put, whether the option is a physical delivery option or a cash-settled option, the manner in which the cash payment and the exercise settlement value of a cash-settled option are determined, the multiplier of a cash-settled option, the exercise price setting date and exercise price setting formula of a delayed start option, the style of the option, whether the option has automatic exercise provisions, and adjustment provisions. These standardized terms are generally described in Chapter II. Each U.S. options market publishes specification sheets setting forth the particular standardized terms of the options traded on that options market. (The options markets may also provide for trading in options whose terms are not all fixed in advance. Rather, subject to certain limitations, the parties to transactions in these options may designate certain of the terms. These flexibly structured options are discussed in Chapter VII of this booklet.)

The first two paragraphs on page 7 of the Booklet are replaced with the following paragraphs:

The exercise price of a cash-settled option (other than a binary option or a range option) is the base for the determination of the amount of cash, if any, that the option holder is entitled to receive upon exercise (see the discussion of "Cash Settlement Amount and Exercise Settlement Value" below). The exercise price of a binary option is the value or level of the underlying interest above, below, or, in some cases, at which the option will be in the money at expiration, thereby causing the fixed cash settlement amount to become payable (see the "Binary Option" definition below). In the case of a range option, the exercise price is the option's range length (see the "Range Option" definition below).

Exercise prices for each options series (except for series of delayed start options) are established by the options market on which that series is traded at the time trading in the series is introduced, and are generally set at levels above and below the then market value of the underlying interest. The options markets generally have authority to introduce additional series of options with different exercise prices based on changes in the value of the underlying interest, or in response to investor interest, or in unusual market conditions, or in other circumstances. For series of delayed start options, exercise price setting formulas — rather than exercise prices —

are established by the options market on which each series is traded before the time trading commences in each such series. Those exercise price setting formulas provide that on the exercise price setting date the exercise price for the series will be fixed at the money, in the money by a certain amount, or out of the money by a certain amount.

The first paragraph following the paragraph titled "Style of Option" on page 7 of the Booklet is replaced with the following paragraph:

Each American-style option other than a delayed start option may be exercised at any time prior to its expiration. An American-style delayed start option may be exercised at any time after its exercise price is set and before its expiration date.

The following paragraphs are inserted immediately preceding the paragraph captioned "Unit of Trading; Contract Size" on page 8 of the Booklet:

BINARY OPTION — A binary option is a cash-settled option having only two possible payoff outcomes; either a fixed amount or nothing at all. Some binary options are referred to as "fixed return options." As of the date of this Supplement, the only binary options approved for trading (other than credit default options, as defined below) are binary stock options, which are binary options on individual equity securities, including fund shares; and binary index options, which are binary options on broad-based securities indexes (including volatility indexes). The binary options currently traded are all subject to automatic exercise. The holder of a binary option other than a credit default option has the right to receive (and the writer of a binary option has the obligation to pay) the exercise settlement amount for the option if the value of the underlying interest as of the time specified by the applicable listing options market (*i.e.*, the exercise settlement value) meets the criteria for automatic exercise of the option, as specified in the rules of the listing options market. If those criteria are not met, the option will expire worthless. Credit default options are a specific kind of binary option discussed at the end of Chapter V. Except for credit default options, binary options are European-style options.

RANGE OPTION — A range option is a European-style, cash-settled option that has a payout if the value of the underlying interest falls within a specific range of values (the range length) at expiration. As the underlying interest value increases throughout the range length, the amount of the payout (*i.e.*, the cash settlement amount) of the range option increases linearly to a maximum

value, remains constant at that value through the middle of the range length and then decreases linearly to zero as the value of the underlying continues to increase to the top of the range length. A more detailed description of this feature of range options is set forth below under the caption "Cash Settlement Amount and Exercise Settlement Value." Range options are of a single type rather than consisting of puts and calls.

The second paragraph under the caption "Unit of Trading; Contract Size" on page 8 of the Booklet is replaced with the following paragraph:

The contract size of a cash-settled option other than a binary option or a range option is determined by the multiplier that is fixed by the options market on which the options series is traded. The multiplier determines the aggregate value of each point of the difference between the exercise price of the option and the exercise settlement value of the underlying interest. For example, a multiplier of 100 means that for each point by which a cash-settled option is in the money upon exercise, there is a $100 increase in the cash settlement amount. Similarly, if an option with a multiplier of 100 is trading at a premium of, say, $4, then the aggregate premium for a single option contract would be $400. The contract size of a range option is determined by the option's multiplier and its maximum range exercise value. The contract size of a binary option is its cash settlement amount, which is fixed by the options market for any series of binary options at or before the opening of trading in that series. Some options markets define the cash settlement amount for binary options as being the multiplier times a fixed settlement value. Other options markets define the cash settlement amount for binary options without reference to a multiplier.

The penultimate paragraph on page 9 of the Booklet is replaced with the following paragraph:

CASH SETTLEMENT AMOUNT, SETTLEMENT CURRENCY and EXERCISE SETTLEMENT VALUE — The cash settlement amount is the amount of cash that the holder of a cash-settled option is entitled to receive upon exercise. In the case of a cash-settled option other than a binary option or a range option, it is the amount by which the exercise settlement value of the underlying interest of a cash-settled call exceeds the exercise price, or the amount by which the exercise price of a cash-settled put exceeds the exercise settlement value of the underlying interest, multiplied by the multiplier for the option.

The following paragraphs are inserted following the carry-over paragraph at the top of page 10 of the Booklet:

In the case of a binary option, the cash settlement amount is determined by the relevant listing options market and, whether or not established through use of a multiplier, is fixed and does not vary (except in the case of certain adjustments described below) regardless of the amount by which the exercise settlement value exceeds (in the case of a binary call option) or is less than (in the case of a binary put option) the exercise price.

EXAMPLE: An investor holds a binary call option on XYZ security that has an exercise price of $80 and a fixed cash settlement amount of $100. If the exercise settlement value of XYZ is $81 at expiration, the investor will receive $100. If the exercise settlement value is $90, the investor will still receive $100. If, on the other hand, the exercise settlement value of XYZ at expiration is below $80, the investor will receive nothing, and the option will expire worthless.

It is very important to note that the conditions under which a binary option returns a cash settlement amount may vary depending upon the rules of the listing options market. Specifically, the listing options market may list binary options that return a cash settlement amount if: (1) the exercise settlement value of the underlying is *above* the exercise price (a binary call); or (2) the exercise settlement value of the underlying is *below* the exercise price (a binary put). In addition, certain binary call options return a cash settlement amount if the exercise settlement value of the underlying is *exactly equal* to the exercise price.

EXAMPLE: Assume XYZ stock is the underlying security for a binary stock option with an exercise price of $80, and the exercise settlement value of XYZ at expiration is exactly $80. If the listing options market specified that the option would return a cash settlement amount if the exercise settlement value was **above** the exercise price, the option will expire unexercised. If, however, the listing options market specified that the option would return a cash settlement amount if the exercise settlement value was **at or above** the exercise price, the option would be automatically exercised at expiration.

In the case of a range option, the cash settlement amount varies depending on where the exercise settlement value of the underlying index falls within the range length at expiration. At the time a series of range options is opened for trading, the listing options market will specify the range length as well as the range interval, which is a value equal to a certain number of index points that is

used to divide the range length into three segments: the low range, the middle range and the high range. The low range begins at the low end of the range length and ends one range interval higher. The high range begins one range interval below the high end of the range length and ends at the high end of the range length. The high range and the low range are of equal length. The middle range is the segment of values between the end of the low range and the beginning of the high range. The listing options market will also set a maximum range exercise value and a multiplier, the product of which is the maximum cash settlement amount. This maximum cash settlement amount will be payable if the level of the underlying index falls anywhere in the middle range at expiration. Within the low range, the cash settlement amount *increases* from zero to the maximum cash settlement amount as the level of the underlying index increases. Within the high range, the cash settlement amount *decreases* from the maximum cash settlement amount to zero as the level of the underlying index continues to increase.

EXAMPLE: Assume for a series of range index options that the listing options market has specified a range length from 1000 to 1100, a range interval of 10, a maximum range exercise value of 10 and a multiplier of $100. The series therefore has a maximum cash settlement amount of $1,000 (multiplier times the maximum range exercise value), a low range from 1000 to 1010, a middle range from 1010 to 1090 and a high range from 1090 to 1100. The table below summarizes the variations in cash settlement amount based on the foregoing assumptions:

	Low Range					Middle Range	High Range				
Value of the Underlying Index	Below 1000	1000	1001	1002	... 1009	1010–1090	1091	... 1098	1099	1100	Above 1100
Cash Settlement Amount ($)	0	0	100	200	... 900	1,000	900	... 200	100	0	0

The last paragraph on page 12 of the Booklet is replaced with the following paragraph:

Although holders of American-style options (other than delayed start options for which the exercise price has not yet been set) have the right to exercise at any time before expiration, holders frequently elect to realize their profits or losses by making closing transactions because the transaction costs of the closing transactions may be lower than the transaction costs associated with exercises, and because closing transactions may provide an opportunity for an option holder to realize the remaining time value (described below) of the option that would be lost in an exercise. The holder's only means of

realizing profit or loss on a delayed start option before its exercise price has been set, or on a European-style or capped option when the option is not exercisable, is by selling the option in a closing transaction.

The first full paragraph through the sixth paragraph on page 14 of the Booklet are replaced with the following:

AT THE MONEY — This term means that the current market value of the underlying interest is the same as the exercise price of the option. A range option, which is of a single type rather than being categorized as a call or a put, is said to be at the money if the current level of the underlying index is at the top or bottom of the range length.

IN THE MONEY — A call option is said to be in the money if the current market value of the underlying interest is above the exercise price of the option. A put option is said to be in the money if the current market value of the underlying interest is below the exercise price of the option. A range option, which is of a single type rather than being categorized as a call or a put, is said to be in the money if the current level of the underlying index falls within its range length.

EXAMPLE: If the current market price of XYZ stock is $43, an XYZ 40 call would be in the money by $3.

EXAMPLE: Assume a series of XYZ range options has a maximum cash settlement amount of $1,000, a low range from 1000 to 1010, a middle range from 1010 to 1090 and a high range from 1090 to 1100. If the current level of XYZ index is 1003, the option would be in the money by $300. If the current level of XYZ index is from 1010 to 1090, the option would be in the money by $1,000, the maximum cash settlement amount. If the current level of XYZ index is 1093, the option would be in the money by $700.

OUT OF THE MONEY — If the exercise price of a call is above the current market value of the underlying interest, or if the exercise price of a put is below the current market value of the underlying interest, the call or put is said to be out of the money. A range option, which is of single type rather than being categorized as a call or a put, is said to be out of the money if the current level of the underlying index falls outside of its range length.

EXAMPLE: With the current market price of XYZ stock at $40, a call with an exercise price of $45 would be out of the money by $5 — as would a put with an exercise price of $35.

EXAMPLE: Assume a series of XYZ range options has a specified range length from 1000 to 1100. If the current level of XYZ index is either below 1000 or above 1100, the series of XYZ range options would be out of the money.

INTRINSIC VALUE and TIME VALUE — It is sometimes useful to consider the premium of an option as consisting of two components: intrinsic value and time value.

In the case of an option other than a binary option, the intrinsic value reflects the amount, if any, by which the option is in the money. An option that is out of the money would have an intrinsic value of zero. Delayed start options, other than series whose exercise prices are to be set in the money, have no intrinsic value before the exercise price is set. Thereafter, as in the case of any other option, whether a delayed start option has intrinsic value depends on the level of the underlying index at the time. A binary option (other than a credit default option) that is in the money has an intrinsic value equal to the fixed cash settlement amount of the option. Where the listing exchange has specified that a binary call will return a cash settlement amount if the exercise settlement value of the underlying is exactly equal to the exercise price, the call will have an intrinsic value equal to the cash settlement amount if it is either in the money or at the money. As is further discussed under the heading "Credit Default Options and Credit Default Basket Options" in Chapter V, credit default options have no intrinsic value.

Time value is whatever the premium of the option is in addition to its intrinsic value. Time value is that part of the premium that reflects the time remaining before expiration. An American-style option may ordinarily be expected to trade for no less than its intrinsic value prior to its expiration, although occasionally an American-style option will trade at less than its intrinsic value. Because European-style options (including binary options and range options) and capped options are not exercisable at all times, they are more likely than American-style options to trade at less than their intrinsic value when they are not exercisable.

The following new paragraphs are added at the end of Chapter II, on page 17 of the Booklet:

A delayed start option is an option that does not have an exercise price when first introduced for trading but instead has an exercise price setting formula pursuant to which the exercise price will be fixed on a specified

future date. The following is a description of the terminology applicable to delayed start options:

EXERCISE PRICE SETTING DATE — The exercise price setting date for a series of delayed start options is the date on which the options market on which the series is traded will set the exercise price for the series. The exercise price setting date is specified before the commencement of trading of each series of delayed start options. Specific information regarding exercise price setting dates may be obtained from the listing options market.

EXERCISE PRICE SETTING FORMULA — The exercise price setting formula for a series of delayed start options is the formula used by the options market on which the series is traded to set the exercise price for the series on the exercise price setting date. The exercise price setting formula is specified before the commencement of trading of each series of delayed start option. The formula for a particular series may provide that the exercise price will be at the money, in the money by a specified amount, or out of the money by a specified amount. Exercise prices may be rounded as specified by the listing options market.

EXAMPLE: In January, an American-style delayed start option on the ABC index is opened for trading with an exercise price setting date of the third Friday in September and an exercise price setting formula specifying that the exercise price will be set at the closing value of the ABC index on the exercise price setting date, rounded to the nearest whole number. The option may not be exercised at all until after the third Friday in September because it will not have an exercise price until that time. At the close of trading on the third Friday in September, the options market on which the delayed start option is trading will determine the closing value of the ABC index and set the exercise price based on that value. For example, if the options market determines that the ABC index closed at 908.10 on the exercise price setting date, the options market would round that value to 908, and from that time until its expiration date the delayed start option would trade as a regular American-style option with an exercise price of 908.

The following paragraph is inserted immediately following the caption "Features of Stock Options" on page 18 of the Booklet:

The following discussion relates primarily to stock options other than binary stock options. A separate description of the features of binary stock options may be found at the end of this chapter.

The following language is inserted immediately following the last paragraph on page 22 of the Booklet.

The following is a description of certain special features of binary stock options:

As in the case of other stock options, the exercise price of a binary stock option is ordinarily stated as a price per share of the underlying security. Premium values may be stated in an amount that must be multiplied by a multiplier to obtain the premium price per option contract.

The listing exchange specifies the method for determining the exercise settlement value of the underlying stock for a binary stock option. This method may be based on a volume weighted average price for a specified time period preceding expiration, such as the last trading day before expiration. The exercise settlement value for a stock underlying a binary option is the value of the stock as reported by the reporting authority designated by the listing options market for that purpose. Unless OCC directs otherwise, the value as initially reported by the reporting authority is conclusively presumed to be accurate and deemed to be final for the purpose of determining whether the option is automatically exercised and returns a cash settlement amount. This is true even if the value is subsequently revised or determined to have been inaccurate.

Adjustments in the terms of binary stock options will be made to reflect some, but not all, of the same events that result in adjustments to other stock options, and any adjustment that is made will not necessarily be the same as the adjustment made to other options on the same underlying security. As in the case of other stock options, adjustments will not normally be made to the terms of binary stock options to account for ordinary dividends or distributions. The guidelines stated in Part I of the May 2007 Supplement to this booklet for determining when a distribution is considered "ordinary" will generally be applied to distributions with respect to securities underlying binary stock options.

Adjustments in the terms of binary stock options will ordinarily be made for stock dividends, stock distributions and stock splits, subject to the exception stated above where an adjustment panel determines to treat a stock distribution as ordinary.

If an adjustment panel determines to make an adjustment to binary stock options to reflect a stock dividend, stock distribution, or stock split, the exercise price of the option will ordinarily be proportionately reduced — regardless of whether a whole number of shares, or other

than a whole number of shares, of the underlying security is issued. The adjustment panel has discretion to make exceptions to the general rules described above.

EXAMPLE: Before a 2 for 1 stock split, an investor holds one ABC binary stock option with an exercise price of $50 that pays a cash settlement amount of $100 if the exercise settlement value of ABC at expiration is above the exercise price. After adjustment for the split, the investor will still hold one ABC binary stock option that pays a cash settlement amount if the exercise settlement value of ABC at expiration is above the exercise price, but the exercise price will be $25 (*i.e.*, $50 divided by two). Thus, if the exercise settlement value of ABC stock at expiration, on a post-split basis, is above $25, the investor will receive $100.

An investor holds an XYZ binary stock option with an exercise price of $50 that pays a cash settlement amount of $100 if the exercise settlement value of XYZ stock is below the exercise price. XYZ announces a 2.5 for 1 stock split. The exercise price will be adjusted to equal $20 ($50 divided by 2.5). If the exercise settlement value of XYZ stock at expiration is below $20, the investor will receive $100. Exercise prices of binary stock options will generally be rounded to the nearest adjustment increment (or up in the event the adjusted price is equidistant between two adjustment increments).

Conversely, in the event of a reverse stock split or combination of shares, the exercise price will be proportionately increased.

Distributions of property other than the underlying security may result in adjustments to the terms of binary stock options. For example, the exercise settlement value might be adjusted to include the value of the distributed property.

EXAMPLE: XYZ "spins off" its subsidiary ABC by distributing to its stockholders two shares in ABC for each share of XYZ. The exercise settlement value of XYZ binary stock options may be adjusted to include the value of two shares of ABC as well as one share of XYZ.

Alternatively, the option might be adjusted by reducing its exercise price by an amount equal to the value of the property distributed with respect to a single share of the underlying security (in the example above, the two shares of ABC).

As in the case of other stock options, adjustments to the terms of binary stock options may result from events other than dividends, distributions, and splits. If all outstanding shares of an underlying security are acquired in

a merger or consolidation, binary stock options may be adjusted so that the cash, securities or other property received by stockholders with respect to a single share of that underlying security becomes the underlying interest. Alternatively, an adjustment panel may determine to fix a value for some or all of the non-cash property received. Where holders of an underlying security receive only cash or an adjustment panel determines to fix a cash value for all non-cash property received, the aggregate per share value received, as determined by the adjustment panel, will become the exercise settlement value, trading in the options will ordinarily cease, options that are out of the money will become worthless, the expiration date will ordinarily be accelerated, and options that are in the money will be automatically exercised. No adjustment in the fixed settlement amount will be made to reflect the accelerated expiration date.

As in the case of other stock options, any adjustment decision with respect to binary stock options will be made by an adjustment panel as described above. The adjustment panel has discretion to make exceptions to the general rules described above.

The first paragraph on page 23 of the Booklet under the caption "About Indexes" is replaced with the following paragraph:

As referred to in this booklet, an index is a measure of the prices or other attributes of a group of securities* or other interests. Although indexes have been developed to cover a variety of interests, such as stocks and other equity securities, debt securities and foreign currencies, and even to measure the cost of living, the following discussion relates only to indexes on equity securities (which are called stock indexes in this booklet) and indexes that are intended to measure the predicted volatility of specified stock indexes (which are called volatility indexes in this booklet) and options on such indexes (including binary index options and range options).

The second full paragraph on page 26 of the Booklet is replaced with the following paragraph:

The value level of every index underlying an option — including the exercise settlement value — is the value of the index as reported by the reporting authority designated by the options market where the option is traded as the official source for determining that index's

* Some indexes reflect values of companies, rather than securities, by taking into account both the prices of constituent securities and the number of those securities outstanding.

value. Unless OCC directs otherwise, every value as initially reported by the reporting authority is conclusively presumed to be accurate and deemed to be final for the purpose of calculating the cash settlement amount, or, in the case of a binary index option, whether the option is automatically exercised and returns a cash settlement amount. This is true even if the value is subsequently revised or determined to have been inaccurate.

The first two paragraphs immediately following the caption "Features of Index Options" on pages 26-27 of the Booklet are replaced with the following paragraphs and example:

All index options that are traded on the date of this booklet are cash-settled. Cash-settled index options do not relate to a particular number of shares. Rather, the "size" of a cash-settled index option is determined by the multiplier of the option. The "size" of a range option is determined by its multiplier and maximum range exercise value, and is equal to the maximum cash settlement amount (*i.e.*, the maximum range exercise value times the multiplier). In the case of a binary index option, the "size" of the contract is simply its fixed cash settlement amount, which for certain binary index options is defined as the product of a fixed settlement value times a multiplier. If the option market on which an option series is traded should increase or decrease the multiplier for a series of index options, an adjustment panel may adjust outstanding options of that series.

The exercise prices and premiums of the index options that are traded at the date of this booklet are expressed in U.S. dollars. Subject to regulatory approval, trading in index options whose exercise prices or premiums are expressed in a foreign currency may be introduced in the future. The total premium and total exercise price for a single index option (other than a binary index option or a range option) are, respectively, the stated premium and exercise price multiplied by the multiplier.

EXAMPLE: An investor purchases a December 100 index call at $2.15. The multiplier for that option is 100. The aggregate dollar amount of the premium is $215.00 ($2.15 times 100 = $215.00). Had the options market used a multiplier of 200, a premium of $2.15 would have meant an aggregate premium of $430.00.

The second full paragraph on page 27 of the Booklet and the example following that paragraph are deleted.

The second paragraph following the caption "How to Exercise" on page 49 of the Booklet is replaced with the following paragraph:

In order to exercise most options traded at the date of this booklet, action must be taken by the option holder prior to the expiration of the option. However some options may be subject to automatic exercise. For example, capped options are subject to automatic exercise if the automatic exercise value of the underlying interest hits the cap price of the option, and certain other options (including binary options and flexibly structured index options) are subject to automatic exercise as well. Binary options are subject to automatic exercise if the exercise settlement value of the underlying interest at expiration meets the criteria for exercise specified by the listing options market. Credit default options are subject to automatic exercise whenever a credit event occurs in accordance with the description in the applicable supplement to this booklet.

The following paragraph is inserted near the top of page 58 of the Booklet immediately before the caption "Risks of Option Holders":

Risks discussed in this chapter are applicable to binary options and range options as well as other options, except as otherwise noted. Certain risks discussed in the section entitled "Special Risks of Index Options" are applicable to binary index options and range options as well. Special risks applicable to holders and writers of binary options are discussed in this chapter in the sections entitled "Special Risks of Binary Options (Other than Credit Default Options)" and "Special Risks of Credit Default Options." Special risks applicable to holders and writers of range options are discussed in this chapter in the section entitled "Special Risks of Range Options."

The following paragraph is inserted on page 59 of the Booklet immediately before the paragraph numbered 2:

Only the first two paragraphs of this numbered section 1 are applicable to binary options and range options. The amount by which a binary option is in the money does not affect the value of the option (and therefore the option holder's profit or loss) upon exercise. In the case of a range option, the value of the option is based on where the level of the underlying index falls within the range length at expiration, and not on the difference between the level of the underlying index and a discrete exercise price. Furthermore, as discussed below under the caption "Special Risks of Range Options," the value of a range option does not always move in the same direction as the underlying interest.

The paragraph numbered 3 on page 60 of the Booklet is replaced with the following paragraph:

3. Prior to the period when a European-style option (including a European-style delayed start option), a capped option, or an American-style delayed start option is exercisable, the only means through which the holder can realize value from the option (unless the capped option is automatically exercised) is to sell it at its then market price in an available secondary market. If a secondary market for such an option is not available during the time the option is not exercisable, it will not be possible for its holder to realize any value from the option at that time.

The paragraph numbered 5 beginning at the bottom of page 60 of the Booklet is replaced with the following paragraph:

5. The courts, the SEC, another regulatory agency, OCC or the options markets may impose exercise restrictions. OCC and the options markets have authority to restrict the exercise of options at certain times in specified circumstances. The options markets often exercise such authority with respect to an option in which trading has been halted. If a restriction on exercise is imposed at a time when trading in the option has also been halted, holders of that option will be locked into their positions until either the exercise restriction or the trading halt has been lifted.

The following paragraphs are inserted immediately following the caption "Risks of Option Writers" on page 62 of the Booklet:

The risks discussed in paragraphs 3, 4, 5 and 10 below apply to writers of non-binary and binary options, but the risks discussed in paragraphs 1, 2, 6, 7, 8, 9 and 11 are inapplicable to writers of binary options. Special risks of binary options are discussed below under the caption "Special Risks of Binary Options (Other Than Credit Default Options)."

The risks discussed in paragraphs 5, 9 and 10 below apply to writers of range options, but the risks discussed in paragraphs 1, 2, 6, 7, 8 and 11 do not. Although some of the risks discussed in paragraphs 3 and 4 apply to writers of range options, these risks are separately discussed below under the caption "Special Risks of Range Options" because range options are of a single type (rather than consisting of a put class and a call class) and have a unique payout structure.

The paragraph numbered 1 at the top of page 62 of the Booklet is replaced with the following paragraph:

1. An option writer may be assigned an exercise at any time during the period the option is exercisable. Starting with the day it is purchased (provided, in the case of a delayed start option, that its exercise price has been set), an American-style option is subject to being exercised by the option holder at any time until the option expires. This means that the option writer is subject to being assigned an exercise at any time after he has written the option until the option expires or until he has closed out his position in a closing transaction. By contrast, the writer of a European-style option (including a European-style delayed start option), a capped option, or an American-style delayed start option before its exercise price is set is subject to assignment only when the option becomes exercisable or, in the case of a capped option, when the automatic exercise value of the underlying interest hits the cap price.

The paragraph numbered 3 on page 63 of the Booklet is replaced with the following paragraph:

3. The writer of an uncovered call (other than a binary call) is in an extremely risky position and may incur large losses if the value of the underlying interest increases above the exercise price. For the writer of an uncovered call (other than a binary call), the potential loss is unlimited. When a physical delivery call is assigned an exercise, the writer will have to purchase the underlying interest in order to satisfy his obligation on the call, and his loss will be the excess of the purchase price over the exercise price of the call reduced by the premium received for writing the call. In the case of a cash-settled call other than a binary call, the loss will be the cash settlement amount reduced by the premium. Anything that may cause the price of the underlying interest to rise dramatically, such as a strong market rally or the announcement of a tender offer for an underlying stock at a price that is substantially above the prevailing market price, can cause larges losses for an uncovered call writer. For the writer of a binary call, the potential loss will be limited to the fixed cash settlement amount of the option minus the premium received for writing the call. The writer of a binary call will be obligated to pay the entire fixed cash settlement amount if the exercise settlement value is only slightly in the money or, for certain binary calls, even if the exercise settlement value is at the money.

The following example is inserted immediately following the example at the bottom of page 63 of the Booklet:

EXAMPLE: An investor receives a premium of $4 for writing a binary call option on XYZ security that has an exercise price of $80 and a fixed cash settlement amount of $100. If the exercise settlement value of XYZ is $81 at expiration, the investor will incur a loss of $96 (the $100 paid to the holder of the call option less the $4 premium received when the option was written).

The paragraph beginning at the bottom of page 63 of the Booklet is replaced with the following paragraph:

The writer of an uncovered call (other than a binary call) is in an extremely risky position and may incur large losses. Moreover, as discussed in Chapter IX, a writer of uncovered calls must meet applicable margin requirements (which, except in the case of binary calls, can rise substantially if the market moves adversely to the writer's position). Uncovered call writing is thus suitable only for the knowledgeable investor who understands the risks, has sufficient liquid assets to meet applicable margin requirements, and, except in the case of binary options, where the potential loss is limited as described above, has the financial capacity and willingness to incur potentially substantial losses. A binary call writer may be required under exchange rules to deposit the full cash settlement amount at the time the option is written.

The paragraph numbered 4 on page 64 of the Booklet is replaced with the following paragraph:

4. As with writing uncovered calls, the risk of writing put options is substantial. The writer of a put option bears a risk of loss if the value of the underlying interest declines below the exercise price, and such loss could be substantial if the decline is significant. The writer of a put bears the risk of a decline in the price of the underlying interest — potentially to zero in the case of a put other than a binary put. A writer of a physical delivery put who is assigned an exercise must purchase the underlying interest at the exercise price — which could be substantially greater than the current market price of the underlying interest — and a writer of a cash-settled put other than a binary put must pay a cash settlement amount which reflects the decline in the value of the underlying interest below the exercise price. For the writer of a binary put, the potential loss will be the fixed cash settlement amount of the option minus the premium received for writing the put. The writer of a binary put will be obligated to pay the entire fixed cash settlement amount even if the exercise settlement value of the option is only slightly in the money. Unless a put is a cash-secured put

(discussed below), its writer is required to maintain margin with his brokerage firm. Moreover, the writer's purchase of the underlying interest upon being assigned an exercise of a physical delivery put may result in an additional margin call.

The second full paragraph on page 64 of the Booklet is replaced with the following paragraph:

Put writers must have an understanding of the risks, the financial capacity and willingness to incur potentially substantial losses, and the liquidity to meet margin requirements and to buy the underlying interest, or to pay the cash settlement amount, in the event the option is exercised. A writer of an American-style put other than a delayed-start option can be assigned an exercise at any time during the life of the option until such time as he enters into a closing transaction with respect to the option. A writer of an American-style delayed-start option can be assigned an exercise at any time after the option's exercise price is set until such time as he enters into a closing transaction with respect to the option. Since exercise will ordinarily occur only if the market price of the underlying interest is below the exercise price of the option, the writer of a physical delivery put option can expect to pay more for the underlying interest upon exercise than its then market value.

The following example is inserted immediately following the example at the bottom of page 64 of the Booklet:

EXAMPLE: An investor receives a premium of $4 for writing a binary put option on XYZ security that has an exercise price of $80 and a fixed cash settlement amount of $100. If the exercise settlement value of XYZ is $79 at expiration, the investor will incur a loss of $96 (the $100 paid to the holder of the put option less the $4 premium received when the option was written).

The first full paragraph at the top of page 65 of the Booklet is replaced with the following paragraph:

In the case of a put other than a binary put, the put writer's exposure to margin requirements can be eliminated if the put writer deposits cash equal to the option's exercise price with his brokerage firm. Under this strategy, known as cash-secured put writing, the put writer is not subject to any additional margin requirements regardless of what happens to the market value of the underlying interest. In the meantime, the put writer might earn interest by having the cash invested in a short-term debt instrument — for example, in a Treasury bill. However, a cash-secured put writer is still subject to a risk of loss if the value of the underlying interest declines. The

risk of writers of binary puts is limited to the cash settlement amount of the option, and a binary put writer may be required under exchange rules to deposit the full cash settlement amount at the time the option is written.

The paragraph numbered 5 on page 65 of the Booklet is replaced with the following paragraph:

5. The risk of being an option writer may be reduced by the purchase of other options on the same underlying interest — and thereby assuming a spread position — or by acquiring other types of hedging positions in the options markets or other markets. However, even where the writer has assumed a spread or other hedging position, the risks may still be significant. See paragraph 1 under "Other Risks" below. The risk profile of a spread where the long and short legs are options of different types is not the same as where both legs are options of the same type. For example, where the short leg is a conventional option, the risk-reducing characteristics of a long leg consisting of binary or range options are different than where the long leg is a conventional option because of the fixed cash settlement amount of binary options and the unique payout structure of range options.

The second full paragraph on page 68 of the Booklet is replaced with the following paragraph:

In the case of straddle writing, where the investor writes both a put and a call on the same underlying interest at the same exercise price in exchange for a combined premium on the two writing transactions, the potential risk is unlimited (except in the case of capped options or binary options). Except where a straddle consists of binary options, to the extent that the price of the underlying interest is either below the exercise price by more than the combined premium, or above the exercise price by more than the combined premium, the writer of a straddle will incur a loss when one of the options is exercised. Indeed, if the writer is assigned an exercise on one option position in the straddle and fails to close out the other position, subsequent fluctuations in the price of the underlying interest could cause the other option to be exercised as well, causing a loss on both writing positions. An investor who writes a straddle using binary options will incur a loss when the combined premium is less than the fixed cash settlement amount of the option that is exercised.

The second full paragraph on page 71 of the Booklet is replaced with the following paragraph:

Even if options trading is halted, holders of American-style options, other than delayed start options for which an exercise price has not yet been set, would still

be able to exercise unless exercises were restricted. (However, OCC or an options market may restrict the exercise of an option while trading in the option has been halted, and the restriction may remain in effect until shortly before expiration. See paragraph 5 under "Risks of Option Holders" above.) If the option is exercisable while trading has been halted in the underlying interest, option holders may have to decide whether to exercise without knowing the current market value of the underlying interest. This risk can become especially important if an option is close to expiration, and failure to exercise will mean that the option will expire worthless. If exercises do occur when trading of the underlying interest is halted, the party required to deliver the underlying interest may be unable to obtain it, which may necessitate a postponed settlement and/or the fixing of cash settlement prices (see Chapter VIII).

The paragraph numbered 4 on page 71 of the Booklet is replaced with the following paragraph:

4. All cash-settled options have certain special risks. The special risks applicable to cash-settled index options are discussed under "Special Risks of Index Options" below. Special risks applicable to range options are discussed under "Special Risks of Range Options" and the special risks applicable to binary options are discussed under "Special Risks of Binary Options (Other than Credit Default Options)" and "Special Risks of Credit Default Options" below.

The following paragraph is inserted immediately below the caption "Special Risks of Index Options" on page 73 of the Booklet:

The risks discussed in paragraphs 4, 5, 7, 8 and 10 below are generally applicable to writers of non-binary and binary index options, but the risks discussed in paragraphs 1 through 3, 6 and 9 are inapplicable to writers of binary index options. The risks discussed in paragraphs 4, 5, 7, 8 and 10 below apply to writers of range options on securities indexes, but the risks discussed in paragraphs 1 through 3, 6 and 9 do not. Special risks of range options are discussed below under the caption "Special Risks of Range Options."

The paragraph numbered 2 on page 73 of the Booklet is replaced with the following paragraph:

2. Even if the writer of a cash-settled index call option could assemble a securities portfolio that exactly reproduced the composition of the underlying index, the writer still would not be fully covered from a risk standpoint because of the "timing risk" inherent in writing cash-settled options. When a cash-settled index option is exercised, the amount of cash that the holder is entitled

to receive is determined by the difference between the exercise price and the exercise settlement value, which is based on the prices of the constituent securities at a particular time on or in relation to the date on which the option is exercised. As with most other kinds of options, the writer will not learn that he has been assigned until the next business day, at the earliest. The time lag between exercise and notice of assignment poses no risk for the writer of a covered physical delivery call, because that writer's obligation is to deliver the underlying interest and not to pay its value as of a fixed time in the past. So long as the writer of a physical delivery call already owns the underlying interest, he can satisfy his settlement obligations simply by delivering it, and the risk that its value may decline after the exercise date is borne by the exercising holder. In contrast, even if the writer of a cash-settled index call holds securities that exactly match the composition of the underlying index, he will not be able to satisfy his assignment obligations by delivering those securities against payment of the exercise price. Instead, he will be required to pay cash in an amount based on the exercise settlement value on the exercise date, and by the time he learns that he has been assigned, the index may have declined, with a corresponding decline in the value of the securities portfolio. This "timing risk" is an inherent limitation on the ability of writers of cash settled calls to cover their risk exposure by holding positions in the underlying interest. This risk applies only to American-style options. The writer of a European-style or capped call that is exercisable only on the expiration date runs the risk of assignment only with respect to exercises filed on that day. If the call is more than marginally in the money on the preceding trading day, the writer can ordinarily assume that it will be exercised and take market action to protect himself against a subsequent decline in the value of his position in the underlying interest.

The paragraph numbered 5 on page 76 of the Booklet is replaced with the following paragraph:

5. Holders and writers of index options generally bear the risk that the reported current index level may be in error. Persons who exercise cash-settled index options or are assigned exercises based on erroneously reported index levels will ordinarily be required to make settlement based on the exercise settlement value as initially reported by the official source of the index, even if a corrected value is subsequently announced. In the case of binary index options, while the exercise settlement amount is fixed, the exercise settlement value of the underlying index will determine whether the option is automatically exercised and returns a cash settlement

amount or expires worthless. References herein to index values "as initially reported" refer to the values initially reported by the source of the index as definitive, and not to any tentative or preliminary values that may be announced at an earlier time subject to adjustment. In extraordinary circumstances (*e.g.*, where an exercise settlement value as initially reported is obviously wrong and inconsistent with values previously reported, and a corrected value is promptly announced), OCC has discretion to direct that exercise settlements be based on a corrected exercise settlement value. Ordinarily, however, the exercise settlement value as initially reported by the official source of the index will be conclusive for exercise settlement purposes.

The paragraphs numbered 7 and 8 beginning on page 77 of the Booklet are replaced with the following paragraphs:

7. Cash-settled index options whose exercise settlement values are based on the opening prices of the constituent securities are not traded on the last scheduled trading day for those securities prior to the option expiration date. An option holder will be able to realize value from his option on that day only if the option is in the money and is exercised. A writer of this type of option who has not previously closed out his position will be unable to do so on that last trading day for the constituent securities and will be at risk of being assigned an exercise.

8. Current index levels will ordinarily continue to be reported even when trading is delayed or interrupted in some or all of the constituent securities of the index or when the reporting of transactions in those securities has been delayed. In that event, the reported index levels will be based on the most recent reported prices of the constituent securities — whether or not those securities are being currently traded. As a result, reported index levels may at times be based on non-current price information with respect to some or even all of the constituent securities of an index. If this condition existed at the time of determining the exercise settlement value of an exercised option, that exercise would be settled on the basis of an index level that might not reflect current price information with respect to constituent securities accounting for a significant portion of the value of the index. (Indeed, as noted in Chapter IV, an exercise settlement value that is based on the opening prices of the constituent securities may not coincide with, and may diverge substantially from, the index values that are reported at the time of the opening.) Moreover, if the index underlay a capped index option or a binary index option, that option would or would not be automatically exercised based on an index

level that might not reflect the true state of the market at the time.

The paragraph numbered 10 beginning on page 78 of the Booklet is replaced with the following paragraph:

10. The purchase and sale of index options in foreign markets at times when U.S. markets are closed may present special risks. Although an underlying index may be based on securities primarily traded in U.S. markets, the index levels reported in foreign options markets at such times may be based on the trading of some or all of the constituent securities in foreign markets, and, in any case, option premiums in the foreign market will not reflect current prices of the constituent securities in U.S. markets. In addition, if a cash-settled index option (other than a binary index option) is exercised through the foreign office of a brokerage firm on a day when U.S. markets are closed, the exercise settlement value of the option will not be known until the time fixed for determining exercise settlement values on the next day on which U.S. markets are open. The corresponding risks would apply to the trading in U.S. markets of options based on indexes of securities primarily traded in foreign markets.

The following new paragraph is inserted on page 78 of the Booklet immediately before the section in Chapter X titled "Special Risks of Debt Options":

15. Holders and writers of delayed start options bear the risk that the index level used to calculate the exercise price on the exercise price setting date may be unavailable or incorrect or that the options market may incorrectly calculate the exercise price. Paragraph 5 of this section discusses some of the risks of an erroneously reported index level to a person buying, selling, or exercising an option, or who is assigned an option exercise, based on the erroneous index level. Similarly, persons who are holders or writers of delayed start options on the exercise price setting date bear the risk that an erroneously reported index level will be used to set the exercise price. There is the additional risk that a correct index level will be used, but the options market will calculate the exercise price incorrectly. Once a series of delayed start options is opened for trading on the day after the exercise price setting date, even if a corrected index level is later reported, or if it is later discovered that an exercise price was set incorrectly, the exercise price will not be corrected to account for such errors.

The following new sections are inserted at the end of Chapter X of the Booklet following the section captioned

"Special Risks of Credit Default Options" (which was added in the June 2007 Supplement):

SPECIAL RISKS OF BINARY OPTIONS (OTHER THAN CREDIT DEFAULT OPTIONS)

1. Risks of holders of binary options are similar to the risks described above applicable to holders of other cash-settled, European-style options, but the holder of a binary option will not receive any gain in excess of the fixed settlement amount of the option. Non-binary options, in contrast, may provide greater return to the holder as the difference between the exercise price and the exercise settlement value of the underlying interest increases. A binary option is like a capped option in the sense that its maximum return is limited. Unlike a capped option, however, the payout on a binary option is all or nothing. Accordingly, with respect to a binary option, the holder may experience a relatively greater gain than the holder of a non-binary option when the option is in the money by a small amount but a relatively smaller gain when the option is in the money by a greater amount.

2. Binary options may be more difficult to hedge, or to use as hedges, than non-binary options. Because of the fixed settlement amount to be realized from a binary option, an investor who wishes to hedge the risk of an increase in the price of a specified quantity of a stock, for example, cannot create a perfect hedge by buying a specified quantity of at-the-money binary options that return a cash settlement amount if the exercise settlement value of the underlying security is above the current price of the stock. If the stock price at expiration of the option has risen only slightly above the exercise price, the option payout may exceed the aggregate increase in the value of the stock. If the stock price has risen substantially over the exercise price, the payout from the option may not be sufficient to cover the excess. Similarly, an investor who writes a binary option on an individual stock and wishes to hedge the obligation through ownership of the shares of the underlying stock would not be able to do so precisely through the ownership of any specific number of shares.

3. Holders and writers of binary options may bear a heightened risk that they will be adversely affected by manipulative behavior in the markets. Because a binary option that is in the money by even the smallest amount (or, in the case of certain binary options, at the money) will pay the full fixed settlement amount, there may be an incentive for holders or writers of options that are at or near the money at expiration to attempt to influence the exercise settlement value in order to cause a series of options to expire either in or out of the money. Although

opportunities for manipulation may be greater when the underlying interest is an individual security than when it is an index, volume weighted average pricing is used to determine the exercise settlement value of binary stock options in order to reduce the likelihood of such manipulation. While market manipulation is unlawful under the federal securities laws and SEC regulations, there can be no assurance that manipulation affecting binary options will not occur. If manipulation does occur, exercise settlement values may be based on the manipulated price and there may be no adequate remedy available to investors.

4. A writer of a binary option has risks similar to those of writers of other cash-settled, European-style options except that the amount that the writer will be required to pay if assigned an exercise notice is limited to the fixed settlement amount. Even though the potential loss is limited, writers of binary options must have sufficient liquid assets to pay the fixed cash settlement amount and the financial capacity to bear that potential loss.

5. A writer of a binary option will be obligated to pay the entire fixed cash settlement amount, even if the exercise settlement value is only slightly in the money or, in the case of certain binary options, at the money. Investors should be aware of the criteria for automatic exercise of the binary options that they purchase or write. Binary stock options may be different in this regard from binary index options, and binary options traded on one options market may have different terms from those traded in other options markets.

6. A binary option that has an exercise price at or near the current price or level of the underlying as the expiration date approaches may be more volatile and therefore involve more risk than a non-binary option.

The following new section is inserted at the end of Chapter X on page 88 of the Booklet:

SPECIAL RISKS OF RANGE OPTIONS

1. Range options have a unique payout structure. Whereas other cash-settled options (other than binary options) provide an increasingly greater return to the option holder as the difference between the exercise price and the level of the underlying interest increases, a range option's potential payout increases through the lower range until it reaches the maximum cash settlement amount, remains at the maximum cash settlement amount through the entire middle range, and then decreases to zero as the level of the underlying interest moves through the high range. Therefore, a range option holder must not only be right about the timing of an

anticipated change in the level of the underlying index, but he must also be right about the degree of the change because the option will have a reduced payout or drop out of the money altogether if the underlying index moves too far in either direction. In that case, a range option holder may lose all or a significant part of his investment in the option. On the other hand, the direction in which the underlying index moves will not affect the payout for a range option as long as it stays within the middle range.

2. The writer of a range option, like writers of other cash-settled options, runs the risk that the option will expire in the money and he will be required to pay the cash settlement amount. The writer's potential loss is limited to the maximum cash settlement amount of the option minus the premium received. Actual loss will depend on where the level of the underlying index falls within the range length.

EXAMPLE: An investor receives a premium of $10 for writing a range option on XYZ index that has a maximum cash settlement amount of $100. Assume that the option has a low range from 90 to 100, middle range from 100 to 110, and a high range from 110 to 120. If the level of the XYZ index at expiration is 100 (*i.e.*, falls in the middle range), the investor will incur a loss of $90 (the $100 paid to the holder of the option less the $10 premium received when the option was written). If the level of the XYZ index at expiration is in the low range or the high range, the profit or loss incurred by the investor will depend on where along the low range or high range the index level falls at expiration.

3. Range options may be more difficult to hedge, or to use as a hedge, than other types of options because of range options' unique payout structure. A range option would be a perfect hedge only for a risk exposure to the underlying interest that varies with the level of the underlying interest in the same unique way as the payout structure of the range option. In addition, as in the case of a binary option, it is not possible to precisely offset the risk of writing a range option through ownership of the underlying interest.

DECEMBER 2009 SUPPLEMENT

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below. Part I of this Supplement contains information regarding options on indexes measuring (i) the historical ("realized") variance or the predicted ("implied") or realized volatility of the daily returns of a stock index; (ii) the return from a trading strategy involving purchases and sales of equity securities and options on those securities; or (iii) the dividends on the component stocks of a dividend index. Part II of this Supplement contains information relating to the adjustment of stock option contracts to reflect cash dividends or distributions on the underlying securities. This Supplement supersedes and replaces the September 2008 Supplement to the Booklet.

Part I. Variability Options.

1. The first full paragraph on page 2, as amended in Part III of the May 2007 Supplement, is further amended to read as follows:

Each options market selects the underlying interests on which options are traded on that market. Options are currently available covering four types of underlying interests: equity securities (which term includes "fund shares" described in Chapter III), indexes (including stock, variability, strategy-based and dividend indexes), government debt securities, and foreign currencies. Options on other types of underlying interests may become available in the future.

2. The second paragraph on page 7, as amended by the June 2008 Supplement, is replaced with the following paragraph:

Exercise prices for each options series (except for series of delayed start options) are established by the options market on which that series is traded at the time trading in the series is introduced, and are generally set at levels above and below the then market value of the underlying interest. However, the options markets may use other methods to set exercise prices. Specific information regarding the setting of exercise prices may be obtained from the listing options market. The options markets generally have the authority to introduce additional series of options with different exercise prices based on changes in the value of the underlying interest, or in response to investor interest, or in unusual market conditions, or in other circumstances. For series of delayed start options, exercise price setting formulas — rather than exercise prices — are established by the options market on which each series is traded before the time trading commences in each such series. Those exercise price setting formulas provide that on the exercise price setting date the exercise price for the series will be fixed at the money, in the money by a certain amount, or out of the money by a certain amount.

3. The first two paragraphs on page 23, under the caption "About Indexes," are replaced with the following three paragraphs and new caption:

As referred to in this booklet, an index is a measure of the prices or other attributes of a group of securities* or other interests. Although indexes have been developed to cover a variety of interests, such as stocks and other equity securities, debt securities and foreign currencies, and even to measure the cost of living, the following discussion relates only to (i) indexes on equity securities (which are called stock indexes in this booklet), (ii) indexes intended to measure the implied volatility, or the realized variance or volatility, of specified stock indexes (which are collectively called variability indexes in this booklet), (iii) strategy-based indexes, such as indexes measuring the return of a particular strategy involving the component securities of a stock index and options on that index, (iv) indexes intended to measure the stock price changes of the component securities of underlying indexes that result solely from the distribution of ordinary cash dividends, as calculated on their respective ex-dividend dates (which are called dividend indexes in this booklet), and (v) options on the above indexes (including binary index options and range options).

Stock indexes are compiled and published by various sources, including securities markets. A stock index may be designed to be representative of the stock market of a particular nation as a whole, of securities traded in a particular market, of a broad market sector (*e.g.*, industrials), or of a particular industry (*e.g.*, electronics). A stock index may be based on securities traded primarily in U.S. markets, securities traded primarily in a foreign market, or a combination of securities whose primary

* Some indexes reflect values of companies, rather than securities, by taking into account both the prices of component securities and the number of those securities outstanding.

markets are in various countries. A stock index may be based on the prices of all, or only a sample, of the securities whose prices it is intended to represent. Like stock indexes, variability indexes, strategy-based indexes, and dividend indexes are securities indexes. However, variability indexes may measure the implied volatility of an index, using the premiums for series of options on that index, or may measure the historical variance or volatility of the returns of an index using daily returns over a certain period assuming a mean daily return of zero. Strategy-based indexes measure the return of a particular strategy involving the component securities of an index and options on that index. Dividend indexes measure the stock price changes of the component securities of underlying indexes that result solely from the distribution of ordinary cash dividends, as calculated on their respective ex-dividend dates. In this booklet options on variability indexes are referred to generically as variability options, options on strategy-based indexes are referred to as strategy-based index options, and options on dividend indexes are referred to as dividend index options.

Information relating specifically to stock indexes, variability indexes, strategy-based indexes and dividend indexes appears below under the captions "Stock Indexes," "Variability Indexes," "Strategy-based Indexes" and "Dividend Indexes," respectively.

STOCK INDEXES

4. The first sentence in the second full paragraph on page 25 is amended as follows:

Investors should keep in mind that a stock index can respond only to reported price movements in its component securities.

5. The paragraph that was inserted following the third full paragraph on page 26 in the December 1997 Supplement to this booklet is relocated so that it follows the second full paragraph on page 25 (since that paragraph relates to stock indexes and not to variability indexes or strategy-based indexes).

6. The following paragraphs and captions are added on page 25 following the relocated paragraph referred to in point 3 immediately above:

DIVIDEND INDEXES

Dividend indexes measure the stock price changes of the component securities of underlying indexes that result solely from the distribution of ordinary cash dividends, as calculated on their respective ex-dividend

dates. As of the date of this Supplement, dividend indexes on which options are approved to be traded are based on the accumulated "ex-dividend amounts" reflecting ordinary cash dividends for the component securities over a specified accrual period. Investors should note that determinations by the reporting authority for a dividend index as to whether a cash dividend is "ordinary" and therefore reflected in the index may be made using rules other than those relating to adjustments of stock options and described in Chapter III under "Features of Stock Options." At the end of each accrual period, the value of a dividend index is reset to zero. The values of dividend indexes are typically published once per trading day, and these values could be affected by an issuer's determination to pay stock dividends in lieu of cash dividends or to forego payment of cash dividends. An "ex-dividend amount" is the amount by which the market price of a stock decreases on the ex-dividend date to reflect the dividend that will be received by holders of the stock immediately prior to the ex-dividend date. The "ex-dividend amount" is calculated by the reporting authority for the index, and information as to the method of calculation is available from the listing options market. Investors must understand the method used to calculate dividend indexes in order to understand the relationship between current dividend index values and the prices of dividend index options.

VARIABILITY INDEXES

Variability indexes, and investment strategies involving the use of variability options, are inherently complex. You should be certain that you understand the method of calculation and significance of any variability index and the uses for which variability options based on that index are suited before buying or selling the options.

Economic, political, social and other events affecting the *level* of the reference index may also affect the *variability* of the reference index. Variability indexes based on equity securities have historically tended to move inversely to their reference indexes, since variability, whether in the form of variance or volatility, tends to be associated with turmoil in the stock markets and turmoil tends to be associated with downward moves in the stock market. But this relationship does not always hold true and, indeed, a variability index may be rising at a time when its reference index is also rising.

As with other index options, a call variability option will be in the money at exercise if the exercise settlement value of the underlying index is above the exercise price of the option, and a put variability option will be in the money at exercise if the exercise settlement value of the

underlying index is below the exercise price of the option. Whether the variability option is in the money is determined in relation only to the value of the underlying variability index, and not in relation to the reference index.

The information set forth on pages 26 through 28 of the Booklet under the caption "Features of Index Options" is generally applicable to variability options. However, the method of determining the exercise settlement value for certain variability options may differ from those for other index options, and you should read the information below relating to the particular types of variability options you wish to trade. Note also that variability options may have expiration dates that are different from those of other index options. You should be sure that you know the expiration date for each variability option you wish to buy or write.

As of the date of this Supplement, options are approved for trading on three different types of variability indexes representing three different ways of measuring variability. A realized variance index represents the variability of returns of a specified reference index over a specified time period relative to an average (mean) daily return of zero. The realized volatility of the same index over the same time period, also referred to as the standard deviation, is equal to the square root of the realized variance. Both of these measures are calculated from actual historical index values over the relevant period of time. An implied volatility index is a measure of the predicted future variability of the reference index over a specified future time period. It measures the predicted standard deviation of the daily returns of the reference index measured over the specified future time period. An implied volatility index reflects *predictions* about the future volatility of the reference index as those predictions are *implied* by reported current premium values for options on the reference index. The realized volatility of the reference index may not conform to those predictions.

There are various methods of estimating implied volatility, and different methods may provide different estimates. Under the method that is used for volatility options that are traded at the date of this Supplement, implied volatility index values are calculated using premium values of out-of-the-money series of options on the reference index in expiration months that are selected and weighted to yield a measure of the volatility of the reference index over a specified future time period. For example, an implied volatility index that is calculated using this method and that is designed to provide a prediction of volatility over 30 calendar days is based on premium values of out-of-the-money options series on

the reference index expiring in the two nearest months with at least 8 calendar days left to expiration. Implied volatility index values will be affected by any factor that affects the component options series of the index, including, among other things, applicable laws, regulations and trading rules, the market-making and order processing systems of the markets on which the options are traded, and the liquidity and efficiency of those markets.

Implied volatility options that are described in this Supplement are European-style and "A.M.-settled," which means that the exercise settlement values are derived from opening values of the component put and call options. An exercise settlement value for implied volatility options is calculated from *actual opening premium prices* of the relevant series of options on the reference index unless there is no trade in a series at the opening, in which case the *mid-point of the bid and offer premium quotations* for that series as determined at the opening of trading is used. All other index values for each of these implied volatility indexes are calculated using the *mid-points of the bid and offer premium quotations* of the options series that comprise the index. (Since these index values are based on quotations they are sometimes referred to as "indicative values.")

Because different values may be used in calculating the indicative values and exercise settlement values for implied volatility options, there is a risk that there may be a divergence between the exercise settlement value for implied volatility options and an indicative value calculated at the opening on the date on which the exercise settlement value is being determined. This risk is described further in Chapter X of this booklet, under the heading "Special Risks of Index Options." Additional information regarding the method used to calculate the values of a particular implied volatility index is available from the market on which options on that index are traded.

Investors should keep in mind that indicative values of an implied volatility index can reflect changes in the implied volatility of the reference index only to the extent that quotations of the component options of the index are current. Indicative values for an implied volatility index may be disseminated, and implied volatility options may be traded, during times when one or more component securities in the reference index are not trading, or when the quotations for one or more of the options series comprising the implied volatility index are not current. Similarly, an exercise settlement value for an implied volatility index may be calculated even if one or more component securities in the reference index are not trading. In any of these cases, an indicative value or exercise settlement

value will be based on non-current information. The quality of the information reflected in the values of an implied volatility index should be evaluated in light of the depth and liquidity of the markets for the securities in the reference index and the options that are the components of the index.

The realized variability indexes underlying variability options approved for trading as of the date of this Supplement measure the actual volatility or variance, as the case may be, of the reference index for a fixed period ending on the last trading day before the expiration date for the variability option. As of the date of this Supplement indicative values for a realized variability index are published once per trading day during the fixed period, but values published early in the period, which are based on a small number of observations, may vary substantially from the exercise settlement value. The exercise settlement amount for a realized variability option is equal to the difference between the exercise settlement value and the exercise price of the option, times a multiplier.

Realized variability options that are described in this Supplement are European-style and "A.M.-settled." The initial and final values of a reference index for purposes of calculating the exercise settlement value for realized variability options described in this Supplement are ordinarily calculated from the *actual opening prices* of the component securities of the reference index in their primary market. If a component security does not open for trading, the *last reported price* in the primary market may be used. OCC's rules provide for other methods of determining the exercise settlement value of a reference index in extraordinary circumstances. All other values for realized variability indexes are calculated from the published closing value of the reference index.

STRATEGY-BASED INDEXES

Strategy-based indexes are complex, and their calculations may involve the use of multiple variables, including the values of equity securities and options on those securities. Strategies based on options on these indexes, referred to as "strategy-based index options," are also complex. Investors should be certain that they understand the method of calculation and significance of any strategy-based index and the uses for which strategy-based index options are suited before buying or selling the options.

Strategy-based indexes measure the returns from investment strategies involving the purchase and sale of various securities. All of the securities purchased and

sold pursuant to the strategy are deemed to be the component securities of the strategy-based index. As of the date of this Supplement, the only strategy-based index on which options are approved to be traded is a buy-write index measuring the return on a hypothetical "buy-write" strategy involving the simultaneous writing of call options on a stock index and purchase of the component securities of that index. Under the hypothetical strategy, a succession of at the money index call options with one month to expiration are assumed to be written, and the proceeds (*i.e.*, the premiums received) from writing the options are assumed to be invested in a weighted basket of the component securities that mirrors the index. Dividends received from ownership of the component securities of the index are similarly assumed to be reinvested in the basket of securities. The options are deemed held until expiration, and new call options are assumed to be written on the business day immediately after the settlement value is determined. All options written under the buy-write strategy are deemed to have been assigned an exercise notice on the expiration date if in the money on that date, and to have expired without value if out of the money on the expiration date. The buy-write index measures the cumulative gross rate of return of the strategy since the inception of the index. The index will therefore rise during periods when the strategy is profitable and decline when it is unprofitable. The following example illustrates the calculation of the buy-write index.

EXAMPLE: Assume that the buy-write index has a value of 800 on January 1. The return from the buy-write strategy, taking into account the returns of the component securities of the stock index and of the options assumed to be written on the index, is .5% and 1% on January 2 and 3, respectively. The index value at the end of a given trading day is equal to the previous closing value of the index multiplied by one plus the rate of return for that trading day. In this example, the value of the buy-write index at the close of trading on January 3 would be 812.04 (800 × 1.005 × 1.01). Assume that the return of the buy-write strategy on January 4, again taking into account the returns of the component securities of the stock index and of the options assumed written on that index, is a negative .7%. The value of the buy-write index at the close of trading on January 4 would be 806.36 (812.04 × .993).

The calculation of the buy-write index, as in the case of any strategy-based index, requires the making of assumptions about, for example, the timing of transactions involved with a particular strategy and the prices received or paid for the securities traded (which are

determined using market data for specified time periods). The index is calculated throughout the trading day using reported values for the reference index and reported premium values for the options as well as the value of any ordinary dividends payable on the component securities. The calculation of the index assumes that transactions can be continuously executed, *i.e.*, that there will be no market disruptions, and may use assumed prices equal to volume-weighted average prices, which may not be the same as the prices an investor employing the strategy would pay or receive. Detailed information regarding calculation of the buy-write index is available from the exchange on which the options are traded. A special opening value for the reference index is used in calculating the index on the date that a new option is written to replace an expiring option, which is known as a roll date, and special procedures are used on roll dates to reflect the hypothetical transactions that are assumed to take place on those dates.

STOCK INDEXES, VARIABILITY INDEXES, STRATEGY-BASED INDEXES AND DIVIDEND INDEXES

7. The first sentence of the third full paragraph on page 26 of the Booklet is replaced with the following:

With some exceptions, such as those noted above with regard to mutual fund indexes, certain foreign stock indexes, realized variance and realized volatility indexes, and dividend indexes, the values of indexes are ordinarily updated throughout the trading day.

8. The last sentence of the third full paragraph on page 26 of the Booklet is replaced with the following:

Information regarding the method of calculation of any index on which options are traded, including information concerning the standards used in adjusting the index, adding or deleting securities, and making similar changes, and on any modification of the index in determining the underlying value for the options, is generally available from the options market where the options are traded.

9. The following paragraph is inserted before the first full paragraph on page 27, as amended by the June 2008 Supplement:

The underlying interest for an index option may be a fraction or multiple of a particular index. An option on a fraction or multiple of a particular index is equivalent to an option on the full value of the index, but with a different contract size. Investors in index options should be aware that the underlying interest for an index option may not

be the full value of a published index with which they are familiar.

10. The last paragraph on page 27 is replaced with the following paragraph:

The exercise settlement values of index options are determined by their reporting authorities in a variety of ways. The exercise settlement values of some index options are based on the reported level of the underlying index derived from the last reported prices of the component securities of the index at the closing on the day of exercise. The exercise settlement values of other options are based on the reported level of the index derived from the opening prices of the component securities on the day of exercise. If an option is exercised on a day that is not scheduled as a trading day for the component securities of the index, the exercise settlement value is based on the reported level of the index derived from the opening or closing prices (depending on the options series) of the component securities on the last prior day that is scheduled as a trading day. If a particular component security does not open for trading on the day the exercise settlement value is determined, a substitute value, such as the last reported price of that security, is used. Other means for determining the exercise settlement values of some index options series have been, and may continue to be, established. For example, the exercise settlement values for options on an index of foreign securities may be fixed in relation to a value fixed by a foreign exchange.

11. The second paragraph on page 28 is deleted.

12. The following paragraph is inserted on page 73, immediately following the caption "Special Risks of Index Options," and immediately before the paragraph inserted at that location by the June 2008 Supplement to this booklet:

The risks described in paragraphs 1 through 10 on pages 73 through 78 of this booklet relate primarily to options on stock indexes. The risks described in paragraph 11 relate to options on implied volatility indexes. Risks described in paragraphs 12 through 14 relate to options on variability indexes or strategy-based indexes. The risks described in paragraph 15 relate to delayed start options, and the risk described in paragraph 16 relates to dividend index options.

13. The following paragraphs are inserted on page 78 immediately following paragraph number 10, as amended by the June 2008 Supplement:

11. Because different values may be used in calculating indicative values and exercise settlement values of

the volatility indexes underlying implied volatility options, there is a risk that there may be a divergence between the exercise settlement value and an indicative value calculated at the opening on the date on which the exercise settlement value is being determined. (Please refer to the discussion in Chapter IV under the heading "Variability Indexes" for the definition of the term indicative value and a description of the method that is used to calculate an exercise settlement value for implied volatility options.) It is to be expected that there will be at least some divergence between the exercise settlement value for expiring implied volatility options and an indicative value calculated at the opening on the same date because the opening price for each of the options series that is used to calculate the exercise settlement value will typically be at either the bid or the ask quotation, depending on the forces of supply and demand for that series, and not at the mid-point between the bid and ask quotations. This divergence may represent a significant percentage of the indicative value for the implied volatility index if the forces of supply and demand cause all or most of the series to open on the same side of the market.

12. Strategies involving the purchase and sale of options on a variability index or strategy-based index are inherently complex and require a thorough understanding of the concepts that are measured by these indexes. Investors must understand the method used to calculate the index in order to understand how conditions in the market for the component securities used to calculate its value may affect the value of the index. Investors may fail to realize their investment objective even if they have correctly predicted certain events if they do not understand how those events may or may not affect the level of the index. The component securities of an implied volatility index are put and call options (not stocks, which are the component securities of stock indexes). A realized variability index, on the other hand, measures the actual volatility of an index and is calculated directly from the values of the reference index. There is no assurance that predicted volatility as measured by a particular implied volatility index will correspond to the actual volatility of the reference index or to measures of predicted volatility calculated using other methods. A strategy-based index may be calculated from the prices of multiple component securities of different types, such as in the case of a buy-write index measuring the return of a strategy that involves transactions in stocks and options. The return from a particular strategy as measured by a strategy-based index may differ from the actual returns that an investor following that strategy achieves, because of assumptions regarding transactions and the failure to

take into account significant factors such as taxes and transaction costs.

13. Persons who exercise variability options or strategy-based index options or are assigned exercises based on an erroneous index level will ordinarily be required to make settlement based on the exercise settlement value as initially reported by the designated reporting authority for the index, even if a corrected value is subsequently announced. In extraordinary circumstances (*e.g.*, where an exercise settlement value as initially reported is obviously wrong, and a corrected value is promptly announced), OCC has discretion to direct that exercise settlements be based on a corrected exercise settlement value. Ordinarily, however, the exercise settlement value as initially reported by the designated reporting authority for the underlying variability index will be conclusive for exercise settlement purposes. As described in paragraph 8. on page 77 with respect to other indexes, reported levels of a variability or strategy-based index may be based on non-current information. This may occur as a result of delays or interruptions in the market for the component securities of the underlying index or the reference index (which are the same in the case of realized variability indexes).

14. As in the case of writers of other index options, writers of variability or strategy-based index options cannot provide in advance for their potential settlement obligations by acquiring the underlying interest. Offsetting the risk of writing a variability option or strategy-based index option may be even more difficult than offsetting the risk of writing other index options. Even where some offsetting of risk is possible, there are timing risks and other risks analogous to those discussed in paragraphs 3 and 4 on pages 74 and 75 of the booklet whenever an investor attempts to employ strategies involving transactions in variability or strategy-based index options and transactions in stocks or in options, futures contracts or other investments related to stocks.

14. The following paragraph is inserted on page 78 immediately following paragraph number 15, as added by the June 2008 Supplement:

16. The reported values of dividend indexes may be affected by factors other than the financial ability of the issuers of the component securities of a dividend index to pay cash dividends. For example, an issuer's determination to pay stock dividends in lieu of cash dividends or to forego payment of cash dividends notwithstanding its ability to do so may affect the level of a dividend index.

Part II. Definition of Ordinary Cash Dividend. The following replaces Part I of the May 2007 Supplement:

The fourth paragraph on page 19 of the Booklet is amended to read as follows:

As a general rule, no adjustment is made for ordinary cash dividends or cash distributions. A cash dividend or distribution announced prior to February 1, 2009, will generally be considered "ordinary" unless it exceeds 10% of the aggregate market value of the underlying security outstanding as of the close of trading on the declaration date. The same rule will continue to apply on and after that date with respect to options series designated by OCC as "grandfathered" for purposes of this rule (*i.e.*, series opened prior to publication of the May 2007 Supplement that remain outstanding on February 1, 2009). In the case of all other options series, a cash dividend or distribution announced *on or after* February 1, 2009, will generally be considered "ordinary," regardless of size, if OCC believes that it was declared pursuant to a policy or practice of paying such dividends or distributions on a quarterly or other regular basis. No adjustment will normally be made for any cash dividend or distribution that amounts to less than $12.50 per contract. If an option contract has been previously adjusted to cover more shares than a standard-size option contract (*i.e.*, a contract covering 100 shares or any other number of shares specified as the standard size for a contract prior to any adjustments) and if a corresponding standard-size option contract also exists, the previously adjusted option contract will be adjusted only if the corresponding standard-size option contract is also adjusted. As an exception to the general rule, options on fund shares will generally be adjusted for capital gains distributions even if made on a regular basis, and adjustments may be made for certain other distributions in respect of fund shares in special circumstances described in OCC's rules, provided in each case that the amount of the adjustment would be $.125 or more per fund share. Determinations whether to adjust for cash dividends or distributions not covered by the preceding rules, or when other special circumstances apply, are made on a case-by-case basis.

MAY 2010 SUPPLEMENT

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below to accommodate the introduction of options on index-linked securities.

1. The first full paragraph on page 2 of the Booklet, as previously amended in the May 2007 and September 2008 Supplements, is replaced by the following:

Each options market selects the underlying interests on which options are traded on that market. Options are currently available covering four types of underlying interests: equity securities (which term includes "fund shares" described in Chapter III), indexes (including stock, variability, strategy-based and dividend indexes), debt securities and credit events, and foreign currencies. Options on other types of underlying interests may become available in the future.

2. The first three paragraphs in Chapter V appearing on page 29 of the Booklet, as amended by the June 2007 Supplement, are replaced by the following four paragraphs:

Three kinds of debt options have been approved for trading at the date of this booklet. Two of these kinds are sometimes referred to as price-based options. Price-based options are options which give their holders the right either to purchase or sell a specified underlying debt security or to receive a cash settlement payment based on the value of an underlying debt security (depending on whether the options are physical delivery or cash-settled options). Options on securities issued by the U.S. Treasury are one kind of price-based debt options. Options on index-linked securities are a second kind of price-based debt options. An "index-linked security" is a debt security that trades on one or more exchanges similarly to an equity security, and that provides a cash return to its owner based on the

performance of a "reference asset" which may, for example, consist of a securities or commodities index, a futures index, a physical commodity, a foreign currency, another debt security, or some combination of the above. The term "index" in the context of an index-linked security has a broader meaning than that set forth in Chapter IV since, in the context of an index-linked security, the term is a synonym for the term "reference asset" and is not limited to securities indexes.

A third kind of debt options, called yield-based options, are options that are cash-settled based on the difference between the exercise price and the value of an underlying yield. At the date of this booklet, all yield-based options that have been approved for trading are based on the yields of U.S. Treasury securities. The distinctions between price-based and yield-based options are fundamental and should be understood by readers interested in investing in debt options.

A fourth kind of options, called credit default options, are also described in this Chapter. Credit default options are cash-settled options that are related to the creditworthiness of issuers or guarantors of debt securities, and are exercised upon confirmation of a credit event affecting an underlying debt security or securities.

The principal risks of holders and writers of debt options and credit default options are discussed in Chapter X. Readers interested in buying or writing debt options or credit default options should not only read this chapter but should also carefully read Chapter X, particularly the discussions under the headings "Risks of Option Holders," "Risks of Option Writers," "Other Risks," "Special Risks of Debt Options," and "Special Risks of Credit Default Options."

3. The first paragraph on page 31, immediately following the heading "Treasury Securities," is replaced by the following:

The underlying debt securities of one kind of price-based options that have been approved for trading at the date of this booklet, and the debt securities from which the underlying yields of yield-based options are derived, are Treasury securities — e.g., 30-year Treasury bonds, 10-year Treasury notes, 5-year Treasury notes and Treasury bills.

4. The following section is inserted immediately after the last paragraph on page 34 of the Booklet prior to the paragraphs inserted by the June 2007 Supplement:

OPTIONS ON CONVENTIONAL INDEX-LINKED SECURITIES

Index-linked securities are debt securities that trade on exchanges similarly to equity securities. Index-linked securities are issued by financial institutions such as banks and may take the form of trust certificates, units or some other interest. An index-linked security provides owners with a cash return based on the performance of a "reference asset" which may, for example, consist of a securities or commodities index, a futures index, a physical commodity, a foreign currency, another debt security, or some combination of the above. References in this booklet to "units" of underlying index-linked securities include these various forms of interests. The term "index" in the context of an index-linked security has a broader meaning than that set forth in Chapter IV because, in the context of an index-linked security, the term is a synonym for the term "reference asset" and is not limited to securities indexes. As of the date of this Supplement, options are approved to be traded on conventional index-linked securities, but not on leveraged or inverse index-linked securities.

As a general rule, a single index-linked security option covers 100 units of the underlying security. However, it is possible that the number of underlying units covered by an index-linked security option would be adjusted after the option is issued if an adjustment panel determines, as described below, that it is appropriate to make such an adjustment.

The exercise prices of options on index-linked securities that are approved for trading at the date of this booklet are stated in U.S. dollars per unit. As with a stock option, the exercise price of an index-linked security option must be multiplied by the number of units underlying the option in order to determine the aggregate exercise price and aggregate premium of the option.

Index-linked securities generally have a term of at least one year but not greater than thirty years. Index-linked securities may be redeemable at certain intervals at the option of the holder through the issuer at a price related to the applicable underlying reference asset,

subject to a minimum redemption increment and other conditions. Redemption of index-linked securities may affect the market for the securities by reducing the quantity of securities available for trading. Index-linked securities may return less than the principal originally invested, regardless of the solvency of the issuer of the securities.

An adjustment may be made to certain of the standardized terms of outstanding options on index-linked securities if a particular event occurs that is determined by an adjustment panel to warrant the adjustment. As in the case of stock options, an adjustment panel for options on index-linked securities would be composed of representatives of one or more U.S. options markets and a representative of OCC, as described above in Chapter II.

As a general rule, if the issuer of a particular index-linked security calls the entire issue of the security, the event will be treated like an event in which an underlying equity security is converted into the right to receive a fixed amount of cash. If an event is treated in this manner, when the issue of index-linked securities is called, outstanding options on that issue will be adjusted to require the delivery upon exercise of a fixed amount of cash, and trading in the options will ordinarily cease. As a result, after such an adjustment is made all options on that security that are not in the money will become worthless and all that are in the money will have no time value. The expiration date of the options will ordinarily be accelerated to fall on or shortly after the date on which the underlying security is called. Holders of an in-the-money option whose expiration date is accelerated must be prepared to exercise that option prior to the accelerated exercise cut-off time in order to prevent the option from expiring unexercised. See the discussion in Chapter VIII under "How to Exercise." Writers of options whose expiration date is subject to being accelerated bear the risk that, in the event of such an acceleration, they may be assigned an exercise notice and be required to perform their obligations as writers prior to the original expiration date. When the expiration date of an option is accelerated, no adjustment will be made to compensate for the accelerated expiration date. As with a stock option whose underlying security is converted into a right to receive a fixed amount of cash,

there is no assurance that the exercise settlement date for an accelerated index-linked security option will coincide with the date on which the cash payment to the holders of the underlying security becomes available from the issuer. Covered writers of an accelerated option may therefore be required to pay the cash amount in respect of the option before they receive the cash payment on the underlying security.

In contrast to a situation in which the issuer calls an entire issue of index-linked securities, as a general rule no adjustment will be made to the terms of options on index-linked securities in the event of a call of less than an entire issue of the securities. In addition, as a general rule, no adjustment will be made to the terms of options on index-linked securities for any interest payment on the securities.

As is the case with equity options, an adjustment panel with respect to options on index-linked securities has discretion to make exceptions to the general rules described above.

5. The following paragraph is inserted near the top of page 58 of the Booklet, after the paragraph inserted by the June 2008 Supplement and immediately before the caption "Risks of Option Holders":

The value of an option is affected by the value of the underlying interest. It is beyond the scope of this booklet to discuss the characteristics or risks of underlying interests. If a description or risk factor is mentioned in this booklet with respect to a particular class of underlying interest, you should not assume that the same statements will be made with respect to all underlying interests discussed herein to which they may be applicable. You should look to disclosures made by issuers of underlying securities or information provided by publishers of underlying indexes and to information available from your broker or other sources to determine the nature and risks of the interests underlying the options that you trade. Some underlying interests may themselves involve a high degree of risk. Where the value of an underlying security is based in whole or in part on the performance of an index, information provided by the publisher of the referenced index, as well as financial and other disclosures made by the issuer of the underlying security regarding the issuer's ability to perform its obligations, may be relevant.

6. The following paragraph is inserted on page 78 of the Booklet, immediately following the caption "Special Risks of Debt Options":

The risks described in paragraphs 1 through 9 of this section relate to debt options other than options on index-linked securities. The risks described in paragraphs 10 and 11 relate exclusively to options on index-linked securities.

7. The following new paragraphs are inserted on page 82 of the Booklet immediately before the section in Chapter X titled "Special Risks of Foreign Currency Options":

10. In the event of a shortage of index-linked securities that are deliverable on exercise of a physical delivery option, OCC may impose special exercise settlement procedures similar to those applicable to stock options, including the fixing of a cash settlement price payable by writers who would otherwise be unable to meet their delivery obligations (see the discussion in Chapter VIII under "Settlement"), and/or prohibit the exercise of puts by holders who would be unable to meet the resulting settlement obligations (see paragraph 5 under "Risks of Option Holders" above).

11. In the event that an issuer of an index-linked security calls the entire issue of the security, outstanding options on that issue will be adjusted to require delivery upon exercise of a fixed amount of cash. After such an adjustment, all options on that security that are not in the money will become worthless, and all that are in the money will have no time value. Holders must be prepared to exercise the option to prevent the option from expiring unexercised, and writers must be prepared to perform their obligations prior to the accelerated exercise cut-off date. There is no assurance that the exercise settlement date for an index-linked security option will coincide with the date on which the cash payment to the holders of the underlying security becomes available from the issuer, and covered writers of an accelerated option therefore may be required to pay the cash amount in respect of the option before they receive cash payment on the underlying security.

JANUARY 2011 SUPPLEMENT

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below. This January 2011 Supplement amends and restates the June 2007 Supplement in its entirety to accommodate changes pertaining to credit default options.

Credit default options, including credit default basket options, have characteristics that are different from those of any other options described in the Booklet at the date of this Supplement. Accordingly, some of the statements and terms in Chapters I and II of the Booklet are inapplicable to credit default options. For example, as further described in this Booklet, the sentence at the bottom of page 1 and the top of page 2 which notes that the owner of a cash-settled option has "the right to receive a cash payment based on the difference between a determined value of the underlying interest at the time the option is exercised and the fixed exercise price of the option" is not applicable to credit default options. The description of credit default options in this Supplement supersedes material in the Booklet applicable to other standardized options to the extent such material is inconsistent with statements in this Supplement. Credit default options are described by amendment to Chapter V of the Booklet as follows:

1. *The title of Chapter V (on page 29 of the Booklet) is changed to "DEBT OPTIONS AND CREDIT DEFAULT OPTIONS".*
2. *On page 34, the following is inserted immediately following the paragraph inserted by the May 2010 Supplement:*

Credit Default Options and Credit Default Basket Options

Credit default options are based on debt securities of one or more issuers or guarantors other than the U.S. Treasury. A significant difference between such debt securities and Treasury securities is the non-negligible risk that an issuer or guarantor of debt securities other than Treasury securities may default on its obligations. For example, the issuer might not pay the full interest and face amount of the securities when due or might file for bankruptcy, thereby making it nearly certain that it will not make timely payment of the full interest and face amount. Financial market participants call this credit risk. Credit risk is an important component of the value of most debt securities.

Credit default options relate to the credit risk presented by one or more specified debt securities, called reference

obligation(s), of one or more specified issuers or guarantors, each of which is called a reference entity. The reference obligation(s) and each reference entity for a class of credit default options are selected by the listing options market. When a credit default option is based on reference obligation(s) of more than one issuer or guarantor, it is referred to as a credit default basket option. There are further variations on credit default basket options as described below.

A credit default option is automatically exercised and pays a fixed cash settlement amount if a credit event is confirmed for one or more reference obligations of a reference entity prior to expiration of the option. The reference obligations of a reference entity may include all of the outstanding debt securities constituting general obligations of the reference entity or direct claims on the reference entities (excluding any non-recourse debt). A credit event may include a failure to make a payment on a reference obligation and/or any other event(s) that the listing options market may specify at the time a class of credit default options is listed. The specified credit event(s) will be defined in accordance with the terms of the reference obligation(s). However, not every event that might constitute an event of default by the reference entity under the terms of the reference obligations will necessarily be specified by the listing options market as a credit event. Investors should be certain that they understand the various possible events that will or will not constitute credit events. The determination of whether a particular event meets the criteria of a credit event, however defined, for a specific credit default option is within the sole discretion of the listing options market.

In order to result in automatic exercise of the option, a credit event must be confirmed to have occurred during the covered period (*i.e.*, the period between the initial listing of the series of options and the time specified by the options market as the last day of trading of the option series prior to the expiration date). An event that would otherwise be deemed a credit event will not result in an exercise of the option if it occurs either before or after this period. A series of credit default options ordinarily does not expire until a specified number of business days following the end of the covered period in order to provide the listing options market an opportunity to confirm whether or not a credit event occurred within the covered period. If an event otherwise meeting the definition of a credit event occurs after the end of the covered period but before the option expires, the option will not be exercised and will expire worthless.

If the listing options market determines that a credit event has occurred within the covered period for a class of credit default options, it will provide a credit event confirmation to OCC, and the options will be automatically exercised. Holders of the exercised options will receive, and writers will be obligated to pay, the fixed cash settlement amount. If OCC does not receive a credit event confirmation from the listing options market before expiration of a series of credit default options, the options will expire worthless.

Credit default options are binary options in that they have a specified, all-or-nothing cash settlement amount. Credit default options, however, have additional unique characteristics. For example, credit default options have no exercise price and cannot be in the money and have no intrinsic value. The discussion of these terms in Chapter I and/or Chapter II of the Booklet is therefore inapplicable to credit default options. In addition, a credit default option is automatically exercised whenever a credit event occurs within the covered period. Credit default options are thus a unique style of options and are neither American-style nor European-style.

A credit default basket option is similar to an aggregation of individual credit default options, each based on one or more reference obligations of a different reference entity. All of the outstanding debt securities constituting general obligations of each reference entity or direct claims on reference entities (excluding non-recourse debt) in the basket may be included in the reference obligations.

There are two different kinds of credit default basket options. A single payout credit default basket option is automatically exercised and pays a specified cash settlement amount upon the confirmation of the first credit event to occur with respect to a reference obligation of any one of the basket's reference entities. It is exercised only once. Once exercised, the expiration of the option will be accelerated to correspond to the exercise date. A multiple payout credit default basket option automatically pays a specified cash settlement amount each time a credit event is confirmed with respect to a reference obligation of any one of the reference entities during the covered period. In the case of either single payout or multiple payout credit default basket options, the listing options market may specify a different cash settlement amount for different reference entities or may specify the same cash settlement amount for each reference entity in the basket. The percentage of the total cash settlement amount that is attributable to any individual reference entity is referred to as its weight in the basket. Investors should note that the options markets on which credit default basket options trade may determine "weight" according to their own specified rules, and investors should contact the listing options market for information about how it determines weight. In the case of a multiple payout credit default basket option, a cash settlement amount will be paid only once with respect to any particular reference entity, after which time the affected reference entity will be removed from the credit default basket.

Premiums for both credit default options and credit default basket options are expressed in points and decimals. In order to obtain the aggregate premium for a single option, the quoted premium is multiplied by a premium multiplier specified by the listing options market.

ADJUSTMENT OF CREDIT DEFAULT OPTIONS

Adjustments may be made to the standardized terms of outstanding credit default options when certain events occur, such as a succession event or a redemption event, both of which will be defined by the listing options market in accordance with the terms of the reference obligations. Adjustments of credit default options will be within the sole discretion of the listing options market. Investors should familiarize themselves with the listing options market's rules and procedures governing credit default option adjustments. The listing option market's rules governing adjustments of outstanding options may be changed with regulatory approval, and the listing options market may have authority to make such exceptions as it deems appropriate to its general adjustment rules.

Redemption Event Adjustments. A redemption event occurs when reference obligations of a reference entity are redeemed (or paid in full) by, or on behalf of, the issuer. In the case of all types of credit default options, if only some of the reference obligations are redeemed, the option is ordinarily adjusted such that the remaining reference obligations are the reference obligations for the option and no other adjustment will ordinarily be made. If all of the reference obligations of a reference entity are redeemed and there are other debt obligations of the reference entity that the listing options market deems appropriate to specify as successor reference obligations, then they will be substituted as the reference obligations. If, however, all of the reference obligations of a reference entity are redeemed and there are no other debt obligations of the reference entity that the listing options market deems appropriate to specify as successor reference obligations for the reference entity (a complete redemption), then the adjustment will depend upon whether or not there are other reference entities for the options.

Adjustment of credit default options for a complete redemption. If there is a complete redemption affecting a credit default option, the option will cease trading on the date that the redemption event is confirmed by the listing options market. Expiration of the option will be accelerated to a specified number of days following the confirmation date of the redemption, and the option will expire unexercised if, prior to such expiration, no credit event is confirmed to have occurred prior to the effective date of the redemption event.

EXAMPLE: Company XYZ is the reference entity for a credit default option contract and its 8% May 15, 2022 bond issue is the only reference obligation. During the life of the option, Company XYZ redeems the 8% May 15, 2022 bond issue and there are no other obligations of Company XYZ that the listing options market deems to be suitable for specifying as successor reference obligations. The option will cease trading on the confirmation date, and its expiration date will be accelerated. If no credit event is confirmed to have occurred within the covered period, the option will expire worthless.

Adjustment of credit default basket options for a complete redemption. In the case of a single or multiple payout credit default basket option, if a complete redemption event occurs with respect to one of the reference entities in the basket and no credit event is confirmed, pursuant to the rules of the listing options market, to have occurred prior to the effective date of such redemption event, the options will be adjusted by removing the affected reference entity from the basket of reference entities. When a reference entity is deleted from the basket of reference entities because of a redemption event, the cash settlement amount of the option will be reduced by an amount reflecting the weight of the deleted reference entity in the basket. The *relative* weights of the other components in the basket will remain unchanged, although each will represent a proportionally larger percentage of the adjusted cash settlement amount.

EXAMPLE: Company XYZ is one of ten reference entities for a class of multiple payout credit default option contracts and its 8% May 15, 2022 bond issue is specified as its only reference obligation. Company XYZ was assigned a weight of 15% when the credit default option was opened for trading. During the life of the option, Company XYZ redeems the 8% May 15, 2022 bond issue. No reference obligations remain and the listing options market determines that there are no other outstanding debt obligations of the issuer suitable for specification as reference obligations. The basket component will be removed from the credit default basket, and the cash settlement amount will be reduced by 15%.

Succession Event Adjustments. A succession event occurs when one or more new entities assume one or more reference obligations of a reference entity or become the obligor with respect to any obligation that is substituted for the original reference obligations. This may occur, for example, when a reference entity is merged into a new entity or spins off a part of its business into a new entity. If, as the result of a succession event, more than one entity is the obligor of the original reference obligations, or obligations that were substituted for the original reference obligations, all of those obligors, including, as the case may be, the original reference entity, are referred to as successor reference entities.

Adjustment of credit default options after a succession event. Where a succession event results in assumption of all reference obligations by a single entity, the listing options market will ordinarily adjust the option by substituting the entity that assumes the reference obligation(s) as the new reference entity. Where a succession event results in more than one successor reference entity, the credit default option may be adjusted by dividing it into two or more options.

EXAMPLE: Company XYZ is the reference entity for a credit default option contract, and its 8% May 15, 2022 bond issue is the only reference obligation. During the life of the option, Company XYZ spins off Company LMN. Company XYZ remains the obligor with respect to 70% of the principal amount of the original reference obligation. Company LMN

becomes the obligor of a new reference obligation that is issued to holders of the remaining 30% of the original reference obligation. Company XYZ and LMN are identified by the listing options market as the successor entities. Following the succession event, the credit default option based on Company XYZ is adjusted into two separate credit default option contracts that specify Company XYZ and Company LMN as reference entities. The cash settlement amount of the original credit default option and the premium multiplier are allocated between the new credit default options in accordance with the 70/30 division of the reference obligation as specified by the listing options market.

Adjustment of credit default basket options after a succession event. When a succession event occurs with respect to a reference entity that is included in a single payout or multiple payout credit default basket option, the listing options market will ordinarily adjust the option by replacing the affected reference entity with the successor entity or entities, and, if one or more new obligations are issued to replace some or all of the existing reference obligations, the new obligations will be substituted as the reference obligations. The listing options market will specify the weight of each new reference entity, and the sum of the weights will equal the weight of the original reference entity.

EXAMPLE: Company XYZ is one of ten equally weighted reference entities for a multiple payout default basket option and its 8% May 15, 2022 bond issue and its 8.5% September 1, 2030 bond issue are specified as its only reference obligations. During the life of the option, Company XYZ spins off Company LMN. Company XYZ remains the obligor for the 2022 bond issue and LMN becomes the obligor of a debt security issued to holder of the 2030 bond issue. The listing options market adjusts the option by specifying XYZ and LMN as the successor reference entities. The reference obligations are the original 2022 bond issue and the replacement for the 2030 bond issue. The listing options market determines the appropriate basket weight for the successor reference entities is 7.5% and 2.5%. The sum of the newly specified weights equals the 10% weight of the predecessor basket reference entity (Company XYZ) replaced by the successor reference entities (Company XYZ and Company LMN).

3. *On page 88, the following is inserted immediately following the last paragraph:*

SPECIAL RISKS OF CREDIT DEFAULT OPTIONS

1. Pricing of credit default options is complex. As stated elsewhere in this document, complexity not well understood is, in itself, a risk factor. In order to price these options, investors must estimate the probability of default from available security or other prices, primarily bond and credit default swap ("CDS") prices. Models typically used by market professionals to infer the probability of default from prices may be more complex than the average investor is used to.

2. The sources of price information used to price credit default options are subject to a lack of transparency and, at times, illiquid markets. This is attributable to, among other things: (1) the absence of last sale information and the limited availability of quotations for the reference obligation(s), (2) lack of ready availability of information on related products traded primarily in the over-the-counter market, and (3) the fact that related over-the-counter market credit derivative transactions are privately negotiated and may not be made public in a timely fashion or at all.

3. Dealers in the underlying debt securities and in the over-the-counter credit derivatives markets have access to private quotation networks that give actual current bids and offers of other dealers. This information is not available to most investors. As a result, these dealers may have an advantage over participants with regard to credit default options.

4. If the listing options market determines that a credit default option is subject to a redemption event (*i.e.*, the issuer or guarantor pays off the reference obligation), the option will expire worthless unless a credit event has been confirmed to have occurred prior to the effective date of the redemption event. As a result, purchasers of such options will lose their premium since there is no chance of occurrence of a credit event for the reference entity. On the other hand, if a redemption event occurs but a credit event is confirmed to have occurred prior to the effective date of the redemption event, a seller would be obligated to pay the cash settlement amount even though a holder of the reference obligation may not incur a loss.

5. Since succession events are determined by the listing options market, credit default options may be modified to specify a different reference entity or several different reference entities. As a result, there may be new reference obligations that have higher or lower credit quality than the original reference obligation. In addition, other factors may exist that could affect the likelihood of the occurrence of a credit event. As a result, the occurrence of a succession event could affect the price of these options. Moreover, since the listing options market determines whether a succession event occurred and the adjustment resulting from such an event, the adjustment made to these options may be at variance with the treatment given to the same succession event with respect to related credit derivative products.

6. The occurrence of a credit event must be confirmed by the listing options market. This means that there will be a lag time between the actual occurrence of a credit event and the listing options market's confirmation of the credit event. Rules of the options market may provide a specified time period (*e.g.*, four business days) between the end of the covered period and the expiration date for a series of credit default options to allow the options market to confirm whether a credit event occurred during the covered period. There is a risk, however, that the sources used to monitor a credit event may not identify and report a credit event in a timely fashion. For example, it is possible that a credit event could occur on the last day of trading, but the

sources which report the occurrence of a credit event do not make this information publicly available until *after* the expiration date. In this case, the cash settlement value of a credit default option would be zero. There is also a risk that the listing options market may determine that a credit event has occurred based on information available to it when in fact no credit event has occurred. This could happen, for example, if the sources used to confirm the credit event are erroneous. The rules of OCC and/or the listing options market may provide that a confirmation of a credit event or other contract adjustment may be revoked up to a specified time prior to exercise settlement. Settlements based on a listing options market's confirmation of a credit event are irrevocable even if no credit event has occurred.

7. Every determination by the listing options market of a redemption event, succession event or credit event will be within the listing options market's sole discretion and will be conclusive and binding on all holders and sellers and not subject to review. OCC shall have no authority to make such determinations and shall have no responsibility therefor.

8. Prior to the period when a credit default option has been automatically exercised, the only means through which the holder can realize value from the option is to sell it at its then market price in an available secondary market. If a secondary market for such an option is not available, it will not be possible for its holder to realize any value from the option at that time.

9. There is no underlying interest for credit default options that is quoted in the marketplace. Because of this, there are no underlying interest prices to provide a reference to investors for pricing credit default options.

10. As discussed above under the caption "Other Risks," options markets have discretion to halt trading in an option in certain circumstances — such as when the market determines that the halt would be advisable in maintaining a fair and orderly market in the option. In the case of credit default options, options markets may take into consideration, among other factors, that current quotes for debt securities or other securities of the reference entity are unavailable or have become unreliable.

11. The risk that a trading market for particular options may become unavailable and the potential consequences are also discussed above under the caption "Other Risks." The SEC has approved certain credit default options for listing and trading on a national securities exchange as securities. OCC filed its rules for clearing credit default options with the CFTC, and the CFTC issued an exemption permitting OCC to clear such options when traded on a national securities exchange whether or not they are within the CFTC's jurisdiction. By its terms, the exemption is revocable, and its revocation would be one of the events that could lead to the unavailability of a trading market for credit default options.

MARCH 2011 SUPPLEMENT

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below to accommodate (i) options on any index intended to measure the implied volatility of a single reference security; and (ii) options on relative performance indexes.

1. *The first full paragraph on page 2 of the Booklet, as amended by the May 2007, December 2009 and May 2010 Supplements, is replaced by the following:*

Each options market selects the underlying interests on which options are traded on that market. Options are currently available covering four types of underlying interests: equity securities (which term includes "fund shares" described in Chapter III), indexes (including stock, variability, strategy-based, dividend and relative performance indexes), debt securities and credit events, and foreign currencies. Options on other types of underlying interests may become available in the future.

2. *The first three paragraphs on page 23 of the Booklet, under the caption "About Indexes," as amended by the December 2009 Supplement, are replaced by the following:*

As referred to in this booklet, an index is a measure of the prices or other attributes of a group of securities* or other interests. Although indexes have been developed to cover a variety of interests, such as stocks and other equity securities, debt securities and foreign currencies, and even to measure the cost of living, the following discussion relates only to (i) indexes on equity securities (which are called stock indexes in this booklet), (ii) indexes intended to measure the implied volatility, or the realized variance or volatility, of specified stock indexes or specified securities (which are collectively called variability indexes in this booklet), (iii) strategy-based indexes, such as indexes measuring the return of a particular strategy involving the component securities of a stock index and options on that index, (iv) indexes intended to measure the stock price changes of the component securities of underlying indexes that result solely from the distribution of ordinary cash dividends, as calculated on their respective ex-dividend dates (which are called dividend indexes in this booklet), (v) relative performance indexes, which are a special type of strategy-based indexes that measure the relative

* Some indexes reflect values of companies, rather than securities, by taking into account both the prices of component securities and the number of those securities outstanding.

performance over a given time period of one index component to another index component, and (vi) options on the above indexes (including binary index options and range options).

Stock indexes are compiled and published by various sources, including securities markets. A stock index may be designed to be representative of the stock market of a particular nation as a whole, of securities traded in a particular market, of a broad market sector (*e.g.*, industrials), or of a particular industry (*e.g.*, electronics). A stock index may be based on securities traded primarily in U.S. markets, securities traded primarily in a foreign market, or a combination of securities whose primary markets are in various countries. A stock index may be based on the prices of all, or only a sample, of the securities whose prices it is intended to represent. Like stock indexes, variability indexes, strategy-based indexes, dividend indexes and relative performance indexes are securities indexes. However, variability indexes may measure the implied volatility of an index, using the premiums for series of options on that index, or may measure the historical variance or volatility of the returns of an index using daily returns over a certain period assuming a mean daily return of zero. Strategy-based indexes measure the return of a particular strategy involving the component securities of an index and options on that index. Dividend indexes measure the stock price changes of the component securities of underlying indexes that result solely from the distribution of ordinary cash dividends, as calculated on their respective ex-dividend dates. Relative performance indexes measure the performance of two index components relative to one another over a period of time. In this booklet options on variability indexes are referred to generically as variability options, options on strategy-based indexes are referred to as strategy-based index options, options on dividend indexes are referred to as dividend index options and options on relative performance indexes are referred to as relative performance options.

Information relating specifically to the various types of indexes appears below under the captions "Stock Indexes," "Variability Indexes," "Strategy-based Indexes," "Dividend Indexes" and "Relative Performance Indexes."

3. *The first sentence of the second paragraph under the caption "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, is replaced by the following:*

Economic, political, social and other events affecting the *level* of the reference index or the *price* of the reference security may also affect the *variability* of the reference index or reference security.

4. *The last sentence of the second paragraph under the caption "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, is replaced by the following:*

But this relationship does not always hold true and, indeed, a variability index may be rising at a time when its reference index or the price of its reference security is also rising.

5. *The last sentence of the third paragraph under the heading "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, is replaced by the following:*

Whether the variability option is in the money is determined in relation only to the value of the underlying variability index, and not in relation to the reference index or reference security.

6. *The fifth paragraph under the heading "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, is replaced by the following:*

As of the date of this Supplement, options are approved for trading on three different types of variability indexes representing three different ways of measuring variability. A realized variance index represents the variability of returns of a specified reference index or reference security (in either case, a "reference interest") over a specified period of time relative to an average (mean) daily return of zero. The realized volatility of the same index over the same time period, also referred to as the standard deviation, is equal to the square root of the realized variance. Both of these measures are calculated from historical index values over the relevant period of time. An implied volatility index is a measure of the predicted future variability of the reference interest over a specified future time period. It measures the predicted standard deviation of the daily returns of the reference interest measured over the specified future time period. An implied volatility index reflects *predictions* about the future volatility of the reference interest as those predictions are *implied* by reported current premium values for options on the reference interest. The realized volatility of the reference interest may not conform to those predictions.

7. *The sixth paragraph under the heading "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, is replaced by the following:*

There are various methods of estimating implied volatility, and different methods may provide different estimates. Under the method that is used for volatility options that are traded at the date of this Supplement, implied volatility index values are calculated using premium values of options on the reference interest in expiration months that are selected and weighted to yield a measure of the volatility of the reference interest over a specified future time period. For example, an implied volatility index that is calculated using this method and that is designed to provide a prediction of volatility over 30 calendar days is based on premium values of options on the reference interest expiring in the two nearest months with at least 8 calendar days left to

expiration. Implied volatility index values will be affected by any factor that affects the component options series of the index, including, among other things, applicable laws, regulations and trading rules, the market-making and order processing systems of the markets on which the options are traded, and the liquidity and efficiency of those markets.

8. *The first and second sentences of the ninth paragraph under the heading "Variability Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, are replaced by the following:*

Investors should keep in mind that indicative values of an implied volatility index can reflect changes in the implied volatility of the reference interest only to the extent that quotations of the component options of the index are current. Indicative values for an implied volatility index may be disseminated, and implied volatility options may be traded, during times when the reference security or one or more component securities in the reference index are not trading, or when the quotations for the reference security or one or more of the options series comprising the implied volatility index are not current.

9. *The following caption and paragraphs are added to Chapter IV of the Booklet immediately following the section captioned "Strategy-Based Indexes," which is part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement:*

RELATIVE PERFORMANCE INDEXES

A relative performance index measures the relative performance — generally the relative total return — of two index components. As of the date of this booklet, the only relative performance options approved for trading are options on indexes of which both index components are equity securities (one of which could be a fund share). One of the components in each pair is referred to as the target component and the second is referred to as the benchmark component. The index is calculated by measuring the total return of the target component relative to the total return of the benchmark component. The index will rise as and to the extent that the target component outperforms the benchmark component, and will fall as and to the extent that the opposite occurs. The value of the relative performance index will be set to a base value (*e.g.*, 100) initially.

Investors should be certain that they understand the method of calculation of any relative performance index and the uses for which relative performance options are suited before buying or selling such options. Different relative performance indexes may measure relative performance in different ways. Investors should contact the listing options market for information on the method of calculation of a particular relative performance index.

In the event that one of the index components in an underlying relative performance index is eliminated as the result of a cash-out merger or other event, the reporting authority may cease to publish the value of the index. In that

case, the exercise settlement value of the options would become fixed based upon the last published value for the index, and the market on which the options are traded may determine to accelerate the expiration date for the options (and, in the case of European-style options, their exercisability). The expiration date will ordinarily be accelerated to fall on the next standard expiration date for options as specified in OCC's rules or on such other date as OCC establishes in consultation with the market on which the options are traded. All options that are not in the money will become worthless and all that are in the money will have no time value. Holders of an in-the-money option whose expiration date is accelerated must be prepared to exercise that option prior to the accelerated exercise cut-off time in order to prevent the option from expiring unexercised. Writers of European-style options whose expiration date is subject to being accelerated bear the risk that, in the event of such an acceleration, they may be assigned an exercise notice and be required to perform their obligations as writers prior to the original expiration date. As with any other option for which the expiration date is accelerated, no adjustment would be made to compensate for the accelerated expiration date of a relative performance option.

10. *The caption "Stock Indexes, Variability Indexes, Strategy-Based Indexes and Dividend Indexes," as it appears in the December 2009 Supplement as the heading of the section immediately preceding the section captioned "Features of Index Options" beginning on page 26 of the Booklet, is replaced by the new caption "Information Concerning Underlying Indexes."*

11. *The first paragraph appearing under the caption "Features of Index Options" on page 26 of the Booklet, as amended by the June 2008 Supplement, is replaced by the following:*

All index options that are traded on the date of this booklet are cash-settled. Cash-settled index options do not relate to a particular number of shares. Rather, the "size" of a cash-settled index option is determined by the multiplier of the option. The "size" of a range option is determined by its multiplier and maximum range exercise value, and is equal to the maximum cash settlement amount (*i.e.*, the maximum range exercise value times the multiplier). In the case of a binary index option, the "size" of the contract is simply its fixed cash settlement amount, which for certain binary index options is defined as the product of a fixed settlement value times a multiplier.

12. *The following caption and paragraphs are inserted at the end of page 27 of the Booklet:*

ADJUSTMENT OF INDEX OPTIONS

No adjustments will ordinarily be made in the terms of index option contracts in the event that index components are added to or deleted from the underlying index or reference index or when the relative weight of one or more such index components has changed. However, if an

adjustment panel determines that any such addition, deletion, or change causes significant discontinuity in the level of the underlying index or reference index, the panel may adjust the terms of the affected index option contracts by adjusting the index multiplier and/or exercise price with respect to such contracts or by taking such other action as the panel deems fair to both the holders and writers of such contracts.

If the option market on which an option series is traded should increase or decrease the index multiplier for any index option contract, or the reporting authority should change the method of calculation of an underlying index or reference index so as to create a discontinuity or change in the level of the index that does not reflect a change in the prices or values of the index components, or a successor index (as defined in the paragraph below) should be substituted for an underlying index or reference index, the adjustment panel may make such adjustments in the number of outstanding affected options or the exercise prices of such options or such other adjustments, if any, as the panel deems fair to both the holders and the writers of such options.

The adjustment panel may substitute another index (a successor index) for an underlying index or reference index in the event the panel determines that: (i) publication of the underlying index or reference index has been discontinued; (ii) the underlying index or reference index has been replaced by another index; or (iii) the composition or method of calculation of an underlying index or reference index is so materially changed since its selection as an underlying index or reference index that it is deemed to be a different index. A successor index will be reasonably comparable to the original underlying index or reference index for which it substitutes. An index may be created specifically for the purpose of becoming a successor index.

The adjustment panel's determinations shall be conclusive, binding on all investors, and not subject to review.

13. *The paragraph that was added immediately following the caption "Special Risks of Index Options" on page 73 of the Booklet by the December 2009 Supplement is replaced by the following:*

The risks described in paragraphs 1 through 10 on pages 73 through 78 of this booklet relate primarily to options on stock indexes. The risks described in paragraph 11 relate to options on implied volatility indexes. The risks described in paragraphs 12 through 14 relate to options on variability indexes, strategy-based indexes or relative performance indexes. The risks described in paragraph 15 relate to delayed start options. The risk described in paragraph 16 relates to dividend index options, and the risks described in paragraphs 17 relate to relative performance options.

14. *The paragraphs that were added on page 78 of the Booklet as paragraphs 12 through 14 under the section captioned "Special Risks of Index Options" by the December 2009 Supplement are replaced by the following:*

12. Strategies involving the purchase and sale of options on a variability index, strategy-based index or relative performance index are inherently complex and require a thorough understanding of the concepts that are measured by these indexes. Investors must understand the method used to calculate the index in order to understand how conditions in the market for the component securities used to calculate its value may affect the value of the index. Investors may fail to realize their investment objective even if they have correctly predicted certain events if they do not understand how those events may or may not affect the level of the index. The component securities of an implied volatility index are put and call options (not stocks, which are the component securities of stock indexes). A realized variability index, on the other hand, measures the actual volatility of an index and is calculated directly from the values of the reference index. There is no assurance that predicted volatility as measured by a particular implied volatility index will correspond to the actual volatility of the reference interest or to measures of predicted volatility calculated using other methods. A strategy-based index may be calculated from the prices of multiple component securities of different types, such as in the case of a buy-write index measuring the return of a strategy that involves transactions in stocks and options. The return from a particular strategy as measured by a strategy-based index may differ from the actual returns that an investor following that strategy achieves, because of assumptions regarding transactions and the failure to take into account significant factors such as taxes and transaction costs. Different relative performance indexes may measure relative performance in different ways. Investors should contact the listing options market for information on the method of calculation of a particular variability index, strategy-based index or relative performance index.

13. Persons who exercise variability options, strategy-based index options or relative performance options or are assigned exercises based on an erroneous index level will ordinarily be required to make settlement based on the exercise settlement value as initially reported by the designated reporting authority for the index, even if a corrected value is subsequently announced. In extraordinary circumstances (*e.g.*, where an exercise settlement value as initially reported is obviously wrong, and a corrected value is promptly announced), OCC has discretion to direct that exercise settlements be based on a corrected exercise settlement value. Ordinarily, however, the exercise settlement value as initially reported by the designated reporting authority for the underlying variability index will be conclusive for exercise settlement purposes. As described in paragraph 8. on page 77 with respect to other indexes, reported levels of a variability index, strategy-based index or relative performance index may be based on

non-current information. This may occur as a result of delays or interruptions in the market for the reference security or the component securities of the underlying index or the reference index (which are the same in the case of realized variability indexes).

14. As in the case of writers of other index options, writers of variability options, strategy-based index options or relative performance options cannot provide in advance for their potential settlement obligations by acquiring the underlying interest. Offsetting the risk of writing a variability option, strategy-based index option or relative performance option may be even more difficult than offsetting the risk of writing other index options. Even where some offsetting of risk is possible, there are timing risks and other risks analogous to those discussed in paragraphs 3 and 4 on pages 74 and 75 of the booklet whenever an investor attempts to employ strategies involving transactions in variability options, strategy-based index options or relative performance options and transactions in stocks or in options, futures contracts or other investments related to stocks.

15. *The following paragraph is inserted on page 78 of the Booklet immediately following the paragraph that was added as paragraph 16 under the section captioned "Special Risks of Index Options" by the December 2009 Supplement:*

17. In the event that one of the index components of a relative performance index is eliminated as a result of a cash-out merger or other event, the reporting authority may cease to publish the value of the relative performance index and the market on which options on that relative performance index are traded may determine to accelerate the expiration date of the options (and, in the case of European-style options, their exercisability). In that case, the exercise settlement value of the options would become fixed based upon the last published value for the underlying relative performance index. As a result, all such options that are not in the money will become worthless and all that are in the money will have no time value. Holders of an in-the-money option whose expiration date is accelerated must be prepared to exercise that option prior to the accelerated exercise cut-off time in order to prevent the option from expiring unexercised. Writers of a European-style option whose expiration date is subject to being accelerated bear the risk that, in the event of such an acceleration, they may be assigned an exercise notice and be required to perform their obligations as writers prior to the original expiration date. As with any other option for which the expiration date is accelerated, no adjustment would be made to compensate for the accelerated expiration date of a relative performance option.

JANUARY 2012 SUPPLEMENT

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below to accommodate options on relative performance indexes of which the index components are equity securities (including fund shares).

1. *The first paragraph following the caption "Relative Performance Indexes," which was added to Chapter IV of the Booklet by the March 2011 Supplement immediately following the section captioned "Strategy-Based Indexes" (which was added on page 25 of the Booklet by the December 2009 Supplement), is replaced by the following paragraphs:*

A relative performance index measures the relative performance — generally the relative total return — of two index components. As of the date of this booklet, the only relative performance options approved for trading are options on indexes of which both index components are equity securities (one or both of which could be non-leveraged fund shares). One of the components in each pair is referred to as the target component and the second is referred to as the benchmark component. The index is calculated by measuring the total return of the target component relative to the total return of the benchmark component. The index will rise as and to the extent that the target component outperforms the benchmark component, and will fall as and to the extent that the opposite occurs. The value of the relative performance index will be set to a base value, such as 100, initially. The following example illustrates the calculation of a relative performance index.

EXAMPLE: Assume that a relative performance index has an initial base value of 100. If the total return of the target component in one day is 10% and the total return of the benchmark component in the one day period is 9%, the index value of the relative performance index at the end of the one day period would equal $100 \times (1 + 10\%)/(1 + 9\%) = 100.92$. If the total return of the target component in the one day period is 9% and the total return of the benchmark component in the one day period is 10%, the index value of the relative performance index at the end of the one day period would equal $100 \times (1 + 9\%)/(1 + 10\%) = 99.09$.

The example above illustrates only a scenario where the total return assumed is for a one day period. Other periods would yield different results. Market participants should contact the exchange on which these options are traded for a more complete description of the index calculation methodology.

November 2012 Supplement to Characteristics and Risks of Standardized Options

The February 1994 version of the booklet entitled *Characteristics and Risks of Standardized Options* (the "Booklet") is amended as provided below to accommodate the introduction of options originally listed to overlie less than 100 shares.

The following replaces Part II of the December 2009 Supplement:

1. *The fourth paragraph on page 19 of the Booklet is amended to read as follows:*

As a general rule, no adjustment is made for ordinary cash dividends or cash distributions. A cash dividend or distribution announced prior to February 1, 2009, will generally be considered "ordinary" unless it exceeds 10% of the aggregate market value of the underlying security outstanding as of the close of trading on the declaration date. The same rule will continue to apply on and after that date with respect to options series designated by OCC as "grandfathered" for purposes of this rule (*i.e.*, series opened prior to publication of the May 2007 Supplement that remain outstanding on February 1, 2009). In the case of all other options series, a cash dividend or distribution announced *on or after* February 1, 2009, will generally be considered "ordinary," regardless of size, if OCC believes that it was declared pursuant to a policy or practice of paying such dividends or distributions on a quarterly or other regular basis. No adjustment will normally be made for any cash dividend or distribution that amounts to less than $0.125 per underlying share. For contracts originally listed with a unit of trading larger than 100 shares, no adjustment normally would be made for any cash dividends or distributions that amount to less than $12.50 per contract. As an exception to the general rule, options on fund shares will generally be adjusted for capital gains distributions even if made on a regular basis, and adjustments may be made for certain other distributions in respect of fund shares in special circumstances described in OCC's rules, provided in each case that the amount of the adjustment would be $0.125 or more per fund share. Determinations whether to adjust for cash dividends or distributions not covered by the preceding rules, or when other special circumstances apply, are made on a case-by-case basis.

Dated: November 2012

DISCLOSURE OF RISKS OF MARGIN TRADING

Interactive Brokers ("IB") 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 IB, 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 IB and you should consult IB 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 IB. If you choose to borrow funds from IB, you will open a margin account with the firm. The securities purchased are IB'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, IB can take action, such as sell securities or other assets in any of your accounts held with IB or issue a margin call, in order to maintain the required equity in the account.

You should understand that pursuant to the IB Margin Agreement, IB generally will not issue margin calls, that IB will <u>not</u> credit your account to meet intraday margin deficiencies, and that IB 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:

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

- **<u>IB can force the sale of securities or other assets in your account(s).</u>** If the equity in your account falls below the maintenance margin requirements, or if IB has higher "house" requirements, IB 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.

- **<u>IB can sell your securities or other assets without contacting you.</u>** 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, <u>IB generally will not</u>

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.** IB has the right to decide which positions to sell in order to protect its interests.

- **IB 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 IB to liquidate or sell securities or futures contracts in your account(s).

- **If IB 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, IB will liquidate positions in your account in the event that you cannot or do not deposit sufficient funds to satisfy margin requirements.

Portfolio Margin Risk Disclosure Statement

OVERVIEW OF PORTFOLIO MARGINING

1. Portfolio margining is a margin methodology that sets margin requirements for an account using a "risk-based" pricing model that calculates the largest potential loss of all positions in a product class or group across a range of underlying prices and volatilities. This model, known as the Theoretical Intermarket Margining System ("TIMS"), is applied each night to U.S. stocks, OCC stock and index options, and U.S. single stock futures positions by the federally-chartered Options Clearing Corporation ("OCC") and is disseminated by the OCC to participating brokerage firms each night. Interactive Brokers evaluates margin compliance throughout the trading day based on the current positions in the account and current market prices, but the margin calculations are based on TIMS parameters received the prior evening.

2. The goal of portfolio margining is to set levels of margin that more precisely reflect actual net risk. The customer may benefit from portfolio margining in that margin requirements that are calculated based on net risk are generally lower than alternative “position” or “strategy” based methodologies for determining margin requirements. Lower margin requirements allow the customer more leverage in an account.

CUSTOMERS ELIGIBLE FOR PORTFOLIO MARGINING

3. To be eligible for portfolio margining, customers (other than broker-dealers or members of a national futures exchange) must be approved for writing uncovered options. If a customer (other than a broker-dealer or member of a national futures exchange) wishes to trade in unlisted derivatives, the customer must have and maintain at all times account equity of not less than five million dollars, aggregated across all accounts under identical ownership at the carrying broker-dealer and/or its United States regulated affiliated broker-dealers or Futures Commission Merchants. This identical ownership requirement excludes accounts held by the same customer in different capacities (e.g., as a trustee and as an individual) and accounts where ownership is overlapping but not identical (e.g., individual accounts and joint accounts). In addition to the requirements of the self-regulatory organization rule, carrying broker-dealers may have their own minimum equity requirement and possibly other eligibility requirements.

POSITIONS ELIGIBLE FOR A PORTFOLIO MARGIN ACCOUNT

4. All margin equity securities (as defined in Section 220.2 of Regulation T of the Board of Governors of the Federal Reserve System), warrants on margin equity securities or on eligible indices of equity securities, equity-based or equity-index based listed options, and security futures products (as defined in Section 3(a)(56) of the Securities Exchange Act of 1934) are eligible to be margined in a portfolio margin account. In addition, a customer that has an account with equity of at least five million dollars may establish and maintain positions in unlisted derivatives (e.g., OTC swaps, options) on a margin equity security or an eligible index of equity securities that can be priced by a theoretical pricing model approved by the Securities and Exchange Commission (“SEC”).

SPECIAL RULES FOR PORTFOLIO MARGIN ACCOUNTS

5. A portfolio margin account may be either a separate account or a sub-account of a customer's standard margin account. In the case of a sub-account, equity in the standard account may be available to satisfy any margin requirement in the portfolio margin sub-account without transfer to the sub-account.

6. A portfolio margin account or sub-account will be subject to a minimum margin requirement of $.375 for each listed option, unlisted derivative and security futures product, multiplied by the contract's or instrument's multiplier, carried long or short in the account. Other eligible products are not subject to a minimum margin requirement.

7. A margin deficiency in the portfolio margin account or sub-account, regardless of whether due to new commitments or the effect of adverse market movements on existing positions, must be met within three business days. Failure to meet a portfolio margin deficiency by the end of the third business day will result in a prohibition on entering any new orders, with the exception of new orders that reduce the margin requirement. Failure to meet a portfolio margin deficiency by the end of the third business day will result in the prompt liquidation of positions on the fourth business day, to the extent necessary to eliminate the margin deficiency.

8. Any shortfall in aggregate equity across accounts, when required, must be met within three business days. Failure to meet a minimum equity deficiency by the end of the third business day will result in a prohibition on entering any new orders, with the exception of new orders that reduce the margin requirement, beginning on the fourth business day and continuing until such time as the minimum equity requirement is satisfied, or if applicable, all unlisted derivatives are liquidated or transferred out of the portfolio margin account.

**Please note that pursuant to the IB Customer Agreement, IB reserves the right to liquidate positions prior to the fourth business day. **

SPECIAL RISKS OF PORTFOLIO MARGIN ACCOUNTS

9. Portfolio margining generally permits greater leverage in an account, and greater leverage creates greater losses in the event of adverse market movements.

10. Because the maximum time limit for meeting a margin deficiency is shorter than in a standard margin account, there is increased risk that a customer's portfolio margin account will be liquidated involuntarily, possibly causing losses to the customer.

11. Because portfolio margin requirements are determined using sophisticated mathematical calculations and theoretical values that must be calculated from market data, it may be more difficult for customers to predict the size of future margin deficiencies in a portfolio margin account. This is particularly true in the case of customers who do not have access to specialized software necessary to make such calculations or who do not receive theoretical values calculated and distributed periodically by an approved vendor of theoretical values.

12. Trading of margin equity securities, warrants on margin equity securities or on eligible indices of equity securities, listed options, unlisted derivatives on margin equity securities or an eligible index of equity securities, and security futures products in a portfolio margin account is generally subject to all the risks of trading those same products in a standard securities margin account. Customers should be thoroughly familiar with the risk disclosure materials applicable to those products, including the booklets entitled "Characteristics and Risks of Standardized Options" and "Security Futures Risk Disclosure Statement". Because this disclosure statement does not disclose the risks and other significant aspects of trading in security futures and options, customers should review those materials carefully before trading these products in a portfolio margin account.

13. Customers should consult with their tax advisers to be certain that they are familiar with the tax treatment of transactions in margin equity securities, warrants on margin equity securities or on eligible indices of equity securities, listed options, unlisted derivatives on margin equity

securities or an eligible index of equity securities, and security futures products, including tax consequences of trading strategies involving both security futures and option contracts.

14. The descriptions in this disclosure statement relating to eligibility requirements for portfolio margin accounts, and minimum equity and margin requirements for those accounts, are minimums imposed under the self-regulatory organization rules. Time frames within which margin and equity deficiencies must be met are maximums imposed under the self-regulatory organization rules. Broker-dealers may impose their own more stringent requirements.

15. Customers should bear in mind that the discrepancies in the cash flow characteristics of security futures and certain options are still present even when those products are carried together in a portfolio margin account. In addition, discrepancies in the cash flow characteristics of certain unlisted derivatives may also be present when those products are carried in a portfolio margin account. Both security futures and options contracts are generally marked to the market at least once each business day. Similarly, certain unlisted derivatives may also be marked to the market on a daily basis. However, there may be incongruity between the marking to the market of each eligible product in that marks may take place with different frequency and at different times within the day. For example, when a security futures contract is marked to the market, the gain or loss is immediately credited to or debited from, respectively, the customer's account in cash. While a change in the value of a long option contract may increase or decrease the equity in the account, the gain or loss is not realized until the option is liquidated, exercised, or assigned. Accordingly, a customer may be required to deposit cash in the account in order to meet a variation payment on a security futures contract even though the customer is in a hedged position and has experienced a corresponding (but yet unrealized) gain on an option. Alternatively, a customer who is in a hedged position and would otherwise be entitled to receive a variation payment on a security futures contract may find that the cash is required to be held in the account as margin collateral on an offsetting option position.

The general provisions governing portfolio margining (including definitions used in this document) are set forth in NYSE Rule 431(g) and FINRA Rule 4210(g), which
can be found at www.finra.org.

ACKNOWLEDGEMENT FOR CUSTOMERS UTILIZING A PORTFOLIO MARGIN ACCOUNT

BY SIGNING BELOW, I/WE AFFIRM THAT I/WE HAVE READ AND UNDERSTOOD THE PORTFOLIO MARGINING RISK DISCLOSURE STATEMENT.

CUSTOMER NAME:
BY: DATE

DISCLOSURE REGARDING INTERACTIVE BROKERS' PROCEDURES FOR ALLOCATING EQUITY OPTION EXERCISE NOTICES ASSIGNED BY OCC

As described in the Options Clearing Corporation ("OCC") Publication "Characteristics and Risks of Standardized Options", the OCC assigns exercise notices to clearing firms such as Interactive Brokers LLC ("IB LLC"), [the US-located affiliate of Interactive Brokers (U.K.) Limited ("IB UK") that arranges for the execution and clearing of IB UK customer trades] using a specified assignment procedure. IB LLC, in turn, is required to maintain a procedure to allocate such exercise notices to those IB LLC and IB UK customers who hold short positions in the relevant options. Upon assignment, IB LLC and IB UK customers shall be required: (1) in the case of an equity option, to deliver or accept the required number of shares of the underlying security, or (2) in the case of an equity index option, to pay or receive the settlement price, in cash. Customer understands that it may not receive notice of an assignment from IB UK or IB LLC until one or more days following the date of the initial assignment by OCC to IB LLC and that the lack of such notice creates a special risk for uncovered writers of physical delivery call stock options.

Described below are IB LLC's procedures for allocation of exercise notices, which are based on a random selection process:

Steps

1. Each night, IB LLC receives from the Options Clearing Corporation (the "OCC") the "OCC E&A" (exercise and assignment activity) file in machine-readable format setting forth, on a per contract basis, the aggregate exercise and assignment quantities to IB LLC.
2. For each contract assignment record, the IB System compiles a list, in ascending account number order, of all IB LLC and IB UK customer accounts with short positions in the relevant contract.
3. If only one IB LLC or IB UK customer holds a short position in the contract assigned, that customer is automatically allocated the assignment and no lottery is needed.
4. If more than one IB LLC or IB UK customer holds a short position in the contract assigned, the IB System runs an automated random lottery to determine the allocation of quantities that are to be assigned to each IB LLC or IB UK customer. The IB System shall:
    a. Assign two sequence ranges to each customer's holdings (see Exhibit A).
    b. Generate a random number to find a "Starting Point". The Starting Point is the customer contract sequence number from which the allocation of the assignment quantity begins. To generate a Random Number, the IB System will:
        - Initialize the Oracle random number generator with the system time (HH24MISS)
        - Find the Random Number by taking the MOD (random number, total position) + 1 to ensure that the Random Number is between one and the total number of short contracts.

    (Note: the IB System will generate a new Random Number for each lottery to be run.)
5. The IB System will then (a) find the account that has the assigned sequence range into which the Random Number falls; and (b) select contracts to be assigned in increments of one, beginning with the contract that correlates with the Random Number until the total number of contracts assigned has been satisfied.
6. The IB System will then process the assigned positions by (a) removing the options positions from customers' accounts and (b) if the option delivers underlying stock, entering the corresponding stock trades at the strike price or (c) if the option assignment settles in cash, entering the corresponding cash debit.

EXHIBIT "A"

Assume there are 1186 options contracts held at OCC for 10 customers and that 50 contracts are assigned to Interactive Brokers LLC ("IB LLC") by OCC.

1. Assigned Security numbers to each Security:

Customers	No. of Contracts held at OCC	Assigned Security Numbers 1st Range	2nd Range
A	1	0001	1187
B	50	0002-0051	1188-1237
C	100	0052-0151	1238-1337
D	2	0152-0153	1338-1339
E	1	0154	1340
F	1	0155	1341
G	1000	0156-1155	1342-2341
H	1	1156	2342
I	10	1157-1166	2343-2352
J	20	1167-1186	2353-2372
Total in OCC	1186		

2. FIND A STARTING RANDOM NUMBER BETWEEN 0001 AND 1186 using the Oracle random number generator.

3. ASSUMING THE RANDOM NUMBER GENERATED WAS 0396, ALLOCATE THE 50 CONTRACTS TO CUSTOMERS STARTING AT CONTRACT NUMBER 0396.

SUMMARY OF ALLOCATION

Customer	No of Contracts Held at OCC	Allocation of Options Contracts
A	1	0
B	50	0
C	100	0
D	2	0
E	1	0
F	1	0
G	1000	50
H	1	0
I	10	0
J	20	0
Total at OCC	1186	50

Day Trading Risk Disclosure Statement

This Day Trading Risk Disclosure Statement is being provided to you in the event your Interactive Brokers (IB) margin account becomes, or already is, classified as a Pattern Day Trader account. As required by current SEC and SRO rules and regulations, IB 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 IB 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.

Interactive Brokers LLC
Business Continuity Plan Disclosure

I. Introduction

In accordance with applicable regulations, Interactive Brokers LLC has developed a Business Continuity Plan to assist the firm in appropriately responding to a significant business disruption as promptly as possible under prevailing conditions. Among other things, IB's Business Continuity Plan:

- Identifies Emergency Contact Personnel to the firm's regulators;
- Describes the systems infrastructure protections that the firm has established in an effort to minimize the potential adverse effects of a disruption (for example, redundancy of telecommunications and power generation, fire protection and building security);
- Describes the firm's daily back-up of specified data and records and maintenance of back-up media at secure off-site locations;
- Identifies the firm's Disaster Recovery Site(s) and the methods that the firm would use to recover particular data and operations at the site;
- Identifies important firm operations and, where applicable, describes how those operations could be re-established in the event of a disruption;
- Identifies the means by which IB will provide customers prompt access to their funds and securities; and
- Describes the means by which IB will communicate with its customers, employees, business constituents and regulators in the event of a disruption.

In the event of a significant business disruption, IB intends to continue its operations to the extent reasonable and practical under the circumstances and will place utmost priority in reestablishing the data and operational systems necessary to provide its customers with prompt access to their funds and securities.

IB intends to respond to disruptions of particular scope as follows:

II. Branch Office Disruption

Basic Access to Funds and Securities in the Event of a Branch Office Disruption: Critical systems and personnel necessary to provide customers with access to their funds and securities generally are not dependent on operation of IB's branch offices (i.e., the firm's offices in Greenwich, Chicago, Hong Kong, Kwun Tong and Zug). Thus, IB does not anticipate that even a significant disruption to the operations of a single IB branch office would have more than a temporary impact - if any - on customers' basic access to their funds and securities.

Connection to IB Trading System for Certain Customers: In the event of a significant disruption to certain branch offices, customers that connect to the IB online trading system (e.g., the IB Trader Workstation) through a branch office location likely would temporarily lose the ability to connect to the trading system. It is anticipated that this would last only briefly, as connections for these customers could be re-established through other IB offices in as little as a matter of hours.

Recovery time probably would be minimal (measured in hours, though possibly within a day). Customers would still have the ability to place orders by telephone during the temporary outage. Customers' access to account functions other than trading (e.g., deposits and withdrawals, account management, etc.) may be affected, as connections for many Internet-based functions other than trading are location-dependent.

We remind our customers that electronic and computer-based facilities and systems such as those provided by IB are inherently vulnerable to disruption, delay or failure. As specified in the IB Customer Agreement, customers must maintain alternative trading arrangements in addition to their IB accounts for the placement and execution of customer orders in the event that the IB system is unavailable.

Connection to Market Centers in Same Region as Branch: A significant disruption in a branch office could temporarily impact all IB customers' ability to execute trades on market centers in the same geographic region as the branch office, because necessary communications lines or personnel could be affected. In this case, IB would strive to reconnect to affected markets from its Greenwich, CT headquarters, from another branch office, or through a third party. Recovery time to restore some basic ability to trade on local markets probably would be minimal (measured in hours or days).

Other Branch Office Functions: Most important operations performed in IB branch offices, such as Customer Service, Account Application Processing, Compliance, etc. are also performed in other IB offices and could be migrated to similarly-trained personnel in other branch offices promptly. Accordingly, IB does not anticipate that a localized failure in a branch office would have a substantial negative impact on the firm's ability to respond to customer needs and anticipates that recovery time would be minimal.

III. Headquarters Disruption

In the Event of a Moderate Disruption at IB's Headquarters: IB has generally designed its systems, procedures and personnel structure such that there is significant redundancy and cross capability. Limited disruptions affecting particular communications lines, particular pieces of computer hardware, or particular systems typically can be addressed quickly through use of redundant systems with similar capability. Likewise, the firm has significant capacity and capability in its branch offices, both in terms of systems and personnel, such that limited disruptions in particular areas at the firm's headquarters may be ameliorated quickly.

In the Event of a Significant Disruption at IB's Headquarters: IB's response to a significant disruption at its headquarters necessarily will depend on the extent of the damage caused thereby. In the event of a total loss of IB's headquarters, or the data processing center at its headquarters, IB runs a hot Disaster Recovery Site(s) with the relevant data and operational systems (e.g., trade and account data and modified versions of its market data, credit vetting and customer authentication capability) necessary to provide customers prompt access to their funds and securities. IB's Disaster Recovery Site(s) are located in remote geographic locations that are not likely to be not be subject to the same communications, electricity and/or transportation restrictions that may be experienced in the firm's Greenwich headquarters.

During the immediate aftermath of a significant business disruption resulting in the destruction of the firm's Greenwich headquarters, the firm anticipates that customers could continue to place new orders through its Disaster Recovery Site(s) with minor recovery time. IB anticipates that it could recover customer data and position information at its Disaster Recovery Site(s) and establish basic customer access to funds and positions within approximately 1 day of a total loss of its headquarters operations. Thus, while customers may not be able to trade, we anticipate that, within this 1 day window after the loss of the headquarters facility, customers would be able to request a withdrawal of funds or transfer of their positions to another broker whose operations

were unaffected by a significant disruption. Although IB's Business Continuity Plan is designed to provide customer access to funds and securities within 1 day, the actual recovery time will depend on the nature of the disruption, how many IB facilities and personnel are affected, the state of the national and global financial and banking system, and a host of other factors.

In the event of a significant disruption or total loss of IB's headquarters facilities, IB anticipates that IB customers may be able to access either of the following websites: www.ibgdr.com or www.interactivebrokers.co.uk to obtain information about the extent of the disruption and the state of IB's operations (assuming that the public Internet remained available). Likewise, because most customer service personnel are in offices other than IB's headquarters, IB anticipates that customers would continue to be able to contact IB by telephone. Of course, in the event of a significant outage or major disaster affecting the markets, large numbers of customers would likely try to contact IB at the same time, potentially causing significant delays.

Beyond the initial aftermath of a significant disruption or total loss of the firm's headquarters, the firm would evaluate the nature of the disruption, the availability of its systems and personnel, its financial condition, the condition of the national and global financial markets, and other factors, and determine whether it could continue to provide full brokerage operations.

IV. City Wide Disruptions and Regional Disruptions

In the event of a significant city-wide or regional disruption in one of the cities in which an IB branch office is located, IB would follow the procedures described in Section II (Branch Office Disruption) above and we expect that the disruption's effects would be limited (see Section II above). In the event of a significant city-wide or regional disruption, affecting the firm's Greenwich, CT headquarters, IB would follow the procedures described in Section III (Headquarters Disruption). IB's Disaster Recovery Site(s) are not located in the same city or region as the firm's headquarters.

V. Important Disclosures

IB will adhere to the procedures set forth in its Business Continuity Plan and described in this disclosure to the extent commercially reasonable and practicable under prevailing circumstances. However, there are innumerable potential causes of a business disruption. In addition, disruptions (and the events that caused them) may vary significantly in nature, size, scope, severity, duration and geographic location and may result in distinct degrees of harm to human life; firm assets; the banks, exchanges, clearing houses and depositories with which the firm conducts business; and local, regional and national systems infrastructure (e.g., telecommunications, Internet connectivity, power generation and transportation) that could affect the firm's recovery in vastly disparate ways. In recognition of this, IB reserves the right to flexibly respond to particular emergencies and business disruptions in a situation-specific manner which the firm deems prudent, in its sole discretion. **Nothing in this document is intended to provide a guarantee or warranty regarding the actions or performance of IB, its computer systems, or its personnel in the event of a significant disruption.**

IB may modify its Business Continuity Plan and this disclosure at any time. IB will post updates to its Business Continuity Plan Disclosure on its website. Should you wish to receive a copy of this disclosure by mail, please contact the IB Document Processing Department at newaccounts@interactivebrokers.com

REQUIRED DISCLOSURES AND SUPPLEMENTAL AGREEMENT FOR SECURITY FUTURES TRADING AT INTERACTIVE BROKERS

I. Introduction

This information is being provided to you by Interactive Brokers ("IB") to ensure that you understand the risks inherent in trading security futures and also so that you understand how your security futures account is being handled by IB. You must review this document carefully and sign it at the bottom in order to be approved to trade security futures products through IB.

You should be aware that security futures are highly leveraged investments and the risk of loss in trading these products can be substantial. Security futures are not suitable for all investors and you must carefully review this document and consult with a financial advisor, if necessary, to determine whether to trade security futures. IB does not provide any investment advice or recommendations, and you will be solely responsible for decisions regarding the security futures trading conducted in your account.

II. Nature of Your Security Futures Account

Under the federal regulations that apply to security futures, security futures positions may be held in a securities trading account subject to Securities and Exchange Commission (SEC) regulations or in a commodities trading account subject to Commodity Futures Trading Commission (CFTC) regulations.

Because IB is fully registered with both the SEC and the CFTC, IB offers both securities accounts and commodities accounts. Most securities futures products are held in an IB securities account and are subject to SEC customer protection rules. However, certain securities futures products are held in a commodities account and are therefore subject to CFTC customer protection rules. Additional information regarding whether a particular securities future product is held in a securities or commodities account may be found on IB's website.

The types of protections offered to investors for securities and commodities accounts are different. The different protections available to securities accounts and commodities accounts are described in Section 6 of the NASD/NFA Standardized Risk Disclosure for Security Futures Contracts, below.

III. Standardized Risk Disclosure for Security Futures Contracts

The National Futures Association (NFA) and the NASD[1] have jointly prepared a Standardized Risk Disclosure for Security Futures Contracts. It contains valuable information regarding trading of security futures contracts and you should review it carefully before investing in security futures.

To review the NASD/NFA Standardized Risk Disclosure for Security Futures Contracts, click here.

NOTE: Viewing the Standardized Risk Disclosure requires Adobe Acrobat. To download Adobe Acrobat, click here. If you wish to receive a hard copy of the disclosure, call IB Customer Service at (877) 442-2757.

IV. Supplemental Agreement for Security Futures Trading

The Supplemental Agreement provisions below relate to security futures trading in Customer's IB account and are in addition to the terms and conditions of the IB Customer Agreement, and the Customer Agreement is incorporated herein by reference.

By signing below, Customer acknowledges and agrees to the following:

A. Customer acknowledges that Customer's U.S. and non-U.S. securities futures positions may be held in either a securities or commodities account, in IB's sole discretion. Customer acknowledges that U.S. and non-U.S. listed securities futures held in an IB securities account will receive the regulatory protections of a securities account. Customer acknowledges that U.S. and non-U.S. listed securities futures held in an IB commodities account will receive the regulatory protections of a commodities account.

B. Customer acknowledges that IB may in the future, at its sole discretion, decide to hold customer security futures positions in IB securities accounts or commodities accounts and may not allow customers to make this choice. If IB determines to do this, it will provide required notice to customers of the change.

C. Customer represents that Customer has received and reviewed the NASD/NFA Standardized Risk Disclosure for Security Futures Contracts.

D. Customer acknowledges that security futures are highly leveraged investments that are not suitable for all investors. Customer acknowledges that IB representatives are not authorized to provide investment, trading or tax advice and therefore will not provide advice or guidance on trading or hedging strategies involving security futures. Customers who need advice or guidance regarding security futures trading or investments should consult a financial advisor.

E. Customer acknowledges that Customer must review and be aware of, and that Customer is bound by, the rules applicable to the trading of security futures, as established by the NASD, the NFA and the security futures exchanges. Customer represents that it is aware of and agrees not to violate any applicable position limits regarding security futures.

[1] In July 2007, the NASD was consolidated with the member regulation, enforcement and arbitration functions of the New York Stock Exchange to form the Financial Industry Regulatory Authority (FINRA).

RISK DISCLOSURE STATEMENT FOR SECURITY FUTURES CONTRACTS

This disclosure statement discusses the characteristics and risks of standardized security futures contracts traded on regulated U.S. exchanges. At present, regulated exchanges are authorized to list futures contracts on individual equity securities registered under the Securities Exchange Act of 1934 (including common stock and certain exchange-traded funds and American Depositary Receipts), as well as narrow-based security indices. Futures on other types of securities and options on security futures contracts may be authorized in the future. The glossary of terms appears at the end of the document.

Customers should be aware that the examples in this document are exclusive of fees and commissions that may decrease their net gains or increase their net losses. The examples also do not include tax consequences, which may differ for each customer.

Section 1 – Risks of Security Futures

1.1. Risks of Security Futures Transactions

Trading security futures contracts may not be suitable for all investors. You may lose a substantial amount of money in a very short period of time. The amount you may lose is potentially unlimited and can exceed the amount you originally deposit with your broker. This is because futures trading is highly leveraged, with a relatively small amount of money used to establish a position in assets having a much greater value. If you are uncomfortable with this level of risk, you should not trade security futures contracts.

1.2. General Risks

Trading security futures contracts involves risk and may result in potentially unlimited losses that are greater than the amount you deposited with your broker. As with any high risk financial product, you should not risk any funds that you cannot afford to lose, such as your retirement savings, medical and other emergency funds, funds set aside for purposes such as education or home ownership, proceeds from student loans or mortgages, or funds required to meet your living expenses.

Be cautious of claims that you can make large profits from trading security futures contracts. Although the high degree of leverage in security futures contracts can result in large and immediate gains, it can also result in large and immediate losses. As with any financial product, there is no such thing as a “sure winner.”

Because of the leverage involved and the nature of security futures contract transactions, you may feel the effects of your losses immediately. Gains and losses in security futures contracts are credited or debited to your account, at a minimum, on a daily basis. If movements in the markets for security futures contracts or the underlying security decrease the value of your positions in security futures contracts, you may be required to have or make additional funds available to your carrying firm as margin. If your account is under the minimum margin requirements set by the exchange or the brokerage firm, your position may

be liquidated at a loss, and you will be liable for the deficit, if any, in your account. Margin requirements are addressed in Section 4.

Under certain market conditions, it may be difficult or impossible to liquidate a position. Generally, you must enter into an offsetting transaction in order to liquidate a position in a security futures contract. If you cannot liquidate your position in a security futures contracts, you may not be able to realize a gain in the value of your position or prevent losses from mounting. This inability to liquidate could occur, for example, if trading is halted due to unusual trading activity in either the security futures contract or the underlying security; if trading is halted due to recent news events involving the issuer of the underlying security; if systems failures occur on an exchange or at the firm carrying your position; or if the position is on an illiquid market. Even if you can liquidate your position, you may be forced to do so at a price that involves a large loss.

Under certain market conditions, it may also be difficult or impossible to manage your risk from open security futures positions by entering into an equivalent but opposite position in another contract month, on another market, or in the underlying security. This inability to take positions to limit your risk could occur, for example, if trading is halted across markets due to unusual trading activity in the security futures contract or the underlying security or due to recent news events involving the issuer of the underlying security.

Under certain market conditions, the prices of security futures contracts may not maintain their customary or anticipated relationships to the prices of the underlying security or index. These pricing disparities could occur, for example, when the market for the security futures contract is illiquid, when the primary market for the underlying security is closed, or when the reporting of transactions in the underlying security has been delayed. For index products, it could also occur when trading is delayed or halted in some or all of the securities that make up the index.

You may be required to settle certain security futures contracts with physical delivery of the underlying security. If you hold your position in a physically settled security futures contract until the end of the last trading day prior to expiration, you will be obligated to make or take delivery of the underlying securities, which could involve additional costs. The actual settlement terms may vary from contract to contract and exchange to exchange. You should carefully review the settlement and delivery conditions before entering into a security futures contract. Settlement and delivery are discussed in Section 5.

You may experience losses due to systems failures. As with any financial transaction, you may experience losses if your orders for security futures contracts cannot be executed normally due to systems failures on a regulated exchange or at the brokerage firm carrying your position. Your losses may be greater if the brokerage firm carrying your position does not have adequate back-up systems or procedures.

All security futures contracts involve risk, and there is no trading strategy that can eliminate it. Strategies using combinations of positions, such as spreads, may be as risky as outright long or short positions. Trading in security futures contracts requires knowledge of both the securities and the futures markets.

Day trading strategies involving security futures contracts and other products pose special risks. As with any financial product, persons who seek to purchase and sell the same security future in the course of a day to profit from intra-day price movements ("day traders") face a number of special risks, including substantial commissions, exposure to leverage, and competition with professional traders. You should thoroughly understand these risks and have appropriate experience before engaging in day trading. The special risks for day traders are discussed more fully in Section 7.

Placing contingent orders, if permitted, such as "stop-loss" or "stop-limit" orders, will not necessarily limit your losses to the intended amount. Some regulated exchanges may permit you to enter into stop-loss or stop-limit orders for security futures contracts, which are intended to limit your exposure to losses due to market fluctuations. However, market conditions may make it impossible to execute the order or to get the stop price.

You should thoroughly read and understand the customer account agreement with your brokerage firm before entering into any transactions in security futures contracts.

You should thoroughly understand the regulatory protections available to your funds and positions in the event of the failure of your brokerage firm. The regulatory protections available to your funds and positions in the event of the failure of your brokerage firm may vary depending on, among other factors, the contract you are trading and whether you are trading through a securities account or a futures account. Firms that allow customers to trade security futures in either securities accounts or futures accounts, or both, are required to disclose to customers the differences in regulatory protections between such accounts, and, where appropriate, how customers may elect to trade in either type of account.

Section 2 – Description of a Security Futures Contract

2.1. What is a Security Futures Contract?

A security futures contract is a legally binding agreement between two parties to purchase or sell in the future a specific quantity of shares of a security or of the component securities of a narrow-based security index, at a certain price. A person who buys a security futures contract enters into a contract to purchase an underlying security and is said to be “long” the contract. A person who sells a security futures contract enters into a contract to sell the underlying security and is said to be “short” the contract. The price at which the contract trades (the “contract price”) is determined by relative buying and selling interest on a regulated exchange.

In order to enter into a security futures contract, you must deposit funds with your brokerage firm equal to a specified percentage (usually at least 20 percent) of the current market value of the contract as a performance bond. Moreover, all security futures contracts are marked-to-market at least daily, usually after the close of trading, as described in Section 3 of this document. At that time, the account of each buyer and seller reflects the amount of any gain or loss on the security futures contract based on the contract price established at the end of the day for settlement purposes (the “daily settlement price”).

An open position, either a long or short position, is closed or liquidated by entering into an offsetting transaction (i.e., an equal and opposite transaction to the one that opened the position) prior to the contract expiration. Traditionally, most futures contracts are liquidated prior to expiration through an offsetting transaction and, thus, holders do not incur a settlement obligation.

Examples:

> Investor A is long one September XYZ Corp. futures contract. To liquidate the long position in the September XYZ Corp. futures contract, Investor A would sell an identical September XYZ Corp. contract.
>
> Investor B is short one December XYZ Corp. futures contract. To liquidate the short position in the December XYZ Corp. futures contract, Investor B would buy an identical December XYZ Corp. contract.

Security futures contracts that are not liquidated prior to expiration must be settled in accordance with the terms of the contract. Some security futures contracts are settled by physical delivery of the underlying security. At the expiration of a security futures contract that is settled through physical delivery, a person who is long the contract must pay the final settlement price set by the regulated exchange or the clearing organization and take delivery of the underlying shares. Conversely, a person who is short the contract must make delivery of the underlying shares in exchange for the final settlement price.

Other security futures contracts are settled through cash settlement. In this case, the underlying security is not delivered. Instead, any positions in such security futures contracts that are open at the end of the last trading day are settled through a final cash payment based on a

final settlement price determined by the exchange or clearing organization. Once this payment is made, neither party has any further obligations on the contract.

Physical delivery and cash settlement are discussed more fully in Section 5.

2.2. Purposes of Security Futures

Security futures contracts can be used for speculation, hedging, and risk management. Security futures contracts do not provide capital growth or income.

Speculation

Speculators are individuals or firms who seek to profit from anticipated increases or decreases in futures prices. A speculator who expects the price of the underlying instrument to increase will buy the security futures contract. A speculator who expects the price of the underlying instrument to decrease will sell the security futures contract. Speculation involves substantial risk and can lead to large losses as well as profits.

The most common trading strategies involving security futures contracts are buying with the hope of profiting from an anticipated price increase and selling with the hope of profiting from an anticipated price decrease. For example, a person who expects the price of XYZ stock to increase by March can buy a March XYZ security futures contract, and a person who expects the price of XYZ stock to decrease by March can sell a March XYZ security futures contract. The following illustrates potential profits and losses if Customer A purchases the security futures contract at $50 a share and Customer B sells the same contract at $50 a share (assuming 100 shares per contract).

Price of XYZ at Liquidation	Customer A Profit/Loss	Customer B Profit/Loss
$55	$500	- $500
$50	$ 0	$ 0
$45	- $500	$500

Speculators may also enter into spreads with the hope of profiting from an expected change in price relationships. Spreaders may purchase a contract expiring in one contract month and sell another contract on the same underlying security expiring in a different month (e.g., buy June and sell September XYZ single stock futures). This is commonly referred to as a “calendar spread.”

Spreaders may also purchase and sell the same contract month in two different but economically correlated security futures contracts. For example, if ABC and XYZ are both pharmaceutical companies and an individual believes that ABC will have stronger growth than XYZ between now and June, he could buy June ABC futures contracts and sell June XYZ futures contracts. Assuming that each contract is 100 shares, the following illustrates how this works.

Opening Position	Price at Liquidation	Gain or Loss	Price at Liquidation	Gain or Loss
Buy ABC at 50	$53	$300	$53	$300
Sell XYZ at 45	$46	- $100	$50	- $500
Net Gain or Loss		$200		- $200

Speculators can also engage in arbitrage, which is similar to a spread except that the long and short positions occur on two different markets. An arbitrage position can be established by taking an economically opposite position in a security futures contract on another exchange, in an options contract, or in the underlying security.

Hedging

Generally speaking, hedging involves the purchase or sale of a security future to reduce or offset the risk of a position in the underlying security or group of securities (or a close economic equivalent). A hedger gives up the potential to profit from a favorable price change in the position being hedged in order to minimize the risk of loss from an adverse price change.

An investor who wants to lock in a price now for an anticipated sale of the underlying security at a later date can do so by hedging with security futures. For example, assume an investor owns 1,000 shares of ABC that have appreciated since he bought them. The investor would like to sell them at the current price of $50 per share, but there are tax or other reasons for holding them until September. The investor could sell ten 100-share ABC futures contracts and then buy back those contracts in September when he sells the stock. Assuming the stock price and the futures price change by the same amount, the gain or loss in the stock will be offset by the loss or gain in the futures contracts.

Price in September	Value of 1,000 Shares of ABC	Gain or Loss on Futures	Effective Selling Price
$40	$40,000	$10,000	$50,000
$50	$50,000	$ 0	$50,000
$60	$60,000	-$10,000	$50,000

Hedging can also be used to lock in a price now for an anticipated purchase of the stock at a later date. For example, assume that in May a mutual fund expects to buy stocks in a particular industry with the proceeds of bonds that will mature in August. The mutual fund can hedge its risk that the stocks will increase in value between May and August by purchasing security futures contracts on a narrow-based index of stocks from that industry. When the mutual fund buys the stocks in August, it also will liquidate the security futures position in the index. If the relationship between the security futures contract and the stocks in the index is constant, the profit or loss from the futures contract will offset the price change in the stocks, and the mutual fund will have locked in the price that the stocks were selling at in May.

Although hedging mitigates risk, it does not eliminate all risk. For example, the relationship between the price of the security futures contract and the price of the underlying

security traditionally tends to remain constant over time, but it can and does vary somewhat. Furthermore, the expiration or liquidation of the security futures contract may not coincide with the exact time the hedger buys or sells the underlying stock. Therefore, hedging may not be a perfect protection against price risk.

Risk Management

Some institutions also use futures contracts to manage portfolio risks without necessarily intending to change the composition of their portfolio by buying or selling the underlying securities. The institution does so by taking a security futures position that is opposite to some or all of its position in the underlying securities. This strategy involves more risk than a traditional hedge because it is not meant to be a substitute for an anticipated purchase or sale.

2.3. Where Security Futures Trade

By law, security futures contracts must trade on a regulated U.S. exchange. Each regulated U.S. exchange that trades security futures contracts is subject to joint regulation by the Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC).

A person holding a position in a security futures contract who seeks to liquidate the position must do so either on the regulated exchange where the original trade took place or on another regulated exchange, if any, where a fungible security futures contract trades. (A person may also seek to manage the risk in that position by taking an opposite position in a comparable contract traded on another regulated exchange.)

Security futures contracts traded on one regulated exchange might not be fungible with security futures contracts traded on another regulated exchange for a variety of reasons. Security futures traded on different regulated exchanges may be non-fungible because they have different contract terms (e.g., size, settlement method), or because they are cleared through different clearing organizations. Moreover, a regulated exchange might not permit its security futures contracts to be offset or liquidated by an identical contract traded on another regulated exchange, even though they have the same contract terms and are cleared through the same clearing organization. You should consult your broker about the fungibility of the contract you are considering purchasing or selling, including which exchange(s), if any, on which it may be offset.

Regulated exchanges that trade security futures contracts are required by law to establish certain listing standards. Changes in the underlying security of a security futures contract may, in some cases, cause such contract to no longer meet the regulated exchange's listing standards. Each regulated exchange will have rules governing the continued trading of security futures contracts that no longer meet the exchange's listing standards. These rules may, for example, permit only liquidating trades in security futures contracts that no longer satisfy the listing standards.

2.4. How Security Futures Differ from the Underlying Security

Shares of common stock represent a fractional ownership interest in the issuer of that security. Ownership of securities confers various rights that are not present with positions in security futures contracts. For example, persons owning a share of common stock may be entitled to vote in matters affecting corporate governance. They also may be entitled to receive dividends and corporate disclosure, such as annual and quarterly reports.

The purchaser of a security futures contract, by contrast, has only a contract for future delivery of the underlying security. The purchaser of the security futures contract is not entitled to exercise any voting rights over the underlying security and is not entitled to any dividends that may be paid by the issuer. Moreover, the purchaser of a security futures contract does not receive the corporate disclosures that are received by shareholders of the underlying security, although such corporate disclosures must be made publicly available through the SEC's EDGAR system, which can be accessed at www.sec.gov. You should review such disclosures before entering into a security futures contract. See Section 9 for further discussion of the impact of corporate events on a security futures contract.

All security futures contracts are marked-to-market at least daily, usually after the close of trading, as described in Section 3 of this document. At that time, the account of each buyer and seller is credited with the amount of any gain, or debited by the amount of any loss, on the security futures contract, based on the contract price established at the end of the day for settlement purposes (the "daily settlement price"). By contrast, the purchaser or seller of the underlying instrument does not have the profit and loss from his or her investment credited or debited until the position in that instrument is closed out.

Naturally, as with any financial product, the value of the security futures contract and of the underlying security may fluctuate. However, owning the underlying security does not require an investor to settle his or her profits and losses daily. By contrast, as a result of the mark-to-market requirements discussed above, a person who is long a security futures contract often will be required to deposit additional funds into his or her account as the price of the security futures contract decreases. Similarly, a person who is short a security futures contract often will be required to deposit additional funds into his or her account as the price of the security futures contract increases.

Another significant difference is that security futures contracts expire on a specific date. Unlike an owner of the underlying security, a person cannot hold a long position in a security futures contract for an extended period of time in the hope that the price will go up. If you do not liquidate your security futures contract, you will be required to settle the contract when it expires, either through physical delivery or cash settlement. For cash-settled contracts in particular, upon expiration, an individual will no longer have an economic interest in the securities underlying the security futures contract.

2.5. Comparison to Options

Although security futures contracts share some characteristics with options on securities (options contracts), these products are also different in a number of ways. Below are some of the important distinctions between equity options contracts and security futures contracts.

If you purchase an options contract, you have the right, but not the obligation, to buy or sell a security prior to the expiration date. If you sell an options contract, you have the obligation to buy or sell a security prior to the expiration date. By contrast, if you have a position in a security futures contract (either long or short), you have both the right and the obligation to buy or sell a security at a future date. The only way that you can avoid the obligation incurred by the security futures contract is to liquidate the position with an offsetting contract.

A person purchasing an options contract runs the risk of losing the purchase price (premium) for the option contract. Because it is a wasting asset, the purchaser of an options contract who neither liquidates the options contract in the secondary market nor exercises it at or prior to expiration will necessarily lose his or her entire investment in the options contract. However, a purchaser of an options contract cannot lose more than the amount of the premium. Conversely, the seller of an options contract receives the premium and assumes the risk that he or she will be required to buy or sell the underlying security on or prior to the expiration date, in which event his or her losses may exceed the amount of the premium received. Although the seller of an options contract is required to deposit margin to reflect the risk of its obligation, he or she may lose many times his or her initial margin deposit.

By contrast, the purchaser and seller of a security futures contract each enter into an agreement to buy or sell a specific quantity of shares in the underlying security. Based upon the movement in prices of the underlying security, a person who holds a position in a security futures contract can gain or lose many times his or her initial margin deposit. In this respect, the benefits of a security futures contract are similar to the benefits of *purchasing* an option, while the risks of entering into a security futures contract are similar to the risks of *selling* an option.

Both the purchaser and the seller of a security futures contract have daily margin obligations. At least once each day, security futures contracts are marked-to-market and the increase or decrease in the value of the contract is credited or debited to the buyer and the seller. As a result, any person who has an open position in a security futures contract may be called upon to meet additional margin requirements or may receive a credit of available funds.

Example:

> Assume that Customers A and B each anticipate an increase in the market price of XYZ stock, which is currently $50 a share. Customer A purchases an XYZ 50 call (covering 100 shares of XYZ at a premium of $5 per share). The option premium is $500 ($5 per share X 100 shares). Customer B purchases an XYZ security futures contract (covering 100 shares of XYZ). The total value of the contract is $5000 ($50 share value X 100 shares). The required margin is $1000 (or 20% of the contract value).

Price of XYZ at expiration	Customer A Profit/Loss	Customer B Profit/Loss
65	1000	1500
60	500	1000
55	0	500
50	-500	0

45	-500	-500
40	-500	-1000
35	-500	-1500

The most that Customer A can lose is $500, the option premium. Customer A breaks even at $55 per share, and makes money at higher prices. Customer B may lose more than his initial margin deposit. Unlike the options premium, the margin on a futures contract is not a cost but a performance bond. The losses for Customer B are not limited by this performance bond. Rather, the losses or gains are determined by the settlement price of the contract, as provided in the example above. Note that if the price of XYZ falls to $35 per share, Customer A loses only $500, whereas Customer B loses $1500.

2.6. Components of a Security Futures Contract

Each regulated exchange can choose the terms of the security futures contracts it lists, and those terms may differ from exchange to exchange or contract to contract. Some of those contract terms are discussed below. However, you should ask your broker for a copy of the contract specifications before trading a particular contract.

2.6.1. Each security futures contract has a set size. The size of a security futures contract is determined by the regulated exchange on which the contract trades. For example, a security futures contract for a single stock may be based on 100 shares of that stock. If prices are reported per share, the value of the contract would be the price times 100. For narrow-based security indices, the value of the contract is the price of the component securities times the multiplier set by the exchange as part of the contract terms.

2.6.2. Security futures contracts expire at set times determined by the listing exchange. For example, a particular contract may expire on a particular day, e.g., the third Friday of the expiration month. Up until expiration, you may liquidate an open position by offsetting your contract with a fungible opposite contract that expires in the same month. If you do not liquidate an open position before it expires, you will be required to make or take delivery of the underlying security or to settle the contract in cash after expiration.

2.6.3. Although security futures contracts on a particular security or a narrow-based security index may be listed and traded on more than one regulated exchange, the contract specifications may not be the same. Also, prices for contracts on the same security or index may vary on different regulated exchanges because of different contract specifications.

2.6.4. Prices of security futures contracts are usually quoted the same way prices are quoted in the underlying instrument. For example, a contract for an individual security would be quoted in dollars and cents per share. Contracts for indices would be quoted by an index number, usually stated to two decimal places.

2.6.5. Each security futures contract has a minimum price fluctuation (called a tick), which may differ from product to product or exchange to exchange. For example, if a particular security futures contract has a tick size of 1¢, you can buy the contract at $23.21 or $23.22 but not at $23.215.

2.7. Trading Halts

The value of your positions in security futures contracts could be affected if trading is halted in either the security futures contract or the underlying security. In certain circumstances, regulated exchanges are required by law to halt trading in security futures contracts. For example, trading on a particular security futures contract must be halted if trading is halted on the listed market for the underlying security as a result of pending news, regulatory concerns, or market volatility. Similarly, trading of a security futures contract on a narrow-based security index must be halted under such circumstances if trading is halted on securities accounting for at least 50 percent of the market capitalization of the index. In addition, regulated exchanges are required to halt trading in all security futures contracts for a specified period of time when the Dow Jones Industrial Average ("DJIA") experiences one-day declines of 10-, 20- and 30-percent. The regulated exchanges may also have discretion under their rules to halt trading in other circumstances – such as when the exchange determines that the halt would be advisable in maintaining a fair and orderly market.

A trading halt, either by a regulated exchange that trades security futures or an exchange trading the underlying security or instrument, could prevent you from liquidating a position in security futures contracts in a timely manner, which could prevent you from liquidating a position in security futures contracts at that time.

2.8. Trading Hours

Each regulated exchange trading a security futures contract may open and close for trading at different times than other regulated exchanges trading security futures contracts or markets trading the underlying security or securities. Trading in security futures contracts prior to the opening or after the close of the primary market for the underlying security may be less liquid than trading during regular market hours.

Section 3 – Clearing Organizations and Mark-to-Market Requirements

Every regulated U.S. exchange that trades security futures contracts is required to have a relationship with a clearing organization that serves as the guarantor of each security futures contract traded on that exchange. A clearing organization performs the following functions: matching trades; effecting settlement and payments; guaranteeing performance; and facilitating deliveries.

Throughout each trading day, the clearing organization matches trade data submitted by clearing members on behalf of their customers or for the clearing member's proprietary accounts. If an account is with a brokerage firm that is not a member of the clearing organization, then the brokerage firm will carry the security futures position with another brokerage firm that is a member of the clearing organization. Trade records that do not match, either because of a discrepancy in the details or because one side of the transaction is missing, are returned to the submitting clearing members for resolution. The members are required to resolve such "out trades" before or on the open of trading the next morning.

When the required details of a reported transaction have been verified, the clearing organization assumes the legal and financial obligations of the parties to the transaction. One way to think of the role of the clearing organization is that it is the "buyer to every seller and the seller to every buyer." The insertion or substitution of the clearing organization as the counterparty to every transaction enables a customer to liquidate a security futures position without regard to what the other party to the original security futures contract decides to do.

The clearing organization also effects the settlement of gains and losses from security futures contracts between clearing members. At least once each day, clearing member brokerage firms must either pay to, or receive from, the clearing organization the difference between the current price and the trade price earlier in the day, or for a position carried over from the previous day, the difference between the current price and the previous day's settlement price. Whether a clearing organization effects settlement of gains and losses on a daily basis or more frequently will depend on the conventions of the clearing organization and market conditions. Because the clearing organization assumes the legal and financial obligations for each security futures contract, you should expect it to ensure that payments are made promptly to protect its obligations.

Gains and losses in security futures contracts are also reflected in each customer's account on at least a daily basis. Each day's gains and losses are determined based on a daily settlement price disseminated by the regulated exchange trading the security futures contract or its clearing organization. If the daily settlement price of a particular security futures contract rises, the buyer has a gain and the seller a loss. If the daily settlement price declines, the buyer has a loss and the seller a gain. This process is known as "marking-to-market" or daily settlement. As a result, individual customers normally will be called on to settle daily.

The one-day gain or loss on a security futures contract is determined by calculating the difference between the current day's settlement price and the previous day's settlement price.

For example, assume a security futures contract is purchased at a price of $120. If the daily settlement price is either $125 (higher) or $117 (lower), the effects would be as follows:

(1 contract representing 100 shares)

Daily Settlement Value	Buyer's Account	Seller's Account
$125	$500 gain (credit)	$500 loss (debit)
$117	$300 loss (debit)	$300 gain (credit)

The cumulative gain or loss on a customer's open security futures positions is generally referred to as "open trade equity" and is listed as a separate component of account equity on your customer account statement.

A discussion of the role of the clearing organization in effecting delivery is discussed in Section 5.

Section 4 – Margin and Leverage

When a broker-dealer lends a customer part of the funds needed to purchase a security such as common stock, the term “margin” refers to the amount of cash, or down payment, the customer is required to deposit. By contrast, a security futures contract is an obligation and not an asset. A security futures contract has no value as collateral for a loan. Because of the potential for a loss as a result of the daily marked-to-market process, however, a margin deposit is required of each party to a security futures contract. This required margin deposit also is referred to as a “performance bond.”

In the first instance, margin requirements for security futures contracts are set by the exchange on which the contract is traded, subject to certain minimums set by law. The basic margin requirement is 20% of the current value of the security futures contract, although some strategies may have lower margin requirements. Requests for additional margin are known as “margin calls.” Both buyer and seller must individually deposit the required margin to their respective accounts.

It is important to understand that individual brokerage firms can, and in many cases do, require margin that is higher than the exchange requirements. Additionally, margin requirements may vary from brokerage firm to brokerage firm. Furthermore, a brokerage firm can increase its “house” margin requirements at any time without providing advance notice, and such increases could result in a margin call.

For example, some firms may require margin to be deposited the business day following the day of a deficiency, or some firms may even require deposit on the same day. Some firms may require margin to be on deposit in the account before they will accept an order for a security futures contract. Additionally, brokerage firms may have special requirements as to how margin calls are to be met, such as requiring a wire transfer from a bank, or deposit of a certified or cashier’s check. You should thoroughly read and understand the customer agreement with your brokerage firm before entering into any transactions in security futures contracts.

If through the daily cash settlement process, losses in the account of a security futures contract participant reduce the funds on deposit (or equity) below the maintenance margin level (or the firm’s higher “house” requirement), the brokerage firm will require that additional funds be deposited.

If additional margin is not deposited in accordance with the firm’s policies, the firm can liquidate your position in security futures contracts or sell assets in any of your accounts at the firm to cover the margin deficiency. You remain responsible for any shortfall in the account after such liquidations or sales. Unless provided otherwise in your customer agreement or by applicable law, you are not entitled to choose which futures contracts, other securities or other assets are liquidated or sold to meet a margin call or to obtain an extension of time to meet a margin call.

Brokerage firms generally reserve the right to liquidate a customer’s security futures contract positions or sell customer assets to meet a margin call at any time without contacting the customer. Brokerage firms may also enter into equivalent but opposite positions for your account in order to manage the risk created by a margin call. Some customers mistakenly

believe that a firm is required to contact them for a margin call to be valid, and that the firm is not allowed to liquidate securities or other assets in their accounts to meet a margin call unless the firm has contacted them first. This is not the case. While most firms notify their customers of margin calls and allow some time for deposit of additional margin, they are not required to do so. Even if a firm has notified a customer of a margin call and set a specific due date for a margin deposit, the firm can still take action as necessary to protect its financial interests, including the immediate liquidation of positions without advance notification to the customer.

Here is an example of the margin requirements for a long security futures position.

A customer buys 3 July EJG security futures at 71.50. Assuming each contract represents 100 shares, the nominal value of the position is $21,450 (71.50 x 3 contracts x 100 shares). If the initial margin rate is 20% of the nominal value, then the customer's initial margin requirement would be $4,290. The customer deposits the initial margin, bringing the equity in the account to $4,290.

First, assume that the next day the settlement price of EJG security futures falls to 69.25. The marked-to-market loss in the customer's equity is $675 (71.50 – 69.25 x 3 contacts x 100 shares). The customer's equity decreases to $3,615 ($4,290 – $675). The new nominal value of the contract is $20,775 (69.25 x 3 contracts x 100 shares). If the maintenance margin rate is 20% of the nominal value, then the customer's maintenance margin requirement would be $4,155. Because the customer's equity had decreased to $3,615 (see above), the customer would be required to have an additional $540 in margin ($4,155 – $3,615).

Alternatively, assume that the next day the settlement price of EJG security futures rises to 75.00. The mark-to-market gain in the customer's equity is $1,050 (75.00 – 71.50 x 3 contacts x 100 shares). The customer's equity increases to $5,340 ($4,290 + $1,050). The new nominal value of the contract is $22,500 (75.00 x 3 contracts x 100 shares). If the maintenance margin rate is 20% of the nominal value, then the customer's maintenance margin requirement would be $4,500. Because the customer's equity had increased to $5,340 (see above), the customer's excess equity would be $840.

The process is exactly the same for a short position, except that margin calls are generated as the settlement price rises rather than as it falls. This is because the customer's equity decreases as the settlement price rises and increases as the settlement price falls.

Because the margin deposit required to open a security futures position is a fraction of the nominal value of the contracts being purchased or sold, security futures contracts are said to be highly leveraged. The smaller the margin requirement in relation to the underlying value of the security futures contract, the greater the leverage. Leverage allows exposure to a given quantity of an underlying asset for a fraction of the investment needed to purchase that quantity outright. In sum, buying (or selling) a security futures contract provides the same dollar and cents profit and loss outcomes as owning (or shorting) the underlying security. However, as a percentage of the margin deposit, the potential immediate exposure to profit or loss is much higher with a security futures contract than with the underlying security.

For example, if a security futures contract is established at a price of $50, the contract has a nominal value of $5,000 (assuming the contract is for 100 shares of stock). The margin

requirement may be as low as 20%. In the example just used, assume the contract price rises from $50 to $52 (a $200 increase in the nominal value). This represents a $200 profit to the buyer of the security futures contract, and a 20% return on the $1,000 deposited as margin. The reverse would be true if the contract price decreased from $50 to $48. This represents a $200 loss to the buyer, or 20% of the $1,000 deposited as margin. Thus, leverage can either benefit or harm an investor.

Note that a 4% decrease in the value of the contract resulted in a loss of 20% of the margin deposited. A 20% decrease would wipe out 100% of the margin deposited on the security futures contract.

Section 5 – Settlement

If you do not liquidate your position prior to the end of trading on the last day before the expiration of the security futures contract, you are obligated to either 1) make or accept a cash payment ("cash settlement") or 2) deliver or accept delivery of the underlying securities in exchange for final payment of the final settlement price ("physical delivery"). The terms of the contract dictate whether it is settled through cash settlement or by physical delivery.

The expiration of a security futures contract is established by the exchange on which the contract is listed. On the expiration day, security futures contracts cease to exist. Typically, the last trading day of a security futures contract will be the third Friday of the expiring contract month, and the expiration day will be the following Saturday. This follows the expiration conventions for stock options and broad-based stock indexes. Please keep in mind that the expiration day is set by the listing exchange and may deviate from these norms.

5.1. Cash settlement

In the case of cash settlement, no actual securities are delivered at the expiration of the security futures contract. Instead, you must settle any open positions in security futures by making or receiving a cash payment based on the difference between the final settlement price and the previous day's settlement price. Under normal circumstances, the final settlement price for a cash-settled contract will reflect the opening price for the underlying security. Once this payment is made, neither the buyer nor the seller of the security futures contract has any further obligations on the contract.

5.2. Settlement by physical delivery

Settlement by physical delivery is carried out by clearing brokers or their agents with National Securities Clearing Corporation ("NSCC"), an SEC-regulated securities clearing agency. Such settlements are made in much the same way as they are for purchases and sales of the underlying security. Promptly after the last day of trading, the regulated exchange's clearing organization will report a purchase and sale of the underlying stock at the previous day's settlement price (also referred to as the "invoice price") to NSCC. In general, if NSCC does not reject the transaction by a time specified in its rules, settlement is effected pursuant to the rules of the exchange and NSCC's Rules and Procedures within the normal clearance and settlement cycle for securities transactions, which currently is three business days. However, settlement may be effected on a shorter timeframe based on the rules of the exchange and subject to NSCC's Rules and Procedures.

If you hold a short position in a physically settled security futures contract to expiration, you will be required to make delivery of the underlying securities. If you already own the securities, you may tender them to your brokerage firm. If you do not own the securities, you will be obligated to purchase them. Some brokerage firms may not be able to purchase the securities for you. If your brokerage firm cannot purchase the underlying securities on your behalf to fulfill a settlement obligation, you will have to purchase the securities through a different firm.

Section 6 – Customer Account Protections

Positions in security futures contracts may be held either in a securities account or in a futures account. Your brokerage firm may or may not permit you to choose the types of account in which your positions in security futures contracts will be held. The protections for funds deposited or earned by customers in connection with trading in security futures contracts differ depending on whether the positions are carried in a securities account or a futures account. If your positions are carried in a securities account, you will not receive the protections available for futures accounts. Similarly, if your positions are carried in a futures account, you will not receive the protections available for securities accounts. You should ask your broker which of these protections will apply to your funds.

You should be aware that the regulatory protections applicable to your account are not intended to insure you against losses you may incur as a result of a decline or increase in the price of a security futures contract. As with all financial products, you are solely responsible for any market losses in your account.

Your brokerage firm must tell you whether your security futures positions will be held in a securities account or a futures account. If your brokerage firm gives you a choice, it must tell you what you have to do to make the choice and which type of account will be used if you fail to do so. You should understand that certain regulatory protections for your account will depend on whether it is a securities account or a futures account.

6.1. Protections for Securities Accounts

If your positions in security futures contracts are carried in a securities account, they are covered by SEC rules governing the safeguarding of customer funds and securities. These rules prohibit a broker/dealer from using customer funds and securities to finance its business. As a result, the broker/dealer is required to set aside funds equal to the net of all its excess payables to customers over receivables from customers. The rules also require a broker/dealer to segregate all customer fully paid and excess margin securities carried by the broker/dealer for customers.

The Securities Investor Protection Corporation (SIPC) also covers positions held in securities accounts. SIPC was created in 1970 as a non-profit, non-government, membership corporation, funded by member broker/dealers. Its primary role is to return funds and securities to customers if the broker/dealer holding these assets becomes insolvent. SIPC coverage applies to customers of current (and in some cases former) SIPC members. Most broker/dealers registered with the SEC are SIPC members; those few that are not must disclose this fact to their customers. SIPC members must display an official sign showing their membership. To check whether a firm is a SIPC member, go to www.sipc.org, call the SIPC Membership Department at (202) 371-8300, or write to SIPC Membership Department, Securities Investor Protection Corporation, 805 Fifteenth Street, NW, Suite 800, Washington, DC 20005-2215.

SIPC coverage is limited to $500,000 per customer, including up to $100,000 for cash. For example, if a customer has 1,000 shares of XYZ stock valued at $200,000 and $10,000 cash in the account, both the security and the cash balance would be protected. However, if the customer has shares of stock valued at $500,000 and $100,000 in cash, only a total of $500,000 of those assets will be protected.

For purposes of SIPC coverage, customers are persons who have securities or cash on deposit with a SIPC member for the purpose of, or as a result of, securities transactions. SIPC does not protect customer funds placed with a broker/dealer just to earn interest. Insiders of the broker/dealer, such as its owners, officers, and partners, are not customers for purposes of SIPC coverage.

6.2. Protections for Futures Accounts

If your security futures positions are carried in a futures account, they must be segregated from the brokerage firm's own funds and cannot be borrowed or otherwise used for the firm’s own purposes. If the funds are deposited with another entity (e.g., a bank, clearing broker, or clearing organization), that entity must acknowledge that the funds belong to customers and cannot be used to satisfy the firm’s debts. Moreover, although a brokerage firm may carry funds belonging to different customers in the same bank or clearing account, it may not use the funds of one customer to margin or guarantee the transactions of another customer. As a result, the brokerage firm must add its own funds to its customers’ segregated funds to cover customer debits and deficits. Brokerage firms must calculate their segregation requirements daily.

You may not be able to recover the full amount of any funds in your account if the brokerage firm becomes insolvent and has insufficient funds to cover its obligations to all of its customers. However, customers with funds in segregation receive priority in bankruptcy proceedings. Furthermore, all customers whose funds are required to be segregated have the same priority in bankruptcy, and there is no ceiling on the amount of funds that must be segregated for or can be recovered by a particular customer.

Your brokerage firm is also required to separately maintain funds invested in security futures contracts traded on a foreign exchange. However, these funds may not receive the same protections once they are transferred to a foreign entity (e.g., a foreign broker, exchange or clearing organization) to satisfy margin requirements for those products. You should ask your broker about the bankruptcy protections available in the country where the foreign exchange (or other entity holding the funds) is located.

Section 7 – Special Risks for Day Traders

Certain traders who pursue a day trading strategy may seek to use security futures contracts as part of their trading activity. Whether day trading in security futures contracts or other securities, investors engaging in a day trading strategy face a number of risks.

Day trading in security futures contracts requires in-depth knowledge of the securities and futures markets and of trading techniques and strategies. In attempting to profit through day trading, you will compete with professional traders who are knowledgeable and sophisticated in these markets. You should have appropriate experience before engaging in day trading.

Day trading in security futures contracts can result in substantial commission charges, even if the per trade cost is low. The more trades you make, the higher your total commissions will be. The total commissions you pay will add to your losses and reduce your profits. For instance, assuming that a round-turn trade costs $16 and you execute an average of 29 round-turn transactions per day each trading day, you would need to generate an annual profit of $111,360 just to cover your commission expenses.

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 funds that you cannot afford to lose.

Section 8 – Other

8.1. Corporate Events

As noted in Section 2.4, an equity security represents a fractional ownership interest in the issuer of that security. By contrast, the purchaser of a security futures contract has only a contract for future delivery of the underlying security. Treatment of dividends and other corporate events affecting the underlying security may be reflected in the security futures contract depending on the applicable clearing organization rules. Consequently, individuals should consider how dividends and other developments affecting security futures in which they transact will be handled by the relevant exchange and clearing organization. The specific adjustments to the terms of a security futures contract are governed by the rules of the applicable clearing organization. Below is a discussion of some of the more common types of adjustments that you may need to consider.

Corporate issuers occasionally announce stock splits. As a result of these splits, owners of the issuer's common stock may own more shares of the stock, or fewer shares in the case of a reverse stock split. The treatment of stock splits for persons owning a security futures contract may vary according to the terms of the security futures contract and the rules of the clearing organization. For example, the terms of the contract may provide for an adjustment in the number of contracts held by each party with a long or short position in a security future, or for an adjustment in the number of shares or units of the instrument underlying each contract, or both.

Corporate issuers also occasionally issue special dividends. A special dividend is an announced cash dividend payment outside the normal and customary practice of a corporation. The terms of a security futures contract may be adjusted for special dividends. The adjustments, if any, will be based upon the rules of the exchange and clearing organization. In general, there will be no adjustments for ordinary dividends as they are recognized as a normal and customary practice of an issuer and are already accounted for in the pricing of security futures. However, adjustments for ordinary dividends may be made for a specified class of security futures contracts based on the rules of the exchange and the clearing organization.

Corporate issuers occasionally may be involved in mergers and acquisitions. Such events may cause the underlying security of a security futures contact to change over the contract duration. The terms of security futures contracts may also be adjusted to reflect other corporate events affecting the underlying security.

8.2. Position Limits and Large Trader Reporting

All security futures contracts trading on regulated exchanges in the United States are subject to position limits or position accountability limits. Position limits restrict the number of security futures contracts that any one person or group of related persons may hold or control in a particular security futures contract. In contrast, position accountability limits permit the accumulation of positions in excess of the limit without a prior exemption. In general, position limits and position accountability limits are beyond the thresholds of most retail investors.

Whether a security futures contract is subject to position limits, and the level for such limits, depends upon the trading activity and market capitalization of the underlying security of the security futures contract.

Position limits apply are required for security futures contracts that overlie a security that has an average daily trading volume of 20 million shares or fewer. In the case of a security futures contract overlying a security index, position limits are required if any one of the securities in the index has an average daily trading volume of 20 million shares or fewer. Position limits also apply only to an expiring security futures contract during its last five trading days. A regulated exchange must establish position limits on security futures that are no greater than 13,500 (100 share) contracts, unless the underlying security meets certain volume and shares outstanding thresholds, in which case the limit may be increased to 22,500 (100 share) contracts.

For security futures contracts overlying a security or securities with an average trading volume of more than 20 million shares, regulated exchanges may adopt position accountability rules. Under position accountability rules, a trader holding a position in a security futures contract that exceeds 22,500 contracts (or such lower limit established by an exchange) must agree to provide information regarding the position and consent to halt increasing that position if requested by the exchange.

Brokerage firms must also report large open positions held by one person (or by several persons acting together) to the CFTC as well as to the exchange on which the positions are held. The CFTC's reporting requirements are 1,000 contracts for security futures positions on individual equity securities and 200 contracts for positions on a narrow-based index. However, individual exchanges may require the reporting of large open positions at levels less than the levels required by the CFTC. In addition, brokerage firms must submit identifying information on the account holding the reportable position (on a form referred to as either an "Identification of Special Accounts Form" or a "Form 102") to the CFTC and to the exchange on which the reportable position exists within three business days of when a reportable position is first established.

8.3. Transactions on Foreign Exchanges

U.S. customers may not trade security futures on foreign exchanges until authorized by U.S. regulatory authorities. U.S. regulatory authorities do not regulate the activities of foreign exchanges and may not, on their own, compel enforcement of the rules of a foreign exchange or the laws of a foreign country. While U.S. law governs transactions in security futures contracts that are effected in the U.S., regardless of the exchange on which the contracts are listed, the laws and rules governing transactions on foreign exchanges vary depending on the country in which the exchange is located.

8.4. Tax Consequences

For most taxpayers, security futures contracts are not treated like other futures contracts. Instead, the tax consequences of a security futures transaction depend on the status of the taxpayer and the type of position (e.g., long or short, covered or uncovered). Because of

the importance of tax considerations to transactions in security futures, readers should consult their tax advisors as to the tax consequences of these transactions.

Section 9 – Glossary of Terms

This glossary is intended to assist customers in understanding specialized terms used in the futures and securities industries. It is not inclusive and is not intended to state or suggest the legal significance or meaning of any word or term.

Arbitrage – taking an economically opposite position in a security futures contract on another exchange, in an options contract, or in the underlying security.

Broad-based security index – a security index that does not fall within the statutory definition of a narrow-based security index (see Narrow-based security index). A future on a broad-based security index is not a security future. This risk disclosure statement applies solely to security futures and generally does not pertain to futures on a broad-based security index. Futures on a broad-based security index are under exclusive jurisdiction of the CFTC.

Cash settlement – a method of settling certain futures contracts by having the buyer (or long) pay the seller (or short) the cash value of the contract according to a procedure set by the exchange.

Clearing broker – a member of the clearing organization for the contract being traded. All trades, and the daily profits or losses from those trades, must go through a clearing broker.

Clearing organization – a regulated entity that is responsible for settling trades, collecting losses and distributing profits, and handling deliveries.

Contract – 1) the unit of trading for a particular futures contract (e.g., one contract may be 100 shares of the underlying security), 2) the type of future being traded (e.g., futures on ABC stock).

Contract month – the last month in which delivery is made against the futures contract or the contract is cash-settled. Sometimes referred to as the delivery month.

Day trading strategy – 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.

EDGAR – the SEC's Electronic Data Gathering, Analysis, and Retrieval system maintains electronic copies of corporate information filed with the agency. EDGAR submissions may be accessed through the SEC's Web site, www.sec.gov.

Futures contract – a futures contract is (1) an agreement to purchase or sell a commodity for delivery in the future; (2) at a price determined at initiation of the contract; (3) that obligates each party to the contract to fulfill it at the specified price; (4) that is used to assume or shift risk; and (5) that may be satisfied by delivery or offset.

Hedging – the purchase or sale of a security future to reduce or offset the risk of a position in the underlying security or group of securities (or a close economic equivalent).

Illiquid market – a market (or contract) with few buyers and/or sellers. Illiquid markets have little trading activity and those trades that do occur may be done at large price increments.

Liquidation – entering into an offsetting transaction. Selling a contract that was previously purchased liquidates a futures position in exactly the same way that selling 100 shares of a particular stock liquidates an earlier purchase of the same stock. Similarly, a futures contract that was initially sold can be liquidated by an offsetting purchase.

Liquid market – a market (or contract) with numerous buyers and sellers trading at small price increments.

Long – 1) the buying side of an open futures contact, 2) a person who has bought futures contracts that are still open.

Margin – the amount of money that must be deposited by both buyers and sellers to ensure performance of the person's obligations under a futures contract. Margin on security futures contracts is a performance bond rather than a down payment for the underlying securities.

Mark-to-market – to debit or credit accounts daily to reflect that day's profits and losses.

Narrow-based security index – in general, and subject to certain exclusions, an index that has any one of the following four characteristics: (1) it has nine or fewer component securities; (2) any one of its component securities comprises more than 30% of its weighting; (3) the five highest weighted component securities together comprise more than 60% of its weighting; or (4) the lowest weighted component securities comprising, in the aggregate, 25% of the index's weighting have an aggregate dollar value of average daily trading volume of less than $50 million (or in the case of an index with 15 or more component securities, $30 million). A security index that is not narrow-based is a "broad based security index." (See Broad-based security index).

Nominal value – the face value of the futures contract, obtained by multiplying the contract price by the number of shares or units per contract. If XYZ stock index futures are trading at $50.25 and the contract is for 100 shares of XYZ stock, the nominal value of the futures contract would be $5025.00.

Offsetting – liquidating open positions by either selling fungible contracts in the same contract month as an open long position or buying fungible contracts in the same contract month as an open short position.

Open interest – the total number of open long (or short) contracts in a particular contract month.

Open position – a futures contract position that has neither been offset nor closed by cash settlement or physical delivery.

Performance bond – another way to describe margin payments for futures contracts, which are good faith deposits to ensure performance of a person's obligations under a futures contract rather than down payments for the underlying securities.

Physical delivery – the tender and receipt of the actual security underlying the security futures contract in exchange for payment of the final settlement price.

Position – a person's net long or short open contracts.

Regulated exchange – a registered national securities exchange, a national securities association registered under Section 15A(a) of the Securities Exchange Act of 1934, a designated contract market, a registered derivatives transaction execution facility, or an alternative trading system registered as a broker or dealer.

Security futures contract – a legally binding agreement between two parties to purchase or sell in the future a specific quantify of shares of a security (such as common stock, an exchange-traded fund, or ADR) or a narrow-based security index, at a specified price.

Settlement price – 1) the daily price that the clearing organization uses to mark open positions to market for determining profit and loss and margin calls, 2) the price at which open cash settlement contracts are settled on the last trading day and open physical delivery contracts are invoiced for delivery.

Short – 1) the selling side of an open futures contract, 2) a person who has sold futures contracts that are still open.

Speculating – buying and selling futures contracts with the hope of profiting from anticipated price movements.

Spread – 1) holding a long position in one futures contract and a short position in a related futures contract or contract month in order to profit from an anticipated change in the price relationship between the two, 2) the price difference between two contracts or contract months.

Stop limit order – an order that becomes a limit order when the market trades at a specified price. The order can only be filled at the stop limit price or better.

Stop loss order – an order that becomes a market order when the market trades at a specified price. The order will be filled at whatever price the market is trading at. Also called a stop order.

Tick – the smallest price change allowed in a particular contract.

Trader – a professional speculator who trades for his or her own account.

Underlying security – the instrument on which the security futures contract is based. This instrument can be an individual equity security (including common stock and certain exchange-traded funds and American Depositary Receipts) or a narrow-based index.

Volume – the number of contracts bought or sold during a specified period of time. This figure includes liquidating transactions.

April 2014

Australian Futures Risk Disclosure Statement

Corporations Regulations

Schedule 2

Form 804

Corporations Law

RISK DISCLOSURE STATEMENT

This statement is given to you as required by section 1210 of the Act.

The risk of loss in trading in futures contracts can be substantial. You should therefore carefully consider whether that kind of trading is appropriate for you in the light of your financial circumstances. In deciding whether or not you will become involved in that kind of trading, you should be aware of the following matters-

(a)You could sustain a total loss of the initial margin funds that you deposit with your futures broker to establish or maintain a position in a futures market.

(b)If the futures market moves against your position, you may be required, at short notice, to deposit with your futures broker additional margin funds in order to maintain your position. Those additional funds may be substantial. If you fail to provide those additional funds within the required time, your position may be liquidated at a loss and in that event you will be liable for any shortfall in your account resulting from that failure.

(c)Under certain conditions, it could become difficult or impossible for you to liquidate a position (this can, for example, happen when there is a significant change in prices over a short period).

(d)The placing of contingent orders (such as a 'stop-loss' order) may not always limit your losses to the amounts that you may want. Market conditions may make it impossible to execute such orders

(e)A 'spread' position is not necessarily less risky than a simple 'long' or 'short' position.

(f)The high degree of leverage that is obtainable in futures trading because of small margin requirements can work against you as well as for you. The use of leverage can lead to large losses as well as large gains.

(g)If you propose to trade in futures options, the maximum loss in buying an option is the amount of the premium, but the risks in selling an option are the same as in other futures trading.

This statement does not disclose all of the risks and other significant aspects involved in trading on a futures market. You should therefore study futures trading carefully before becoming involved in it.

*I/We confirm that *I/*we have read and understand this risk disclosure statement and that the futures contracts trading terms used in it have been explained to *me/*us by the giver of this statement.

Euronext Amsterdam Derivative Markets Risk Disclosure Statement

Between, the Customer (“Client”) and Interactive Brokers LLC, Interactive Brokers (U.K.) Ltd and Interactive Brokers Canada Inc (collectively “Broker”).

Whereas as the Client intends to give the Introducing Broker orders for option transactions and future transactions on the derivatives exchange (hereinafter referred to as Euronext Amsterdam Derivative Markets) maintained by Euronext Amsterdam N.V. (hereinafter referred to as Euronext Amsterdam), which the Introducing Broker intends to execute for Client's account and risk; agree to the following

1. Client agrees that the Introducing Broker has made available on its website:
• an copy of the Explanatory Memorandum Options and Futures including Appendices
• the notification times or cutoff times until which the client can trade/instruct for exercise/instruct for delivery any expiring options or futures
• a description of the assignment method that will be used when clients with short positions in Options are assigned.
Client certifies that he is fully aware of the above information or documents.

2. Client understands his rights and obligations and the risks involved in making an investment in Options and Futures;

3. Client is able to sustain the loss which may result from any contemplated investment in Options and Futures;

4. Client acknowledges that he shall have no claim against Euronext Amsterdam or any Clearing Organisation on account of any action taken by them in accordance with the Rules or the Clearnet Rule Book in effect from time to time and that such disclaimer shall be for the benefit of Euronext Amsterdam and the Clearing Organisations;

5. if applicable, Client shall pay the Premium or provide and maintain margin to the extent determined by Euronext Amsterdam from time to time;

6. Client shall accept that his rights and obligations shall be as established by the Rules and the Clearnet Rule Book from time to time in effect and shall accept amendments or adjustments made by Euronext Amsterdam or a Clearing Organisation with respect to the Rules or to outstanding Option Contracts or Future Contracts;

7. after the "Client-cut-off-time", and unless instructed otherwise by the Client, the Broker shall be obliged to take such action in respect of expiring long positions held at the order and for the account of the Client as may reasonably be expected to produce the most advantageous result for the Client, whether by exercising, closing or allowing an Option position to expire;

8. until transfer of his relationship to another Broker, or if the Client is not a Public Order Correspondent Member to another Public Order Correspondent Member the Client shall close out or exercise his open long positions only through the Broker;

9. Client irrevocably authorises the Broker in the name and/or for the account of the Client:
• to report positions, give other information, observe limits or close positions in accordance with the Rules;
• to cause Options to be exercised and/or settled in accordance with the Rules;
• and to do such other things as may be required in accordance with the Rules;

10. Client shall not exercise directly any rights arising in connection with any order for an Option or Future against the Clearing Member executing the order for the Broker, except if the Broker is in default to the Client or is unable to meet its obligations promptly, and that the Clearing Member concerned shall have the right to claim the benefit of such limitation on the Client.

Explanatory memorandum – options and futures

Explanatory memorandum – options and futures

1 What are options and futures? 5

2 Description of options 6
3 Contract specifications 9
4 What can options be used for? 13
5 Buying options 15
6 Writing options 18
7 Trading options 22
8 Exercise procedure 26

9 Description of futures 29
10 Contract specifications 34
11 What can financial futures be used for? 36
12 Trading financial futures 38

13 Risks in exceptional circumstances 42
14 International co-operation 44
15 Dutch Securities Institute Complaints Committee 45
16 Compensation Fund for Investors 46

Foreword

The purpose of this explanatory memorandum is to provide investors and other interested parties with information about the options and futures that are listed on Euronext Amsterdam Derivative Markets N.V.

If this explanatory memorandum is distributed in connection with the conclusion of an options agreement or client agreement, it should be an original copy. This document cannot be reproduced for this purpose.

In this explanatory memorandum, Euronext Amsterdam Derivative Markets N.V. is referred to as the derivatives market.

No section or clause of this explanatory memorandum may be regarded as creating any right or obligation. Rights and obligations in respect of the trade in derivatives at Euronext shall depend solely on the rules and regulations of Euronext and the organisations which are responsible for clearing derivatives traded on this market.

1 What are options and futures?

What is an option?

An option gives the buyer the right, during a fixed period, to buy (call option) or sell (put option) a specified amount of the underlying value at a fixed price.

At Euronext's derivatives market, options are traded on various underlying values such as shares, share indices, bonds, currencies and precious metals. The contract specifications of all option classes are contained in the appendix to this explanatory memorandum.

What is a futures contract?

A futures contract is an agreement to buy or sell a commodity or a financial instrument to be delivered by the seller to the buyer on a specified date in the future. The price is fixed when the contract is concluded. On Euronext's derivatives market, futures are traded on various financial instruments such as share indices and currencies. The instruments on which the futures are based are known as the underlying values.
This explanatory memorandum only covers options and futures and does not include information about products such as warrants, other special products or flex options. Information about these products is available in other brochures.

2 Description of options

2.1 How does an option work?

An investor who buys an option concludes what is known as a opening buy transaction and is called the buyer. An opening buy transaction creates a long position in call or put options. Each option gives the holder the right to buy (call option) or sell (put option) a specified amount of the underlying value at a fixed price. The investor can liquidate this position by means of a closing sell transaction.

An investor who sells an option is called a writer. The writer concludes an opening sell transaction which creates a short position in call or put options. The writer of an option has the obligation, if assigned, to sell (call option) or buy (put option) a specified amount of the underlying value at a fixed price. However, exercising some types of options does not result in physical delivery of the underlying value but in cash settlement.

An investor who has previously sold (written) an option but wants to be released from the resulting obligation to buy or sell the underlying value can do so by means of a closing buy transaction. Writers can do this until they have been assigned, i.e. called upon to meet their obligations.

When investors write call options on an underlying value that they own (and have therefore agreed to sell at a fixed price if assigned to do so), the options are regarded as covered options. Investors can also write call options without actually owning the underlying value. If the option is exercised, the writer has to buy the underlying value before delivering it to the buyer. In this case, the option is called a naked option. Written put options are always naked options.

Euronext only allows investors to write naked options if they deposit sufficient collateral (margin).

There is no direct relationship between the buyer and the writer of an option. Euronext's options clearing division ensures that the rights and obligations of investors remain in balance.

Because the options clearing division acts as the counterparty to both the buyer and the seller of the option, it takes over the rights and obligations resulting from the options from its clearing members. Clearing members are members of Euronext which are responsible for, among other things, the financial and administrative settlement of transactions in options.

Clearing members must, in turn, meet their obligations towards the introducing broker that executes the order on behalf of the investor. Introducing brokers are members of Euronext that pass orders to executing brokers. The options clearing division does not guarantee the solvency of the introducing broker that acts on the investor's behalf.

There are risks involved in buying and selling options. Investors should not buy options unless they can afford to lose the premium they have to pay. Nor should they write naked options if they are not in a position to sustain a substantial financial loss.

Euronext monitors compliance with its rules and regulations and has the authority to examine all information relating to orders and transactions. This information may include the identity of the introducing brokers, clearing members, traders and investors involved in orders and transactions. In extraordinary circumstances, this type of information may be made available to the police and the authorities, for instance in the case of suspected insider trading.

Euronext has concluded agreements with a number of other exchanges. This means that it can pass information on to other foreign or domestic exchanges or regulators if this is necessary or desirable in connection with the detection and prevention of violations of its rules and regulations or improper activities.

3 Contract specifications

3.1 Standardisation

The options that are traded on the derivatives market meet certain standard conditions. The contract size, lifetime, expiration date and exercise price are standardised. The option premium is the only variable element. Option premiums are quoted as the amount payable for each unit of the underlying value (please see Euronext's reference book).

The contract size is the quantity of the underlying value that corresponds to one option contract. The contract size is based on the trading unit and the pricing unit. The reference book states this information for each type of option.

The lifetime of an option is the maximum period during which the option represents a right. At the end of this period the option has no value. The lifetime of options traded on Euronext's derivatives market varies from one month to five years. The lifetime of each option class is stated in the reference book.

The last day of trading in an option is the last day on which it is possible to trade in an expiring option series. For most classes this is the third Friday of the expiration month. If the markets are closed on the third Friday of the month, the last day of trading in the option series is the last day of trading before the third Friday of the expiration month (see also the reference book).

After trading has stopped in an expiring series, the right to buy or sell the underlying value can still be exercised, in most cases up to the day after the last day of trading. Your introducing broker may, however, observe different cut-off times. The cut-off time for selling an option is stipulated in the options agreement that you have concluded with your introducing broker. Other exceptions are detailed in the reference book.

The introducing broker is required to pass on to the options clearing division the exercise instructions received from its clients. If an option is exercised on the day after the last day of trading, the exercise instruction must be received by the options clearing division before 1 p.m.
Each introducing broker is free to set a different, earlier cut-off time for submitting exercise instructions or orders for transactions in expiring series. Introducing brokers must inform their clients of these cut-off times.

The exercise price is the price at which the holder (i.e. buyer) of the option can buy or sell the underlying value when the option is exercised. The exercise price is stated as an amount payable for each unit of the underlying value.

When Euronext announces the introduction of options with a new expiration month, it sets a number of different exercise prices which are close to the market price of the underlying value at that time.
Euronext sets the interval between the exercise prices for each option class individually.

In normal circumstances, once an option series has been listed by Euronext it will continue to be traded until the expiration date. Euronext can, however, prohibit or restrict opening transactions in certain series.

3.2 Types of options

There are two types of options: American style and European style.
An American-style option can be exercised at any time during the option's lifetime. A European-style option can only be exercised on the expiration date, although open positions in these options can be closed before expiration. The reference book provides details of whether a particular option is American or European style.

3.3 Exercising options

After being exercised options can be settled in two ways: by means of either physical delivery or cash settlement. In most cases, exercising an option results in the physical delivery of the underlying value. However, a number of options are settled in cash on the basis of the difference between the exercise price and the settlement price. The form of settlement used for each option class and, where applicable, the method used to calculate the settlement price is detailed in the reference book.

3.4 Underlying values

The financial instruments on which options are traded – the underlying values – are selected by Euronext. When selecting new option classes, Euronext gives preference to underlying values that are widely held and actively traded, particularly on official exchanges. Other criteria are also taken into account, such as the distribution of the ownership of the relevant instrument, trading volumes and price volatility. Euronext notifies issuers of shares on which options will be introduced of the fact that they have been selected for this. In exceptional circumstances, Euronext may decide to remove an option class from listing.

3.5 Currency

When Euronext selects a new option class, its first task is to establish which market is the main market for trading in the relevant underlying value. This is generally, though not necessarily, the home market, i.e. the market in the underlying value's country of origin. The currency of the country of origin is usually the currency that is used at Euronext for quoting premiums for options on a particular underlying value.

3.6 Option premium

The option premium (price) is based on supply and demand between parties on the floor of the derivatives market. These parties generally base premiums on the price of the underlying value and the option's remaining lifetime.

3.7 Adjustment

In the event of a capital restructuring, share split, rights issue or bonus issue involving the issuer of shares on which options are listed, the underlying value, trading unit, contract size and exercise prices of the affected option series may be adjusted. Other events, such as a public bid for a listed company, a merger or a liquidation, may also result in the adjustment of the underlying value. As a rule, no adjustment is made when cash dividends and dividends with a stock option are distributed.

Depending on the circumstances, the options clearing division may sometimes decide that with effect from a particular date the shares of a company that has been acquired by another and on which options are listed are to be replaced by other shares (for example shares in the company that made the acquisition). It may, however, decide that exercising the option will result in cash settlement instead of the physical delivery of the underlying shares, or that some other adjustment of the underlying value and/or contract specifications is warranted. Euronext makes every effort to ensure that information about such measures is provided as soon as possible.

4 What can options be used for?

4.1 Making a profit

Buyers of options expect a change in the price of the underlying value. The buyer of a call option hopes for a rise in the price, while the buyer of a put option hopes for a fall. In both cases, the investor can make a relatively larger profit with options than by investing a similar amount in the underlying value, because only a small sum (the option premium) needs to be invested to benefit in full from price movements in the underlying value. This is known as leverage. If the price of the underlying value rises, the price of call options will usually rise as well. Similarly, if the price of the underlying value falls, the price of put options will usually increase. This makes it possible for investors to make a profit on their options.

4.2 Earning extra income

An investor can also decide to write options in order to receive the option premium. Investors who actually own the underlying value can obtain an additional return on their portfolios in this way. However, if they are assigned to deliver the underlying value, they must sell the underlying value to the holder of the call option for less than its market value. When holders of put options exercise their rights, the writers have to buy the underlying value for more than its market value. The underlying value is bought and sold through the options clearing division. With both call and put options, the writer's loss, though reduced by the option premium received, can be very substantial if there is a major change in the market price of the underlying value.

4.3 Protection against falls in value

Options also allow investors to protect themselves against falls in the price of the underlying value. Maximum protection is obtained by buying put options. Writing call options gives investors partial protection against decreases in the price of the underlying value, but in this case protection is limited to the amount of premium received.

4.4 Fixing the purchase or selling price of the underlying value

Options also make it possible to fix in advance the price at which the underlying value may be traded at some future date. For example, an investor who wants to set a maximum purchase price will be interested in buying call options. An investor who wants to set a minimum selling price will be interested in buying put options.

5 Buying options

5.1 Buying call options

5.1.1 Principle

Buyers of call options can benefit from increases in the price of the underlying value during the lifetime of their options because they have the right to buy the underlying value at a fixed price.

5.1.2 Possibilities

If the price of the underlying value rises, the option holder must take steps to realise the profit on the option. There are two possibilities:

- Investors can sell their options on the derivatives market. In this case, the holder is more interested in the increase in the option premium than in acquiring the underlying value. In general, the price of a call option increases in line with the price of the underlying value.
  The profit in this case consists of the proceeds from the sale less the original option premium and transaction costs. Because of leverage, a small rise in the price of the underlying value can generate a high profit (in percentage terms) on the original investment.
- Investors can exercise an American-style option at any time during the lifetime of the option. A European-style option can only be exercised on the expiration date. Depending on the specifications of the option, the underlying value is delivered when the option is exercised, or settlement takes place in the form of cash.

5.1.3 Risk

If there is no increase in the price of the underlying value, call option holders can lose their entire investment, i.e. the option premium plus the transaction costs. This is the maximum possible loss that buyers of call options can incur.

5.2 Buying put options

5.2.1 Principle

Buyers of put options can benefit from falls in the price of the underlying value which may occur during the lifetime of their options.

5.2.2 Possibilities

If the price of the underlying value falls, put option holders who wish to profit from this can choose between the following alternatives:

- They can sell their options on the derivatives market. In this case, the profit consists of the increase in the option premium. In general, the price of a put option increases as the price of the underlying value falls. The profit consists of the proceeds from the sale less the original option premium and transaction costs. Because of leverage, a small fall in the price of the underlying value can generate a high profit (in percentage terms) on the original investment.
- An American-style option can be exercised at any time during the lifetime of the option. A European-style option can only be exercised on the expiration date. Depending on the option specifications, the underlying value is delivered when the option is exercised, or settlement takes place in the form of cash.

5.2.3 Risk

If there is no fall in the price of the underlying value, put option holders can lose their entire investment, i.e. the option premium plus the transaction costs. This is the maximum possible loss that buyers of put options can incur.

6 Writing options

6.1 Writing call options

6.1.1 Principle

Writers of call options take on the obligation to sell the underlying value at the exercise price, if assigned to do so. In return, they receive the option premium.

6.1.2 Possibilities

6.1.2.1 Writing covered call options

The main objective for investors who write call options on an underlying value which they own (covered call options) is to obtain an extra return on their investment portfolio by receiving the option premium. A consequence of this is that the investor must accept the risk of having to sell the underlying value at a price agreed to in advance.

If the price of the underlying value falls below the exercise price, the option will probably expire without being exercised and the writer will retain the premium. The writer can also liquidate a position by concluding a closing transaction on the derivatives market.

However, if the price of the underlying value rises above the exercise price, there is a good chance that the call option will be exercised. The writer will then be required to deliver the underlying value.

In addition to earning premium income, investors may decide to write call options as a means of fixing a selling price for the underlying value. The selling price is then equal to the exercise price plus the premium received, less costs. If the option is not exercised, the investor will not have to sell the underlying value.

6.1.2.2 Writing naked call options

Investors who write call options on underlying values which they do not own (naked call options) should be aware that they run a potentially unlimited risk.

If the price of the underlying value rises above the exercise price, there is a good chance that the call option will be exercised. Writers will then be required to sell the underlying value at the exercise price. Because writers of naked call options do not own the underlying value, they will have to buy it first at the market price, which will be higher than the exercise price. The increase in the price of the underlying value can, in theory, be unlimited, which means that the writer of a naked call option runs an unlimited risk.

Writers of naked call options must therefore have the financial means to purchase and deliver the underlying value if the option is exercised. To guarantee this, they have to provide an amount of margin specified by Euronext. The margin system is explained in Euronext's brochure on minimum margin requirements.

6.1.3 Risk

Because of the large losses which may be incurred, writing call options is only suitable for experienced investors that have the financial means to sustain such losses. The extent of the writer's risk depends largely on whether the options are covered or naked.

Writers must therefore provide collateral. If the options are covered, the underlying value is held in a blocked account. If the options are naked, margin must be deposited. Writers of call options (covered or naked) who expect to be required to deliver the underlying value because of a rise in its price may be able to avoid delivery by concluding a closing buy transaction on the derivatives market before being assigned to make the delivery.

6.2 Writing put options

6.2.1 Principle

Writers of put options take on the obligation to buy the underlying value at the exercise price, if assigned to do so. In return, they receive the option premium.

6.2.2 Possibilities

The main objective of investors who write put options is to receive the option premium. A consequence of this is that the investor has to accept the risk of having to buy the underlying value at a price agreed to in advance.

If the price of underlying value rises above the exercise price, the option will probably expire without being exercised and the writer will retain the premium. As long as the option has not been exercised, the writer can liquidate the option position by concluding a closing transaction on the derivatives market.

However, if the market price of the underlying value drops below the exercise price, the put option may be exercised. The writer will then be required to buy the underlying value at a price that is higher than the current market price.

In addition to making a profit on option premiums, the investor may also consider writing put options as a means of fixing a purchase price for the underlying value. The purchase price is then equal to the exercise price less the option premium, plus costs. If the option is not exercised, the underlying value will not be delivered and the investor will keep the profit earned on the option.

6.2.3 Risk

The writer of a put option accepts the risk of having to buy the underlying value at a price that is substantially higher than the current market price.

A written put option is always naked. The investor must therefore have the financial means to pay for the underlying value in the event that the option is exercised, and hence has to provide the margin specified by Euronext.

Writers of put options who expect to have to take delivery of the underlying value because of a fall in its price can avoid doing so by concluding a closing buy transaction on the derivatives market before being assigned to take delivery.

7 Trading options

Investors who wish to buy or sell an option can place an order with an introducing broker. Every investor must sign an option agreement before conducting any transactions. If the introducing broker also manages the investor's portfolio, the investor must also sign a portfolio management agreement.

7.1 Orders

An order must specify the option class, the type of option (put or call), the expiration month, the exercise price and the number of contracts to be bought or sold. The order must also indicate whether it is an opening or closing transaction. Investors can also set a limit on the price at which they are prepared to buy or sell options.

An introducing broker can require collateral from the investor, in cash or another form, before accepting any orders. In the case of written options, the introducing broker has to obtain collateral from the investor.

Euronext cannot guarantee that there will always be a market of sufficient size in every option series to enable an investor to liquidate an open position at the price they want. It also cannot guarantee that a favourable movement in the price of the underlying value will enable the holder of an option to sell it at a profit. The option premium depends not only on the expected movement in the price of the underlying value, but also on factors such as the remaining lifetime of the option and supply and demand in that particular option series.

7.2 Commission

Introducing brokers charge their clients commission for buy and sell transactions concluded on the derivatives market. Investors are advised to ask their introducing broker what amount of commission will be charged in a particular case and whether or not there are other fees or taxes that should be taken into account.

7.3 Transaction confirmation

Investors should be aware that the primary evidence of their rights and obligations consists of an entry in the records kept by their introducing broker. Members of Euronext are therefore required to provide written confirmation of each option transaction conducted by them on behalf of their clients. Investors are advised to check these confirmation reports carefully and to report any errors or objections immediately.

7.4 Position statements

Members of Euronext must also provide each client on request with a statement showing the client's open positions in each option series. Exemption from this obligation may be granted if the confirmation report for each new transaction also shows the client's overall position in that particular series. Investors can only exercise options or conduct closing transactions via the introducing broker through which they opened the relevant option position. They may, however, submit a written request for their position in the books of their current introducing broker to be transferred to another Euronext member that is prepared to take over their position.

7.5 Position limits

Euronext is authorised to set limits on the maximum number of options that can be held or written by investors acting on their own or jointly with others. Introducing brokers are required to inform their clients of the limits in force at the time an order is given. Euronext can decide that positions which exceed these limits must be liquidated. Purchased call options belong to the same side of the market as written put options (buy side) and together may not exceed the relevant limit. Similarly, purchased put options belong to the same side of the market as written call options (sell side) and together may not exceed the relevant limit. The reference book states the position limits applying to members of the public at the time of publication.

7.6 Collateral

Writers of covered call options must deposit an amount of the underlying value that is sufficient to cover the potential obligations arising from their option transactions.

Euronext allows investors to write naked call options. Writers of these options hope to collect the option premium without having to deliver the underlying value. They will, of course, have to provide sufficient collateral (known as margin) if they follow this high-risk strategy, because they have to be able to deliver the underlying value at the exercise price if the option is exercised.

Euronext permits the writing of naked call options so long as margin is provided. The minimum margin requirements are calculated by Euronext and published each day in the Dutch Daily Official List (*Officiële Prijscourant*).

Written put options are always naked. Writers of put options must therefore always comply with the margin requirements set by Euronext. Before conducting any option transactions, investors should be fully aware of the precise conditions which will be applied by their introducing broker when calculating the margin to be provided. This margin may be higher than the minimum margin required by Euronext.

7.7 Segregation of assets

Introducing brokers that are established in the Netherlands but are not registered as credit institutions with the Dutch central bank are not permitted to hold positions and funds on behalf of clients, with the exception of certain professional investors. In such cases, the position resulting from an option transaction is transferred as quickly as possible to an introducing broker or clearing member which is authorised to trade on the derivatives market and which is also registered with the Dutch central bank. Investors must conclude a special agreement (referred to as a tripartite agreement) when entering into a relationship with their introducing broker.

8 Exercise procedure

8.1 Exercising options

Investors who wish to exercise an option must inform their introducing broker. The deadline for doing so is specified in the option agreement that every investor concludes with their introducing broker. In the case of cash settlement, no underlying value is delivered. Instead the contract is settled in cash on the basis of the difference between the exercise price and the settlement price.

The investor's exercise instruction is then passed on to the options clearing division. Exercise instructions are irrevocable. Once the options clearing division has received these instructions, holders of exercised call options must pay their introducing broker the exercise price (multiplied by the contract size) for the underlying value. Investors who exercise put options have to deliver the underlying value, in return for which they receive the exercise price.

8.2 Exercise limits

Under its rules, Euronext is authorised to set limits on the number of options that may be exercised by an individual option holder within a specified timeframe. Before conducting any option transactions, investors should ask their introducing broker for details of the limits that will apply to them. Put and call options are considered separate classes and are not added together when checking these limits. The reference book lists the exercise limits applying to members of the public at the time of publication.

8.3 Assignment procedure

When options are exercised, a writer is selected at random to deliver the underlying value (call option with physical delivery), buy the underlying value (put option with physical delivery), or arrange cash settlement (cash-settlement contract).

Introducing brokers inform writers of options as quickly as possible of the fact that they have been assigned to sell the underlying value (call option with physical delivery), buy the underlying value (put option with physical delivery) or arrange cash settlement (cash-settlement contract).

8.4 Delivery of and payment for the underlying value

The underlying value must be delivered to a financial institution/custodian nominated by the options clearing division. Payment must be made to a bank specified by the options clearing division.

Shares that are delivered as a result of an equity option being exercised and which were listed cum-dividend on the day the option was exercised must be delivered cum-dividend. Shares that were listed ex-dividend on the day the option was exercised must be delivered ex-dividend.

The options clearing division reserves the right to decide in specific situations that exercised options are to be settled in cash and not by means of physical delivery. Settlement then takes place on the basis of a settlement price calculated by the options clearing division. While the situation lasts, investors who have exercised options or have been assigned lose the right to insist on the delivery of the underlying value.

8.5 Commission on delivery

When the underlying value is delivered as a result of exercising and assignment, introducing brokers charge the standard market commission for the underlying value.

Investors are advised to ask their introducing broker how much commission will be charged in a particular case and whether there are any other fees or taxes that have to be taken into account.

9 Description of futures

9.1 How do futures work?

Investors can buy and sell futures that are traded on the derivatives market by placing an order with an introducing broker. Buying a future is known as an opening buy transaction. This creates a long position, which is also called a buy position. An investor with a long position has agreed to purchase the underlying value at a fixed date in the future. In this context, investors should note that all the financial futures that are currently listed are cash-settlement contracts.

In this memorandum, holders of long positions are referred to as buyers. In principle, buyers make a profit when their futures rise in price and lose money when their futures fall in price. Buyers can liquidate long positions by selling their futures. Such transactions are referred to as a closing sell.

Investors that sell a futures contract conduct an opening sell transaction. Investors can sell futures without first buying them. An opening sell creates a short position, which means that the investor has agreed to sell the underlying value at a fixed date in the future.

In this memorandum, holders of short positions are referred to as sellers. Sellers make a profit when their futures fall in price, and lose money when their futures rise in price. Sellers can liquidate short positions by buying futures. Such transactions are referred to as a closing buy.

The price of a futures contract is not always the same as the market price of the underlying value. In addition to the market price, other factors, including market sentiment, interest rates and dividends or coupons distributed on the underlying value, affect the price of a futures contract. As a result, the price of a futures contract does not always move in proportion to rises and falls in the market price of the underlying value.

When trading futures, the investment needed to open a position is only the initial margin required by Euronext. This margin serves as collateral to ensure that the obligations attached to the futures contract will be met. The margin, which is the same for buyers and sellers, is paid back if the position is closed. Euronext sets minimum margin requirements, but introducing brokers are free to set higher margin requirements. Euronext is at all times authorised to increase the minimum margin requirements.

Profits and losses are calculated every day and settled immediately in cash on the basis of the closing price of the relevant futures contract. The investor must immediately make up any losses by depositing additional margin, known as variation margin. Profits and losses are settled daily, as the profit or loss of just one day may exceed the amount of initial margin deposited. It is also important for investors to ensure that they have sufficient funds to pay for variation margin. Investors should not trade in futures unless they are capable of withstanding a substantial financial loss.

9.2 Example

On the third Wednesday in November the level of the AEX index is 465. An investor expects the level of the index to rise and buys two FTI November contracts. These are futures on the AEX index that expire on the third Friday of November. Each FTI contract represents the level of the index multiplied by 200. Every one-point change in the level of the index leads to a profit or loss of € 200 per contract.

If the initial margin required for an FTI contract is € 9,720, an investor who holds two contracts must provide the following initial margin:

2 x € 9,720 = € 19,440

In this case, the value of the investment, in which the index represents a share portfolio, is as follows:

2 contracts x 200 x € 1 x 465 = € 186,000

To invest in the share portfolio represented by the index and thus obtain the same profit potential, the investor would have had to pay € 186,000 instead of € 19,440. The prospect of a high return on a relatively small investment is known as leverage.

The investor's initial investment and its development are explained below.

Wednesday
The AEX index stands at 465 points. The investor buys two FTI November contracts priced at 466. The price of the future is not the same as the level of the AEX index.

During the day, prices rise. At the end of the day, the AEX index has risen to 467 points, and the closing price of the November FTI contract is 467.50. Profits and losses are immediately settled in cash. At the end of the first day, the price at which the position was opened is compared with the closing price of the futures contract to determine the investor's profit.

1.5 points price gain x 2 contracts x € 200 per point = € 600

Thursday
On Thursday the AEX index rises by 4 points and closes at 471 points. However, the price of the November FTI contract does not always follow the index precisely. Today, the FTI contract rises 3 points, not 4, and closes at 470.50. When this closing price is compared with the previous day's, the price gain is as follows:

470.50 – 467.50 = 3 points

The investor's profit is as follows:

3 points price gain x 2 contracts x € 200 per point = € 1,200

Friday
This is the third Friday in November and the last day of trading in the November FTI contract. Instead of selling his futures, the investor decides to have his open futures position settled via Euronext. This is only possible after the close of the last day of trading and is done at the settlement price. The settlement price is fixed by Euronext's derivatives market, and in the case of the FTI contract is based on the level of the AEX index calculated at fixed intervals on the last day of trading. The settlement price on this particular Friday is 469. Given the closing price on Thursday, the investor has lost 1.5 points (470.50 – 469). On other days, he would have to make the following additional margin deposit (variation margin):

1.5 points price loss x 2 contracts x € 200 per point = € 600

However, because the position has been settled, the margin can be released.

The final profit is the aggregate of the results from Wednesday, Thursday and Friday:

Profit = € 600 + € 1,200 – € 600 = € 1,200

In other words, because the price at the time of the opening buy transaction was 466 but the settlement price is 469, on balance the investor has made the following profit:

3 points x 2 contracts x € 200 = € 1,200

9.3 Options clearing

There is no direct relationship between the buyer and the seller of a futures contract. The only legal relationship the investor enters into by means of an opening buy or sell transaction in futures is with the introducing broker that holds their open position in futures. In turn, the introducing broker has a legal relationship with its clearing member. Clearing members are members of Euronext which are responsible for, among other things, the settlement and administration of futures contracts.

There are a number of clearing members, all of which have a legal relationship with the options clearing division. This structure means that open futures positions only result in obligations on the part of the options clearing division towards clearing members. Clearing members hold futures positions in their own name but for the account and risk of introducing brokers. Neither the options clearing division nor the clearing members can guarantee the solvency of the introducing broker that acts on the investor's behalf.

9.4 Segregation of assets

Introducing brokers that are established in the Netherlands but which are not registered as credit institutions with the Dutch central bank are not permitted to hold positions and funds on behalf of clients, with the exception of certain professional investors. In such cases, the position resulting from a futures transaction must be transferred as quickly as possible to an introducing broker or clearing member which is authorised to trade on the derivatives market and which is also registered with the Dutch central bank. Investors must conclude a special agreement (referred to as a tripartite agreement) when entering into a relationship with their introducing broker.

10 Contract specifications

10.1 Standardisation

The futures that are traded on the derivatives market meet certain standard conditions. The underlying value, contract size, trading currency, last day of trading and delivery or settlement conditions are standardised. The price of the futures contract is the only variable element, and can be negotiated on the floor of the exchange.

10.2 Underlying value and contract size

The financial instruments on which futures are based, such as share indices and currencies, are known as underlying values and are selected by Euronext. When selecting new futures contracts, Euronext gives preference to underlying values that are widely held and actively traded. The contract size is the quantity of the underlying value that corresponds to one futures contract.

In exceptional circumstances, Euronext may decide to remove a futures contract from listing. In the event of a capital restructuring, share split, rights issue or bonus issue, or in other exceptional circumstances affecting the underlying value of the futures contract, the underlying value may be adjusted. The contract size of a futures contract and the number of futures that an investor holds may also be changed. Other events, such as a public bid for a listed company, a merger or a liquidation, may also result in the adjustment of the underlying value. As a rule, no adjustment is made when cash dividends and dividends with a stock option are distributed.

10.3 Last day of trading

The last day of trading in a futures contract is the last day on which it is possible to trade in an expiring contract. Both opening and closing transactions can be concluded up to the time that a futures contract expires. In very exceptional cases, however, Euronext can prohibit opening transactions in certain futures.

10.4 Settlement

In the case of cash-settlement contracts, all futures positions that are still open at the end of the last day of trading are settled in cash on the basis of the settlement price calculated by Euronext. Buyers and sellers of futures who wish to avoid cash settlement have to close their positions by the last day of trading.

11 What can financial futures be used for?

11.1 Making a profit

Buyers and sellers of futures expect a change in the price of the underlying value. Buyers of futures hope for a rise in the price, while sellers hope for a fall. Investors who accurately predict price movements can therefore make a profit.

The margin that has to be provided is much less than the amount to which the futures contract relates. As a result, it is possible to earn – or lose – a relatively large amount of money with a limited amount of starting capital. This is known as leverage. Leverage works in both directions, which means that an investor can not only earn a proportionately much larger profit with futures, but can also suffer a proportionately much greater loss than if the same amount of capital had been invested directly in the underlying value. In theory, the price of a future can rise or fall by an unlimited amount, and so the risk run by investors in futures is, in theory, unlimited.

11.2 Protection against changes in value

Futures also allow investors to protect themselves against unwanted changes in the price of financial instruments. This is known as hedging. A hedge transaction ensures that the investor is immune to unwanted changes in the price of the underlying value. There are two types of hedge transactions: long hedge and short hedge.

If an investor plans to buy certain financial instruments at some time in the future, he or she can buy futures now as protection against future increases in the price of the underlying value. The investor's aim is to ensure that all or part of any increase in the price of the financial instrument can be offset by a profit on the futures that have been purchased. This transaction is a long hedge.

Conversely, investors who already own certain financial instruments can protect themselves against a fall in prices by selling futures. Here the aim is to ensure that all or part of any decline in the value of the financial instruments can be offset by a profit on the futures that have been sold. This transaction is a short hedge.

In a long hedge transaction, the investor hopes that any losses on the futures will be offset by a change in the price of the underlying value that is held or will be purchased. In a short hedge transaction, the investor expects that a change in the price of the futures will offset any loss on the underlying value. However, a hedge position is not free of risk. With a long hedge, for example, any loss on the futures is immediately settled in cash, while any profit resulting from a change in the price of the underlying value cannot be collected until the underlying value is sold. This means that even with hedge transactions investors must be in a position to withstand losses on their futures positions. Furthermore, the price of futures contracts does not change in line with the price of the underlying value.

12 Trading financial futures

12.1 Placing an order

Investors can buy or sell futures that are traded on the derivatives market by placing an order with an introducing broker. In some circumstances, other parties are also authorised to act as intermediaries. The right to execute orders is, however, restricted to introducing brokers. Investors should contact Euronext if they are not certain whether or not they are dealing with an official introducing broker that is a member of Euronext.

12.2 Orders

An order must specify the name of the relevant futures contract, the contract month and the number of futures to be bought or sold. The order must also indicate whether it is an opening or closing transaction. Investors can also set a limit on the price at which they are prepared to buy or sell futures. When a limit has been set on the price, the order is called a limit order. Whether or not a limit order can be filled is dependent on market conditions.

12.3 Collateral

Euronext can not guarantee that there will always be a market of sufficient size to enable investors to liquidate their open positions in futures.

Introducing brokers always require that their clients provide collateral, in cash or another form, before accepting buy and sell orders for futures from them. The margins required by Euronext must be deposited and maintained with the introducing broker for as long as the open position exists, regardless of any interim profits or losses made by the investor. If an investor fails to provide initial margin or variable margin on time, the introducing broker has the right to close one or more open contracts for the investor's account and risk.

Investors who wish to conclude futures transactions should be fully aware of the precise conditions which will be applied by their introducing broker when calculating the minimum margin to be provided. This margin may be higher than the minimum margin required by Euronext.

12.4 Commission

Introducing brokers charge their clients commission for the futures that they buy and sell on the derivatives market. Euronext does not stipulate the fees that are charged by introducing brokers. Investors are advised to ask their introducing brokers what amount of commission will be charged in a particular case and whether or not there are other fees or taxes that should be taken into account.

12.5 Transaction confirmation

Investors should be aware that the primary evidence of their rights and obligations consists of an entry in the records of their introducing broker. Members of Euronext are therefore required to provide written confirmation of each futures transaction conducted by them on behalf of their clients. Investors are advised to check these confirmation reports carefully and to report any errors or objections immediately.

12.6 Position statements

Members of Euronext must also provide each client on request with a statement showing all of the investor's open positions.

Investors can only request cash settlement or conduct closing transactions via the introducing broker through which they opened the relevant futures position. They may, however, submit a written request for their position in the books of their current introducing broker to be transferred to another introducing broker.

12.7 Position and reporting limits

Euronext is authorised to set limits on the maximum number of futures that can be held by investors acting on their own or jointly with others. Euronext can adjust these limits at any time. Introducing brokers are required to inform their clients of the limits that are in force. Euronext can decide that positions which exceed these limits must be liquidated.

Introducing brokers are also required to report open positions that exceed a certain level to Euronext. In exceptional circumstances, Euronext can also require that the introducing broker concerned closes the open position or reduces it to the level demanded by Euronext.

12.8 Insight into transaction data

Euronext monitors compliance with its rules and regulations and has the authority to examine all information relating to orders and transactions. This information may include the identity of the investors involved in orders and transactions. In extraordinary circumstances, this type of information may be made available to the police and the authorities, for instance in the case of suspected fraud or insider trading.

Euronext has concluded agreements with a number of other exchanges. This means that it can pass on information to other foreign or domestic exchanges or institutions if this is necessary or desirable in connection with the detection and prevention of violations of its rules or improper activities.

13 Risks in exceptional circumstances

Under its rules and regulations, Euronext can restrict trading in one or more products, impose special conditions, or suspend or cease trading in those products. Euronext can also decide to delete transactions. This only happens in exceptional circumstances when Euronext decides that these measures are necessary to maintain a fair and orderly market.

European-style options cannot be exercised before the expiration date. If any special measures, as described above, have been introduced, holders of in-the-money options may not be able to realise their profit when they wish. The reference book states which options are European-style options.

In theory, trading in all types of options and futures may cease or be suspended if trading on the market where the underlying value is listed is disrupted. Trading in index products will usually cease if trading in the underlying securities which make up the index is stopped or disrupted to any extent, or if Euronext no longer has complete and uninterrupted access to calculations of the level of the index.

Although highly unlikely, the derivatives market could be affected by a telephone or communications failure or by a malfunction in its computer systems. This could disrupt the market, causing investors and members to sustain losses.

Euronext and its associated companies accept no responsibility for any losses suffered by investors as a result of the circumstances described above or for any other reason.

Euronext's supervision of trading on the exchange floor does not guarantee that irregularities cannot occur. Euronext accepts no responsibility for any losses suffered as a result of such irregularities.

In accordance with European guidelines, the supervision of Euronext members that are active abroad or are not based in the Netherlands is partly the responsibility of the relevant foreign regulators.

14 International co-operation

Euronext can enter into alliances with foreign exchanges to expand the opportunities for trading in options and futures. Transactions concluded on a foreign exchange are governed by the provisions and regulations of that exchange.

15 Dutch Securities Institute Complaints Committee

Investors who believe that their interests have been adversely affected by the actions or negligence of their introducing broker can submit a written complaint to the Dutch Securities Institute Complaints Committee.

Before a complaint can be handled by the DSI Complaints Committee, investors must first submit the complaint to their introducing broker. If they fail to reach an agreement at this stage, this must be confirmed in a written notice from one of the parties to the other. The complaint must not have been brought before another authority or have been the subject of a verdict by another authority.

In certain circumstances, the DSI Complaints Committee may refuse to consider a complaint. This may occur when:

- the interests involved are not of sufficient significance;
- more than one year has passed since the complaint was submitted to the member;
- the events relating to the complaint occurred an unreasonably long time ago.

The DSI Complaints Committee is independent and its members are in no way connected with Euronext or any of its members.

The recommendations of the DSI Complaints Committee are binding.

The secretariat of the DSI Complaints Committee can be contacted at P.O. Box 3861, 1001 AR Amsterdam, The Netherlands.

16 Compensation Fund for Investors

If an introducing broker has acted in a way that has damaged the interests of investors and has failed to compensate them for their losses, the investors concerned can submit a request for financial compensation to the Compensation Fund for Investors *(Stichting Schadefonds Beleggers)*.

The fund's board decides whether or not compensation will be granted, and how much compensation should be paid out. The Compensation Fund for Investors does not provide any right to compensation or guarantee that compensation will be provided.

This publication is solely intended as information for investors and others who are interested in the securities that are traded on the exchanges operated by Euronext. No section or clause of this brochure may be regarded as creating any right or obligation. Rights and obligations in respect of the securities that are traded on the exchanges operated by Euronext shall depend solely on the rules of Euronext N.V. Although this information has been compiled with great care, neither Euronext nor the exchanges and companies which are operated by Euronext shall accept any responsibility for errors, omissions or other inaccuracies in this information or for the consequences thereof. Euronext holds all intellectual and other property rights rergarding this information. Publication and reproduction for educative and non-commercial purposes is permitted provided that the source is acknowledged.

© Euronext Amsterdam N.V.

Euronext

Amsterdam
P.O. Box 19163
1000 GD Amsterdam
phone +31(0)20 550 55 55
fax +31(0)20 550 49 00

Lisbon
Praça Duque de Saldanha, 1-5°A
1050-094 Lisbon
phone +351(0)21 790 00 00
fax +351(0)21 795 20 21

London
Euronext.liffe
Canon Bridge House
1 Cousin Lane
phone +44(0)20 7623 0444
fax +44(0)20 7588 3624

Brussels
Palais de la Bourse / Beurspaleis
Place de la Bourse / Beursplein
1000 Brussels
phone +32(0)2 509 12 11
fax +32(0)2 509 12 12

Paris
39, rue Cambon
75039 Paris cedex 01
phone +33(0)1 49 27 10 00
fax +33(0)1 49 27 11 71

www.euronext.com

Consument
Consumer
Grand public

April 2003

Euronext LIFFE Disclosure

1. **Rules of Liffe and our capacity:** All contracts in the terms of an Exchange Contract made on LIFFE shall be subject to the Rules of LIFFE as from time in force. As a member of LIFFE, our affiliate, which shall act as executing broker, contracts only as a principal in respect of contracts in the terms of an Exchange Contract. In the event of a conflict between the Rules of LIFFE and the terms of this Agreement, the Rules of LIFFE as from time to time in force, shall prevail

   LIFFE Risk Disclosure for Financial Futures: Pursuant to General Notice Number 1376, issued 18 March 1999 with an effective date of 12 April 1999, LIFFE requires that we provide you with certain information in connection with your trading of equity futures and options through LIFFE CONNECT, as follows:

   Client Issues

   1. Exclusion of liability as set forth in section 6 below, unless otherwise expressly provided for, the Exchange shall not be liable to any member or client for loss or damage caused as a result of such curtailment of trading opportunities.
   2. Client Orders Prior to the commencement of trading, clients must undertake to understand the characteristics of order types recognised in LIFFE CONNECT™ and be aware that the Exchange has a number of powers which, if exercised, may impact upon the ability of a member to submit an order on behalf of a client or which may lead to the cancellation of an order after submission to the LIFFE CONNECT™ trading Host prior to execution. In particular, in addition to the powers already available to the Exchange (including those in relation to investor protection and proper markets), clients should be aware that, in respect of LIFFE CONNECT™

      For Futures:

      1. the Exchange has the power to suspend a member's access, or access via a particular ITM or ITMs, following a single warning, and to terminate a member's access under certain conditions;
      2. the Exchange will cancel all outstanding orders on the default of a member;
      3. orders outside the price limits will be rejected automatically by the Trading Host;
      4. all orders (with the exception of GTC orders) will be cancelled automatically at Market close or when the ITM under which the order was submitted is logged out without being transferred to an alternative ITM
      5. all orders (including GTC orders) will be cancelled at close of business on the Last Trading Day of the expiry month to which they relate; and
      6. all orders with the exception of GTC orders will be cancelled automatically if the Trading Host fails.

2. **Matching contracts:** In respect of every contract made between us subject to the Rules of LIFFE, we shall have made an equivalent contract on the floor of the market for execution by open outcry or in the market conducted on the Automated Pit Trading system, or shall have accepted the allocation of any such contract.
3. **Allocation:** In respect of every contract made between us for allocation to another member specified by you:

   (a) in the event that such other member accepts the allocation, we shall (without prejudice to any claim we may have for commission or other payment) upon such acceptance cease to be a party to the contract and shall have no obligation to you for its performance;

   (b) in the event that such other member declines to accept the allocation, we shall be entitled at our option either to confirm the contract with you or to liquidate it by such sale, purchase, disposal or other transaction or cancellation as we may in our discretion determine, whether on the market or by private contract or any other feasible method; and any balance resulting from such liquidation shall be promptly settled between us
4. **Allocation on Delivery or Exercise:** IN THE EVENT THAT CUSTOMER'S ACCOUNT BALANCE HAS ZERO EQUITY OR IS IN DEFICIT AT ANY TIME, OR THE ACCOUNT DOES NOT HAVE A SUFFICIENT ACCOUNT BALANCE TO MEET MARGIN REQUIREMENTS, IB SHALL HAVE THE RIGHT IN ITS SOLE DISCRETION, BUT NOT THE OBLIGATION, TO LIQUIDATE ALL OR ANY PART OF CUSTOMER'S POSITIONS (INCLUDING BY THE ENTRY OF OFFSETTING TRANSACTIONS) AT ANY TIME AND IN SUCH MANNER AND IN ANY MARKET AS IT DEEMS NECESSARY, WITHOUT PRIOR NOTICE OR MARGIN CALL TO THE CUSTOMER, AND CUSTOMER AGREES TO BE RESPONSIBLE FOR, AND PROMPTLY PAY TO IB, ANY DEFICIENCIES IN CUSTOMER'S ACCOUNT WHICH ARISE FROM SUCH LIQUIDATION . IB shall also have the right to liquidate all or any part of Customer positions without prior notice to the Customer in the same manner as provided above. If any dispute arises concerning any Customer Trade, or upon Customer's failure to timely discharge its obligations to IB; or upon the Customer's insolvency or filing of a petition in bankruptcy or for protection from creditors, or upon the appointment of a receiver, or whenever IB deems it necessary or advisable for IB's protection. Any such liquidation shall establish the amount of Customer's gain or loss. Customer shall reimburse and hold IB harmless for all actions, omissions, costs, expenses, fees (including attorney's fees), losses, claims or liabilities associated with any such transactions undertaken by IB. Customer shall be responsible for all resulting losses on Customer's positions notwithstanding IB's delay in or failure to liquidate any such positions. For "Long Option Only Accounts", Customer may not exercise options, and must close-out options by offset. If options which do not settle in cash are not closed-out by Customer prior to one hour prior to expiration, Interactive Brokers is authorized in its sole discretion to close-out Customer's option position, or sell any position into which the option position is converted upon expiration, and credit or debit Customer's account accordingly. Customer shall pay Interactive Brokers all fees, costs, and expenses related to such close-out, and shall hold Interactive Brokers harmless for any actions taken or not taken in connection with such close-outs. Customer acknowledges and agrees that options contracts may not be exercised. Options positions may only be closed out by offset. Except for cash-settled options, if Customer has not offset options contract positions at least one (1) hour prior to the time specified by an exchange for final settlement, Interactive Brokers is authorized to do so, or to otherwise close out the resulting positions, and credit or debit Customer's account accordingly. Customer shall pay Interactive Brokers for all costs and expenses related to such close-outs and shall hold Interactive Brokers harmless for any actions taken, or not taken, in connection therewith.
5. **Margin:** Customer shall monitor Customer's account so that at all times the account shall contain a sufficient Account Balance to meet the margin requirements set by IB, margin requirements which IB may modify for any Customer for open and new positions at any time in IB's sole discretion. The required margin may exceed the margin required by any exchange or clearing house. IB

may reject any Customer Order while determining the correct margin status of Customer's account. Customer shall maintain, without notice or demand, a sufficient Account Balance at all times so as to continuously meet the margin requirements established by IB. IB has no obligation to notify Customer of any failure to meet margin requirements in Customer's account prior to exercising its rights and remedies under this Agreement. Customer understands that IB will not issue margin calls, and that IB will not credit Customer's account to meet intraday margin deficiencies.

6. **The Market - Exclusion of liability (rule 1.4):** The Exchange is obliged under the Financial Services Markets Act 2000 to ensure that business conducted by means of its facilities is conducted in an orderly manner and so as to afford proper protection to investors. To this end, the Exchange will at all times endeavour to maintain a fair and orderly market as is consistent with the Exchange's legal obligations and the object of the market.

   The Exchange wishes to draw to your attention of members and clients that, inter alia, business on the market may from time to time be suspended or restricted or the market may from time to time be closed for a temporary period or for such longer period as may be determined in accordance with LIFFE's including, without limitation, as a result of a decision taken under Rule 4.16 or 4.17 on the occurrence of one or more events which require such action to be taken in the interests of inter alia, maintaining a fair and orderly market. Any such action may result in the inability of one or more members and through such members one or more clients to enter into contracts in accordance with the Rules on the terms of Exchange Contracts either by means of contracts entered into on the market floor or through ATS.

   Furthermore, a member and thorough the member one or more clients may from time to time be prevented from or hindered in entering into contracts in the terms of Exchange Contracts, or errors in orders or in contracts in the terms of Exchange Contracts may arise, as a result of a failure or malfunction of communications, or equipment, or market facilities, or the ATS central processing systems, or one or more ATS workstations supplied to the member by the Exchange or otherwise used by the member or software supplied to the member by the Exchange or any other person.

   The Exchange wishes to draw the following exclusion of liability to the attention of members and clients. Unless otherwise expressly provided in LIFFE's rules or in any other agreement to which the Exchange is party, the Exchange shall not be liable to any member or client for loss (including any indirect or consequential loss including, without limitation, loss of profit), damage, injury or delay, whether direct or indirect, arising from any of the circumstances or occurrences referred to in Rule 1.4.2. or from any act or omission of the Exchange, its officers, employees, agents or representatives under LIFFE's Rules or pursuant to the Exchange's obligations under statute or from any breach of contract by or any negligence howsoever arising of the Exchange, its officers, employees, agents or representatives.
7. **Arbitration.** Any dispute arising from or relating to this agreement, in so far as it relates to contracts made between us subject to the Rules of LIFFE, and any dispute arising from or relating to any such contract as aforesaid and made hereunder shall, unless resolved between us, be referred to arbitration under the arbitration rules of LIFFE, or to such other organisation as LIFFE may direct before either of us resort to the jurisdiction of the courts (other than to obtain an injunction or an order for security for a claim).
8. **Governing Law.** This agreement and all contracts made under this agreement shall be subject to and construed in accordance with English law.
9. **Jurisdiction:** Subject to the arbitration clause [above in this agreement], disputes arising from this agreement or from contracts made under this agreement shall (for our benefit) be subject to the exclusive jurisdiction of the English courts to which both parties hereby irrevocably submit, provided that this shall not prevent us bringing an action in the courts of any other jurisdiction.
10. **Changes to Agreement:** Notwithstanding any previous agreement between us to the contrary, we now agree that a variation of the terms agreed between us from time to time does not require the written agreement of both of us. This notification shall take effect 12 days after despatch by us, provided that you do not object within 10 days of receipt.

Prospectus

DERIVATIVE FINANCIAL INSTRUMENTS TRADED ON THE MONEP

MONEP

Contents

I. MONEP options and futures **5**

MONEP options 5
Options definitions 6
The four basic trades 6
Exercising options 8
Corporate actions and contract adjustments 9

MONEP futures 9
Futures definitions 9
Basic futures strategies 9

Appendix: Tax treatment 11

II. Market organisation and procedures **12**

The institutional structure 12
Supervision and oversight 12
Market operator 13
Clearing house 13

MONEP participants 13
Trading members 13
Clearing members 14

Operating procedures 14
Organization of trading 14
Price fluctuation limits 15
Effects of trading halts 16

Market safeguards 16
Guarantee of final performance 16
Margining 17

III. Relations between client and intermediary **19**

Opening an account 19
Execution account 19
Discretionary account 19

Placing orders 20
Method of transmission 20
Instructions and details on orders 21
Transaction fees 22

Monitoring positions on a constant basis 22
Reporting of operations 23
Glossary **25**

IMPORTANT

The MONEP, along with all of France's capital markets, will switch to the euro on 4 January 1999, when the member states of Economic and Monetary Union adopt a single currency.

Until that date, MONEP contracts will be quoted in French francs (equity options) or in index points with an index multiplier denominated either in French francs (options and futures on the CAC 40 index) or in ecu (options and futures on the Dow Jones STOXX®50 and Dow Jones Euro STOXX®50 indices).
All financial transfers pursuant to transactions (premiums and margin to be paid or received following exercise and assignment not resulting in physical delivery, fees) will be made in French francs.

Beginning on 4 January 1999, the characteristics of MONEP contracts (strike prices on equity options, trading unit of contracts derived from the CAC 40 and the Dow Jones STOXX®50 and Dow Jones Euro STOXX®50 indices) will be converted and expressed in euro on the basis of the French franc/euro conversion rate as set by the European Council (for contracts denominated in French francs) and at 1 euro per ecu for contracts denominated in ecu.
Quotations will be made in euro (equity options) or in index points valued in euro (options and futures on the CAC 40, Dow Jones STOXX®50, and Dow Jones Euro STOXX ®50 indices).
The same is true for payments between intermediaries.
However, payments between clients and intermediaries who maintain their accounts can be made, at the client's choice, in French francs or in euro.

This English translation has been prepared by Monep SA for the convenience of English-speaking readers. However, only the French text has any legal value. Consequently, the translation may not be relied upon to sustain any legal claim, nor should it be used as the basis of any legal opinion. Monep SA expressly disclaims all liability for any inaccuracy herein.

Prospectus

The MONEP is a regulated market in derivative financial instruments. It is managed by the market operator Monep SA, which sets the operating rules.

This Prospectus (*Note d'Information*) has been prepared by Monep SA and was approved by the stock market supervisor, the *Commission des Opérations de Bourse* (COB visa no. 98-430) on 2 June 1998.

Pursuant to COB regulation 97-02, a copy of the Prospectus, together with the technical specifications of the contracts traded on the MONEP and appended hereto, is given to prospective clients by their broker before they sign an account agreement or place an order for the first time.
When dealing with a potential client that is not a professional investor, a broker may not accept orders or funds until seven days after said the client has received this document and has confirmed in writing that he is familiar with its contents.

Because of the substantial risks involved in using derivative financial instruments, we recommend that you read this Prospectus carefully.

IMPORTANT

Trading on the MONEP requires a thorough knowledge of that market's mechanisms and products.

Accordingly, before trading the options and futures listed on the MONEP, prospective users must familiarise themselves with the basic trades and strategies used on the market.
In view of the potential risks, investors are advised to commit only a small portion of their assets on the futures and options markets.

Options and futures are used to manage securities portfolios by hedging risk. Index options and index futures protect investors against overall price movements in the market, while equity options cover them against specific risks related to a particular security.

Options and futures can also be used to carry out highly leveraged speculative operations.

Furthermore, options and futures provide significant opportunities for arbitrage, i.e. profiting from temporary price differences between options and futures and their underlying instruments.

While options have many advantages, they are also sophisticated instruments entailing a number of risks and constraints to which prospective users must pay close attention.

In particular, users must be aware that, in contrast with the more conventional direct purchase or sale of equities, the overall commitment on a option transaction is not necessarily limited to the initial outlay. This is the case for option writers (sellers), who must deposit collateral (margin) in response to margin calls, which are calculated each day on their options positions. Failure to respond to these daily margin calls entails immediate liquidation of positions (see below, pages 16 and 23). Options writers must therefore anticipate margin calls and make the necessary arrangements to meet them immediately.

An investor in options must be able to assess the risks that his position may entail. If he writes an option (calls or puts), he may be exposing himself to unlimited financial risk in the event on an unfavorable price movement in the underlying instrument. He is subject to the buyer's decision if the option is exercised, and must be able to assess his risk either in order to accept it in full or to limit the amount involved.

Index options carry their own risks, which stem from the nature of their underlying instrument. For example, hedging the risk of loss by taking offsetting positions in the underlying shares is complicated by the need to construct and maintain a portfolio with a weighted composition identical to that of the index. Moreover, if a buyer exercises his option, a period of time will elapse before the assigned seller can be notified by his broker. During this period, the value of the hedging portfolio may decline in relation to the amount to be paid as a result of the assignment, which is calculated on the basis of the settlement index on the date of exercise.

Futures contracts make it possible to commit substantial sums of money for a minimum initial outlay ("margin"). Investors should therefore be aware that their financial risk depends on the number of contracts they hold, not on the margin called by their broker.

Consequently, an investor's potential losses can exceed the initial outlay.

Funds are transferred from the investor to the broker, and vice versa, every day. The losses implied by adverse movements in futures contracts are measured on a daily basis.

An investor must be able to cover any losses without delay. If he fails to do so, his broker is required to liquidate his positions immediately.

The derivative financial instruments listed on the MONEP include options and futures on equity securities, equity baskets, and equity indices.

Two factors underpin the negotiability of the options and futures listed on the MONEP:

- Their listing and quotation on a regulated market permits the centralisation of orders.

- Contract characteristics are standardized as follows.

Options

- Exercise style (American or European)
- Contract size (quantity of the underlying asset)
- Strike price
- Expiration date

Futures

- Contract size (quantity of the underlying asset)
- Delivery month
- Delivery modes

Contracts with identical characteristics are fungible.

The presence of a clearing house is another prerequisite for negotiability. Intervening between buyers and writers, the clearing house breaks the initial contractual link between holder and writer, enabling each to close out his position without having to seek out his initial counterparty.

Since the contracts listed on the MONEP are negotiable, both the holder and the writer, independently of each other, can sell (for the holder) or buy (for the writer) on the market the contract that was initially concluded, thus unwinding their position before the contract's expiration date.
For this reason, orders sent to a broker must indicate whether the investor is opening a new position or closing all or part of an existing position.

An open position can be closed out only by the broker with whom the opening purchase or sale has been registered.

MONEP OPTIONS

Option contracts eligible for listing on the MONEP include options on individual equity securities as well as options on equity indices or baskets.

Accordingly, the more active and well-capitalized equity securities on the Paris market are suited to serve as the underlying interest for options contracts.

The same is true for the major equity and sector-based indices, regardless of whether they are national in scope or represent price movements in major financial centers.

Options definitions

An option grants its buyer (holder) the right, but not the obligation, to buy (call) or sell (put) a given quantity of an underlying asset at a given price (strike price) on or until a pre-established date.
An option that can be exercised at any time during its life is known as an American-style option. An option that can be exercised only at expiration date is known as a European-style option.

Option contracts on securities give the buyer the right to buy (call) or sell (put) a given number of stocks or bonds. Index option contracts give their holder the right to collect any profit that may result from the difference between the value of the day's settlement index (or expiration settlement index) and the option's strike price.

An option writer is bound by the holder's decision to exercise the contract or not. If the option is exercised, the writer is notified of the fact by the clearing house, a procedure called "assignment". If the holder so demands, the assigned writer must meet the obligations stemming from his contract. The assigned seller of a put must either buy the securities (equity options) or pay the cash amount equal to any loss that results if the index value is less than the option strike price (index options). Similarly, the assigned seller of a call must sell the securities or pay the difference between the index value and the option strike price. In return for this constraint, the option writer receives a consideration (premium) from the buyer as soon as the trade is completed.

The premium is the price quoted on the market for each open option series (i.e. calls or puts on the same underlying asset with the same expiration date and strike price).

The four basic trades

Buying calls. In return for payment of the premium, call options give the holder the right to buy a specified amount or value of a particular underlying interest at the strike price stipulated in the option contract. An American-style option can be exercised at any time; a European-style option can be exercised only at expiration. With equity options, the underlying interest is a quantity of shares. With index options, the holder makes a profit if the value of the index is higher than the option's strike price. In both cases, if the value of the underlying instrument rises, the buyer's profit is potentially unlimited. If the value of the underlying instrument falls, his losses are confined to the premium paid at the time of purchase.
(See example A)

Writing calls. The writer of a call is in the opposite situation to the holder. He receives the premium immediately, but is obligated for the duration of the contract either to sell the underlying asset at the strike price, in the case of equity options, or, in the case of index options, to pay the buyer, if the latter so wishes, the amount resulting from the difference between the index value and the strike price. Profits are limited to the premium received at the time of the sale, and losses are potentially unlimited in case of a rise in the price of the underlying instrument.
(See example B)

Buying puts. In return for payment of the premium, put options give the holder the right to sell the underlying interest in the quantity (value) and at the strike price stipulated in the option contract. An American-style option can be exercised at any time; a European-style option can be exercised only at expiration. With equity options, the underlying interest is a quantity of shares. With index options, the holder of a put makes a profit if the value of the index is lower than the option's strike price. In both cases, if the value of the underlying instrument falls, the put-holder's profit increases in the same proportions. If the value of the underlying instrument rises, his losses are confined to the premium paid at the time of purchase.
(See example C)

Writing puts. The writer of a put is in the opposite situation to the holder. He receives the premium immediately, but is obligated for the duration of the contract – if the holder so decides – to buy the underlying asset at the strike price, or, in the case of index options, to pay the difference between the strike price and the index value. If the price of the underlying instrument rises, the writer's profit is limited to the premium. If the price falls, his losses are potentially unlimited.
(See example D)

The simplest and least risky strategy is to buy options. Option holders run a limited and known risk, which cannot exceed the premium regardless of movements in the underlying instrument. Moreover, they can make a potentially unlimited profit (in case of a rise in the underlier for a call, in case of a decline for a put). But in both cases, their losses cannot exceed the premium paid at the time of purchase.

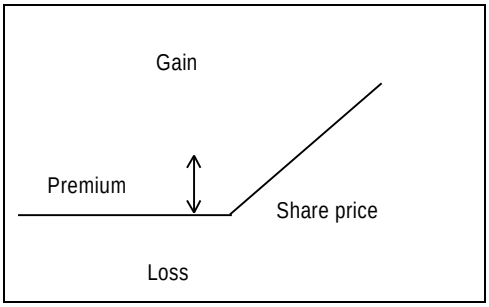
In contrast, writers of options (calls and puts) run a potentially unlimited financial risk in case of an adverse movement in the underlying interest, while their profits are limited to the premium received at the time of the sale.

More complex strategies can be constructed by combining these basic strategies, i.e. by simultaneously buying and / or selling options of the same class but different characteristics. Such strategies are complex and should be used only by investors possessing a sound understanding of the basic concepts.

The four basic trades

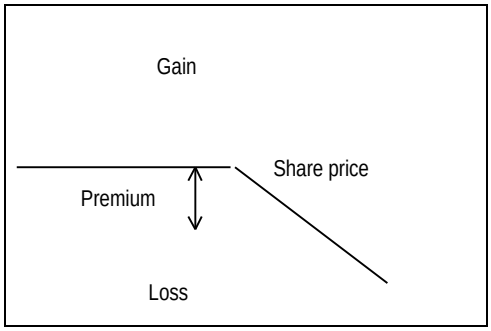
Example A

The buyer of an American-style call with June expiration on XYZ Company's stock, with a strike price of FF500 and a premium of FF20, has, until the next-to-last trading day in June, the right to buy a certain number of XYZ shares (generally 10) at a unit price of FF500, whatever changes may have occured in the share price since the acquisitions of his contract.
He makes a profit if the share price rises above FF520 (i.e. the strike price plus the premium).



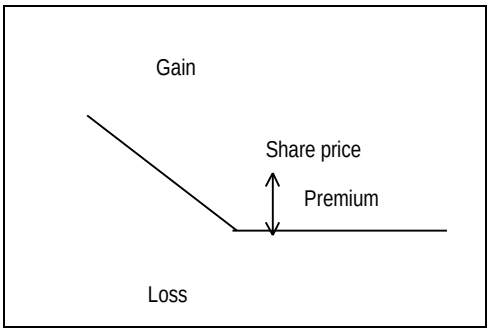
Example B

Using the data from the previous example, we see that the call writer's profit amounts to FF20 per share (to be multiplied by the contract size, i.e. the number of shares per option contract)
if the price of XYZ Company's stock remains below FF520. Above that level, he may have to sell XYZ stock at a detrimental price, and his loss increases as the stock price rises.



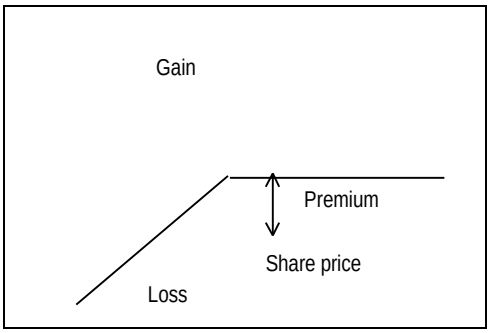
Example C

The holder of an American-style put on the CAC 40 index, expiring in June, with a strike price of 3,900 and a premium of FF200, can, by exercising the right conferred by his contract before the last trading day in June, make a profit if the index value is less than FF3,700 (the strike price less the premium paid). If he exercises his right when the settlement index stands at 3,600, he will receive an amount equal to:
(3,900 - 3,600) - 200 = FF100
Taking into account the unit of trading (see Contract Specifications), his total profit expressed in francs will actually be:



Example D

In the previous example, the option writer's profit is limited to FF100 in case of a rise in the index. Taking into account the unit of trading (see Contract Specifications), his total profit expressed in francs will actually be FF200 x 50 = FF10,000. But his risks of a loss are unlimited once the index level falls below 3,700.



NOTE: For index options, the strike price and premium – like the level of the index – are expressed in index points. Each index point is assigned a value in currency units (see Contract Specifications).

Exercising options

Exercising an option cancels the contract registered in the opening position. On the MONEP, the exercise of an option position has the following effect on the day of exercise:

➤ Index options: The position is settled by cash payment of the difference, converted into currency units, between the value of the daily settlement index (or the expiration settlement index) and the strike price. The daily settlement index is computed daily and the expiration settlement index is computed on the contract expiration date.

➤ Equity options: The position is settled by a purchase or sale of the underlying security, at the pre-arranged price (strike price) on the market in which the security is traded (monthly settlement or cash).

Positions taken in an underlying asset following exercise or assignment are settled (by delivery of securities versus payment of the corresponding funds) according to the rules, and within the time periods, applicable to the market on which that asset trades.
As regards options on stocks traded for monthly settlement, only those exercise instructions reaching the broker and registered in clearing accounts two trading days before the account day at the latest are taken into consideration in the delivery-versus-payment procedures for that monthly account period.

In-the-money options (see Glossary) are automatically exercised upon expiration, unless the holder's instructions to the contrary are received by the broker and registered in clearing before the close of the trading session on the expiration day*.

Trades executed on a cash-settlement market give rise to an entry in the client's account, made at the latest on the day after the trade. This contrasts with monthly-settlement trades, for which delivery-versus-payment is postponed to the end of the account period and which can be unwound before account day by taking offsetting positions.

Consequently, before executing a sell order involving options on a cash-settled stock, brokers can demand that their clients deposit:

- **stocks** that might be deliverable by a call writer.
- **funds** to pay for stocks that might have to be bought by a put writer

* Options are exercised automatically only if they are in the money, even by only hundredth of the reference currency unit (equity options) or for one-hundredth of a point (index options), without taking into account transaction costs (commissions, broker's fees, etc). Consequently, options that are at the money (i.e. the current value of the underlier is the same as the option's strike price) are not exercised automatically.

Some MONEP options apply to cash-settled stocks; others apply to stocks traded by monthly settlement. Procedures and timing differ between these two sections of the market. Accordingly, clients must find out from their broker on which section the underlying stocks are traded.

Corporate actions and contract adjustments

Payment of an ordinary dividend does not lead to a modification of the terms of the option contract. However, contract specifications may be adjusted in the case of exceptional cash distributions of dividends (exceptional dividends from reserves, distributions in addition to the ordinary dividend, distributions of paid-in capital in excess of par, etc.). Contract specifications may also be adjusted when a stock goes ex-rights or when an event occurs that can significantly influence the price of a contract's underlying interest. Such adjustments are made to ensure that the initial situation of the buyers and sellers is not modified by changes to the underlying instrument. The adjustment may apply to either the option strike price alone or the option strike price and the number of securities covered by the contract.

MONEP FUTURES

The futures contracts listed on the MONEP relate to equity indexes or baskets of equities.

Accordingly, the major equity and sector-based indices, whether domestic or representative of prices on major markets abroad, are suited to serve as the underlying interest for futures contracts.

Futures definitions

A financial futures contract is a legally binding agreement to buy or sell a specified quantity of financial assets at a price fixed when the contract is arranged. Delivery of the assets and payment of the corresponding cash occurs at a pre-established future date.

Consequently, a futures transaction always involves an interval of time between initiation and execution of the contract.

Not all futures contracts require physical delivery of the underlying asset. Certain contracts are cash-settled, i.e. the commitment is satisfied by cash payment of the difference between the price at which the contracts were negotiated and that at which they are closed out.

The procedures for closing out positions in futures contracts listed on the MONEP are stated in the Contract Specifications appended to this Prospectus.

Basic futures strategies

Futures contracts offer a flexible and efficient means of taking positions ahead of an expected move in the price of the underlying asset. They can be used for hedging or speculation.

Furthermore, they provide significant opportunities for arbitrage, i.e. profiting from temporary price differences between markets. Since arbitrage is a complicated process, it is not recommended for unsophisticated investors.

1. Hedging

Hedging enables an investor to reduce the risk of loss from a sharp swing in value of an asset.

To place a hedge, the investor takes a futures position that is equal to and opposite the position in the underlying asset.

Losses on the underlier are offset in full or in part by gains on the future, and vice versa.

Example :

To hedge the risk of a decline in stock prices, on 10 February an investor with an equity portfolio worth FF200,000 sells an index future in the same amount for delivery at the end of March.

If the index has fallen 10% by the expiration date, the investor's portfolio is worth FF180,000, i.e. a loss of FF20,000.

By exercising the future, which has also lost 10%, he generates a profit of FF20,000.

Conversely, if the index has risen 10%, the portfolio is worth FF220,000, i.e. a gain of FF20,000.

The exercise of the futures contract, which has also risen 10%, results in a loss of FF20,000.

Index futures are tools for active risk management. They allow investors to protect a diversified stock portfolio from adverse market trends, known as market risk or systematic risk.

The effectiveness of this protection depends on:

- portfolio structure, i.e. the extent to which it mirrors the composition of the index, both in terms of component stocks and their weightings;

- basis risk, i.e. the difference between the price of the futures contract and the level of the index, and how that difference changes over time.

The above example therefore assumes:

- that the portfolio replicates exactly the composition of the index, with the same component stocks and weightings,

- that the price of the futures contract moves towards the level of the index as the contract's expiration date approaches (i.e. basis is assumed to be zero at expiration).

2. Speculating

Speculation allows an investor to make a profit on the prospective change in the market value of an asset. He will take a "bull" position if he expects the asset price to rise and "bear" position if he expects it to fall. In the case of a futures contract on a stock index, the investor is speculating on the movement of the market as a whole.

Naturally, the quest for gain entails the risk of loss.

Example :

An investor expects stock prices to fall. He sells a stock index future for March delivery with an initial value of FF200,000.

If the market declines by 10%, the investor buys back for FF180,000 the futures contract he sold for FF200,000, thus making a gain of FF20,000.

However, if the market advances 10%, the investor repurchases for FF180,000 the futures contract he sold for FF200,000, thus making a loss of FF20,000.

APPENDIX: TAX TREATMENT

For natural persons resident in France, the taxation of gains and losses realized during a tax year on transactions in futures and options depends mainly on the nature of such transactions and whether such investors are classified as "occasional", "regular" or "professional" participants (cf Articles 35-I-8°, 92-2-5°, 120-I2° and 150 *ter* to *nonies* of France's General Tax Code, or CGI).

The net gains made on the MONEP, including those resulting from the exercise of options, by persons with the status of **occasional participants** are subject, from the first French franc, to taxation at the regulation capital gains rate. The French tax authorities accept general offsetting of gains and losses from options and futures transactions against those from the disposal of securities.

In general, **regular participants** are liable for income tax, computed on the sliding scale applicable to professional income for the profits made during the calendar year, unless they elect to be taxed under the rules pertaining to industrial and commercial income (they are then considered **professional investors**).

Note that the distinction between "occasional" and "regular" participants is made by the tax authorities.

The taxable event occurs when the position is closed out in any of the following ways:

Options:

- Through a closing transaction (i.e. buying back a short position or selling out a long position). The realized gain or loss is equal to the difference between the premium paid and premium received.
- Through exercise or assignment. The gain (loss) is the difference between the price of the underlying asset on the exercise date and the strike price minus (plus) the option premium paid (received).
- Through abandonment at expiration. The realized gain (loss) is equal to the premium received (paid).

Futures:

- Through a closing transaction (i.e. buying back a short position or selling out a long position).
- Through settlement at maturity.

  The realized gain (loss) is equal to margin received less margin paid.

For legal persons, realized gains and losses on MONEP transactions enter into the determination of the year's taxable income subject to corporation tax. Should they arise, unrealized gains and losses on MONEP positions open from one financial year to the next are included for the determination of taxable income (Article 38-6-1 of France's General Tax Code or "CGI"). Separate rules apply to hedges and offsetting trades (CGI Articles 38-6-2, 38-6-2 *bis*, and 38-6-3).

Realized gains by non-residents on the French options and futures markets are not taxed in France.

THE INSTITUTIONAL STRUCTURE

Supervision and oversight

Public authorities

- The Ministry of the Economy and Finance, through the Treasury Department, supervises the general organisation of regulated markets and vouchsafes their official status by means of ministerial orders (*arrêtés*).

- The *Commission des Opérations de Bourse* (COB) is primarily responsible for promoting and checking information given to investors, overseeing the protection of savings, and ensuring the proper operation of French markets in financial instruments.
Commission des Opérations de Bourse (COB)
Tour Mirabeau, 39-43 quai André Citroen
75015 Paris, France
Tel: (+33 1) 4058 6565

- The *Comité des Établissements de Crédit et Entreprises d'Investissement* (CECEI) certifies investment services providers (credit institutions and investment firms) whose program of operations has been approved by the *Conseil des Marchés Financiers* (CMF). In collaboration with the CMF, the CECEI issues European Passports, under which investment services providers are authorized to operate in all member states of the European Union.
Comité des Établissements de Crédit et Entreprises d'Investissement (CECEI)
39 rue Croix-des-Petits-Champs
75001 Paris, France
Tel: (+33 1) 4292 4292

- The *Comité de la Réglementation Bancaire et Financière* (CRBF) establishes rules governing the solvency of investment services providers, with reference to minimum capital requirements, prudential ratios, etc.
Comité de la Réglementation Bancaire et Financière (CRBF)
39 rue Croix-des-Petits-Champs
75001 Paris, France
Tel: (+33 1) 4292 4292

- The *Commission Bancaire* is responsible for scrutinizing the financial situation of investment services providers.
Commission Bancaire
73 rue de Richelieu
75002 Paris, France
Tel: (+33 1) 4292 4292

Professional authorities

As a regulated market, MONEP is supervised by the *Conseil des Marchés Financiers*.

The CMF is a professional authority with regulatory and disciplinary powers whose members are appointed by the Ministry of the Economy and Finance. It approves the organization and operating rules of regulated markets on which financial instruments are traded.

Conseil des Marchés Financiers
31 rue Saint Augustin
75002 Paris, France
Tel. (+33 1) 5535 5535

Market operator

The market operator is Monep SA, a wholly owned subsidiary of SBF-Paris Bourse. It is responsible for organizing and managing the MONEP and also for overseeing market operations and participants.

Monep SA draws up the organization and operating rules of the MONEP, approves applications for membership of the market and decides on the admission to listing of new contracts.

It is responsible for:

- managing and monitoring the market
- registering trades
- recording members' positions
- processing exercise instructions and assignment of positions
- calling and monitoring margin deposited with SBF-Paris Bourse
- monitoring positions and risk
- overseeing trading and clearing members

Monep SA
39 rue Cambon
75039 Paris cedex 01, France
Tel. (+33 1) 4927 1800

Clearing house

SBF-Paris Bourse, in its capacity as credit institution, is the MONEP's clearing house. It ensures final settlement for MONEP clearing members of trades admitted to clearing and registered by Monep SA.

SBF-Paris Bourse
39 rue Cambon
75039 Paris cedex 01, France
tel. (+33 1) 4927 1000

MONEP PARTICIPANTS

MONEP participants include trading members and clearing members.

Trading members

Participants are eligible for trading membership in several capacities:

1. Investment firms and credit institutions who have been authorized to provide investment services, as defined in the Financial Activities Modernization Act (Law 96-597 of 2 July 1996)[1]

Investment services providers may operate in either or both of the following capacities:

- As **executing brokers** of orders from third parties or for their own account. All buy and sell orders issued by a client in respect of MONEP contracts are presented on the market by the client's broker. Executing brokers are responsible vis-à-vis their clients for final execution of orders.

1 - The "investment services" governed by the Act include the receipt and transmission of orders for third parties, the execution of orders for third parties, and own-account trading.

- As **market makers**, who serve the function of ensuring a continuous liquid market in option contracts.
  Market makers undertake at all times to quote bid and ask prices on all classes of options for which they are authorized and to act as principal for a minimum number of contracts at those prices.

2. Natural or legal persons known as **own-account traders** (*négociateurs pour compte propre, "NCP"*).

NCPs are authorized by the *Conseil des Marchés Financiers* to trade for their own account on the MONEP, and may not execute orders for a third party.
The involvement of NCPs in the market helps to ensure a more liquid market in futures contracts.

3. Associate members – members of other exchanges, referred to as Globex associate members "MAG".

"Associate members" are authorized to trade on the MONEP with the approval of their home exchange and after authorization by the *Conseil des Marchés Financiers*, pursuant to a cross-trading agreement linking several exchanges.

Associate members are subject to the rules and regulations of their country and exchange of origin. When trading on the MONEP, they are required to respect the relevant provisions of the rules established by Monep SA. Associate members who contravene those rules are answerable to their home exchange.

4. Members of markets outside France, granted access under reciprocity agreements.

Monep SA may admit the following as MONEP members, within the framework of a reciprocity agreement:
- Investment services providers who are members of regulated markets recognized by EU Member States.
- Members of a market of a country that is not an EU Member State, on condition that such members have been authorized by the *Conseil des Marchés Financiers*.

Clearing members

By agreement with Monep SA and SBF-Paris Bourse, investment services providers and legal persons approved as such may be clearing members of MONEP.
Clearing members record the trades made by trading members and guarantee final settlement vis-à-vis clients. Clearing members are *del credere* agents, i.e. as regards the clients whose accounts they hold, they remain liable for the proper execution of contracts recorded in their name until the expiration date.

The functions of trading and clearing are not mutually exclusive.

OPERATING PROCEDURES

Organization of trading

The financial instruments listed on the MONEP are traded solely on the NSC automated system. The instruments are divided in two groups, each governed by specific rules for quotation and trading.

Prior to placing orders on the MONEP, clients must ask the intermediary who maintains their account to provide them with the list of options and futures in each quotation group and with the relevant trading rules.

I. Continuous Group (continuous quotation)

Orders for continuously quoted options and futures are entered into the NSC system throughout the trading session and matched on a regular basis. They are executed automatically whenever a counterparty is found.

The trading session takes place according to the timetable mentioned in the Contract Specifications appended to this Prospectus.

The permanent presence of market makers ensures a liquid options market. Market makers' contractual obligations are stated in specifications documents established by the market operator.
Own-account traders (NCPs) handle the same function in futures contracts.

Under the operating rules for the Continuous Group, order execution depends on two priorities:

- price: the buy (sell) order showing the highest (lowest) price is executed first;

- time: if two orders carry the same limits, priority is given to the one entered into NSC first.

II. Multi-Fixing Group (quotation by call auction, "fixing")

Options traded in the Multi-Fixing Group are quoted solely on NSC by means of a general matching procedure known as the fixing procedure.

The quoted price that results from this procedure is the price at which the greatest number of contracts can be traded.

Two matching periods are held daily at pre-determined times, set by Monep SA and published in a notice known as an *Avis*.

In addition, members may request additional matching sessions at any time. In such cases, the market is informed beforehand.

Unlike option contracts traded in the Continuous Group, the options in the Multi-Fixing Group are not covered by a market making procedure that guarantees liquidity.

Consequently, users must be aware that, in the absence of sufficient counterparty orders or satisfactory price conditions, the only way of closing out a position may be to exercise the option (on or before the expiration date) or to abandon the option upon expiration.

Price fluctuation limits

In principle, there are no limits on the fluctuation of option prices.

Monep SA has implemented a "circuit breaker" mechanism that makes it possible to simultaneously suspend quotation of options and futures on a given index when the price of the index futures prices fluctuates beyond a limit set by Monep SA and published in an *Avis*. Trading in CAC 40 index options and futures may also be suspended when a significant number of CAC 40 component stocks cannot be quoted.

In such circumstances, Monep SA can, if necessary, call for additional margin from clearing members in the course of the session. The call for additional margin may be passed along by intermediaries to the clients for whom they maintain accounts.
The rules for activation of the circuit-breaker appear in the contract specifications appended to this Prospectus.

Effects of trading halts

In the event of a trading halt involving an underlying security, Monep SA may decide to suspend trading in the corresponding class of options, depending on the reasons for the trading halt in question.

Unavailability of information concerning the price of the underlying stock automatically releases the market makers from their obligations.

If trading is suspended, the holders' right to exercise their options is not affected. Hence option writers remain subject to their commitments to the buyers.

MARKET SAFEGUARDS

Guarantee of final performance

Positions taken in the options and futures admitted to clearing on the MONEP are covered by a guarantee of final performance provided by all clearing members vis-à-vis the clients for whom they maintain accounts (Article 48 of the Financial Activities Modernization Act of 2 July 1996) and by SBF-Paris Bourse in its capacity as clearing house vis-à-vis clearing members (Article 2.1.5 of the MONEP organization and operating rules).

The guarantee of final performance covers:

- For options:
  * payment of premiums resulting from trades and payment of cash amounts resulting from exercise and assignment
  * payment of cash and delivery of securities resulting from the closing of positions in underlying securities, pursuant to exercise and assignment

- For futures:
  * payment of margin and, in the case of deliverable contracts, delivery of securities against payment.

If a clearing member is in default, Monep SA, at the request of SBF-Paris Bourse, is required immediately to liquidate the said member's proprietary positions.

Client positions recorded in the accounts of the defaulting member, together with the related margin held by that member, can be transferred to another clearing member, at the request of the client, on condition that the said client has fulfilled its own obligations.

Clients that fail to fulfil these obligations after they have been ordered to do so will have their positions liquidated.

By exception, SBF-Paris Bourse can also extend, individually and indirectly, the guarantee of final performance to one or more clients at the request of the clearing member who maintains their accounts

In such a case the client's margin deposits are transferred to SBF-Paris Bourse, which can then transfer them to another clearing member in the event of the default of a clearing member who keeps client accounts.

The client should ask its clearing member to explain the conditions under which the clearing member may request SBF-Paris Bourse to extend the clearing house guarantee to the client.

When approached with the case, SBF-Paris Bourse informs the clearing member of approval or rejection of the request. The clearing member informs the client and, in the case of approval, sends the client a copy of the approval notice received from SBF-Paris Bourse.

By exception, the guarantee of final settlement also concerns clients that have a direct and valid agreement with a clearing member and that have been duly identified by the clearing member to the clearing house for certain CAC 40 futures maturities. For transactions in such maturities, SBF-Paris Bourse agrees to transfer the client positions and the related available margin amounts up to the minimum required margin amount, provided that the clients have performed their own obligations. SBF-Paris Bourse will, where necessary, reconstitute the margin to be paid to clients.

In all cases, the client must have been expressly notified by the intermediary with whom he opened his account (investment service provider or any other legal person authorized as a clearer) whether he is entitled to the SBF-Paris Bourse guarantee of final performance in the event of the intermediary's default.

Margining

Depositing margin

As clearing house for the MONEP, SBF-Paris Bourse calls for margin from clearing members to cover their commitments.
Such deposits are calculated on positions recorded in each category of clearing account (house, client, non-clearer intermediary and, where applicable, market maker) opened in clearing members' names. The amount is subject to a daily adjustment, which is communicated to clearing members. The corresponding payments must be made before the opening of the day's trading session.
To ensure a safe market, any client trading in MONEP contracts must deposit margin with the broker who maintains the account. The margin level must be at least equal to that calculated under the applicable rules by Monep SA.

Margin on options

Clearing and non-clearing intermediaries who maintain accounts must require their clients to hold, at all times, sufficient collateral to buy back their short positions on the assumption of the most adverse price movement in the underlying assets during the following trading session.

The collateral required represents the theoretical cost of liquidating the client's options portfolio (or liquidating value). Options purchased are valued as assets (i.e. the position has a positive liquidating value) while options sold are counted as liabilities (i.e. a negative liquidating value).

Monep SA determines the values of positions in each series on the basis of a pre-set range of changes in the underlying asset price (price movements against which the clearing house has decided to cover itself). For each class, it adopts the most negative or the least positive liquidating value.
When the algebraic sum of the liquidating value for each class of options in the client portfolio is negative, the liquidating value of the portfolio shows an overall debit balance. This debit balance represents the required margin. When the balance is positive, the liquidating value of the portfolio is in credit, and no margin is required.

The margin requirement is adjusted on a daily basis.
If a daily requirement is lower than the previous day's, the previous margin is adjusted downwards; if it is higher, then the client must deposit additional margin with his broker. If the client fails to respond to a margin call before the close of the following trading session, his broker must immediately liquidate his position.

Since option buyers pay their premiums immediately, they are not exposed to risk with regard to the contracts they hold. Hence, holders of long positions in options (calls or puts) are not subject to margin calls.

Margin on futures

The initial margin required for trading in CAC 40 futures, which represents a fraction of the face value of the contract, is determined by Monep SA. Clients that are not regular participants (see above) must deposit initial margin before placing an order.

Regular and professional participants must make their deposits at the latest before the opening of the day's trading session on the day after the trade.

Initial margin is adjusted daily to reflect changes in the client's commitments. If the client increases his positions, the broker issues a demand for additional funds (known as a margin call); if he scales back his positions, the broker will refund all or part of the margin deposit.

The collateral deposited by clients with their brokers must be capable of being readily converted to cash and must therefore benefit from a highly liquid market.Margin collateral may include cash, debt securities and equity securities such as French Treasury Bonds, OATs, Bunds, US Treasury Bills, mutual funds, and securities underlying options or included in indices on which options and futures are based (see Contract Specifications).

The full list of eligible assets is established by SBF-Paris Bourse and published in an *Avis*.

Assets accepted as margin (other than cash in French francs) are valued daily at market value or, in the case of debt securities, at nominal value, adjusted where appropriate by a discount percentage ("haircut") corresponding to the estimated price risk on those assets.

Pursuant to Article 49 of the Financial Activities Modernization Act, margin deposited by clients with members of a clearing house, regardless of the nature of such deposits, is made over immediately to the clearing member in order to enable him to settle any debit balance that may arise from the mandatory liquidation of positions and to pay off any monies owing to that member.

Variation margin

Positions remaining open in futures contracts are valued daily ("marked to market") on the basis of the daily settlement price, calculated by Monep SA at the end of each trading session on the basis of market prices.

In the event of a difference between two daily valuations, a margin call is issued. This is equal to the difference (a) between the price at which the contract was initially traded and the daily settlement price on the day the position was taken, or (b) between the previous day's daily settlement price and the current daily settlement price throughout the life of the contract.

If the difference is positive (credit margin), the client's account is credited with the gain. If the difference is negative (debit margin), the broker makes a margin call and the client must cover the shortfall before the opening of the next session.

Positions closed out during the trading session give rise to receipt or payment of the gain or loss resulting from the difference between the trade's closing price on the one hand and either the original traded price or the previous day's settlement price.

Example

- On 4 January, a client buys a CAC 40 future at FF200,000 (payment of margin deposit: FF10,000)

- On 5 January, when the contract is priced at FF190,000; the client receives a margin call for FF10,000 beyond the margin already deposited.

- On 6 January, when the contract is priced at FF205,000; the client's margin account is credited for FF15,000. The margin deposit is retained by the broker.

Before trading on the MONEP, investors are urged to obtain information about the mechanisms and rules pertaining to that market, and also about strategies for using options and futures. Furthermore, they are advised to engage the services of a specialized broker (an investment firm or credit institution) to advise them.

OPENING AN ACCOUNT

When a client opens an account with a broker, he enters into a written agreement.

There are two types of accounts that can be opened in a client's name with a broker: an execution account and a discretionary account.

Execution account: The client initiates and takes full responsibility for market operations (placing orders, checking and monitoring operations, etc), while the broker is involved only as an account-holder.

In the case of an execution account, the agreement between the broker and his client must cover, as a minimum, the method of order transmission, conditions for calling and depositing margin, procedures for informing the client about transactions made on his behalf or concerning the account situation, the frequency at which such information is to be provided, the broker's fees, and the procedures for terminating the agreement.

Clients that personally manage their own portfolios are permitted to engage the services of an investment services provider (investment firm or credit institution) or an agent appointed by a provider and operating on an exclusive basis on behalf of and under the responsibility of that provider.

This investment services provider or agent may not, under any circumstances, initiate orders on behalf of the client, who alone is responsible for his transactions.

Discretionary account: Persons who do not wish to manage their accounts themselves may use the services of an authorized agent. This agent may be either a COB-approved portfolio management company or an investment firm or credit institution duly authorized by the COB. When a client opens a discretionary account, he enters into a written agreement giving the authorized agent the right to initiate transactions on his behalf.

If the aforementioned agreement authorizes the use of derivative financial instruments, the principal's express permission must be sought before positions can be taken in such instruments. In this respect, the principal must specify the type of transactions authorized (hedging and/or speculation) together with the associated procedures, the markets and derivative financial instruments on which transactions can be made, and also the exposure limits, in particular the maximum permitted loss or the maximum portion of the portfolio than can be committed on these markets and/or products.

The discretionary account agreement must include the notation "all other transactions not enumerated are prohibited".

The discretionary agreement, must include at least the following information:

- The business name and address of the broker with whom the discretionary account has been opened.
- The investment objectives.
- The procedures for informing the client of his commitments and results, and the frequency at which such information is to be provided.

Informational requirements include the transmission, at least once per month, of the following:

- A statement showing the value of each position and the overall portfolio.
- A management report detailing the policy applied over the period in question, any changes in management strategy, open interest, the results of completed trades, and the balance on the margin account.
- An assessment of position risk.

- The remuneration for the discretionary service, which can be linked to results, but not the number of transactions.
- Transaction fees.
- The duration of the contract, as well as procedures regarding extension
- The terms for canceling the contract (note that the agreement can be cancelled at any time by either party).

When requested, an agent must inform his principal immediately of the account balance.

Provision must also be made for the agent to inform his principal immediately in the event that the trades transacted by the agent result in a level of actual or potential cumulative loss specified in the agreement.

PLACING ORDERS

Method of transmission

Orders may be sent to brokers in various ways, unless otherwise specified in the account agreement:

- By letter, telegram, fax or telex.

- By the Minitel teletex service, the internet, or electronic routing (for those establishments offering this service).

- By telephone, the broker having the option of demanding written confirmation.

To avoid disputes over order execution, we recommend using instantaneous transmission media that can date-stamp messages (telex, fax, etc.) or sending written confirmation of telephone orders, noting all of the details of the orders placed.

Instructions and details on orders

Even though order instructions are transmitted in an informal manner, a number of details must nevertheless be clearly specified.

General specifications

These include:

- the nature of the operation (buy / sell and, for options, opening / closing transaction),
- identification of the contract .

For options, identification of the class and the series covered by the order as well as the number of contracts to be traded.
Note that the series must be identified by type (call or put), strike price and expiration date.
For futures, identification of the contract and its maturity as well as the number of contracts to be traded.

Example A:
"Buy 10 Lafarge December 1998 calls, strike price 600 as an opening transaction".
"Buy 10 CAC 40 futures for December 1998 delivery"

Order duration

Orders may show one of the following specifications:

- Day orders (*validité jour)* may be executed during the trading session of the day on which they are transmitted. Failing execution, they are automatically cancelled at the close of the session.

- Fixed term orders (*à date déterminée*) may be executed at any time until the trading session on the date set by the client (e.g. good for two days, good for the week). Failing execution, they are automatically cancelled.

- Good Till Cancelled orders ("*à révocation*"), for options, trades are settled, or at the close on the last trading session of the month. In this case, they may be renewed. Clients can change or cancel a GTC order at any time before the above dates.
GTC orders on expiring option series are automatically cancelled at the end of the session on the expiration date.

If duration is not specified, orders are considered to be day orders.

Execution price

Orders may be placed on the MONEP:

- "at market price" (*au prix du marché*), i.e., without price specifications.

- "with a limit price" (*à cours limité*), i.e., at a maximum price in case of a buy order, or a minimum price in case of a sell order. (Example B)
Clients must set the limit on their orders in conformity with the minimum price fluctuation (tick size) defined by Monep SA and stated in the Contract Specifications appended to this Prospectus.

Example B:
"Buy 10 Lafarge December 1998 calls, strike price 600 as an opening transaction for FF30, day order".

"Buy 10 CAC 40 futures, December 1998 delivery at FF3,800; order good till 15 December".

Option prices are highly volatile. It is therefore inadvisable to place orders at market price because they may be executed at a price that differs considerably from that prevailing when the order was entered. We recommend investors to set a limit price on their orders.

Furthermore, limit orders for futures contracts may be designated as "stop-limit" orders. For purchases, a stop-limit order can be executed when the traded price equals or exceeds its limit. For sales, a stop-limit order is executed when the traded price is equal to or lower than its limit.

Once the limit is triggered, there is no ceiling on a buy stop-limit order nor floor on a sell stop-limit order. Accordingly, clients have little control over the actual execution price when using stop-limit orders.

Order execution is always subject to the existence of an adequate counterparty, even if the limit is quoted after the order has been received.
Note, however, that professional ethics require dealers to make every effort to execute their clients' orders at the best available price.

Transaction fees

Monep SA receives a fee on all trades executed on the MONEP, in the amounts stated in the Contract Specifications appended to this Prospectus. Transaction fees also apply upon liquidation at maturity of futures contracts and may apply upon the exercise of index options (see applicable Contract Specifications).

Brokers also charge fees, the levels of which are not regulated.

Value-added tax is levied at the prevailing rate on commissions and brokers' fees.

MONITORING POSITIONS ON A CONSTANT BASIS

An investor's situation on the options market changes constantly each trading day, depending on variations of the underlying asset(s). Consequently, investors must remain constantly vigilant in case they need to act immediately in order to defend their interests. They must also make the appropriate arrangements if an option is exercised. For an assigned writer, exercise results in one of the following:

- an immediate cash payment (for index options),
- an accounting entry (delivery versus payment) in the name of the client on the day following the assignment at the latest (options whose underlier is traded on a cash market),
- a position on the monthly settlement market (for equity options whose underlying securities are traded on the monthly settlement market), which has different margin rules and risks from those on the options market.

The attention of clients is therefore drawn to the following:

- The margin that a client maintains with his broker must at all times be equal to or greater than the minimum margin requirement, as calculated and adjusted daily by Monep SA pursuant to market regulations. The conditions under which initial and subsequent margin is deposited must be agreed between the client and the broker.

- The broker is required to liquidate, by the following trading day, any position for which the client has not deposited sufficient margin at the end of a session.
In this event, the client is required to pay any debit balance that may result from such liquidation within one trading day. To avoid the risk of being unable to meet a margin call in due time, non-professional investors are advised to maintain a margin balance higher than the regulatory requirement

.

Reporting of operations

The broker-client agreement must stipulate the procedures and timeframes for providing the client with the information he needs to monitor his positions and assess the accompanying risks.

For the client's safety, positions should be monitored daily.

To ensure timely monitoring of options trades on the MONEP, clearing members are advised to send the following documents to clients for whom they maintain accounts:

Transaction report: consisting of a list of the trades carried out on the client's behalf.

The transaction report contains the following information:

For options trades:

- Contract specifications
- Option type (calls or puts)
- Side (buy or sell)
- Number of contracts traded
- Execution date
- Transaction registration number
- Nature of transaction (opening or closing)
- Gross transaction amount (premium x contract size x number of contracts)
- Brokerage fees
- Commissions payable to Monep SA
- Net transaction amount

For futures trades:

- Contract specifications
- Side (buy or sell)
- Number of contracts traded
- Execution date
- Transaction registration number
- Debit or credit margin
- Brokerage fees
- Commissions payable to Monep SA
- Net transaction amount

In the event of a disagreement concerning the conditions under which their orders were executed, clients must inform their brokers thereof as soon as they receive their transaction reports, which must be dispatched no later than the trading day following the day of the transaction.

Exercise and assignment notice: consisting of a list of the long positions in options exercised by the client or short positions assigned to the client. The exercise and assignment notice contains the following information:

- Specifications of the contracts exercised or assigned.

For equity options:

- Number of securities bought or sold
- Gross transaction amount.

For index options:

- Gross cash amount receivable or payable
- Exercise fees if any (see contract specifications) for which the buyer alone is liable
- Net amount receivable

- Open interest statement: a list the client's of open positions by class and by series.

For options positions:

- Contract specifications
- Indication of the previous day's position brought forward
- The day's transactions (opening or closing)
- Transfers of contracts pending settlement
- Contracts exercised or assigned
- Expired contracts
- Net position

For futures positions :

- Contract specifications
- Transaction side (buy or sell)
- Number of contracts open in the position
- Transaction regisration number
- Debit or credit margin
- Initial margin

- Margin calculation statement: the value of net positions in options at market close, computed on the assumption of the most unfavorable movement in the underlying stock

The margin calculation statement contains the following information:

- Class.

For each class:

- Day's closing price (or closing index) of the underlying asset.
- Price (or index) used as the most unfavorable assumption.

For each series:

- Settlement price of the series, determined daily by Monep SA.
- Value of open interest in the series at the settlement price - known as the current liquidating value. (Options purchased have a positive liquidating value, options sold have a negative liquidating value).
- Theoretical price of the series on the basis of the price (or index) used as the most unfavorable assumption.
- Value of open interest in the series at the theoretical price - known as the adopted liquidating value.
- Sum of adopted liquidating values, by class.
- Balance of adopted liquidating values for all classes constituting the portfolio. (When the balance is negative, the liquidating value shows an overall debit, which corresponds to the margin requirement. When the balance is positive, the liquidating value is in overall credit and no margin is required).

- Financial statement: showing the client's net position.

For options, the financial statement takes into account the margin requirement and the margin already on deposit. The financial statement contains the following information:

- Margin requirement, as shown on the margin calculation statement.
- Margin deposited by the client with his broker, analyzed according to the type of instrument deposited
- Total margin on deposit.
- Net position (A debit balance represents the additional margin required; a credit balance indicates a reduction in the previous margin requirement).

For futures, the financial statement shows the client's net position, taking into account the margin requirement and the margin already on deposit.

Terminology common to options and futures

Clearing house: the body responsible for the registration of transactions and for guaranteeing the full performance of operations and commitments to clearing members.

Client/broker account agreement: The written agreement that defines the contractual relationships between the client and the broker who maintains its account.

Combined strategies: Positions opened or trades made simultaneously by an investor in options of the same class but different characteristics, or in different maturities of the same futures contract (e.g. spread, straddle).

Del credere agent: As *del credere* agents, MONEP clearing members, guarantee final execution of the transactions they record, vis-à-vis the clearing house as well as the clients for whom they maintain accounts.

Derivative financial instruments: Options and futures on transferable securities, stock market indices, interest rates, currencies, or commodities.

Discretionary trading authorization/Discretionary account agreement: Agreement fulfilling the requirements of the *Commission des Opérations de Bourse* by which a person delegates an investment services provider to manage his transactions in the financial markets.

Expiration settlement index/Delivery settlement price: computed and disseminated on contract expiration day, it is used as a basis for automatic exercise of option contracts that are in the money on expiration and to determine the last margin call and cash settlement basis for futures contracts.

Fungibility: Property by which contracts with identical characteristics can be substituted. Since MONEP contracts are fungible a position can be offset by taking an opposing position in a contract with the same characteristics as the contract originally traded.

Investment services providers: Investment firms (including the former categories of brokerage firms "*sociétés de bourse*" and portfolio management companies "*sociétés de gestion de portefeuille*") and credit institutions.

Margin deposits: A good-faith deposit that must be deposited by members with Monep SA and by clients with the brokers that hold their accounts in order to ensure that contractual obligations on options and futures positions can be met. The purpose of margin deposits is to cover any debit balance that may arise when a position is liquidated (q.v.) following an incident of default.

Maturity: The date on which an option contract expires (expiration date) or a futures contract is settled.

Underlying interest/Underlying asset: the instrument or asset (stock, bond or index) to which options or futures relate.

Unit of trading (contract size): the number of units of the underlying instrument represented by the contract, i.e. the contract size.

Expressed as number of shares for equity options and in monetary units per index point for index options and index futures.

For option contracts on equities, this may vary according to the underlying securities on which the contract bears. Traders are therefore advised to check with their broker before placing orders.

Glossary of options terminology

American-style option: an option that can be exercised, at the holder's choice, at any time until the option expires.

Assignment: the obligation incumbent on an option seller to carry out the obligations relating to his contract (purchase or sale of the underlying instrument), in response to a buyer's decision to exercise an option.

At the money: an option is at the money when the value of the underlying instrument is the same or almost the same as the strike price of the option contract.

Call: an option contract granting the holder the right to buy the underlying instrument at the agreed strike price. A call obliges the writer to sell the underlying instrument at the agreed strike price if he is assigned against.

Class (of options): the set of options of the same exercise style (American or European) within the same maturity range (short-term or long-term) and pertaining to the same instrument.

Closing index: the last index calculated and published when the markets close, used as the basis of margin calculations.

Contract value: this is obtained by multiplying the premium's quoted price by the unit of trading (contract size).

Daily settlement index: computed and disseminated each trading day, it is used as a daily reference for exercising American-style options.

European-style option: an option that can be exercised by the buyer only on the contract expiration date.

Exercise: a decision, reserved for the option holder, to request execution of the contract.

In the money: a call is said to be in the money when the value of the underlying instrument is greater than the option strike price. A put is in the money when its strike price is greater than the value of the underlying instrument.

Intrinsic value: The price of the underlying asset minus the option strike price (calls); or the strike price minus the price of the underlying asset (puts)
Intrinsic value represents the gain that would result from exercise by the option holder.

Market maker: a trading member, who has the duty of maintaining a continuous, liquid market in options by trading solely for his own account.

Out of the money: a call is out of the money when the value of the underlying instrument is less than the option strike price. A put is out of the money when its strike price is less than the value of the underlying instrument.

Premium: the option price resulting from matching of buy and sell orders submitted to the market.

Put: an option contract granting the purchaser the right to sell the underlying instrument at the agreed strike price. A put obliges the seller to purchase the underlying instrument at the agreed strike price if he is assigned against.

Series (of options): all options of the same class, the same type (call or put) bearing on the same quantity of the underlying instrument, and having the same strike price and the same expiration date.

Strike price: the price at which the option holder may purchase (in case of a call) or sell (in case of a put) the underlying instrument.

Time value (speculative value): Difference between an option's premium and its intrinsic value.
Time value is determined by several factors: volatility of prices of the underlying asset, strike price, remaining life of the option, short-term interest rates, and dividends on the underlying securities.

Volatility: Measures the price fluctuation of a financial asset over a given time (historic volatility) or the expectation of future price fluctuations (future volatility or implied volatility, determined on the basis of the option price).

Glossary of terms relative to the CAC 40 futures contract

Daily settlement price: Calculated by Monep SA for futures contracts at the closing of each trading session, the daily settlement price is used to determine variation margin and to mark open positions to market.

Financial futures contract: A legally binding agreement to buy or sell a specified quantity of financial assets at a price and date fixed at the time of initiating the contract. The position can be closed out at a pre-established date either by.

- delivering the underlying financial asset against payment of the corresponding funds :

- cash settlement of the difference between the price fixed when the position was opened and the price at which the position is closed.

Liquidation: Forced closing by the clearing house of a defaulting clearing member's positions or by a clearing member of a defaulting client's positions for whom he maintains accounts.

Local (*Négociateur pour compte propre* "NCP"): Legal or natural person who trades solely for his own account in futures contracts, thus enhancing their liquidity.

Settlement: Closing an open position on expiration by means of a cash payment.

Variation margin: At the end of each trading day, clients' positions are marked to market on the basis of the daily settlement price, thereby producing a potential loss or gain which is charged or credited to the account.

Product notes: Contracts specifications

Short-term equity options

Long-term equity options

Long-term options on the CAC 40 Index (PXL)

CAC 40 index futures contract – EUR 10 –

Options on the Dow Jones STOXXâ 50 Index

Futures on the Dow Jones STOXXâ 50 Index

Options on the Dow Jones Euro STOXXâ 50 Index

Futures on the Dow Jones Euro STOXXâ 50 Index

Dow Jones Stoxxâ Bank futures contract

Dow Jones Stoxxâ Bank options

Dow Jones Stoxxâ Energy futures contract

Dow Jones Stoxxâ Energy options

Dow Jones Stoxxâ Telecommunications futures contract

Dow Jones Stoxxâ Telecommunications options

Dow Jones Stoxxâ L&M Technology futures contract

Dow Jones Stoxxâ L&M Technology options

Dow Jones Stoxxâ L&M Insurance futures contract

Dow Jones Stoxxâ L&M Insurance options

Dow Jones Stoxxâ L&M Pharmaceutical futures contract

Dow Jones Stoxxâ L&M Pharmaceutical options

Dow Jones Stoxxâ L&M Media futures contract

Dow Jones Stoxxâ L&M Media options

German Risk Disclosure

Important Information on Loss Exposures in Respect of Forward Exchange Transactions

Dear Customer,

In forward exchange transactions, the profit potential is confronted with a high loss exposure. Any investor who wishes to conclude a forward exchange transaction must have been informed of the risks beforehand.

A. General Information on Loss Exposures in Respect of Forward Exchange Transactions

The German Stock Exchange Act (Borsengesetz) provides in Section 53, sub-section 2 that we inform you of the following risks:

Forfeiture or depreciation

The rights you acquire under forward exchange transactions may forfeit or depreciate as the rights conferred under such transactions are in any case limited in time. The shorter the time limit, the greater your risk may be.

Incalculable losses

Your loss exposure in commitments under forward exchange transactions may be indeterminable and may also include your entire property, beyond the collateral furnished by you.

Missing hedging opportunities

It is possible that transactions by which risks under forward exchange transactions entered into shall be excluded or limited (closing transactions) will not be concluded at all or only be concluded at a price meaning a loss for you.

Additional loss potential in respect of borrowings or as a result of currency fluctuations.

Your loss exposure will increase if you make use of a credit facility for your forward exchange transactions. The same applies to forward transactions where your liabilities or claims are denominated in a foreign currency or a unit of account (e.g. ECU).

B. Risks in the individual types of transactions

I. Purchase of options

1. Purchase of an option on securities, currencies or precious metals

The transaction:

If you purchase an option on securities, currencies or precious metals, you acquire the claim for delivery or acceptance of the underlying instrument at the price already fixed when purchasing the option.

Your risk:

Changes in the price of the underlying instrument, such as e.g. the stock on which your option is based, may reduce the value of your option. In the case of a call option, such depreciation will be triggered by price losses, whereas in the case of a put option, price gains of the underlying instrument will trigger a depreciation. If such depreciation occurs, it will in each case be disproportionate in relation to the changes in the price of the underlying instrument, so that your option may even be worthless. Your option may, however, also depreciate if the price of the underlying instrument does not change, as the value of your option is co-determined by other price determinants (such as the maturity or the frequency and intensity of price fluctuations of the underlying instrument. Due to the limited maturity of an option, in such case you cannot rely on the price of the option recovering in good time. If your expectations as to the market development are not come up to and you therefore waive the exercise of the option or fail to exercise it, your option will expire worthless at the end of its maturity. In such case, your loss will be composed of the price paid for the option plus the costs incurred by you.

2. Purchase of an option on financial futures

The transaction:

When purchasing an option on financial futures, you acquire the right to enter into a contract on terms fixed beforehand, by which contract you undertake to purchase and sell, for example, securities, currencies or precious metals for forward delivery.

Your risk:

First, such option is also subject to the risk mentioned under no. 1 above. However, after exercising the option, you run new risks; these new risks are dependent on the financial futures contract then entered into and may be considerably higher than your original risk - i.e. the price paid for the option. Then, you will incur the additional risks under the forward exchange transactions with forward

settlement described below.

II. Sale of options and forward exchange transactions with forward settlement

1. Sale with forward delivery and sale of a call option on securities, currencies or precious metals

The transaction:
As a seller for forward delivery, you assume the obligation to deliver securities, currencies or precious metals at an agreed purchase price. As seller of a call option, you will assume that obligation only if the option is exercised.

Your risk:
In case of a price increase, you must nevertheless effect delivery at the price agreed before, and that price may be considerably lower than the current market price. If the underlying instrument which you have to deliver is already in your possession, you will no longer enjoy the advantage of increasing market prices. If you wish to acquire the underlying instrument only at a later point in time, the current market price may be considerably higher than the price agreed in advance. That price difference represents your risk. The loss exposure cannot be determined in advance, which means that it is theoretically unlimited. The loss exposure may exceed the collateral furnished by you to a considerable extent in the event that you do not possess the instrument to be delivered but only wish to acquire it at maturity. In such case, you may incur considerable losses, as - depending on the market situation - you may be forced to purchase at a very high price or to effect cash settlement payments in case an acquisition of the instrument is rendered impossible for you.

Please note:
if the underlying instrument which you have to deliver is in your possession, you are protected from losses incurred by an acquisition; however, if these assets are blocked in whole or in part for the duration of your forward exchange transaction (as collateral), you may not dispose of the same during that period of time or prior to the closing of your futures contract, nor can you sell such assets in order to avoid losses in case of decreasing prices.

2. Purchase with forward delivery and sale of a put option on securities, currencies or precious metals

The transaction:
As a purchaser for forward delivery or as seller of a put option, you assume the obligation to purchase securities, currencies or precious metals at an agreed price.

Your risk:
In case of decreasing prices, you must nevertheless take delivery of the purchased instrument at the price agreed before, and that price may be considerably higher than the current market price. That price difference represents your risk. The loss exposure cannot be determined in advance and may exceed collateral furnished by you (if any) to a considerable extent. If you intend to resell the product immediately after taking delivery thereof, you should note that it may be impossible, or very difficult, for you to find a purchaser; depending on the market situation, it is possible that you will only succeed in selling the instrument with a considerable price reduction.

3. Sale of an option on financial futures contracts

The transaction:
When selling an option on a financial futures contract, you assume the obligation to enter into a contract on terms fixed in advance, by which contract you undertake to purchase and sell, for example, securities, currencies or precious metals for forward delivery.

Your risk:
Should the option sold by you be exercised, you run the risk of a seller or purchaser for forward delivery, as set out in Sections 1 and 2 of this Chapter II.

III. Options and financial futures contracts containing a cash settlement

The transaction:
Several forward exchange transactions only contain a cash settlement. These include in particular:

- options and financial futures contracts on an index, i.e. a variable number which is calculated on the basis of a portfolio of securities determined according to certain criteria, and the variations of which mirror the price movements of these securities;
- options and financial futures contracts on the interest rate for a time deposit with a standardised maturity.

Your risk:
If your expectations are not met, you have to pay the difference between the price fixed at the conclusion of the transaction and the current market price at maturity. That difference represents your risk. The amount of the loss suffered by you cannot be determined

in advance. It may exceed collateral furnished by you (if any) to a considerable extent.

C. Additional risk under forward exchange transactions

I. Forward exchange transactions containing a currency risk

The transaction:
When entering into a forward exchange transaction in respect of which your commitment or the consideration to be claimed by you is denominated in a foreign currency or a unit of account (e.g. the ECU), or where the value of the underlying instrument is determined thereby (such as in the case of gold), you are exposed to an additional risk.

Your risk:
In this case, your loss exposure is not only linked with the performance of the underlying instrument. Developments on the foreign exchange market can rather cause additional incalculable losses. Currency fluctuations may:

- reduce the value of the purchased option;
- increase the price of the underlying instrument to be delivered by you for the settlement of forward exchange transactions if the same is payable in a foreign currency or a unit of account. The same applies to a payment obligation under the forward exchange transaction to be settled by you in a foreign currency or a unit of account;
- reduce the value or the sales proceeds of the underlying instrument to be taken delivery of or the value of the payment received.

II. Transactions intended to exclude or limit risks

Do not rely upon being able to enter into transactions at any time during the term so as to compensate for, or limit, your risks under forward exchange transactions. Whether or not you have that possibility depends on the market conditions and also on the structuring of your forward exchange transaction. It may be that you will not be in a position to enter into said transactions at all, or only at an unfavorable market price, so that you will incur a loss.

III. Drawing on a credit facility

Your risk will increase if you use a credit facility for the financing of, in particular, the acquisition of options or the performance of your delivery and payment obligations under forward exchange transactions. In such case, if the market development is contrary to your expectations, you must - in addition to the loss suffered - also pay interest on the credit facility and redeem the same. You should therefore never start from the assumption that you will be in a position to pay interest and capital in respect of such credit facility from gains achieved under forward exchange transactions. Rather make sure prior to entering into a transaction that your financial situation allows you to pay interest on, or - should the situation arise - redeem, such credit facility at short notice even if you suffer losses instead of gains.

D. Certification in securities

The risks in respect of the transactions described above will not change if rights and obligations are certificated (e.g. in a warrant).

According to Section 53, sub-section 2 of the German Stock Exchange Act (Borsengesetz), this Information Memorandum must be signed by you if you wish to enter into forward exchange transactions.

Regulatory Info and Additional Provisions for users from Hong Kong

REGULATORY INFORMATION AND ADDITIONAL PROVISIONS FOR USERS FROM HONG KONG

Your agreement is with Interactive Brokers' United States office ("IB"). IB wants to make sure that you are aware that:

- IB is not a member of the Hong Kong Futures Exchange Limited ("HKFE") and you are NOT entitled to claim against the Compensation Fund of the HKFE.
- IB is not a member of the Stock Exchange of Hong Kong Limited ("SEHK").
- Factual information, including market quotations and other data, is provided as a discretionary courtesy; and IB does not warrant in any fashion, and is not responsible for, the accuracy or timeliness of such information. Reliance on such information is at the Customer's own risk. (See paragraph 2 of the Customer Agreement).
- Electronic or computer-based facilities and systems such as those used by IB are vulnerable to disruption or failure. Your ability to make claims or recover losses may be subject to limits on liability imposed by the Customer Agreement. (See paragraph 5 of the Customer Agreement).
- **Because information is being sent to you, and from you, through internet facilities, there will be a time delay with respect to price quotations and data transmission and your orders may not necessarily be executed at the price indicated to you through the internet.**

The following "Additional Provisions" are applicable to Users from Hong Kong and Users trading on Hong Kong Exchanges and are in addition to the Provisions of the Customer Agreement. To the extent that there is any conflict between the terms of the Customer Agreement and the terms of the Additional Provisions, the Additional Provisions shall prevail.

The following definitions are applicable to the Additional Provisions:

- "Agreement" refers to the IB Customer Agreement and these Additional Provisions;
- "the HKFE Clearing House" means HKFE Clearing Corporation Limited;
- "the CTO" means the Commodities Trading Ordinance, Chapter 250 of the Laws of Hong Kong as amended from time to time;
- "HKFE" means Hong Kong Futures Exchange Limited;
- "IB" means Interactive Brokers LLC, an overseas company registered with the Securities and Futures Commission as a Dealer and also registered in the United States as a broker-dealer with the U.S. Securities and Exchange Commission and a Futures Commission Merchant with the U.S. Commodity Futures Trading Commission
- "Procedures" means the practices, procedures and administrative requirements prescribed from time to time by the HKFE, SEHK, HKFE Clearing House or SEOCH, as applicable.
- "SEHK" means The Stock Exchange of Hong Kong Limited.
- "SEOCH" means The Stock Exchange of Hong Kong Clearing House.
- "the SFC Ordinance" means the Securities and Futures Commission Ordinance, Chapter 24 of the Laws of Hong Kong as amended from time to time.
- "THHK" means Timber Hill Hong Kong Limited, an entity registered with the Securities and Futures Commission and a member of the Exchange; THHK is an affiliate of IB.
- "THSHK" means Timber Hill Securities Hong Kong Limited, an entity registered with the Securities and Futures Commission and a member of the Stock Exchange of Hong Kong Limited; THSHK is an affiliate of IB.
- "Rules" means the Rukes and Regulations of the HKFE, SEHK, HKFE Clearing House or SEOCH as applicable, and any amendments, supplements, variations or modifications thereto.

1. These Additional Provisions are subject to and governed by the provisions of the CTO and Hong Kong law.

2. The rules and regulations of the HKFE or SEHK, as applicable, and the HKFE Clearing House or SEOCH, as applicable, shall be binding on the Customer and IB. Those rules and regulations contain provisions which require IB, in certain circumstances, to disclose the name and beneficial identity or such other information concerning Customer as the exchange or Commission may request. Customer agrees to provide such information to IB in compliance with the SFC Ordinance, the CTO, exchange Rules, Regulations and Procedures or as the exchange or Commission may require. Customer acknowledges that if such information is not provided, the Chief Executive may require the closing out of Customer positions or the imposition of a margin surcharge on Customer's positions.

3. IB, its affiliates, including THHK and THSHK, and their respective directors and/or employees may trade on their own account and, subject to the provisions of the CTO and the SFC Ordinance, IB and its affiliates may take the opposite position to the Customer's order in relation to any futures/options contract, whether on IB's or its affiliate's own account or for the account of other customers of IB, provided that such trade is executed competitively on the floor in accordance with the rules and regulations of the exchanges and clearinghouses governing the relevant markets.

4. Unless otherwise confirmed in writing by IB and agreed by the Customer and IB, IB is acting solely as broker to any transactions made with IB by the Customer.

5. In all transactions referred to in the Agreement, IB or its affiliates are authorized to engage in proprietary trading and may contract as principal.

6. The Customer submits to the non-exclusive jurisdiction of the Court of Hong Kong in respect of all disputes, differences and claims relating to or arising out of the Agreement.

7. The Customer is bound by rule 631 of the HKFE which permits the HKFE or Chief Executive of the HKFE to take steps to limit positions or require the closing out of contracts of the Customer who in the opinion of the HKFE or the Chief Executive are accumulating positions which are or may be detrimental to the HKFE's markets.

8. All monies or other properties received by IB from the Customer or from any other person, including the HKFE Clearing House for the account of the Customer in respect of the futures/options contracts transacted on behalf of the Customer, shall be held by IB as trustee, segregated from IB's own assets and paid into a segregated bank account. All monies or other property so held by IB shall not form part of the assets of IB for insolvency or winding up purposes but shall be promptly returned to Customer upon the appointment of a provisional liquidator, liquidator or similar officer over all or any part of IB's business or assets.

9. The Customer hereby authorises IB to apply any monies which the Customer may pay to IB in order to (i) meet obligations to the HKFE Clearing House (provided that no withdrawal from the Customer's accounts with IB may be made which would have the effect that the relevant margin requirements or trading liabilities conducted on behalf of any Customer are thereby financed by any other Customer), (ii) pay commission, brokerage, levies and other proper charges for contracts transacted by IB on behalf of the Customer, (iii) make payments in accordance with the Customer's directions (provided that no money may be paid into another account of the Customer unless that account is also a segregated bank account). The Customer acknowledges that IB may apply such monies in or towards meeting IB's obligations to any party insofar as such obligations arise in connection with or incidental to all futures/options contracts transacted on the Customer's behalf. The Customer agrees that IB may retain interest on the Customer's money.

10. In respect of any account of IB, its affiliates, including THHK or THSHK, or any other broker acting on their behalf, maintained with the HKFE Clearing House, whether or not such account is maintained wholly or partly in respect of the futures/options contracts transacted on behalf of the Customer and whether or not money paid by the Customer has been paid to the HKFE Clearing House, as between such entities and the HKFE Clearing House, such entities deal as principal and accordingly no such account is impressed with any trust or other equitable interest in favour of the Customer

11. In the event that the Customer directs IB to enter into any contract on an exchange or other market on which such transactions are effected in a foreign currency: (a) any profit or loss arising as a result of a fluctuation in the exchange rate affecting such currency will be entirely for the account and risk of the Customer; (b) all initial and subsequent deposits for margin purposes shall be made in such currency in such amounts as IB may, at its sole discretion, require; and (c) when such a contract is liquidated IB shall debit or credit the account of the Customer in the currency in which such account is denominated at a rate of exchange (where the relevant contract is denominated in a currency other than that of the account) determined by IB at its sole discretion on the basis of the then prevailing money market rates of exchange.

12. Levies & Commission

- Every contract executed on the floor of the HKFE shall be subject to applicable Compensation Fund levies and levies pursuant to Securities and Futures Commission Ordinance the cost of both of which shall be borne by the Customer.
- In respect of contracts executed in markets other than those organised by the HKFE, any charges levied on such contracts by the relevant markets shall be borne by the Customer.
- The Customer will pay commission and other charges at rates to be determined by IB and at charges pursuant to Hong Kong law or the rules of the HKFE or other exchanges governing the relevant markets.

13. Rules & Laws

- All transactions shall be subject to the constitution, rules, regulations, customs, usages, rulings and interpretations, from time to time extant or in force of the HKFE or SEHK or other markets as applicable (and of their respective clearing house, if any), where the transactions are executed by IB or IB agents. All transactions under this agreement shall also be subject to any law, rule, or regulation then applicable thereto, including but not by way of limitation, the provisions of the CTO, as amended from time to time, and the rules and regulations thereunder.
- All transactions entered between IB and the Customer relating to any money, foreign currency, currency option, currency future, or currency forward contract or foreign exchange contract shall be governed by and subject to all the rules, regulations, orders and laws of the country of the currency or money concerned and those of Hong Kong and/or the by-laws, rules and regulations of the exchange concerned in which the transaction is done.
- All transactions related to futures/options contracts executed in markets other than those organised by the HKFE will be subject to the rules and regulations of those markets and not those of the HKFE, with the result that the Customer may have a markedly different level and type of protection in relation to those transactions as compared to the level and type of protection afforded by the rules of the HKFE.
- No provisions of this Agreement will operate to remove, exclude, or restrict any of your rights or any obligations of IB under

Hong Kong law.

14. IB is not a member of the HKFE and Customer is NOT entitled to claim against the Compensation Fund of the HKFE.

15. The Customer appoints the Chief Executive of the HKFE (or such other persons as the Board of the HKFE may appoint, including, without limitation HKFE Clearing House) as the Customer's attorney to do all things necessary to transfer any open positions held by IB on the Customer's behalf and money and securities standing to the credit of the Customer's account with IB to another member of the Exchange in the event of IB's membership being suspended or revoked.

16. In accordance with Rule 601(c) of the HKFE's Rules, we disclose the following to you: Company Name : Interactive Brokers LLC Membership category : Dealer Registration number (required by the CTO) : CD400 Staff responsible for your account : The IB Help Desk Name: The IB Help Desk Dealing Director/ Dealer Representative: David F. Friedland Registration No.: CD000889

17. EXPLANATION OF MARGIN PROCEDURES AND UNILATERAL CLOSING OUT OF CLIENTS' POSITIONS

Margin Procedures

In accordance with Rule 602(s) of the HKFE's Rules, we set out below an explanation of margin procedures and the circumstances under which Customer positions may be unilaterally closed.

- Paragraph 3 of the Customer Agreement sets out detailed provisions regarding Margin Requirements.
- IB follows all margin rules laid down by all Exchanges on which products are traded on margin.
- Any changes in margin requirements (whether imposed by the Exchange or by IB) will be communicated to Customers.
- Customers must remember that, in the event of a default, IB may close out the customers' open positions without prior notice to or consent from the customers as provided for by the terms of the Agreement. IB has reserved in the Agreement the right to close out any open positions(s) without notice (i) when the margins on deposit with IB are exhausted, inadequate in the opinion of IB to protect it against possible price fluctuations or any adverse conditions or (ii) any other appropriate circumstances. Please Note: IB is required to notify the Exchange if Customer fails to meet two or more successive margin calls or demands for variation adjustments or Interest Rate Cash Adjustments if the total amount in default exceeds HK $150,000.
- No conduct or omission on behalf of IB, nor any agreement purportedly entered into on IB's behalf (save an agreement in accordance with the terms of the Agreement), shall constitute any form of waiver or variation or relaxation IB's rights to close out customers' positions unilaterally.
- Any steps taken by IB to close out customers' positions unilaterally will be entirely without prejudice to IB's other rights under the Agreement and otherwise, in particular the right to payments from customers of all amounts outstanding.

18. STATEMENT OF PARTICULARS OF APPROVED CONTRACTS

IB, THHK and THSHK are licensed to trade in the products approved by the HKFE or SEHK, as applicable, from time to time. Contract specifications for the products in question are available on request.

19. RISK DISCLOSURE STATEMENT FOR EQUITY SECURITIES

- The Client acknowledges that the price of securities can and does fluctuate, and that any individual security may experience downward movements, and under some circumstances even become valueless. The Client appreciates therefore that there is an inherent risk that losses may be incurred rather than profit made, as a result of buying and selling securities. This is a risk that the Client is prepared to accept.
- The Client also acknowledges that there are risks in leaving securities in the custody of the Broker or in authorizing the Broker to deposit securities as collateral for loans or advances made to the Broker or authorizing the Broker to borrow or loan securities.

Swiss Risk Disclosure for Futures

Swiss Risk Disclosure - Characteristics and Risks of Futures

1. Principles

Futures contracts may be associated with special financial risks and are therefore only suitable for investors familiar with this type of business, with adequate liquid assets and capable of bearing any eventual losses.

This notice provides some fundamental information about the general characteristics of and the risks normally associated with futures contracts.

2. Characteristics

2.1 Definition

A futures contract subsumes the commitment to buy or deliver on a specified date (settlement date) a specified quantity of a particular underlying instrument at a price as agreed on the contract date.

The following products may be underlying instruments of a futures contract:

- assets such as stocks, bonds, commodities, precious metals;
- benchmarks such as currencies, interest rates, indices.

2.2 Types of futures

Futures are listed contracts and standardized in terms of quantity of underlying instruments and expiration date.

Over the counter (OTC) futures (also referred to as forwards) are traded off the floor. They may be standardized or subject to individual contract specifications as agreed between the buyer and the seller.

2.3 Margin requirement and margin cover

An initial margin is agreed at the outset of the contract for both, the forward purchase and the forward short sale of an underlying instrument. The initial margin is usually expressed in terms of a percentage of the purchase price of eligible instruments.

An additional variation margin is determined periodically throughout the life of the contract. The variation margin represents the accounting profit or loss resulting from the fluctuation of the futures contract or the underlying instrument. The variation margin may amount to a multiple of the initial margin. The calculation method of the variation margin during the life of the contract or in the event of its closing out is subject to the relevant stock exchange regulations and the details of the contract.

Throughout the life of the contract the investor must maintain a sufficient margin cover with the securities dealer, as required for the initial and variation margins.

2.4 Closing out and execution

On principle, the investor may close out contracts at any time up to expiration date.

Subject to the type of contract and the relevant stock exchange regulations, the contract may be closed out either by selling the contract or by entering into an identical contract with a converse buying or selling commitment. In the latter case, the buying or selling obligation arising from the first contract is neutralized by the converse contract.

Unless closed out prior to the expiration date, the contracts must be exercised on expiration date according to the following principles:

Futures contracts on assets may be exercised by physical delivery of the underlying assets or by cash settlement. These contracts are usually exercised by physical delivery, unless the possibility of cash settlement is exceptionally provided by the contract or the relevant stock exchange regulations. Other particulars of the exercise, in particular the place of exercise, are subject to individual contract details.

Futures contracts on benchmarks (except currencies) cannot be exercised by physical delivery of the underlying instrument. The

method of exercise is invariably cash settlement.

In the case of physical delivery of the underlying instrument, the full value of the contract is due, whereas cash settlement is limited to the difference between the price agreed at the outset of the contract and the current market value at the time of exercise. Consequently, the investor must hold more liquidity for physical delivery contracts than for cash settlement contracts.

3. Risks

3.1 Fluctuations of the contract or the underlying instrument

Investors in futures contracts always have certain expectations with regard to the performance of the contract or the underlying instrument within the relevant period of time. If the performance fails to match the investor's expectations, the following risks may arise for the investor.

Regardless of an increase of value of the contract or the underlying instrument, the futures seller must deliver the underlying instrument on settlement date at the initially agreed price which may be far below the current market value. Hence, the seller's risk lies in the difference between the price agreed at the outset of the contract and the current market value at expiration date. Since there is, in theory, no upper limit for market rates, the seller's potential loss is unlimited and may exceed the margin requirement considerably (see point 2.3).

Regardless of a decline in value of the contract or the underlying instrument, the futures buyer must buy the underlying instrument on settlement date at the initially agreed price which may be far beyond the current market value. Hence, the buyer's risk lies in the difference between the price agreed at the outset of the contract and the current market value on expiration date. The buyer thus risks to incur a loss equal at a maximum to the initially agree price. The loss may exceed the margin requirement considerably (see point 2.3).

3.2 Restricted or suspended closing out

Stock exchanges may determine price limits for certain futures contracts in order to prevent excessive price volatility. The investor must be aware that closing out such futures contracts may be restricted or suspended once the price limit has been reached. Investors should therefore establish whether any price limits exist before entering into futures contracts.

3.3 Purchasing underlying instruments in the case of short sales

Investors who sell forward an underlying instrument which they do not hold at the outset of the contract (short sale) carry the risk that they may have to purchase the underlying instrument later at an unfavorable current market rate, in order to be able to deliver the underlying instrument on expiration date.

3.4 Special risks inherent in over-the-counter (OTC) futures

The market for standardized OTC futures is generally transparent and liquid. Therefore contracts can be usually closed out.

There is no organized market for OTC futures with special individual contract terms. Closing out these contacts is therefore subject to the counterparty's consent.

3.5 Combinations

This notice cannot provide a conclusive description of all risks that may arise in individual cases, due to the large variety of feasible combinations.

Since combinations consist of various elements, the risk pattern may change significantly when individual elements of the total position are closed out. Consequently, investors should obtain detailed information on the specific risks inherent in combinations before entering into combination contracts.

Swiss Risk Disclosure for Options

Swiss Risk Disclosure - Characteristics and Risks of Options

1. Characteristics

1.1 Definitions

1.1.1 Rights and Duties

By paying the option fee (premium), the option buyer acquires the right, without the obligation, to buy from (call option) or sell to (put option) the writer of an option a specified quantity (size of contract) of a product (underlying instrument) at a fixed price (strike price) up to or on a specified date (expiration date).

Receiving the premium, the option writer has the obligation to deliver the underlying instrument to (call option) or buy the underlying instrument from (put option) the buyer of the option at the strike price. In the case of warrants (see point 1.2.1 below), the issuer of the warrant is directly committed to the holder of the warrant.

The details of an option may be either standardized or subject to individual agreements between the buyer and the writer.

1.1.2 Underlying instruments

The following products may be underlying instruments of an option:

- assets such as stocks, bonds, commodities, precious metals,
- benchmarks such as currencies, interest rates, indices or
- any combination and derivatives (e.g. futures)

1.1.3 "In-the-money", "out-of-the-money", "at-the-money" options

A call option has an intrinsic value, i.e. it is "in-of-the-money", if the current market value of the underlying instrument is higher than the strike price. A put option is "in-of-the-money" if the current market value of the underlying instrument is below the strike price.

A call option is "out-of-the-money" if the current market value of the underlying instrument is lower than the strike price. A put option is "out-of-the-money" if the current market value of the underlying instrument is higher than the strike price.

The option is "at-of-the-money" if the current market value of the underlying instrument is equal to the strike price.

1.1.4 "American", "European" options

"American" options may be exercised up to their expiration date.

"European" options may be exercised only on their expiration date.

1.1.5 Physical delivery or cash settlement options

When exercising a "physical delivery" option, the buyer of a call option is entitled to receive the underlying instrument against payment of the strike price. Accordingly, the writer must purchase the underlying instrument from the buyer of a put option at the strike price.

In the case of cash settlement options, the amount to be settled is the difference between the strike price and the market value of the underlying instrument, provided that the option is "in-of-the-money".

1.2 Types of options

1.2.1 Warrants, listed options

The issuer certifies the rights and duties arising from the options in a certificate which is customarily traded on a stock exchange (listed).

1.2.2 Traded options

Traded options are standardized non-certificated options which are traded on special exchanges in accordance with the rules and regulations of such exchanges (e.g. on the SOFFEX Swiss Options and Financial Futures Exchange).

1.2.3 Over-the-counter (OTC) options

Particularly OTC options on precious metals and currencies can be standardized according to market practice and publicly offered. In contrast, tailor-made OTC options are specifically designed for individual investors.

OTC options are entered into directly between the buyer and the writer off-exchange. They are not listed and usually non-certificated. Consequently, a position in OTC options can only be closed by entering into a corresponding offsetting transaction with the same counterparty.

1.3 Margin requirement

The writer of an option has to deposit an adequate quantity of the underlying instrument or provide another collateral (margin cover) during the life of the option. The margin is determined by the securities dealer. The stock exchange determines the minimum margin for traded options. If the margin cover proves insufficient, the securities dealer may require the writer to provide an additional collateral (further margin).

2. Risks

2.1 Risks associated with the purchase of options

2.1.1 Call options and put options

The value of a call option declines if the market value of the underlying instrument falls; the value of a put option declines if the market value of the underlying instrument rises. The decrease in value expands the less the option is in-of-the-money, generally accelerates as the life of the option diminishes and is proportionally larger than the decrease in value of the underlying instrument.

The value of the option may also decline while the market value of the underlying instrument remains unchanged or develops favorably for the buyer, for instance due to a drop in the current value of the option or an adverse supply and demand situation. Consequently, the buyer must take into account that the value of the option may decline and that the option may even be worthless on expiration date, thus resulting in a loss up to the amount of the premium which the buyer initially paid.

2.1.2 Call and put options on futures

Call options which entitle the holder to entering into futures contacts as a buyer, and put options which entitle to entering into futures contracts as a writer, are analogously subject to the risks stipulated in point 2.1.1. Upon exercise, the remarks stipulated in point 3 of the notice "characteristics and risks associated with futures contracts" apply.

2.2 Risks associated with writing options

The writer of an option must take into consideration that the buyer may exercise hi/her rights even if the option is only at-of-the-money or out-of-the money, in the case of "American" options this may be at any time up to the expiration date.

2.2.1 Covered call options

The writer of a covered call option owns the quantity of underlying instruments corresponding to the size of the contract. If their market value exceeds the strike price, the writer misses the according profit. However, the writer assumes the full risk of any losses caused by a drop in market value. If the underlying instruments are blocked fully or in part to cover the liability during the life of the option, they may not be sold to forestall any future losses.

2.2.2 Naked call options

The writer of naked call options does not own the relevant underlying instruments. In the case of physical delivery options, the risk lies in the spread between the strike price at which the underlying instruments must be delivered when the option is exercised, and the price at which the writer must procure them. In the case of cash settlement options, the risk lies in the difference between the strike price and the market value of the underlying instrument. As the market value may be considerably higher than the strike price when the option is exercised, the risk is undefinable and in theory unlimited.

In particular, the writer of "American" options must take into consideration that the option may be exercised under very difficult

market conditions and that it may then be very expensive or indeed impossible to obtain the underlying instruments required for physical delivery.

The writer must be aware that an eventual loss could substantially exceed the value of the collateral deposited (margin cover).

2.2.3 Put options

For the writer of put options the risk lies in the possibility that the market value of the underlying instrument may fall below the strike price. The loss the writer then faces corresponds to the difference between the market value and the strike price. In particular, the writer of physical-delivery "American" put options runs the risk of having to purchase underlying instruments under market conditions where such underlying instruments can be resold only with great difficulty or at a significant loss or where resale is impossible.

The writer risks to incur losses which could substantially exceed the value of the collateral deposited (margin cover).

2.2.4 Call and put options on futures

Writers of call or put options undertake to enter into futures contracts as a buyer or seller respectively, and are accordingly subject to the risks described in points 2.2.1 to 2.2.3. Upon exercise, the remarks stipulated in point 3 of the notice "characteristics and risks associated with futures contracts" apply.

3. Combinations

3.1 Definition

The term combination applies when two or more options are written for the same underlying instrument, whereas these options must differ at least in the type of option (put, call), quantity, strike price, expiration date or type of position (long, short).

3.2 Special Risks

This notice cannot provide a conclusive description of all risks that may arise in individual cases, due to the large variety of feasible combinations. Consequently, investors should obtain detailed information on the specific risks associated with a combination before entering into such transactions.

As combinations consist of various options, the risks may change substantially by closing some of these options.

4. "Exotic" options

4.1 Definition

Exotic options differ from "ordinary" call and put options as described in point 1.1 ("plain vanilla" options) in that they are subject to additional arrangements or conditions. Their payoff structure can therefore not be achieved by any combination of "plain vanilla" options alone or with underlying instruments. Exotic options can be issued either as "tailor made" OTC options or as certificated options.

4.2 Special risks

Due to the practically unlimited variety of feasible exotic options, this notice cannot provide a conclusive description of all risks inherent in them. Consequently, investors should obtain detailed information on the specific risks associated with exotic options before entering into such transactions.

The overview hereafter provides the description of a number of typical exotic options which entail special risks in addition to the risks outlined in point 2. The risks outlined in point 2 apply analogously.

4.3.1 Path-dependent options

In the case of path-dependent options the market value of the underlying instruments is relevant during the life of the options and not only on the expiration or exercise date. Consequently, the investor must take into consideration any fluctuations in market value of the underlying instrument throughout the life of the option.

- **Barrier options**

- The rights arise ("knock-in" barrier option) or expire ("knock-out" barrier option) when the market value of the underlying instrument reaches or exceeds a specified threshold ("barrier", also "instrike" or "outstrike") within a given period. The term "kick-in" or "kick-out" barrier option applies if the "barrier" is set between the value of the underlying instrument when the option is entered into and when it expires.

  "Double-barrier options" are barrier options with two "barriers" (marking the upper and lower threshold). They also occur as "knock-in" and "knock-out" barrier options.

  Risk note: The buyer of a barrier option must be particularly aware that his/her option rights only arise ("knock-in" or "kick-in" options) respectively lapse absolutely ("knock-out" or "kick-out" options) when the market value of the underlying instrument reaches the "barrier".

- **Payout options**

  Payout options pay a fixed amount agreed in advance.

  "Digital" or "binary" options pay out if the market value of the underlying instruments reaches or exceeds the "barrier" once during a specified period ("one-touch digital option") or on expiration date ("all-or-nothing digital option").

  The "one-touch digital option" pays the fixed amount either as soon as the barrier is reached or only on expiration date, the latter being also referred to as a "lock-in option".

  On the other hand, the "lock-out option" pays the fixed amount on expiration date only if the market value of the underlying instrument does not reach the "barrier" during a specified period.

  Risk note: The writer of a payout option is liable to pay the fixed amount in full when the "barrier" is reached, irrespective of whether and to what extent the option is "in-of-the-money" when it is exercised or on expiration date. Therefore the amount due may be considerably higher for the writer, respectively much lower for the buyer, then the intrinsic value of the option.

- **Asian options**

  In the case of an Asian option, the market value of the underlying instrument is recorded at regular intervals during a specified period. The average value thus assessed is used to determine the value of the underlying instrument of an "average -rate option" or the strike price of an "average-strike option".

  Risk note: As a consequence of applying the average value of an "average-rate option", the value of the option on expiration date may be considerably lower for the buyer, respectively higher for the writer, than the difference between the strike price and the market value on expiration date.

  In relation to the strike price observed at the outset, the strike price determined in the case of an "average-strike option" may be significantly higher for the buyer of a call option, respectively lower for the buyer of a put option, however it may be considerably lower for the writer of a call option, respectively higher for the writer of a put option.

- **Lookback options**

  In the case of a lookback option, the market value of the underlying instrument is recorded at regular intervals during a specified period.

  In the case of a "strike-lookback option", the lowest market value is used as the strike price for a call option and the highest market value is used as the strike price of a put option.

  In the case of a "prize-lookback option", the strike price remains unchanged, however the top rate is used for the valuation of the underlying instrument of a call option and the bottom rate is used for the valuation of the underlying instrument of a put option.

  Risk note: The assessed strike price as well as the assessed value of the underlying instrument of a lookback option may deviate substantially from the actual values on expiration date. The writer of the above options must be aware that the applicable strike price or market value is invariably the least advantageous for him/her.

- **Contingent options**

In the case of contingent options, the premium becomes due only if the market value of the underlying instrument reaches the strike price during the life of the option (American options) or on expiration date (European options).

Risk note: The buyer of a European contingent option must consider that the premium will become due in full on expiration date, although the option may be only just "at-of-the-money" or minimally "in-of-the-money".

- **Cliquet and ladder options**

In the case of a cliquet option (also "ralchet option"), at certain, usually regular, intervals, the strike price for the following period is adjusted to the current market value of the underlying instrument, any intrinsic value of the option is recorded and accumulated during the life of the option.

The ladder option differs from the cliquet option in that the adjustment is not affected periodically but whenever the underlying instrument reaches specific market values. As a rule, only the highest intrinsic value is recorded (the "lock-in"), in rare cases all recorded intrinsic values are accumulated.

Risk note: The writer of a cliquet option owes the total accumulated "lock-in" amount in addition to any intrinsic value of the option on expiration date. The writer of a ladder option owes the respective highest "lock-in" amount in addition to any intrinsic value of the option on expiration date. The writer may therefore owe an amount considerably higher than just the intrinsic value of the option on expiration date.

4.3.2 Options on several underlying instruments

- **Spread and outperformance options**

- Both options are based on two underlying instruments. The valuation of the spread option is based on the absolute difference in performance between the underlying instruments, whereas the valuation of the outperformance option is based on the relative difference between the underlying instruments in percentage terms.

Risk note: Despite a positive performance of both underlying instruments, the performance difference between the underlying instruments may be equal or lower in absolute as well relative terms, thus having a negative impact on the value of both types of this option.

4.3.3 Options on several underlying instruments

- **Compound options**

- The underlying instrument of a compound option is another option; i.e. compound options are call options on call or put options, as well as put options on call or put options.

Risk note: Compound options may have a strong leverage effect. The writer of a compound option must be aware that his/her liability may soar high very quickly.

CFTC RULE 15.05 NOTICE TO NON-U.S. TRADERS

In accordance with Rules 15.05 and 21.03 of the Commodity Futures Trading Commission ("CFTC"), 17 C.F.R. §§15.05 and 21.03, Interactive Brokers is required to notify you that we are considered to be your agent for purposes of accepting delivery and service of communications from or on behalf of the CFTC regarding any commodity futures contracts or commodity option contracts which are or have been maintained in your account(s) with us.

In the event that you are acting as agent or broker for any other person(s), we are also considered to be their agent, and the agent of any person(s) for whom they may be acting as agent or broker, for purposes of accepting delivery and service of such communications. Service or delivery to us of any communication issued by or on behalf of the CFTC (including any summons, complaint, order, subpoena, special call, request for information, notice, correspondence or other written document) will be considered valid and effective service or delivery upon you or any person for whom you may be acting, directly or indirectly, as agent or broker.

You should be aware that Rule 15.05 also provides that you may designate an agent other than Interactive Brokers. Any such alternative designation of agency must be evidenced by a written agency agreement which you must furnish to us and which we, in turn, must forward to the CFTC. If you wish to designate an agent other than us, please contact us in writing. You should consult 17 C.FR. § 15.05 for a more complete explanation of the foregoing.

Upon a determination by the CFTC that information concerning your account(s) with us may be relevant in enabling the CFTC to determine whether the threat of a market manipulation, corner, squeeze, or other market disorder exists, the CFTC may issue a call for specific information from us or from you. In the event that the CFTC directs a call for information to us, we must provide the information requested within the time specified by the CFTC. If the CFTC directs a call for information to you through us as your agent, we must promptly transmit the call to you, and you must provide the information requested within the time specified by the CFTC. If any call by the CFTC for information regarding your account(s) with us is not met, the CFTC has authority to restrict such account(s) to trading for liquidation only. You have the right to a hearing before the CFTC to contest any call for information concerning your account(s) with us, but your request for a hearing will not suspend the CFTC's call for information unless the CFTC modifies or withdraws the call. Please consult 17 C.F.R. §21.03 for a more complete description of the foregoing (including the type of information you may be required to provide).

Certain additional regulations may affect you. Part 17 of the CFTC Regulations, 17 C.F.R. Part 17, requires each futures commission merchant and foreign broker to submit a report to the CFTC with respect to each account carried by such futures commission merchant or foreign broker which contains a reportable futures position. (Specific reportable position levels for all futures contracts traded on U.S. exchanges are established in Rule 15.03.) In addition, Part 18 of the CFTC Regulations, 17 C.F.R. Part 18, requires all traders (including foreign traders) who own or control a reportable futures or options position and who have received a special call from the CFTC to file certain reports with the CFTC, including, but not limited to, a Statement of Reporting Trader (Form 40). Please consult 17 C.F.R. Parts 17 and 18 for more complete information with respect to the foregoing.

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

Rules of the U.S. National Futures Association ("NFA") require Interactive Brokers ("IB") 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 INTERACTIVE 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 Interactive Brokers LLC 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 NFA[1].

TIME PERIOD	NUMBER OF ACCOUNTS	PERCENTAGE OF PROFITABLE ACCOUNTS	PERCENTAGE OF UNPROFITABLE ACCOUNTS
Q4 2018	27,067	43.07%	56.93%
Q3 2018	26,459	44.80%	55.20%
Q2 2018	26,068	44.59%	55.41%
Q1 2018	25,948	47.86%	52.14%

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS.

FURTHER INFORMATION PROVIDED BY INTERACTIVE BROKERS:

A. Overview: Interactive Brokers Multi-Currency enabled accounts allow IB Customers to trade investment products denominated in different currencies using a single IB account denominated in a "base" currency of the customer's choosing. IB 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. IB 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 Interactive Brokers takes place in a securities account. Your IB securities account is governed by rules of the U.S. Securities and Exchange Commission ("SEC") and the Financial Industry Regulatory Authority. In addition, IB observes the rules of the National Futures Association in connection with foreign currency trading.

Interactive Brokers LLC is a member of the Securities Investor Protection Corporation ("SIPC"). SIPC protects cash and securities held with Interactive Brokers 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 Interactive Brokers for the purpose of purchasing securities. Whether foreign currency in your IB account would be protected by SIPC would depend in part on whether the cash was considered to be deposited with Interactive Brokers for the purpose of purchasing securities. Interactive 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, IB 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 Interactive 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 IB 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, IB 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 IB 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 IB: When Customer enters into a foreign exchange transaction with IB, IB, as the counterparty to Customer's trade, may effectuate that transaction by entering into an offsetting transaction with one of IB's affiliates, with another customer that enters quotes into IB's system, or with a third party bank (IB'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 IB, but rather, is taking the other side of IB'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. IB's Forex Providers may also undertake proprietary trading activities, including hedging transactions related to the initiation or termination of foreign exchange transactions with IB, 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 IB Forex Platforms: The prices quoted by IB to Customers for foreign exchange transactions on IB'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 IB 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 December 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, IB 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. IB will charge transaction fees as specified by IB for foreign currency exchange transactions. IB's Forex Providers will try to earn a spread profit on transactions with IB (differential between the bid and ask prices quoted for various currencies).

I. Price Slippage; Order Cancellation and Adjustment: Prices quoted on IB's system generally reflect the prices at which IB's Forex Providers are willing to trade. Prices quoted on IB'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 IB's system, the quote on IB'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." IB generally will not execute a Customer order at a certain price unless IB is able to trade at that price against one of IB's Forex Providers.

If Customer sends an order for a forex transaction to IB's system but Customer's requested price is no longer available and therefore the order is non-marketable, IB will not execute the order then but will place it in IB'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 IB may execute the order if it becomes marketable based on prices received from IB's Forex Providers.

If Customer sends an order for a forex transaction to IB'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 IB attempts to obtain the best price for Customer orders on forex transactions, because of the inherent possibility of transmission delays between and among Customers, IB and Forex Providers, or other technical issues, execution prices may be worse than the quotes displayed on the IB platform.

To execute your order, Interactive Brokers 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 Interactive Brokers retail forex customers for the past 5 years is available upon request.