

# October 2018 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 further amended as provided below to accommodate the following:

- Part I of this Supplement, which amends and restates the April 2015 Supplement in its entirety,<sup>1</sup> accommodates the introduction of options on foreign currency indexes and the introduction of implied volatility options whose exercise settlement value is calculated differently than that of existing implied volatility options.
- Part II of this Supplement addresses certain aspects of contract adjustments in process and implication.

The procedure governing adjustments to the terms of options contracts to account for certain events, such as certain dividend distributions or other corporate actions that affect the underlying security or other underlying interest, is amended so that such adjustments will be made by OCC rather than an adjustment panel of the Securities Committee.

Adjustment determinations were previously made by adjustment panels that consisted of two representatives of each U.S. options market on which a series is traded and one representative of OCC, who voted only to break a tie. Determinations as to whether to adjust outstanding options in response to a particular event, and, if so, in what manner, are now made by OCC. However, panels consisting of representatives of each of the U.S. options markets on which the affected series of options is traded and one representative of OCC retain their functions and authority under other provisions of OCC’s rules to fix exercise settlement amounts and cash settlement amounts in certain circumstances.

Additional clarification and examples are provided regarding how certain adjustments may affect an option’s value.

---

<sup>1</sup> The April 2015 Supplement was an approved amendment to the Options Disclosure Document. However, because the products covered by that supplement were not listed for trading at the time of approval, the distribution of the April 2015 Supplement in paper form was halted and the electronic version was removed from the OCC website in May 2015. This Supplement replaces the April 2015 Supplement in its entirety.

Certain language has been deleted to remove obsolete content.

- Part III addresses the change in the regular settlement date for option exercise from the third business date following exercise to the second business date following exercise in accordance with changes to SEC Rule 15c6-1.

Accordingly, the following changes are made to the Booklet:

*Part I —*

1. *The first three paragraphs in Chapter IV appearing on page 23 of the Booklet under the caption “About Indexes,” as amended by the June 2008, December 2009 and March 2011 Supplements, are replaced by the following paragraphs:*

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. 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 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 performance over a given time period of one index component to another index component, (vi) indexes on foreign currencies (which are called foreign currency indexes in this booklet), and (vii) 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

---

\* 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.

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. While a foreign currency index is not an index of securities, options on foreign currency indexes trade on securities exchanges like options on securities indexes. The foreign currency indexes discussed in this booklet are designed to reflect the value of a single currency, often the U.S. dollar, against a basket of foreign currencies. 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, options on relative performance indexes are referred to as relative performance options, and options on foreign currency indexes are referred to as foreign currency index options.

Information relating specifically to the various types of indexes appears below under the captions “Stock Indexes,” “Variability Indexes,” “Strategy-based Indexes,” “Dividend Indexes,” “Relative Performance Indexes” and “Foreign Currency Indexes.”

- The sixth and seventh paragraphs under the caption “Variability Indexes” in Chapter IV, which are part of the discussion that was added on page 25 of the Booklet by the December 2009 Supplement, with the sixth paragraph being further amended by the March 2011 Supplement, are replaced by the following paragraphs:*

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 certain series of options on the reference interest in expiration months or weeks that are selected and weighted to yield a measure of the volatility of the reference interest

over a specified future time period. For some volatility options, the premium values used in the calculation are for out-of-the-money options series; for other volatility options, they are for hypothetical at-the-money options series. For example, an implied volatility index that is calculated using one of these methods and that is designed to provide a prediction of volatility over 30 calendar days is based on premium values of at-the-money options series on the reference interest expiring in the two nearest months with at least 7 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. For one type of implied volatility option, the exercise settlement value is calculated from *actual opening premium prices* of the relevant series of options on the reference interest or, if the option has no opening trades, the mid-point between the bid and offer premium quotations. For another type of implied volatility option, the exercise settlement value is calculated from the *mid-point of the bid and offer premium quotations* for the relevant series of options on the reference interest as determined at the opening of trading. For both types of implied volatility options, all other index values for each of these implied volatility indexes are calculated using the *mid-points of the bid and offer premium quotations* and/or actual trade prices of the options series that comprise the index. (Where these index values are based on quotations and/or actual trade prices they are sometimes referred to as “indicative values.”)

3. *The following caption and paragraphs are added to Chapter IV of the Booklet immediately following the section captioned “Relative Performance Indexes,” which is part of the discussion that was added on page 25 of the Booklet by the March 2011 Supplement:*

### **FOREIGN CURRENCY INDEXES**

Foreign currency indexes are designed to reflect the value of one currency, often the U.S. dollar, against a basket of foreign currencies. Foreign currency indexes are calculated using exchange rates, i.e., the prices of currencies in terms of other currencies. An exchange rate is often expressed as a currency pair (e.g., the price of euros in terms of U.S. dollars is expressed as EUR/USD). In a currency pair, the first currency is called the base currency and the second currency is called the quote currency. The exchange rate for a currency pair is how much of the quote currency is needed to purchase one unit of the base currency. Different foreign currency indexes are calculated in

different ways. Accordingly, there may be situations in which foreign currency indexes are based on the same component currency pairs but rely on different sources of exchange rate data or measure the relevant exchange rates differently because of differences in methods of calculation or weighting. A foreign currency index may be designed so that each component currency pair is weighted equally or weighted to conform to another static or dynamic benchmark as determined by the index provider. A foreign currency index, like a stock index, is ordinarily expressed in relation to a “base” established when the index was originated.

**EXAMPLE:** On the starting or “base” date of a new foreign currency index representing a basket of four currency pairs measured against the U.S. dollar — e.g., the price of euros in terms of U.S. dollars is expressed as EUR/USD, the price of British Pounds in terms of U.S. dollars is expressed as GBP/USD, the price of U.S. dollars in terms of Japanese yen is expressed as USD/JPY and the price of Australian dollars in terms of U.S. dollars is expressed as AUD/USD — the index may be set to be equally weighted so that each component currency pair has equal influence on the overall index value. This may be accomplished by assuming a \$10,000 position in each component currency pair. The index value would be calculated by multiplying (or dividing, in the case of a USD/JPY currency pair) each currency pair position by the spot exchange rate for the currency pair. The value, in dollars, of each foreign currency would be deducted from \$20,000. This method is used in order to effectively invert the value of the currency pair, so that the index value will increase when the value of the U.S. dollar increases and decrease when the value of the U.S. dollar decreases. The sum of the resulting differences would be divided by the “divisor.” The divisor is a number that is fixed on the base date — in this example, four — selected so that the index value on the base date equals 10,000. Accordingly, if the value of the U.S. dollar against the Euro increases by 2% the next day (*i.e.*, the value of the EUR/USD position decreases to \$9,800 from \$10,000, which subtracted from \$20,000 equals \$10,200), while the GBP/USD, USD/JPY and AUD/USD exchange rates remained the same, the index level would rise to 10,050  $((10,200 + 10,000 + 10,000 + 10,000)/4)$ .

The base of the foreign currency index may be adjusted from time to time if certain “rebalancing events” occur, as determined by the index provider. An index might be structured so that it is not rebalanced unless the exchange rate for one of the component currency pairs drops by more than 90% from its original base or upon the occurrence of extraordinary events in the global currency markets. Adjustments in the base level of an index or other 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, OCC 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 OCC's determination, may cause significant discontinuity in the index level.

4. *The third full paragraph on page 26 of the Booklet, as amended by the December 2009 Supplement, is replaced with the following paragraph:*

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. 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 components of the underlying index are not trading or when there is a lag in the reporting of prices in some or all of the components. 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 components of the index, 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.

5. *The last full paragraph on page 27 of the Booklet, as amended by the December 2009 Supplement, is replaced with the following paragraph:*

The exercise settlement values of options on securities indexes 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. 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. Additionally, some implied volatility options calculate the exercise settlement value by utilizing the *mid-point of the bid and offering premium quotations* at the opening of trading of the relevant series of the put and call options on the reference interest. 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 component security, is used.

6. *The last two paragraphs in Chapter IV appearing on page 28 of the Booklet, as amended by the December 2009 Supplement, are replaced with the following paragraphs:*

Investors should be aware that the exercise settlement value of an option on a security index that is derived from the opening prices of the component securities of the index 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.

---

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.” Readers interested in buying or writing options on foreign currency indexes should additionally read the discussion under the heading “Special Risks of Foreign Currency Options,” which discusses the risks of foreign currency options, many of which are applicable to foreign currency index options.

7. *The first paragraph that was added immediately following the caption “Special Risks of Index Options” in Chapter X appearing on page 73 of the Booklet by the December 2009 Supplement and that was further amended by the March 2011 Supplement, and the second paragraph as added by the June 2008 Supplement, are replaced with the following paragraphs:*

The risks described in paragraphs 1 through 10 below relate primarily to options on stock indexes. The risks described in paragraphs 1, 2, 5, 8 and 10 also relate to options on foreign currency indexes, although in the case of options on foreign currency indexes the components of the index are foreign currencies rather than securities. 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 paragraph 17 relate to relative performance options.

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." Additionally, certain risks factors applicable to options on foreign currency indexes are discussed below under the caption "Special Risks of Foreign Currency Options," which discusses the risks of foreign currency options, many of which are applicable to foreign currency index options.

8. *The following paragraph replaces the paragraph marked number 11 on page 78 of the Booklet, which was inserted by the December 2009 Supplement 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.) For those implied volatility options that calculate the exercise settlement value by utilizing the actual opening prices of the relevant series of the index's component put and call options on the reference index (rather than using the mid-point between opening bid and ask quotations), it is to be expected that there may be at least some divergence between the exercise settlement value for such expiring implied volatility options and the indicative value calculated at the opening on the same date. Such divergence may occur if the indicative value is based on either the actual bid quotation or the actual ask quotation, depending on the forces of supply and demand, rather than the actual opening price for each of the options series that is used to calculate the exercise settlement value. 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. There may also be variability in the exercise settlement value for those implied volatility indexes that calculate the exercise settlement value by utilizing the mid-point of the bid and offering premium quotations at the opening of trading of the relevant series of



the put options on the reference interest. Readers should recognize and understand the risks associated with the different methods of determining the exercise settlement values of the implied volatility options they intend to trade.

9. *The following paragraph is inserted on page 87 of the Booklet immediately following the paragraph marked number 13, which was renumbered number 12 by the April 2007 Supplement, and immediately before the caption "Special Risks of Flexibly Structured Options in Chapter X:*

13. In addition to foreign currency options, options on foreign currency indexes also may be traded. As discussed above under the heading "Special Risks of Index Options," many of the special risks applicable to options on stock indexes also apply to options on foreign currency indexes. In addition, the risks applicable to foreign currency options described in paragraphs 1 through 3, 5, 7, and 10 through 12 above generally apply to options on foreign currency indexes.

*Part II —*

10. *References throughout the Booklet to determinations being made by "adjustment panels" or "panel" are to be read as deleted and replaced by "OCC," except that in the context of a discussion regarding the fixing of an "exercise settlement value" or "cash settlement amount" (on pages 102, 109, 110, and 112, as supported by Section Nos. 17-20 and 22-23 of this Part II) references to "adjustment panel" are to be read as deleted and replaced by "panel." Instances of replacements to "OCC" are provided in Section Nos. 11, 12, 14-16, 21, and 24-30 of this Part II. Panels consisting of representatives of each of the U.S. options markets on which the affected series of options is traded and one representative of OCC retain their functions and authority under provisions of OCC's rules to fix exercise settlement amounts and cash settlement amounts in certain circumstances.*

11. *On page 10 of the Booklet, the last two paragraphs are replaced as follows:*

**ADJUSTMENT** — Adjustments may be made to some of the standardized terms of outstanding options upon the occurrence of certain events related to the underlying security. Adjustments that may be made to a particular type of option 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 OCC, taking into consideration policies established by a committee consisting of representatives of each of the U.S. options markets on which the effected option trades and a

representative of OCC. OCC and the exchanges are free to discuss considerations pertaining to any adjustment decision or policy, but every adjustment determination is within OCC's sole discretion and is binding on all investors and OCC determines the value of distributed property involved in contract adjustments.

12. *On page 19 of the Booklet, the last sentence of the second paragraph following the EXAMPLE is deleted and replaced as follows:*

OCC has the authority to make such exceptions as it determines to be appropriate to any of the general adjustment rules.

13. *The following paragraphs are inserted immediately following the fourth paragraph under the heading "All Stock Options" in the paragraphs inserted in page 20 of the Booklet by Part II of the May 2007 Supplement.*

An adjustment that substitutes cash for all, such as in the case of a cash merger or other event whereby the underlying security is converted solely to cash, or part of the deliverable security will eliminate or reduce the time value of the option, and therefore the option may lose significant value, both immediately and at exercise, as a result of the adjustment.

**EXAMPLE:** Because of an all cash merger involving XYZ Corporation, the stock held by XYZ's owners is extinguished in return for a payment of \$50 in cash per XYZ share. In response to the corporate action on the underlying security, XYZ options generally will be adjusted to require the delivery of \$50 per share upon exercise. As a result, an XYZ call option with an exercise price of \$40 will lose all of its time value and the option's value will only reflect the intrinsic value of \$10 ( $\$50 - \$40 = \$10$ ). Additionally, an XYZ call option with an exercise price of \$60 will become worthless because the exercise price exceeds the \$50 cash settlement delivery amount.

**EXAMPLE:** An investor bought a \$50 put option representing the obligation to deliver 100 shares of Company A stock upon exercise. Company A subsequently effected a 1-for-3 reverse stock split and the terms of the reverse split provided for payment of cash in lieu of fractional shares, using a value of \$60 per share for this purpose. As a general rule, any adjustment in the number of underlying shares is rounded to eliminate fractional shares, so the number of shares to be delivered could be adjusted to 33 shares ( $100 \times 1/3 = 33 \frac{1}{3}$ , with the  $1/3$  fractional share rounded down as part of the adjustment to eliminate fractional shares) plus \$20 cash in lieu of the  $1/3$  fractional share ( $\$60 \times 1/3$ ) if cash is paid in lieu of such fractional share. Because this cash delivery obligation is generally fixed at the time of adjustment, the investor would lose the time value of the fractional share. This option may continue

to trade until expiration, with the deliverable at exercise or expiration being 33 shares plus \$20 cash.

The obligation to make a fixed cash payment in lieu of a fractional share could result, depending on the relative size of the fixed cash obligation, in an immediate reduction in the value of the option and at exercise could result in the option being less valuable or worthless in comparison to the value it would have had in the absence of the adjustment. If a stock underlying the option undergoes multiple reverse splits prior to expiration, it will become increasingly likely that one of those reverse stock splits eventually will create a fractional share.

*14. On page 21 of the Booklet, the first full paragraph is deleted and replaced as follows:*

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 OCC.

*15. On page 24 of the Booklet, the last sentence of the second full paragraph is deleted and replaced as follows:*

However, OCC 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 OCC's determination, may cause significant discontinuity in the index level.

*16. On Page 39 of the Booklet, the first full paragraph is deleted and replaced as follows:*

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, OCC has the discretion to adjust the terms of the options on such foreign currency. Ordinarily, the terms of foreign currency options will not be adjusted to reflect a devaluation or revaluation of a currency.

*17. On page 102 of the Booklet, the second full paragraph is deleted and replaced as follows:*

If OCC determines to fix the cash settlement amount, it will act through a panel, comprised of representatives from each exchange on which the series without an exercise settlement value trades, that will use its judgment as to what is appropriate for the protection of investors and the public interest. 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.

18. *On page 102 of the Booklet, the third full paragraph is deleted and replaced as follows:*

If a 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 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. A panel's determinations shall be conclusive, binding on all investors, and not subject to review.

19. *On page 109 of the Booklet, the last full paragraph is deleted and replaced as follows:*

If OCC determines to fix the exercise settlement value, it will act through a panel, comprised of representatives from each exchange on which the series without an exercise settlement value trades, that will use its judgment as to what is appropriate for the protection of investors and the public interest. 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.

20. *On page 110 of the Booklet, the first full paragraph is deleted and replaced as follows*

If a 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 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. A panel's determinations shall be conclusive, binding on all investors, and not subject to review.

21. *On page 111 of the Booklet, the first paragraph under **Part VI. Yield-Based Treasury Options**, which replaced the second full paragraph on page 34, is deleted and replaced as follows:*

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, OCC has discretion to adjust the terms of the series by substituting other Treasury securities or to make such other adjustment as OCC may determine. If the options market on which a particular yield-based option is traded should increase or decrease the multiplier for the option, OCC has discretion to adjust outstanding options affected by the change by proportionately consolidating or subdividing them or by taking other action.

22. *On page 112 of the Booklet, the first full paragraph is deleted and replaced as follows:*

If OCC determines to fix the cash settlement amount, it will act through a panel, comprised of representatives from each exchange on which the series without an exercise settlement value trades, that will use its judgment as to what is appropriate for the protection of investors and the public interest. 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.

23. *On page 112 of the Booklet, the second full paragraph is deleted and replaced as follows:*

If a 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 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. A panel's determinations shall be conclusive, binding on all investors, and not subject to review.

24. *On page 131 of the Booklet, the last two paragraphs, the second of which ends on page 132, are deleted and replaced as follows:*

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 OCC determines to treat a stock distribution as ordinary.

If OCC 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. OCC has discretion to make exceptions to the general rules described above.

25. *On page 133 of the Booklet, the first two full sentences are deleted and replaced as follows:*

Alternatively, OCC 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 OCC determines to fix a cash value for all non-cash property received, the aggregate per share value received, as determined by OCC, 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.

*Additionally, the first full paragraph on page 133 is deleted and replaced with the following:*

As in the case of other stock options, any adjustment decision with respect to binary stock options will be made by OCC as described above. OCC has discretion to make exceptions to the general rules described above.

26. *On page 134 of the Booklet, the last sentences of the second full paragraph is deleted and replaced as follows:*

If the option market on which an option series is traded should increase or decrease the multiplier for a series of index options, OCC may adjust outstanding options of that series.

27. *On page 163 of the Booklet, the second full paragraph is deleted and replaced as follows:*

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 OCC determines, as described below, that it is appropriate to make such an adjustment.

28. *On page 164 of the Booklet, the first full paragraph is deleted and replaced as follows:*

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 OCC to warrant the adjustment. As in the case of other stock options, any adjustment decision with respect to options on index-linked securities options will be made by OCC.

29. *On page 165 of the Booklet, the second full paragraph is deleted and replaced as follows:*

As is the case with equity options, OCC has discretion to make exceptions to the general rules described above with respect to options on index-linked securities.

30. *On page 179 and 180 of the Booklet, the four paragraphs beginning on page 179 under "Adjustment of Index Options" are deleted and replaced as follows:*

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 OCC determines that any such addition, deletion, or change causes significant discontinuity in the level of the underlying index or reference index, OCC 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 OCC 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, OCC 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 OCC deems fair to both the holders and the writers of such options.

OCC may substitute another index (a successor index) for an underlying index or reference index in the event OCC 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.

OCC's determinations shall be conclusive, binding on all investors, and not subject to review.

### *Part III*

31. *On page 52 of the Booklet, the first sentence of the last full paragraph is deleted and replaced as follows:*

As of September 5, 2017, the regular exercise settlement date for physical delivery stock options is the second business day after exercise.