



**THE FOUNDATION
FOR SECURE
MARKETS**

#44113

DATE: NOVEMBER 29, 2018

SUBJECT: SHIRE PLC - ANTICIPATED ADJUSTMENT
OPTION SYMBOL: SHPG
NEW SYMBOL: TBD
FUTURES SYMBOL: SHPG1D
NEW SYMBOL: SHPG2D
DATE: ???

On December 5, 2018, Shareholders of Shire plc will vote concerning the proposed merger with Takeda Pharmaceutical Company Limited. If the merger is approved and consummated, each existing SHPG American Depositary Share will be converted into the right to receive 5.034 Takeda Pharmaceutical Company Limited American Depositary Shares ("Takeda ADSs") plus \$90.99 Cash. Cash will be paid in lieu of fractional Takeda ADSs.

Shire plc (SHPG) ADSs are expected to be halted on the NYSE before the open on January 7, 2019 and are expected to be delisted on January 9, 2019. The Scheme of Arrangement is anticipated to become effective on January 8, 2019. Takeda ADSs are expected to begin trading regular way on the NYSE under a symbol to be determined by 9:30am NYC time, on January 11, 2019.

Note: Shire ADSs will not be subject to election; however, holders of Shire shares in the UK market may elect to receive the stock portion of the merger consideration in either Takeda ADSs, which will trade on the New York Stock Exchange (NYSE), or in New Takeda Shares, which are expected to trade on the Tokyo Stock Exchange and other local Japanese exchanges. The election deadline is anticipated to be January 2, 2019. Shire ADS holders who want to make an election with respect to the stock portion of the merger consideration must exchange their Shire ADSs for Shire Ordinary shares prior to December 26, 2018, as described in the Shire plc Scheme Document dated November 12, 2018 ("Scheme").

Exercise Consideration – SHPG Call option holders who wish to make an election with respect to the stock portion of the merger consideration must exercise their options in sufficient time in advance of the December 26, 2018 deadline to exchange the ADSs for Shire Shares as described in the Scheme. In all cases, it is the sole responsibility of persons holding call options seeking to participate in the election to determine when to exercise their options and to comply with all terms and conditions of the election.

CONTRACT ADJUSTMENT

DATE: Effective the opening of the business day after the merger is consummated.
Contract adjustment is anticipated to occur on or about January 9, 2019.

OPTION SYMBOL: SHPG changes to a symbol to be determined

STRIKE DIVISOR: 1

CONTRACTS
MULTIPLIER: 1

NEW MULTIPLIER: 100 (e.g., a premium of 1.50 yields \$150; a strike of 172.50 yields \$17,250.00)

NEW DELIVERABLE
PER CONTRACT: 1) 503 Takeda Pharmaceutical Company Limited American Depositary Shares ("Takeda ADSs") (subject to delayed settlement until commencement of regular way trading)
2) Cash in lieu of 0.4 fractional Takeda ADSs
3) \$9,099.00 Cash (\$90.99 x 100)

CUSIP: Takeda ADSs: TBD

PRICING

Until the cash in lieu amount is determined, the underlying price for adjusted Shire plc options will be determined as follows:

$$\text{Adjusted Shire plc} = 5.034 \text{ (Takeda ADSs)} + 90.99$$

DELAYED SETTLEMENT

OCC will delay settlement of the Takeda ADS component of the adjusted Shire option deliverable until commencement of regular way trading of the Takeda ADSs on the NYSE, which is anticipated to occur by January 11, 2019. Once the Takeda ADSs begin trading regular way, the share component of the adjusted Shire plc deliverable will settle through National Securities Clearing Corporation (NSCC). OCC will delay settlement of the cash portion of the adjusted Shire plc option deliverable until the cash in lieu of fractional shares is determined. Upon determination of the cash in lieu amount, OCC will require Put exercisers and Call assignees to deliver the appropriate cash amount.

FUTURES CONTRACT ADJUSTMENT

DATE: Effective the opening of the business day after the merger is consummated. Contract adjustment is anticipated to occur on or about January 9, 2019.

FUTURES SYMBOL: SHPG1D changes to SHPG2D

Note: All Shire plc (SHPG) futures active at the time of the adjustment will be adjusted in a manner similar to that of SHPG1D futures.

NUMBER OF
CONTRACTS: No Change

MULTIPLIER 100 (e.g., a premium of 1.50 yields \$150)

NEW DELIVERABLE
PER CONTRACT: 1) 503 Takeda Pharmaceutical Company Limited American Depositary Shares (subject to delayed settlement until commencement of regular way trading)
2) Cash in lieu of 0.4 fractional Takeda ADSs
3) \$9,099.00 Cash (\$90.99 x 100)

CUSIP: Takeda ADSs: TBD

PRICING

Until the cash in lieu amount is determined, the underlying price for the SHPG2D Futures contract deliverables, expressed in term of current market value, would be calculated as follows:

$$\text{SHPG2D} = 5.034 \text{ (Takeda ADS)} + 90.99$$

Please note that the valuation would apply only to the SHPG2D deliverable in terms of current market value of the deliverable securities. The resulting price would not be equivalent to the daily settlement price of a futures contract month, whose determination would include cost of money carrying charges, adjustment for dividends, and other factors.

DELAYED SETTLEMENT

OCC will delay settlement of the Takeda ADS component of the SHPG2D futures until commencement of regular way trading of the Takeda ADSs on the NYSE, which is anticipated to occur on January 11, 2019. Once the Takeda ADSs begin trading regular way, the share component of the SHPG2D deliverable will settle through National Securities Clearing Corporation (NSCC). OCC will delay settlement of the cash portion of the SHPG2D deliverable until the cash in lieu of fractional Takeda ADSs is determined. Upon determination of the cash in lieu amount, OCC will require delivery of the appropriate cash amount.

DISCLAIMER

This Information Memo provides an unofficial summary of the terms of corporate events affecting listed options or futures prepared for the convenience of market participants. OCC accepts no responsibility for the accuracy or completeness of the summary, particularly for information which may be relevant to investment decisions. Option or futures investors should independently ascertain and evaluate all information concerning this corporate event(s).

The determination to adjust options and the nature of any adjustment is made by OCC pursuant to OCC By-Laws, Article VI, Sections 11 and 11A. The determination to adjust futures and the nature of any adjustment is made by OCC pursuant to OCC By-Laws, Article XII, Sections 3, 4, or 4A, as applicable. For both options and futures, each adjustment decision is made on a case by case basis. Adjustment decisions are based on information available at the time and are subject to change as additional information becomes available or if there are material changes to the terms of the corporate event(s) occasioning the adjustment.

ALL CLEARING MEMBERS ARE REQUESTED TO IMMEDIATELY ADVISE ALL BRANCH OFFICES AND CORRESPONDENTS ON THE ABOVE.

For questions regarding this memo, call Investor Services at 1-888-678-4667 or email investorservices@theocc.com. Clearing Members may contact Member Services at 1-800-544-6091 or, within Canada, at 1-800-424-7320, or email memberservices@theocc.com.