Theoretical Values: Flexible Options Contracts – FPTHVF

This file contains derivative theoretical prices based on defined downside and upside vola shifts used for margining of flexible contracts.

Record layout of the file FPTHVF:

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01  RMTHVF-WS-REC.
          10  MGN-CLS-COD-RMTHVF              PIC  X(5).
          10  SERI-GRP-ID-COD-RMTHVF.
            15  SECU-ID-COD-RMTHVF            PIC  X(4).
            15  SERI-CLAS-COD-RMTHVF          PIC  X(1).
            15  SERI-EXP-DAT-RMTHVF.
              20  EXPI-YR-DAT-RMTHVF          PIC  9(2).
              20  EXPI-MTH-DAT-RMTHVF         PIC  9(2).
              20  EXPI-DAY-DAT-RMTHVF         PIC  9(2).
            15  EXER-PRC-RMTHVF               PIC  9(5).9(4).
            15  EXER-STYLE-FLG-RMTHVF         PIC  X(1).
            15  SERI-VERS-NO-RMTHVF           PIC  9(1).
            15  FLX-OPT-SECU-ID-RMTHVF        PIC  X(4).
          10  CALC-BUC-PRICE-RMTHVF           PIC  X(9).
          10  CALC-UND-PRICE-RMTHVF           PIC  X(9).
          10  FORWARD-UND-PRICE-RMTHVF        PIC  Z(4)9.9(6).
          10  UD-IND-RMTHVF                   PIC  X(1).
          10  STOCK-PRC-IND-RMTHVF            PIC  X(1).
          10  THEO-VALUE-RMTHVF               PIC  Z(4)9.9(6).
          10  EA-THEO-VALUE-RMTHVF            PIC  X(9).
          10  SHORT-OPT-THEO-RMTHVF           PIC  Z(4)9.9(6).
          10  SECU-LST-CLS-PRC-RMTHVF         PIC  X(10).
          10  INTP-LST-CLS-PRC-RMTHVF         PIC  X(10).
          10  SERI-LST-STL-PRC-RMTHVF         PIC  X(10).
          10  MGN-INTERVAL-RMTHVF             PIC  X(11).
          10  VOL-RMTHVF                      PIC  Z(2)9.9(2).
          10  INTR-RAT-PCT-RMTHVF             PIC  9(1).9(4).
          10  YIELD-RAT-PCT-RMTHVF            PIC  9(1).9(4).
          10  SECU-TRD-UNT-NO-RMTHVF          PIC  Z(3)9.9(4).
          10  SECU-TIC-SIZE-RMTHVF            PIC  X(7).
          10  SECU-TIC-VAL-RMTHVF             PIC  Z(3)9.9(4).
          10  SERI-STS-COD-RMTHVF             PIC  X(1).
          10  MGN-STYLE-FLG-RMTHVF            PIC  X(1).
          10  CURR-DCML-SHFT-GRP-RMTHVF.
            15  CURR-TYP-COD-RMTHVF           PIC  X(3).
            15  DCML-SHFT-NO-RMTHVF           PIC  9(1).
          10  DAYS-TO-EXP-RMTHVF              PIC  Z(4)9.

  01  RMTHVF-FILE-INFO-REC REDEFINES RMTHVF-WS-REC.   (last record)
        05  FILE-END-MARK-RMTHVF              PIC  X(5).
        05  FILLER                            PIC  X.
        05  FILE-COUNTER-RMTHVF               PIC  9(8).
        05  FILLER                            PIC  X.
        05  CURR-BUS-DAY-RMTHVF               PIC  9(8).
        05  FILLER                            PIC  X.
        05  DESCRIPTION-RMTHVF                PIC  X(92).
        05  FILLER                            PIC  X(76).
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The fields contained in the file FPTHVF are described in the following list.

FPTHVF	
Field	Description
MGN-CLS-COD-RMTHVF	This field contains the margin class code assigned by the exchange.
SECU-ID-COD-RMTHVF	This field contains the three/four letter abbreviation assigned to the underlying instrument.
SERI-CLAS-COD-RMTHVF	This field contains the class code for option series or a blank for futures contracts. Field values include: “C“ - Call “P“ - Put “ “ - Future
EXPI-YR-DAT-RMTHVF	This field contains the year when the flexible contract expires.
EXPI-MTH-DAT-RMTHVF	This field contains the month when the flexible contract expires.
EXPI-DAY-DAT-RMTHVF	This field contains the day when the flexible contract expires.
EXER-PRC-RMTHVF	This field contains the price at which an option contract may be exercised. This field has the format 99999.9999.
EXER-STYLE-FLG-RMTHVF	This field contains the exercise style of the flexible options contract. It has either the value ´A´ for American style or ´E´ for European style.

FPTHVF	
Field	Description
SERI-VERS-NO-RMTHVF	This field contains the version number assigned to the series on creation. The value is zero for all standard series not changed as a result of capital adjustment to the underlying instrument and for futures contracts. Valid values include: 0 - standard series version or futures contract 1 - adjusted series version from most recent capital adjustment 2 - adjusted series version from the last two capital adjustments 3 - adjusted series version from the last three capital adjustments … 9 – adjusted series version from the last ninth capital adjustments
FLX-OPT-SECU-ID-RMTHVF	This field contains the additional security Id code for OTC Flexible Contracts.
CALC-BUC-PRICE-RMTHVF	This field contains the projected underlying price for the interval product. For each class there is one interval product which determines the margin interval and projected underlying values for all products in the class. This field has the same value as the CALC-UND-PRICE-RMTHVF for products that are themselves interval products, or have the same underlying as the interval product for their class. This field contains a decimal point with a variable number of decimal places depending on the product.
CALC-UND-PRICE-RMTHVF	This field contains the projected underlying price used to calculate the theoretical value for this record. This field contains a decimal point with a variable number of decimal places depending on the product.
FORWARD-UND-PRICE-RMTHVF	This entry contains the forward underlying price.

FPTHVF	
Field	Description
UD-IND-RMTHVF	This field contains an indicator that shows both whether the projected underlying price is less than (downside), greater than (upside) the closing price of the underlying or at the closing price of the underlying and whether the synthetic volatility used for theoretical price calculations (implied volatility) is shifted according to the up or down scenario or is not shifted. “D” - downside of projected underlying price and implied volatility not shifted “E” - downside of projected underlying price and up scenario of implied volatility “F” - downside of projected underlying price and down scenario of implied volatility “N” - closing price of the underlying and implied volatility not shifted “O” - closing price of the underlying and up scenario of implied volatility “P” - closing price of the underlying and down scenario of implied volatility “U” - upside of projected underlying price and implied volatility not shifted “V” - upside of projected underlying price and up scenario of implied volatility “W” - upside of projected underlying price and down scenario of implied volatility
STOCK-PRC-IND-RMTHVF	This field contains an indicator showing whether the theoretical price calculated relates to a minimum projected underlying price (2), to an in-between strike (3), to a maximum projected underlying price (1) or the current closing price of the underlying (0).
THEO-VALUE-RMTHVF	This field contains the theoretical value calculated for an active flexible contract for a given CALC-UND-PRICE-RMTHVF.

FPTHVF	
Field	Description
EA-THEO-VALUE-RMTHVF	This field contains the theoretical value calculated for an exercised/assigned or notified/allocated flexible contract for a given CALC-UND-PRICE-RMTHVF. This field contains a decimal point with a variable number of decimal places depending on the product.
SHORT-OPT-THEO-RMTHVF	This field contains the value short option adjustment. It is calculated by multiplying the margin interval by the out-of-the-money minimum percentage and adding to it the settlement price for the series. It replaces the maximum upside theoretical option price for a short call option if it is greater than that theoretical. It replaces the maximum downside theoretical option price for a short put option if it is greater than that theoretical.
SECU-LST-CLS-PRC-RMTHVF	This field contains the last closing price of the underlying asset. This field contains a decimal point with a variable number of decimal places depending on the product.
INTP-LST-CLS-PRC-RMTHVF	This field contains the last closing price of the underlying asset for the interval product. If the interval product is a future with no underlying price, this field contains the settlement price of the spot month series. This field contains a decimal point with a variable number of decimal places depending on the product.
SERI-LST-STL-PRC-RMTHVF	This field contains the last settlement price of the flexible contract. This field contains a decimal point with a variable number of decimal places depending on the product.

FPTHVF	
Field	**Description**
MGN-INTERVAL-RMTHVF	The value of this field is determined using the last closing price and historical volatility of the interval product. For products, whose historical volatility is expressed as a percentage (for instance stock options), the margin interval is the historical volatility multiplied by the last closing price. For products with a historical volatility expressed in ticks (such as the Bund and DAX futures and their options), the margin interval is the historical volatility multiplied by the tick value. This field contains a decimal point with a variable number of decimal places depending on the product.
VOL-RMTHVF	This field contains the synthetic volatility used for theoretical price calculations (implied volatility). The implied volatility can vary for one option series depending on the projected underlying price.
INTR-RAT-PCT-RMTHVF	This field contains the security risk free interest rate used to calculate the theoretical value.
YIELD-RAT-PCT-RMTHVF	This field contains the yield rate which is used for the calculation of theoretical prices of currency options.
SECU-TRD-UNT-NO-RMTHVF	This field contains the quantity of the underlying instrument traded per contract.
SECU-TIC-SIZE-RMTHVF	This field contains the tick size for the product. This field contains a decimal point with a variable number of decimal places depending on the product.
SECU-TIC-VAL-RMTHVF	This field contains the tick value for the product.
SERI-STS-COD-RMTHVF	This field contains a code to identify an option series/future contract as active (“A“) or expired (“E“).

FPTHVF	
Field	**Description**
MGN-STYLE-FLG-RMTHVF	This field contains a code to identify the margining style for the product. Valid values are: “F“ - futures style “T“ - traditional style
CURR-TYP-COD-RMTHVF	This field contains the currency code of the underlying instrument.
DCML-SHFT-NO-RMTHVF	This field contains one digit specifying a decimal given as a power of ten. It represents the factor by which a price has to be multiplied in order to get the „real“ price. Example: Decimal Shift: 0 Factor:10 ^ 0 = 1 (e.g. for EUR) The amount “23.45“ is then understood by the user in the associated currency as: 23.45 x 1 = 23.45 EUR
DAYS-TO-EXP-RMTHVF	This field contains the number of days until expiration of the contract.

The following descriptions apply to the last record of FPTHVF only.

FPTHVF	
Field	**Description**
FILE-END-MARK-RMTHVF	This field marks the end of the file and contains the string “*EOF*“.
FILE-COUNTER-RMTHVF	This field contains the number of data records contained in the file, *not* including the last record.
CURR-BUS-DAY-RMTHVF	This field contains the date of the business day in the format YYYYMMDD.
DESCRIPTION-RMTHVF	This field contains a short description of the file content.