

Daily Adjustment History Files

Some futures contracts have features that result in a daily cash flow in addition to normal settlement variation. This daily cash flow may be an embedded fee, as in CBOT's Dow AIG Excess Return futures. Or it may be a financing cost associated with rolling each position from one day to the next -- for example, the **TRAKRSSM** contracts now trading at CME, or the Rolling Spot[®] currency futures which were formerly traded.

Generically, this cash flow is referred to as the **Daily Adjustment**, and the resulting cash flows are banked together with normal settlement variation.

The Daily Adjustment history file published at the end of each business day provides the rates, called the **Daily Adjustment Rates**, which drive the calculation of these cash flows for all such futures eligible to trade on that business day. One file is published for CME, and one for CBOT. For each exchange, for each futures currently eligible to trade which has a daily adjustment, a record is provided for each business day since that future first became eligible to trade, up to and including the current day. Each record provides:

- the **Daily Adjustment Rate-Long** -- the rate applicable to each long position for the specified business day
- the **Cumulative Adjustment Rate-Long** -- the cumulative rate for a long position since the contract first became eligible to trade, up to but not including the specified business date
- the **Daily Adjustment Rate-Short** -- the rate applicable to each short position for the specified business day
- the **Cumulative Adjustment Rate-Short** -- the cumulative rate for a short position since the contract first become eligible to trade, up to but not including the specified business date.

The file is published in two different formats -- the "flat" (positional) format, and the XML-based format. (The flat format was modified on 9/15/06 to expand the size of the product code field from 2 bytes to 5 bytes, pushing subsequent fields on the detail record rightward by three bytes.)

Daily adjustment history files for CME are available at: <ftp.cme.com/pub/span/data/cme/trakrs>.

Daily adjustment history files for CBT are available at: <ftp.cme.com/pub/span/data/cbt/darates>.

The layout for the "Flat" (Positional) Format:

For the Header record:

POSITION

FROM TO	FIELD NAME	FORMAT AND DESCRIPTION
1 1	Record Type Code: "1"	X(01) AN Header Record
2 3	Exchange Code:	X(02) AN 01 for CBOT, 02 for CME
4 6	Exchange Acronym	X(03) A CBT or CME (3 byte truncated value)
7 14	Business Date	9(8) N YYYYMMDD
15 22	Create Date	9(8) N YYYYMMDD
23 26	Create Time	9(4) N HHMM
27 51	File Description	X(25) AN
	"DA Figure History File"	
52 57	Record Count	9(6) N includes header
58 130	Filler	
131 135	Clearing Organization	X(5) AN Clearing organization acronym -- CME
136 140	Exchange Acronym	X(5) AN Exchange acronym (full up-to-5 byte value)
141 150	Filler	

For the Detail record:

POSITION

FROM TO	FIELD NAME	FORMAT AND DESCRIPTION
1 1	Record Type Code: "2"	X(1) AN Detail Record
2 6	Product Code	X(5) AN Clearing product code
7 12	Contract Month	9(6) N YYYYMM
13 20	Business Date	9(8) N YYYYMMDD
21 22	Decimal Locator	9(2) N
23 23	Sign of Decimal Locator	X(1) AN

"+" - DA decimal locator is positive

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        "-" - DA decimal locator is negative
24  38  Contract Size          9(15)    N
39  51  Daily Adjustment-Long  9(5)V9(8) N
52  52  DA Long Premium/Discount X(1)    A    "P" or "D"
        "P" - DA Figure represents a Premium (a negative rate)
        "D" - DA Figure represents a Discount (a positive rate)
53  69  Cumulative Adj-Long   9(9)V9(8) N
70  70  Cum. Adj-Long Prem/Disc X(1)    A    "P" or "D"
        "P" - DA Figure represents a Premium (a negative rate)
        "D" - DA Figure represents a Discount (a positive rate)
71  83  Daily Adjustment-Short 9(5)V9(8) N
84  84  DA Short Premium/Discount X(1)    A    "P" or "D"
        "P" - DA Figure represents a Premium (a negative rate)
        "D" - DA Figure represents a Discount (a positive rate)
85  101 Cumulative Adj-Short   9(9)V9(8) N
102 102 Cum. Adj-Short Prem/Disc X(1)    A    "P" or "D"
        "P" - DA Figure represents a Premium (a negative rate)
        "D" - DA Figure represents a Discount (a positive rate)
103 103 Short Rate Flag       X(1)    A    "S" means that separate short rates are provided.
104 109 Product Family ID   9(6)    N    CME-internal number identifying the product
110 115 Contract ID         9(6)    N    CME-internal number identifying the contract
116 130 Settlement Price    9(8)V9(7) N    Contract's current settlement price
131 135 Clearing organization X(5)    AN    Clearing organization acronym
136 150 Filler

```

The Daily Adjustment and Cumulative Daily Adjustment fields are formatted with 8 implied decimal places. The "Decimal Locator" field will be provided as zero, meaning that these fields should be read with 8 implied decimal places.

(Were the decimal locator to be provided as 1, it would mean that the decimal point is shifted left one position – ie, the field contains 9 implied decimal positions. A decimal locator of -1 means that the decimal point is shifted right one position – ie, the field contains 7 implied decimal positions.)

The XML-based Daily Adjustment History File

The XML-based Daily Adjustment History File provides the same data as in the "standard" positional-format DA History File, but in an XML-based format using the identical tags, with the identical meanings, as are provided in the XML-based SPAN file.

Annotated DTD for the XML-based Daily Adjustment History File

A "DTD" (Data Type Definition) spec provides the detailed description of a particular XML vocabulary. Here's an annotated DTD for this file:

```

<ELEMENT dailyValueAdjustments (
    created,
    pointInTime+
)>
    // Overall container for the DA history data
    // File creation date and timestamp
    // Business date(s) for which data is provided

<ELEMENT pointInTime (
    date,
    isSett,
    clearingOrg*
)>
    // A specific business date for which data is provided
    // The business date
    // Indicates end-of-day final settlement
    // Clearing organizations for which data is provided

<ELEMENT clearingOrg (
    ec,
    exchange*
)>
    // A clearing organization for which data is provided
    // Clearing organization acronym
    // Exchange grouping

```

<IELEMENT exchange (exch, futPf*)>	// A group of exchanges cleared by this clearing organization // Exchange acronym // Futures product families
<IELEMENT futPf (pfld, pfCode, cvf, fut*)>	// A specific futures product family // Product family ID number // Product family ("commodity") code // Contract value factor // Futures contracts
<IELEMENT fut (cld, pe, p, dvas)>	// Futures contract // Contract ID number // Period code // Settlement price // Collection of daily adjustment rates
<IELEMENT dvas (dvad*)>	// Daily adjustment rates for a futures contract // Rates for trades done as of a particular day
<IELEMENT dvad (date, dv, dvcum, dvs?, dvcs?)>	// Rates for trades done as of a particular day // Trade date // Daily adjustment long rate for that trade date // Cumulative long DA rate from that trade date // to the specified business date // Daily adjustment short rate for that trade date // Cumulative short DA rate from that trade date // to the specified business date.
<IELEMENT created (#PCDATA)>	// File create timestamp
<IELEMENT date (#PCDATA)>	// Business date
<IELEMENT isSetl (#PCDATA)>	// "1" meaning end-of-day settlement
<IELEMENT ec (#PCDATA)>	// Clearing organization acronym
<IELEMENT exch (#PCDATA)>	// Exchange group acronym
<IELEMENT pfld (#PCDATA)>	// Product family ID number
<IELEMENT pfCode (#PCDATA)>	// Product family code
<IELEMENT cvf (#PCDATA)>	// Contract value factor
<IELEMENT cld (#PCDATA)>	// Contract ID number
<IELEMENT pe (#PCDATA)>	// Period code
<IELEMENT p (#PCDATA)>	// Price
<IELEMENT dv (#PCDATA)>	// Daily Value Long Adjustment Rate
<IELEMENT dvcum (#PCDATA)>	// Cumulative Long DVA Rate
<IELEMENT dvs (#PCDATA)>	// Daily Value Short Adjustment Rate
<IELEMENT dvcs (#PCDATA)>	// Cumulative Short DVA Rate

Sample XML-based DA History File

Here's an annotated example of an XML-based DA History File.

```

<dailyValueAdjustments>
<created>2001-01-09-22:11:23</created> // create timestamp

<pointInTime>
<date>20010109</date> // file is as-of this single point in time
<isSetl>1</isSetl> // the business date to which the file pertains
// it's the end of day settlement file

<clearingOrg>
<ec>CME</ec> // start providing data for the CME clearing org
// "exchange complex acronym"==clearing org
<exchange>
<exch>CME</exch> // start providing data for the CME exchange
// the exchange is CME also ...

<futPf> // a futures PF with daily adjustment
<pfld>49</pfld> // product family ID #
<pfCode>AA</pfCode> // PF code
<cvf>1.0000</cvf> // standard contract value factor for PF

<fut> // the first future for the PF
<cld>1</cld> // contract ID #
<pe>200912</pe> // period code
<p>98.29</p> // settlement price

<dvas> // the container for the DVA's for this future

```

```
<dvad>                                     // first DVA -- newest dates first
<date>20010109</date>                       // date to which the DVA pertains
<dv>-0.017962</dv>                           // daily value adjustment - longs
<dvcum>-0.0000000</dvcum>                   // dvcum - output as negative if 'PREM'
<dvs>-0.017959</dvs>                         // daily value adjustment - shorts
<dvc<cum>-0.0000000</dvc<cum>               // cumulative rate for shorts
</dvad>

<dvad>                                     // on to next DVA ...
<date>20010108</date>
<dv>0.0174523</dv>
<dvcum>0.0174523<dvcum>
<dvs>0.0174523</dvs>
<dvc<cum>0.0174523</dvc<cum>
</dvad>

</dvas>                                     // end of container for DVA's for this future
</fut>                                       // end of data for this future
</futPf>                                     // end of container for this PF
</exchange>                                  // end of container for this exchange
</clearingOrg>                               // end of container for this clearing org
</pointInTime>                              // end of container for this point in time
</dailyValueAdjustments>                   // end of file
```