

Clearing Processing for COMEX Gold and Silver Forwards

Updated July 17, 2018

Introduction

This document describes the clearing process for COMEX Gold and Silver Forwards.

Product definition

The contracts are **physically deliverable** at maturity at original trade price.

They have a **cash mark to market** process (daily settlement variation) in a manner analogous to that for other CME-cleared OTC products.

The gold forwards are also offered with a collateralized mark-to-market in which the daily price change is reflected as increments or decrements to the initial margin (rather than the variation margin). It is expected, however, that clearing activity will be exclusively in the contract with cash mark-to-market.

The product code for the gold forwards is **GBC**. The product code for the silver forwards is **LSF**. (The code for the gold forward with collateralized mark-to-market is **GB**.)

Trade quantities are quoted as the number of troy ounces, and may be as granular as 0.001 ounces. Both contracts are denominated in USD and the price is quoted as a specified amount of USD per one troy ounce. In other words, the contract size and contract value factor are 1.0.

The contract period code, used to identify the contract, corresponds to the value date for delivery. For example, the **20181221** contract is for physical delivery of metal versus cash on Friday, Dec. 21, 2018. Two years of maturities are eligible for clearing, for each business day which is a good business day for London and New York banking.

The “clearing settlement date” and “last day of trading”, defined as the final day on which a trade can be cleared and the daily marking price determined, is the clearing business day immediately preceding the delivery day.

Trade processing

Privately-negotiated deals in COMEX metal forwards are submitted via CME Clearport and are credit checked exactly as for any Clearport product. The trade type is **OPNT**, short for Over-The-Counter Privately Negotiated Trade.

Once accepted for clearing, trades are stored in CME Clearing’s **FEC+** application, and are processed there exactly like futures. In fact, they look exactly like futures with period code specific to the day, except that the product type is **FWD** instead of **FUT**. Firms receive a FIXML trade confirmation messages for each cleared trade. They may send changes messages to update the account number, order number, or origin code. They may perform top-day giveup and allocation processing, and clear transfers. Average-pricing is not allowed.

Position processing

All transactions cleared each day are held open until contract maturity, unless explicitly torn up, which process is described in more detail below.

Calculating mark-to-market amounts for open forward trades

The mark-to-market amount for an open trade in a forward contract is calculated as the product of four values:

- The price difference: Current End-of-Day Settlement Price less Original Trade Price
- The trade quantity, expressed as positive number for a buy or a negative number for a sell
- The contract value factor – the multiplier for this contract that converts quoted prices to money amounts, and
- The discount factor – the appropriate value to discount the mark to market amount from the contract's maturity date back to present value.

In other words:

$$(S - T) * Q * CVF * DF$$

Where:

S is the end-of-day settlement price
T is the original trade price
Q is the trade quantity
CVF is the contract value factor
DF is the discount factor.

The result is rounded normally to the precision of the currency in which the contract is denominated. (For example, for USD, GBP and EUR, to the nearest penny, and for JPY to the nearest yen.)

Discounting the mark-to-market amount back to present value is done because the final delivery or cash settlement won't be realized until contract maturity.

For example, for gold forwards: Suppose you sold 4,379 ounces at a price of 865.67 USD per troy ounce, and at the end of the current clearing day the settlement price is 895.55 USD per troy ounce. The contract value factor is 1 (because the contract is defined as being for 1 troy ounces), and suppose today's discount factor is 0.98039. The discounted mark to market amount is calculated as the product of:

- The price difference of 895.55 less 865.67)
- The trade quantity of negative 4,379
- The contract value factor of 1, and
- The discount factor of 0.98039.

The result is -128,278.658693, which is rounded to -128,278.66 USD.

Processing the mark-to-market amounts

For forwards with cash mark-to-market

For each such forward position, take the discounted mark-to-market value calculated at end-of-day for the current clearing business date, and subtract from it the discounted mark-to-market value at end-of-day for the immediately previous clearing business date.

The result is the **settlement variation** (variation margin) for this position for the current date, and is included in the total cash to be banked.

For forwards with collateralized mark-to-market

Take the mark-to-market amounts calculated for today's clearing business day for the various forward positions, and net them down by currency.

The result becomes part of the equity component of the performance bond (initial margin) requirement, in exactly the same manner as net option value. If a net negative number, it increases the margin requirement, and if a net positive number, it decreases the margin requirement.

Price Alignment Adjustment for Forwards with Cash Mark to Market

Forwards with cash mark-to-market will have **price alignment adjustment (PAA)**. This works in a manner exactly analogous to that for CME's cleared interest-rate swaps, swaptions, and OTC FX forwards and options. Note that PAA is **not** applicable to forward contracts using collateralized mark-to-market.

PAA can be thought of as compensating the holders of out-of-the-money positions for the interest they could have received on the cash posted as settlement variation. It is calculated on days which are banking business days for the currency in which that settlement variation is denominated, and covers the period from the current day to the next such banking business day. On days which are **not** banking business days for this currency, PAA is always set to zero.

The effective interest-rate used is the appropriate rate index for the currency in question, annualized on either an actual/360 or an actual/365 basis. The interest-rate index and the annualization convention are specific to the currency. For USD, the rate is the Fed Funds Effective Rate, and the convention is Actual/360.

The cash amount which is the input to the calculation, is the net discounted mark-to-market amount **realized** as of the morning of the current business day. In other words, it is discounted mark-to-market amount calculated as of end-of-day for the **immediately previous** clearing business day (regardless of whether that immediately previous day was a holiday in any currency.)

Price alignment interest for forwards is calculated **trade by trade**. The PAA amount for the position as a whole, then, is simply the sum of the PAA amounts on the trades.

To simplify processing, all the needed attributes needed to drive the calculation will be provided in the FIXML Product Reference File and Settlement Price File for the forwards in question.

The PAA amount is calculated as the product of the following factors:

- Discounted mark-to-market amount for the immediately previous clearing processing day
- Interest rate expressed as a decimal value
- Number of days from the current banking business day to the next banking business day, divided by either 360 or 365
- -1

The result is then rounded normally to the normal precision of the currency in which it is denominated, and is included in the total cash amount to be banked for the position.

At contract maturity, *ie*, on the clearing settlement date

Calculating the invoice amount for final physical delivery

For our COMEX physically-delivered gold and silver forwards, the invoice amount is calculated as the product of:

- the trade quantity
- the original trade price
- the contract value factor, and
- -1

which is then rounded normally to the penny, *ie*, the normal precision of USD.

Setting the discounted MTM amount to zero

At contract maturity – the “clearing settlement date”, *ie*, the clearing business date immediately preceding the value date for delivery of metal versus cash – the discounted mark to market amount is set to zero.

For the contracts with daily cash variation margin, this will cause the settlement variation on that final day to be the negative of the discounted mark to market amount from the prior business day.

Cash flows in the end-of-day clearing cycle on the clearing settlement date

For long positions, the final cash flow calculated in the end-of-day clearing cycle on the clearing settlement date is the sum of:

- The variation
- The PAA amount
- The invoice amount

This total amount is included in the net banked amount realized at the normal settlement bank for variation margin, by 8:30 am New York time on the morning of the value date for physical delivery. Once that variation settlement is complete, CME Clearing transfers metal to the long’s account at the delivery bank.

For short positions, the total amount for normal banking in the end-of-day clearing cycle on the clearing settlement date is the variation plus the PAA amount. Shorts will deliver metal at the metal delivery bank on the morning of the value date, and cash is released to their variation settlement bank account once metal has been received.

Tear-up's (liquidations prior to maturity) and transfers

A clearing firm that has two exactly offsetting transactions – same contract, same price, same quantity, opposite market side – may request that the two transactions be torn up. Upon such request, the two transactions will be removed.

Similarly, partial tear-up's may be done. The original transaction and the offsetting transactions must be for the same value date and price. The quantity on the original transaction will be reduced, and the offsetting transaction will be removed entirely.

Two clearing firms wishing to tear up a trade between them, may do so upon request. Upon confirmation by both firms, the trade will be removed for both. If the firms desire, they may also specify a cash amount to be moved between them associated with the tear-up.

If a trade must be transferred from one clearing firm to another, a transfer transaction should be cleared at original trade price. Then, upon request by the original clearing firm, the original transaction and the offsetting transfer transaction will be removed.

All tear-up requests are handled via the CME ClearPort Facilitation Desk.

Regulatory status for COMEX metal forwards

COMEX gold and silver forward contracts are part of the Cleared Swaps regulatory class, and therefore customer positions in them and related collateral are part of the Customer Cleared Swaps (“COTC”) class.

As such, these positions, and associated money and collateral deposits, must be kept separate from both “customer segregated” futures positions and money amounts, and proprietary (house) amounts.

PCS not needed for forwards

Because all forward positions are held open in the clearing system, unless explicitly torn up, submission of Position Change Specification (“PCS”) data is not required.

Performance bond calculations

Records for COMEX gold and silver forward products are included in the daily SPAN risk parameter files. Performance bond (“initial margin”) requirements are calculated using SPAN exactly as for any other product.

Margin requirements are removed at the intraday settlement cycle on the value date for physical delivery.

Risk offsets against gold and silver futures contracts

For positions in the house (proprietary) origin, risk offsets will automatically be provided between gold and silver forwards versus gold and silver futures.

For customer-origin positions, clearing firms may elect to move gold and silver futures over to the customer-cleared-swaps class, in order to realize risk offsets against the forwards.

Data files, attribution and formats

Product master data for forwards is published daily in the FIXML Product Reference files.

The FIXML Settlement Price Files are the single best source for daily settlement prices for forwards, because in addition to prices, they also contain (a) discount factors needed for the mark-to-market calculation, and (b) the interest rates and number-of-days parameters needed for calculating price alignment interest amounts.

The daily SPAN files may also be used to obtain settlement prices, and these also contain discount factors.

Basic FIXML usage for forwards:

The security type attribute provides the product type code, indicating that the product is a forward:
SecTyp="FWD"

The settlement method attribute specifies whether the forward is cash-settled or physically-delivered:
SettlMeth="C" or **SettlMeth="P"**

The valuation method attribute specifies whether the forward has a collateralized or cash mark-to-market, and if cash, whether it is calculated in the normal way or the inverse way:

ValMeth="FWD"	Collateralized mark-to-market
ValMeth="FWDC"	Cash mark-to-market, normal calculation

Exactly as for futures, the **MMY** attribute provides the **contract period code**, and identifies the specific forward contract. Exactly as for futures, this will typically be a value specific either to the month or to the day. For example, **MMY="201012"** (December 2010) or **MMY="20101223"** (Dec 23, 2010).

Exactly as for futures, the **MatDt** attribute provides the **clearing settlement date**, *ie*, the date on which the final settlement price is provided and the the final settlement amount is considered realized on the trade register. For example, **MatDt="2010-12-23"**

For a physically-delivered forward contract, the **delivery date** (also called the **physical settlement date** or **value date**) is provided via the **SettIDt** attribute. For example, **SettIDt="2010-12-24"**

Getting the Settlement Price and the Discount Factor

On the FIXML Settlement Price File, the end-of-day settlement price and the discount factor are provided in a **Full** element of type **6**. For example:

```
<Full Typ="6" Px="29.3838" Mkt="CME" DiscntFctr="0.99952"/>
```

The discount factor is also provided in the SPAN file. In the expanded-format, the discount factor is provided on the type "B" record for each forward contract, in positions 152-163, with ten implied decimal places.

Discount factors are always provided as a decimal fraction. The maximum precision for a discount factor is 0.00001 percent, or 0.0000001 as a decimal fraction

On the **PosRpt** messages in the Trade Register file, as with any contract, the **SetPx** and **PriSetPx** attributes provide the current day's settlement price and the previous clearing day's settlement price. The discount factor used for the contract is provided in the **Fctr** attribute in the **Instrmt** element, on both the **PosRpt** and the **TrdCaptRpt** messages. For example: **Fctr="0.9998700"**

Attribution specific to the calculation of Price Alignment Adjustment

The following values are present in both the Product Reference file and the Settlement Price File:

The **Attrb** element of type **111** specifies the Price Alignment Adjustment rate type applicable to the contract. For example:

```
<Attrb Typ="111" Val="USDPAI"/>
```

The **Attrb** element of type **116** specifies the number of calendar days to use in annualizing the interest rate. This will be either **360** or **365**. For example:

```
<Attrb Typ="116" Val="360"/>
```

The **Attrb** element of type **112** specifies whether the current business day is a banking business day for the variation margin currency. If the current date is not a banking business day, then by definition the value of price alignment interest is zero. For example:

```
<Attrb Typ="112" Val="Y"/>
```

The **Attrb** element of type **110** specifies the number of calendar days to use for the PAA calculation. For example:

```
<Attrb Typ="110" Val="1"/>
```

The following values are present in the Product Reference File:

The **Evnt** element of type **114** specifies the prior clearing processing date from which the variation margin balance should be taken – for forwards, always the immediately prior clearing processing date. For example:

```
<Evnt EventType="114" Dt="2012-02-10"/>
```

The **Evnt** element of type **115** indicates the subsequent banking business date up to which you count when determining the number of calendar days. For example:

```
<Evnt EventType="115" Dt="2012-02-16"/>
```

The interest rate to use for the price alignment interest calculation is in the Settlement Price File, in percent, in a **Full** element of type **z**. For example, the following means the rate is 9 basis points:

```
<Full Typ="z" Px="0.09" Pxtyp="1" Mkt="CME" OpenClsSettlFlag="1"/>
```

Trade Confirmation Messages

For privately-negotiated deals in forwards captured via CME ClearPort, the trade type is **OPNT** – short for over-the-counter privately-negotiated-trade.

Clearing firms will receive FIXML trade confirmation messages for cleared forward trades exactly as for any other contract.

Trade Register Files

In the FIXML Trade Register file produced each day, there will be **TrdCaptRpt** trade records for every open trade and **PosRpt** position records for every position.

On the Trade Records

On the trade records, the **Amt** element for type **TVAR** (trade variation) will always contain the discounted mark-to-market amount. This value will be set to zero beginning on the clearing settlement date for the contract.

On the clearing settlement date, the **Amt** element of type **DLV** contains either the final cash settlement amount (for cash-settled forwards) or the invoice amount (for physically-delivered forwards). On all other dates, this value is zero.

For forwards with a cash mark-to-market, the value of price alignment interest is provided in an amount element of type **CASH**, with a reason code of **4**.

On the Position Records

On the position records, the **Amt** element of type **FMTM** will always contain the sum of the discounted mark-to-market amounts from the trades (the sum of the **TVAR** amounts). Exactly as with the **TVAR** amounts, this value will always be zero beginning on the contract's clearing settlement date.

Note: In the near future, based on clearing firm requests, we may begin including the **undiscounted** mark-to-market amounts as well. This will also be in an **Amt** element of type **FMTM**, but will be distinguished from the discounted amount by having an attribute of **Rsn="5"**. This value is information only and does not affect any actual cash or collateralized amount.

For forwards with cash mark-to-market, the settlement variation amount is provided in an **Amt** element of type **IMTM**, short for "incremental mark-to-market." This is equal to the value of discounted mark-to-market for the current clearing processing day, less the value of discounted mark-to-market for the immediately previous clearing processing day.

The amount element of type **DLV** contains either the final cash settlement amount (for cash-settled forwards) or the invoice amount (for physically-delivered forwards.) The value will always be equal to the sum of the corresponding values from the trade records, and will always be zero except on the contract's clearing settlement date.

For forwards with a cash mark-to-market, the value of price alignment adjustment is provided in an amount element of type **CASH**, with a reason code of **4**. Note that this value on the position record is the sum of the values on the corresponding trade records.

For simplicity, two **Amt** elements will be provided for every forward position, with types **BANK** and **COLAT**, respectively.

The first of these – the **BANK** type – provides the total cash amount to be banked. It will always include **DLV** and **CASH** amounts, and for forwards with cash mark-to-market, will include the **IMTM** amount.

The second one – the **COLAT** value – will always be zero for forwards with cash mark-to-market, and will be equal to the **FMTM** value for forwards with collateralized mark-to-market.

Spreadsheet-format (CSV) files

Two spreadsheet-format files are made available daily to clearing firms with forward positions, for trades and positions. Both begin with a standard column header row containing field names. These files are provided **in addition to** the standard FIXML-format Trade Register file.

A third spreadsheet-format file serves as a product reference file, providing the mapping between fixing date, value date, and clearing settlement date.

The **Trade Register file** is named **Trade_Register.xxx.ccyymmdd.csv**, where **xxx** is the clearing firm ID, and **ccyymmdd** is the business date. The file contains the following data elements:

Fieldname	Description
Bus_Date	Current clearing business date
Trade_Date	Trade date of the trade
Clear_Date	Clear date of the trade
Exch	Product exchange
Product_Type	Product type = FWD
Product_Code	Product code
Setl_Cur	Final Settlement currency
CVF	Contract value factor
Period	Contract Period code
Deliv_Date	Delivery date (value date for physical settlement, if applicable)
Setl_Date	Clearing settlement date (date final price is applied)
Buy_Sell	Buy/Sell code – B or S
Qty	Quantity
Discount	Discount factor
Setl_Price	Settlement price
Trade_Price	Trade price
MTM_Amt	Mark-to-market amount (discounted trade variation)
Deliv_Cash	Cash Delivery amount
Deliv	Physical Delivery amount
CO	Clearing organization
CMF	Clearing member firm ID
PA	Position account ID
Seg	Position account origin
TMF_Exch	Firm exchange
TMF	Trading Member Firm (TMF) ID
Origin	Trade origin
Broker	Broker acronym, if applicable
Cust_Acct	Customer account ID
CTI	Customer Type Indicator code
Order_ID	Customer order ID
Trade_ID	Firm trade ID
Exec_ID	Deal ID
Exec_ID2	Platform deal ID
ALLOC_IND	Allocation Indicator
Variation	Settlement Variation amount attributable to this trade
MTM_Undisc	Mark-to-market amount – undiscounted
PAI	Price alignment adjustment amount
SetlMeth	Settlement Method
ValMeth	Valuation Method
UOM	Unit of Measure
UOMCcy	Unit of Measure Currency
PxQteCcy	Price Quote Currency
FnlSettlCcy	Final Settlement Currency
Fix_Date	Date final price was observed
Contra_Qty	Contra currency amount for an FX forward, as if it were delivered

ORIGINAL_TRADE_DATE Date on which trade was executed bilaterally
Reg_Trld_ID Universal Swap Identifier (USI) assigned by CME Clearing
InvoiceAmt The invoice amount for a physically deliverable forward
Invoice_Clean For delivered gas forwards, the “clean” invoice amount –
without the 20% bumpup for Value-Added Tax
Invoice_VAT For delivered gas forwards, the amount of the Value-Added Tax
Included in the invoice amount.

The **position file** is named **Forward_Posns.xxx.ccyymmdd.csv**, where **xxx** is the clearing firm ID, and **ccyymmdd** is the business date. The file contains the following data elements:

Fieldname	Description
Bus_Date	Clearing business date
Exch	Product exchange
Product_Type	Product type = FWD
Product_Code	Clearing Product code
Setl_Cur	Settlement currency
CVF	Contract value factor
Period	Contract Period code
Deliv_Date	Delivery date (value date for physical settlement, if applicable)
Setl_Date	Clearing settlement date (date final price is applied)
Long_Qty	Long position
Short_Qty	Short position
Discount	Discount factor
Setl_Price	Current End-of-Day Settlement price
MTM_Amt	Mark-to-market amount (discounted trade variation)
Deliv_Cash	Cash Delivery amount
Deliv	Physical Delivery amount
CO	Clearing organization
CMF	Clearing member firm ID
PA	Position account ID
Seg	Position account origin
TMF_Exch	Firm Exchange
TMF	Primary Trading Member Firm for the position account
Origin	Primary Origin for this TMF and position account
MTM_Undisc	Mark-to-market amount -- undiscounted
UOM	Unit of Measure
FnlSettlCcy	Final Settlement Currency
PAI	Price Alignment Adjustment
SetlMeth	Settlement Method
ValMeth	Valuation Method
UOMCcy	Unit of Measure Currency
PxQteCcy	Price Quote Currency
Fix_Date	Date final price was observed
Variation	Settlement Variation amount
InvoiceAmt	For a physically delivered forward, the full invoice amount.
Deliv_Margin	For a physically delivered forward, the amount of any special delivery margin.
Invoice_Clean	For gas forwards, the "clean" invoice amount, not including the amount of any Value-Added Tax
Invoice_VAT amount.	For gas forwards, the Value-Added Tax amount included in the full invoice amount.

The **contract master file** is named **Forward_Contracts.ccyymmdd.csv**, where **ccyymmdd** is the business date. The file contains the following data elements:

Fieldname	Description
Bus_Date	Clearing business date
Exch	Product exchange
Product_Type	Product type = FWD
Product_Code	Clearing Product code
SetlMeth	Settlement Method
ValMeth	Valuation Method
Setl_Cur	Settlement Currency
UOM	Unit of Measure
UOMCcy	Unit of Measure Currency
PxQteCcy	Price Quote Currency
FnlSettlCcy	Final Settlement Currency
CVF	Contract value factor
Period	Contract Period code
Deliv_Date	Delivery date (value date for physical settlement, if applicable)
Setl_Date	Clearing settlement date (date final price is applied)
Fix_Date	Date final price will be observed
LDT	Last day of trading (last day a trade can be cleared)
Deliv_Mgn	Delivery Margin Flag: 0 → no special delivery margin 1 → outright margin for net short positions, and long full-value margining for net long positions
Deliv_Mgn_Start	Date on which normal margining stops and delivery margining starts
Deliv_Mgn_End	Date on which delivery margining ceases
Apply_Tax	Apply Tax Flag: N → no tax applied to invoice amount Y → tax applied to invoice amount
Tax_Pct	Tax Percentage

FIXML Position Report for Gold Forward (collateralized mark to market)

```
<PosRpt                                     // position report
  RptID="4062"                               // message ID
  ReqID="1"
  SetSesID="EOD"                             // end-of-day settlement cycle
  MtchStat="0"                               // cleared trade
  SetPx="1952.7545000"                       // today's settlement price
  PriSetPx="1952.7545000"                   // previous day's settlement price
  SetPxTyp="1"
  SettlCcy="USD"                             // settlement currency
  ReqTyp="1"
  MsgEvtSrc="REG"
  BizDt="2012-02-27"                         // current clearing business date
  SettlDt="2012-03-19" >                  // delivery (value) date

<Pty ID="CME" R="21"/>                     // clearing organization
<Pty ID="010" R="4"/>                       // clearing member firm
<Pty ID="2R9G" R="38"><Sub ID="1" Typ="26"/></Pty> // position account
<Pty ID="CME" R="22"/>                     // trade mgmt firm exchange
<Pty ID="2R9" R="1"/>                       // trade management firm ID

<Instrmt                                     // instrument block
  ID="GB"                                     // clearing product code
  SecTyp="FWD"                               // product type
  MMY="20120319"                             // contract period code
  MatDt="2012-03-16"                         // clearing settlement date
  Mult="1"                                    // contract value factor
  Exch="COMEX"                               // product exchange
  PxQteCcy="USD"                             // price quotation currency
  Fctr="0.9998700"                           // discount factor
  SettlMeth="P"                              // settlement method (P for physical)
  ValMeth="FWD"                              // valuation method (FWD = collateralized mtm)
  UOM="TRYOZ"                                // quantities as # of troy ounces
  UOMQty="1" />

<Qty Long="1000.000" Short="2000.000" Typ="PNTN"/> // trades cleared today
<Qty Long="1000.000" Short="2000.000" Typ="FIN"/> // ending quantity
<Qty Typ="DLV" Long="0.00" Short="0.00" Net="0.0" /> // delivered quantity today

<Amt Typ="FMTM" Amt="47239.36" Ccy="USD"/> // mark to market
<Amt Typ="IMTM" Amt="0.48" Ccy="USD"/> // incremental mtm from previousday
<Amt Typ="DLV" Amt="0.00" Ccy="USD"/> // invoice amount
<Amt Typ="BANK" Amt="0.00" Ccy="USD"/> // total banked amount
<Amt Typ="COLAT" Amt="47239.36" Ccy="USD"/> // total collateralized amount
</PosRpt>
```


Trade Message

```
<TrdCaptRpt
  ExecID="891591"      // match event ID
  RptID="177"         // message ID
  TrdTyp="22"         // trade type (privately-negotiated)
  TrdDt="2011-10-14"  // trade date
  BizDt="2011-10-14"  // current clearing business date
  SettlDt="2011-10-17" // value date
  MLegRptTyp="1"      // outright (not spread) trade
  MtchStat="0"        // cleared status
  MsgEvtSrc="REG"     // message source (trade register)
  TrdID="100017"      // trade ID
  OrigTrdDt="2011-10-12" // trade date
  LastQty="7000.000"  // trade quantity
  LastPx="1.7000000"  // trade price
  TxnTm="2011-10-14T10:25:35-00:00" // trade time
  SettlCcy="USD"      // MTM amounts flipped to USD for banking
  GrossTrdAmt="0.00"  // trade quantity times contract value factor
  VenuTyp="X">      // privately-negotiated trade

<Instrmt
  ID="USDBRL"         // product code
  SecTyp="FWD"        // product type
  MMY="20111017"      // period code (value date as a string)
  MatDt="2011-10-14" // clearing settlement date
  Mult="1"            // contract value factor
  Exch="CME"          // product exchange
  PxQteCcy = "BRL"    // price quote currency
  Fctr="1.0000000"    // discount factor
  SetlMeth="CASH"     // settlement method
  ValMeth="FWDCI"     // valuation method
  UOM="Ccy"           // unit of measure is a currency
  UOMCCy="USD"        // unit of measure specific currency
  UOMQty="1"          // unit of measure quantity
  CtrctScalingFctr="1"> // equivalent position factor for margining
<Evt EventTyp="121" Dt="2012-02-10"/> // fixing date for a cash-settled forward
</Instrmt>

<Amt Typ="TVAR" Amt="0.00" Ccy="USD"/> // mark to market for variation
<Amt Typ="DLV" Amt="149.90" Ccy="USD"/> // final settlement amount
<Amt Typ="CASH" Amt="0.23" Rsn="4" Ccy="USD"/> // price alignment interest
```

```

<RptSide
  Side="1"           // buy-sell (1 is a buy, 2 is a sell)
  CustCpcty="1"     // CTI code
  SesID="EOD"       // clearing session ID
  ClOrdID="C891591" // order ID
  SesSub="X"        // privately-negotiated trade
  AllocInd="0">    // regular trade
<Pty ID="CME" R="21"/> // clearing organization
<Pty ID="010" R="4"/> // clearing firm
<Pty ID="TEST" R="38"><Sub ID="2" Typ="26"/></Pty> // position account and origin
<Pty ID="CME" R="22"/> // firm exchange
<Pty ID="010" R="1"/> // primary TMF for the position account)
<Pty ID="TEST" R="24"><Sub ID="2" Typ="26"/></Pty> // customer account and origin
<RegTrdID ID="CPC000004463532SN0002" // Cleared USI
Src="1010000023" // Namespace of creating entity
Typ="0" // Current USI
Evtnt="2"/> // Indicates Cleared USI
</RptSide>
</TrdCaptRpt>

```

File locations

CSV-format trade register and position files, and FIXML-format trade register files, are published to each firm in their **Outgoing** directory on the Firm FTP Server.

Settlement price files and product reference files are available on CME's public FTP site on the Internet, at ftp.cmegroup.com, and on the Firm FTP Server.

Settlement price files for forwards cleared by CME Clearing are located in the **/pub/settle** directory for production files, and in the **/pub/settle/nr** directory for files produced from the New Release testing environment. Files are available in both the FIXML format and the positional format, both with the business date in the filename and with a static filename, and both zipped and not zipped. For example:

comex.settle.fwd.20130918.s.xml.zip
comex.settle.fwd.20130918.s.txt.zip
comex.settle.fwd.nr.20130918.s.xml.zip
comex.settle.fwd.nr.20130918.s.txt.zip

FIXML product reference files for forwards are available in the **/pub/fprf** directory. For example:

cmeg.comex.fwd.prf.20130918.xml.zip

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