



Clearing and Bookkeeping Processing for Cleared OTC London Gold Forwards

Introduction

In the near future, CME Clearing expects to begin clearing privately negotiated transactions in OTC London Gold Forwards. Clearing will be limited to house business at first, with customer business to be added within 90 days.

The product exchange will be **COMEX**, the clearing product code will be **GB**, and the contract will be dollar-denominated. The contract unit initially will be 100 troy ounces of unallocated gold for physical delivery via London bullion bank. (At a future date the contract unit may be reduced to one troy ounce.) The minimum price fluctuation will be 0.001 USD per troy ounce.

Trades in these products will appear as if they were futures with a daily expiration, except that the product type code will be FWD, for forward. The "contract period code", in effect the contract date, will be the actual delivery date. For example, the **20091223** contract will be for delivery (value) on December 23, 2009. Trades may be submitted for any valid delivery date, going out ten years.

Trades will be submitted via the Clearport Clearing GUI or API, and will be subject to the normal Clearport registration process, and normal Clearport credit and position limit checking.

Because these contracts are forwards, not futures, they behave as follows:

- Every trade establishes a new open position.
- Each day, every open trade is marked from trade price to the daily settlement price. These amounts are discounted to present value, and then netted together.
- The resulting net discounted mark to market amount is "collateralized". That is, it establishes a margin (performance bond) credit or liability. If a credit, it reduces the total margin requirement, and if a liability, it increases it. Note that this amount is calculated at every clearing cycle, and will vary as the market moves and new trades are cleared.
- At the end of the day prior to the delivery date, trades for that value date are netted down. The result is a single net delivery obligation, but in effect at the original trade price.
- After delivery is complete, the collateralized requirement resulting from those trades is unwound, and if it had been a liability, any collateral posted to cover it may be withdrawn.

Trade processing functions in Front-End Clearing (FEC)

The trade type in FEC will be **OPNT** – short for “over-the-counter privately negotiated trade.”

Trades will be available in FEC for post-execution account number and origin corrections until the contract maturity date. At launch, sub-allocations and cross-firm transfers will be accomplished via type 8 transfer transactions.

Transfers and liquidations prior to maturity

A clearing firm that has two exactly offsetting transactions – same value date, 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-ups may be done. The original transaction and the offsetting transaction 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 tearup.

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 transfer transaction will be removed.

All such requests will be handled via the Clearport Facilitation Desk.

Calculating the discounted collateralized mark to market

For example, suppose on March 20, 2009, you sold 4,379 contracts for delivery on December 23, 2009, at a price of 865.67 USD per troy ounce, and at the end of the day on March 25, the daily settlement price for this contract is determined as 895.55 USD per troy ounce. Also suppose that the discount factor on March 25 is provided as 0.98039. The collateralized mark to market amount is determined as:

$$(-4,379) * (895.55 - 865.67) * 100 * 0.98039 = -12,827,865.8693$$

Which is then rounded to -12,827,865.87 (normal precision for USD)

In other words:

- Take the trade quantity, as a positive number for a buy and a negative number for a sell.
- Multiply by the difference between the end of day settlement price and the original trade price.
- Multiply by the contract value factor (100 because the contract size is 100 troy ounces and the price is provided as the amount of USD per one troy ounce) and the discount factor.
- Round normally to the nearest penny (normal precision for USD).

If the result is a positive number, it becomes to a performance bond credit, and if a negative number, a performance bond requirement.

Deliveries processing

For physical delivery, participants will establish unallocated gold bullion accounts at any of a set of approved London Precious Metal Clearing Ltd. banks. Standing settlement instructions will be provided for each clearing position account, and may be provided for specific customer accounts. The delivery process will work as follows:

- At the close of business on clearing processing day prior to the value date, all open trades for that value date will be selected.
- For each customer account for which specific standing settlement instructions have been provided, trades for that account will be selected and netted separately. Remaining trades for each clearing position account will then be netted.
- The resulting delivery obligations will be provided to participants by reports and datafiles, to facilitate reconciliation of delivery amounts.

For delivery obligations where there is a net purchase of gold:

- A debit instruction for USD will be issued to the appropriate USD bank.
- On the morning of the value date, after the USD bank has confirmed receipt of funds, gold will be released to the participant's specified bullion account.

For delivery obligations where there is a net sale of gold:

- The participant will cause bullion to be transferred to CME Clearing's bullion account.
- When bullion has been received, USD will be released to the participant's USD bank account.

Reports will be provided to participants showing delivery obligations. A preliminary report will be provided on the second day prior to the value date, and the final report on the day prior to the value date.

Note that due to netting, it is possible that either the gold amount or the dollar amount may be zero, or that the gold and dollar amounts may both be in the same direction.

Regulatory status

Trades may be cleared for both house (proprietary) and customer accounts. Customer trades will be cleared under “30.7 Secured” treatment.

Hence trades marked as customer, will be posted to a special “S” 30.7 Secured position account, and margin requirements for these positions will be aggregated to a special “S” 30.7 Secured settlement account, also denoted by the CNSEG value for the Funds Segregation Type. Firms clearing this business will be required to provide special 30.7 Secured bank account info to CME Clearing.

Position reporting and PCS

PCS data should be submitted for these products exactly as for any product.

All account-level positions should be reported using the standard “large trader” file format, exactly as if these were futures-to-the-day. In other words, the reportable level is one contract. Data may either be included in the normal futures large trader file, or provided in a separate file.

Performance bond calculations

Performance bond (“initial margin”) requirements for COMEX gold forwards will be calculated in SPAN® normally.

Subject to CFTC approval, we expect that clearing firms will be able to provide their customers with risk offsets between COMEX gold futures and options, and the new COMEX London gold forwards. These risk offsets will not be available when CME Clearing calculates initial margins for customer positions held by clearing firms, however: for clearing-level margins, 30.7 positions such as gold forwards and normal customer-segregated positions may not offset. For margins charged to clearing firms, these risk offsets will be available only for house (proprietary) positions.

Note also that collateral deposited to meet customer-segregated futures margin requirements may not be used to meet either initial margin or collateralized requirements for COMEX gold forwards, and vice versa.

Also, if a customer has a collateralized mark-to-market amount which is a credit (a net gain), this can be used to offset performance bond requirements only for such 30.7 Secured positions. If there is any excess credit, it **cannot** be used to offset requirements from normal customer-segregated positions.

Clearing processing days and holidays

Trades in COMEX gold forward may clear on any weekday except (when they fall on weekdays) Christmas and New Years. CME Clearing runs clearing cycles on all such “clearing processing days”, even when they are normal US holidays such as July 4.

Of course, such US holidays will not be valid delivery dates, because a delivery date must be a business date in both the London and US banking calendar. But trades can definitely clear on such dates for value on other dates.

Bookkeeping processing

To assist firms with bookkeeping processing, in addition to the standard FIXML trade confirmation messages and FIXML trade register file, we will provide spreadsheet-format files of open trades and positions. Formats are described below.

Fees

Clearing fees will be denominated in USD, and will be defined separately for member versus non-member transactions. The exact rate schedule will be based on tenor (maturity bucket) on the initial date the transaction clears.

To facilitate clearing firm calculations of fees, a data file will be published that details, for trades cleared on each business date, the starting contract date and ending contract date for each maturity bucket.

In addition there will be a delivery charge based on the net amount of gold delivered on each business day.

Data formats

FEC will produce FIXML trade confirmation messages for these products exactly as for any Clearport product.

A few points to note about FIXML usage:

- The security type attribute indicates that the product is a forward, not a future: **SecTyp="FWD"**
- The contract period code indicates the **value date** for the delivery: **MMY="20090921"** identifies the contract for value September 21, 2009.
- The delivery (value) date will also be provided as a date value in the **SettIDt** attribute: **SettIDt="2009-09-21"**
- The "clearing settlement date", also known as maturity date, attribute identifies the date on which the final marking price is determined, which will be the last date on which trading for the specified value date is considered "spot". For example, **MatDt="2009-09-17"**

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

- On the trade records, the **Amt** element for type **TVAR** (trade variation) will contain the discounted mark to market amount – the exact amount to be collateralized.
- On the **PosRpt** messages, the total net discounted mark to market amount will be in the **Amt** element for type **CMTM** ("collateralized mark to market").

The discount factor to be used every day for each contract, to discount mark to market amounts back to present value, will be provided in the daily FIXML Settlement Price File and in the daily SPAN file.

- In the FIXML price file, the discount factor will be provided as a decimal fraction in a new attribute on the **Full** element. For example **<Full Typ="6" Px="908.24" DiscntFctr="0.98312" Mkt="COMEX"/>**. In this example the end of day price is 908.24 USD per troy ounce and the discount factor is 98.312 percent.
- In the expanded-format SPAN file, the discount factor for these forwards will be provided as a decimal fraction on the type "B" record in a new field in positions 152-163, with ten implied decimal places. The record format is available at <http://www.cme-ch.com/span/span131b.htm>.

Precision for these values will be no greater than 0.0001 percent, or 0.000001 as a decimal fraction.

Spreadsheet-format (CSV) files

Two data files will be made available to each firm in CSV (comma-separated values) format every day: **trades** and **positions**. As stated above, these files are **in addition to** the standard FIXML-format trade register file.

The **trade file** will contain the following data elements:

- Clearing business date
- Trade date
- Clear date
- Product exchange
- Product type
- Product code
- Settlement currency
- Contract value factor
- Period code
- Delivery date (value date)
- Clearing settlement date (day before value date)
- Buy/Sell code
- Quantity
- Discount factor
- Settlement price
- Trade price
- Mark to market amount (trade variation)
- Gold delivery amount (troy ounces)
- Cash delivery amount (USD)
- Clearing organization
- Clearing member firm ID
- Position account ID
- Position account origin
- Firm exchange
- Trading Member Firm (TMF) ID
- Trade origin
- Broker
- Customer account ID
- Customer order ID
- Firm trade ID

The **position file** will contain the following data elements:

- Clearing business date
- Product exchange
- Product type
- Product code
- Settlement currency
- Contract value factor
- Period code
- Delivery date (value date)
- Clearing settlement date (day before value date)
- Long position
- Short position
- Discount factor
- Settlement price
- Mark to market amount (trade variation)
- Gold delivery amount (troy ounces)
- Cash delivery amount (USD)
- Clearing organization
- Clearing member firm ID
- Position account ID
- Position account origin

The product type code in the CSV files and in SPAN files will be **FWD** for forward.

Fee Tier datafiles

This CSV-format datafile will show, for trades cleared on each business date, the rate tiers (maturity bucket), and the starting and ending contract date for each. It will be published once per year and will contain data for trades cleared on each business date for that year. The data elements are:

- Business date (on which the trade cleared)
- Product exchange
- Product code
- Product type
- Rate tier number
- Starting Contract Period
- Ending Contract Period

Simply look up the contract period code for the trade clearing date to find the rate tier, and then find the appropriate rate for that rate tier.

Sample datafiles

A zip file containing sample datafiles is named **GoldForwardsExamples.zip** and is available at <ftp.cmegroup.com/pub/span/data/cme/test>. The following examples are contained therein:

- **GoldFwd-TMS-FIXML-Trades.xml** – Trades in the NYMEX cleared-trades-API FIXML format
- **GoldFwd-TMS-Trades.txt** – Trades in the hourly NYMEX TMS flat-file format
- **GoldFwd-FEC-FIXML-Trades.xml** – Trades in the FEC FIXML format
- **GoldFwd-FIXML-Register.xml** – sample FIXML trade register
- **GoldFwd-FIXML-Settlements.xml** – sample FIXML settlement price file
- **GoldFwd-SPAN.pa2** – sample pa2 format SPAN file
- **GoldFwd-Trades.csv** – sample csv-format trade file
- **GoldFwd-Positions.csv** – sample csv-format position file
- **GoldFwd-FeeTier.csv** – sample csv-format fee tier file

For further information

For further information please contact CME Clearing at 312-207-2525.