Calculation of Close-out Amounts

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Scope

- Documentation analysed
  - ISDA 1992
  - ISDA 2002
  - GMRA 1995
  - GMRA 2000
  - GMSLA 2009
  - EMA 2004

- Close-out Procedures
Scope

1. Determination of fair values
2. Termination Currency
3. Fallbacks for determination of securities market values
4. Discretion granted to the non-defaulting party
Determination of fair values

ISDA 1992

- Parties pre-election between:
  - Market quotation or,
  - Loss (applies also as fallback)
  - If no election, Market Quotation and the Second Method applies.

- If Loss applies:
  - Determination to be as of the relevant Early Termination Date. If this is not reasonably practicable, as of the earliest date thereafter.
  - A party may (but need not) determine its Loss by reference to quotations of relevant rates or prices from leading dealers.
  - Loss is the amount that a party reasonably determines in good faith to be its total losses, costs or gains (includes many different items)

- If Market Quotation is elected, the party making the determination will request each Reference Market-maker to provide its quotation to the extent reasonably practicable as of the same day and time or as soon as reasonably practicable after the Early Termination Date.
  - Quotations for Replacement Transaction.
  - Unpaid Amounts to be excluded, but any payment or delivery that would have been required after that Early Termination Date (but for the Early Termination Date) is to be included.
  - The Non-defaulting Party may select the relevant day and time for Market Quotation in good faith
Determination of fair values
ISDA 2002

- The 2002 ISDA replaced the concepts of Market Quotation and Loss for Close-out Amount.
- The equivalent of the 1992 “Second Method” becomes the only possible payment method
  - Any Close-out Amount will be determined by the Determining Party, which will act in good faith and use commercially reasonable procedures in order to produce a commercially reasonable result.
  - Each Close-Out Amount is to be determined as of the Early Termination Date or, after when commercially reasonable.
  - Close-out Amount is the amount of the losses or cost (or gains) that are or would be incurred (or realized) under then prevailing circumstances in replacing or providing the Determining Party the economic equivalent of the material terms, and the option rights of the parties, of the Terminated Transaction.
  - Unpaid Amounts are to be excluded but payments and deliveries that would have been required after the Early Termination Date should be included.
  - The Determining Party will consider:
    - Quotations from third parties
    - Information consisting of relevant market data supplied by third parties.
    - The above information but from internal sources of the same type used in the regular course of business.
  - Without duplication of other amounts, the Determining Party may consider any loss or cost incurred as a result of terminating, liquidating or re-establishing any hedges.
Determination of fair values

GMRA 1995

- The Repurchase Date for each Transaction hereunder shall be deemed immediately to occur: all cash margin shall be immediately repayable and Equivalent Margin Securities shall be immediately deliverable.
- The non-Defaulting Party shall established the Default Market Values, the Cash Margin and the Repurchase prices and amounts due by each party shall be set-off. Only the balance shall be payable on the next following business day.

- Valuations
  - Actual price paid or received, if sales or purchases on the Relevant Securities have been made by the non-Defaulting Party prior to Default Valuation Time.
  - If not such sale or purchase have taken place and:
    (I) Securities have to be delivered to the Defaulting Party, the Purchased Securities and Margin Securities are valued at the Default Valuation Time at their Market Value, being the price obtained from a generally recognized source agreed by the parties including accrued interest;
    (II) Securities have to be delivered to the non-Defaulting Party, then Purchased Securities and Margin Securities shall be valued at the amount it would cost to buy the Relevant Securities at the Default Valuation Time at the best available offer price on the most appropriate market in standard size together with the lowest reasonably expected purchase cost.
  - Valuation Time: the close of business in the most appropriate market for the Relevant Securities on the first business day following the day on which the Event of Default occurred.
Determination of fair values

GMRA 2000

- Same procedure as GMRA 1995

- Valuations
  
a) **Determination** prior to the Default Valuation Time:

  1. Default Market Value equal the net sale proceeds or aggregate purchase cost received of paid by non-Defaulting Party, if sales or purchases made.

  2. Arithmetic mean of bid or offer quotations received in a commercially reasonably size from two or more market makers or regular dealers in the Appropriate Market.

  3. If not possible then fair Value as Default Market Value. Fair Value is the amount which, in its reasonable opinion, represents their fair market value having regard to such pricing sources and methods (including available prices for similar securities – similar in maturity, terms and credit characteristics) as it considers appropriate (taking into account the reasonable transaction cost which would be incurred)

b) **If not**, the Default Market Value shall be an amount equal to the fair market value at the Default Valuation Time (the close of business in the Appropriate Market on the fifth dealing day after the day which that Event of Default occurred (save for Insolvency Event)), or as soon as practicable thereafter.

- Obligation to pay incurred Loss (profits) and costs (gains) for Replacement Transactions or hedges or unwinds.
Determination of fair values

GMSLA 2000

• After the occurrence of an Event of Default the Parties delivery and payment obligations shall be accelerated and the non-Defaulting Party shall establish the Relevant Value. As of the Termination Date an account shall be taken of what is due from each Party and set-off.

• Relevant Value

  – Net sale proceeds or aggregate purchase cost if actual sales/purchases before the fifth business day after Termination Date by the non-Defaulting Party.

  – If not Relevant Value equal to Bid Value (Bid Price less costs) or Offer Value (Offer Price plus costs) as of the first business day following the Termination Date (or the second if the Event of Default occurs outside normal business hours).
Determination of fair values

GMSLA 2009

• Default Market Value largely mirror GMRA 2000:

  – If between the Termination Date and the Default Valuation Time the non-Defaulting Party has actually sold or purchased Securities may elect to treat the net sale proceeds or aggregate purchase cost as the Default Market Value.

  – If between the Termination Date and the Default Valuation Time the non-Defaulting Party has received bid or offer quotations from two or more market makers or regular dealers in the Appropriate Market, may elect to treat the arithmetic mean of the relevant prices quoted as the Default Market Value.

  – If not possible, may determine the fair market value having regard to such pricing sources and methods as deems appropriate (plus or less transaction costs).

  – Otherwise fair market value at the Default Valuation Time, or as soon as reasonably practicable.
Determination of fair values

EMA

- Final Settlement Amount determined by CP as of the Early Termination Date=
  - The sum of (i) all Transaction Values which are positive for the CP; (ii) the Amounts Due owed to CP; and (iii) its Margin Claims
  - Less the sum of: (i) the absolute amounts of all Transaction Values which are negative for Calculation Party, (ii) the Amounts Due owed by the CP and (iii) the Margin Claims of the other party.

- Transaction Value, means, at the option of the CP:
  - (i) The loss incurred(+) / gains realized (-) by the CP as a result of the termination of the Transaction(s); or
  - (ii) The arithmetic mean of the quotations (expressed as the amount which the market participant would pay or receive on the Quotation Date if it were to assume as of the Quotation Date the rights and obligations of the other party) for replacement or hedge transactions on the Quotation Date obtained by the CP from not less than two leading market participants.
  - (iii) If no or only one quotation can be reasonably be obtained, the Transaction Value shall be determined pursuant to (i)

- Default Value (used in relation to Amount Due and Margin claims):
  - (A) If the assets are or were to be delivered by the CP, the net proceeds which it has or could reasonably received when selling assets of the same kind and quantity in the market on such date
  - (B) If the assets are or were to be delivered to the CP, the cost which the CP has or would have reasonably incurred in purchasing assets of the same kind and quantity in the market on such date and
  - If a market price for such assets cannot be determined, an amount which the CP determines in good faith to be its total losses and costs in connection with such assets.
Should harmonization be attempted?

• Advisable between different versions of the same Master Agreement.
  Already initiated with the GMSLA 2009 and the ISLA 2009 Secured Lending Protocol and ISDA Protocol 2002 and 2009
• It would be possible at least in the basic concepts:
  • non-Defaulting Party to determine in good faith its cost or loss.
  • Determination to use objective data (Reference Market Makers, market consensus prices) if available and valid.
  • Other items to be included in the determination such as realised losses (gains) or hypothetical losses (gains).
• Advisable for Certainty of process if all Master Agreements use the same format.
  Speed of process if all Master Agreements use the same format.
  End user clarity across market standard documentation.
• But may overcomplicate valuation of simple products with mechanisms used for more sophisticated products.
• And may be time consuming for the industry across products to reach consensus as to harmonized valuation process.
1. ISDA Master Agreement 1992 and 2002

“Termination Currency Equivalent”: … the amount in Termination Currency determined by the party making the relevant determination as being required to purchase such amount of such Other Currency as at the relevant Early Termination Date… with the Termination Currency at the rate equal to the spot exchange rate of the foreign exchange agent (selected as provided below) for the purchase of such Other Currency with the Termination Currency at or about 11:00 a.m… on such date as would be customary for the determination of such a rate for the purchase of such Other Currency for value on the relevant Early Termination Date…

Termination Currency to be agreed in the Schedule previously, or by default Euro for English law governed Agreements and Dollars for New York law governed Agreements

2. GMRA 1995 and 2000

“All sums not denominated in the Base Currency shall be converted into the Base Currency on the relevant date at the Spot Rate prevailing at the relevant time”

“Spot Rate, where an amount in one currency is to be converted into a second currency on any date, unless the parties otherwise agree, the spot rate of exchange quoted by Barclays Bank PLC in the London inter bank market for the sale by it of such second currency against a purchase by it of such first currency”.

3. GMSLA 2000 and 2009

“Currency Conversions: … sums or values stated in currencies other than the Base Currency shall be converted into the Base Currency at the latest available spot rate of exchange quoted by a bank selected by Lender (or if an Event of Default has occurred in relation to Lender, by Borrower) in the London interbank market for the purchase of the Base Currency with the currency concerned on the day on which the calculation is to be made or, if that day is not a Business Day the spot rate of exchange quoted at Close of Business on the immediately preceding Business Day.
And in 2009, for default situations also “any sum not denominated in the Base Currency shall be converted into the Base Currency at the Spot Rate prevailing at such date and times determined by the non-Defaulting Party acting reasonably.

Base Currency to have been previously agreed on Schedule.

4. EMA 2004

“Conversions” Any Amounts Due, Default Value, Margin Claims and Transaction Value not denominated in the Base Currency shall be converted into the Base Currency at the Applicable Exchange Rate.

- “Applicable Exchange Rate” means the arithmetic mean of the respective rates at which the person calculating or converting an amount pursuant to the Agreement is reasonably able to (i) purchase the relevant other currency with, and (ii) sell such currency for, the Base Currency on the date as of which such amount is calculated or converted.
- Are these provisions robust enough?

1. - The requirement of “for value on the relevant Early Termination Date” may lead us to use a rate quoted one or two days prior.

   - If calculation of the Termination Currency Equivalent is by any reason not possible, should the last available be used?
   Should the determination be postponed until the Spot Rate is available? Any other possible fallback?

2. GMRA

   • What to do if the Spot Rate quoted by Barclays Bank PLC (as defined) is not available?
   • In a situation where default has occurred, Market Value has to be determined for close-out purposes, but the security is suspended: will the Spot rate be the one quoted by Barclays Bank PLC on the Repurchase Date (anticipated), the date making the calculation after obtaining the Market Value, or the dealing day last preceding the date of suspension.
   • What exactly means relevant date and relevant time in clause 10 c (ii)?.

3. 2009 GMSLA in case of default: too much discretion? At least some limits on time and dates (close to the default occurrence).
   2000 GMSLA: need of fallbacks if there are no quotations neither on the relevant date nor on the preceding business day.

4. Most of the agreements do not provide significant detail on the timing of currency conversions: there may be conversions at different times and on different dates, as a consequence.
Fallbacks for determination of securities market values

- GMSLA 2000
  • No fallbacks if market price (Bid Value/ Offer Value) is not obtained.
  • Bid Value: the amount which would be received on a sale of the Relevant Securities or Collateral at the best available bid price on the most appropriate market in standard size, after deducting the lowest reasonably expected associated costs of sale.
  • Offer Value: The amount it would cost to buy the Relevant Securities or Collateral at the best available offer price on the most appropriate market in standard size, together with the lowest reasonably expected associated purchase costs.

- GMRA 1995
  • No fallbacks if market price (Market Value) is not obtained.

  • Market Value: - The price for a relevant time and data obtained from a generally recognized source agreed by the parties plus accrued income and converted into the contractual currency.
    - If the security is suspended the price to be used is the price as of close of business on the dealing day in the Relevant Market last preceding the date of suspension.

- GMRA 2000
  • Three detailed fallbacks if market price cannot be obtained by the actual sale or purchase of the securities
    – use bid or offer quotations in respect of the securities from two or more market makers or regular dealers in the Appropriate Market;
    – use its own determination of the fair market values or
    – wait until is able to ascertain the fair market value.
Fallbacks for determination of securities market values

- GMSLA 2009

Mirroring the GMRA 2000, the GMSLA 2009 offers three detailed fallbacks if market price cannot be obtained by the actual sale or purchase of the securities: (i) use bid or offer quotations in respect of the securities from two or more market makers or regular dealers in the Appropriate Market; (ii) use its own determination of the fair market values, (iii) or wait until is able to ascertain the fair market value.

- EMA 2004

If market price can not be determined, as proceeds received (or reasonably possibly receive) or cost incurred (or reasonably possibly incurred), Default Value will be the amount determined by Calculation Party in good faith to be its total losses and cost.
Discretion granted to the non-defaulting party

1. Pros
   - Only third party quotes and market data proved to be inefficient.
   - More flexibility in situations of market stress.
   - Can always include third party quotations and market data.
   - May avoid shortfalls produced if only market data or quotations are used.
   - No need of so many predefined fallbacks.
   - Always subject to “good faith” whether contractually or by law (i.e. Socimer International Bank Ltd v Standard Bank London Ltd and Saving Bank of the Russian Federation V Refco Securities LLC).
   - Useful when making valuation of large portfolios.

2. Cons
   - Reputation risk if valuation process is attacked or if discretion exercised differently by different areas of an institution or to different client close-outs.
   - Lack of clear path to end users.
   - Can lead to abuses over the Defaulting Party.
   - If abused, risk of challenging settlement by Defaulting Party its administrators or by third party creditors.
   - Need to demonstrate basis used when performing discretion.
   - Adverse litigation risk if discretion exercised incorrectly ranging from damages caused to third parties up to creating benchmark.
   - In some jurisdictions too much discretion clauses may be declared null.

3. Conclusion

Discretion of the non-defaulting party advisable but limited by:

- The need to use market data and third party quotations, if available and valid.
- Commercial reasonableness.
- Good faith, by law and contractually.