Chapter 13

The calculation of counterparty risk exposure values for financial derivatives, securities financing transactions and long settlement transactions

13.4 CCR mark to market method

General

13.4.1 R The *rules* in BIPRU 13.4 set out the *CCR mark to market method*.

13.4.2 R A *firm* must obtain the current replacement cost of all contracts with positive values by attaching current market values to contracts (marking to market).

[**Note**: *BCD* Annex III Part 3, Step (a)]

13.4.3 R A *firm* must obtain a figure for potential future credit *exposure* by multiplying the notional principal amounts or underlying values by the percentages in the table in BIPRU 13.4.5 R.

[**Note**: *BCD* Annex III Part 3, Step (b) (part)]

13.4.4 R BIPRU 13.4.3 R does not apply in the case of single-currency "floating/floating" interest rate swaps.

[**Note**: *BCD* Annex III Part 3, Step (b) (part)]

Table: multiples to be applied to notional principal amounts or underlying values

13.4.5 R This table belongs to BIPRU 13.4.5 R

Residual maturity	Interest-rate contracts	Contracts concerning *foreign currency* rates and gold	Contracts concerning equities	Contracts concerning precious metals except gold	Contracts concerning *commodities* other than precious metals
One year or less	0%	1%	6%	7%	10%
Over one year, not exceeding five years	0,5%	5%	8%	7%	12%
Over five years	1.5%	7.5%	10%	8%	15%

[**Note**: *BCD* Annex III Part 3, Table 1]

13.4.6 R A *firm* must treat a contract which does not fall within one of the five categories indicated in the table in BIPRU 13.4.5 R as a contract concerning *commodities* other than precious metals.

[**Note**: *BCD* Annex III Part 3, Table 1 footnote 25]

13.4.7 R For contracts with multiple exchanges of principal, a *firm* must multiply the percentages in the table in BIPRU 13.4.5 R by the number of remaining payments still to be made according to the contract.

[**Note**: *BCD* Annex III Part 3, Table 1 footnote 26]

13.4.8 R For contracts that are structured to settle outstanding *exposure* following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, a *firm* must treat the residual maturity as equal to the time until the next reset date.

[**Note**: *BCD* Annex III Part 3, Table 1 footnote 27 (part)]

13.4.9 R In the case of interest-rate contracts that meet the criteria in BIPRU 13.4.8 R and have a remaining maturity of over one year, a *firm* must apply a percentage no lower than 0.5%.

[**Note**: *BCD* Annex III Part 3, Table 1 footnote 27 (part)]

13.4.10 R For the purpose of calculating the potential future credit *exposure* in accordance with BIPRU 13.4.3 R a *firm* may apply the percentages in the table in BIPRU 13.4.11 R instead of those prescribed in the table in BIPRU 13.4.5 R provided that it makes use of the *commodity extended maturity ladder approach* for contracts relating to commodities other than gold.

Table: alternative multiples to be applied to notional principal amounts or underlying values

13.4.11 R This table belongs to BIPRU 13.4.10 R

Residual maturity	Precious metals (except gold)	Base metals	Agricultural products (softs)	Other, including energy products
One year or less	2%	2,5%	3%	4%
Over one year, not exceeding five years	5%	4%	5%	6%
Over five years	7.5%	8%	9%	10%

[**Note**: *BCD* Annex III Part 3, Table 2]

13.4.12 R A *firm* must calculate the *exposure* value as the sum of:

(1) the current replacement cost calculated under BIPRU 13.4.2 R; and

(2) the potential future credit *exposure* calculated under BIPRU 13.4.3 R.

[**Note**: *BCD* Annex III Part 3, Step (c)]

13.4.13 G Contracts with a negative replacement cost should still be subject to an add-on if there is a possibility of the replacement costs becoming positive before maturity. Written options should therefore be exempt from add-ons.

13.4.14 G For the purposes of calculating the replacement cost, where an *exposure* relates to collateral posted to cover a negative mark to market position on a derivative contract, the negative mark to market *exposure* may be offset against the collateral *exposure* if the requirements in BIPRU 5 are met.

Alternative approach

13.4.15 R A *firm* must ensure that the notional amount to be taken into account is an appropriate yardstick for the risk inherent in the contract. Where, for instance, the contract provides for a multiplication of cash flows, a *firm* must adjust the notional amount in order to take into account the effects of the multiplication on the risk structure of that contract.

[**Note**: *BCD* Annex III Part 2 point 8]

Netting: Contracts for novation

13.4.16 R The single net amounts fixed by contracts for novation, rather than the gross amounts involved, may be weighted. For the purposes of the *CCR mark to market method*, a *firm* may obtain:

(1) in BIPRU 13.4.2 R, the current replacement cost; and

(2) in BIPRU 13.4.3 R, the notional principal amounts or underlying values;

by taking account of the contract for novation.

[**Note**: *BCD* Annex III Part 7 point c(i)]

Netting: Other netting agreements

13.4.17 R In application of the *CCR mark to market method*:

(1) in BIPRU 13.4.2 R a *firm* may obtain the current replacement cost for the contracts included in a netting agreement by taking account of the actual hypothetical net replacement cost which results from the agreement; in the case where netting leads to a net obligation for the *firm* calculating the net replacement cost, the current replacement cost is calculated as "0"; and

(2) in BIPRU 13.4.3 R a *firm* may reduce the figure for potential future credit *exposure* for all contracts included in a netting agreement according to the following formula:

$PCE_{red} = 0.4 * PCE_{gross} + 0.6 * NGR * PCE_{gross}$,

where:

(a) PCE_{red} = the reduced figure for potential future credit *exposure* for all contracts with a given counterparty included in a legally valid bilateral netting agreement;

(b) PCE_{gross} =the sum of the figures for potential future credit *exposure* for all contracts with a given counterparty which are included in a legally valid bilateral netting agreement and are calculated by multiplying their notional principal amounts by the percentages set out in the table in BIPRU 13.4.5 R; and

(c) NGR = "net-to-gross ratio": the quotient of the net replacement cost for all contracts included in a legally valid bilateral netting agreement with a given counterparty (numerator) and the gross replacement cost for all contracts included in a legally valid bilateral netting agreement with that counterparty (denominator).

[**Note**: *BCD* Annex III Part 7 point c(ii) (part)]

13.4.18 R For the calculation of the potential future credit exposure according to the formula in BIPRU 13.4.17 R perfectly matching contracts included in the netting agreement may be taken into account as a single contract with a notional principal equivalent to the net receipts.

[**Note**: *BCD* Annex III Part 7 point c(ii) (part)]

13.4.19 R For the purposes of BIPRU 13.4.18 R a perfectly matching contract is a forward *foreign currency* contract or similar contract in which a notional principal is equivalent to cash flows if the cash flows fall due on the same value date and fully or partly in the same currency.

[**Note**: *BCD* Annex III Part 7 point c(ii) (part)]