(B) shall apply the risk-weight functions and risk components in respect of the various exposure categories in accordance with the relevant requirements specified in this subregulation (13) read with subregulation (11)(d) above.

(ii) Corporate, sovereign and bank exposures

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall calculate its risk-weighted assets in respect of corporate, sovereign or bank exposures through the application of the relevant formulae and risk components specified in subregulation (11)(d)(ii) above, provided that-

(A) when the bank calculates the EAD amount of a particular exposure, the bank may use its own internally estimated credit-conversion factors in respect of the bank's off-balance-sheet exposures, provided that-

(i) when the credit-conversion factor of the said off-balance-sheet exposure is equal to 100 per cent in terms of the provisions of the foundation IRB approach, the bank shall apply the said credit-conversion factor of 100 per cent;

(ii) the bank shall comply with the relevant requirements relating to the use of own estimates of EAD specified in paragraph (b)(v)(D) above.

(B) unless the Registrar granted an exemption from the requirement to calculate an effective maturity in respect of specified small domestic corporate borrowers, which exemption shall be granted only in exceptional cases and shall be subject to such conditions as may be specified in writing by the Registrar, in which case the bank shall apply to the said exempted corporate exposure an average maturity of 2,5 years, the bank shall calculate the effective maturity of each relevant exposure in accordance with the relevant requirements specified below.

(i) In the case of an exposure with an original maturity of more than or equal to one year, which exposure has determinable cash flows, the effective maturity of the exposure shall be equal to the higher of-

(aa) one year; or

(bb) the remaining effective maturity of the exposure, which remaining effective maturity shall be calculated in years through the application of the formula specified below, provided that the calculated maturity shall be limited to five years.

$$M = \sum_t t * CF_t / \sum_t CF_t$$

where:

M is the effective maturity of the exposure

CF_t is the cash flow, that is, principal, interest payments and fees, contractually payable by the obligor in period t

When a bank is unable to calculate the effective maturity of the contracted payments in accordance with the formula specified above, the effective maturity shall be equal to the maximum remaining time, in years, available to the obligor to fully discharge its contractual obligation, that is, principal, interest and fees, in terms of the loan agreement.

(ii) In the case of an exposure with an original maturity of less than one year, other than exposures in terms of which an obligor obtains ongoing finance from the relevant bank, which exposure relates to a fully collateralised capital market transaction such as an OTC derivative transaction or a margin lending agreement, or a repo-style transaction such as a repurchase or resale agreement or a securities lending or borrowing transaction, the effective maturity of the exposure shall be equal to the higher of-

(aa) one day; or

(bb) the remaining effective maturity of the exposure, calculated in accordance with the formula specified in sub-item (i)(bb) above.

Provided that-

(i) the relevant documentation of the said exposure or transaction shall make provision for daily remargining;

(ii) the relevant documentation of the said exposure or transaction shall require daily revaluation;

(iii) the relevant documentation of the said exposure or transaction shall make provision for the prompt liquidation or setoff of collateral in the event of default or failure to remargin;

(iv) subject to such conditions as may be specified in writing by the Registrar, in addition to the transactions specified in this sub-item (ii), the Registrar may specify other exposures with an original maturity of less than one year that do not form part of a bank's ongoing financing of an obligor to be subject to the provision of this sub-item (ii).

(iii) In the case of derivative instruments subject to a master netting agreement, the bank shall use the notional amount of each transaction to calculate the weighted average maturity of the transactions, which weighted average maturity shall be used in respect of the explicit maturity adjustment.

(iv) In the case of transactions falling within the ambit of sub-item (ii) above, that is, transactions with an original maturity of less than one year that, for example, relate to a fully collateralised capital market transaction or repo-style transaction, which transaction or exposure is subject to a master netting agreement, the bank shall apply the notional amount of each transaction in order to determine the weighted average maturity of the relevant transactions, which weighted average maturity shall be used in respect of the required explicit maturity adjustment, provided that-

(aa) in respect of the relevant transaction type and said average, the bank shall apply a floor equal to the minimum holding period specified in subregulation (9)(b)(xii)(B);

(bb) when more than one transaction type is contained in the said master netting agreement, the bank shall apply to the said average a floor equal to the highest relevant holding period specified in subregulation (9)(b)(xii)(B).

(v) In the case of other exposures, that is, exposures not subject to an explicit maturity adjustment, the bank shall assign to the said exposure an effective maturity of 2,5 years unless the exposure is subject to further commitment, that is, a repurchase or resale agreement, in which case the bank shall assign to the said exposure an effective maturity of six months.

(iii) Specialised lending

(A) Subject to the provisions of items (B) and (C) below, a bank shall calculate its risk-weighted exposure in respect of specialised lending in accordance with the relevant requirements relating to corporate exposure specified in subparagraph (ii) above, provided that the bank shall comply with the relevant requirements for the estimation of PD, LGD and EAD specified in subregulation (11)(b)(vi)(A) and in paragraphs (b)(v)(C) and (b)(v)(D) above;

(B) In the case of exposures relating to high-volatility commercial real estate, a bank shall apply the asset correlation formula specified below instead of the asset correlation formula that would otherwise apply to corporate exposure.

$$R = 0.12 \times (1 - EXP(-50 \times PD)) / (1 - EXP(-50)) + 0.30 \times [1 - (1 - EXP(-50 \times PD))/(1 - EXP(-50))]$$

(C) When-

(i) a bank is unable to comply with the prescribed requirements in order to estimate the PD ratio, LGD ratio and EAD amount in terms of the advanced approach for corporate exposure; or

(ii) the Registrar directs a bank to map its internal risk grades to the risk grades specified in subregulation (11)(d)(iii)(C) above,

the bank shall map its internal risk grades in accordance with the relevant requirements specified in subregulation (11)(d)(iii)(C) above provided that when the bank is unable to comply with the prescribed requirements in order to estimate the LGD ratio and EAD amount in respect of exposure relating to high-volatility commercial real estate in terms of the advanced approach for corporate exposure, the bank shall use the relevant estimates specified in writing by the Registrar in respect of the LGD ratio and EAD amount relating to corporate exposure.

(iv) Retail exposures

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall calculate its risk-weighted assets in respect of retail exposures through the application of the relevant formulae and risk components specified in subregulation (11)(d)(iv) above.

(v) Equity exposures

A bank shall calculate its risk-weighted exposure in respect of equity investments in accordance with the relevant requirements of this subregulation (13) read with the relevant requirements specified in subregulation (11)(d)(v) above and regulation 31, provided that no investment in a significant minority or majority owned or controlled commercial entity, which investment amounts to less than 15 per cent of the sum of the bank's issued primary and secondary capital and reserve funds, as reported in items 36, 63 and 72 of the form BA 700, shall be assigned a risk weight lower than 100 per cent;

(vi) Purchased corporate receivables

A bank shall calculate its risk-weighted exposure in respect of purchased corporate receivables through the application of the relevant formulae and risk components specified in subregulation (11)(d)(ii) relating to corporate exposure, provided that-

(A) the risk weights shall be determined by using the bank's own estimates of PD and LGD as inputs to the corporate risk-weight function;

(B) in the case of-

(i) an exposure other than a revolving facility, the EAD amount shall be equal to the EAD amount determined by the bank, minus the capital requirement relating to the risk of dilution;

(ii) a revolving facility the EAD amount shall be equal to the amount of the purchased receivable **plus** 75 per cent of any undrawn purchased commitments **minus** the capital requirement relating to the risk of dilution, that is, in respect of undrawn purchased commitments, the bank shall not use its own estimate of the EAD amount;

(C) when the purchasing bank is able to estimate in a reliable manner the pool's default-weighted average loss rates given default or average PD, the bank may estimate the other risk component based on an estimate of the expected long-run loss rate, that is, the bank may use an appropriate PD estimate to infer the long-run default-weighted average loss rate given default or use a long-run default-weighted average loss rate given default to infer the appropriate PD ratio, provided that-

(i) the LGD ratio used in order to calculate the bank's risk exposure shall in no case be lower than the long-run default-weighted average loss rate given default;

(ii) the bank shall comply with the relevant requirements specified in paragraph (b)(v)(C) above relating to LGD estimates.

(D) the effective maturity in respect of purchased corporate receivables-

(i) shall in the case of drawn amounts, be equal to the pool's exposure-weighted average effective maturity, calculated in accordance with the relevant provisions of paragraph (d)(ii)(B) above;

(ii) shall in the case of undrawn amounts in respect of a committed purchased facility, be the same value as for drawn amounts provided that the facility shall contain effective covenants, early amortisation triggers or other features that protect the bank against a significant deterioration in the quality of the future receivables that the bank is required to purchase;

(iii) shall in all other cases of undrawn amounts, be equal to the sum of the longest dated potential receivable in terms of the purchase agreement and the remaining maturity of the purchase facility.

(vii) Purchased retail receivables

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall calculate its risk-weighted assets in respect of purchased retail receivables through the application of the relevant formulae and risk components specified in subregulation (11)(d)(vi) read with the relevant provisions of subregulation (11)(d)(iv) above.

(viii) Securitisation or resecuritisation exposures

A bank shall calculate its risk-weighted assets in respect of a securitisation scheme or resecuritisation exposure in accordance with the relevant requirements specified in subregulations (11)(e) to (11)(p).

(e) *Deductions against capital and reserve funds*

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall deduct from the bank's capital and reserve funds such amounts as may be specified in subregulation (11)(q) above.

(14) Credit-risk mitigation: advanced IRB approach

(a) On-balance-sheet netting

When a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book enters into a netting agreement in respect of loans and deposits, the bank may recognise the effect of such a netting agreement when the bank calculates the EAD amount of the relevant exposure, provided that the bank-

(i) shall at all times comply with the relevant conditions specified in subregulation (7)(a) above;

(ii) shall recognise the effect of any currency mismatch in accordance with the relevant requirements specified in subregulation (9)(b) above;

(iii) shall recognise the effect of maturity mismatch in accordance with the relevant requirements specified in subregulation (9)(e) above.

(b) Collateral

(i) Unless specifically otherwise provided in this subregulation (14), a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall in addition to the minimum requirements specified below, comply with the relevant requirements specified in subregulation (7)(b)(iii) above.

(ii) Risk weighting

When a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk obtains collateral in respect of the bank's exposure to corporate institutions, sovereigns or banks the bank may calculate its own LGD ratios in respect of the said protected exposure, provided that-

(A) the bank shall comply with the relevant minimum conditions specified in subregulation (13)(b)(v)(C) above provided that when the bank is unable to comply with the said minimum requirements relating to the use of the bank's own estimates of LGD, the bank shall calculate the relevant exposure's LGD ratios in accordance with the relevant requirements of the foundation IRB approach specified in subregulation (11)(d)(ii) above;

(B) the bank shall measure the LGD ratio as a percentage of the exposure's EAD amount;

(C) when the bank wishes to recognise the effect of a master netting agreement in respect of repurchase and resale agreements concluded with corporate institutions, sovereigns or banks, the bank shall calculate an adjusted exposure (E*) in accordance with the relevant requirements specified in subregulation (9)(b)(ix) above, which adjusted exposure shall be deemed to represent the exposure's EAD amount, provided that the bank may calculate its own estimate of LGD in respect of the relevant unsecured portion of the relevant exposure.

(c) Guarantees

(i) Minimum requirements

As a minimum, a bank that adopted the advanced IRB approach for the recognition of risk mitigation in respect of guarantees-

(A) shall comply with the relevant requirements specified in subregulations (7)(c)(iv), (11)(b)(v) and (11)(b)(vi) above;

(B) shall assign to all relevant obligors and eligible guarantors a borrower rating and calculate its own estimates of LGD in respect of the bank's various exposures provided that the bank shall have in place duly specified criteria-

(i) to adjust its borrower grades;

(ii) to adjust its LGD estimates;

(iii) to allocate exposures to relevant retail or receivable pools,

which criteria-

(aa) shall comply with the relevant minimum requirements for assigning borrower or facility ratings specified in subregulation (11)(b) above;

(bb) shall be plausible and intuitive;

(cc) shall take into account all relevant information;

(dd) shall incorporate-

(i) the guarantor's ability and willingness to honour its commitments in terms of the guarantee;

(ii) any correlation between the guarantor's ability to honour its commitments in terms of the guarantee and the obligor's ability to repay any amounts due;

(iii) the effect of any residual risk, such as a currency mismatch between the guarantee and the underlying exposure;

(C) shall not in the calculation of the bank's risk-weighted exposure reflect the effect of double default otherwise than in accordance with the relevant requirements specified in paragraph (f) below, that is, the adjusted risk weight relating to a particular exposure shall not be less than a comparable direct exposure to the relevant guarantor unless the bank calculates the said adjusted risk weight in accordance with the relevant requirements specified in paragraph (f) below,

provided that whenever a guarantee obtained in respect of an exposure results in a higher capital requirement for the reporting bank than before the recognition of such guarantee, the reporting bank may ignore the effect of the said guarantee.

(ii) Eligible guarantors

A bank that adopted the advanced IRB approach for the recognition of risk mitigation relating to guarantees may recognise the effect of a guarantee obtained from any guarantor, provided that-

(A) the guarantee shall comply with the relevant minimum requirements specified in subregulation (7)(c)(iv) above;

(B) the bank shall have in place a comprehensive policy and criteria in respect of the types of guarantors acceptable to the bank for risk mitigation purposes;

(C) for purposes of calculating the minimum required amount of capital and reserve funds of a branch in terms of the provisions of the Banks Act, 1990, read with these Regulations, no guarantee received from the parent foreign institution or any other branch of the parent foreign institution in respect of an exposure incurred by the branch in the Republic shall be regarded as an eligible guarantee.

(iii) Risk weighting

When a bank that adopted the advanced IRB approach for the measurement of the bank's risk-weighted credit exposure obtains-

(A) protection from a guarantor in respect of the bank's credit exposure to a corporate institution, sovereign or bank, the bank-

(i) shall reflect the risk mitigation effect of the guarantee by way of an adjustment either to the PD ratio or LGD ratio of the relevant exposure provided that the bank shall apply the adjustments to the PD ratio or LGD ratio in a consistent manner; or

(ii) may reflect the risk mitigation effect of the guarantee in accordance with the relevant requirements relating to the recognition of guarantees in terms of the foundation IRB approach prescribed in subregulation (12)(d) above.

(B) protection in the form of a guarantee in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the guarantee through an adjustment to the relevant PD ratio or LGD ratio provided that the bank shall apply the relevant adjustments to PD or LGD in a consistent manner in respect of a given type of guarantee, and over time;

(C) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (f) below in order to calculate the required risk-weighted asset amount for dilution risk provided that the bank shall comply with the relevant requirements specified in subregulation (12)(d)(iii)(D).

(d) Credit-derivative instruments

(i) Minimum requirements

As a minimum, a bank that adopted the advanced IRB approach for the recognition of risk mitigation relating to credit protection obtained in the form of a credit-derivative instrument-

(A) shall comply with the relevant minimum requirements specified in subregulation (9)(d)(xi) above;

(B) shall in the case of single-name credit-derivative instruments assign to all relevant obligors and eligible protection providers a borrower rating and calculate its own estimates of LGD in respect of its various exposures provided that the bank shall have in place duly specified criteria-

(i) to adjust its borrower grades;

(ii) to adjust its LGD estimates;

(iii) to allocate exposures to relevant retail or receivable pools,

which criteria-

(aa) shall comply with the relevant minimum requirements for assigning borrower or facility ratings specified in subregulation (11)(b) above;

(bb) shall be plausible and intuitive;

(cc) shall take into account all relevant information;

(dd) shall comprehensively address matters relating to payment, including the impact that payments may have on the level and timing of recoveries;

(ee) shall duly state that the reference asset shall not differ from the underlying asset unless-

(i) the reference asset and the underlying exposure relate to the same obligor, that is, the same legal entity;

(ii) the reference asset ranks *pari passu* with or more junior than the underlying asset in the event of bankruptcy;

(iii) legally effective cross-default clauses, for example, cross-default or cross-acceleration clauses apply;

provided that the terms and conditions of the credit-derivative contract shall at no time contravene the terms and conditions of the underlying asset or reference asset;

(ff) shall incorporate-

(i) the protection provider's ability and willingness to honour its commitments in terms of the protection provided;

(ii) any correlation between the protection provider's ability to honour its commitments in terms of the protection provided and the obligor's ability to repay any amounts due;

(iii) the effects of any residual risk, such as a currency mismatch between the protection and the underlying exposure;

(C) shall not in the calculation of the bank's risk-weighted exposure reflect the effect of double default otherwise than in accordance with the relevant requirements specified in paragraph (f) below, that is, the adjusted risk weight relating to a particular exposure shall not be less than a comparable direct exposure to the relevant protection provider unless the bank calculates the said adjusted risk weight in accordance with the relevant requirements specified in paragraph (f) below,

provided that whenever credit protection obtained in respect of an exposure results in a higher capital requirement for the reporting bank than before the recognition of such credit protection, the reporting bank may ignore the effect of the said credit protection.

(ii) Eligible protection providers

A bank that adopted the advanced IRB approach for the recognition of risk mitigation relating to credit-derivative instruments may recognise the effect of protection obtained from any protection provider, provided that-

(A) the credit-derivative instrument shall comply with the relevant minimum requirements specified in subregulation (9)(d)(xi) above;

(B) the bank shall have in place a comprehensive policy and criteria in respect of the types of protection providers acceptable to the bank for risk mitigation purposes.

(iii) Risk weighting

When a bank that adopted the advanced IRB approach for the measurement of the bank's risk-weighted credit exposure obtains-

(A) protection from a protection provider in respect of the bank's credit exposure to a corporate institution, sovereign or bank, the bank-

(i) shall reflect the risk mitigation effect of the protection by way of an adjustment either to the PD ratio or LGD ratio of the relevant exposure provided that the bank shall apply the adjustments to the PD ratio or LGD ratio of the exposure in a consistent manner; or

(ii) may reflect the risk mitigation effect of the protection in accordance with the relevant requirements relating to the recognition of credit-derivative instruments in terms of the foundation IRB approach prescribed in subregulation (12)(e) above.

(B) protection in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the protection through an adjustment to the relevant PD ratio or LGD ratio provided that the bank shall apply the relevant adjustment to the PD ratio or LGD ratio in a consistent manner in respect of a given type of guarantee, and over time;

(C) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (f) below in order to calculate the required risk-weighted asset amount for dilution risk provided that the bank shall comply with the relevant requirements specified in subregulation (12)(e)(iii)(C).

(e) Maturity mismatches

A bank that adopted the advanced IRB approach for the recognition of risk mitigation shall comply with the relevant requirements specified in subregulation (9)(e) above in respect of any maturity mismatches between the bank's exposure to credit risk and the risk mitigation obtained in respect of the said credit exposure.

(f) Double default

(i) Minimum requirements

In respect of each eligible exposure as envisaged in subregulation (12)(g)(ii), a bank that obtained the prior written approval of the Registrar to adopt the advanced IRB approach for the measurement of the bank's exposure to credit risk may apply either the substitution approach envisaged in paragraphs (c) and (d) above or the double default approach specified in this paragraph (f), provided that a bank that wishes to apply the double default approach-

(A) shall continuously comply with the relevant requirements specified in subregulation (12)(g);

(B) in respect of eligible exposure shall calculate the relevant risk-weighted exposure amount and any related required amount of capital and reserve funds in accordance with the relevant formulae and requirements specified in subregulation (12)(g) read with the relevant provisions of this paragraph (f);

(C) shall calculate the risk weights and required amount of capital and reserve funds relating to all exposures to a particular obligor, other than eligible exposures specified in this paragraph (f), in accordance with the relevant requirements specified in subregulations (13) and (14), including any risk weight and required amount of capital and reserve funds relating to any unhedged or unprotected portion of an exposure in respect of which the hedged or protected portion is subject to the provisions of this paragraph (f);

(D) may apply the said approach to any eligible exposure, irrespective whether the said exposure is held in the bank's banking book or trading book.

(ii) Matters specifically related to risk-weighted exposure and the required amount of capital and reserve funds

In respect of any hedged or protected exposure subject to the double default approach, the reporting bank shall calculate its risk-weighted exposure and related required amount of capital and reserve funds through the application of the relevant formulae specified in subregulation (12)(g), provided that-

(A) when estimating any of the required LGD ratios the bank may recognise collateral posted exclusively against the relevant exposure or credit protection, provided that the bank shall in all cases comply with the relevant minimum requirements relating to LGD, specified in subregulation (13)(b)(v);

(B) the bank shall in no case apply a principle of double recovery when the bank estimates any required LGD ratio.

(15) Counterparty credit risk

(a) Subject to the provisions of paragraph (b) below, for the measurement of a bank's exposure amount or EAD, risk-weighted exposure and related required amount of capital and reserve funds in respect of instruments, contracts or transactions that expose the reporting bank to counterparty credit risk, the bank may-

(i) at the discretion of the reporting bank, use the current exposure method specified in subregulation (17) below, which current exposure method shall be available only for the measurement of the reporting bank's exposure to counterparty credit risk arising from OTC derivative instruments, that is, exposure to credit risk arising from securities financing transactions shall be calculated, amongst other things, in accordance with the relevant requirements specified in subregulations (8) and (9), irrespective whether the said OTC derivative transaction, contract or agreement is recorded in the reporting bank's banking book or trading book;

(ii) at the discretion of the bank, use the standardised method specified in subregulation (18) below, which standardised method-

(A) shall be available only for the measurement of the reporting bank's exposure to counterparty credit risk arising from OTC derivative instruments, that is, exposure to credit risk arising from securities financing transactions shall be calculated, amongst other things, in accordance with the relevant requirements specified in subregulations (8) and (9), irrespective whether the said OTC derivative transaction, contract or agreement is recorded in the reporting bank's banking book or trading book;

(B) is more risk sensitive than the current exposure method.

Provided that-

(i) when the bank wishes to adopt the standardised method the bank shall in writing inform the Registrar of its decision, and comply with such further conditions as may be specified in writing by the Registrar;

(ii) when the standardised method, in the Registrar's discretion, does not duly capture the risk inherent in the bank's relevant transactions, the Registrar may require the bank to apply the current exposure method or the standardised method on a transaction-by-transaction basis, that is, without recognising any effect of netting.

(iii) subject to the prior written approval of and such further conditions as may be specified in writing by the Registrar in addition to the requirements specified in subregulation (19) below, use the internal model method specified in the said subregulation (19), provided that-

(A) only under exceptional circumstances or in respect of immaterial exposures, shall a bank that obtained approval from the Registrar to adopt the internal model method be allowed to revert to either the current exposure method or standardised method for all or part of its exposure, provided that the bank shall in all cases demonstrate to the satisfaction of the Registrar that the said reversion to a less sophisticated method does not lead to arbitrage in respect of the bank's required amount of capital and reserve funds;

(B) the internal model method may be applied by a bank that adopted the standardised approach or the IRB approach for the measurement of the bank's other exposures to credit risk;

(C) the internal model method shall be applied to all relevant exposures in a particular category of exposures that are subject to counterparty credit risk, except exposures that arise from long settlement transactions;

(D) the internal model method may be applied to measure the bank's exposure or EAD amount relating to-

(i) only OTC derivative instruments;

(ii) only securities financing transactions; or

(iii) OTC derivative instruments and securities financing transactions,

irrespective whether the said transaction, contract or agreement is recorded in the reporting bank's banking book or trading book.

(iv) subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, use a combination of the aforementioned methods, provided that-

(A) subject to the provisions of item (D) below, the said approval of the Registrar shall be granted only in exceptional cases and only during the initial implementation period of the internal model method;

(B) a bank that wishes to apply such a combination of methods shall together with its application to obtain the approval of the Registrar to adopt the internal model method submit a plan to include all material counterparty exposures relating to a particular category of instruments or transactions in the said internal model method;

(C) in respect of all OTC derivative transactions and all long settlement transactions in respect of which the reporting bank has not obtained approval from the Registrar to use the internal model method, the bank shall apply either the standardised method or the current exposure method;

(D) the Registrar may allow a combination of the current exposure method and the standardised method on a permanent basis within a banking group.

(b) Irrespective of the method adopted by the reporting bank for the measurement of-

(i) the bank's exposure to counterparty credit risk, when the bank purchases credit derivative protection against a banking book exposure or against an exposure to counterparty credit risk, the bank shall in respect of the hedged exposure calculate its required amount of capital and reserve funds in accordance with the relevant requirements relating to credit derivative instruments specified in subregulations (9)(d), (12)(e), (12)(g), (14)(d) and (14)(f), that is, in accordance with the relevant substitution or double default requirements;

(ii) the bank's exposure to counterparty credit risk arising from OTC derivative instruments or securities financing transactions, the bank may adopt any of the three methods envisaged in paragraph (a) above for the measurement of the bank's exposure or EAD arising from long settlement transactions, provided that-

(A) the bank shall continuously comply with the relevant requirements specified in these Regulations or by the Registrar in respect of the selected method;

(B) notwithstanding the materiality of a long settlement transaction or position, in order to calculate the bank's required amount of capital and reserve funds relating to the said long settlement transaction or position, a bank that obtained the approval of the Registrar to adopt the IRB approach for the measurement of the bank's exposure to credit risk may apply the risk weights specified in the standardised approach, in subregulation (8);

(iii) the bank's exposure to counterparty credit risk, the exposure amount or EAD relating to a particular counterparty shall be equal to the sum of the relevant exposure amounts or EADs calculated in respect of each relevant netting set relating to the said counterparty;

(iv) the bank's exposure to counterparty credit risk arising from OTC derivative instruments or securities financing transactions, the bank shall calculate its required amount of capital and reserve funds relating to any delivery-versus-payment transaction and any non-delivery-versus-payment or free-delivery transaction in accordance with the relevant requirements specified in subregulation (20) below.

(16) Conditions subject to which an exposure value or EAD of zero may be applied in respect of a bank's exposure to counterparty credit risk

(a) Unless specifically otherwise provided in these Regulations, a bank may in respect of its exposure to counterparty credit risk apply an exposure value or EAD of zero provided that-

(i) the said exposure to counterparty credit risk shall relate to-

(A) an outstanding derivative contract, securities financing transaction or spot transaction successfully concluded with a central counterparty, such as a clearing house, that is, a bank shall not apply an exposure value of zero to any exposure to counterparty credit risk arising from a derivative transaction, securities financing transaction or spot transaction that has been rejected by the said central counterparty,

(B) a clearing deposit or collateral posted with a central counterparty, such as a clearing house,

provided that in all cases the counterparty exposure of the said central counterparty arising from contracts or transactions concluded with all its participants shall be fully collateralized on a daily basis, thereby providing protection for the counterparty credit exposures of the said central counterparty;

(ii) the said exposure to counterparty credit risk shall relate to protection provided by the reporting bank in the form of a credit-default swap contract, which contract is held in the bank's banking book, provided that the said contract-

(A) shall be treated similar to a guarantee provided by the reporting bank and in accordance with the relevant requirements specified in subregulations (9)(d), (12)(e) or (14)(d), as the case may be;

(B) shall be subject to required capital and reserve funds in respect of the contract's full notional amount;

(iii) no asset held by a central counterparty as a custodian on behalf of the reporting bank shall be subject to any capital requirement for counterparty credit risk in terms of these Regulations;

(iv) the said exposure to counterparty credit risk shall relate to purchased credit derivative protection and the reporting bank shall calculate its required amount of capital and reserve funds in respect of the hedged exposure in accordance with the relevant requirements specified in subregulation (15)(b)(i) above.

(17) Method 1: Calculation of counterparty credit exposure in terms of the current exposure method

(a) *Matters relating to the exposure amount or EAD*

A bank that adopted the current exposure method for the measurement of the bank's exposure to counterparty credit risk-

(i) shall in respect of each relevant transaction, contract or netting set calculate the relevant replacement cost or net replacement cost of the said transaction, contract or netting set;

(ii) shall in respect of each relevant netting set multiply the relevant notional principle amount with the relevant credit conversion factors specified in table 18 below in order to calculate the relevant required add-on amount, which add-on amount shall be calculated independent from and irrespective of the relevant replacement cost or value calculated in terms of the provisions of subparagraph (i) above.

Table 18
Credit conversion factor

Remaining maturity	Interest rates	FX and gold	Equities	Precious metals except gold	Other commodities
One year or less	0,0%	1,0%	6,0%	7,0%	10,0%
More than one year to five years	0,5%	5,0%	8,0%	7,0%	12,0%
More than five years	1,5%	7,5%	10,0%	8,0%	15,0%

(iii) may recognise eligible collateral obtained in respect of the bank's exposure to counterparty credit risk in accordance with the relevant requirements specified in subregulation (9)(b)(iv) read with the provisions of subregulation (9)(b)(vii);

(iv) shall in the case of any single name credit derivative contract held in the bank's trading book calculate the bank's exposure amount or EAD through the application of the relevant potential future exposure add-on factors specified in table 19 below.

Table 19
Potential future exposure add-on factor[1]

Description	Protection buyer	Protection seller
Total-return swap		
Qualifying[2] reference obligation	5%	5%
Non-qualifying reference obligation	10%	10%
Credit-default swap		
Qualifying[2] reference obligation	5%	5%[3]
Non-qualifying reference obligation	10%	10%[3]

1. Add-on factors are not affected by differences in residual maturity.
2. Qualifying shall for purposes of this regulation bear the same meaning as the "qualifying" category for the treatment of specific risk relating to instruments in terms of the standardised measurement method in regulation 28(7).
3. The protection seller of a credit-default swap shall be subject to the add-on factor only when it is subject to closeout upon the insolvency of the protection buyer while the underlying is still solvent, in which case the add-on shall be limited to the amount of any unpaid premium.

(v) shall in the case of any qualifying credit derivative instrument held in respect of a banking book exposure calculate the bank's required amount of capital and reserve funds in accordance with the relevant requirements specified in subregulation (9)(d);

(vi) shall in the case of any-

(A) first to default credit derivative transaction determine the relevant add-on factor based on the lowest credit quality underlying instrument in the basket, that is, when the basket contains any non-qualifying items, the bank shall apply the add-on factor relating to the said non-qualifying reference obligation;

(B) second and subsequent to default credit derivative transaction allocate the underlying assets based on the credit quality of the assets, that is, the second lowest credit quality shall determine the add-on factor in respect of a second to default transaction;

(vii) may in respect of any OTC derivative transaction or contract subject to novation or a legally enforceable bilateral netting agreement recognise the effect of the said novation or netting agreement provided that the bank shall at all times comply with the relevant requirements specified in paragraph (b) below;

(viii) shall calculate its adjusted exposure amount or EAD through the application of the formula specified below, which formula is designed to recognise the effect of collateral and any volatility in the amount relating to the collateral, and, when relevant, the effect of any legally enforceable bilateral netting agreement. The formula is expressed as:

$E^* = (RC + \text{add-on}) - C_A$

where:

RC is the relevant current replacement cost, or

when the bank has in place a legally enforceable netting agreement that complies with the relevant requirements specified in paragraph (b) below, the current net replacement cost of the relevant netting set, that is, when the bank has in place a legally enforceable netting agreement the bank may net off positive market values against negative market values in order to calculate a single net current exposure for all transactions covered by the said netting agreement, subject to a minimum value of zero

Add-on is the estimated amount relating to the potential future exposure, or

when the bank has in place a legally enforceable netting agreement that complies with the relevant requirements specified in paragraph (b) below, the adjusted add-on amount, that is, the add-on amount may be reduced through the application of the formula specified below, which formula is designed to recognise reductions in the volatility of current exposures resulting from netting agreements

$A_{net} = 0.4(A_{gross}) + 0.6(NGR \times A_{gross})$;

where:

A_{net} is the adjusted add-on for all contracts subject to the bilateral netting contract

A_{gross} is the sum of the gross add-ons for the contracts covered by the netting agreement. A_{gross} is equal to the sum of individual add-on amounts, calculated by multiplying the relevant notional principal amount with the relevant specified add-on factor, of all transactions subject to the bilateral netting contract

NGR is the ratio of the net current exposure of the contracts included in the bilateral netting agreement to the gross current exposure of the said contracts

C_A is the volatility adjusted collateral amount calculated in accordance with the relevant requirements of the comprehensive approach specified in subregulation (9)(b), or zero in the absence of eligible collateral, provided that the bank shall apply the relevant haircut for currency risk, that is, Hfx, when a mismatch exists between the collateral currency and the settlement currency. Even when more than two currencies are involved in the exposure, collateral and settlement currency, the bank shall, based on the frequency of mark-to-market, apply a single haircut assuming a 10-business day holding period, scaled up as necessary.

(b) Matters relating to bilateral netting

A bank that adopted the current exposure method for the measurement of the bank's exposure to counterparty credit risk may in the case of OTC transactions-

(i) net transactions subject to novation, in terms of which netting any obligation between the bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations;

(ii) net transactions subject to any legally valid form of bilateral netting not included in subparagraph (i) above, including any other form of novation,

provided that in all cases-

(A) the bank shall have in place a netting contract or agreement with the said counterparty which contract or agreement shall create a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of the said transactions in the event of counterparty failure to perform in accordance with the contractual agreement, irrespective whether or not the said failure relates to default, bankruptcy, liquidation or similar circumstances;

(B) the bank shall have in place written and reasoned legal opinions confirming that in the event of a legal challenge the relevant courts and administrative authorities would find the bank's exposure to be the said net amount in terms of-

(i) the law of the jurisdiction in which the counterparty is incorporated or chartered, and when the foreign branch of a counterparty is involved, also in terms of the law of the jurisdiction in which the branch is located;

(ii) the law that governs the individual transactions; and

(iii) the law that governs any contract or agreement necessary to effect the said novation or netting;

(C) when a national supervisor or regulator is not satisfied with the legal enforceability of the said agreement, neither counterparty shall apply netting in respect of the relevant transactions or contracts;

(D) the bank shall have in place robust procedures in order to continuously monitor the legal characteristics of the said netting agreement for possible changes in relevant law that may affect the legal enforceability of the said agreement;

(E) since the gross obligations are not in any way affected, no payment netting agreement, which agreement is designed to reduce the operational costs of daily settlements, shall be taken into consideration in the calculation of the reporting bank's exposure amount, EAD or required capital and reserve funds;

(F) no contract containing walkaway clauses, that is, any provision that permits a non-defaulting counterparty to make only limited payments or no payment at all to the estate of a defaulter, even when the defaulter is a net creditor, shall be eligible for netting in terms of these Regulations;

(G) the exposure amount or EAD shall be the sum of the net mark-to-market replacement cost, if positive, plus the said add-on amount, calculated in accordance with the relevant requirements specified in paragraphs (a) above.

(18) Method 2: Calculation of counterparty credit exposure in terms of the standardised method

(a) *Matters relating to the exposure amount or EAD*

A bank that adopted the standardised method for the measurement of the bank's exposure to counterparty credit risk-

(i) shall separately calculate its counterparty credit exposure or EAD amount in respect of each relevant netting set through the application of the formula specified below.

The exposure amount or EAD shall be equal to-

$$\beta \cdot \max\left(CMV - CMC; \sum_j \left|\sum_i RPT_{ij} - \sum_l RPC_{lj}\right| \times CCF_j\right)$$

where:

CMV is the relevant current market value of the relevant portfolio of transactions within the netting set with a particular counterparty, gross of any collateral, that is,

$$CMV = \sum_i CMV_i$$

where:

CMVi is the relevant current market value of transaction i

CMC is the relevant current market value of the collateral assigned to the relevant netting set, that is,

$$CMC = \sum_{l} CMC_l$$

where:

CMC_l is the relevant current market value of collateral l

I is the index designating transaction

l is the index designating collateral

J is the index designating specified hedging sets, which hedging sets correspond to risk factors for which risk positions of opposite sign may be offset to yield a net risk position on which the exposure measure is based

RPT_{ij} is the relevant risk position from transaction i with respect to hedging set j, that is, for example, a short-term FX forward contract with one leg denominated in the domestic currency shall be mapped into three risk positions, which is, firstly an FX risk position, secondly a foreign currency interest rate risk position and finally a domestic currency risk position

RPC_{lj} is the risk position from collateral l with respect to hedging set j

CCF_j is the specified credit conversion factor with respect to the hedging set j

β is the beta factor, which beta factor shall be equal to 1.4, provided that based on the reporting bank's exposure to counterparty credit risk and the related risk factors, the Registrar may specify a beta factor higher than 1.4

(ii) shall in the calculation of the exposure amount or EAD include collateral received from a counterparty as a positive amount and collateral posted to a counterparty as a negative amount provided that only instruments qualifying as eligible collateral in accordance with the relevant provisions of subregulation (9)(b)(iv) shall be recognised as eligible collateral in terms of the provisions of this subregulation (18);

(iii) shall assign to any risk position that reflects a long position in respect of a transaction with a linear risk profile a positive sign, and to any risk position that reflects a short position in respect of a transaction with a linear risk profile a negative sign;

(iv) shall in the case of an OTC derivative transaction with a linear risk profile, such as a forward contract, future contract or swap contract, which contract requires an exchange of a financial instrument such as a bond, an equity instrument or a commodity against payment, treat the payment part of the transaction in accordance with the relevant requirements relating to payment legs specified in this subregulation (18);

(v) shall in the case of transactions that require the exchange of payment against payment, such as an interest-rate swap contract or foreign-exchange forward contract, identify the relevant payment legs of the contract, which payment legs shall be represented by the contractually agreed gross payments, including the notional amount of the transaction, provided that for purposes of calculating the bank's exposure to counterparty credit risk-

(A) the bank may in the case of payment legs with a remaining maturity of less than one year disregard any relevant interest rate risk;

(B) the bank may treat transactions that consist of two payment legs denominated in the same currency, such as an interest-rate swap contract, as a single aggregate transaction;

(vi) shall in the case of transactions with linear risk profiles with equity, equity indices, gold, other precious metals or other commodities as the underlying financial instruments, map-

(A) the relevant component of the transaction to a risk position in the relevant equity, equity index or commodity hedging set, which commodity hedging set may relate to gold or other precious metals;

(B) the relevant payment leg of the transaction to an interest rate risk position within the appropriate interest rate hedging set, provided that when the payment leg is denominated in a foreign currency the bank shall also map the relevant component of the transaction to a foreign exchange risk position in the relevant currency;

(vii) shall in the case of transactions with linear risk profiles with a debt instrument such as a bond or loan as the underlying instrument, map the relevant transaction to an interest rate risk position with one risk position in respect of the relevant debt instrument and another risk position in respect of the payment leg, provided that-

(A) any transaction with a linear risk profile that requires an exchange of payment against payment, including any relevant foreign exchange forward contract, shall be mapped to an interest rate risk position in respect of each of the relevant payment legs;

(B) when the underlying debt instrument is denominated in a foreign currency, the bank shall map the relevant debt instrument to a foreign exchange risk position in the relevant currency;

(C) when a payment leg is denominated in a foreign currency, the bank shall map the relevant payment leg to a foreign exchange risk position in the said currency, that is, the bank, for example, shall map a short-term FX forward contract with one leg denominated in domestic currency into three risk positions, which is, firstly an FX risk position, secondly a foreign currency interest rate risk position and finally a domestic currency risk position;

(D) the bank shall assign to any foreign-exchange basis swap transaction an exposure amount or EAD of zero;

(viii) shall determine the size and sign of all relevant risk positions in accordance with the relevant formulae and requirements specified in paragraph (b) below, provided that in the case of-

(A) any transaction with a non-linear risk profile in respect of which the reporting bank is unable to determine the required delta value; or

(B) any payment leg or transaction with a debt instrument as the underlying instrument and in respect of which payment leg or transaction the reporting bank is unable to determine the required modified duration,

through the application of the bank's internal model approved by the Registrar for the measurement of the bank's exposure to market risk, the Registrar may determine the size of the relevant risk position or require the bank to instead use the current exposure method provided that in the said cases the reporting bank shall not apply any netting and shall determine the relevant exposure amount or EAD as if the netting set comprised of only the said individual transaction;

(ix) shall group all relevant risk positions into the appropriate hedging sets specified in paragraph (c) below, provided that in respect of each relevant hedging set the reporting bank-

(A) shall calculate the absolute amount of the sum of the relevant risk positions, which sum shall constitute the net risk position and in the formula specified in subparagraph (i) above be represented by the variable-

$$\left|\sum_i RPT_{ij} - \sum_l RPC_{lj}\right|$$

(B) shall in the case of option contracts include in the relevant net risk position any sold option that may increase the current market value of the relevant netting set;

(x) shall in respect of the net risk position relating to a specific hedging set apply the relevant credit conversion factors specified in paragraph (d) below provided that in the case of-

(A) any transaction with a non-linear risk profile in respect of which the reporting bank is unable to determine the required delta value; or

(B) any payment leg or transaction with a debt instrument as the underlying instrument and in respect of which payment leg or transaction the reporting bank is unable to determine the required modified duration,

through the application of the bank's internal model approved by the Registrar for the measurement of the bank's exposure to market risk, the Registrar may determine the relevant credit conversion factor relating to the relevant risk position or require the bank to instead use the current exposure method provided that in the said cases the reporting bank shall not apply any netting and shall determine the relevant exposure amount or EAD as if the netting set comprised of only the said individual transaction.

(b) *Further matters relating to the size and sign of an exposure amount or EAD*

In respect of any bank that adopted the standardised method for the measurement of the bank's exposure to counterparty credit risk, the size of a risk position arising from-

(i) any instrument other than a debt instrument, which risk position relate to a transaction with a linear risk profile, shall be the effective notional value, that is, the relevant market price multiplied by the relevant quantity, of the relevant underlying financial instrument, which instrument may include a commodity, converted to the bank's domestic currency;

(ii) a debt instrument, and the payment legs of all transactions, shall be the effective notional value of the outstanding gross payments, including the notional amount, converted to the bank's domestic currency, multiplied by the modified duration of the relevant debt instrument or payment leg;

(iii) a credit-default swap, shall be the notional value of the relevant reference debt instrument multiplied by the remaining maturity of the said credit-default swap;

(iv) an OTC derivative instrument with a non-linear risk profile, including options and swaptions, shall be the delta equivalent effective notional value of the relevant financial instrument underlying the transaction provided that the underlying financial instrument is an instrument other than a debt instrument;

(v) an OTC derivative instrument with a non-linear risk profile, including options and swaptions, in respect of which instrument the underlying is a debt instrument or payment leg, shall be the delta equivalent effective notional value of the relevant financial instrument or payment leg multiplied by the modified duration of the relevant debt instrument or payment leg,

provided that the reporting bank may use the formulae specified below in order to determine the size and sign of a specific risk position.

(A) In the case of all instruments other than debt instruments, through the application of the formula specified below.

The effective notional value or delta equivalent notional value shall be equal to-

$$p_{ref} \frac{\partial V}{\partial p}$$

where:

p_{ref} is the relevant price of the underlying instrument, expressed in the reference currency

v is the relevant value of the financial instrument, that is, in the case of an option contract, the option price, and in the case of a transaction with a linear risk profile, the value of the underlying instrument itself

p is the price of the underlying instrument, expressed in the same currency as v

(B) In the case of all debt instruments, and the payment legs of all transactions, through the application of the formula specified below.

Effective notional value multiplied by the modified duration, or

Delta equivalent in notional value multiplied by the modified duration

$$\frac{\partial V}{\partial r}$$

where:

v is the relevant value of the financial instrument, that is, in the case of an option contract, the option price, and in the case of a transaction with a linear risk profile, the value of the underlying instrument itself or of the relevant payment leg

Provided that when "**v**" is denominated in a currency other than the reference currency, the bank shall convert the derivative into the reference currency by multiplying the relevant amount with the relevant exchange rate

r is the relevant interest level

(c) *Matters relating to hedging sets*

A bank that adopted the standardised method for the measurement of the bank's exposure to counterparty credit risk-

(i) shall in the case of any interest rate position arising from debt instruments of low specific risk, that is, any debt instrument subject to a specific risk capital requirement of 1,6 per cent or lower in terms of the relevant requirements relating to the standardised approach for market risk envisaged in regulation 28(4) read with the relevant requirements specified in regulation 28(7), and in respect of each relevant currency, map the relevant position into one of six hedging sets specified in table 20 below, provided that-

(A) the bank shall assign relevant interest rate positions arising from the payment legs to the same hedging sets as interest rate risk positions from debt instruments of low specific risk;

(B) the bank shall assign interest rate positions arising from money deposits received from a counterparty as collateral to the same hedging sets as interest rate risk positions from debt instruments of low specific risk;

(C) in the case of any underlying debt instrument such as a floating rate note, or payment legs such as floating rate legs relating to interest swaps, in respect of which the interest rate is linked to a reference interest rate that represents a general market interest level such as a government bond yield, a money market rate or swap rate, the bank shall base the rate adjustment frequency on the length of the time interval up to the next re-adjustment of the reference interest rate. Otherwise, the remaining maturity shall be the remaining life of the underlying debt instrument or, in the case of any payment leg, the remaining life of the transaction;

(D) there shall be one hedging set in respect of each relevant issuer of a reference debt instrument that underlies a credit-default swap;

(E) there shall be one hedging set in respect of each relevant issuer of a debt instrument of high specific risk, that is, any debt instrument subject to a specific risk capital requirement of more than 1,6 per cent in terms of the relevant requirements relating to the standardised approach for market risk envisaged in regulation 28(4) read with the relevant requirements specified in regulation 28(7), or when deposits are placed as collateral with a counterparty with no debt obligations outstanding of low specific risk;

(F) when a payment leg emulates a debt instrument of high specific risk, such as a total-return swap contract with one leg emulating a bond, there shall be one hedging set in respect of each relevant issuer of the said reference debt instrument provided that the reporting bank may assign risk positions that arise from debt instruments relating to a specific issuer or from reference debt instruments of the same issuer that are emulated by payment legs or that underlie a credit-default swap to the same hedging set,

which hedging sets shall be defined per currency, based on a combination of-

(i) the nature of the reference interest rate, that is, a sovereign rate or a rate other than a sovereign rate;

(ii) the remaining maturity or rate adjustment frequency of the relevant instrument, that is, one year or less, more than one year to five years, and more than five years, as specified in table 20 below.

Table 20

Hedging sets for interest rate risk positions, per currency

Remaining maturity or rate-adjustment frequency	Sovereign-referenced interest rates	Non–sovereign referenced interest rates
One year or less	X	X
More than one year to five years	X	X
More than five years	X	X

(ii) shall in the case of underlying financial instruments other than debt instruments, such as equity instruments, precious metals or commodities, assign the relevant instrument to the same hedging set only when the said instruments are identical or similar instruments, where similar instruments in the case of-

(A) equity instruments mean instruments issued by the same issuer provided that the reporting bank shall treat an equity index as a separate issuer;

(B) precious metals mean instruments relating to the same metal provided that the reporting bank shall treat a precious metal index as a separate precious metal;

(C) commodities mean instruments relating to the same commodity provided that the reporting bank shall treat a commodity index as a separate commodity;

(D) electric power include delivery rights and obligations that relate to the same peak or offpeak load time interval within any relevant 24 hour interval.

(d) *Matters relating to credit conversion factors*

In respect of the net risk position relating to a specific hedging set, a bank that adopted the standardised method for the measurement of the bank's exposure to counterparty credit risk shall in the case of-

(I) a net risk position arising from a debt instrument or reference debt instrument apply a credit conversion factor of-

(A) 0.6 per cent when the risk position relates to a debt instrument or reference debt instrument of high specific risk;

(B) 0.3 per cent when the risk position relates to a reference debt instrument that underlies a credit-default swap, which instrument is of low specific risk;

(C) 0.2 per cent when the risk position relates to a net position other than a position envisaged in item (A) or (B) above.

(ii) underlying financial instruments other than debt instruments, and in respect of foreign exchange rates, apply the credit conversion factors specified in table 21 below.

Table 21

Exchange rates	Gold	Equity	Precious metals (excluding gold)	Electric power	Other commodities (excluding precious metals)
2.5%	5.0%	7.0%	8.5%	4%	10.0%

(iii) underlying instruments of OTC derivative instruments, which instruments are not included in any one of the categories specified in subparagraph (i) or (ii) above, apply to the relevant notional equivalent amount a credit conversion factor of 10 per cent provided that the reporting bank shall assign the said instrument to a separate individual hedging set in respect of each relevant category of underlying instrument.

(19) Method 3: Calculation of counterparty credit exposure in terms of the internal model method

(a) *Matters relating to the exposure amount or EAD*

A bank that obtained the approval of the Registrar to adopt the internal model method for the measurement of the bank's exposure to counterparty credit risk-

(i) shall calculate its counterparty credit exposure or EAD amount at the level of each relevant netting set and through the application of the formulae specified below.

Exposure amount or EAD = α x EEPE

where:

EAD is the relevant exposure amount or exposure at default

α is an alpha factor, which alpha factor shall be equal to 1.4, provided that-

(A) based on the reporting bank's exposure to counterparty credit risk and the related risk factors, the Registrar may specify a higher alpha factor, which related risk factors may include low granularity of counterparties, high exposures to general wrong-way risk or high correlation of market values across counterparties;

(B) subject to the prior written approval of the Registrar and in accordance with the relevant requirements specified in paragraph (b) below, the bank may estimate its own alpha factor

EEPE is the effective expected positive exposure, which effective expected positive exposure is the weighted average effective expected exposure during the first year of future exposure calculated across possible future values of relevant market risk factors such as interest rates or foreign exchange rates and in accordance with the formula specified below provided that when all contracts in the relevant netting set mature before one year, effective expected positive exposure shall be the weighted average of effective expected exposure until all contracts in the netting set mature

$$\text{Effective EPE} = \sum_{k=1}^{\min(1\text{ year, maturity})} \text{effective } EE_{tk} \times \Delta t_k$$

where:

EE is the expected exposure amount estimated by the bank's internal model at the relevant series of future dates

and

the weights $\Delta t_k = t_k - t_{k-1}$ make provision for the cases when future exposure is calculated at dates that are not equally spaced over time

effective expected exposure shall be calculated recursively through the application of the formula specified below

$$\text{Effective } EE_{tk} = \max(\text{effective } EE_{tk-1}, EE_{tk})$$

where:

current date shall be denoted by t_0

and

Effective EE_{t0} shall be equal to the current exposure

(ii) shall calculate an expected exposure amount or peak exposure amount based on a distribution of exposures that accounts for any non-normality in the said distribution of exposures, including any leptokurtosis, that is, fat tails;

(iii) may, subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, instead of calculating the exposure amount or EAD by multiplying effective expected positive exposure with the specified alpha factor specified in subparagraph (i) above, use a more conservative measure than effective expected positive exposure, such as a VaR model for counterparty exposure or another measure based on peak exposure instead of average exposure;

(iv) may in the calculation of its counterparty credit exposure or EAD apply any form of internal model, including a simulation model or analytical model, provided that-

(A) the said internal model adopted by the reporting bank shall specify the forecasting distribution for changes in the market value of a netting set attributable to changes in market variables such as interest rates or foreign exchange rates, which forecasting distribution for changes in the market value of a netting set may include eligible financial collateral specified in subregulation (9)(b)(iv) provided that the bank shall in respect of the said collateral comply with the relevant quantitative, qualitative and data requirements relating to the internal model method, specified in this subregulation (19);

(B) in respect of each relevant future date and based on the changes in the market variables, the model shall compute the bank's exposure to counterparty credit risk relating to a particular netting set;

(C) in the case of a counterparty subject to a margining agreement, the model may capture future movements in the value of collateral;

(D) to the extent that the reporting bank recognises collateral in the estimation of an exposure amount or EAD via current exposure, the bank shall not recognise the said benefit of collateral in its estimates of LGD, that is, the bank shall apply an LGD ratio of an otherwise similar uncollateralised facility when the bank recognises the value of collateral obtained in the estimation of an exposure amount or EAD;

(E) the bank shall at all times comply with the relevant requirements specified in paragraph (f) below.

(v) shall determine the effective maturity relating to a particular netting set in accordance with the relevant requirements specified in paragraph (c) below;

(vi) shall not in the calculation of its exposure amount or EAD apply any cross-product netting otherwise than in accordance with the relevant requirements specified in paragraph (d) below.

(vii) shall in respect of any netting set subject to margining calculate the relevant exposure in accordance with the relevant requirements specified in paragraph (e) below;

(viii) may in respect of any OTC derivative transaction or contract subject to novation or a legally enforceable bilateral netting agreement recognize the effect of the said novation or netting agreement in accordance with the relevant requirements specified in subregulation (17) above.

(b) *Matters relating to own estimates of alpha*

Subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, a bank that adopted the internal model method for the measurement of the bank's exposure to counterparty credit risk may calculate its own internal estimates of alpha, provided that-

(i) the alpha factor shall in no case be less than 1.2, that is, any internally estimated alpha factor shall be subject to an absolute minimum of 1.2;

(ii) alpha shall constitute a ratio, calculated as-

(A) economic capital derived from a joint simulation of all relevant market and credit risk factors relating to counterparty exposure across all relevant counterparties, as the numerator; **divided by**

(B) economic capital based on expected positive exposure, as the denominator,

(iii) any internal estimate of alpha shall take into account the granularity of the relevant exposures;

(iv) the bank-

(A) shall comply with all relevant operating requirements relating to internal estimates of expected positive exposure specified in paragraph (f) below;

(B) shall demonstrate to the satisfaction of the Registrar that its internal estimate of alpha captures in the numerator the material sources of stochastic dependency of distributions of market values of transactions or portfolios of transactions across counterparties, such as the correlation of defaults across counterparties and between market risk and default;

(C) shall in respect of the denominator, apply expected positive exposure in a manner similar to a fixed outstanding loan amount;

(D) shall ensure that the numerator and denominator of alpha are calculated in a consistent manner with respect to the modelling methodology, parameter specifications and portfolio composition;

(E) shall ensure that the approach applied by the bank in order to determine alpha is based on the internal economic capital approach adopted by the bank, which approach-

(i) shall be duly documented;

(ii) shall be subject to independent validation.

(F) shall frequently review its internal estimates of alpha, but in no case less frequently than once a quarter or more frequently when the composition of the relevant portfolio varies over time;

(G) shall continuously assess its model risk;

(v) when appropriate, any volatility and correlation of market risk factors used in the joint simulation of market risk and credit risk shall be conditioned on the credit risk factor in order to reflect potential increases in volatility or correlation in an economic downturn situation.

(c) *Matters relating to effective maturity*

A bank that obtained the approval of the Registrar to adopt the internal model method for the measurement of the bank's exposure to counterparty credit risk shall in the case of-

(i) a netting set in respect of which the original maturity of the longest-dated contract contained in the said netting set is equal to or exceeds one year, calculate the effective maturity of the relevant exposure through the application of the formula specified below, instead of the formula specified in subregulation (13)(d)(ii)(B), provided that subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, a bank that uses an internal model, amongst other things, to calculate a one-sided credit valuation adjustment relating to its counterparty credit exposure may apply the effective credit duration estimated by the bank in respect of the said exposure instead of the effective maturity calculated in accordance with the formula specified below.

$$M = \frac{\sum_{k=1}^{t_k \le 1year} Effective\,EE_k \times \Delta t_k \times df_k + \sum_{t_k > 1year}^{maturity} EE_k \times \Delta t_k \times df_k}{\sum_{k=1}^{t_k \le 1year} Effective\,EE_k \times \Delta t_k \times df_k}$$

where:

M is the effective maturity, which effective maturity shall be subject to a maximum of five years

df_k is the risk-free discount factor relating to future time period *tk*

(ii) a netting set in respect of which all contracts have an original maturity of less than one year, other than any short-term exposure as envisaged in subparagraph (iii) below, calculate the effective maturity of the relevant exposure in accordance with the formula and requirements specified in subregulation (13)(d)(ii)(B) provided that the bank shall in respect of the said exposures apply a maturity floor equal to one year;

(iii) any short-term exposure calculate the effective maturity of the relevant exposure in accordance with the formula and requirements specified in subregulation (13)(d)(ii)(B)(ii).

(d) *Matters relating to cross-product netting*

(i) A bank that obtained the approval of the Registrar to adopt the internal model method for the measurement of the bank's exposure to counterparty credit risk may include in a particular netting set relating to a particular counterparty any exposure arising from a securities financing transaction or both a securities financing transaction and an OTC derivative contract, provided that-

(A) in all cases the bank shall have in place a legally sound bilateral netting agreement, which agreement shall comply with the relevant requirements and criteria specified in subparagraph (ii) below;

(B) at all times, the bank shall comply with such procedural requirements or additional requirements as may be specified in writing by the Registrar.

(ii) Legal and operational criteria

A bank that wishes to include in a netting set relating to a particular counterparty, exposures that arise from securities financing transactions or both securities financing transactions and OTC derivative contracts shall have in place a legally sound written bilateral netting agreement with the said counterparty, which agreement shall create a single legal obligation covering all relevant bilateral master agreements and transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the relevant positive and negative close-out amounts and mark-to-market values in the event of any failure of the counterparty to perform in accordance with the said transactions, contracts or agreements, irrespective whether or not the said failure relates to default, bankruptcy, liquidation or similar circumstances, provided that-

(A) the bank shall have in place written and reasoned legal opinion that conclude with a high degree of certainty that in the event of legal challenge the relevant courts or administrative authorities would find the bank's exposure in terms of the said cross-product netting agreement to be the cross-product net amount under the laws of all relevant jurisdictions-

(i) which legal opinions-

(aa) as a minimum, shall address the validity and enforceability of the said cross-product netting agreement under its terms and the impact of the cross-product netting agreement on the material provisions of any included bilateral master agreement;

(bb) shall generally be recognised in all relevant jurisdictions or communities.

(ii) which laws of all relevant jurisdictions include-

(aa) the law of the jurisdiction in which the counterparty is chartered or incorporated and if the foreign branch of a counterparty is involved, the law of the jurisdiction in which the branch is located;

(bb) the law that governs the relevant individual transactions;

(cc) the law that governs any contract or agreement necessary to effect the netting.

(B) the bank shall have in place robust internal procedures to verify, prior to including a transaction in a netting set, that the transaction is covered by legal opinions that comply with the aforesaid criteria;

(C) the bank shall regularly update all relevant legal opinions in order to ensure continued enforceability of the cross-product netting agreement in light of any possible changes in relevant law;

(D) the cross-product netting agreement shall not contain any walkaway clause, that is, any provision that permits a non-defaulting counterparty to make only limited payments or no payment at all to the estate of the person that defaulted, even when the defaulting person is a net creditor;

(E) each relevant bilateral master agreement and transaction included in a cross-product netting agreement shall continuously comply with any relevant legal requirement specified in these Regulations that may have an impact on the legal recognition or enforceability of the said bilateral agreement, contract or transaction;

(F) the reporting bank shall duly maintain record of all relevant and required documentation;

(G) the reporting bank shall aggregate the relevant credit risk amounts relating to each relevant counterparty in order to obtain the single legal exposure amount across products and transactions covered by the cross-product netting agreement, which aggregated amount, amongst other things, shall form part of the bank's risk management processes relating to credit risk, credit limits and economic capital;

(H) the reporting bank shall demonstrate to the satisfaction of the Registrar that the bank effectively integrates the risk-mitigating effects of cross-product netting into its risk management and other information technology systems.

(e) *Matters relating to margin agreements*

When-

(i) a particular netting set is subject to a margin agreement and the reporting bank's internal model is able to capture the effect of margining in its estimation of expected exposure, the bank may apply for the approval of the Registrar to use the said estimated expected exposure amount directly in the formula relating to effective expected exposure, specified in paragraph (a) above;

(ii) a particular counterparty exposure is subject to a margin agreement and the reporting bank's model is able to calculate expected positive exposure without margin agreements but the model is not sufficiently sophisticated to calculate expected positive exposure with margin agreements, the effective expected positive exposure of a counterparty that is subject to a margin agreement shall be deemed to be equal to the lesser of-

(A) the threshold, when positive, in terms of the relevant margin agreement plus an add-on amount that reflects the potential increase in exposure during the margin period of risk, which add-on amount shall be equal to the expected increase in the netting set's exposure amount during the margin period of risk, beginning with a current exposure amount of zero, that is, the add-on amount shall be equal to the expected exposure amount at the end of the margin period of risk, assuming a current exposure amount of zero, which expected exposure amount shall be equal to the effective expected exposure amount since no roll-off of transactions is included in the specific calculation of expected exposure, provided that a floor of-

(i) five business days margin period of risk shall apply in respect of netting sets consisting solely of repo-style transactions subject to daily re-margining and daily mark-to-market;

(ii) ten business days margin period of risk shall apply to all netting sets other than repo-style transactions subject to daily re-margining and daily mark-to-market.

(B) the effective expected positive exposure amount without a margin agreement.

Provided that the requirements specified in subregulation (7)(b)(iii) regarding legal certainty, documentation, correlation and a robust risk management process shall, insofar as the said provisions are relevant, *mutatis mutandis* apply in respect of all relevant margin agreements.

(f) *Matters relating to model validation and operational requirements*

A bank that wishes to adopt the internal model method for the measurement of the bank's exposure to counterparty credit risk by estimating expected positive exposure, that is, a bank that wishes to apply its EPE model, shall in addition to such requirements as may be specified in writing by the Registrar comply with-

(i) the qualitative requirements specified in regulation 39(8), which qualitative requirements include matters relating to-

(A) the bank's EPE model;

(B) board and senior management oversight and involvement;

(C) an independent risk control function or unit; and

(D) backtesting.

(ii) the operational requirements specified in regulations 39(9) to 39(12), which operational requirements include matters relating to-

(A) the use test;

(B) stress testing;

(C) the identification of wrong-way risk; and

(D) internal controls and model integrity.

(20) Specific matters relating to delivery-versus-payment transactions, and non-delivery-versus-payment or free-delivery transactions

(a) A bank shall in respect of-

(i) any delivery-versus-payment transaction, that is, any transaction settled through a delivery-versus-payment system-

(A) which system makes provision for the simultaneous exchanges of securities for cash, including payment versus payment;

(B) which transaction exposes the reporting bank to a risk of loss equal to the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price, that is, the positive current exposure amount;

(C) which transaction may include-

(i) the settlement of commodities;

(ii) the settlement of foreign exchange;

(iii) the settlement of securities;

(iv) settlement through a licensed exchange, which transactions are subject to daily mark-to-market, payment of daily variation margins and involve a mismatched trade;

(ii) any non-delivery-versus-payment or free-delivery transaction, that is, any transaction in respect of which cash is paid out without receipt of the contracted receivable, which receivable may include a security, foreign currency, gold or a commodity, or conversely, any transaction in respect of which deliverables were delivered without receipt of the contracted cash payment, which transaction exposes the reporting bank to a risk of loss equal to the full amount of the cash amount paid or deliverables delivered,

calculate its required amount of capital and reserve funds in accordance with the relevant requirements specified in paragraph (b) below provided that-

(A) the provisions of this subregulation (20) shall not apply-

(i) to any repurchase agreement, resale agreement, securities lending transaction or securities borrowing transaction that has failed to settle,

(ii) to any forward contract or one-way cash payment due in respect of an OTC derivative transaction,

which agreement, contract or transaction shall be subject to the relevant requirements specified in subregulations (16) to (19) above, or subregulations (6) to (14);

(B) in the case of a system wide failure of a settlement or clearing system, the Registrar may, subject to such conditions as may be specified in writing by the Registrar, exempt a bank from the requirements specified in paragraph (b) below;

(C) a failure of a counterparty to settle a trade as envisaged in this subregulation (20) will not necessarily fall within the ambit of default for the purpose of measuring the reporting bank's exposure to credit risk as envisaged in this regulation 23.

(b) Minimum required amount of capital and reserve funds

A bank shall in the case of-

(i) any delivery-versus-payment transaction in respect of which payment has not taken place in the period of five business days after the contracted settlement date calculate its required amount of capital and reserve funds by multiplying the relevant positive current exposure amount with the relevant percentage specified in table 22 below.

Table 22

Number of working days after the contracted settlement date	**Risk multiplier**
From 5 to 15	8%
From 16 to 30	50%
From 31 to 45	75%
46 or more	100%

(ii) any non-delivery-versus-payment or free-delivery transaction, after the first contractual date relating to payment or delivery when the relevant second leg has not been received at the end of the relevant business day, treat the relevant payment made as a loan exposure, that is, a bank that adopted-

(A) the IRB approach shall calculate its risk-weighted exposure and related required amount of capital and reserve funds in accordance with the relevant formulae and requirements specified in subregulations (11) and (13);

(B) the standardised approach shall calculate its risk-weighted exposure and related required amount of capital and reserve funds in accordance with the relevant requirements specified in subregulations (6) and (8),

provided that-

(i) when the relevant exposure amount is not material, the reporting bank may choose to apply a risk weight of 100 per cent to the said exposure amount;

(ii) when five business days have lapsed following the second contractual payment or delivery date and the second leg has not effectively taken place, the bank that made the first payment leg shall deduct from its primary capital and reserve funds the full amount of value transferred plus any relevant replacement cost until the said second payment or delivery leg is effectively made;

(iii) when determining a risk weight in respect of any failed free-delivery exposure, a bank that adopted-

(aa) the IRB approach for the measurement of the bank's exposure to credit risk may in respect of a counterparty in respect of which the bank has no other banking book exposure assign a PD ratio, based on the relevant counterparty's external rating;

(bb) the advanced IRB approach for the measurement of the bank's exposure to credit risk may apply an LGD ratio of 45 per cent, in lieu of estimating an LGD ratio, provided that the bank shall apply the said ratio to all failed trade exposures; or

(cc) the IRB approach for the measurement of the bank's exposure to credit risk may apply the risk weights specified in the standardised approach, in subregulation (8), or a risk weight of 100 per cent.

(21) EXPECTED LOSS

A bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk shall calculate an aggregate amount in respect of the bank's expected losses, which aggregate expected loss amount-

(a) shall exclude any expected losses in respect of-

(i) the bank's equity exposures subject to the PD/LGD approach prescribed in regulation 31(5)(c);

(ii) credit exposures resulting from a securitisation scheme;

(b) shall be determined by multiplying the expected loss ratio relating to a particular credit exposure with the relevant EAD amount;

(c) shall in the case of-

(i) credit exposures relating to corporate institutions other than specialised lending mapped into the standardised risk grades specified in subregulation (11)(d)(iii)(C), sovereigns, banks and the bank's retail portfolios, which exposures-

(A) are not in default, and

(B) do not constitute protected exposures or eligible exposures subject to the double default approach,

be calculated by multiplying the exposure's relevant PD ratio with its LGD ratio;

(ii) credit exposures relating to corporate institutions, sovereigns, banks and the bank's retail portfolios, which exposures are in default, be calculated by estimating the expected loss amount through the application of the relevant LGD ratio;

(iii) exposures relating to specialised lending mapped into the standardised risk grades specified in subregulation (11)(d)(iii)(C), excluding exposures relating to high-volatility commercial real estate, be calculated by multiplying the relevant EAD amount with the minimum required capital adequacy ratio prescribed in accordance with the relevant provisions of regulation 38(8)(b), and the risk weights specified in table 23 below.

Table 23

Rating grade				
Strong	**Good**	**Satisfactory**	**Weak**	**Default**
5%	10%	35%	100%	625%

(iv) exposures relating to high-volatility commercial real estate mapped into the standardised risk grades specified in subregulation (11)(d)(iii)(C), be calculated by multiplying the relevant EAD amount with the minimum required capital adequacy ratio prescribed in accordance with the relevant provisions of regulation 38(8)(b), and the risk weights specified in table 24 below.

Table 24

Rating grade				
Strong	**Good**	**Satisfactory**	**Weak**	**Default**
5%	5%	35%	100%	625%

(v) other exposures, including any protected exposure or eligible exposure subject to the double default approach, be deemed to be equal to nil.

(22) CREDIT IMPAIRMENT

(a) As a minimum, every bank-

(i) shall have in place a sufficiently robust system for the calculation of credit impairment in accordance with the relevant requirements specified in Financial Reporting Standards issued from time to time;

(ii) shall have in place sufficiently robust processes and board-approved policies, and sufficient dedicated resources, to ensure-

(A) the early identification of assets of deteriorating credit quality;

(B) ongoing oversight of problem assets or credit exposure;

(C) that the bank periodically reviews and assesses-

(i) all relevant problem assets at an individual level, or a portfolio level in the case of credit exposures with homogenous characteristics;

(ii) the adequacy of the bank's asset classification, provisioning and write-offs;

(iii) the value, adequacy and enforceability of all relevant risk mitigation instruments or contracts, including guarantees, credit-derivative instruments or other forms of collateral or credit protection;

(D) that all relevant off-balance-sheet exposures are duly considered;

(E) that the bank's credit impairments and write-offs reflect realistic repayment and recovery expectations;

(F) ongoing collection of past due obligations;

(G) that the bank's board of directors receives timely and appropriate information on the condition of the bank's relevant credit portfolios, including the classification of credit exposures, the level of provisioning and major problem assets;

(iii) shall base its decisions in respect of credit impairment primarily on an assessment of the recoverability of individual on-balance-sheet and off-balance-sheet items or portfolios of items with similar characteristics, such as credit card receivables;

(iv) shall identify and recognise impairments in on-balance-sheet and off-balance-sheet items when it is probable that the bank will not be able to collect, or there is no longer a reasonable assurance that the bank will collect, all amounts due according to the contractual terms of the written agreement.

(b) When the Registrar is of the opinion that the policies and procedures applied by a bank during its assessment of asset quality, risk mitigation and related credit impairment are inadequate, the Registrar may require the relevant bank to raise a specified credit impairment amount against potential credit losses, for example, by requiring in writing the said bank to transfer a specified amount from retained earnings or distributable reserves to a non-distributable reserve.

(c) Standardised approach

A bank that-

(i) adopted the standardised approach for the measurement of a portion of its exposure to credit risk shall determine the relevant portion of any general allowance for credit impairment that relate to the credit exposures measured in terms of the standardised approach, that is, the bank shall allocate its general allowance for credit impairment on a pro-rata basis based on the proportion of risk-weighted credit exposure subject to the standardised approach;

(ii) makes exclusive use of the standardised approach to determine its risk-weighted credit exposure shall attribute the relevant total amount of general allowance for credit impairment raised to the standardised approach;

(iii) adopted the standardised approach for the measurement of its exposure to credit risk may include in secondary unimpaired reserve funds, up to a maximum amount of 1.25 per cent of the bank's relevant risk-weighted credit exposure, the after tax amount of any relevant general allowance for credit impairment.

(d) IRB approach

(i) A bank that-

(A) makes exclusive use of the IRB approach to determine its risk-weighted credit exposure shall attribute to eligible provisions the aggregate amount of any relevant general allowance raised for credit impairment;

(B) adopted the IRB approach for the measurement of the bank's exposure to credit risk shall deduct from its eligible provisions the aggregate amount relating to expected loss calculated in accordance with the relevant requirements specified in subregulation (21) above, provided that when the aggregate amount relating to expected losses-

(i) exceeds the bank's eligible provisions, the bank shall in accordance with the relevant requirements specified in subregulation (11)(q) deduct from its capital and reserve funds the said excess amount;

(ii) is less than the bank's eligible provisions, the bank may include in secondary unimpaired reserve funds, in item 75 of the form BA 700, up to a maximum amount of 0.6 per cent of the bank's relevant risk weighted exposure amount, or such a lower percentage as may be specified in writing by the Registrar, the relevant after tax surplus amount;

(ii) Subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, a bank that adopted both the standardised approach and the IRB approach for the measurement of the bank's risk-weighted credit exposure may apply the bank's internal methods to allocate any general allowance for credit impairment for recognition in capital under either the standardised or IRB approach.

(23) Instructions relating to the completion of the monthly form BA200 are furnished with reference to the headings and item descriptions of specified columns and line items appearing on form BA200, as follows:

Items relating to the summary of selected credit risk related information: standardised approach

Item number	Description
2	**Impaired advances** This item shall reflect the aggregate amount of impaired advances. As a minimum, an advance is considered to be impaired when objective evidence exists that the bank is unlikely to collect the total amount due.
3 to 6	**Assets bought-in** These items shall reflect the on-balance sheet carrying value of assets bought-in during the preceding five years to protect an investment, including a loan or advance, which asset has not been disposed of at the end of the reporting period.
7 to 9	**Credit impairment** These items shall reflect the relevant required aggregate amounts of specific credit impairments and portfolio credit impairments raised by the reporting bank in accordance with the relevant requirements specified in Financial Reporting Standards issued from time to time.
11	**Total gross credit exposure** This item shall reflect the relevant required gross amount of credit exposure before the application of credit risk mitigation and any relevant credit conversion factor.
12	**Credit exposure value post credit risk mitigation** This item shall reflect the relevant required aggregate amount of gross credit exposure after the effect of any relevant credit risk mitigation has been included.
13	**Credit exposure post credit risk mitigation and credit conversion** This item shall reflect the relevant required aggregate amount of gross credit exposure after the effects of any relevant credit risk mitigation and credit conversion factors have been included.

Columns relating to summary of on-balance-sheet and off-balance-sheet credit exposure: standardised approach, items 19 to 39

Column number	Description
1	**On-balance-sheet exposure** This column shall reflect the aggregate amount in respect of amounts drawn by clients, that is, utilised amounts, which amounts form part of the current exposure of the reporting bank, before the impact of any relevant credit risk mitigation has been taken into consideration.
2	**Off-balance-sheet exposure** This column shall reflect the aggregate amount relating to, for example, exposures in respect of which a facility has been granted by the reporting bank to an obligor but in respect of which no funds have been paid out and no debit balance has been created, other than any exposure arising from a derivative instrument or repo-style transaction, including any exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor or credit risk mitigation.
3	**Repurchase and/ or resale agreements** This column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase and/ or resale agreement concluded by the reporting bank.
4	**Derivative instruments** This column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments, including any relevant exposure amount relating to counterparty credit risk.
14	**Credit exposure post credit risk mitigation** This column shall reflect the relevant required aggregate amount of gross credit exposure after the impact of any relevant credit risk mitigation has been taken into consideration.

Items relating to reconciliation of credit impairment: standardised approach

Item number	Description
45	**Interest in suspense** Since interest relating to impaired loans may not ultimately contribute to income when doubt exists regarding the recovery of the relevant loan amount or related interest amount due, this item shall reflect the relevant amount of interest in suspense, that is, irrespective of the accounting treatment of interest income from time to time, this item shall reflect the difference between the relevant amount of interest contractually due to the reporting bank by its clients up to the end of the reporting month and the relevant amount of interest income actually included in the operating profit or loss of the bank.

Item number	Description
48	**Recoveries** This item shall reflect the relevant aggregate amount in respect of recoveries, net of any relevant amount relating to specific credit impairment and/ or portfolio credit impairment.

Columns relating to credit capital requirements based on risk weights: standardised approach, items 52 to 73

Column number	Description
1	**Total gross credit exposure** This column shall reflect the aggregate gross credit exposure amount relating to the reporting bank's- (a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment; (b) off-balance-sheet exposure, including amounts in respect of irrevocable commitments, prior to the application of any credit-conversion factor; (c) exposure in respect of any repurchase or resale agreement; (d) exposure in respect of derivative instruments, calculated in accordance with the relevant requirements specified in subregulations (15) to (19).
2	**Specific credit impairment** This column shall reflect the aggregate amount relating to any specific credit impairment in respect of the exposure amount reported in column 1.
3	**Exposure amount post credit risk mitigation (CRM) and specific credit impairment** This column shall reflect the reporting bank's relevant adjusted exposure amount, that is, the relevant amount net of any credit risk mitigation and specific credit impairment, calculated in accordance with the relevant requirements specified in these Regulations.
4 to 10	**Breakdown of off-balance-sheet exposure based on credit conversion factors (CCF)** Based on the relevant credit conversion factors specified in subregulation (6)(g), these columns shall reflect the appropriate breakdown of the reporting bank's adjusted exposure, that is, amounts included in column 3, relating to off-balance-sheet exposure.