Directive 2006/48/EC of the European Parliament and of the council of 14 June 2006 relating to the taking up and pursuit of the business of credit institutions (recast) (Text with EEA relevance) (repealed)

ANNEX IX

SECURITISATION

PART 4

Calculation

1. CALCULATION OF RISK-WEIGHTED EXPOSURE AMOUNTS

- 1. For the purposes of Article 96, the risk-weighted exposure amount of a securitisation position shall be calculated by applying to the exposure value of the position the relevant risk weight as set out in this Part.
- 2. Subject to point 3:
- (a) where a credit institution calculates risk-weighted exposure amounts under points 6 to 36, the exposure value of an on-balance sheet securitisation position shall be its balance sheet value;
- (b) where a credit institution calculates risk-weighted exposure amounts under points 37 to 76, the exposure value of an on-balance sheet securitisation position shall be measured gross of value adjustments; and
- (c) the exposure value of an off-balance sheet securitisation position shall be its nominal value multiplied by a conversion figure as prescribed in this Annex. This conversion figure shall be 100 % unless otherwise specified.
- 3. The exposure value of a securitisation position arising from a derivative instrument listed in Annex IV, shall be determined in accordance with Annex III.
- 4. Where a securitisation position is subject to funded credit protection, the exposure value of that position may be modified in accordance with and subject to the requirements in Annex VIII as further specified in this Annex.
- 5. Where a credit institution has two or more overlapping positions in a securitisation, it will be required to the extent that they overlap to include in its calculation of risk-weighted exposure amounts only the position or portion of a position producing the higher risk-weighted exposure amounts. For the purpose of this point 'overlapping' means that the positions, wholly or partially, represent an exposure to the same risk such that to the extent of the overlap there is a single exposure.
- 2. CALCULATION OF RISK-WEIGHTED EXPOSURE AMOUNTS UNDER THE STANDARDISED APPROACH
- 6. Subject to point 8, the risk-weighted exposure amount of a rated securitisation position shall be calculated by applying to the exposure value the risk weight associated with the credit quality step with which the credit assessment has been determined to be associated by the competent authorities in accordance with Article 98 as laid down in Tables 1 and 2.

TABLE 1

Positions other than ones with short-term credit assessments

Credit quality step	1	2	3	4	5 and below
Risk weight	20 %	50 %	100 %	350 %	1 250 %

TABLE 2

Positions with short-term credit assessments

Credit quality step	1	2	3	All other credit assessments
Risk weight	20 %	50 %	100 %	1 250 %

- 7. Subject to points 10 to 15, the risk-weighted exposure amount of an unrated securitisation position shall be calculated by applying a risk weight of 1 250 %.
- 2.1. Originator and sponsor credit institutions
- 8. For an originator credit institution or sponsor credit institution, the risk-weighted exposure amounts calculated in respect of its positions in a securitisation may be limited to the risk-weighted exposure amounts which would be calculated for the securitised exposures had they not been securitised subject to the presumed application of a 150 % risk weight to all past due items and items belonging to 'regulatory high risk categories' amongst the securitised exposures.
- 2.2. Treatment of unrated positions
- 9. Credit institutions having an unrated securitisation position may apply the treatment set out in point 10 for calculating the risk-weighted exposure amount for that position provided the composition of the pool of exposures securitised is known at all times.
- 10. A credit institution may apply the weighted-average risk weight that would be applied to the securitised exposures under Articles 78 to 83 by a credit institution holding the exposures, multiplied by a concentration ratio. This concentration ratio is equal to the sum of the nominal amounts of all the tranches divided by the sum of the nominal amounts of the tranches junior to or pari passu with the tranche in which the position is held including that tranche itself. The resulting risk weight shall not be higher than 1 250 % or lower than any risk weight applicable to a rated more senior tranche. Where the credit institution is unable to determine the risk weights that would be applied to the securitised exposures under Articles 78 to 83, it shall apply a risk weight of 1 250 % to the position.
- 2.3. Treatment of securitisation positions in a second loss tranche or better in an ABCP programme
- 11. Subject to the availability of a more favourable treatment by virtue of the provisions concerning liquidity facilities in points 13 to 15, a credit institution may apply to securitisation positions meeting the conditions set out in point 12 a risk weight that is the greater of 100 % or the highest of the risk weights that would be applied to any of the securitised exposures under Articles 78 to 83 by a credit institution holding the exposures.
- 12. For the treatment set out in point 11 to be available, the securitisation position shall be:

- (a) in a tranche which is economically in a second loss position or better in the securitisation and the first loss tranche must provide meaningful credit enhancement to the second loss tranche;
- (b) of a quality the equivalent of investment grade or better; and
- (c) held by a credit institution which does not hold a position in the first loss tranche.
- 2.4. Treatment of unrated liquidity facilities
- 2.4.1. Eligible liquidity facilities
- 13. When the following conditions are met, to determine its exposure value a conversion figure of 20 % may be applied to the nominal amount of a liquidity facility with an original maturity of one year or less and a conversion figure of 50 % may be applied to the nominal amount of a liquidity facility with an original maturity of more than one year:
- (a) The liquidity facility documentation shall clearly identify and limit the circumstances under which the facility may be drawn;
- (b) It shall not be possible for the facility to be drawn so as to provide credit support by covering losses already incurred at the time of draw for example, by providing liquidity in respect of exposures in default at the time of draw or by acquiring assets at more than fair value;
- (c) The facility shall not be used to provide permanent or regular funding for the securitisation;
- (d) Repayment of draws on the facility shall not be subordinated to the claims of investors other than to claims arising in respect of interest rate or currency derivative contracts, fees or other such payments, nor be subject to waiver or deferral;
- (e) It shall not be possible for the facility to be drawn after all applicable credit enhancements from which the liquidity facility would benefit are exhausted; and
- (f) The facility must include a provision that results in an automatic reduction in the amount that can be drawn by the amount of exposures that are in default, where 'default' has the meaning given to it under Articles 84 to 89, or where the pool of securitised exposures consists of rated instruments, that terminates the facility if the average quality of the pool falls below investment grade.

The risk weight to be applied shall be the highest risk weight that would be applied to any of the securitised exposures under Articles 78 to 83 by a credit institution holding the exposures.

- 2.4.2. Liquidity facilities that may be drawn only in the event of a general market disruption
- 14. To determine its exposure value, a conversion figure of 0 % may be applied to the nominal amount of a liquidity facility that may be drawn only in the event of a general market disruption (i.e. where more than one SPE across different transactions are unable to roll over maturing commercial paper and that inability is not the result of an impairment of the SPE's credit quality or of the credit quality of the securitised exposures), provided that the conditions set out in point 13 are satisfied.
- 2.4.3. Cash advance facilities
- 15. To determine its exposure value, a conversion figure of 0 % may be applied to the nominal amount of a liquidity facility that is unconditionally cancellable provided that

the conditions set out at point 13 are satisfied and that repayment of draws on the facility are senior to any other claims on the cash flows arising from the securitised exposures.

- 2.5. Additional capital requirements for securitisations of revolving exposures with early amortisation provisions
- 16. In addition to the risk-weighted exposure amounts calculated in respect of its securitisation positions, an originator credit institution shall calculate a risk-weighted exposure amount according to the method set out in points 17 to 33 when it sells revolving exposures into a securitisation that contains an early amortisation provision.
- 17. The credit institution shall calculate a risk-weighted exposure amount in respect of the sum of the originator's interest and the investors' interest.
- 18. For securitisation structures where the securitised exposures comprise revolving and non-revolving exposures, an originator credit institution shall apply the treatment set out in point 19 to 31 to that portion of the underlying pool containing revolving exposures.
- 19. For the purposes of point 16 to 31, 'originator's interest' means the exposure value of that notional Part of a pool of drawn amounts sold into a securitisation, the proportion of which in relation to the amount of the total pool sold into the structure determines the proportion of the cash flows generated by principal and interest collections and other associated amounts which are not available to make payments to those having securitisation positions in the securitisation.

To qualify as such, the originator's interest may not be subordinate to the investors' interest.

'Investors' interest' means the exposure value of the remaining notional Part of the pool of drawn amounts.

- 20. The exposure of the originator credit institution, associated with its rights in respect of the originator's interest, shall not be considered a securitisation position but as a pro rata exposure to the securitised exposures as if they had not been securitised.
- 2.5.1. Exemptions from early amortisation treatment
- 21. Originators of the following types of securitisation are exempt from the capital requirement in point 16:
- (a) securitisations of revolving exposures whereby investors remain fully exposed to all future draws by borrowers so that the risk on the underlying facilities does not return to the originator credit institution even after an early amortisation event has occurred, and
- (b) securitisations where any early amortisation provision is solely triggered by events not related to the performance of the securitised assets or the originator credit institution, such as material changes in tax laws or regulations.
- 2.5.2. Maximum capital requirement
- 22. For an originator credit institution subject to the capital requirement in point 16 the total of the risk-weighted exposure amounts in respect of its positions in the investors' interest and the risk-weighted exposure amounts calculated under point 16 shall be no greater than the greater of:
- (a) the risk-weighted exposure amounts calculated in respect of its positions in the investors' interest; and

- (b) the risk-weighted exposure amounts that would be calculated in respect of the securitised exposures by a credit institution holding the exposures as if they had not been securitised in an amount equal to the investors' interest.
- 23. Deduction of net gains, if any, arising from the capitalisation of future income required under Article 57, shall be treated outside the maximum amount indicated in point 22.
- 2.5.3. Calculation of risk-weighted exposure amounts
- 24. The risk-weighted exposure amount to be calculated in accordance with point 16 shall be determined by multiplying the amount of the investors' interest by the product of the appropriate conversion figure as indicated in points 26 to 33 and the weighted average risk weight that would apply to the securitised exposures if the exposures had not been securitised.
- 25. An early amortisation provision shall be considered to be 'controlled' where the following conditions are met:
- (a) the originator credit institution has an appropriate capital/liquidity plan in place to ensure that it has sufficient capital and liquidity available in the event of an early amortisation;
- (b) throughout the duration of the transaction there is pro-rata sharing between the originator's interest and the investor's interest of payments of interest and principal, expenses, losses and recoveries based on the balance of receivables outstanding at one or more reference points during each month;
- (c) the amortisation period is considered sufficient for 90 % of the total debt (originator's and investors' interest) outstanding at the beginning of the early amortisation period to have been repaid or recognised as in default; and
- (d) the speed of repayment is no more rapid than would be achieved by straight-line amortisation over the period set out in point (c).
- 26. In the case of securitisations subject to an early amortisation provision of retail exposures which are uncommitted and unconditionally cancellable without prior notice, where the early amortisation is triggered by the excess spread level falling to a specified level, credit institutions shall compare the three-month average excess spread level with the excess spread levels at which excess spread is required to be trapped.
- 27. Where the securitisation does not require excess spread to be trapped, the trapping point is deemed to be 4,5 percentage points greater than the excess spread level at which an early amortisation is triggered.
- 28. The conversion figure to be applied shall be determined by the level of the actual three month average excess spread in accordance with Table 3.

	Securitisations subject to a controlled early amortisation provision	Securitisations subject to a non-controlled early amortisation provision
3 months average excess spread	Conversion figure	Conversion figure

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Above level A	0 %	0 %
Level A	1 %	5 %
Level B	2 %	15 %
Level C	10 %	50 %
Level D	20 %	100 %
Level E	40 %	100 %

- 29. In Table 3, 'Level A' means levels of excess spread less than 133,33 % of the trapping level of excess spread but not less than 100 % of that trapping level, 'Level B' means levels of excess spread less than 100 % of the trapping level of excess spread but not less than 75 % of that trapping level, 'Level C' means levels of excess spread less than 75 % of the trapping level of excess spread but not less than 50 % of that trapping level of excess spread less than 50 % of the trapping level of excess spread less than 50 % of the trapping level of excess spread less than 50 % of the trapping level of excess spread less than 50 % of the trapping level of excess spread less than 25 % of the trapping level of excess spread.
- 30. In the case of securitisations subject to an early amortisation provision of retail exposures which are uncommitted and unconditionally cancellable without prior notice and where the early amortisation is triggered by a quantitative value in respect of something other than the three months average excess spread, the competent authorities may apply a treatment which approximates closely to that prescribed in points 26 to 29 for determining the conversion figure indicated.
- 31. Where a competent authority intends to apply a treatment in accordance with point 30 in respect of a particular securitisation, it shall first inform the relevant competent authorities of all the other Member States. Before the application of such a treatment becomes Part of the general policy approach of the competent authority to securitisations containing early amortisation clauses of the type in question, the competent authority shall consult the relevant competent authorities of all the other Member States and take into consideration the views expressed. The views expressed in such consultation and the treatment applied shall be publicly disclosed by the competent authority in question.
- 32. All other securitisations subject to a controlled early amortisation provision of revolving exposures shall be subject to a conversion figure of 90 %.
- 33. All other securitisations subject to a non-controlled early amortisation provision of revolving exposures shall be subject to a conversion figure of 100 %.
- 2.6. Recognition of credit risk mitigation on securitisation positions
- 34. Where credit protection is obtained on a securitisation position, the calculation of riskweighted exposure amounts may be modified in accordance with Annex VIII.
- 2.7. Reduction in risk-weighted exposure amounts
- 35. As provided in Article 66(2), in respect of a securitisation position in respect of which a 1 250 % risk weight is assigned, credit institutions may, as an alternative to including the position in their calculation of risk-weighted exposure amounts, deduct from own funds the exposure value of the position. For these purposes, the calculation of the exposure value may reflect eligible funded credit protection in a manner consistent with point 34.

- 36. Where a credit institution makes use of the alternative indicated in point 35, 12,5 times the amount deducted in accordance with that point shall, for the purposes of point 8, be subtracted from the amount specified in point 8 as the maximum risk-weighted exposure amount to be calculated by the credit institutions there indicated.
- 3. CALCULATION OF RISK-WEIGHTED EXPOSURE AMOUNTS UNDER THE INTERNAL RATINGS BASED APPROACH
- 3.1. Hierarchy of methods
- 37. For the purposes of Article 96, the risk-weighted exposure amount of a securitisation positions shall be calculated in accordance with points 38 to 76.
- 38. For a rated position or a position in respect of which an inferred rating may be used, the Ratings Based Method set out in points 46 to 51 shall be used to calculate the risk-weighted exposure amount.
- 39. For an unrated position the Supervisory Formula Method set out in points 52 to 54 shall be used except where the Internal Assessment Approach is permitted to be used as set out in points 43 and 44.
- 40. A credit institution other than an originator credit institution or a sponsor credit institution may only use the Supervisory Formula Method with the approval of the competent authorities.
- 41. In the case of an originator or sponsor credit institution unable to calculate K_{irb} and which has not obtained approval to use the Internal Assessment Approach for positions in ABCP programmes, and in the case of other credit institutions where they have not obtained approval to use the Supervisory Formula Method or, for positions in ABCP programmes, the Internal Assessment Approach, a risk weight of 1 250 % shall be assigned to securitisation positions which are unrated and in respect of which an inferred rating may not be used.
- 3.1.1. Use of inferred ratings
- 42. When the following minimum operational requirements are satisfied, an institution shall attribute to an unrated position an inferred credit assessment equivalent to the credit assessment of those rated positions (the 'reference positions') which are the most senior positions which are in all respects subordinate to the unrated securitisation position in question:
- (a) the reference positions must be subordinate in all respects to the unrated securitisation position;
- (b) the maturity of the reference positions must be equal to or longer than that of the unrated position in question; and
- (c) on an ongoing basis, any inferred rating must be updated to reflect any changes in the credit assessment of the reference positions.
- 3.1.2. The 'Internal Assessment Approach' for positions in ABCP programmes
- 43. Subject to the approval of the competent authorities, when the following conditions are satisfied a credit institution may attribute to an unrated position in an ABCP programme a derived rating as laid down in point 44:

(a) positions in the commercial paper issued from the ABCP programme shall be rated positions;

- (b) the credit institution shall satisfy the competent authorities that its internal assessment of the credit quality of the position reflects the publicly available assessment methodology of one or more eligible ECAIs, for the rating of securities backed by the exposures of the type securitised;
- (c) the ECAIs, the methodology of which shall be reflected as required by the point (b), shall include those ECAIs which have provided an external rating for the commercial paper issued from the ABCP programme. Quantitative elements, such as stress factors, used in assessing the position to a particular credit quality must be at least as conservative as those used in the relevant assessment methodology of the ECAIs in question;
- (d) in developing its internal assessment methodology the credit institution shall take into consideration relevant published ratings methodologies of the eligible ECAIs that rate the commercial paper of the ABCP programme. This consideration shall be documented by the credit institution and updated regularly, as outlined in point (g);
- (e) the credit institution's internal assessment methodology shall include rating grades. There shall be a correspondence between such rating grades and the credit assessments of eligible ECAIs. This correspondence shall be explicitly documented;
- (f) the internal assessment methodology shall be used in the credit institution's internal risk management processes, including its decision making, management information and capital allocation processes;
- (g) internal or external auditors, an ECAI, or the credit institution's internal credit review or risk management function shall perform regular reviews of the internal assessment process and the quality of the internal assessments of the credit quality of the credit institution's exposures to an ABCP programme. If the credit institution's internal audit, credit review, or risk management functions perform the review, then these functions shall be independent of the ABCP programme business line, as well as the customer relationship;
- (h) the credit institution shall track the performance of its internal ratings over time to evaluate the performance of its internal assessment methodology and shall make adjustments, as necessary, to that methodology when the performance of the exposures routinely diverges from that indicated by the internal ratings;
- (i) the ABCP programme shall incorporate underwriting standards in the form of credit and investment guidelines. In deciding on an asset purchase, the ABCP programme administrator shall consider the type of asset being purchased, the type and monetary value of the exposures arising from the provision of liquidity facilities and credit enhancements, the loss distribution, and the legal and economic isolation of the transferred assets from the entity selling the assets. A credit analysis of the asset seller's risk profile shall be performed and shall include analysis of past and expected future financial performance, current market position, expected future competitiveness, leverage, cash flow, interest coverage and debt rating. In addition, a review of the seller's underwriting standards, servicing capabilities, and collection processes shall be performed;
- (j) the ABCP programme's underwriting standards shall establish minimum asset eligibility criteria that, in particular:

- (i) exclude the purchase of assets that are significantly past due or defaulted;
- (ii) limit excess concentration to individual obligor or geographic area; and
- (iii) limits the tenor of the assets to be purchased;
- (k) the ABCP programme shall have collections policies and processes that take into account the operational capability and credit quality of the servicer. The ABCP programme shall mitigate seller/servicer risk through various methods, such as triggers based on current credit quality that would preclude commingling of funds;
- (l) the aggregated estimate of loss on an asset pool that the ABCP programme is considering purchasing must take into account all sources of potential risk, such as credit and dilution risk. If the seller-provided credit enhancement is sized based only on credit-related losses, then a separate reserve shall be established for dilution risk, if dilution risk is material for the particular exposure pool. In addition, in sizing the required enhancement level, the program shall review several years of historical information, including losses, delinquencies, dilutions, and the turnover rate of the receivables; and
- (m) the ABCP programme shall incorporate structural features for example wind down triggers into the purchase of exposures in order to mitigate potential credit deterioration of the underlying portfolio.

The requirement for the assessment methodology of the ECAI to be publicly available may be waived by the competent authorities where they are satisfied that due to the specific features of the securitisation — for example its unique structure — there is as yet no publicly available ECAI assessment methodology.

- 44. The unrated position shall be assigned by the credit institution to one of the rating grades described in point 43. The position shall be attributed a derived rating the same as the credit assessments corresponding to that rating grade as laid down in point 43. Where this derived rating is, at the inception of the securitisation, at the level of investment grade or better, it shall be considered the same as an eligible credit assessment by an eligible ECAI for the purposes of calculating risk-weighted exposure amounts.
- 3.2. Maximum risk-weighted exposure amounts
- 45. For an originator credit institution, a sponsor credit institution, or for other credit institutions which can calculate K_{IRB} , the risk-weighted exposure amounts calculated in respect of its positions in a securitisation may be limited to that which would produce a capital requirement under Article 75(a) equal to the sum of 8 % of the risk-weighted exposure amounts which would be produced if the securitised assets had not been securitised and were on the balance sheet of the credit institution plus the expected loss amounts of those exposures.
- 3.3. Ratings Based Method
- 46. Under the Ratings Based Method, the risk-weighted exposure amount of a rated securitisation position shall be calculated by applying to the exposure value the risk weight associated with the credit quality step with which the credit assessment has been determined to be associated by the competent authorities in accordance with Article 98, as set out in the Tables 4 and 5, multiplied by

1,06

TABLE 4

Credit Quality Step (CQS)	Risk weight			
	Α	В	С	
CQS 1	7 %	12 %	20 %	
CQS 2	8 %	15 %	25 %	
CQS 3	10 %	18 %	35 %	
CQS 4	12 %	20 %	35 %	
CQS 5	20 %	35 %	35 %	
CQS 6	35 %	50 %	50 %	
CQS 7	60 %	75 %	75 %	
CQS 8	100 %	100 %	100 %	
CQS 9	250 %	250 %	250 %	
CQS 10	425 %	425 %	425 %	
CQS 11	650 %	650 %	650 %	
Below CQS 11	1 250 %	1 250 %	1 250 %	

Positions other than ones with short-term credit assessments

TABLE	5
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Positions with short term credit assessments

Credit Quality Step (CQS)	Risk weight			
	Α	B	С	
CQS 1	7 %	12 %	20 %	
CQS 2	12 %	20 %	35 %	
CQS 3	60 %	75 %	75 %	
All other credit assessments	1 250 %	1 250 %	1 250 %	

- 47. Subject to points 48 and 49, the risk weights in column A of each table shall be applied where the position is in the most senior tranche of a securitisation. When determining whether a tranche is the most senior, it is not required to take into consideration amounts due under interest rate or currency derivative contracts, fees due, or other similar payments.
- 48. A risk weight of 6 % may be applied to a position in the most senior tranche of a securitisation where that tranche is senior in all respects to another tranche of the securitisation positions which would receive a risk weight of 7 % under point 46, provided that:

- (a) the competent authority is satisfied that this is justified due to the loss absorption qualities of subordinate tranches in the securitisation; and
- (b) either the position has an external credit assessment which has been determined to be associated with credit quality step 1 in Table 4 or 5 or, if it is unrated, requirements (a) to (c) in point 42 are satisfied where 'reference positions' are taken to mean positions in the subordinate tranche which would receive a risk weight of 7 % under point 46.
- 49. The risk weights in column C of each table shall be applied where the position is in a securitisation where the effective number of exposures securitised is less than six. In calculating the effective number of exposures securitised multiple exposures to one obligor must be treated as one exposure. The effective number of exposures is calculated as:

 $N = \frac{\left(\sum_{i} EAD_{i}\right)^{2}}{\sum_{i} EAD_{i}^{2}}$

where EAD_i represents the sum of the exposure values of all exposures to the ith obligor. In the case of resecuritisation (securitisation of securitisation exposures), the credit institution must look at the number of securitisation exposures in the pool and not the number of underlying exposures in the original pools from which the underlying securitisation exposures stem. If the portfolio share associated with the largest exposure, C_1 , is available, the credit institution may compute N as $1/C_1$.

- 50. The risk weights in Column B shall be applied to all other positions.
- 51. Credit risk mitigation on securitisation positions may be recognised in accordance with points 60 to 62.
- 3.4. Supervisory Formula Method
- 52. Subject to points 58 and 59, under the Supervisory Formula Method, the risk weight for a securitisation position shall be the greater of 7 % or the risk weight to be applied in accordance with point 53.
- 53. Subject to points 58 and 59, the risk weight to be applied to the exposure amount shall be:

12,5 × (S [L+T]- S [L])/T

where:

$$S[x] = \begin{cases} x & \text{when } x \leq \text{Kirbr} \\ \text{Kirbr} + K[x] - K[\text{Kirbr}] + (d \cdot \text{Kirbr}/\omega)(1 - e^{\omega(\text{Kirbr} - x)/\text{Kirbr}}) & \text{when } \text{Kirbr} < x \end{cases}$$

where: $h = (1 - Kirbr / ELGD)^{N}$ c = Kirbr / (1 - h) $\nu = \frac{(ELGD - Kirbr) Kirbr + 0.25(1 - ELGD) Kirbr}{N}$ $f = \left(\frac{\nu + Kirbr^{2}}{1 - h} - c^{2}\right) + \frac{(1 - Kiribr) Kirbr - \nu}{(1 - h)r}$ $g = \frac{(1 - c)c}{f} - 1$ $a = g \cdot c$ $b = g \cdot (1 - c)$ $d = 1 - (1 - h) \cdot (1 - Beta [Kirbr ; a, b])$

 $K[x] = (1 - h) \cdot ((1 - Beta[x;a,b])x + Beta[x;a+1,b]c)$

 $\tau = 1 \, 000$, and

 $\omega = 20.$

In these expressions, Beta [x; a, b] refers to the cumulative beta distribution with parameters a and b evaluated at x.

T (the thickness of the tranche in which the position is held) is measured as the ratio of (a) the nominal amount of the tranche to (b) the sum of the exposure values of the exposures that have been securitised. For the purposes of calculating T the exposure value of a derivative instrument listed in Annex IV shall, where the current replacement cost is not a positive value, be the potential future credit exposure calculated in accordance with Annex III.

Kirbr is the ratio of (a) Kirb to (b) the sum of the exposure values of the exposures that have been securitised. Kirbr is expressed in decimal form (e.g. Kirb equal to 15 % of the pool would be expressed as Kirbr of 0,15).

L (the credit enhancement level) is measured as the ratio of the nominal amount of all tranches subordinate to the tranche in which the position is held to the sum of the exposure values of the exposures that have been securitised. Capitalised future income shall not be included in the measured L. Amounts due by counterparties to derivative instruments listed in Annex IV that represent tranches more junior than the tranche in question may be measured at their current replacement cost (without the potential future credit exposures) in calculating the enhancement level.

N is the effective number of exposures calculated in accordance with point 49.

ELGD, the exposure-weighted average loss-given-default, is calculated as follows: $ELGD = \frac{\sum_{i=1}^{i} EAD_i}{\sum_{i=1}^{i} EAD_i}$

where LGD_i represents the average LGD associated with all exposures to the ith obligor, where LGD is determined in accordance with Articles 84 to 89. In the case of resecuritisation, an LGD of 100 % shall be applied to the securitised positions. When default and dilution risk for purchased receivables are treated in an aggregate manner within a securitisation (e.g. a single reserve or over-collateralisation is available to cover losses from either source), the LGD input shall be constructed as a weighted average of the LGD for credit risk and the 75 % LGD for dilution risk. The weights shall be the stand-alone capital charges for credit risk and dilution risk respectively.

Simplified inputs

If the exposure value of the largest securitised exposure, C_1 , is no more than 3 % of the sum of the exposure values of the securitised exposures, then, for the purposes of the Supervisory Formula Method, the credit institution may set LGD= 50 % and N equal to either:

$$N = \left(C_1 C_m + \left(\frac{C_m \cdot C_I}{m \cdot 1}\right) \max \{1 \cdot m C_1, 0\}\right)^{-1}$$

or

 $N=1/C_1$.

 C_m is the ratio of the sum of the exposure values of the largest 'm' exposures to the sum of the exposure values of the exposures securitised . The level of 'm' may be set by the credit institution.

For securitisations involving retail exposures, the competent authorities may permit the Supervisory Formula Method to be implemented using the simplifications: h = 0 and v = 0.

- 54. Credit risk mitigation on securitisation positions may be recognised in accordance with points 60, 61 and 63 to 67.
- 3.5. Liquidity Facilities
- 55. The provisions in points 56 to 59 apply for the purposes of determining the exposure value of an unrated securitisation position in the form of certain types of liquidity facility.
- 3.5.1. Liquidity Facilities Only Available in the Event of General Market Disruption
- 56. A conversion figure of 20 % may be applied to the nominal amount of a liquidity facility that may only be drawn in the event of a general market disruption and that meets the conditions to be an 'eligible liquidity facility' set out in point 13.
- 3.5.2. Cash advance facilities
- 57. A conversion figure of 0 % may be applied to the nominal amount of a liquidity facility that meets the conditions set out in point 15.
- 3.5.3. Exceptional treatment where K_{irb} cannot be calculated.
- 58. When it is not practical for the credit institution to calculate the risk-weighted exposure amounts for the securitised exposures as if they had not been securitised, a credit institution may, on an exceptional basis and subject to the consent of the competent authorities, temporarily be allowed to apply the method set out in point 59 for the calculation of risk-weighted exposure amounts for an unrated securitisation position in the form of a liquidity facility that meets the conditions to be an 'eligible liquidity facility' set out in point 13 or that falls within the terms of point 56.
- 59. The highest risk weight that would be applied under Articles 78 to 83 to any of the securitised exposures, had they not been securitised, may be applied to the securitisation position represented by the liquidity facility. To determine the exposure value of the position a conversion figure of 50 % may be applied to the nominal amount of the liquidity facility if the facility has an original maturity of one year or less. If the liquidity facility complies with the conditions in point 56 a conversion figure of 20 % may be applied. In other cases a conversion factor of 100 % shall be applied.
- 3.6. Recognition of credit risk mitigation in respect of securitisation positions
- 3.6.1. Funded credit protection
- 60. Eligible funded protection is limited to that which is eligible for the calculation of riskweighted exposure amounts under Articles 78 to 83 as laid down under Articles 90 to 93 and recognition is subject to compliance with the relevant minimum requirements as laid down under those Articles.
- 3.6.2. Unfunded credit protection
- 61. Eligible unfunded credit protection and unfunded protection providers are limited to those which are eligible under Articles 90 to 93 and recognition is subject to compliance with the relevant minimum requirements laid down under those Articles.
- 3.6.3. Calculation of capital requirements for securitisation positions with credit risk mitigation

Ratings Based Method

62. Where risk-weighted exposure amounts are calculated using the Ratings Based Method, the exposure value and/or the risk-weighted exposure amount for a securitisation position in respect of which credit protection has been obtained may be modified in accordance with the provisions of Annex VIII as they apply for the calculation of risk-weighted exposure amounts under Articles 78 to 83.

Supervisory Formula Method — full credit protection

- 63. Where risk-weighted exposure amounts are calculated using the Supervisory Formula Method, the credit institution shall determine the 'effective risk weight' of the position. It shall do this by dividing the risk-weighted exposure amount of the position by the exposure value of the position and multiplying the result by 100.
- 64. In the case of funded credit protection, the risk-weighted exposure amount of the securitisation position shall be calculated by multiplying the funded protectionadjusted exposure amount of the position (E*, as calculated under Articles 90 to 93 for the calculation of risk-weighted exposure amounts under Articles 78 to 83 taking the amount of the securitisation position to be E) by the effective risk weight.
- 65. In the case of unfunded credit protection, the risk-weighted exposure amount of the securitisation position shall be calculated by multiplying G_A (the amount of the protection adjusted for any currency mismatch and maturity mismatch in accordance with the provisions of Annex VIII) by the risk weight of the protection provider; and adding this to the amount arrived at by multiplying the amount of the securitisation position minus G_A by the effective risk weight.

Supervisory formula method - partial protection

- 66. If the credit risk mitigation covers the 'first loss' or losses on a proportional basis on the securitisation position, the credit institution may apply points 63 to 65.
- 67. In other cases, the credit institution shall treat the securitisation position as two or more positions with the uncovered portion being considered the position with the lower credit quality. For the purposes of calculating the risk-weighted exposure amount for this position, the provisions in points 52 to 54 shall apply subject to the modifications that 'T' shall be adjusted to e* in the case of funded credit protection; and to T-g in the case of unfunded credit protection, where e* denotes the ratio of E* to the total notional amount of the underlying pool, where E* is the adjusted exposure amount of the securitisation position calculated in accordance with the provisions of Annex VIII as they apply for the calculation of risk-weighted exposure amounts under Articles 78 to 83 taking the amount of the securitisation position to be E; and g is the ratio of the nominal amount of credit protection (adjusted for any currency or maturity mismatch in accordance with the provisions of Annex VIII) to the sum of the exposure amounts of the securitised exposures. In the case of unfunded credit protection the risk weight of the protection provider shall be applied to that portion of the position not falling within the adjusted value of 'T'.
- 3.7. Additional capital requirements for securitisations of revolving exposures with early amortisation provisions
- 68. In addition to the risk-weighted exposure amounts calculated in respect of its securitisation positions, an originator credit institution shall be required to calculate a risk-weighted exposure amount according to the methodology set out in points 16 to 33 when it sells revolving exposures into a securitisation that contains an early amortisation provision.

- 69. For the purposes of point 68, points 70 and 71 shall replace points 19 and 20.
- 70. For the purposes of these provisions, 'originators interest' shall be the sum of:
- (a) the exposure value of that notional Part of a pool of drawn amounts sold into a securitisation, the proportion of which in relation to the amount of the total pool sold into the structure determines the proportion of the cash flows generated by principal and interest collections and other associated amounts which are not available to make payments to those having securitisation positions in the securitisation; plus
- (b) the exposure value of that Part of the pool of undrawn amounts of the credit lines, the drawn amounts of which have been sold into the securitisation, the proportion of which to the total amount of such undrawn amounts is the same as the proportion of the exposure value described in point (a) to the exposure value of the pool of drawn amounts sold into the securitisation.

To qualify as such, the originator's interest may not be subordinate to the investors' interest.

'Investors' interest' means the exposure value of the notional part of the pool of drawn amounts not falling within point (a) plus the exposure value of that part of the pool of undrawn amounts of credit lines, the drawn amounts of which have been sold into the securitisation, not falling within point (b).

- 71. The exposure of the originator credit institution associated with its rights in respect of that Part of the originator's interest described in point 70(a) shall not be considered a securitisation position but as a pro rata exposure to the securitised drawn amounts exposures as if they had not been securitised in an amount equal to that described in point 70(a). The originator credit institution shall also be considered to have a pro rata exposure to the undrawn amounts of the credit lines, the drawn amounts of which have been sold into the securitisation, in an amount equal to that described in point 70(b).
- 3.8. Reduction in risk-weighted exposure amounts
- 72. The risk-weighted exposure amount of a securitisation position to which a 1 250 % risk weight is assigned may be reduced by 12,5 times the amount of any value adjustments made by the credit institution in respect of the securitised exposures. To the extent that value adjustments are taken account of for this purpose they shall not be taken account of for the purposes of the calculation indicated in Annex VII, Part 1, point 36.
- 73. The risk-weighted exposure amount of a securitisation position may be reduced by 12,5 times the amount of any value adjustments made by the credit institution in respect of the position.
- 74. As provided in Article 66(2), in respect of a securitisation position in respect of which a 1 250 % risk weight applies, credit institutions may, as an alternative to including the position in their calculation of risk-weighted exposure amounts, deduct from own funds the exposure value of the position.
- 75. For the purposes of point 74:
- (a) the exposure value of the position may be derived from the risk-weighted exposure amounts taking into account any reductions made in accordance with points 72 and 73;
- (b) the calculation of the exposure value may reflect eligible funded protection in a manner consistent with the methodology prescribed in points 60 to 67; and

- (c) where the Supervisory Formula Method is used to calculate risk-weighted exposure amounts and $L < K_{IRBR}$ and $[L+T] > K_{IRBR}$ the position may be treated as two positions with L equal to K_{IRBR} for the more senior of the positions.
- 76. Where a credit institution makes use of the alternative indicated in point 74, 12,5 times the amount deducted in accordance with that point shall, for the purposes of point 45, be subtracted from the amount specified in point 45 as the maximum risk-weighted exposure amount to be calculated by the credit institutions there indicated.