(All amounts to be rounded off to the nearest R'000)

Analysis of central counterparty trade exposure	Line no	Trade exposure	Risk weight	Risk weighted exposure	of which: calculated in terms of the standardised approach
		1	2	3	4
Exposures eligible for a 2% risk weight	295		2%		
Exposures eligible for a 4% risk weight	296		4%		
Exposures eligible for a bilateral risk weight	297				
Total central counterparty exposures (total of items 295 to 297)	298				

(All amounts to be rounded off to the nearest R'000)

Qualifying central counterparty default fund guarantees	Line no	Initial margin collateral posted with the CCP	Prefunded default fund contribution	Trade exposure	Risk weighted exposure
		1	2	3	4
Total	299				
(Specify)	300				

(All amounts to be rounded off to the nearest R'000)

Non-qualifying central counterparty default fund guarantees	Line no	Prefunded default fund contribution	Unfunded default fund contribution	Trade exposure	Risk weighted exposure
		1	2	3	4
Total	301				
(Specify)	302				

(All amounts to be rounded off to the nearest R'000)

IRB approach: **Residential mortgage exposure** **Analysed per specified loan-to-value (LTV) ratio**[1,2]	Line no.	Total exposure					*of which:* New business during the current reporting month				
		On-balance sheet exposure	Off-balance sheet exposure	Total gross credit exposure	EAD	Risk weighted exposure[3]	On-balance sheet exposure	Off-balance sheet exposure	Total gross credit exposure	EAD	Risk weighted exposure[3]
		1	2	3	4	5	6	7	8	9	10
Total (of items 304 to 306)	303										
LTV ratio ≤ 80%	304										
80% < LTV ratio <100%	305										
LTV ratio ≥ 100%	306										

1. Calculated based on the amount envisaged in regulation 23(6)(c).
2. An exposure shall be reported in only one of the relevant specified LTV-ratio buckets.
3. After the application of a scaling factor of 1.06.

(All amounts to be rounded off to the nearest R'000)

IRB approach: Analysis of total credit exposure, that is, EAD, analysed by LGD band	Line no.	Specified LGD band[1]		Asset class											
				Corporate exposure[1]									Public sector entities[1]	Local government and municipalities[1]	Sovereign[1] (including central government and central banks)
					Specialised lending										
		Lower bound (%)	Upper bound (%)	Corporate	high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance	SME corporate	Purchased corporate receivables	Total corporate exposure (total of col. 3 to 10)			
Specified LGD band[1]		1	2	3	4	5	6	7	8	9	10	11	12	13	14
00	307		10.0000												
01	308	10.0001	20.0000												
02	309	20.0001	30.0000												
03	310	30.0001	40.0000												
04	311	40.0001	50.0000												
05	312	50.0001	60.0000												
06	313	60.0001	70.0000												
07	314	70.0001	80.0000												
08	315	80.0001	90.0000												
09	316	90.0001	100.0000												
10	317	100.0001	and more												

1. In respect of the relevant specified LGD bands and asset classes, a bank shall report the aggregate amount of its total credit exposure, that is, the relevant EAD amount, calculated in accordance with the relevant requirements specified in these Regulations.

(All amounts to be rounded off to the nearest R'000)

IRB approach: Analysis of total credit exposure, that is, EAD, analysed by LGD band	Line no.	Asset class														Total credit exposure (EAD) (total of col 11 to 17)
		Banks[1]	Securities firms[1]	Retail exposure[1]												
				Total retail exposure (total of col 18, 19, 21, 24 and 28)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other				Purchased retail receivables	
						Total	of which: credit cards	Total (of col 22 and 23)	of which: secured lending	of which: unsecured lending	Total	of which: vehicle and asset finance	of which: unsecured lending ≤ R30 000	of which: unsecured lending > R30 000		
Specified LGD band[1]		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
00	307															
01	308															
02	309															
03	310															
04	311															
05	312															
06	313															
07	314															
08	315															
09	316															
10	317															

1. In respect of the relevant specified LGD bands and asset classes, a bank shall report the aggregate amount of its total credit exposure, that is, the relevant EAD amount, calculated in accordance with the relevant requirements specified in these Regulations.

(All amounts to be rounded off to the nearest R'000)

Advanced IRB approach: Analysis of performing credit exposure, that is, EAD, analysed by effective maturity	Line no.	Specified maturity band[1]		Asset class[1]											
				Corporate exposure[3]											
					Specialised lending										
		Lower bound (years)[2]	Upper bound (years)[2]	Corporate	high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance	SME corporate	Purchased corporate receivables	Total corporate exposure (total of col. 3 to 10)	Public sector entities[3]	Local government and municipalities[3]	Sovereign (including central government and central banks)
Specified maturity band[1]		1	2	3	4	5	6	7	8	9	10	11	12	13	14
00	318		0.5000												
01	319	0.5001	1.0000												
02	320	1.0001	1.5000												
03	321	1.5001	2.0000												
04	322	2.0001	2.5000												
05	323	2.5001	3.0000												
06	324	3.0001	3.5000												
07	325	3.5001	4.0000												
08	326	4.0001	4.5000												
09	327	4.5001	5.0000												
10	328	5.0001	and longer												
Total EAD weighted average effective maturity - without the 1 year regulatory floor and the 5 year maximum[2]	329														
- with the 1 year regulatory floor and the 5 year maximum[4, 5]	330														

1. In respect of the relevant specified maturity bands and asset classes, a bank shall report the aggregate amount of its total credit exposure, that is, the relevant EAD amount, calculated in accordance with the relevant requirements specified in these Regulations, including the relevant principles contained in regulation 23(13)(d)(ii)(B).
2. The 1 year regulatory floor and the 5 year specified maximum effective maturity used for the calculation of minimum required capital and reserve funds shall be disregarded for purposes of the completion of line items 318 to 329.
3. Based on the same method used for the calculation of minimum required capital and reserve funds, such as the cash-flow formula or maximum remaining time, without taking into consideration the relevant specified 1 year regulatory floor and 5 year maximum effective maturity limit.
4. Means the EAD weighted effective maturity of the relevant asset class calculated in accordance with the relevant requirements specified in regulation 23(13)(d)(ii)(B), which average effective maturity shall be expressed in years and rounded to two decimal place.
5. The total EAD weighted effective maturity reported in column 29 shall include all relevant retail exposures.

(All amounts to be rounded off to the nearest R'000)

Advanced IRB approach: Analysis of performing credit exposure, that is, EAD, analysed by effective maturity	Line no.	Asset class[1]														Total cred exposure (EAD) (total of cc 11 to 17)
				Retail exposure[4]												
		Banks[3]	Securities firms[3]	Total retail exposure (total of col 18, 19, 21, 24 and 28)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other				Purchased retail receivables	
						Total	of which: credit cards	Total (of col 22 and 23)	of which: secured lending	of which: unsecured lending	Total	of which: vehicle and asset finance	of which: unsecured lending ≤ R30 000	of which: unsecured lending > R30 000		
Specified maturity band[1]		15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
00	318															
01	319															
02	320															
03	321															
04	322															
05	323															
06	324															
07	325															
08	326															
09	327															
10	328															
Total EAD weighted average effective maturity - without the 1 year regulatory floor and the 5 year maximum[2]	329															
- with the 1 year regulatory floor and the 5 year maximum[5, 6]	330															

1. In respect of the relevant specified maturity bands and asset classes, a bank shall report the aggregate amount of its total credit exposure, that is, the relevant EAD amount, calculated in accordance with the relevant requirements specified in these Regulations, including the relevant principles contained in regulation 23(13)(d)(ii)(B).
2. The 1 year regulatory floor and the 5 year specified maximum effective maturity used for the calculation of minimum required capital and reserve funds shall be disregarded for purposes of the completion of line items 318 to 329.
3. Based on the same method used for the calculation of minimum required capital and reserve funds, such as the cash-flow formula or maximum remaining time, without taking into consideration the relevant specified 1 year regulatory floor and 5 year maximum effective maturity limit.
4. Based on the maximum remaining time, without taking into consideration any relevant specified floor or maximum effective maturity limit.
5. Means the EAD weighted effective maturity of the relevant asset class calculated in accordance with the relevant requirements specified in regulation 23(13)(d)(ii)(B), which average effective maturity shall be expressed in years and rounded to two decimal place.
6. The total EAD weighted effective maturity reported in column 29 shall include all relevant retail exposures.

(All amounts to be rounded off to the nearest R'000)

IRB approach: Specified additional information	Line no.	Asset class												
		Corporate exposure												
			Specialised lending											
		Corporate	high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance	SME corporate	Purchased corporate receivables	Total corporate exposure (total of col.1 to 8)	Public sector entities	Local government and municipalities	Sovereign (including central government and central banks)	Banks
		1	2	3	4	5	6	7	8	9	10	11	12	13
EAD weighted average PD	331													
EAD weighted average PD excluding defaulted exposures	332													
Number[1] weighted average PD	333													
Number[1] weighted average PD excluding defaulted exposures	334													
EAD weighted average PD, excluding defaulted exposures,12 months ago	335													
Number[1] weighted average PD, excluding defaulted exposures,12 months ago	336													
Number[1] of performing counterparties[2] 12 months ago	337													
of which: Number[1] of defaulted counterparties[2] during the 12 months preceding the reporting month	338													
Number[1] of defaulted counterparties[2] during reporting month	339													
EAD of defaults during the reporting month	340													
Total number[1] of counterparties[2] in default at the end of the reporting month	341													

1. The number of counterparties shall be based on the PD assignment level.

2. Multiple defaults on the same facility (retail exposure) or counterparty (non-retail exposure) shall be counted in the same way as in the PD estimation.

(All amounts to be rounded off to the nearest R'000)

IRB approach: Specified additional information[1]	Line no.	Asset class													Total (of col 9 to 15)
			Retail exposure												
		Securities firms	Total retail exposure (total of col 16, 17, 19, 22 and 26)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other				Purchased retail receivables	
					Total	of which: credit cards	Total (of col 20 and 21)	of which: secured lending	of which: unsecured lending	Total	of which: vehicle and asset finance	of which: unsecured lending ≤ R30 000	of which: unsecured lending > R30 000		
		14	15	16	17	18	19	20	21	22	23	24	25	26	27
EAD weighted average PD	331														
EAD weighted average PD excluding defaulted exposures	332														
Number[1] weighted average PD	333														
Number[1] weighted average PD excluding defaulted exposures	334														
EAD weighted average PD, excluding defaulted exposures,12 months ago	335														
Number[1] weighted average PD, excluding defaulted exposures,12 months ago	336														
Number[1] of performing counterparties[2] 12 months ago	337														
of which: Number[1] of defaulted counterparties[2] during the 12 months preceding the reporting month	338														
Number[1] of defaulted counterparties[2] during reporting month	339														
EAD of defaults during the reporting month	340														
Total number[1] of counterparties[2] in default at the end of the reporting month	341														
Hash total	342														

1. The number of counterparties shall be based on the PD assignment level.

2. Multiple defaults on the same facility (retail exposure) or counterparty (non-retail exposure) shall be counted in the same way as in the PD estimation.

23. Credit risk - Directives and interpretations for completion of monthly return concerning credit risk (Form BA 200)

(1) The content of the return is confidential and not available for inspection by the public.

(2) The purpose of form BA 200, amongst other things-

(a) is to provide an executive summary and overview of the reporting bank's exposure to and capital requirement in respect of credit risk;

(b) is to provide a detailed analysis of the reporting bank's exposure to credit risk, including information in respect of key credit risk parameters, counterparty credit risk and credit impairments;

(c) in the case of a bank that adopted the IRB approach for the measurement of its exposure to credit risk, is to provide an analysis in respect of expected loss and credit impairments, including information in respect of any related impact on qualifying capital and reserve funds;

(d) is to provide an analysis of any relevant exposure in respect of specialised lending, which exposure is subject to specified risk weights and specified risk grades;

(e) is to provide an analysis of any other assets and their relevant capital requirements.

(3) For the measurement of a bank's exposure to credit risk the bank shall at the discretion of the bank use one of the alternative methodologies specified below:

(a) The standardised approach, using one of the alternative frameworks prescribed in subregulation (5) read with the relevant provisions specified in subregulations (6) to (9);

(b) Subject to the prior written approval of the Registrar and such conditions as may be specified in writing by the Registrar, the IRB approach, using one of the alternative frameworks prescribed in subregulation (10) read with the relevant provisions specified in subregulations (11) to (14);

(c) Subject to the prior written approval of the Registrar and such conditions as may be specified in writing by the Registrar, a combination of the approaches envisaged in paragraphs (a) and (b) above;

Provided that:

(i) when a bank is unable, unwilling or unprepared to comply with the relevant qualifying criteria specified in respect of the foundation or advanced IRB approach for the measurement of the bank's exposure to credit risk, the Registrar may in writing direct the bank to apply a specified method, subject to such conditions as may be specified in writing by the Registrar;

(ii) unless specifically otherwise provided in these Regulations or specified in writing by the Registrar, a bank shall in all cases other than the items specified below complete the form BA 200 based on the outstanding amount at the end of the reporting month, provided that in respect of the items specified below and any related eligible credit risk mitigation in respect of that specified item, instead of the outstanding amount at the end of the reporting month, the bank shall report the average daily balance of the said specified item and the average daily balance related to any eligible credit risk mitigation in respect of that specified item in respect of the reporting month.

(A) Any credit card or overdraft facility.

(B) Any corporate exposure related to working capital or an overdraft facility.

(C) Any SME working capital facility or overdraft.

(D) Any money market exposure to a financial institution.

(E) Any call or overnight loan.

(4) In order to facilitate reporting on the form BA 200 and ongoing review by the Registrar of the reporting bank's exposure to credit risk, including any relevant peer group comparison, a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk-

(a) shall in a mutually exclusive and jointly exhaustive manner map its internal master rating scale to the relevant rating scale and PD bands specified in the form BA 200;

(b) shall duly document its mapping process, including any relevant definitions applied in its mapping process.

(5) Calculation of credit risk exposure: standardised approach

Subject to the relevant provisions of regulation 38(2) and subregulation (20), a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk-

(a) shall calculate its exposure to credit risk, at the discretion of the bank, either in accordance with Method 1, as set out in subregulations (6) and (7), or Method 2, as set out in subregulations (8) and (9);

(b) shall in a consistent manner, in accordance with the relevant requirements specified below, and in terms of the bank's internal risk management process, apply the ratings or assessments issued by an eligible external credit assessment institution of the bank's choice, or export credit agency, to calculate the bank's risk exposure in terms of the relevant provisions contained in these Regulations, that is, the bank shall not "cherry pick" ratings or assessments issued by different external credit assessment institutions, arbitrarily change the use of eligible external credit assessment institutions or apply ratings or assessments for purposes of these Regulations differently from the bank's internal risk management process.

(i) Multiple assessments

When a bank has a choice between-

(A) two assessments issued by eligible external credit assessment institutions, which assessments relate to different risk weighting categories, the higher of the two risk weights shall apply;

(B) three or more assessments issued by eligible external credit assessment institutions, which assessments relate to different risk weighting categories, the higher of the lowest two risk weights shall apply.

(ii) Issuer versus issue assessment

(A) When a bank invests in-

(i) an instrument with an issue-specific assessment, the risk weighting of the instrument shall be based on the said specific assessment;

(ii) an unrated instrument issued by an obligor, which obligor is assigned-

(aa) a high-quality credit assessment, that is, an assessment that results in a lower risk weight than the risk weight normally applied to an unrated position, the bank may assign the lower risk weight to the said unrated position, provided that-

(i) the claim in respect of that unrated position shall rank *pari passu* or senior to the claims to which the issuer assessment relates;

(ii) when the unrated position ranks junior to the claims to which the issuer assessment relates, the bank shall assign to the said position a risk weight relating to unrated positions.

(bb) a low-quality assessment, that is, an assessment that results in a higher risk weight than the risk weight normally applied to an unrated position, the bank shall assign to the said unrated position the said higher risk weight if that unrated instrument ranks *pari passu* or is subordinated to either the relevant senior unsecured issuer assessment or exposure assessment.

Provided that in all cases, irrespective whether the bank relies on an issuer or issue-specific assessment, the bank shall ensure that the relevant assessment takes into account and reflects the aggregate amount of credit exposure in respect of all amounts due, that is, the relevant principal amount and any related interest.

(B) A bank shall in no case use an external assessment relating to a particular entity within a corporate group to risk weight other entities within the same group.

(iii) Foreign currency and domestic currency assessments

When a bank assigns a risk weight to an unrated position based on the rating of an equivalent exposure to that borrower to which an issuer rating is assigned, the bank-

(A) shall use that borrower's foreign-currency rating in respect of exposure denominated in foreign currency;

(B) shall use that borrower's domestic-currency rating in respect of exposure denominated in domestic currency.

(iv) Short term versus long term assessments

(A) Unless specifically otherwise provided in these Regulations, for the measurement of a bank's exposure to credit risk, a short-term credit assessment-

(i) shall be deemed to be issue-specific, that is, the assessment shall be used only to derive risk weights for claims arising from a rated facility. For example, when a short-term rated facility is assigned a risk weight of 50 per cent, an unrated short-term claim can not be assigned a risk weight lower than 100 per cent;

(ii) shall in no event be used to support a risk weight for an unrated long-term claim;

(iii) shall only be used for short-term claims relating to banks and corporate institutions, such as a particular issuance of commercial paper.

(B) Subject to the provisions of subregulation (6) or (8) below, when a short-term facility of a particular issuer is assigned a risk weight of 150 per cent based on the facility's credit assessment, all unrated claims of the said issuer, whether long-term or short-term, shall be assigned a risk weight of 150 per cent.

(v) Unsolicited ratings

A bank shall not without the prior written approval of the Registrar or otherwise than in accordance with conditions approved in writing by the Registrar make use of unsolicited ratings issued by an external credit assessment institution.

(c) shall duly assess all relevant credit exposures, regardless of whether the said exposures are rated or unrated, to determine whether the risk weights applied to the said exposures in terms of the provisions of subregulations (6) to (9) are appropriate, based on the respective exposures' inherent risk, provided that, when the bank determines that the inherent risk of an exposure, particularly if the exposure is unrated, is significantly higher than that implied by the risk weight to which it is assigned, the bank shall consider the higher degree of credit risk in the evaluation of its overall capital adequacy;

(d) shall comply with the relevant requirements specified in subregulations (6) to (9) below.

(6) Method 1: Calculation of credit risk exposure in terms of the simplified standardised approach

Unless specifically otherwise provided in these Regulations, a bank that adopted the simplified standardised approach for the measurement of the bank's exposure to credit risk arising from positions held in its banking book shall risk weight its relevant exposure, net of any credit impairment, in accordance with the relevant requirements specified below:

(a) In the case of exposure to sovereigns, central banks, public-sector entities, banks, securities firms and corporate institutions, in accordance with the provisions of table 1 below.

Table 1

Claim in respect of-	Export Credit Agencies: risk scores relating to sovereign[1]				
	0-1	2	3	4 to 6	7
Sovereigns (including the Central Bank of that country)	0%	20%	50%	100%	150%
Public-sector entities	20%	50%	100%	100%	150%
Banks [2, 3]	20%	50%	100%	100%	150%
Securities firms[2, 3, 5]	20%	50%	100%	100%	150%
Banks: short-term claims [4]	20%	20%	20%	50%	150%
Securities firms: short-term claims [4, 5]	20%	20%	20%	50%	150%
Corporate entities	Any corporate exposure, including claims on insurance companies				
	100%				

1. Relates to the consensus country risk scores of export credit agencies participating in the "Arrangement on Officially Supported Export Credits". The consensus country risk classification is available on the OECD website, at www.oecd.org, in the Export Credit arrangement web-page of the Trade Directorate.
2. Based on the sovereign rating.
3. No claim on an unrated bank or securities firm shall be assigned a risk weight lower than the risk weight assigned to a claim on the central government of the country in which the bank or securities firm is incorporated.
4. Claims with an original maturity of three months or less, excluding a claim which is renewed or rolled resulting in an effective maturity of more than three months.
5. Provided that such firms are subject to supervisory and regulatory arrangements comparable to banks in the Republic, including, in particular, risk-based capital requirements and regulation and supervision on a consolidated basis. Otherwise a securities firm shall be regarded as a corporate entity.

(b) In the case of an exposure that meets the criteria specified below, which exposure shall be regarded as forming part of the bank's retail portfolio, excluding any exposure that is overdue, at a risk weight of 75 per cent.

(i) Criteria relating to orientation

The exposure shall relate to an individual person or persons or to a small business.

(ii) Criteria relating to the product

The exposure shall be in the form of-

(A) a revolving credit exposure or line of credit, including exposures relating to credit cards and overdraft facilities;

(B) a personal term loan or lease, including instalment loans, vehicle finance and leases, student and educational loans and personal finance; or

(C) a small business facility or commitment,

provided that the exposures specified below shall at no stage form part of a bank's retail portfolio.

(i) Securities such as bonds and equities, whether listed or not.

(ii) Mortgage loans that qualify for inclusion in the category of claims secured by residential property.

(iii) Criteria relating to granularity

In order to ensure that the retail portfolio of the reporting bank is sufficiently diversified, no aggregate exposure to a counterparty shall exceed 0.2% of the aggregate amount relating to the bank's retail portfolio.

For the purposes of this subparagraph (iii)-

(A) aggregate exposure means the gross amount of all forms of debt included in the retail portfolio before any form of credit risk mitigation is taken into consideration;

(B) counterparty means one or more persons or entities that may be considered a single beneficiary, including small businesses affiliated to each other; and

(C) all retail exposures that are overdue as envisaged in paragraph (e) below shall be excluded from the aggregate amount when the bank calculates the said granularity of the retail portfolio.

(iv) Low value of individual exposures

An exposure to an individual person or small business shall be included in the retail portfolio only when the aggregate amount of the said exposure after the application of the relevant credit conversion factors but before the effect of any risk mitigation is taken into consideration, is less than or equal to R7,5 million.

(c) In the case of lending fully secured by mortgage on an occupied urban residential dwelling or occupied individual sectional title dwelling, when the exposure is not overdue for more than 90 days, and to the extent that the capital amount outstanding-

(i) does not exceed 80 per cent of the current market value of the mortgaged property, at a risk weight of 35 per cent;

(ii) exceeds 80 per cent but is less than 100 per cent of the current market value of the mortgaged property, at a risk weight of 75 per cent;

(iii) is equal to or exceeds 100 per cent of the current market value of the mortgaged property, at a risk weight of 100 per cent,

For example, when a bank granted and paid out a loan of R1 050 000 to a borrower, which loan is fully secured by mortgage on an occupied urban residential dwelling, the current market value of which urban residential dwelling is equal to R1 million, the bank shall risk weight the loan as follows:

(i) R800 000 at 35 per cent;

(ii) R199 999 at 75 per cent; and

(iii) R 50 001 at 100 per cent.

Occupied

For the purposes of this paragraph (c), only urban residential dwellings or individual sectional title dwellings that are occupied or intended to be occupied **as the principal place of residence** of either the borrower or, with the consent of the borrower, a person other than the borrower shall be regarded as adhering to the requirement of being "occupied". In this regard, although the intention of the borrower may be an important indicator, the purpose for which the dwelling is/will be utilised shall be determined with reference to objective factors and reasonability. For example, the fact that the residence may be unoccupied for short periods of time, such as when the resident is on vacation, does not change the classification. On the other hand, a residence used mainly for purposes of vacation or to conduct business activities can clearly not be regarded as **the principal place of residence**.

Urban

For the purposes of this paragraph (c), urban area means an area inside the boundaries of any local government area fixed by law.

Dwelling

For the purposes of this paragraph (c), dwelling means any building that-

(i) after its construction contains or will contain living rooms with a kitchen and the usual appurtenances and permanent provision for lighting, water supply, drainage and sewerage, whether such building is or is to be constructed as a detached or semi-detached building or is or is to be contained in a block of buildings;

(ii) is designed and utilised or meant to be utilised for residential purposes; and

(iii) is located in an area-

(A) in which the majority of the premises are residential premises; or

(B) comprising at least 100 residential premises and which is defined for this purpose by means of cadastral boundaries, as shown on the compilation maps of the Surveyor General.

(d) In the case of lending fully secured by mortgage on commercial real estate, at a risk weight of 100 per cent.

(e) In the case of an exposure, other than an exposure secured by a mortgage bond on residential property as envisaged in paragraph (c), which exposure is overdue for more than 90 days-

(i) the unsecured portion of the exposure shall be risk weighted as follows:

(A) 150 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is less than 20 per cent;

(B) 100 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is equal to or more than 20 per cent;

(C) 50 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is equal to or more than 50 per cent.

(ii) the secured portion of the exposure shall be risk weighted at 100 per cent, provided that the bank obtained adequate eligible collateral and raised a specific credit impairment equal to or higher than 15 per cent of the outstanding exposure.

(f) In the case of a loan that is fully secured by a mortgage bond on an occupied urban residential dwelling or occupied individual sectional title dwelling as envisaged in paragraph (c), which loan is overdue for more than 90 days,

(i) at a risk weight of 100 per cent when the specific credit impairment in respect of the loan is less than 20 per cent of the outstanding amount;

(ii) at a risk weight of 50 per cent when the specific credit impairment in respect of the loan is equal to or higher than 20 per cent of the outstanding amount.

(g) In the case of off-balance-sheet exposure other than unsettled securities or derivative contracts subject to counterparty risk as envisaged in subregulations (15) to (19), or securitisation or resecuritisation exposure as envisaged in paragraph (h) below, the bank shall convert the off-balance-sheet exposure to a credit equivalent amount by multiplying the said exposure with the credit-conversion factors specified in table 2 below:

Table 2

Description	**Credit conversion factor**
Any solicitation limit, that is, a facility not yet contracted	0 per cent
Any revocable commitment[1]	0 per cent
Drawn self-liquidating trade letters of credit arising from the movement of goods, that is, documentary credits collateralised by the underlying shipment, with an original maturity of up to one year, which credit conversion factor shall apply to both issuing and confirming banks	20 per cent[2]
Irrevocable commitments with an original maturity of up to one year, excluding any commitment which is renewed or rolled resulting in an effective maturity of more than one year	20 per cent
Drawn self-liquidating trade letters of credit arising from the movement of goods, that is, documentary credits collateralised by the underlying shipment, with an original maturity of more than one year	50 per cent
Irrevocable commitments with an original maturity of more than one year and commitment which is renewed or rolled resulting in an effective maturity of more than one year	50 per cent
Performance related guarantees	50 per cent
Irrevocable note issuance facilities and irrevocable revolving underwriting facilities	50 per cent
Any exposure arising from a securities lending/borrowing transaction	100 per cent
Direct credit substitutes such as general guarantees of indebtedness, including standby letters of credit serving as financial guarantees, and acceptances	100 per cent
Any relevant off-balance-sheet exposure rated by an eligible external credit assessment institution	100 per cent
Off-balance-sheet exposures other than the exposures specified above	100 per cent

1. **Revocable commitment includes an obligation of the reporting bank which may be cancelled at the discretion of the bank without prior notice or which provide for automatic cancellation due to deterioration in the creditworthiness of the obligor. Refer to the relevant definition contained in regulation 67.**
2. **Relates to issuing and confirming banks.**

(h) In the case of a securitisation or resecuritisation exposure, in accordance with the relevant requirements specified below:

(i) In the case of investment in senior commercial paper, that is, on-balance-sheet positions, the bank shall multiply the relevant position with the risk weights specified in table 3 below:

Table 3

Long-term rating category[1]					
External credit assessment	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to BB-[2, 3]**	**B+ and below or unrated[3, 4, 5, 6]**
Securitisation exposure					
Risk weight	20%	50%	100%	350%	1250%[3, 4, 5]
Resecuritisation exposure					
Risk weight	40%	100%	225%	650%	1250%[3, 4, 5]

Short-term rating category[1]				
External credit assessment	**A-1/P-1**	**A-2/P-2**	**A-3/P-3**	**All other ratings or unrated**
Securitisation exposure				
Risk weight	20%	50%	100%	1250%[3]
Resecuritisation exposure				
Risk weight	40%	100%	225%	1250%[3]

1. **The notations used in this table relate to the ratings used by a particular credit assessment institution. The use of the rating scale of a particular credit assessment institution does not mean that any preference is given to a particular credit assessment institution. The assessments/ rating scales of other external credit assessment institutions, recognised as eligible institutions in South Africa, may have been used instead.**
2. **Relates to investors in a securitisation scheme other than an institution that acts as an originator.**
3. **Or such imputed percentage that will effectively result in an amount equivalent to a deduction against capital and reserve funds.**
4. **Subject to the provisions of subparagraphs (iii) to (v) below, senior commercial paper rated B+ or below, or the equivalent thereof, and unrated tranches in a rated structure shall for purposes of calculating a bank's prescribed required amount of capital and reserve funds be regarded as a first-loss credit-enhancement facility: Provided that the Registrar may in the Registrar's sole discretion and subject to such conditions as may be determined by the Registrar allow a bank to assign a specified risk weight to an unrated tranche in a rated structure, instead of treating the said unrated tranche as a first-loss credit-enhancement facility.**
5. **Excluding a second loss position that complies with the relevant conditions specified in subparagraph (vi) below.**
6. **Excluding a liquidity facility that complies with the relevant conditions specified in subparagraph (vii) below.**

(ii) In the case of an off-balance-sheet position, unless specifically otherwise provided in this paragraph (h), the bank shall convert the off-balance-sheet exposure to a credit equivalent amount by multiplying the said exposure with the credit-conversion factors specified in table 4 below, before the bank risk weights the relevant exposure in accordance with the provisions of this paragraph (h).

Table 4

Nature of exposure	Credit conversion factor
Most senior position in an unrated structure	Refer to subparagraph (iii) below
Any unrated second loss position provided by a bank that acts as a sponsor in respect of an ABCP programme	Refer to subparagraph (iv) below
First-loss credit enhancement facilities	Refer to subparagraph (v) below
Second-loss credit enhancement facilities	Refer to subparagraph (vi) below
Eligible liquidity facilities	Refer to subparagraph (vii) below
Eligible servicer cash advance facilities	Refer to subparagraph (viii) below
Facilities that overlap	Refer to subparagraph (ix) below
Securitisation of revolving facilities with early amortisation features	Refer to subparagraph (xi) below
Any other rated exposure	100 per cent
Other exposures	100 per cent

(iii) In the case of the most senior securitisation exposure, which most senior securitisation exposure is unrated, the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below:

(A) When a bank invests in or guarantees the most senior position in a traditional or synthetic securitisation scheme, which most senior position is unrated, the bank shall, provided that the composition of the underlying or reference pool is known at all times, apply the "look-through" approach specified in item (B) below.

(B) When purchased or guaranteed by a bank, the most senior unrated securitisation exposure shall be assigned the risk weight applicable to the assets transferred in terms of a traditional securitisation scheme or risk transferred in terms of a synthetic securitisation scheme regardless whether such bank is also acting in a primary role, provided that-

(i) when the transferred assets or risks are subject to different risk weights, the unrated most senior securitisation exposure shall be assigned the average risk weight of the relevant assets or risk exposures;

(ii) when the bank is unable to determine the risk weights assigned to the underlying assets or credit exposures, the bank shall assign to the relevant amount related to the said unrated most senior position a risk weight of 1250 per cent, or such imputed percentage that will effectively result in an amount equivalent to a deduction against capital and reserve funds.

(C) Any investment in or guarantee in respect of any other unrated securitisation exposure, other than the most senior unrated securitisation exposure in a traditional or synthetic securitisation scheme, shall for purposes of calculating the bank's prescribed required amount of capital and reserve funds be regarded as a first-loss credit enhancement facility.

(iv) In the case of an exposure relating to an ABCP programme, which exposure constitutes a second loss position or better, a bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below:

When the bank grants an unrated facility to an ABCP programme, which bank acts as a sponsor in respect of the said ABCP programme, the bank shall assign to the unrated facility a risk weight equal to the higher of-

(A) 100 per cent; or

(B) the highest risk weight assigned to any of the underlying exposures covered by the facility,

provided that-

(i) economically, the bank's exposure shall be in a second loss position, or better;

(ii) the first loss position shall provide significant credit protection to the second loss position;

(iii) the credit risk associated with the exposure shall be equivalent to investment grade, or better;

(iv) the bank that acts as a sponsor and that holds the unrated position shall not provide any first loss protection to the relevant securitisation scheme.

(v) In the case of a first-loss credit enhancement facility the bank shall risk weight the relevant exposure amount in accordance with the relevant requirements specified in paragraph (j) below;

(vi) In the case of a second-loss credit enhancement facility other than a second loss position in an ABCP programme provided by a bank that acts as a sponsor, the bank shall treat the second-loss credit enhancement facility as a direct credit substitute and assign to the said facility a risk weight of 100 per cent, provided that-

(A) the associated credit risk of the second-loss credit enhancement facility shall be the equivalent to investment grade, that is, a rating of BBB- or an equivalent rating, or better;

(B) a second-loss credit enhancement facility that does not meet the aforesaid criteria shall for purpose of calculating the bank's required amount of capital and reserve funds be risk weighted in accordance with the relevant requirements specified in subparagraph (v) above;

(C) the aggregate amount of capital maintained by a bank in terms of subparagraphs (v) and (vi) shall be limited to the amount of capital that the bank would have been required to maintain in respect of all the assets or credit risk inherent in the assets transferred had it not been for the securitisation scheme.

(vii) In the case of eligible liquidity facilities the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below, provided that a bank that acts as an originator shall in no case provide any liquidity facility in respect of the securitisation scheme in respect of which that bank acts as such an originator.

(A) When a bank or another institution within a banking group of which such a bank is a member, acting as a servicing agent, a repackager or a sponsor in respect of a securitisation scheme or resecuritisation exposure, provides an eligible liquidity facility in respect of such a securitisation scheme, that is, a facility that complies with the conditions specified in paragraph 7 of the exemption notice relating to securitisation schemes, the said bank or institution shall in the case of-

(i) a facility with an external rating apply to the said position a credit-conversion factor of 100 per cent and the risk weight relating to the specific rating, as specified in subparagraph (i) above;

(ii) a facility other than a facility with an external rating, irrespective of the maturity of the facility, apply a credit-conversion factor of 50 per cent in respect of the said eligible liquidity facility, which credit-conversion factor shall be applied to the highest risk weight assigned to any of the senior commercial paper covered by the liquidity facility.

(B) When a bank that provides a liquidity facility in respect of a traditional or synthetic securitisation scheme does not comply with the conditions specified in this subparagraph (vii) and the conditions specified in paragraph 7 of the exemption notice relating to securitisation schemes, the liquidity facility concerned-

(i) shall be regarded as a first-loss credit-enhancement facility provided to the scheme by the aforementioned bank; and

(ii) shall be risk weighted in accordance with the relevant requirements specified in subparagraph (v) above,

provided that the aggregate amount of capital maintained by the said bank in terms of this item (B) shall be limited to the amount of capital that the bank would have been required to maintain in respect of all the assets or credit risk inherent in the assets transferred to the special-purpose institution in terms of the securitisation scheme if the said assets or credit risk inherent in the assets were actually held on the balance sheet of the bank that provided the said liquidity facility.

(viii) In the case of eligible servicer cash advance facilities the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below, provided that a bank that acts as an originator shall in no case provide any servicer cash advance facility in respect of the securitisation scheme in respect of which that bank acts as such an originator.

When a bank or another institution within a banking group of which such a bank is a member, acting as a servicing agent, provides an eligible servicer cash advance facility in respect of a securitisation scheme, that is, a facility that, among other things, complies with the conditions specified in paragraphs 7 and 9 of the exemption notice relating to securitisation schemes, the said bank or institution may in the case of any undrawn servicer cash advance facility that is unconditionally cancellable by the said bank or institution without prior notice, apply a credit-conversion factor of nil per cent in respect of the said undrawn facility, provided that-

(A) the said facility shall duly state that the servicing agent is under no obligation to advance funds to investors or the special-purpose institution in terms of the servicer cash advance facility;

(B) any cash advance made by the servicing agent shall be at the servicing agent's sole discretion and solely to cover an unexpected temporary shortfall that arose from delayed payments;

(C) the servicing agent's rights for reimbursement in terms of the said cash advance facility shall be senior to any other claim on cash flows arising from underlying exposures or collateral held in respect of the securitisation scheme.

(ix) In the case of facilities or exposures that overlap the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below:

When a bank or another institution within a banking group of which such a bank is a member provides several types of facilities to a special-purpose institution, which facilities overlap in the sense that the utilisation of one facility may preclude any utilisation of the other facility, and which facilities may be drawn under various conditions, the bank or said institution shall not be required to calculate and maintain a capital requirement in respect of the said overlap in facilities, provided that-

(A) when the facilities are subject to different credit-conversion factors, the bank shall assign to the portion of the facilities that overlaps the highest relevant credit-conversion factor;

(B) when the various facilities are provided by different banks, each bank shall calculate and maintain a capital requirement in respect of the full amount granted in terms of the relevant facility.

(x) In the case of a securitisation exposure in respect of which protection is obtained or provided, the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified in subregulation (7)(e) below.

(xi) In the case of a securitisation scheme with early amortisation features the bank shall determine its risk-weighted exposure in accordance with the relevant requirements specified below:

When a bank that acts as an originator transfers assets or risk exposures to a special-purpose institution in terms of a transaction that contains an early amortisation mechanism, which assets or exposures are of a revolving nature, the bank shall calculate and maintain capital in respect of the originator's interest and the investors' interest, provided that-

(A) the bank's aggregate capital requirement shall duly reflect the type of mechanism through which the early amortisation is triggered;

(B) the bank shall not be required to calculate and maintain a capital requirement relating to early amortisation in the case of-

(i) a replenishment structure, in terms of which structure the underlying exposures are not of a revolving nature and the early amortisation terminates the ability of the bank to transfer any further exposures;

(ii) a transaction in respect of revolving assets, which transaction contains early amortisation features that mimic a term structure, that is, the risk relating to the underlying facilities does not return to the originator;

(iii) a structure in terms of which-

(aa) the bank securitised one or more credit lines but the investors remain fully exposed to any future draws by the borrowers, even after an early amortisation event has occurred;

(bb) the early amortisation clause is solely triggered by events unrelated to the performance of the securitised assets or the bank that transferred the assets, such as material changes in tax laws or regulations.

(C) when the underlying pool of exposures comprises revolving and term exposures, the bank shall apply the relevant early amortisation requirements specified in this subparagraph (xi) to the portion of the underlying pool that contains revolving exposures;

(D) the capital requirement to be maintained by the originating bank in respect of the investors' interest shall be equal to-

(i) the investors' interest, **multiplied by**

(ii) the appropriate credit-conversion factor specified in item (E) below, which credit-conversion factor shall depend upon-

(aa) the nature of the early amortisation mechanism, that is, based on the requirements specified in paragraph 13(2) of the exemption notice relating to securitisation schemes, whether the early amortisation mechanism is regarded as a controlled mechanism or an uncontrolled mechanism;

(bb) the nature of the exposure, that is, whether the exposures that were transferred in terms of the securitisation scheme consist of-

(i) uncommitted retail credit lines such as credit card receivables, that is, the credit facility is unconditional and may be cancelled without prior notice;

(ii) other credit lines such as revolving corporate facilities,

multiplied by

(iii) the risk weight relating to the underlying exposure type;

(E) when the early amortisation mechanism-

(i) complies with the requirements specified in paragraph 13(2) of the exemption notice relating to securitisation schemes, which requirements relate to a controlled early amortisation mechanism, and the underlying revolving exposure is in respect of-

(aa) an uncommitted retail credit facility such as credit card receivables, the bank-

(i) shall compare the three-month average excess spread to the point at which the bank is required to trap excess spread, that is, the excess spread trapping point specified in the structure, provided that when the transaction does not require excess spread to be trapped the trapping point shall be deemed to be equal to 4,5 percentage points;

(ii) shall divide the excess spread level by the transaction's excess spread trapping point in order to determine the appropriate segments;

(iii) shall apply to the investors' interest the relevant credit-conversion factors specified in table 5 below:

Table 5

Controlled mechanism in respect of uncommitted retail credit facilities	
Segment based on 3-month average excess spread	**Credit conversion factor**
133.33% or more of trapping point	**0%**
less than 133.33% to 100% of trapping point	**1%**
less than 100% to 75% of trapping point	**2%**
less than 75% to 50% of trapping point	**10%**
less than 50% to 25% of trapping point	**20%**
less than 25%	**40%**

(bb) committed facilities or revolving exposures other than retail exposures, the bank shall apply to the relevant off-balance-sheet exposure a credit-conversion factor of 90 per cent.

(ii) does not comply with the relevant requirements specified in paragraph 13(2) of the exemption notice relating to securitisation schemes, which requirements relate to a controlled early amortisation mechanism, and the underlying revolving exposures is in respect of-

(aa) an uncommitted retail credit facility such as credit card receivables, the bank-

(i) shall compare the three-month average excess spread to the point at which the bank is required to trap excess spread, that is, the excess spread trapping point specified in the structure, provided that when the transaction does not require excess spread to be trapped the trapping point shall be deemed to be equal to 4,5 percentage points;

(ii) shall divide the excess spread level by the transaction's excess spread trapping point in order to determine the appropriate segments;

(iii) shall apply to the investors' interest the relevant credit-conversion factors specified in table 6 below:

Table 6

Uncontrolled mechanism in respect of uncommitted retail credit facilities	
Segment based on 3-month average excess spread	**Credit conversion factor**
133.33% or more of trapping point	**0%**
less than 133.33% to 100% of trapping point	**5%**
less than 100% to 75% of trapping point	**15%**
less than 75% to 50% of trapping point	**50%**
less than 50% of trapping point	**100%**

(bb) committed facilities or revolving exposures other than retail exposures, the bank shall apply to the relevant off-balance-sheet exposure a credit-conversion factor of 100 per cent.

(F) the aggregate amount of capital maintained by the originating bank shall be equal to the higher of-

(i) the capital requirement in respect of any retained exposures; or

(ii) the amount of capital that the bank would have been required to maintain in respect of all the assets or credit risk inherent in the assets transferred had it not been for the securitisation scheme,

provided that the originating bank shall deduct from its common equity tier 1 capital and reserve funds the entire amount relating to any gain-on-sale included in the bank's common equity tier 1 capital and reserve funds and any credit enhancing interest-only strip that arose from the securitisation transaction.

(G) for the purposes of this subparagraph (xi), retail exposure means any exposure to a person of less than R7,5 million.

(i) In the case of all unsettled securities or derivative contracts subject to counterparty risk, in accordance with the relevant provisions specified in subregulations (15) to (19) below.

(j) In the case of all other exposures, in accordance with the relevant requirements specified in table 7 below:

Table 7

Risk weight	Transactions with the following counterparties, including assets
0%	**Transactions with the following counterparties**
	Central government of the RSA, provided that the relevant exposure is repayable and funded in Rand
	Reserve Bank, provided that the relevant exposure is repayable and funded in Rand
	Corporation for Public Deposits, provided that the relevant exposure is repayable and funded in Rand
	Bank for International Settlements (BIS)
	International Monetary Fund (IMF)
	European Central Bank (ECB)
	World Bank Group, including the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC)
	Asian Development Bank (ADB)
	African Development Bank (AfDB)
	European Bank for Reconstruction and Development (EBRD)
	Inter-American Development Bank (IADB)
	European Investment Bank (EIB)
	European Investment Fund (EIF)
	Nordic Investment Bank (NIB)
	Caribbean Development Bank (CDB)
	Islamic Development Bank (IDB)
	Council of Europe Development Bank (CEDB)
	Intragroup bank balances[1]
	Intragroup balances with other formally regulated financial entities with capital requirements similar to these Regulations[1]
	Intragroup balances with branches of foreign banks
	Assets
	Cash and cash equivalents such as gold bullion

1. Provided that-
   (a) the relevant entity is managed as an integrated part of the relevant banking group;
   (b) the relevant entity is consolidated in accordance with the relevant requirements specified in regulation 36;
   (c) capital resources are freely transferable between the relevant entity and the relevant parent bank or controlling company.

Risk weight	Transactions with the following counterparties, including assets
20%	**Transactions with the following counterparties**
	RSA public-sector bodies, excluding exposures to the central government, SA Reserve Bank and the Corporation for Public Deposits when the said exposure is repayable and funded in Rand
	Banks in the RSA, provided that the claim on the bank has an original maturity of three months or less, excluding any claim on a RSA bank that is renewed or rolled resulting in an effective maturity of more than three months
	A securities firm in the RSA, provided that such a firm is subject to comparable supervisory and regulatory arrangements than banks in the RSA, including, in particular, risk-based capital requirements and regulation and supervision on a consolidated basis and the claim on the securities firm has an original maturity of three months or less, excluding any claim on a securities firm in the RSA that is renewed or rolled resulting in an effective maturity of more than three months
	Assets
	Cash items in process of collection
100%	**Transactions with the following counterparties or assets**
	An investment in a significant minority or majority owned or controlled commercial entity, which investment amounts to less than 15 per cent of the issued common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the reporting bank, as reported in items 41, 65 and 78 of form BA 700
	All other counterparties or assets not covered elsewhere in this paragraph (j)
150%	**Assets**
	Venture capital
	Private equity

Risk weight	Transactions with the following counterparties, including assets
1250[1]%	A first-loss position, including a credit enhancement facility in respect of a securitisation or resecuritisation scheme
	A materiality threshold specified in a guarantee or credit-derivative contract, which materiality threshold either reduces the amount of payment or requires a given amount of loss to occur for the account of the protection buyer before the protection seller is obliged to make payment to the said protection buyer
	The excess amount relating to a significant investment, that is, a shareholding of 20 per cent or more, in a commercial entity, which investment is equal to or exceeds 15 per cent of the issued common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the reporting bank, as reported in items 41, 65 and 78 of the form BA 700
	The relevant excess amount when the aggregate amount of significant investments, that is, a shareholding of 20 per cent or more, in commercial entities, exceeds 60 per cent of the sum of the issued common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the reporting bank, as reported in items 41, 65 and 78 of the form BA 700
	Credit protection provided, which credit protection has a long-term rating of B+ or below or a short-term rating other than A-1/P-1, A-2/P-2 or A-3/P-3
	Any unrated position in a rated structure relating to credit protection provided in terms of a credit-derivative instrument
	In the case of a synthetic securitisation scheme, any retained position that is unrated or rated below investment grade
	The net amount, that is, the amount after any specific credit impairment or provision, and any deduction directly against common equity tier 1 or additional tier 1 capital and reserve funds, have been taken into account, in respect of any credit enhancing interest-only strip relating to a securitisation transaction

1. Or such imputed percentage that effectively results in a risk weighted exposure amount equivalent to a deduction against capital and reserve funds.

(7) Credit risk mitigation: simplified standardised approach

Credit risk mitigation relates to the reduction of a bank's credit risk exposure by obtaining, for example, eligible collateral or guarantees or entering into a netting agreement with a client that maintains both debit and credit balances with the reporting bank.

When a bank that adopted the simplified standardised approach for the calculation of the bank's credit exposure in its banking book obtains eligible collateral or guarantees, a reduction in the credit risk exposure of the reporting bank shall be allowed to the extent that the bank achieves an effective and verifiable transfer of risk.

No transaction in respect of which the reporting bank obtained credit protection shall be assigned a risk weight higher than the risk weight that applies to a similar transaction in respect of which no credit protection was obtained.

(a) On-balance-sheet netting

When a client maintains both debit and credit balances with a bank and the bank enters into a netting agreement in respect of the relevant loans and deposits with the said counterparty, the bank may in the calculation of the bank's risk exposure regard the exposure as a collateralised exposure in accordance with the provisions of paragraph (b) below, provided that the bank-

(i) shall have a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction, regardless whether the counterparty is insolvent or bankrupt;

(ii) shall at any time be able to determine the loans and deposits with the same counterparty that are subject to the netting agreement;

(iii) shall monitor and control any potential roll-off risk in respect of the said debit and credit balances;

(iv) shall monitor and control the relevant exposures on a net basis.

(b) Collateral

(i) When-

(A) a bank's exposure or potential exposure to credit risk is secured by the pledge of eligible collateral; and

(B) the bank meets the minimum requirements set out in subparagraph (iii) below,

the bank may in the calculation of its required amount of capital and reserve funds in terms of the provisions of subregulation (6) recognise the effect of such collateral in accordance with the relevant provisions of this paragraph (b).

(ii) *Eligible collateral*

The collateral instruments specified below shall constitute eligible collateral for risk mitigation purposes in terms of the simplified standardised approach, provided that, irrespective of its credit rating, a resecuritisation instrument shall in no case constitute an eligible instrument for risk mitigation purposes in terms of these Regulations.

(A) Cash on deposit with the reporting bank;

(B) Certificates of deposit or comparable instruments issued by the reporting bank;

(C) Credit-linked notes issued by the reporting bank in order to protect an exposure in the banking book;

(D) Gold;

(E) Securities issued by a sovereign, which sovereign is assigned a rating equal to or better than category 4 of table 1 above;

(F) Securities issued by public-sector bodies that are treated as sovereigns in their country of incorporation with a rating equal to or better than category 4 of table 1 above;

(G) Securities issued by the Central Government of the RSA, provided that the reporting bank's exposure and the said securities are denominated in Rand;

(H) Securities issued by the Reserve Bank, provided that the reporting bank's exposure and the said securities are denominated in Rand.

(iii) Minimum requirements relating to collateral

(A) General requirements

A reduction in the risk exposure of a bank shall be allowed to the extent-

(i) that such collateral was not already taken into account in the calculation of the reporting bank's risk exposure. For example, no reduction in the risk exposure of the reporting bank shall be allowed in respect of an exposure for which an issue specific rating was issued, which rating already reflects the effect of the risk mitigation;

(ii) that the bank complies with the relevant requirements relating to disclosure, prescribed in regulation 43;

(iii) that the bank is able to establish title to the collateral in order to liquidate it;

(iv) that such collateral can be realised by the reporting bank under normal market conditions, that is, the value at which the collateral can be realised in the market does not materially differ from its book value, provided that a bank shall maintain an appropriate margin of collateral in excess of the amount in respect of which a reduction in the risk exposure is allowed in order to provide for fluctuations in the market value of the relevant collateral.

(B) Specific requirements

(i) Legal certainty

Collateral is effective only when the legal process by which collateral is given is robust and ensures that the reporting bank has clear rights over the collateral, and may liquidate or retain it in the event of a default, insolvency or bankruptcy (or an otherwise defined credit event set out in the transaction documentation) of the obligor and, where applicable, the custodian holding the collateral.

A bank shall take all steps necessary to fulfil contractual requirements in respect of the enforceability of security interest, for example, by registering a security interest with an issuer or a registrar. When the collateral is held by a custodian, the bank shall seek to ensure that the custodian ensures adequate segregation of the collateral instruments and the custodian's own assets.

In cases of uncertainty, a bank shall obtain legal certainty by way of legal opinions confirming the enforceability of the collateral arrangements in all relevant jurisdictions, and that the bank's rights are legally well founded.

Legal opinions shall be updated at appropriate intervals in order to ensure continued enforceability.

(ii) *Documentation*

The collateral arrangements shall be duly documented with a clear and robust procedure in place for the timely liquidation of collateral. A bank's procedures shall be sufficiently robust to ensure that any legal conditions required for declaring the default of the client and liquidating the collateral are observed.

(iii) Low correlation with exposure

In order for collateral to provide effective protection, the credit quality of the obligor and the value of the collateral shall not have a material positive correlation.

(iv) Mismatches

No currency mismatch shall exist between the underlying exposure and the collateral.

Collateral obtained by the bank as security against an exposure of the bank shall be pledged as security for the full duration of the bank's exposure.

(v) Rating

The rating issued in respect of the collateral instrument shall not relate only to the principal amount.

(vi) *Robust risk-management process*

While collateral reduces credit risk, it simultaneously increases other risks to which a bank is exposed, such as legal risk, operational risk, liquidity risk and market risk. Therefore, a bank shall employ robust procedures and processes to control all material risks.

As a minimum, a robust risk-management process relating to collateral management shall include the fundamental elements specified below:

(aa) *Strategy*

A duly articulated strategy for the use of collateral shall form an intrinsic part of a bank's general credit strategy and overall liquidity strategy.

(bb) *Focus on underlying credit*

A bank shall continue to assess a collateralised exposure on the basis of the borrower's creditworthiness. A bank shall obtain and analyse sufficient financial information to determine the obligor's risk profile and its risk-management and operational capabilities.

(cc) *Valuation*

A bank shall mark its collateral to market and revalue its collateral at regular intervals but not less frequently than once every six months.

(dd) *Policies and procedures*

Clear policies and procedures shall be established and maintained in respect of collateral management, including:

(i) the terms of collateral agreements, types of collateral and enforcement of collateral terms (for example, waivers of posting deadlines);

(ii) the management of legal risks;

(iii) the administration of agreements; and

(iv) the prompt resolution of disputes, such as valuation of collateral or positions, acceptability of collateral, fulfilment of legal obligations and the interpretation of contract terms.

A bank shall regularly review its policies and procedures in order to ensure that the said policies and procedures remain appropriate and effective.

(ee) Systems

A bank's policies and procedures shall be supported by collateral management systems capable of tracking the location and status of posted collateral.

(ff) Concentration risk

A bank shall have in place a duly defined policy with respect to the amount of concentration risk that it is prepared to accept, that is, a policy in respect of the taking as collateral of large quantities of instruments issued by the same obligor.

A bank shall take into account collateral and purchased credit protection when it assesses the potential concentrations in its credit portfolio, including when determining its concentration risk in terms of section 73 of the Act.

(iv) Proportional cover

When a bank obtains collateral of which the value is less than the amount of the bank's exposure to credit risk, the bank shall recognise the credit protection on a proportional basis, that is, the protected portion of the exposure shall be risk weighted in accordance with the relevant provisions of this paragraph (b) and the remainder of the credit exposure shall be regarded as unsecured.

(v) *Risk weighting*

For the protected portion of a credit exposure, a bank may substitute the risk weight relating to the collateral for the risk weight of the counterparty or underlying exposure subject to a minimum risk weight of 20 per cent, except in the cases specified below when a lower risk weight may apply.

A bank shall apply the said lower risk weight relating to collateral to the outstanding amount of the relevant protected exposure.

(vi) *Exceptions to the risk weighting floor of 20 per cent*

A bank may assign a risk weight of zero per cent, or such other percentage as may be specified below, to the protected portion of a credit exposure or potential credit exposure, provided that-

(A) the exposure and the collateral shall be denominated in the same currency and the collateral shall consist of cash on deposit with the reporting bank;

(B) the exposure and the collateral shall be denominated in the same currency and the collateral shall consist of securities issued by a sovereign or central bank eligible for a risk weight of zero per cent, when the market value of the security has been reduced by 20 per cent;

(C) the transaction shall be an OTC derivative transaction subject to daily mark-to-market requirements, collateralised by cash, with no currency mismatch.

When the transaction is collateralised by a security issued by a sovereign or public sector entity that qualifies for a risk weight of zero per cent in terms of the standardised approach, instead of cash, the bank shall risk weight the protected portion of the exposure at 10 per cent;

(D) the collateral shall form part of a repurchase or resale agreement, which agreement shall comply with the conditions specified below:

(i) Both the exposure and the collateral shall consist of cash or a sovereign security or public-sector security qualifying for a zero per cent risk weight in terms of the simplified standardised approach.

(ii) Both the exposure and the collateral shall be denominated in the same currency.

(iii) The transaction shall be overnight or both the exposure and the collateral shall be marked to market on a daily basis and shall be subject to daily remargining.

(iv) Following the failure of a counterparty to remargin, the time that is required from the last mark-to-market adjustment, before the failure to remargin occurred, and the liquidation of the collateral, shall be no more than four business days.

(v) The transaction shall be settled across a settlement system proven for the relevant type of transaction.

(vi) The documentation covering the agreement shall be standard market documentation for the said transactions.

(vii) The transaction shall be governed by documentation that specifies that when the counterparty fails to satisfy an obligation to deliver cash or securities or to deliver margin, or otherwise defaults, the transaction shall be immediately terminable.

(viii) Upon any default event, regardless of whether the counterparty is insolvent or bankrupt, the bank shall have the unfettered legally enforceable right to immediately seize and liquidate the collateral for the bank's benefit.

(ix) The agreement shall be concluded with-

(aa) a sovereign;

(bb) a central bank;

(cc) a public-sector entity;

(dd) a bank or securities firm, provided that in the case of a securities firm the firm shall be subject to supervisory and regulatory arrangements comparable to banks in the Republic, including, in particular, risk-based capital requirements and regulation and supervision on a consolidated basis;

(ee) another financial institution, including an insurance company, eligible for a risk weighting of 20 per cent in terms of the simplified standardised approach;

(ff) regulated mutual funds that are subject to capital or leverage requirements;

(gg) regulated pension funds;

(hh) any clearing institution approved in writing by the Registrar.

When a bank complies with all of the requirements specified above but the repurchase or resale agreement was concluded with a counterparty other than the counterparties specified above, the bank may assign a risk weighting of ten per cent to the protected portion of a credit exposure or potential credit exposure.

(c) Guarantees

(i) Risk weighting

When a bank obtains protection against loss relating to an exposure or potential exposure to credit risk in the form of an eligible guarantee, the risk weight applicable to the guaranteed transaction or guaranteed exposure may be reduced to the risk weight applicable to the guarantor in accordance with the provisions of this paragraph (c).

The lower risk weight of the guarantor shall apply to the outstanding amount of the exposure protected by the guarantee, provided that all the requirements set out in this paragraph (c) are met.

(ii) Proportional cover

When a bank obtains a guarantee for less than the amount of the bank's exposure to credit risk, the bank shall recognise the credit protection on a proportional basis, that is, the protected portion of the exposure shall be risk weighted in accordance with the relevant provisions of this paragraph (c) and the remainder of the credit exposure shall be regarded as unsecured.

(iii) *Eligible guarantors*

Guarantors qualifying for a risk weight of 20 per cent or better, and a risk weight lower than the protected credit exposure, shall be recognised for risk mitigation purposes in terms of the simplified standardised method, provided that 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.

(iv) *Minimum requirements relating to guarantees*

(A) *General requirements*

A reduction in the risk weight of a bank's exposure to the risk weight applicable to the relevant guarantor shall be allowed only to the extent-

(i) that such guarantee was not already taken into account in the calculation of the reporting bank's risk exposure. For example, no reduction in the risk exposure of the reporting bank shall be allowed in respect of an exposure for which an issue specific rating was issued, which rating already reflects the effect of the guarantee;

(ii) that such guarantee may be realised by the reporting bank under normal market conditions;

(B) *Specific requirements*

(i) The guarantee shall be an explicitly documented obligation assumed by the guarantor.

(ii) The guarantee shall be legally enforceable in all relevant jurisdictions and the bank's rights in terms of the guarantee shall be legally well founded.

Legal opinions shall be updated at appropriate intervals in order to ensure continued enforceability of the bank's rights in terms of the guarantee.

(iii) *Direct*

The guarantee shall constitute a **direct claim** on the guarantor.

When a qualifying default or non-payment by the obligor occurs, the reporting bank shall pursue the guarantor for amounts outstanding under the loan, rather than having to continue to pursue the obligor.

When the guarantee provides only for the payment of principal amounts, any interest amount and other unprotected payments shall be regarded as unsecured amounts.

Payment by the guarantor in terms of the guarantee may grant the guarantor the right to pursue the obligor for amounts outstanding under the loan.

(iv) *Explicit*

The guarantee shall be linked to specific exposures, so that the extent of the cover is duly defined and incontrovertible.

(v) *Irrevocable*

Other than the reporting bank's non-payment of money due in respect of the guarantee, there shall be no clause in the contract that would allow the guarantor unilaterally to cancel the guarantee or increase the effective cost of the protection as a result of deterioration in the credit quality of the protected exposure.

(vi) *Unconditional*

There shall be no clause in the guarantee that could prevent the guarantor from being obliged to pay out, in a timely manner, in the event of the original obligor failing to make the payment(s) due.

(vii) *Robust risk-management process*

While guarantees reduce credit risk, they simultaneously increase other risks to which a bank is exposed, such as legal and operational risks.

Therefore a bank shall employ robust procedures and processes to control the aforesaid risks.

As a minimum, a robust risk-management process relating to guarantees shall include the fundamental elements specified below:

(aa) *Strategy*

A duly articulated strategy for guarantees shall form an intrinsic part of a bank's general credit strategy and overall liquidity strategy.

(bb) *Focus on underlying credit*

A bank shall continue to assess a guaranteed exposure on the basis of the borrower's creditworthiness. A bank shall obtain and analyse sufficient financial information to determine the obligor's risk profile and its risk-management and operational capabilities.

(cc) *Systems*

A bank's policies and procedures shall be supported by management systems capable of tracking the location and status of guarantees.

A bank shall regularly review its policies and procedures in order to ensure that the said policies and procedures remain appropriate and effective.

(dd) *Concentration risk*

A bank shall have in place a duly defined policy with respect to the amount of concentration risk that it is prepared to accept.

A bank shall take guaranteed positions into account when assessing the potential concentrations in its credit portfolio, including when determining its concentration risk in terms of section 73 of the Act.

In order to mitigate its concentration risk a bank shall monitor general trends affecting relevant guarantors.

(ee) *Roll-off risks*

When a bank obtains guarantees that differ in maturity from the underlying credit exposure, the bank shall monitor and control its roll-off risks, that is, the fact that the bank will be exposed to the full amount of the credit exposure when the guarantee expires.

The bank may be unable to obtain further guarantees or to maintain its capital adequacy when the guarantee expires.

(d) *Treatment of pools of risk mitigation instruments*

(i) When a bank obtains-

(A) multiple risk mitigation instruments that protect a single exposure, that is, the bank has obtained both collateral and guarantees partially protecting an exposure; or

(B) protection with differing maturities,

the bank shall subdivide the exposure into portions covered by the relevant types of risk mitigation instruments.

(ii) A bank shall separately calculate its risk-weighted exposure relating to each relevant portion in accordance with the relevant provisions of subregulation (6) read with this subregulation (7).

(e) *Treatment of risk mitigation in respect of securitisation exposure*

When-

(i) a bank obtains protection in the form of on-balance-sheet netting, collateral, guarantees or credit-derivative instruments in order to protect an exposure that arose from a transaction relating to a securitisation scheme, the bank shall recognise such protection in accordance with the relevant requirements specified below:

In the case of-

(A) collateral, only instruments that qualify as eligible collateral in terms of the provisions of subregulation (9)(b) below shall qualify as eligible collateral in respect of the relevant securitisation exposure;

(B) guarantees and credit-derivative instruments, protection obtained from eligible protection providers specified in subregulations (9)(c) and (9)(d) shall qualify as eligible protection providers in respect of the relevant securitisation exposure, provided that-

(i) the said guarantee or credit-derivative instrument shall comply with the relevant minimum requirements specified in subregulations (9)(c) and (9)(d) below;

(ii) no special-purpose institution involved in a securitisation scheme shall qualify as an eligible protection provider;

(iii) the bank shall calculate and maintain capital requirements in respect of the protected and the unprotected portion of the relevant exposure in accordance with the relevant requirements specified in subregulations (9)(c) and (9)(d) below;

(C) a maturity mismatch, the bank shall calculate and maintain a capital requirement in respect of the protected portion of the relevant exposure in accordance with the relevant requirements specified in subregulation (9)(e), provided that when the securitisation exposures in respect of which protection is obtained have different maturities, the bank shall base the relevant capital requirement on the exposure with the longest time to maturity.

(ii) a bank other than a bank that acts as an originator provides protection in respect of a securitisation exposure, the bank shall calculate and maintain a capital requirement in respect of the relevant exposure in accordance with the relevant requirements specified in subregulation (9), provided that when the bank provides protection relating to an unrated credit-enhancement facility, the bank shall treat the exposure as if the bank directly provided an unrated credit-enhancement facility in respect of the relevant securitisation scheme.

(8) Method 2: Calculation of credit risk exposure in terms of the standardised approach

Unless specifically otherwise provided, a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book shall risk weight its exposures, net of any relevant credit impairment, in accordance with the relevant requirements specified below:

(a) In the case of exposures to sovereigns, central banks, public-sector entities, banks, securities firms and corporate exposures, in accordance with the relevant provisions of table 8 below:

Table 8

<table>
<tr><th rowspan="2">Claim in respect of-</th><th colspan="12">Credit assessment issued by eligible institutions[1]</th></tr>
<tr><th colspan="2">AAA to AA-</th><th colspan="2">A+ to A-</th><th colspan="2">BBB+ to BBB-</th><th colspan="2">BB+ to B-</th><th colspan="2">Below B-</th><th colspan="2">Unrated</th></tr>
<tr><td rowspan="3">Sovereigns (including the Central Bank of that particular country)</td><td colspan="12">Export Credit Agencies: risk scores[1]</td></tr>
<tr><td colspan="2">0-1</td><td colspan="2">2</td><td colspan="2">3</td><td colspan="2">4 to 6</td><td colspan="2">7</td><td colspan="2"></td></tr>
<tr><td colspan="2">0%</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">100%</td><td colspan="2">150%</td><td colspan="2">100%</td></tr>
<tr><td>Public-sector entities</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">50%</td><td colspan="2">100%</td><td colspan="2">150%</td><td colspan="2">50%</td></tr>
<tr><td>Banks[2, 4]</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">50%</td><td colspan="2">100%</td><td colspan="2">150%</td><td colspan="2">50%</td></tr>
<tr><td>Securities firms[2, 4, 5]</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">50%</td><td colspan="2">100%</td><td colspan="2">150%</td><td colspan="2">50%</td></tr>
<tr><td>Banks: short-term claims[3, 4]</td><td colspan="2">20%</td><td colspan="2">20%</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">150%</td><td colspan="2">20%</td></tr>
<tr><td>Securities firms: short-term claims[3, 4, 5]</td><td colspan="2">20%</td><td colspan="2">20%</td><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">150%</td><td colspan="2">20%</td></tr>
<tr><td rowspan="2">Corporate entities[6, 7, 8]</td><td colspan="2">AAA to AA-</td><td colspan="2">A+ to A-</td><td colspan="2">BBB+ to BB-</td><td colspan="4">Below BB-</td><td colspan="2"></td></tr>
<tr><td colspan="2">20%</td><td colspan="2">50%</td><td colspan="2">100%</td><td colspan="4">150%</td><td colspan="2">100%</td></tr>
<tr><td rowspan="3">Banks and corporate entities</td><td colspan="12">Short-term credit assessment[1, 4, 9]</td></tr>
<tr><td colspan="3">A-1/P-1</td><td colspan="3">A-2/P-2</td><td colspan="3">A-3/P-3</td><td colspan="3">Other</td></tr>
<tr><td colspan="3">20%</td><td colspan="3">50%</td><td colspan="3">100%</td><td colspan="3">150%</td></tr>
</table>

1. The notations used in this table relate to the ratings used by a particular credit assessment institution. The use of the rating scale of a particular credit assessment institution does not mean that any preference is given to a particular credit assessment institution. The assessments/ rating scales of other external credit assessment institutions or, in certain cases, Export Credit Agencies ("ECAs"), recognised as eligible institutions in South Africa, may have been used instead.
2. With the exception of short-term self-liquidating letters of credit, no claim on an unrated bank shall be assigned a risk weighting lower than the risk weighting assigned to a claim on the central government of the country in which the bank is incorporated.
3. Claims with an original maturity of three months or less, excluding a claim which is renewed or rolled, resulting in an effective maturity of more than three months.
4. Refer to subregulation (5)(b)(iv). Only relates to exposures when no specific short-term assessment was issued.
5. Provided that such a firm is subject to comparable supervisory and regulatory arrangements than banks in the RSA, including, in particular, risk-based capital requirements and regulation and supervision on a consolidated basis. Otherwise a securities firm shall be regarded as a corporate entity.
6. Including entities conducting insurance business.
7. No claim in respect of an unrated corporate exposure shall be assigned a risk weight lower than the risk weight assigned to a claim on the central government of the country in which the corporate entity is incorporated.
8. Provided that no significant investment in a minority or majority owned or controlled commercial entity, which investment amounts to less than 15 per cent of the sum of a bank's issued tier 1 and tier 2 capital and reserve funds, as reported in items 41, 65 and 78 of the form BA 700, shall be assigned a risk weight of less than 100 per cent.
9. Refer to subregulation (5)(b)(iv). Only relates to claims against banks and corporate entities.

(b) In the case of an exposure that meets the criteria specified in subregulation (6)(b), which exposure shall be regarded as forming part of the bank's retail portfolio, excluding any exposure that is overdue, at a risk weight of 75 per cent.

(c) In the case of lending fully secured by mortgage on an occupied urban residential dwelling or occupied individual sectional title dwelling, when the exposure is not overdue and to the extent that the capital amount outstanding-

(i) does not exceed 80 per cent of the current market value of the mortgaged property, at a risk weight of 35 per cent;

(ii) exceeds 80 per cent but is less than 100 per cent of the current market value of the mortgaged property, at a risk weight of 75 per cent;

(iii) is equal to or exceeds 100 per cent of the current market value of the mortgaged property, at a risk weight of 100 per cent,

For example, when a bank granted and paid out a loan of R1 050 000 to a borrower, which loan is fully secured by mortgage on an occupied urban residential dwelling, the current market value of which urban residential dwelling is equal to R1 million, the bank shall risk weight the loan as follows:

(i) R800 000 at 35 per cent;

(ii) R199 999 at 75 per cent; and

(iii) R 50 001 at 100 per cent.

For the purposes of this paragraph (c), the terms occupied, urban and dwelling shall have the same meaning as set out in subregulation (6)(c) above.

(d) In the case of lending fully secured by mortgage on commercial real estate, at a risk weight of 100 per cent;

(e) In the case of exposures, other than exposures secured by a mortgage bond on residential property as envisaged in paragraph (c), which exposures are overdue for more than 90 days-

(i) the unsecured portion of the exposure shall be risk weighted as follows:

(A) 150 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is less than 20 per cent;

(B) 100 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is equal to or more than 20 per cent;

(C) 50 per cent when the specific credit impairment in respect of the outstanding amount of the exposure is equal to or more than 50 per cent.

(ii) the secured portion of the exposure shall be risk weighted at 100 per cent, provided that the bank obtained adequate eligible collateral and raised a credit impairment equal to or higher than 15 per cent of the outstanding exposure.

(f) In the case of a loan that is fully secured by a mortgage bond on an occupied urban residential dwelling or occupied individual sectional title dwelling, as envisaged in paragraph (c), when the exposure is overdue for more than 90 days-

(i) at a risk weight of 100 per cent when the specific credit impairment in respect of the loan is less than 20 per cent of the outstanding amount;

(ii) at a risk weight of 50 per cent when the specific credit impairment in respect of the loan is equal to or higher than 20 per cent of the outstanding amount.

(g) Unless specifically otherwise provided, all off-balance-sheet exposures in accordance with the provisions of subregulation (6)(g) above.

(h) In the case of any securitisation or resecuritisation exposure, in accordance with the relevant requirements specified in subregulation (6)(h) above;

(i) In the case of all unsettled securities or derivative contracts subject to counterparty risk, in accordance with the relevant requirements specified in subregulations (15) to (19).

(j) Unless specifically otherwise provided in this subregulation (8), in the case of all other relevant exposures, in accordance with the relevant provisions of subregulation (6)(j).

(9) Credit-risk mitigation: standardised approach

When a bank that adopted the standardised approach for the measurement of its exposure to credit risk in its banking book obtains eligible collateral, guarantees or credit-derivative instruments, or enters into a netting agreement with a client that maintains both debit and credit balances with the reporting bank, a reduction in the credit risk exposure of the reporting bank shall be allowed to the extent that the bank achieves an effective and verifiable transfer of risk.

No transaction in respect of which the reporting bank obtained credit protection shall be assigned a risk weight higher than the risk weight that applies to a similar transaction in respect of which no credit protection was obtained.

(a) On-balance-sheet netting

When a bank entered into a netting agreement in respect of loans and deposits as envisaged in subregulation (7)(a) above, the bank-

(i) may in the case of loans and deposits with no maturity or currency mismatches calculate its exposure to credit risk in accordance with the relevant provisions of the simple approach specified in this subregulation (9);

(ii) shall in all other cases calculate its risk exposure in accordance with the relevant provisions of the comprehensive approach specified in this subregulation (9),

provided that the bank shall at all times comply with the relevant conditions specified in subregulation (7)(a) above.

(b) Collateral

(i) When a bank's exposure or potential exposure to credit risk is secured by the pledge of eligible financial collateral, the bank may recognise the effect of such collateral-

(A) in the case of exposures held in the banking book, in accordance with either the simple approach or comprehensive approach, but not both approaches;

(B) in the case of OTC derivative transactions, in accordance with the comprehensive approach specified in this subregulation (9);

(C) in the case of exposures held in the bank's trading book, in accordance with the comprehensive approach specified in this subregulation (9),

provided that-

(i) the bank shall comply with the relevant minimum requirements specified below;

(ii) when the bank wishes to adopt the comprehensive approach 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) *Minimum requirements: general*

A bank that adopted the standardised approach for the measurement of its exposure to credit risk shall in addition to the requirements specified in this subregulation (9), comply with all the relevant requirements and conditions relating to eligible collateral specified in subregulation (7)(b).

(iii) *Eligible financial collateral: simple approach*

For risk mitigation purposes, the instruments specified below shall be regarded as eligible collateral in terms of the simple approach, provided that, irrespective of its credit rating, a resecuritisation instrument shall in no case constitute an eligible instrument for risk mitigation purposes in terms of these Regulations.

(A) Cash, including certificates of deposit or comparable instruments issued by the reporting bank, on deposit with the bank that is exposed to credit risk.

When cash on deposit, certificates of deposit or comparable instruments issued by the lending bank are held as collateral at a third-party bank in a non-custodial arrangement, the bank may assign the risk weight related to the third party bank to the exposure amount protected by the collateral provided that the cash/instruments are pledged/assigned to the lending bank, the pledge/assignment is unconditional and irrevocable, and the bank has applied the relevant haircut specified below in respect of currency risk.

(B) Credit-linked notes issued by the reporting bank in order to protect an exposure in the banking book.

(C) Gold.

(D) Debt securities rated by an eligible external credit assessment institution, which debt securities have been assigned the ratings specified below:

(i) BB- or better when issued by sovereigns.

(ii) BBB- or better when issued by other institutions, including banks and securities firms.

(iii) A-3/P-3 or better in respect of short-term debt instruments.

(E) Debt securities not rated by an eligible external credit assessment institution, which debt securities-

(i) were issued by a bank; and

(ii) are listed on a licensed exchange; and

(iii) are classified as senior debt,

including all senior instruments issued by a bank that is rated at least BBB- or A-3/P-3 and the reporting bank has no information that suggests a lower rating in respect of the said senior instrument.

Provided that when the Registrar is of the opinion that the instruments are no longer sufficiently liquid, the Registrar may determine that the aforesaid instruments no longer qualify as eligible collateral.

(F) Equities, including convertible bonds, that are included in a main index.

(G) Undertakings for collective investments in transferable securities ("UCITS") and mutual funds, provided that-

(i) a price for the units is publicly quoted on a daily basis; and

(ii) the UCITS/mutual fund may only invest in the instruments specified in this subparagraph (iii).

(H) Securities issued by the Central Government of the RSA, provided that the reporting bank's exposure and the said securities are denominated in Rand.

(I) Securities issued by the Reserve Bank, provided that the reporting bank's exposure and the said securities are denominated in Rand.

(iv) Eligible financial collateral: comprehensive approach

(A) In addition to the instruments specified in subparagraph (iii) above, which instruments qualify as eligible collateral in terms of the simple approach, the instruments specified below shall be regarded as eligible collateral in terms of the comprehensive approach for the recognition of risk mitigation in respect of the bank's banking book exposures, provided that, irrespective of its credit rating, a resecuritisation instrument shall in no case constitute an eligible instrument for risk mitigation purposes in terms of these Regulations.

(i) Equities, including convertible bonds, which equities are not included in a main index but are listed on a licensed exchange.

(ii) UCITS/mutual funds which include the equities specified in sub-item (i) above.

(B) When a bank includes repurchase or resale agreements in the bank's trading book, any instrument obtained as collateral in respect of the bank's exposure to counterparty risk shall be regarded as eligible collateral, provided that-

(i) the said collateral instruments shall be included in and be managed as part of the bank's trading activities;

(ii) irrespective of its credit rating, a resecuritisation instrument shall in no case constitute an eligible instrument for risk mitigation purposes in terms of these Regulations;

(iii) in the case of a bank that applies-

(aa) the standardised haircuts specified in subparagraph (xi) below, the bank shall apply the haircuts relating to non-main index equities listed on a licensed exchange;

(bb) its own haircuts to collateral, the bank shall comply with the relevant minimum requirements relating to own estimates specified in subparagraphs (xii) and (xiii) below;

(cc) the VaR approach for the measurement of the bank's credit exposure to credit risk, the bank shall comply with the minimum requirements relating to VaR estimates specified in subparagraph (xvii) below,

in respect of all collateral instruments that do not otherwise than in accordance with this item (B) qualify as eligible collateral.

(v) Proportional cover

In respect of both the simple approach and the comprehensive approach for the recognition of risk mitigation, when a bank obtained collateral of which the value is less than the amount of the bank's exposure to credit risk, the bank shall recognise the credit protection on a proportional basis, that is, the protected portion of the exposure shall be risk weighted in accordance with the relevant provisions of this paragraph (b) and the remainder of the credit exposure shall be regarded as unsecured.

(vi) Risk weighting: Simple approach

A bank that adopted the simple approach relating to credit risk mitigation shall risk weight its exposures in accordance with, and comply with, the relevant requirements specified in subregulation (7)(b).

(vii) Risk weighting: Comprehensive approach

A bank that obtained eligible financial collateral and that adopted the comprehensive approach for the measurement of the bank's protected exposure-

(A) shall calculate an adjusted exposure in accordance with the relevant formulae set out in subparagraphs (viii) to (x) below;

(B) shall in the calculation of the bank's adjusted exposure-

(i) make use of the haircut percentage specified in table 9 in subparagraph (xi) below in order to adjust both the amount of the exposure and the value of the collateral; or

(ii) with the prior written approval of the Registrar and subject to the bank complying with the minimum quantitative and qualitative requirements specified in subparagraphs (xii) and (xiii) below, and such further conditions as may be specified in writing by the Registrar, rely on the bank's own estimates of market price volatility and foreign exchange volatility, provided that the bank-

(aa) shall separately estimate the volatility of the collateral instrument or foreign exchange mismatch;

(bb) shall not take into consideration any correlation between the unsecured exposure, the collateral or the exchange rates;

(iii) in the case of transactions subject to further commitment, that is, repurchase or resale agreements-

(aa) apply a haircut of zero per cent, provided that the bank complies with the minimum conditions relating to a haircut of zero per cent specified in subparagraph (xv) below;

(bb) recognise the effects of bilateral master netting agreements, provided that the bank complies with the minimum conditions relating to bilateral master netting agreements specified in subparagraph (xvi) below; or

(cc) apply the results of a VaR model approach to reflect the price volatility of the exposure and the collateral, provided that the bank complies with the minimum conditions relating to the VaR model approach specified in subparagraph (xvii) below.

Notwithstanding the choice made between the standardised approach and the foundation IRB approach for the measurement of the bank's exposure to credit risk, a bank may choose to use the standard haircut percentages specified in table 9 in subparagraph (xi) below or the bank's own estimates of haircuts.

However, once a bank decided to use its own estimated haircuts, the bank shall apply its own haircuts to the full range of instrument types for which the bank obtained approval to use own estimates, except in the case of immaterial portfolios when the bank may use the standard haircuts prescribed in table 11 in subparagraph (xi) below.

(C) shall calculate its risk weighted exposure by multiplying the adjusted exposure with the risk weight of the relevant counterparty.

(viii) *Comprehensive approach: formula for the calculation of a bank's adjusted exposure in the case of a collateralised transaction*

A bank-

(A) shall in the case of a collateralised transaction, other than a collateralised OTC derivative transaction subject to the current exposure method, calculate its adjusted exposure through the application of the formula specified below, which formula is designed to recognise the effect of the collateral and any volatility in the amount relating to the exposure or collateral. The formula is expressed as:

$$E^* = \max \{0, [E \times (1 + He) - C \times (1 - Hc - Hfx)]\}$$

where:

E* is the amount of the exposure after the effect of the collateral is taken into consideration, that is, the adjusted exposure

E is the current value of the exposure before the effect of the collateral is taken into consideration

He is the relevant haircut that relates to the exposure

C is the current value of the collateral obtained by the bank

Hc is the haircut that relates to the collateral

Hfx is the haircut that relates to any currency mismatch between the collateral and the exposure

The haircut that relates to currency risk shall be 8 per cent, based on a ten business day holding period and daily mark-to-market.

(B) shall in the case of a collateralised OTC derivative transaction subject to the current exposure method, calculate its adjusted exposure in accordance with the relevant formula and requirements specified in subregulation (17).

(ix) Comprehensive approach: formula for the calculation of a bank's adjusted exposure when the effect of a master netting agreement is taken into consideration

A bank that applies the standard haircuts specified in subparagraph (xi) below, or its own estimated haircuts, which bank wishes to recognise the effects of bilateral master netting agreements, shall calculate its adjusted exposure through the application of the formula specified below, provided that the bank shall comply with the minimum requirements relating to bilateral netting agreements specified in subparagraph (xvi) below. The formula is expressed as:

$$E^* = \max \{0, [(\sum(E) - \sum(C)) + \sum (Es \times Hs) + \sum (Efx \times Hfx)]\}$$

where:

E* is the adjusted exposure after the effect of risk mitigation is taken into consideration

E is the relevant current value of the exposure

C is the value of the relevant collateral

Es is the absolute value of the net position in a given instrument

Hs is the relevant haircut that relates to Es, that is, the net long or short position of each instrument included in the netting agreement shall be multiplied with the appropriate haircut

Efx is the absolute value of the net position in a currency that differs from the settlement currency

Hfx is the haircut in respect of the currency mismatch

The haircut that relates to currency risk shall be 8 per cent, based on a ten business day holding period and daily mark-to-market.

(x) Comprehensive approach: formula for the calculation of a bank's adjusted exposure based on a VaR model approach

A bank that uses a VaR model approach to reflect the price volatility of the exposure and the collateral shall calculate its adjusted exposure through the application of the formula specified below:

E* = max {0, [(∑ E - ∑ C) + VaR output from the internal model]}

where:

E* is the adjusted exposure after the effect of risk mitigation is taken into consideration

E is the relevant current value of the exposure

C is the relevant value of the collateral

VaR is the previous business day's VaR amount

(xi) *Comprehensive approach: standard haircuts*

Table 9: Standard haircut[1]

Issue rating in respect of debt securities	**Residual maturity**	**Sovereigns[2]**	**Other issuers**	**Securitisation exposure**
AAA to AA-/A-1	≤ 1 year	0.5	1	2
	> 1 year; ≤ 5 years	2	4	8
	> 5 years	4	8	16
A+ to BBB-/ A-2/ A-3/ P-3 and unrated bank securities qualifying as eligible collateral in terms of the simple approach	≤ 1 year	1	2	4
	> 1 year; ≤ 5 years	3	6	12
	> 5 years	6	12	24
BB+ to BB-	All	15		
Securities issued by the Central Government of the RSA or the Reserve Bank	≤ 1 year	1		
	> 1 year; ≤ 5 years	3		
	> 5 years	6		
Main index equities, including convertible bonds, and gold		15		
Other equities, including convertible bonds, recognised on a licensed exchange		25[3]		
UCITS/ Mutual funds		Highest haircut applicable to any security in which the fund may invest		
Cash in the same currency[4]		0		

1. **Based on daily mark-to-market adjustments, daily remargining and a ten business day holding period, expressed as a percentage.**
2. **Including multilateral development banks or public-sector entities that qualify for a risk weight of zero per cent.**
3. **Also relates to instruments that are not recognised as eligible collateral in respect of exposures included in the banking book but qualify as eligible collateral for repurchase or resale agreements included in the bank's trading book – refer to subparagraph (iv)(B) above.**
4. **Including cash collateral instruments qualifying as eligible collateral in terms of subparagraphs (iii)(A) and (iii)(B) above.**

When a bank obtained collateral that consists of a basket of instruments, the haircut in respect of the basket of instruments shall be calculated in accordance with the formula specified below, which formula is designed to weight the collateral in the basket.

$$H = \sum a_i H_i$$

where:

a_i is the relevant weight of the asset, measured in terms of the relevant currency units, in the basket

H_i is the haircut applicable to the relevant asset

(xii) Comprehensive approach: quantitative criteria relating to own estimates of haircuts

As a minimum, a bank that wishes to calculate its own haircuts for purposes of calculating the bank's adjusted exposure-

(A) shall use a 99th percentile, one-tailed confidence interval;

(B) shall base its calculations on the relevant requirements specified in table 10 in subparagraph (xiv) below in respect of the type of transaction, the minimum holding period and the frequency of remargining and marking to market, provided that when a bank's own estimates of haircuts are based on shorter or longer holding periods than the minimum holding periods specified in table 10, the bank shall use the relevant square root of time formula to scale the relevant haircuts up or down to the appropriate minimum holding period;

(C) shall take into account the lack of liquidity of lower quality assets, that is, the bank shall adjust the holding period upwards in cases where the holding period is regarded as inappropriate based on the liquidity of the collateral;

(D) shall identify any situations in which historical data may understate potential volatility, such as in the case of a pegged currency, in which case the bank shall subject the data to stress tests;

(E) shall apply a historical observation period for the calculation of haircuts of no less than one year.

When a bank uses a weighting scheme or other method for the historical observation period, the effective observation period shall be at least one year, that is, the weighted average time lag of the individual observations shall not be less than 6 months.

(F) shall update its data sets at least once every three months;

(G) shall reassess the data whenever market prices are subject to material change.

(xiii) Comprehensive approach: qualitative criteria relating to own estimates of haircuts

As a minimum, a bank that wishes to calculate its own haircuts for purposes of calculating the bank's adjusted exposure-

(A) shall use the estimated volatility data, including the holding period, in the day-to-day risk management process of the bank;

(B) shall have in place a robust process in order to ensure compliance with the bank's documented set of internal policies, controls and procedures relating to the operation of the risk measurement system;

(C) shall use its risk measurement system in conjunction with internal exposure limits;

(D) shall on a regular basis conduct an independent review of its risk measurement system as part of the bank's own internal auditing process;

(E) shall at regular intervals, but not less frequently than once a year, conduct a comprehensive review of the bank's overall risk management process, which review, as a minimum, shall address-

(i) the integration of the bank's risk measures into its daily risk management process;

(ii) the validation of any significant change in the bank's risk measurement process;

(iii) the accuracy and completeness of any position data;

(iv) the verification of the consistency, timeliness and reliability of data sources used in the application of the bank's internal models, including the independence of such data sources;

(v) the accuracy and appropriateness of assumptions relating to volatility.

(xiv) *Comprehensive approach: requirements related to adjustments for different holding periods and non daily mark-to-market or remargining*

(A) The framework for collateral haircuts applied in these Regulations in respect of the comprehensive approach-

(i) distinguishes between-

(aa) repo-style transactions, that is, transactions such as repurchase or resale agreements, and securities lending or borrowing transactions;

(bb) other capital-market-driven transactions, that is, transactions such as OTC derivatives and margin lending; and

(cc) secured lending;

(ii) is summarised in table 10 below, also specifying the relevant respective minimum holding periods:

Table 10

Transaction type	Minimum holding period	Condition
Repo-style transaction	Five business days	Daily remargining
Other capital market transactions	Ten business days	Daily remargining
Secured lending	Twenty business days	Daily revaluation

(B) When-

(i) a bank entered into a transaction or has a netting set that meets the relevant criteria specified in subregulations (19)(e)(ii)(A) to (19)(e)(ii)(D), the relevant minimum holding period specified in table 10 shall be adjusted to be equivalent to the relevant margin period of risk envisaged in subregulation (19)(e)(ii);

(ii) the frequency of remargining or revaluation is longer than the minimum period specified in table 10 above, the relevant percentage in respect of the relevant specified minimum haircut shall be scaled up depending on the actual number of business days between remargining or revaluation, using the square root of time formula specified below:

$$H = H_M \sqrt{\frac{N_R + (T_M - 1)}{T_M}}$$

where:

H is the relevant haircut

H_M is the relevant haircut in respect of the minimum holding period

T_M is the relevant minimum holding period for the type of transaction

N_R is the actual number of business days between remargining for capital market transactions or revaluation in respect of secured transactions

For example, when a bank calculates the volatility on a T_N day holding period which is different from the specified minimum holding period T_M, the bank shall calculate the relevant haircut H_M using the square root of time formula specified below:

$$H_M = H_N \sqrt{\frac{T_M}{T_N}}$$

where:

H_M= the adjusted haircut

T_N= holding period used by the bank for deriving H_N

H_N= haircut based on the holding period T_N

Similarly, when the frequency of remargining or revaluation is longer than the minimum period specified in table 10 above, the relevant percentage in respect of the minimum haircut shall be scaled up depending on the actual number of business days between remargining or revaluation, using the relevant square root of time formula.

For example, based on the relevant specified square root of time formula, a bank that uses the standard haircuts specified in table 9 in subparagraph (xi) above shall use the relevant ten business day haircut percentages specified in the table as a basis in scaling the said haircut percentages up or down depending on the type of transaction and the frequency of remargining or revaluation, as specified below:

$$H = H_{10}\sqrt{\frac{N_R + (T_M - 1)}{10}}$$

where:

H = adjusted haircut

H_{10}= the ten business day standard haircut in respect of the instrument, specified in table 9 in subparagraph (xi) above

N_R= the actual number of business days between remargining for capital market transactions or revaluation for secured transactions

T_M= the minimum holding period for the type of transaction

(xv) Comprehensive approach: Minimum conditions relating to a haircut of zero per cent in the case of repo-style transactions

In the case of any repo-style transaction, a bank other than a bank that obtained the approval of the Registrar to apply its VaR model to reflect price volatility as envisaged in subparagraph (xvii) below may apply a haircut of zero per cent, provided that-

(A) both the exposure and the collateral shall consist of cash or a sovereign security or public-sector security qualifying for a zero per cent risk weight in terms of the standardised approach;

(B) both the exposure and the collateral shall be denominated in the same currency;

(C) the transaction shall be overnight or both the exposure and the collateral shall be marked to market on a daily basis and shall be subject to daily remargining;

(D) following the failure of the counterparty to remargin, the time that is required from the last mark-to-market adjustment, before the failure to remargin occurred, and the liquidation of the collateral, shall be no more than four business days;

(E) the transaction shall be settled across a settlement system proven for the said type of transaction;

(F) the documentation in respect of the agreement shall be standard market documentation for the said transactions;

(G) the transaction shall be governed by documentation that specifies that when the counterparty fails to satisfy an obligation to deliver cash or securities or to deliver margin, or otherwise defaults, the transaction shall be immediately terminable;

(H) upon any default event, regardless whether the counterparty is insolvent or bankrupt, the bank shall have the unfettered, legally enforceable right to immediately seize and liquidate the collateral for the bank's benefit;

(I) the agreement shall be concluded with-

(i) a sovereign;

(ii) a central bank;

(iii) a public-sector entity;

(iv) a bank or securities firm provided that in the case of a securities firm the firm shall be subject to supervisory and regulatory arrangements comparable to banks in the Republic, including, in particular, risk-based capital requirements and regulation and supervision on a consolidated basis;

(v) other financial institutions, including an insurance company, eligible for a risk weight of 20 per cent in terms of the standardised approach;

(vi) a regulated mutual fund specified in writing by the Registrar provided that the said mutual fund shall be subject to capital or leverage requirements;

(vii) a regulated pension fund specified in writing by the Registrar;

(viii) a clearing institution specified in writing by the Registrar;

(ix) subject to such conditions as may be specified in writing by the Registrar, such other person or institution as may be determined by the Registrar.

(xvi) Comprehensive approach: Minimum conditions relating to bilateral master netting agreements

A bank-

(A) that concludes a repo-style agreement or transaction with a counterparty, which agreement or transaction is included in a bilateral master netting agreement, may recognise the effects of the bilateral master netting agreement, provided that the said netting agreement-

(i) shall be legally enforceable in each relevant jurisdiction upon the occurrence of an event of default, regardless whether the counterparty is insolvent or bankrupt.

In cases of legal uncertainty, the reporting bank shall obtain a legal opinion to the effect that its right to apply netting of gross claims is legally well founded and would be enforceable in the liquidation, default or bankruptcy of the counterparty or the bank;

(ii) shall provide the non-defaulting party upon an event of default, including in the event of insolvency or bankruptcy of the counterparty, the right to terminate and close-out, in a timely manner, all transactions included in the agreement;

(iii) shall make provision for-

(aa) the netting of gains and losses relating to all transactions included in the agreement, including the value of any collateral, which transactions were terminated and closed out, resulting in a single net amount which shall be owed by the one party to the other;

(bb) the prompt liquidation or set-off of collateral upon an event of default.

(B) may net positions held in its banking book against positions held in its trading book, provided that-

(i) all the relevant transactions shall be marked to market on a daily basis; and

(ii) the collateral instruments used in the relevant transactions shall constitute eligible financial collateral in the banking book.

(xvii) Comprehensive approach: Minimum conditions relating to the use of VaR models

As an alternative to the use of the standard haircuts specified in table 9 in subparagraph (xi) above, or the calculation of own estimated haircuts, a bank that obtained the prior written approval of the Registrar for the use of risk measures derived from the bank's internal risk-management model in respect of the bank's trading activities may use a VaR-model approach to reflect the price volatility of the exposure and the collateral in respect of repurchase or resale agreements, taking into account the effects of correlation between security positions, provided that-

(A) subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, the bank may also apply the VaR approach to margin lending transactions and other transactions similar to repo-style transactions or securities financing transactions;

(B) the VaR approach shall be applied-

(i) only to transactions covered by bilateral master netting agreements, that is, the VaR approach shall not be applied in respect of any repurchase agreement, resale agreement or margin lending transaction unless the relevant transaction is covered by a bilateral master netting agreement, which bilateral master netting agreement shall comply with the relevant requirements specified in subparagraph (xvi) above, and the relevant requirements specified in subregulations (17) to (19) below;

(ii) on a counterparty-by-counterparty basis;

(C) the bank-

(i) shall at all times comply with the relevant model validation requirements and operational requirements specified in regulations 39(8) and in subregulation (19), and such further requirements as may be specified in writing by the Registrar;

(ii) may in the case of repurchase and resale agreements apply a minimum holding period of five business days unless a five business day holding period is inappropriate based on the liquidity of the instrument;

(D) when the bank entered into a repo-style or similar transaction or has a netting set that meets the relevant criteria specified in subregulation (19)(e)(ii), the relevant minimum holding period shall be adjusted to be equivalent to the relevant margin period of risk envisaged in subregulation (19)(e)(ii).

(c) Guarantees

(i) Minimum requirements

As a minimum, a bank that adopted the standardised approach for risk mitigation relating to guarantees shall comply with-

(A) the relevant minimum requirements specified in subregulation (7)(c) above; and

(B) such further conditions as may be specified in writing by the Registrar.

(ii) Eligible guarantees/guarantors

For risk mitigation purposes in terms of these Regulations, credit protection obtained from guarantors that are assigned a risk weight lower than the protected exposure shall be recognised as eligible guarantees, including guarantees obtained from-

(A) sovereigns;

(B) central banks;

(C) public-sector entities;

(D) banks;

(E) multilateral development banks;

(F) securities firms;

(G) other externally rated entities assigned a risk weight lower than the protected exposure,

Provided that-

(i) when credit protection is provided in respect of a securitisation exposure, only entities that are externally rated BBB- or better at the end of the reporting month, and that were externally rated A- or better at the time that the credit protection was provided, shall constitute eligible protection for purposes of these Regulations, including any relevant credit protection provided by a parent institution, subsidiary or affiliate companies;

(ii) 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 standardised approach for risk mitigation obtains protection against loss in the form of an eligible guarantee in respect of the bank's exposure or potential exposure to credit risk, the risk weight applicable to the guaranteed transaction or guaranteed exposure may be reduced to the risk weight applicable to the relevant guarantor in accordance with the provisions of this paragraph (c).

The lower risk weight of the guarantor shall apply to the outstanding amount of the exposure protected by the guarantee, provided that the bank shall comply with the said relevant minimum requirements.

The unprotected portion of the exposure shall retain the risk weight relating to the relevant counterparty.

(iv) Materiality thresholds

For purposes of these Regulations, a materiality threshold below which no payment will be made in the event of a loss to the reporting bank or that reduces the amount of payment by the guarantor shall be regarded as equivalent to a retained first-loss position and shall be risk weighted in accordance with the relevant provisions of subregulation (6)(j) above.

(v) Proportional cover

When a bank obtains a guarantee for less than the amount of the bank's exposure to credit risk, the bank shall recognise the credit protection on a proportional basis, that is, the protected portion of the exposure shall be risk weighted in accordance with the relevant provisions of this paragraph (c) and the remainder of the credit exposure shall be regarded as unsecured.

(vi) Currency mismatches

When a bank obtains credit protection that is denominated in a currency that differs from the currency in which the exposure is denominated, the amount of the exposure deemed to be protected shall be reduced by the application of the formula specified below, which formula is designed to recognise the effect of the currency mismatch. The formula is expressed as:

$$G_A = G \times (1-H_{FX})$$

where:

G is the relevant nominal amount of the credit protection obtained

H_{FX} is the haircut relating to the currency mismatch between the credit protection and the underlying obligation.

The haircut shall be based on a ten business day holding period and daily mark to market.

When a bank applies the standard haircuts, a haircut equal to 8 per cent shall apply.

A bank shall use the relevant square root of time formula specified in paragraph (b)(xiv) above to scale up a haircut percentage when the holding period or frequency of mark-to-market adjustment differs from the specified minimum requirements.

(d) Credit-derivative instruments

(i) Risk weighting: Protection buyer (seller of credit risk)

(A) For the protected portion of a credit exposure, a bank that is a protection buyer shall substitute the risk weight relating to the eligible protection provider for the risk weight of the reference asset, reference entity or underlying asset.

The lower risk weight relating to the eligible protection provider shall apply to the outstanding amount of the transaction or exposure protected by the credit-derivative instrument, provided that all the relevant conditions specified in this paragraph (d) are met.

The unprotected portion of the exposure shall retain the risk weight relating to the relevant underlying exposure.

(B) When a bank hedges the credit risk relating to an exposure included in the bank's banking book with a credit-derivative instrument included in the bank's trading book, the bank shall only recognise the credit protection to the extent that the bank transferred the relevant credit risk to an eligible third party protection provider.

(C) In the case of-

(i) a first-to-default structure, the protection buyer shall recognise the credit protection in respect of the exposure with the lowest risk-weighted amount provided that the notional amount of the relevant credit exposure shall be lower than or equal to the notional amount of the credit-derivative instrument;

(ii) a second to default structure, the protection buyer shall recognise the protection only when the protection buyer also obtained first-to-default protection, or when one of the assets in the basket already defaulted;

(iii) a proportional structure, the protection buyer may proportionally recognise protection in respect of all relevant reference assets, reference entities or underlying assets.

(D) When a bank buys protection in the absence of an underlying exposure, or when bought protection is not eligible for recognition in the reporting bank's calculation of required capital in respect of an underlying exposure, the relevant credit-derivative instrument shall be ignored for purposes of calculating the reporting bank's capital requirements relating to banking activities.

(E) A materiality threshold contained in a credit-derivative contract that requires a given amount of loss to occur to the protection buyer before the protection seller is obliged to make payment to the protection buyer or reduces the amount of payment to the protection buyer shall be regarded as equivalent to a first-loss credit-enhancement facility applied in asset securitisation and synthetic securitisation structures.

A bank that is a protection buyer shall risk weight such a materiality threshold in accordance with the relevant provisions specified in subregulation (6)(j) above. The capital requirement in respect of such bought protection shall be limited to the capital requirement relating to the underlying asset or reference asset when no protection is recognised.

(ii) Risk weighting: Protection provider/seller (buyer of credit risk)

(A) A bank that is a protection provider shall treat the position arising from the credit-derivative instrument as though the bank had a direct credit exposure to the reference asset, reference entity or underlying asset.

(B) When a protection provider-

(i) provides protection in the form of a funded credit-derivative instrument, the protection seller, upon conclusion of the credit-derivative contract, is exposed to the sum of the credit risk relating to the reference asset, reference entity or underlying asset and the credit risk relating to the funds placed with the protection buyer.

The protection provider shall risk weight the exposure according to the risk weight applicable to the reference asset or underlying asset, or the risk weight applicable to the protection buyer, whichever risk weight is the highest.

The exposure at risk shall be limited to the maximum payment in terms of the credit-derivative contract.

(ii) entered into an unfunded credit-derivative contract, the protection seller is exposed only to the credit risk relating to the reference asset, reference entity or underlying asset.

(C) In the case of a first-to-default structure, the protection provider shall risk weight its exposure to credit risk in accordance with the relevant requirements specified below:

(i) In the case of a credit-derivative instrument with a rating assigned by an eligible institution, the protection provider shall multiply the amount of the position with the risk weight specified in table 11 below:

Table 11

External credit assessment[1]	Long term rating[1]				
	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Risk weight	20%	50%	100%	350%	1250%[2]
External credit assessment[1]	Short term rating[1]				
	A-1/P-1	A-2/P-2	A-3/P-3	All other	
Risk weight	20%	50%	100%	1250%[2]	

1. The notations used in this table relate to the ratings applied by a particular credit assessment institution. The use of the rating scale of a particular credit assessment institution does not mean that any preference is given to a particular credit assessment institution and the assessments/ rating scales of other external credit assessment institutions, recognised as eligible institutions in South Africa, may have been used instead.
2. Or such imputed percentage that will effectively result in an amount equivalent to a deduction against capital and reserve funds.

(ii) In the case of unrated exposures, the protection seller shall maintain capital against each of the reference assets, reference entities or underlying assets in the basket by aggregating the risk weights of the assets included in the basket up to a maximum of 1250 per cent, or such imputed percentage as may be applicable from time to time, and multiplying the aggregated risk weight with the notional amount of the protection provided, that is, the aggregate amount of capital held by the protection provider shall not exceed an amount equal to a deduction from capital.

(D) In the case of a second-to-default structure, the protection seller shall risk weight its exposure to credit risk in a manner similar to the method set out in item (C) above, which item (C) relates to a first-to-default structure, provided that in aggregating the risk weights relating to unrated exposures, the protection seller shall exclude from the aggregated risk weight the exposure with the lowest risk weight.

(E) In the case of a proportional structure, the protection seller shall proportionally attribute the relevant risk weights to all relevant reference assets, reference entities or underlying assets.

(iii) *Eligible protection providers*

For risk-mitigation purposes in terms of these Regulations, credit protection obtained from protection providers that are assigned a risk weight lower than the protected exposure shall be recognised as eligible protection providers, including protection obtained from:

(A) sovereigns;

(B) central banks;

(C) public-sector entities;

(D) banks;

(E) securities firms;

(F) other externally rated entities that are assigned a risk weight lower than the protected exposure,

Provided that when credit protection is provided in respect of a securitisation exposure, only entities that are externally rated BBB- or better at the end of the reporting month, and that were externally rated A- or better at the time the credit protection was provided, shall constitute eligible protection for purposes of these Regulations, including any relevant credit protection provided by a parent institution, subsidiary or affiliate companies.

(iv) *Funded credit-derivative instruments*

A bank may issue cash instruments, such as credit-linked notes, in respect of which instruments the repayment of the principal amount is linked to the credit standing of a reference asset, reference entity or underlying asset.

For risk-mitigation purposes, a bank shall treat credit-linked notes in a manner similar to cash-collateralised transactions.

(v) *Unfunded credit-derivative instruments*

(A) The capital treatment of the different credit risk-mitigation instruments recognized in terms of these Regulations shall be based on the economic effects of the instruments and not the legal construction of the said instruments.

Although the legal construction of guarantees may differ from credit-derivative instruments, only credit-default swaps and total-return swaps that provide credit protection equivalent to guarantees shall be recognised as credit risk-mitigation instruments, in addition to credit-linked notes, in terms of these Regulations.

(B) When a bank buys credit protection through a total-return swap and records the net payments received on the swap as net income, but does not record the offsetting deterioration in the value of the asset that is protected, either through a reduction in fair value or an adjustment to reserves, the credit protection shall not be recognised.

(vi) Materiality thresholds

(A) Normally, a materiality threshold is specified in a credit-derivative contract in order to ensure that the protection seller is obliged only to make payment in terms of the credit-derivative contract once a material default has occurred in respect of an underlying asset, reference asset or reference entity.

However, the economic effect of a materiality threshold specified in a credit-derivative contract may be that the protection buyer will suffer a specified amount of loss before payment in terms of the credit-derivative contract is triggered or the amount of payment by the protection seller to the protection buyer may even be reduced.

Materiality thresholds specified in a credit-derivative contract may therefore result in a significant loss being incurred by the protection buyer on an underlying asset or reference asset without a credit-event payment being made.

(B) Materiality thresholds below which no payment will be made in the event of a loss to the protection buyer or that reduce the amount of payment by the protection seller to the protection buyer shall for purposes of these Regulations be regarded as equivalent to a retained first-loss position and shall be risk weighted in accordance with the relevant provisions specified in subregulation (6)(j) above.

(C) A credit-derivative instrument with a materiality threshold that requires a high percentage of loss to occur before the protection seller is obliged to make payment to the protection buyer shall not be recognised for credit-risk mitigation purposes in terms of these Regulations.

(vii) Multiple-name instruments

(A) Multiple-name instruments refer to credit-derivative instruments that reference more than one reference asset, reference entity or underlying asset, that is, a basket of instruments. Multiple-name structures generally include-

(i) first-to-default structures, that is, the first default amongst the reference names triggers the credit protection and the credit event also terminates the protection;

(ii) second-to-default structures, that is, the second default amongst the reference names triggers the credit protection and the credit event also terminates the protection.

(B) When the number of exposures in a basket is significant, the transaction will be regarded as a synthetic securitisation scheme. Such transactions shall be subject to the provisions of the exemption notice relating to securitisation schemes.

(C) For the purposes of these Regulations, the number of exposures in a basket shall be regarded as significant when the envisaged transaction will cause-

(i) the capital requirement of the reporting bank to increase or decrease by 5 per cent or more; or

(ii) the amount of the relevant portfolio of the reporting bank in respect of which the transaction will be concluded to increase or decrease by 5 per cent or more.

(viii) Settlement

(A) Normally, credit-derivative instruments provide for either physical settlement or cash settlement.

(B) Some credit-derivative instruments provide for pre-agreed amounts to be paid when a credit event occurs. These contracts are generally referred to as binary or digital contracts.

When the payment in terms of a credit-derivative instrument is a fixed amount, that is, a binary payment, the amount of protection shall be the amount of the fixed payment.

CONTINUES ON PAGE 162—PART 2

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PART 2 OF 8

35950
9771682584003

(C) Physical settlement, for example, involves the delivery by a protection buyer of an obligation of the reference entity specified in the contract in return for cash settlement by the protection seller of the reference amount.

When obligations in terms of credit-derivative instruments are physically settled, problems associated with the valuation of the reference asset, reference entity or underlying asset following a credit event are avoided.

(D) Cash settlement requires a cash settlement amount to be calculated by a calculating agent specified in the contract. Following the occurrence of a credit event in respect of the reference asset, reference entity or underlying asset, the cash settlement amount is normally calculated as-

- the nominal amount of protection purchased; **multiplied by**
- the value of the reference asset, reference entity or underlying asset at inception (the value is normally expressed as a percentage, for example, 100 per cent); **less**
- the "final value", which value is normally expressed as a percentage of the reference asset, reference entity or underlying asset on the cash-settlement date.

(ix) *Foreign-currency positions*

A bank shall include in the forms BA 320 and BA 325 all relevant foreign-currency positions created by credit-derivative instruments when the bank calculates its aggregate effective net open foreign-currency position.

(x) *Proportional cover*

When a bank obtains credit protection for less than the amount of the bank's exposure to credit risk, the bank shall recognise the credit protection on a proportional basis, that is, the protected portion of the exposure shall be risk weighted in accordance with the provisions of this paragraph (d) and the remainder of the credit exposure shall be regarded as unsecured.

(xi) Minimum requirements relating to credit-derivative instruments

(A) General requirement

(i) Notwithstanding the provisions of these Regulations, a bank that wishes to engage in credit-derivative transactions-

(aa) shall obtain the prior written approval of the Financial Surveillance Department of the Reserve Bank in respect of any such transaction involving a non-resident person;

Should the Financial Surveillance Department of the Reserve Bank grant its approval to the said transaction, the bank shall adhere to such rules, conditions or such regulations as may be specified by the Financial Surveillance Department of the Reserve Bank relating to such credit-derivative instruments;

(bb) shall comply with such rules, conditions or such regulations as may be specified by the Financial Surveillance Department of the Reserve Bank relating to credit-derivative instruments.

(ii) Protection from a credit-derivative contract shall be recognised in terms of these Regulations to the extent-

(aa) that such protection was not already taken into consideration in the calculation of the reporting bank's required amount of capital and reserve funds;

(bb) that such protection can be realised by the reporting bank under normal market conditions, that is, the value at which the protection can be realised shall not differ materially from its book value.

(B) Specific requirements

A bank that wishes to recognise the risk-mitigation effect of protection obtained in the form of a credit-derivative instrument in the calculation of the bank's credit exposure shall comply with the requirements specified below:

(i) *Direct*

The credit protection shall constitute a **direct claim** on the protection seller.

(ii) *Explicit*

The credit protection shall be linked to specific credit exposures, so that the extent of the cover is duly defined and incontrovertible.

(iii) *Irrevocable*

Other than a protection buyer's non-payment of money due in respect of the credit protection contract, there shall be no clause in the contract that would allow the protection seller unilaterally to cancel the credit protection or increase the effective cost of the protection as a result of deterioration in the credit quality of the protected exposure.

(iv) *Unconditional*

There shall be no clause in the contract other than clauses relating to procedural requirements that could prevent the protection seller from being obliged to make payment in a timely manner should a credit event occur in respect of an underlying asset, reference entity or reference asset.

(v) The credit protection shall be legally enforceable in all relevant jurisdictions

In cases of uncertainty, a bank shall obtain legal opinion confirming the enforceability of the credit protection in all relevant jurisdictions and that the bank's rights are legally well founded. Legal opinions shall be updated at appropriate intervals in order to ensure continuing enforceability.

(vi) The protection seller shall not have any formal recourse to the protection buyer in respect of losses incurred by the protection seller.

(vii) In the case of a funded single-name credit-derivative contract, the protection buyer shall not be obliged to repay any funds received from the protection seller in terms of the credit-derivative contract, except at the maturity date of the contract, provided that no credit event has occurred during the period of bought protection or as a result of a defined credit event, and then in accordance with the terms of payment defined in the contract.

(viii) In order to obtain full recognition of the protection obtained, the base currency of a credit-derivative instrument shall be the same currency as the currency in which the credit exposure that is protected is denominated.

When a credit-derivative instrument is denominated in a currency that differs from the currency in which the credit exposure is denominated, that is, when there is a currency mismatch, the bought protection may be less than expected owing to fluctuations in the exchange rates.

When a bank obtains credit protection that is denominated in a currency that differs from the currency in which the exposure is denominated, the amount of the exposure deemed to be protected shall be reduced by the application of the formula specified below, which formula is designed to recognise the effect of the currency mismatch. The formula is expressed as:

$G_A = G \times (1 - H_{FX})$

where:

G_A is the relevant adjusted value of the protection

G is the relevant nominal amount of the credit protection obtained

H_{FX} is the haircut relating to the currency mismatch between the credit protection and the underlying obligation.

The haircut shall be based on a ten business day holding period and daily mark to market.

When a bank applies the standard haircuts, a haircut equal to 8 per cent shall apply.

A bank shall use the relevant square root of time formula specified in paragraph (b)(xiv) above to scale up a haircut percentage when the holding period or frequency of mark-to-market adjustment differs from the specified minimum requirements.

(ix) *Robust risk-management process*

While credit-derivative instruments reduce credit risk, they simultaneously increase other risks to which a bank is exposed, such as legal and operational risks.

Therefore, a bank shall employ robust procedures and processes to control the aforesaid risks.

As a minimum, a robust risk-management process relating to credit-derivative instruments shall include the fundamental elements specified below:

(aa) Strategy

A duly articulated strategy for credit-derivative instruments shall form an intrinsic part of a bank's general credit strategy and overall liquidity strategy.

(bb) Focus on underlying credit

A bank shall continue to assess an exposure that is hedged by a credit-derivative instrument on the basis of the borrower's creditworthiness. A bank shall obtain and analyse sufficient financial information to determine the obligor's risk profile and its risk management and operational capabilities.

(cc) Systems

A bank's policies and procedures shall be supported by management systems capable of tracking the location and status of its credit-derivative instruments.

(dd) Concentration risk

A bank shall have in place a duly defined policy with respect to the amount of concentration risk that it is prepared to accept.

A bank shall take into account purchased credit protection when assessing the potential concentrations in its credit portfolio, including when the bank determines its concentration risk in terms of section 73 of the Act.

A bank shall monitor general trends affecting its credit-protection sellers, in order to mitigate its concentration risk.

(ee) Roll-off risks

When a bank obtains credit protection that differs in maturity from the underlying credit exposure, the bank shall monitor and control its roll-off risks, that is, the factthat the bank will be exposed to the full amount of the credit exposure when the credit protection expires.

(x) As a minimum, the risk management systems of the reporting bank shall be adequate-

(aa) to capture the credit risk relating to a reference asset, reference entity or underlying asset acquired through a credit-derivative contract and any counterparty risk arising from an unfunded over-the-counter credit-derivative contract within the normal credit approval and credit monitoring processes;

(bb) to assess the probability of default correlation between the reference asset, reference entity or underlying asset and the protection provider;

(cc) to provide valuation procedures, including assessment and monitoring of the liquidity of the credit-derivative instrument and the reference asset or underlying asset. This is particularly important for credit-derivative contracts when the reference asset or underlying asset is illiquid, for example, a loan, or when the derivative instrument has multiple reference assets, reference entities or underlying assets;

(dd) to assess the impact on liquidity risk when the reporting bank has transferred a significant amount of credit risk through the use of funded credit-derivative instruments with a shorter maturity than the underlying credit exposure;

(ee) to assess the impact on capital adequacy when the reporting bank has transferred a significant amount of credit risk through the use of unfunded credit-derivative instruments and when a replacement contract may not be available when the credit protection expires;

(ff) to assess the change in the risk profile of the remaining credit exposures in terms of both the quality and the spread of the portfolio, when the reporting bank makes extensive use of credit-derivative instruments to transfer risk;

(gg) to assess the basis risk between the reference asset exposure and the underlying asset exposure when these exposures are not the same;

(hh) to monitor the legal and reputational risk associated with credit-derivative instruments;

(ii) to monitor the credit risk on an ongoing basis.

(xi) As a minimum, the credit events relating to non-sovereign debt, specified by the contracting parties shall include:

(aa) Bankruptcy or insolvency.

(bb) Any application for protection from creditors.

(cc) Payment default, that is, failure to pay the principal amount or related interest amounts due.

(dd) Any restructuring of the underlying obligation that results in a credit loss event such as a credit impairment or other similar debit being raised, including-

(i) a reduction in the rate or amount of interest payable or the amount of scheduled interest accruals;

(ii) a reduction in the amount of principal, fees or premium payable at maturity or at the scheduled redemption dates;

(iii) a change in the ranking in the priority of payment of any obligation, causing the subordination of such obligation;

(iv) a postponement or other deferral of a date or dates for either the payment or accrual of interest or the payment of the principal amount or premium.

When the credit-derivative instrument does not include the restructuring of the underlying obligation as a credit event, it shall be deemed that the bank obtained protection equal to a maximum of sixty per cent of the amount covered in terms of the credit-derivative instrument.

(xii) As a minimum, the credit events relating to sovereign debt, specified by the contracting parties shall include:

(aa) Any moratorium on the repayment of the principal amount or related interest amounts due.

(bb) Repudiation.

(cc) Payment default, that is, failure to pay the principal or related interest amounts due.

(dd) Any restructuring of the underlying obligation that results in a credit loss event such as a credit impairment or other similar debit being raised, including-

(i) a reduction in the rate or amount of interest payable or the amount of scheduled interest accruals;

(ii) a reduction in the amount of principal, fees or premium payable at maturity or at the scheduled redemption dates;

(iii) a postponement or other deferral of a date or dates for either the payment or accrual of interest or the payment of the principal amount or premium;

When the credit-derivative instrument does not include the restructuring of the underlying obligation as a credit event, it shall be deemed that the bank obtained protection equal to a maximum of sixty per cent of the amount covered in terms of the credit-derivative instrument.

(xiii) Contracts allowing for cash settlement will be recognised for risk-mitigation purposes, provided that a robust valuation process is in place in order to estimate loss reliably. There shall be a duly specified period for obtaining post credit-event valuations of the reference asset or underlying obligation, typically not more than 30 days.

(xiv) The grace period specified in the credit-derivative contract shall not be longer than the relevant grace period provided for failure to pay in terms of the underlying obligation.

(xv) The protection buyer shall have the right and ability to transfer the underlying obligation or reference asset to the protection seller, if such underlying obligation or reference asset is required for settlement.

(xvi) The delivery of the underlying obligation or reference asset shall not contravene any term or condition relating to the underlying asset or reference asset, and consent shall be obtained when necessary.

(xvii) The identity of the person(s) responsible for determining whether a credit event has occurred, and the sources to be used, shall be duly defined. This determination shall not be the sole responsibility of the protection seller. The protection buyer shall have the right and ability to inform the protection seller of the occurrence of a credit event.

(xviii) *Asset mismatch*

When the reference asset and the underlying asset being hedged differ the protection buyer may suffer a loss on the underlying credit exposure that will not be fully compensated by an equivalent claim against the protection seller.

When there is an asset mismatch between the underlying exposure and the reference asset the protection buyer will be allowed to reduce the credit exposure provided that-

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

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

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

(dd) the terms and conditions of the credit-derivative contract do not contravene the terms and conditions of the underlying asset or reference asset.

(e) Maturity mismatches

(i) A maturity mismatch occurs when the residual maturity of the credit protection obtained in the form of eligible collateral, guarantees or credit-derivative instruments, or in terms of a netting agreement, is less than the residual maturity of the underlying credit exposure, that is, when the residual maturity of the credit protection is-

(A) less than the residual maturity of the underlying credit exposure a maturity mismatch exists and the bank shall treat the relevant positions in accordance with the relevant requirements of this paragraph (e);

(B) longer than the residual maturity of the underlying credit exposure, the position shall be regarded as fully protected.

(ii) A bank shall conservatively define the maturity of the underlying exposure and the maturity of the credit protection.

The effective maturity of the underlying exposure shall be the longest possible remaining time before the obligor is scheduled to fulfil its obligation.

Embedded options that may reduce the term of the credit protection shall be taken into account when the effective maturity of the credit protection is determined so that the shortest possible effective maturity is used. For example, the effective maturity of credit protection with step-up and call features will be the remaining time to the first call.

(iii) In the case of maturity mismatched credit protection in respect of which the original maturity of the relevant credit protection is less than one year such credit protection shall not be recognised for credit-risk mitigation purposes in terms of these Regulations unless the said credit protection has a matching maturity with the underlying credit exposure(s), that is, credit protection with an original maturity of less than one year shall be recognised only when-

(A) the maturity of the protection and the maturity of the exposure is matched; or

(B) the residual maturity of the protection is longer than the residual maturity of the exposure,

provided that in the calculation of its minimum required amount of capital and reserve funds a bank shall in no case recognise credit protection obtained when the residual maturity of such credit protection is less than or equal to three months.

(iv) When a bank obtained eligible protection, which bank adopted-

(A) the simple approach for the recognition of risk mitigation relating to collateral, a reduction in the risk exposure of the bank shall be allowed only when the maturity of the collateral and the maturity of the exposure is matched, that is, collateral obtained by the bank as security against an exposure of the bank shall be pledged as security for the full duration of the bank's exposure;

(B) the comprehensive approach for the recognition of risk mitigation relating to netting, collateral, guarantees or credit-derivative instruments, shall recognise the effect of mismatches between the maturity of the bank's underlying exposure and the protection obtained through the application of the formula specified below, which formula is designed to recognise the effect of the maturity mismatch. The formula is expressed as:

$$Pa = P \times (t-0.25)/(T-0.25)$$

where:

Pa is the relevant value of the credit protection obtained, adjusted for the maturity mismatch

P is the relevant amount of credit protection obtained, adjusted for any haircuts

t is min (T, residual maturity of the credit protection arrangement), expressed in years

T is min (5, residual maturity of the exposure), expressed in years

(v) When a bank obtains protection that differs in maturity from the underlying credit exposure the bank shall monitor and control its roll-off risks, that is, the fact that the bank will be exposed to the full amount of the credit exposure when the protection expires.

The bank may be unable to obtain further protection or to maintain its capital adequacy when the protection expires.

(f) *Treatment of pools of risk mitigation instruments*

(i) When a bank obtains-

(A) multiple risk mitigation instruments in order to protect a single exposure, that is, the bank has obtained, for example, collateral, guarantees and credit-derivative instruments partially protecting an exposure; or

(B) protection with differing maturities,

the bank shall subdivide the exposure into portions covered by the relevant types of risk mitigation instruments.

(ii) A bank shall separately calculate its risk-weighted exposure relating to each relevant portion envisaged in subparagraph (i) above.

(g) *Risk mitigation in respect of a securitisation exposure*

When a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk obtains protection in respect of a securitisation exposure the bank shall calculate its risk weighted exposure in respect of the said exposure in accordance with the relevant requirements specified in subregulation (7)(e) read with the relevant requirements specified in this subregulation (9).

(h) *Tranched cover*

When a bank transfers to a protection seller or sellers a portion of the risk arising from an exposure in one or more tranches whilst the said bank retains some level of risk, and the risk transferred and the risk retained are of different seniority, the bank may obtain credit protection, for example, in respect of the more senior tranches, such as the second loss position, provided that in all cases the bank shall apply the relevant rules and requirements relating to securitisation exposures specified in the exemption notice relating to securitisation schemes read with the relevant requirements specified in subregulations (6)(h), (6)(j), (7)(e) and (8)(h) above.

(10) Calculation of credit risk exposure: IRB approach

Subject to the relevant provisions of regulation 38(2) and subregulation (20), a bank that wishes to adopt the IRB approach for the measurement of the bank's exposure to credit risk-

(a) shall obtain the prior written approval of the Registar;

Should the Registrar grant his/her approval, the bank shall in addition to the minimum requirements relating to the IRB approach specified in subregulation (11)(b) below, continuously comply with such conditions as may be specified in writing by the Registrar;

(b) shall calculate its exposure to credit risk, at the discretion of the bank, either in accordance with the provisions of Method 1, as set out in subregulations (11) and (12) below, or Method 2, as set out in subregulations (13) and (14) below, or, subject to such conditions as may be specified in writing by the Registrar, a combination of the said methods.

(11) Method 1: Calculation of credit risk exposure in terms of the foundation IRB approach

(a) Unless specifically otherwise provided, a bank that obtained the prior written approval of the Registrar to adopt the foundation IRB approach to calculate the bank's exposure to credit risk in respect of positions held in the bank's banking book-

(i) shall continuously comply with the relevant minimum requirements specified in paragraph (b) below and such further conditions as may be specified in writing by the Registrar in respect of any asset class subject to the IRB approach;

(ii) shall continuously comply with the relevant minimum disclosure requirements specified in regulation 43(2);

(iii) shall categorise its exposures in accordance with the relevant requirements specified in paragraph (c) below;

(iv) shall calculate its risk-weighted exposures in accordance with the relevant requirements and risk components specified in paragraph (d) below;

(v) shall apply the IRB approach for the measurement of the bank's securitisation or resecuritisation exposure, that is, a bank shall not use the IRB approach for the measurement of the bank's securitisation or resecuritisation exposure unless the bank obtained the prior written approval of the Registrar to apply the IRB approach for the measurement of the bank's exposure to underlying credit exposure, provided that the bank shall in respect of the said securitisation or resecuritisation exposures comply with the relevant requirements specified in paragraph (b)(xii) below.

(vi) shall calculate any relevant credit impairment, amongst other things, in accordance with the relevant requirements specified in subregulation (22);

(vii) shall deduct from the bank's capital and reserve funds, or risk weight such amounts, as may be specified in paragraph (q) below.

(b) Minimum requirements

(i) Subject to such conditions as may be specified in writing by the Registrar, a bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book shall apply the said approach in respect of all the bank's material asset classes and business units.

(ii) For a minimum period of three years or such lesser minimum period as may be specified in writing by the Registrar, prior to a bank's implementation of the foundation IRB approach for the measurement of the bank's exposure to credit risk, the rating and risk estimation systems and processes of the bank should have-

(A) provided a meaningful assessment of borrower and transaction characteristics;

(B) provided a meaningful differentiation of risk;

(C) provided materially accurate and consistent quantitative estimates of risk;

(D) produced internal ratings and default and loss estimates that formed an integral part of the bank's-

(i) credit approval process;

(ii) risk management process;

(iii) internal capital allocation process;

(iv) corporate governance process;

(E) been subjected to appropriate internal controls and independent review;

(F) been broadly in compliance with the minimum requirements specified in this subregulation (11).

(iii) As a minimum, a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book shall have in place a duly documented credit policy, which credit policy-

(A) shall be applied consistently over time for internal risk management purposes and in terms of the IRB approach;

(B) shall in the case of exposures relating to corporate institutions, sovereigns or banks duly specify the relationship between borrower grades in terms of the level of risk that each grade implies, that is, the perceived and measured risk shall increase as the credit quality of an exposure declines from one grade to the next;

(C) shall in the case of exposures relating to corporate institutions, sovereigns or banks duly specify the risk represented in each risk grade in terms of both a description of the probability of default risk typical for obligors assigned to the specific grade and the criteria used to distinguish that level of credit risk;

(D) shall be sufficiently robust to ensure that-

(i) each relevant individual legal entity or person to which the bank is exposed is separately rated;

(ii) the bank duly specifies the treatment of individual entities in a connected group, including the circumstances under which the same rating may or may not be assigned to all or some related entities;

(iii) the bank develops and maintains a robust process for the identification of specific wrong way risk for each relevant person or legal entity to which the bank is exposed;

(iv) transactions with counterparties where specific wrong way risk has been identified are appropriately treated in accordance with the relevant requirements specified in these Regulations;

(E) shall reinforce and foster the independence of the rating process;

(F) shall duly specify the bank's process relating to the assignment of ratings to credit exposures;

(G) shall duly specify the situations in which the senior management of the bank may override the output of the rating process, including how and to what extent such overrides may be used, and the names of senior management who may approve overrides of the model's output;

(H) shall contain comprehensive requirements to assess the creditworthiness of persons with overdraft facilities;

(I) shall comprehensively deal with-

(i) overdue amounts, including the manner in which the bank determines the number of past due days in respect of credit exposures;

(ii) exposures that are in default;

(iii) re-ageing of facilities or exposures, which re-aging, amongst other things, shall comprehensively deal with-

(aa) persons responsible for approval;

(bb) reporting requirements;

(cc) the minimum age of a facility or exposure before it is eligible for re-ageing;

(dd) the delinquency levels of facilities or exposures that are eligible for re-ageing;

(ee) the maximum number of exposures per facility, eligible for re-ageing;

(ff) a reassessment of the borrower's capacity to repay amounts due;

(iv) the granting of extensions, deferrals, renewals or rewrites in respect of existing accounts.

(iv) A bank that uses multiple systems to support its assessment of credit risk-

(A) shall duly document-

(i) the rationale for assigning a particular obligor to a particular rating system;

(ii) the specific industries or market segments to which a particular rating system applies;

(B) shall allocate the bank's obligors to a rating system in a manner that best reflects the level of risk of a particular obligor.

(v) Without derogating from the provisions of subparagraphs (i) to (iv) above, the rating and risk estimation systems and processes of a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book-

(A) shall in the case of exposures to corporate institutions, sovereigns or banks, excluding any exposures relating to specialised lending that were mapped into the standardised rating categories specified in paragraph (d)(iii)(C) below, have separate and distinct dimensions relating to-

(i) the risk of borrower default, that is, separate exposures to the same obligor shall be assigned to the same borrower grade, irrespective of any differences in the nature of each specific transaction unless-

(aa) the one exposure is denominated in local currency whilst the other exposure is denominated in foreign currency; or

(bb) protection was obtained in the form of a guarantee, which protection resulted in an adjusted borrower grade,

in which case separate exposures may result in multiple grades in respect of the same obligor.

(ii) transaction-specific factors such as collateral, seniority and product type, provided that-

(aa) when the rating system of a bank that adopted the foundation IRB approach contains a facility dimension, which facility dimension reflects both borrower and transaction-specific factors, that is, the rating dimension reflects expected loss by incorporating both borrower strength (PD) and loss severity (LGD) considerations, the rating system shall be deemed to comply with the requirements of this item (A);

(bb) a separate rating system that exclusively reflects LGD ratios shall be deemed to comply with the relevant requirements of this item (A);

(cc) when the rating dimension reflects expected loss but it does not separately quantify the LGD ratio in respect of the said exposure, the bank shall apply the LGD estimates determined by the Registrar.

(B) shall in the case of exposures to corporate institutions, sovereigns or banks ensure a meaningful distribution of exposures across risk grades, that is, the bank shall not have excessive concentrations of exposure in any one of the bank's borrower rating or facility rating scales.

As a minimum, a bank that adopted the IRB approach-

(i) shall in the case of exposures other than specialised lending that were mapped into the standardised rating categories specified in paragraph (d)(iii)(C) below, have no less than seven borrower grades in respect of borrowers that are not in default and one grade for borrowers that have defaulted, provided that-

(aa) the bank shall in the case of concentrations within a single grade have empirical evidence that-

(i) the grades cover sufficiently narrow PD bands;

(ii) the default risk posed by borrowers in a particular grade falls within the specific band;

(bb) the Registrar may require a bank with a diverse portfolio of credit exposure to have more borrower grades than the minimum number of borrower grades specified in this sub-item (i);

(ii) shall in the case of exposures relating to specialised lending, which exposures were mapped into the standardised rating categories specified in paragraph (d)(iii)(C) below, have no less than four borrower grades in respect of borrowers that are not in default and one grade for borrowers that have defaulted;

(iii) shall assign a rating to each obligor and all eligible guarantors, which rating shall be reviewed or approved by a person who does not directly benefit from the extension of credit;

(iv) shall associate each exposure with a facility rating as part of the loan approval process;

(v) shall review assigned borrower and facility ratings on a regular basis, but not less frequently than once a year, provided that the bank shall review all relevant ratings as soon as material new information comes to the attention of the bank;

(vi) shall have in place an effective process in order to obtain and update all relevant information;

(C) may in the case of exposures relating to specialised lending, which exposures were mapped into the standardised rating categories specified in paragraph (d)(iii)(C) below, have a single rating dimension, which rating dimension reflects expected loss by incorporating both borrower strength, that is, PD, and loss severity, that is, LGD;

(D) shall in the case of retail exposures-

(i) be oriented towards and comprehensively capture-

(aa) borrower risk, which borrower risk shall include matters such as borrower type and demographics such as age or occupation; and

(bb) transaction risk, which transaction risk shall include matters relating to product and collateral types such as loan-to-value or lending-to-value measures, guarantees and seniority;

(cc) the delinquency status of all relevant exposures, that is, the bank shall separately identify exposures that are delinquent and exposures that are not delinquent;

(ii) be sufficiently robust to ensure that the bank assigns each retail exposure to a relevant pool of retail exposures as part of the bank's loan approval process, which loan approval process shall make provision for-

(aa) a meaningful differentiation of risk, that is, there shall be a meaningful distribution of borrowers and exposures across the relevant retail pools of exposure in order to ensure that no single pool of exposures results in undue concentration in relation to the bank's total retail exposure;

(bb) a grouping of sufficiently homogenous exposures provided that the bank shall consider the risk drivers in respect of borrower risk, transaction risk and the delinquency status of retail exposures when the bank assigns a particular exposure to a particular retail pool of exposures;

(cc) accurate and consistent estimates of loss characteristics at a pool level, that is, for each pool of retail exposures, the bank shall estimate the risk components of PD, LGD and EAD, provided that the number of exposures in a particular exposure pool shall be sufficient to allow for a meaningful quantification and validation of the loss characteristics at the pool level;

(dd) regular review, but not less frequently than once a year, of the status of individual borrowers within each pool and the loss characteristics and delinquency status of each relevant pool, provided that the bank-

(i) shall review all relevant risk characteristics as soon as material new information comes to the attention of the bank;

(ii) may make use of a representative sample to review the status of individual borrowers within each pool;

(E) shall make provision for specific rating definitions and criteria in order to assign exposures to relevant risk grades, which definitions and criteria-

(i) shall be plausible and intuitive in order to ensure a meaningful differentiation of risk;

(ii) shall be sufficiently detailed to allow-

(aa) persons responsible for assigning of ratings to consistently assign borrowers or facilities that pose similar risk to the same grade;

(bb) third parties such as the internal audit department or an equally independent function, and the Registrar, to understand the assignment of ratings and to evaluate the appropriateness of the grade or pool assignments;

(iii) shall be duly documented;

(iv) shall be consistent with the bank's internal lending standards;

(v) shall take into consideration all relevant and material information;

(vi) shall periodically be reviewed in order to ensure that the definitions and criteria remain relevant and current.

(F) shall incorporate an appropriate time horizon in order to assign a risk rating to a borrower, which rating shall be based on a sufficiently long time horizon-

(i) to estimate an obligor's probability of default;

(ii) to represent the borrower's ability and willingness to repay contractual obligations despite adverse economic conditions or the occurrence of unexpected events;

(G) shall be sufficiently robust to ensure that all relevant PD estimates of highly leveraged borrowers, or borrowers of which the assets consist predominantly of traded assets, reflect the performance of the relevant underlying assets based on periods of stressed volatilities;

(H) may include statistical models and mechanical methods to assign borrower and facility ratings or estimate PD ratios, LGD ratios and EAD amounts, which models and methods-

(i) shall take into account all relevant and material information;

(ii) shall be used appropriately;

(iii) shall have good predictive power;

(iv) shall incorporate a reasonable set of risk predictors and the bank shall have in place clear guidelines and processes to monitor situations in which variables or risk inputs were altered;

(v) shall be materially accurate across a range of borrowers or facilities;

(vi) shall not contain any known material biases;

(vii) shall be subject to a regular validation process of data inputs, including an assessment of accuracy, completeness and appropriateness;

(viii) shall be subject to written policies and procedures for human review and judgement, provided that when human judgement is used to override the model's output, the bank shall separately keep track of the performance of the relevant exposure;

(ix) shall be subject to regular backtesting.

(I) shall be duly documented, which documentation, as a minimum-

(i) shall address matters such as-

(aa) specific definitions of default and loss, which definitions shall materially be consistent with the definitions contained in this subregulation (11) and in regulation 67;

(bb) portfolio differentiation;

(cc) rating criteria and the rationale for the bank's choice of particular internal rating criteria, provided that the bank shall be able to demonstrate to the satisfaction of the Registrar that the selected rating criteria and procedures are likely to result in ratings that meaningfully differentiate risk;

(dd) the responsibilities of persons responsible for the rating of borrowers and facilities;

(ee) definitions relating to rating exceptions and the persons authorised to approve any rating exceptions;

(ff) the frequency of rating reviews;

(gg) management oversight and the bank's internal control structure;

(hh) the history of major changes in the bank's risk rating process;

(ii) shall provide adequate evidence of the bank's compliance with all relevant minimum requirements;

(iii) shall duly indicate any differences between the bank's risk estimates for purposes of complying with the IRB approach and for internal risk management purposes, such as pricing;

(iv) shall in the case of statistical models used in the bank's rating process, comprehensively deal with-

(aa) the relevant methodologies, including a detailed outline of the theory, assumptions and/ or mathematical and empirical basis to assign risk estimate to risk grades, individual obligors, exposures or pools;

(bb) the data sources used;

(cc) the process to validate the model;

(dd) any circumstances under which the model does not work effectively.

(J) shall be subject to appropriate independent review.

(vi) Risk quantification

(A) Unless specifically otherwise provided, a bank shall in the case of exposures to corporate institutions, sovereigns or banks, estimate a PD ratio in respect of each internal borrower grade, which PD estimate-

(i) may be based on one or more of the three techniques specified below, provided that the underlying historical observation period shall be a minimum period of five years in respect of at least one of the said techniques.

(aa) Internal default experience

A bank-

(i) shall demonstrate that the PD estimates are based on the bank's underwriting standards and sufficiently reflect any differences between the rating system that generated the data and the bank's current rating system.

(ii) may use pooled data provided that the bank shall demonstrate to the satisfaction of the Registrar that the internal rating systems and criteria of the other banks in the pool are comparable with the bank's own internal rating systems and criteria.

(bb) Mapping to external data, that is, the bank may map its internal risk grades to a risk scale used by an eligible external credit assessment institution and then attribute the default rate observed in respect of the external credit assessment institution's grades to the bank's grades, provided that-

(i) the bank shall compare and avoid any biases or inconsistencies between the bank's internal rating criteria and the criteria used by the external institution;

(ii) the bank shall compare and avoid any biases or inconsistencies between the internal and external ratings of any common borrowers;

(iii) the external institution's criteria underlying quantification shall be oriented to the risk of borrower default and shall not reflect transaction characteristics;

(iv) the bank shall compare and avoid any biases or inconsistencies between the definitions used in respect of default;

(v) the bank shall document the basis on which the mapping was done.

(cc) Statistical default models, that is, the bank may use a simple average of default-probability estimates in respect of individual borrowers assigned to a particular grade, which estimates were generated by statistical default prediction models, provided that the statistical model shall comply with the relevant minimum requirements specified in subparagraph (v)(G) above;

(ii) shall be based on the definition of default, specified in regulation 67;

(iii) shall be based on a population of exposures that closely matches or is at least comparable to the bank's existing exposures and lending standards;

(iv) shall be based on economic and market conditions that are relevant and current;

(v) shall be a long-run average of the one-year default rates relating to the borrowers in a particular grade;

(vi) shall incorporate all relevant and material information;

(vii) shall take into account any changes in lending practice or the process for pursuing recoveries over the observation period;

(viii) shall be reviewed on a regular basis but not less frequently than once a year or when material new information is obtained;

(ix) shall be based on historical experience and empirical evidence;

(x) shall be based on a sufficient number of exposures and data periods that will ensure accurate and robust PD estimates;

(xi) shall be based on an estimation technique that performs well in out-of-sample tests;

(B) Unless specifically otherwise provided, a bank shall in the case of retail exposures estimate a PD ratio and a LGD ratio in respect of each retail pool of exposures, which PD estimate and LGD estimate-

(i) shall be based on the bank's internal data as the primary source of information;

(ii) shall be based on a number of exposures in a particular exposure pool that is sufficient to allow for a meaningful quantification and validation of the loss characteristics;

(iii) shall be based on the definition of default, specified in regulation 67;

(iv) may rely on external data or statistical models for quantification provided that the bank shall demonstrate to the satisfaction of the Registrar a strong link between-

(aa) the bank's process of assigning exposures to a particular pool and the process used by the external data source;

(bb) the bank's internal risk profile and the composition of the external data;

(v) shall incorporate all relevant and material information;

(vi) shall be based on a population of exposures that closely matches or is at least comparable to the bank's existing exposures and lending standards;

(vii) shall be based on economic and market conditions that are relevant and current;

(viii) shall be based on an estimation technique that performs well in out-of-sample tests;

(ix) shall be reviewed on a regular basis but not less frequently than once a year or when material new information is obtained;

(x) shall be based on long-run average estimates of PD and default-weighted average loss rates given default, based on an estimate of the expected long-run loss rate, provided that-

(aa) the bank may use an appropriate PD estimate to infer the long-run default-weighted average loss rate given default;

(bb) the bank may use a long-run default-weighted average loss rate given default to infer the appropriate PD;

(cc) the LGD ratio used to calculate the bank's IRB capital requirement shall not be less than the long-run default-weighted average loss rate given default;

(xi) shall, irrespective whether the bank is using external, internal, pooled data sources or a combination of the said three sources for the estimation of loss characteristics, be based on an underlying historical observation period of not less than five years, provided that the bank may with the prior written approval of the Registrar place more reliance on recent data when the said data better reflects loss rates in respect of the bank's retail exposures;

(C) Based on the definition of default specified in regulation 67, a bank shall record all actual defaults in respect of all exposures subject to the IRB approach;

(D) When the status of a previously defaulted exposure subsequently changes, and as such no longer constitutes a defaulted exposure, the reporting bank shall rate the relevant obligor and estimate the relevant LGD ratio in a manner similar to a non-defaulted facility, provided that when the relevant exposure subsequently triggers one of the criteria relating to default, which criteria are specified in regulation 67, the relevant bank shall record a second default in respect of the said exposure;

(E) As a minimum, a bank-

(i) shall determine and specify a credit limit in respect of all authorised overdraft facilities, which credit limit-

(aa) shall in writing be brought to the attention of the relevant client of the bank;

(bb) shall on a continuous basis be monitored by the relevant bank for compliance with the limit by the relevant client;

(ii) shall assign a limit of zero to any unauthorised overdraft facility.

(F) Unless specifically otherwise provided, a bank that obtained the approval of the Registrar to apply the "top-down" approach for default risk and/or the IRB approach for dilution risk in respect of purchased corporate receivables or purchased retail receivables-

(i) shall group the relevant receivables into sufficiently homogeneous pools in order to accurately and in a consistent manner estimate PD ratios, LGD ratios or expected loss ratios for default risk and dilution risk;

(ii) shall comply with the relevant minimum risk quantification standards for retail exposures specified in item (B) above;

(iii) shall take into account all relevant information, including information in respect of the quality of the underlying receivables and data relating to similar pools;

(iv) shall establishwhether or not the data provided by the seller in respect of the type, volume and on-going quality of the receivables are consistent with the bank's information;

(v) shall ensure that the bank maintains effective ownership and control over the cash remittances derived from the receivables, including in cases of seller or servicer distress or bankruptcy;

(vi) shall ensure that all relevant payments are forwarded completely and within the contractually agreed terms when the obligor makes payments directly to a seller or servicer;

(vii) shall be able to monitor the quality of the receivables and the financial condition of the seller or servicer;

(viii) shall assess any correlation between the quality of the receivables and the financial condition of the seller or servicer;

(ix) shall conduct periodic reviews in respect of sellers or servicers in order to-

(aa) verify the accuracy of any reports received from the seller or servicer;

(bb) detect any fraud or operational weaknesses;

(cc) verify the quality of the seller's credit policies and servicer's collection policies and procedures;

(x) shall duly document the findings of the reviews envisaged in sub-item (ix) above;

(xi) shall be able to assess the characteristics relating to the pool of receivable amounts, including-

(aa) any relevant over-advances;

(bb) the history relating to the seller's arrears, bad debts, and allowances for bad debt;

(cc) payment terms;

(dd) potential contra accounts;

(xii) shall receive timely and sufficiently detailed reports in respect of the ageing and dilution of receivable amounts in order to-

(aa) ensure continuous compliance with the bank's eligibility criteria and policies relating to purchased receivables;

(bb) monitor and confirm the seller's terms of sale;

(xiii) shall have in place clear and effective policies and procedures, and sufficiently robust information systems-

(aa) to detect any concentration risk within and across pools of receivable amounts;

(bb) to monitor compliance with all contractual terms of the facility, including covenants, advancing formulas, concentration limits and early amortisation triggers;

(cc) to monitor compliance with the bank's internal policies in respect of advance rates;

(dd) to limit inappropriate drawings;

(ee) to effectively deal with financially weakened sellers or servicers and/or a deterioration in the quality of the pool of receivable amounts;

(ff) to initiate legal actions or deal with problem receivables;

(gg) that specify all material elements of the bank's programme relating to purchased receivables, including-

(i) advance rates;

(ii) eligible collateral;

(iii) required documentation;

(iv) concentration limits;

(v) the manner in which cash receipts should be handled;

(hh) that ensure that funds are advanced only when specified supporting collateral and documentation such as servicer attestations, invoices or shipping documents are received;

(xiv) shall have in place an effective internal control process in order to assess the bank's continued compliance with all critical policies and procedures, which internal control process shall include-

(aa) regular internal and/or external audits of all critical phases of the bank's programme relating to purchased receivables;

(bb) verification of the separation of duties between-

(i) the assessment of the seller or servicer and the assessment of the obligor;

(ii) the assessment of the seller or servicer and the field audit of the seller or servicer;

(cc) evaluations of the effectiveness of the back-office operations, with specific emphasis being placed on qualifications, experience, staffing levels and supporting systems.

(vii) Unless specifically otherwise provided, a bank that obtained the prior written approval of the Registrar to adopt the internal model market-based approach for the measurement of the bank's risk exposure in respect of equity instruments held in the bank's banking book shall in addition to such conditions as may be determined by the Registrar continuously comply with the quantitative and qualitative requirements specified below:

(A) Quantitative requirements

In order to calculate a bank's risk exposure relating to equity positions held in the bank's banking book in terms of the internal model market-based approach, the bank-

(i) may use any type of value-at-risk ("VaR") model, including models based on variance-covariance, historical simulation or Monte Carlo, provided that the model-

(aa) shall duly capture all material risks contained in the bank's equity positions, including general market risk and specific risk exposure;

(bb) shall be sufficiently robust to adequately explain historical price variation;

(cc) shall duly capture the magnitude of and changes in any concentration risk;

(dd) shall be robust to adverse market conditions;

(ee) shall be appropriate for the risk profile and complexity of the bank's equity positions, including positions in respect of non-linear instruments such as options;

(ff) shall have good predictive power and shall not produce materially incorrect capital requirements;

(gg) may with the prior written approval of the Registrar incorporate portfolio correlations into the bank's internal risk measures provided that the said correlations shall be based on empirical evidence and analysis;

(ii) may use modelling techniques such as historical scenario analysis, provided that the said modelling technique shall produce a capital requirement equivalent to a potential loss based on a 99th percentile, one-tailed confidence interval of the difference between quarterly returns and the appropriate risk-free rate computed over a long-term sample period;

(iii) may use single or multi-factor models, provided that-

(aa) the risk factors-

(i) shall be sufficient to capture the risks inherent in the bank's equity portfolio;

(ii) shall correspond to the appropriate equity market characteristics in which the bank holds significant positions;

(bb) the bank shall demonstrate by way of empirical analyses, to the satisfaction of the Registrar, the appropriateness of the risk factors, including the risk factors' ability to cover both general risk and specific risk;

(iv) shall calculate estimated losses, which estimated losses-

(aa) shall be sufficiently robust to adverse market movements;

(bb) shall be relevant to the long-term risk profile of the bank's specific equity holdings;

(cc) shall incorporate all relevant and material data, information and methods;

(dd) shall be based on-

(i) realistic long-run experience, including a period of a reasonably severe decline in equity prices;

(ii) a number of risk exposures in the sample and a data period sufficient to provide the bank with confidence in respect of the accuracy and the robustness of its estimates;

(v) shall use internal data and/or data from external sources, including pooled data, which data-

(aa) shall reflect the longest sample period for which data are available;

(bb) shall be meaningful in the sense that the data shall represent the risk profile of the bank's specific equity holdings;

(cc) shall be sufficient to provide conservative, statistically reliable and robust loss estimates;

(dd) shall be closely matched to or comparable with the bank's equity exposures;

(ee) shall be independently reviewed.

(B) Qualitative requirements

A bank that adopted the internal model market-based approach for the calculation of the bank's risk exposure in respect of equity instruments held in the bank's banking book shall comply with the relevant qualitative requirements specified in regulation 39(14)(a).

(viii) Data maintenance

As a minimum, a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk shall collect and store data in respect of all key borrower and facility characteristics, which data-

(A) shall provide effective support to the bank's internal credit risk measurement and management process;

(B) shall be sufficiently detailed to allow retrospective re-allocation of obligors and facilities to the bank's various risk grades;

(C) shall in the case of corporate, sovereign or bank exposures include-

(i) the rating histories in respect of obligors and eligible guarantors;

(ii) the date on which a rating was assigned;

(iii) the methodology, key data and the model/person used to derive the rating;

(iv) the identity of borrowers and facilities that defaulted, and the timing and circumstances of such defaults;

(v) the PD ratios and realised default rates associated with the bank's rating grades;

(vi) rating migration in order to keep track of the predictive power of the rating system;

(D) shall in the case of retail exposures include-

(i) the data that was used to allocate particular exposures to particular pools, including the data relating to borrower and transaction risk characteristics;

(ii) the data in respect of delinquent exposures;

(iii) data related to the estimated PD ratios, LGD ratios and EAD amounts associated with each relevant pool of exposures;

(E) shall in the case of defaulted retail exposures include data in respect of the pool to which the exposure was assigned during the year preceding the default and the realised outcomes in respect of the LGD ratio and the EAD amount.

(ix) Stress testing

As a minimum, a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk shall have in place a stress-testing process in respect of the bank's exposure to credit risk, which stress testing process-

(A) shall include an identification of possible events or future changes in economic conditions that may have an unfavourable effect on the bank's risk exposures and an assessment of the bank's ability to withstand such events or changes, which events or changes may include-

(i) economic or industry downturns;

(ii) market-risk events;

(iii) liquidity constraints;

(iv) mild recession scenarios;

(B) shall in the case of protected exposure subject to the double default approach envisaged in subregulation (12)(g) include an assessment of the impact of-

(i) a deterioration in the credit quality of protection providers, in particular the impact of protection providers falling outside the eligibility criteria specified in subregulation (12)(g) due to rating changes;

(ii) the default of one but not both the obligor and the protection provider,

and the consequent increase in risk exposure and the required amount of capital and reserve funds at the time of the said default;

(C) shall be meaningful, based on the environment in which the bank conducts business;

(D) shall assess the effect of a recession on the bank's PD ratios, LGD ratios and EAD amounts;

(E) shall make provision for an internal ratings migration in respect of at least some of the bank's exposure to credit risk;

(F) shall appropriately evaluate evidence of rating migration in respect of external ratings.

(x) Validation of internal estimates

As a minimum, a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk-

(A) shall have in place a robust system to validate the accuracy and consistency of the bank's rating systems and processes, including all estimates of relevant risk components, which internal assessments shall be based on long data histories, covering a range of economic conditions and ideally one or more complete business cycles;

(B) shall regularly compare realised default rates with estimated PD ratios in respect of each grade and shall demonstrate to the satisfaction of the Registrar that the realised default rates are within the expected range for a particular grade;

(C) shall duly document the data and the methods used to compare realised default rates with estimated PD ratios in respect of each grade, including the periods that were covered and any changes in the data and methods that were used, which analysis and documentation shall be updated at appropriate intervals, but not less frequently than once every year;

(D) shall make use of quantitative validation tools and comparisons with relevant external data sources in order to validate the bank's internal estimates of risk components;

(E) shall demonstrate to the satisfaction of the Registrar that the bank's quantitative testing methods and validation methods do not vary systematically with the economic cycle;

(F) shall have in place sufficiently robust internal standards to deal with situations where realised PD ratios deviate substantially from expected PD ratios provided that when the realised values continue to be higher than expected values the bank shall adjust its estimates of risk components upward in order to reflect the appropriate default and loss experiences.

(xi) Disclosure

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 shall disclose in its annual financial statements and other disclosures to the public sufficiently detailed qualitative and quantitative information in accordance with the relevant requirements specified in regulation 43(2).

(xii) Securitisation and/or resecuritisation exposures

A bank that obtained the prior written approval of the Registrar to adopt the IRB approach for the measurement of the bank's exposure to credit risk shall apply the IRB approach for the measurement of the bank's securitisation or resecuritisation exposure, provided that-

(A) the bank shall in addition to such conditions as may be specified in writing by the Registrar comply with the relevant requirements specified in this subparagraph (xii) and the relevant requirements specified in paragraphs (e) to (p) below;

(B) unless the Registrar determines otherwise, a bank that adopted the IRB approach in respect of some underlying exposures and the standardised approach in respect of the remainder of underlying credit exposures shall apply the approach that relates to the predominant part of underlying credit exposures in respect of the bank's exposure to a securitisation scheme or resecuritisation exposure;

(C) when no specific IRB treatment is specified in respect of a particular underlying asset type, a bank that obtained the approval of the Registrar to adopt the IRB approach, which bank-

(i) acts as an originator, shall apply the standardised approach specified in subregulation (6)(h) above to calculate the bank's capital requirement in respect of the relevant securitisation or resecuritisation exposure;

(ii) does not act as an originator in respect of the securitised or resecuritised assets or exposures, but instead invests in an instrument issued in respect of the securitisation or resecuritisation scheme, shall apply the ratings-based approach specified in paragraph (e) below to calculate the bank's capital requirement in respect of the relevant securitisation or resecuritisation exposure.

(D) when-

(i) a securitisation or resecuritisation exposure is rated or a rating can be inferred as envisaged in paragraphs (e) and (f) below, the bank shall apply the ratings-based approach specified in paragraph (e) below to the relevant securitisation or resecuritisation exposure;

(ii) an external or inferred rating is not available in respect of a securitisation or resecuritisation exposure, the bank shall apply the internal assessment approach or standard formula approach respectively specified in paragraphs (g) and (i) below, provided that the internal assessment approach shall be applied only to exposures that relate to an asset-backed commercial-paper programme, which exposures shall comply with the relevant requirements specified in paragraph (g) below;

(iii) the bank or another institution within the banking group of which such a bank is a member, acting as a servicing agent, a repackager, a sponsor in respect of a securitisation scheme other than an asset-backed commercial paper programme or a sponsor in respect of an asset-backed commercial paper programme provides a liquidity facility in respect of such a securitisation scheme, which liquidity facility complies with the relevant conditions specified in paragraph 7 of the exemption notice relating to securitisation schemes, the said bank or institution shall in the case of-

(aa) a rated liquidity facility apply-

(i) the ratings-based approach specified in paragraph (e) below;

(ii) a credit-conversion factor of 100 per cent to the relevant rated liquidity facility;

(bb) an unrated facility in respect of which an inferred rating is not available apply-

(i) the internal assessment approach specified in paragraph (g) below, provided that the bank shall comply with the relevant requirements specified in paragraphs (g) and (h) below, or

(ii) the standard formula approach specified in paragraph (i) below;

(cc) an eligible liquidity facility that may only be drawn in the event of a general market disruption apply a 100 per cent credit-conversion factor in terms of the ratings-based approach when the facility is externally rated;

(dd) a facility in respect of which neither the bottom-up approach nor the top-down approach can be applied to calculate the K_{IRB} amount specified in paragraph (k) below, apply the highest risk weight assigned in terms of the standardised approach to any of the underlying individual exposures covered by the liquidity facility and a credit-conversion factor of 100 per cent;

(ee) all liquidity facilities other than the liquidity facilities envisaged above, assign to the relevant notional amount of the said liquidity facility a risk weight of 1250 per cent, or such imputed percentage that will effectively result in an amount equivalent to a deduction against capital and reserve funds,

Provided that a bank that acts as an originator shall in no case provide any liquidity facility in respect of the securitisation scheme in respect of which that bank acts as such an originator.

(iv) the bank or another institution within the banking group of which such a bank is a member, acting as a servicing agent, provides an eligible servicer cash advance facility in respect of a securitisation scheme, that is, a facility that, amongst other things, complies with the relevant conditions specified in paragraphs 7 and 9 of the exemption notice relating to securitisation schemes, the said bank or institution may in the case of any undrawn servicer cash advance facility that is unconditionally cancellable by the said bank or institution without prior notice, apply a credit-conversion factor of nil per cent in respect of the said undrawn facility, provided that-

(aa) the said facility shall duly state that the servicing agent is under no obligation to advance funds to investors or the special-purpose institution in terms of the servicer cash advance facility;

(bb) any cash advance made by the servicing agent shall be at the servicing agent's sole discretion and solely to cover an unexpected temporary shortfall that arose from delayed payments;

(cc) the servicing agent's rights for reimbursement in terms of the said cash advance facility shall be senior to any other claim on cash flows arising from underlying exposures or collateral held in respect of the securitisation scheme;

(dd) a bank that acts as an originator shall in no case provide any servicer cash advance facility in respect of the securitisation scheme in respect of which that bank acts as such an originator.

(v) none of the approaches specified in sub-items (i) or (ii) above can be applied to a securitisation exposure other than a liquidity facility, the bank shall assign to the relevant exposure amount a risk weight of 1250 per cent, or such imputed percentage that will effectively result in an amount equivalent to a deduction against capital and reserve funds.

(E) in all relevant cases in respect of which a bank applies the standard formula approach, a floor risk weight of-

(i) 7 per cent shall apply in respect of a securitisation exposure;

(ii) 20 per cent shall apply in respect of a resecuritisation exposure;

(F) the bank shall treat any exposures that overlap in accordance with the relevant requirements specified in subregulation (6)(h) above;

(G) the bank shall treat any exposure relating to a securitisation scheme that contains an early amortisation mechanism in accordance with the relevant requirements specified in paragraph (p) below;

(H) the bank shall comply with the relevant requirements specified in subregulation (12) when the bank obtains any protection in respect of a securitisation exposure;

(I) the maximum amount of capital to be maintained by a bank that adopted the IRB approach for the measurement of the bank's exposures relating to a securitisation scheme shall be equal to the amount of capital that the bank would have been required to maintain in respect of the underlying credit exposures had the exposures not been securitised, which amount shall be calculated in accordance with the relevant requirements specified in subregulations (10), (11) and (12), read with the relevant provisions of subregulations (21) and (22), provided that the bank shall deduct from its common equity tier 1 capital and reserve funds the entire amount included in the bank's capital and reserve funds in respect of any gain-on-sale or credit-enhancing interest-only strips that arose from the securitisation transaction.

(c) *Categorisation of exposures*

A bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk shall categorise its banking book exposures into one and apply the IRB approach in respect of all material asset categories specified below:

(i) Corporate exposure

When a bank is engaged in specialised lending activities the bank shall subdivide any corporate exposure resulting from such specialised lending activities into one of the categories specified below:

(A) Project finance

Normally project finance relates to the provision of funds to a special-purpose institution for the acquisition or construction of large and complex installations such as power plants, mines or chemical processing plants, the repayment of which funds is based solely or almost exclusively on the funds generated by the relevant project and the collateral value of the project's assets, that is, the borrower of the funds has no or little independent capacity to repay the obligations arising from the borrowed funds, and in respect of which specialised lending agreement the reporting bank has a substantial degree of control over the said asset and the income produced by that asset.

(B) Object finance

Normally object finance relates to the provision of funds to a special-purpose institution for the acquisition of physical assets such as ships or aircrafts, the repayment of which funds is based solely or almost exclusively on the cash flows generated by the relevant asset and which assets are usually pledged as security to the lending bank, that is, the borrower of the funds has no or little independent capacity to repay the obligations arising from the borrowed funds, and in respect of which specialised lending agreement the reporting bank has a substantial degree of control over the said asset and the income produced by that asset.

(C) Commodity finance

Normally commodity finance relates to the provision of funds in respect of structured short-term lending in order to finance, for example, inventories or receivables from exchange-traded commodities such as crude oil, metals or crops, the repayment of which funds is based solely or almost exclusively on the proceeds derived from the sale of the commodity, that is, the borrower of the funds has no or little independent capacity to repay the obligations arising from the borrowed funds and the exposure's rating reflects its self-liquidating nature.

(D) Income-producing real estate

Normally income-producing real estate relates to the provision of funds for real estate such as office buildings to let, multifamily residential buildings, industrial or warehouse space and hotels, the repayment of which funds is based solely or almost exclusively on the cash flows generated by the asset, such as lease or rental payments, or the sale of the asset, that is, there is a strong positive correlation between the prospects for the repayment of the exposure and the prospects for the recovery in the event of default, with both events being materially dependent upon the cash flows generated by the relevant property.

(E) High-volatility commercial real estate

For the purposes of these Regulations, a bank shall classify any funding provided in respect of commercial real estate that exhibits higher loss rate volatility, that is, higher asset correlation, than other types of specialised lending as a high-volatility commercial real estate exposure, including-

(i) exposures in respect of commercial real estate in respect of which the sources of repayment are uncertain on the date of origination of the exposure, such as the future uncertain sale of the property;

(ii) such exposures relating to commercial real estate as may be specified in writing by the Registrar.

When the repayment of a debt obligation of a corporation, partnership or proprietorship is not solely or almost exclusively based on the cash flows envisaged in items (A) to (E) above and the bank is able to rate the credit quality of the obligor based on the obligor's broader ongoing operations and independent capacity to repay its debt obligations, the bank shall classify the said exposure as a corporate exposure instead of one of the subcategories envisaged in items (A) to (E) above.

(ii) Sovereign exposure

A bank shall include in the category of sovereign exposure all exposures that qualify as sovereign exposure in terms of the provisions of the standardised approach envisaged in subregulation (5) read with subregulations (6) and (8), including-

(A) the Central Government of a particular country;

(B) the Central Bank of a particular country;

(C) the Central Government of the RSA;

(D) the Central Bank of the RSA;

(E) the multilateral development banks that qualify for a zero per cent risk weight;

(F) the Bank for International Settlements (BIS);

(G) the International Monetary Fund (IMF);

(H) the European Central Bank (ECB).

(iii) Bank exposure

A bank shall include in this category all relevant exposures to banks, including-

(A) exposures to securities firms and public-sector bodies that are treated in a manner similar to exposures to banks in terms of the provisions of the standardised approach, in subregulation (5) read with the provisions of subregulations (6) and (8);

(B) banks in the RSA;

(C) multilateral development banks that do not qualify for a zero per cent risk weight in terms of the provisions of the standardised approach, in subregulation (5) read with the provisions of subregulations (6) and (8) above.

(iv) Retail exposure

A bank-

(A) shall not classify an exposure as a retail exposure unless the relevant exposure complies with the relevant requirements specified in sub-items (i) to (iii) below and in all cases with the requirements specified in sub-item (iv) below:

(i) Exposure to an individual

The exposure shall be to an individual and shall relate to revolving credit or a line of credit such as a credit card receivable, an overdraft facility, a personal term loan or lease, instalment finance, a loan or lease in respect of a vehicle, a student or educational loan, personal finance, or other exposures with similar characteristics, regardless of the extent of the exposure provided that the Registrar may specify specific thresholds in order to distinguish between retail and corporate exposures.

(ii) Residential mortgage loans or exposure

The exposure shall be secured by mortgage in respect of residential property as envisaged in subregulation (6)(c) above, including first and subsequent liens, term loans and revolving home equity lines of credit, regardless of the extent of the exposure, provided that the Registrar may specify limits in respect of the maximum number of housing units per exposure or persons other than individuals to which the exposure relates.

(iii) Loans or lending extended to small businesses and managed as retail exposure

The exposure-

(aa) shall be in the form of lending extended to a small business or a small business loan extended or guaranteed by an individual;

(bb) shall be managed by the bank as a retail exposure, that is, the exposure, for example, shall be originated in a manner similar to other retail exposures;

(cc) shall be managed on a portfolio basis and not individually in a manner comparable to corporate exposure, provided that-

(i) the aggregate amount of the exposure of the reporting banking group to the said small business borrower shall at no time exceed an amount of R7,5 million;

(ii) the Registrar may from time to time specify a threshold amount lower than the aforesaid amount of R7,5 million.

(iv) Large number of exposures

The exposure shall be one of a large pool of exposures, which exposures shall be managed by the bank on a pooled basis, that is, exposures shall be managed as part of a portfolio segment or pool of exposures with similar risk characteristics, provided that the Registrar may specify a minimum number of exposures within a pool.

(B) shall subdivide all the relevant exposures that meet the requirements specified in item (A) above into one of the three retail subcategories specified in this item (B), that is, each exposure that meets the requirements specified in item (A) above shall be assigned to one of the three pools of exposure specified below:

(i) Exposures secured by residential property

A bank shall include in this pool of exposures only those exposures that comply with the requirements specified in item (A)(ii) above.

(ii) Qualifying revolving retail exposures

In order for a portfolio of exposures to be classified as qualifying revolving retail exposures, the exposures-

(aa) shall be revolving in nature, that is, based on the decision of the relevant obligor to borrow or repay funds within a predetermined limit approved by the bank the outstanding balance of the relevant exposure is permitted to fluctuate;

(bb) shall be unsecured;

(cc) shall be revocable, that is, an uncommitted facility, both contractually and in practice;

(dd) shall be to individuals and the maximum exposure to a single individual counterparty or obligor in the subportfolio shall not exceed an amount of R1 million, provided that the Registrar may specify a lower threshold amount;

(ee) shall exhibit low volatility in loss rates.

(iii) Other retail exposures

A bank shall classify all exposures that qualify as retail exposures, other than exposures secured by residential property or qualifying revolving retail exposures, as other retail exposures.

(C) shall, when the bank assigns an exposure to a particular pool, consider-

(i) the risk characteristics relating to the borrower, such as the borrower type or demographics such as age or occupation;

(ii) the risk characteristics relating to the transaction, including product and/or collateral types such as the loan or lending-to-value measures, seasoning, guarantees and seniority;

(iii) the delinquency of the exposure, that is, the bank shall distinguish between exposures that are delinquent and those exposures that are not delinquent.

(v) Equity exposure

Based on-

(A) the relevant requirements specified in regulation 31;

(B) the economic substance and not the legal form of an instrument,

a bank shall categorise its equity exposures or instruments held in the bank's banking book.

(vi) Purchased receivables

Based on the relevant criteria specified in this paragraph (c), a bank shall subdivide its purchased receivables between retail receivables and corporate receivables.

(vii) Cash and cash equivalent items

This category of exposure shall include all cash and cash equivalent amounts.

For the purposes of this subregulation (11)(c), cash equivalent amounts shall include any amount relating to gold bullion.

(viii) Securitisation or resecuritisation exposures

This category of exposure shall include any exposure relating to a securitisation scheme or resecuritisation exposure, including asset-backed securities, mortgage-backed securities, credit enhancement, liquidity facilities and relevant interest-rate swaps or currency swaps.

(ix) Other exposures

A bank shall classify all exposures other than the exposures envisaged in subparagraphs (i) to (viii) above as other exposures.

(d) Risk-weighted exposure

(i) Unless specifically otherwise provided in this paragraph (d), in order to calculate its risk-weighted credit exposure, a bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk in respect of positions held in the bank's banking book-

(A) shall in the case of exposures other than retail exposures and purchased retail receivables calculate its own estimate of probability-of-default ("PD") in respect of each relevant borrower grade or credit exposure;

(B) shall in the case of retail exposures and purchased retail receivables calculate its own estimate of PD in respect of each relevant pool of retail exposures;

(C) shall in the case of exposures other than retail exposures and purchased retail receivables apply standardised estimates in respect of loss-given-default ("LGD"), exposure-at-default ("EAD") and maturity ("M"), which standardised estimates-

(i) are specified below in respect of each relevant asset class; or

(ii) shall be determined by the Registrar;

(D) shall in the case of retail exposures and purchased retail receivables calculate its own estimates of LGD and EAD;

(E) shall apply the risk-weight functions and risk components in respect of the various exposure categories envisaged in paragraph (c) above in accordance with the relevant requirements specified in this paragraph (d);

(F) shall in the case of securitisation exposures apply the risk-weight functions and risk components in respect of the various types of securitisation exposure in accordance with the relevant requirements specified in paragraphs (e) to (p) below.

(ii) Corporate, sovereign and bank exposures

A bank that adopted the foundation 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 formula and risk components specified below:

(A) In the case of an exposure other than an exposure to a small or medium sized entity ("SME"), which exposure is not in default, as follows:

RWA = K x 12,5 x EAD

where:

RWA is the risk weighted asset amount.

K is the capital requirement, which capital requirement shall be calculated through the application of the formula specified below

K = [LGD × N [(1 - R)^-0.5 × G (PD) + (R/(1 - R))^0.5 × G(0.999)] – PD x LGD] x (1 - 1.5 x b)^ -1 × (1 + (M - 2.5) × b)

Provided that when the calculation of K results in a negative capital requirement in respect of a particular exposure, the bank shall apply a capital requirement equal to zero in respect of the relevant exposure

PD is the probability of default, and constitutes a ratio

In the case of exposures to-

(i) corporate institutions or banks, the PD ratio shall be equal to the higher of the one-year PD associated with the relevant internal grade to which the exposure is assigned, or 0.03 per cent;

(ii) sovereigns, the PD ratio shall be the one-year PD ratio associated with the relevant internal grade to which the exposure is assigned;

(iii) intragroup banks or other formally regulated intragroup financial entities with capital requirements similar or equivalent to these Regulations, which banks or entities are included in the consolidated amounts calculated in accordance with the relevant requirements specified in these Regulations in respect of consolidated supervision, the PD ratio shall be deemed to be equal to zero.

LGD is the loss-given-default ratio

In the case of-

(i) senior claims not secured by eligible collateral, a bank shall apply a ratio of 45 per cent;

(ii) subordinated claims, that is, a facility that is expressly subordinated to another facility, a bank shall apply a ratio of 75 per cent.

M is the effective maturity of the relevant exposure, which maturity shall be regarded as being equal to 2.5 years unless the exposure relates to a repurchase or resale transaction in which case an effective maturity equal to six months shall apply, provided that-

(i) the Registrar may require; or

(ii) on prior written application by the reporting bank and subject to such conditions as may be specified in writing, the Registrar may allow,

a bank to calculate the effective maturity of a particular exposure in accordance with the relevant requirements specified in subregulation (13)(d)(ii)(B) below

R is the relevant correlation, which correlation shall be calculated through the application of the formula specified below

$$R = 0.12 \times (1 - EXP(-50 \times PD)) / (1 - EXP(-50)) + 0.24 \times [1 - (1 - EXP(-50 \times PD))/(1 - EXP(-50))]$$

Provided that the bank shall apply a multiplication factor of 1.25 to the aforesaid correlation parameter "R", such that correlation R_{FI} = 1.25 x R, in respect of all relevant exposures to financial institutions, as follows:

(i) any regulated financial institution with total assets greater than or equal to R700 billion,

(aa) which asset amount shall be based on the most recent consolidated audited financial statements of the relevant parent company and its relevant subsidiaries;

(bb) which regulated financial institutions shall for purposes of these Regulations include any parent institution and its subsidiaries, where any relevant substantial legal entity in the consolidated group is supervised by a regulator that imposes prudential requirements consistent with such international norms as may be specified in writing by the Registrar, which institutions shall include, but are not limited to, prudentially regulated insurance companies, broker/dealers and banks;

(ii) any unregulated financial institution, regardless of size, which unregulated financial institutions shall for purposes of these Regulations include legal entities of which the main business includes-

(aa) the management of financial assets;

(bb) lending;

(cc) factoring;

(dd) leasing;

(ee) provision of credit enhancements;

(ff) securitisation or resecuritisation;

(gg) investments;

(hh) financial custody;

(ii) central counterparty services;

(jj) proprietary trading; or

(kk) such other financial services activities as may be specified or directed in writing by the Registrar

b is the relevant maturity adjustment, which maturity adjustment shall be calculated through the application of the formula specified below

b = (0.11852 – 0.05478 × ln (PD))^2

ln denotes the natural logarithm

EXP is the inverse of the natural logarithm, ln

N(x) denotes the cumulative distribution function for a standard normal random variable, that is, the probability that a normal random variable with a mean equal to zero and variance of one is less than or equal to x.

G(z) denotes the inverse cumulative distribution function for a standard normal random variable, that is, the value of x such that N(x) = z.

EAD is the exposure at default, which exposure shall be measured gross of any specific credit impairment raised or partial write-offs made by the reporting bank.

A bank shall measure its exposure at default in accordance with the relevant requirements specified below:

(i) In the case of any drawn amounts, the exposure at default shall be equal to the sum of the drawn amounts after the effect of set-off in accordance with the relevant requirements specified in regulation 13 has been recognised, provided that the said exposure shall not be less than the sum of-

(aa) the amount by which the bank's capital requirement would be reduced when the exposure amounts are written off in full; and (bb) any specific credit impairment raised or partial write-off made by the reporting bank in respect of the relevant exposure amounts.

(ii) In the case of off-balance-sheet items other than unsettled derivative contracts, the exposure at default shall be equal to the sum of committed but undrawn amounts multiplied by the relevant credit conversion factors specified in subregulation (6)(g), provided that-

(aa) in the case of any irrevocable undrawn commitment, note-issuance facility or revolving underwriting facility, instead of the credit-conversion factors specified in subregulation (6)(g), the bank shall apply a credit-conversion factor of 75 per cent irrespective of the maturity of such commitments, note-issuance facilities or revolving underwriting facilities, unless the said exposures or a portion of the said exposures constitutes an uncommitted or revocable facility in which case the bank shall apply a credit-conversion factor equal to zero per cent in respect of the said uncommitted or revocable exposure, provided that in the case of-

(i) a constraining condition in respect of an unused committed facility, such as a limit on the available amount, which limit may relate to the financial position of the relevant obligor at a point in time, the bank shall apply the relevant credit-conversion factor to the lower amount of the unused committed facility and the said constraining limit;

(ii) a facility with a constraining condition as envisaged in item (i) above, the reporting bank shall have in place sufficiently robust line monitoring and management procedures that demonstrate to the satisfaction of the Registrar the ability of the bank to enforce the said constraining limit;

(iii) any uncommitted or revocable facility the reporting bank shall demonstrate to the satisfaction of the Registrar that the bank actively monitors the financial condition of the relevant obligor and that the internal control systems of the bank are adequate to cancel a facility upon receiving evidence of a deterioration in the credit quality of the relevant obligor;

(bb) when a commitment is obtained in respect of another off-balance-sheet exposure, the bank shall apply to the relevant exposure the lower of the relevant credit-conversion factors.

(iii) In the case of unsettled derivative contracts, the exposure amount or exposure at default shall be equal to the sum of amounts calculated in accordance with the relevant requirements specified in subregulations (15) to (19) below.

(B) In the case of an exposure that is in default-

(i) the capital requirement (K) shall be equal to the higher of zero and the difference between the exposure's LGD and the bank's estimate of expected loss.

The risk-weighted amount in respect of the defaulted exposure shall be calculated through the application of the formula specified below.

$$RWA = K \times 12,5 \times EAD$$

(ii) a bank shall assign to the relevant exposure a PD ratio equal to 100 per cent.

(C) In the case of an exposure to an SME borrower, which SME borrower would otherwise be categorised as a corporate exposure, the bank shall make an adjustment to the formula specified in item (A) above, which adjustment shall be calculated through the application of the formula specified below, provided that the reported sales for the consolidated group of which the SME borrower is a member shall be less than R400 million, provided that, subject to such conditions as may be specified in writing, the Registrar may specify in writing a different threshold amount or base, such as assets instead of sales.

$$0.04 \times (1 - (S - 40)/360)$$

where:

S shall be the total annual sales expressed in millions of Rand and the values of S falling in the range of R40 million $\leq S \leq$ R400 million

For the purposes of the aforesaid adjustment, sales of less than R40 million shall be deemed to be equal to R 40 million

R is the relevant correlation, which correlation shall be calculated through the application of the formula specified below

$$R = 0.12 \times (1 - EXP(-50 \times PD)) / (1 - EXP(-50)) + 0.24 \times [1 - (1 - EXP(-50 \times PD))/(1 - EXP(-50))] - 0.04 \times (1 - (S-40)/360)$$

EXP is the inverse of the natural logarithm, ln

(iii) Specialised lending

(A) Subject to the provisions of items (B) and (C) below, a bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk 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 ratios in respect of corporate exposure.

(B) In the case of high-volatility commercial real estate exposure, a bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk shall apply the asset correlation formula specified below, instead of the asset correlation formula that would otherwise apply to corporate exposures.

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

(C) When a bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk is unable to comply with the prescribed requirements to estimate the probability of default in terms of the foundation IRB approach for corporate exposure or the Registrar directs a bank to map its internal risk grades to the risk grades specified below, the bank shall map its internal risk grades, which internal risk grades shall be based on the bank's own criteria, systems and processes, to the risk grades specified below, which specified risk grades shall be linked to the risk weights for unexpected loss, and are likely to correspond to the range of external credit assessments, specified below:

(i) In the case of project finance, as follows:

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Financial strength					
• Market conditions	Few competing suppliers or substantial and durable advantage in respect of location, cost or technology. Demand is strong and growing.	Few competing suppliers or better than average location, cost or technology but the situation may not last. Demand is strong and stable.	The project has no advantage in respect of location, cost or technology. Demand is adequate and stable.	The project has worse than average location, cost or technology. Demand is weak and declining.	
• Financial ratios such as debt service coverage ratio (DSCR), loan life coverage ratio (LLCR), project life coverage ratio (PLCR) and debt-to-equity ratio	Strong financial ratios considering the level of project risk. Very robust economic assumptions.	Strong to acceptable financial ratios considering the level of project risk. Robust project economic assumptions.	Standard financial ratios considering the level of project risk.	Aggressive financial ratios considering the level of project risk.	
• Stress analysis	The project is able to meet its financial obligations under sustained, severely stressed economic or sectoral conditions.	The project is able to meet its financial obligations under normal stressed economic or sectoral conditions. The project is only likely to default under severe economic conditions.	The project is vulnerable to stresses that are not uncommon through an economic cycle and may default in a normal downturn situation.	The project is likely to default unless conditions improve soon.	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Financial structure					
• The duration of the credit compared to the duration of the project.	The useful life of the project significantly exceeds the duration of the loan.	The useful life of the project exceeds the duration of the loan.	The useful life of the project exceeds the duration of the loan.	The useful life of the project may not exceed the duration of the loan.	
• Amortisation schedule	Amortising debt.	Amortising debt.	Amortising debt repayments with limited bullet payment.	Bullet repayment or amortising debt repayments with high bullet repayment.	
Political and legal environment					
• Political risk, including transfer risk, considering project type and mitigants	Very low exposure and strong mitigation instruments when required	Low exposure and satisfactory mitigation instruments when required	Moderate exposure and fair mitigation instruments.	High exposure and no or weak mitigation instruments.	
• Force majeure risk such as war and civil unrest.	Low exposure	Acceptable exposure	Standard protection	Significant risks that are not fully mitigated.	
• Government support and project's importance for the country over the long term	Project of strategic importance for the country (preferably export-oriented). Strong support from Government.	Project considered important for the country. Good level of support from Government.	Project may not be strategic but brings unquestionable benefits for the country. Support from Government may not be explicit.	Project not key to the country. No or weak support from Government.	
• Stability of legal and regulatory environment (risk of change in law)	Favourable and stable regulatory environment over the long term.	Favourable and stable regulatory environment over the medium term.	Regulatory changes can be predicted with a fair level of certainty.	Current or future regulatory issues may affect the project.	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Political and legal environment					
• Acquisition of all necessary supports and approvals for such relief from local content laws	Strong	Satisfactory	Fair	Weak	
• Enforceability of contracts, collateral and security	Contracts, collateral and security are enforceable	Contracts, collateral and security are enforceable	Contracts, collateral and security are considered enforceable even if certain non-key issues may exist.	There are unresolved key issues in respect of actual enforcement of contracts, collateral and security.	
Transaction characteristics					
Design and technology risk	Fully proven technology and design	Fully proven technology and design	Proven technology and design. Start-up issues are mitigated by a strong completion package	Unproven technology and design. Technology issues exist and/or complex design	
Construction risk					
• Permitting and siting	All permits have been obtained	Some permits are still outstanding but their receipt is considered very likely	Some permits are still outstanding but the process is well defined and are considered routine	Key permits still need to be obtained and are not considered routine. Significant conditions may be attached	
• Type of construction contract	Fixed-price date-certain turnkey construction engineering and procurement contract	Fixed-price date-certain turnkey construction engineering and procurement contract	Fixed-price date-certain turnkey construction contract with one or several contractors	No or partial fixed-price turnkey contract and/or interfacing issues with multiple contractors	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Construction risk					
• Completion guarantees	Substantial liquidated damages supported by financial substance and/or strong completion guarantee from sponsors with excellent financial standing	Significant liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Adequate liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing	Inadequate liquidated damages or not supported by financial substance or weak completion guarantees	
• Track record and financial strength of contractor in constructing similar projects	Strong	Good	Satisfactory	Weak	
Operating risk					
• Scope and nature of operations and maintenance contracts	Strong long-term operations and maintenance contract, preferably with contractual performance incentives and/or operations and maintenance reserve accounts	Long-term operations and maintenance contract and/or operations and maintenance reserve accounts	Limited operations and maintenance contract or operations and maintenance reserve account	No operations and maintenance contract. Risk of high operational cost overruns beyond mitigants.	
• Operator's expertise, track record and financial strength	Very strong or committed technical assistance of the sponsors	Strong	Acceptable	Limited/weak or local operator dependent on local authorities	