

CREDIT RISK

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CREDIT RISK

(Confidential and not available for inspection by the public)

Name of bank:

Month ended:.....(yyyy/mm/dd)

BA 200

Monthly

Country:

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

Standardised approach: Summary of selected credit risk related information	Line no.	Total
		1
Total gross loans and advances (item 24 of form BA100)	1	
Impaired advances ¹	2	
Assets bought-in (total of items 4 to 6)	3	
Immovable property (item 6, column 5, of form BA 220)	4	
Movable property	5	
Companies acquired (item 1, column 5, of form BA 220)	6	
Total credit impairments related to total gross loans and advances (item 25 of form BA 100)	7	
Total specific credit impairments (item 39, column 2, of form BA 200)	8	
Total portfolio credit impairments (item 39, column 3, of form BA 200)	9	
Credit losses charge to income statement (item 66 of form BA 120; item 45, column 1, of form BA 200)	10	
Total gross credit exposure (item 34, column 5, of form BA 200)	11	
Credit exposure post credit risk mitigation (item 34, column 14, of form BA 200)	12	
Credit exposure post credit risk mitigation and credit conversion factors (item 47, column 11, of form BA 200)	13	

1. Means advances in respect of which the bank raised a specific impairment, and shall include any advance or restructured credit exposures subject to amended terms, conditions or concessions that are not formalised in writing.

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

Standardised approach: Summary of on-balance sheet and off-balance sheet credit exposure	Line no.	On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements ¹	Derivative instruments ²	Total credit exposure pre CRM (col. 1 to 4)	Classification of total credit exposure ³ pre CRM							
							Special mention ³		Sub-standard ³		Doubtful ³		Loss ³	
							Total	of which: 60 < overdue days ≤ 90	Total	of which: overdue > 90 days	Total	of which: overdue > 90 days	Total	of which: overdue > 90 days
Asset class		1	2	3	4	5	6	7	8	9	10	11	12	13
Corporate exposure (total of items 15 and 16)	14													
Corporate	15													
SME corporate	16													
Public sector entities	17													
Local government and municipalities	18													
Sovereign (including central government and central bank)	19													
Banks	20													
Securities firms	21													
Retail exposure (total of items 23, 24, 26 and 29)	22													
Residential mortgage advances	23													
Retail revolving credit ⁴	24													
of which: credit cards	25													
SME retail (total of items 27 and 28)	26													
Secured lending	27													
Unsecured lending	28													
Retail – other	29													
of which: vehicle and asset finance unsecured lending ^{5, 6}	30													
≤ R30 000	31													
unsecured lending ⁵ > R30 000	32													
Securitisation and resecuritisation exposure⁷	33													
Total (of items 14, 17 to 22 and 33)	34													

1. Marked-to-market value.
2. In accordance with the relevant requirements specified in regulation 23.
3. In accordance with the relevant requirements specified in regulation 24(5).
4. As defined in regulation 23(11)(c)(iv)(B)(ii).
5. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and/or SME retail exposure.
6. Including loans in respect of which the maximum NCA rate applies.
7. Also refer to regulation 35 and the form BA500.

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

Standardised approach: Summary of on-balance sheet and off-balance sheet credit exposure	Line no.	Credit exposure post CRM	Specific credit impairment	Total risk weighted exposure
Asset class		14	15	16
Corporate exposure (total of items 15 and 16)	14			
Corporate	15			
SME corporate	16			
Public sector entities	17			
Local government and municipalities	18			
Sovereign (including central government and central bank)	19			
Banks	20			
Securities firms	21			
Retail exposure (total of items 23, 24, 26 and 29)	22			
Residential mortgage advances	23			
Retail revolving credit ⁴	24			
of which: credit cards	25			
SME retail (total of items 27 and 28)	26			
Secured lending	27			
Unsecured lending	28			
Retail – other	29			
of which: vehicle and asset finance	30			
unsecured lending ^{b, 6}				
≤ R30 000	31			
unsecured lending ^b				
> R30 000	32			
Securitisation and resecuritisation exposure⁷	33			
Total (of items 14, 17 to 22 and 33)	34			

1. Marked-to-market value.
2. In accordance with the relevant requirements specified in regulation 23.
3. In accordance with the relevant requirements specified in regulation 24(5).
4. As defined in regulation 23(11)(c)(iv)(B)(ii).
5. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and/or SME retail exposure.
6. Including loans in respect of which the maximum NCA rate applies.
7. Also refer to regulation 35 and the form BA500.

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

Standardised approach: Reconciliation of credit impairments	Line no.	Total credit impairments (col 2 + col 3)	Specific credit impairments	Portfolio credit impairments
		1	2	3
Balance sheet				
Credit impairments: balance at beginning of period	35			
Income statement charge/ (reversal)	36			
Amounts written off against credit impairments	37			
Acquisition / disposal of subsidiary and other	38			
Credit impairments: balance at end of period	39			
Memorandum item:				
Interest in suspense at end of period	40			

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

Standardised approach: Reconciliation of credit impairments	Line no.	Movement during reporting month (col 2 + col 3)	Specific credit impairments	Portfolio credit impairments
		1	2	3
Income statement				
Credit impairments provision raised	41			
Credit impairments provision released	42			
Recoveries	43			
Suspended interest charge	44			
Total (of items 41 to 44)	45			
Memorandum item:				
Write offs not applied directly against the balance sheet, that is, provision not previously raised - when relevant	46			

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

Standardised approach: Credit capital requirements	Line no.	Total gross credit exposure ¹	Specific credit impairment	Exposure amount post CRM and specific credit impairment	Breakdown of off-balance sheet exposure based on credit conversion factors (CCF)						Credit exposure value post CRM and CCF	Risk weighted exposure (col. 11 *risk weight)	
					0% ≤ CCF ≤ 5%	5% < CCF ≤ 15%	15% < CCF ≤ 20%	20% < CCF ≤ 40%	50%	90%			100%
					1	2	3	4	5	6			7
Total (of items 48 to 53 and 56, 57, 60 and 63 to 67)	47												
0% risk weight	48												
10% risk weight	49												
20% risk weight	50												
35% risk weight	51												
40% risk weight	52												
50% risk weight	53												
<i>of which²: past due without credit assessment by an eligible external credit assessment institution</i>	54												
75% risk weight	55												
100% risk weight	56												
<i>of which²: past due without credit assessment by an eligible external credit assessment institution</i>	57												
150% risk weight	58												
<i>of which²: past due without credit assessment by an eligible external credit assessment institution</i>	59												
225% risk weight	60												
350% risk weight	61												
650% risk weight	62												
1250% risk weight	63												
Other prescribed risk weights	64												
<i>of which²: past due without credit assessment by an eligible external credit assessment institution</i>	65												
	66												
	67												
	68												
	69												

1. Exposure value before the application of any credit conversion factor (CCF), credit risk mitigation (CRM) and any volatility adjustment.

2. When any exposure is both past due and unrated then the said exposure shall be included in BOTH categories.

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

Standardised approach: Other assets ¹	Line no.	Amount	Specified risk weight (%)	Risk weighted exposure (col. 1* col.2)
		1	2	3
Cash and balances with the central bank	70		0%	
Cash items in process of collection	71		20%	
Goodwill	72		Deduction ²	
Intangibles other than goodwill	73		Deduction ²	
Fixed assets (excl. assets bought-in)	74		100%	
Movable assets (excl. assets bought-in)	75		100%	
Assets bought-in	76		100%	
Lease residuals	77		100%	
Other assets	78		100%	
Total (of items 70 to 78)	79			

1. Other assets are unrelated to credit risk but in order to calculate the reporting bank's relevant aggregate required amount of capital and reserve funds, for reconciliation to the form BA 700, such other assets are included in the form BA 200. When the majority of the reporting bank's credit exposure is subject to the IRB approach the bank shall complete the relevant required information specified in items 167 to 176 of the form BA 200 and leave open the relevant items under the standardised approach.
2. Relates to assets the relevant amounts of which are to be deducted from the reporting bank's capital and reserve funds in accordance with the relevant requirements specified in regulation 38(5).

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

Standardised approach: Counterparty credit risk ¹	Line no.	Current exposure method									Standardised method				
		OTC derivative instruments						SFT ²			OTC derivative instruments				
		Total notional principal amount	Gross replacement cost	Net replacement cost	Gross potential future exposure add-on	Net potential future exposure add-on	Collateral value after haircut	Credit exposure value	Collateral value	Netting benefits	Current market value of portfolio	Current market value of collateral	Risk position for transaction	Risk position from collateral	Net absolute risk position after the application of CCFs
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Total (of items 81 to 85)	80														
0%	81														
20%	82														
50%	83														
100%	84														
150%	85														
Memorandum items: Maximum counterparty credit exposure during the month	86														

1. Refer to regulations 23(15) to 23(19) for the relevant directives related to the measurement of a bank's exposure to counterparty credit risk.

2. Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).

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

Standardised approach: Counterparty credit risk ¹	Line no.	Standardised method			Internal model ⁴				Aggregate total across all relevant approaches						
		SFT ²			OTC derivative instruments		SFT ²		Adjusted exposure amount		Risk weighted exposure				
		Credit exposure value	Collateral value	Netting benefit	Effective expected positive exposure	Stressed effective expected positive exposure	Effective expected positive exposure	Stressed effective expected positive exposure	OTC derivative instruments	SFT ²	Default risk		CVA ^{4,5} risk		Total
		15	16	17	18	19	20	21	22	23	OTC derivative instruments	SFT ²	Standardised	Advanced	28
Total (of items 81 to 85)	80														
0%	81														
20%	82														
50%	83														
100%	84														
150%	85														
Memorandum items: Maximum counterparty credit exposure during the month	86														

1. Refer to regulations 23(15) to 23(19) for the relevant directives related to the measurement of a bank's exposure to counterparty credit risk.

2. Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).

3. In the case of cross-product netting, a bank shall report the relevant exposure under SFT.

4. Means credit valuation adjustment.

5. When the majority of the bank's credit exposure is subject to the IRB approach the bank shall complete the relevant required information specified in items 252 to 281 of the form BA 200, and leave open the relevant columns under the standardised approach.

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

Counterparty credit risk Analysis of netting	Line no.	ISDA	ISMA	Netting in terms of relevant requirements specified in regulation 23	Other ²	Total (col. 1 to 4)
		1	2	3	4	5
OTC derivative instruments						
Replacement cost	87					
Potential future exposure add-on	88					
SFT ¹	89					
Cross-product netting	90					

- Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).
- Please provide relevant details separately.

Counterparty credit risk	Line no.	Alpha value
		1
Own estimate of alpha ¹	91	

- Relates to internal model method only.

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

Analysis of standardised CVA ¹ risk weighted exposure	Line no	Weight	EAD	Hedging		Standardised CVA ¹ risk weighted exposure ²
				Single name CDS	Index CDS	
Ratings		1	2	3	4	5
AAA	92	0.70%				
AA	93	0.70%				
A	94	0.80%				
BBB	95	1.00%				
BB	96	2.00%				
B	97	3.00%				
CCC	98	10.00%				
Total (of items 92 to 98)	99					

- Means credit valuation adjustment.
- Total standardised CVA risk weighted exposure may not be equal to the sum of individual requirements calculated, due to, among other things, diversification benefits.

(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	100		2%		
Exposures eligible for a 4% risk weight	101		4%		
Exposures eligible for a bilateral risk weight	102				
Total central counterparty exposures (total of items 100 to 102)	103				

(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	104				
(Specify)	105				

(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	106				
(Specify)	107				

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

Standardised 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	Credit exposure value post CCF	On-balance sheet exposure	Off-balance sheet exposure	Total gross credit exposure	Credit exposure value post CCF
		1	2	3	4	5	6	7	8
Total (of items 109 to 111)	108								
LTV ratio ≤ 80%	109								
80% < LTV ratio < 100%	110								
LTV ratio ≥ 100%	111								

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.

(All amounts to be rounded off to the nearest R'000²)

IRB approach:		Total
Summary of selected credit risk related information	Line no.	1
Total gross loans and advances (item 24 of form BA 100)	112	
Impaired advances ¹	113	
Assets bought-in (total of items 115 to 117)	114	
Immovable property (item 6, column 5, of form BA 220)	115	
Movable property	116	
Companies acquired (item 1, column 5, of form BA 220)	117	
Total credit impairments related to total gross loans and advances (item 25 of form BA 100)	118	
Total specific credit impairments (item 216, column 2, of form BA 200)	119	
Total portfolio credit impairments (item 216, column 3, of form BA 200)	120	
Credit losses charge to income statement (item 66, column 3, of form BA 120; item 222, column 1, of form BA 200)	121	
Total credit extended ² (item 156, column 5, of form BA 200)	122	
Exposure at default (EAD) (item 156, column 7, of form BA 200)	123	
Average probability of default ³ (PD, EAD weighted) (item 205, column 3, of form BA 200)	124	
Average loss given default ³ (LGD, EAD weighted) (item 208, column 27, of form BA 200)	125	
Total expected loss (EL) (item 156, column 8)	126	
Best estimate of expected loss (BEEL)	127	
Net excess ⁴ /(deficit) ⁵ of total credit impairments compared to expected loss	128	

1. Means advances in respect of which the bank raised a specific impairment, and shall include any advance or restructured credit exposures subject to amended terms, conditions or concessions that are not formalised in writing.
2. Not on an EAD basis.
3. Specified items require percentages instead of amounts to be reported, which percentages shall be rounded to two decimal places.
4. Refer to item 85 of form BA 700 and regulation 23(22)(d)(i)(B)(ii) when positive.
5. Refer to items 48 of form BA 700 and regulation 23(22)(d)(i)(B)(i) when negative.

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

IRB approach: Summary of on-balance sheet and off-balance sheet credit	Line no.	Utilised (On-balance-sheet exposure)	Off-balance-sheet exposure	Repurchase and resale agreements ¹	Derivative instruments ²	Total credit extended ³ (col. 1 to 4)	of which: classified "in default" ⁴	Total credit exposure (EAD)	Expected loss	Specific credit impairment	Total								
											Risk weighted exposure ⁵	of which: attributed to defaulted assets	of which: not subject to double default adjustment	of which: subject to double default provisions prior to adjustment					
											1	2	3	4	5	6	7	8	9
Corporate exposure (total of items 130 to 137)	129																		
Corporate	130																		
Specialised lending - high volatility commercial real estate (property development)	131																		
Specialised lending - income producing real estate	132																		
Specialised lending - object finance	133																		
Specialised lending - commodities finance	134																		
Specialised lending - project finance	135																		
SME corporate	136																		
Purchased receivables - corporate	137																		
Public sector entities	138																		
Local governments and municipalities	139																		
Sovereign (including central government and central bank)	140																		
Banks	141																		
Securities firms	142																		
Retail exposure (total of items 144, 145, 147, 150 and 154)	143																		
Residential mortgage advances	144																		
Retail revolving credit ⁶	145																		
of which: credit cards	146																		
SME retail (total of items 148 and 149)	147																		
Secured lending	148																		
Unsecured lending	149																		
Retail – other	150																		
of which: vehicle and asset finance	151																		
unsecured lending ^{7, 8} ≤ R30 000	152																		
unsecured lending ⁷ > R30 000	153																		
Purchased receivables - retail	154																		
Securitisation and resecuritisation exposure⁹	155																		
Total (of items 129, 138 to 143 and 155)	156																		

1. Marked-to-market value.

2. In accordance with the relevant requirements specified in regulation 23.

3. Not on an EAD basis.

4. Refer to the definition of default in regulation 67.

5. After the application of a scaling factor of 1.06.

6. As defined in regulation 23(11)(c)(iv)(B)(ii).

7. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and/or SME retail exposure.

8. Including loans in respect of which the maximum NCA rate applies.

9. Also refer to regulation 35 and the form BA500.

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

IRB approach: Capital requirement i.r.o specialised lending subject to specified risk weights and specified risk grades ¹	Line no.	Credit exposure	Risk weighted exposure ² (col. 1* specified risk weight * scaling factor of 1.06)	Memorandum items:		
				Expected loss	Specific credit impairment	Number of obligors
				1	2	3
Specified risk weights						
0%	157					
50%	158					
70%	159					
90%	160					
95%	161					
115%	162					
120%	163					
140%	164					
250%	165					
Total (of items 157 to 165)	166					

1. Should also be included in items 131 to 135.
2. After the application of a scaling factor of 1.06.

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

IRB approach: Other assets ¹	Line no.	Amount	Specified risk weight (%)	Risk weighted exposure (col. 1* col.2)
		1	2	3
Cash and balances with the central bank	167		0%	
Cash items in process of collection	168		20%	
Goodwill	169		Deduction ²	
Intangibles other than goodwill	170		Deduction ²	
Fixed assets (excl. assets bought-in)	171		100%	
Movable assets (excl. assets bought-in)	172		100%	
Assets bought-in	173		100%	
Lease residuals	174		100%	
Other assets	175		100%	
Total (of items 167 to 175)	176			

1. Other assets are unrelated to credit risk but in order to calculate the reporting bank's relevant aggregate required amount of capital and reserve funds, for reconciliation to the form BA 700, such other assets are included in the form BA 200. When the majority of the reporting bank's credit exposure is subject to the standardised approach the bank shall complete the relevant required information specified in items 70 to 79 of the form BA 200 and leave open the relevant items under the IRB approach.
2. Relates to assets the relevant amounts of which are to be deducted from the reporting bank's capital and reserve funds in accordance with the relevant requirements specified in regulation 38(5).

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

IRB approach: Analysis of total credit exposure, that is, EAD, analysed by PD band	Line no.	Prescribed rating scale		Average PD of reporting bank ¹ (%)	Asset class										Public sector entities ²	Local government and municipalities ²
		Lower bound (%)	Upper bound (%)		Corporate exposure ²											
					Corpora te	Specialised lending					SME corporate	Purchased receivable s - corporate	Total corporate exposure (total of col. 4 to 11)			
						high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance						
1	2	3	4	5	6	7	8	9	10	11	12	13	14			
Prescribed PD band																
Performing (total of items 178 to 203)	177															
00	178		0.0000													
01	179	0.0001	0.0120													
02	180	0.0121	0.0170													
03	181	0.0171	0.0240													
04	182	0.0241	0.0340													
05	183	0.0341	0.0480													
06	184	0.0481	0.0670													
07	185	0.0671	0.0950													
08	186	0.0951	0.1350													
09	187	0.1351	0.1900													
10	188	0.1901	0.2690													
11	189	0.2691	0.3810													
12	190	0.3811	0.5380													
13	191	0.5381	0.7610													
14	192	0.7611	1.0760													
15	193	1.0761	1.5220													
16	194	1.5221	2.1530													
17	195	2.1531	3.0440													
18	196	3.0441	4.3050													
19	197	4.3051	6.0890													
20	198	6.0891	8.6110													
21	199	8.6111	12.1770													
22	200	12.1771	17.2220													
23	201	17.2221	24.3550													
24	202	24.3551	34.4430													
25	203	34.4431	99.9999													
Default	204	100.000	100.000													
Total (of items 177 and 204)	205															

1. Means the EAD weighted average probability of default (PD), calculated in accordance with the reporting bank's internal master rating scale and mapped to the relevant specified PD band.

2. In respect of the relevant specified PD 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 PD band	Line no.	Asset class														Total credit exposure (EAD) (col. 12 to 18)	
		Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹	Retail exposure ¹												Purchased receivables retail
					Total retail exposure (total of columns 19, 20, 22, 25 and 29)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other					
							Total	of which: credit cards	Total (of col 23 and 24)	of which: secured lending	of which: unsecure d lending	Total	of which: vehicle and asset finance	of which: unsecured lending ≤ R30 000	of which: unsecured lending > R30 000		
15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
Performing (total of items 178 to 203)	177																
00	178																
01	179																
02	180																
03	181																
04	182																
05	183																
06	184																
07	185																
08	186																
09	187																
10	188																
11	189																
12	190																
13	191																
14	192																
15	193																
16	194																
17	195																
18	196																
19	197																
20	198																
21	199																
22	200																
23	201																
24	202																
25	203																
Default Total (of items 177 and 204)	204																
	205																

1. In respect of the relevant specified PD 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.

IRB approach: EAD weighted average LGD (percentage)	Line no.	Asset class													
		Corporate exposure ¹									Public sector entities ¹	Local government and municipalities ¹	Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹
		Corporate	Specialised lending					SME corporate	Purchased receivables - corporate	Total corporate exposure average LGD (%)					
			high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance								
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Performing	206														
Default	207														
Total average LGD	208														

1. In respect of the relevant specified asset classes, a bank shall report the EAD weighted average LGD percentage relating to the relevant credit exposure, calculated in accordance with the relevant requirements specified in these Regulations.

IRB approach: EAD weighted average LGD (percentage)	Line no.	Asset class											Total EAD weighted average LGD (%)	
		Retail exposure ¹										Purchased receivables retail		
		Total retail exposure average LGD (%)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other					
				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
15	16	17	18	19	20	21	22	23	24	25	26	27		
Performing	206													
Default	207													
Total average LGD	208													

1. In respect of the relevant specified asset classes, a bank shall report the EAD weighted average LGD percentage relating to the relevant credit exposure, calculated in accordance with the relevant requirements specified in these Regulations.

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

IRB approach: Expected loss	Line no.	Asset class													
		Corporate exposure ¹									Public sector entities ¹	Local government and municipalities ¹	Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹
		Corporate	Specialised lending					SME corporate	Purchased corporate receivables	Total corporate expected loss (total of col. 1 to 8)					
			high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance								
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Performing	209														
Default ²	210														
Total expected loss (total of items 209 and 210)	211														

1. In respect of the relevant specified asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate expected loss amount.
2. Means the reporting bank's best estimate of the relevant expected loss amount.

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

IRB approach: Expected loss	Line no.	Asset class												Total expected loss (total of col. 9 to 15)
		Retail exposure ¹												
		Total retail exposure expected loss (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		
15	16	17	18	19	20	21	22	23	24	25	26	27		
Performing	209													
Default ²	210													
Total expected loss (total of items 209 and 210)	211													

1. In respect of the relevant specified asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate expected loss amount.
2. Means the reporting bank's best estimate of the relevant expected loss amount.

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

IRB approach: Reconciliation of credit impairments	Line no.	Balance sheet		
		Total credit impairments (col. 2 + col. 3)	Specific credit impairments	Portfolio credit impairments
		1	2	3
Balance sheet				
Credit impairments: balance at beginning of period	212			
Income statement charge/ (reversal)	213			
Amounts written off against credit impairments	214			
Acquisition/disposal of subsidiary and other	215			
Credit impairments: balance at end of period	216			
Memorandum item:				
Interest in suspense at end of period	217			
IRB approach: Reconciliation of credit impairments	Line no.	Income statement		
		Movement during reporting month (col. 2 + col. 3)	Specific credit impairments	Portfolio credit impairments
		1	2	3
Income statement				
Credit impairments provision raised	218			
Credit impairments provision released	219			
Recoveries	220			
Suspended interest charge	221			
Total (of items 218 to 221)	222			
Memorandum item:				
Write offs not applied directly against the balance sheet, that is, provision not previously raised – when relevant	223			

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

IRB approach: Analysis of past due exposure (EAD)	Asset class	Line no.	Days overdue							
			1 - 30 days		31 - 60 days		61 - 90 days		>90 days	
			Total EAD		Total EAD		Total EAD		Total EAD	
				Of which: "in default" ¹		Of which: "in default" ¹		Of which: "in default" ¹		Of which: "in default" ¹
			1	2	3	4	5	6	7	8
Corporate exposure (total of items 225 to 232)	224									
Corporate	225									
Specialised lending - high volatility commercial real estate (property development)	226									
Specialised lending - income producing real estate	227									
Specialised lending - object finance	228									
Specialised lending - commodities finance	229									
Specialised lending - project finance	230									
SME corporate	231									
Purchased receivables - corporate	232									
Public sector entities	233									
Local government and municipalities	234									
Sovereign (including central government and central bank)	235									
Banks	236									
Securities firms	237									
Retail exposure (total of items 239, 240, 242, 245 and 249)	238									
Residential mortgage advances	239									
Retail revolving credit	240									
<i>of which:</i> credit cards	241									
SME retail (total of items 243 and 244)	242									
Secured lending	243									
Unsecured lending	244									
Retail – other	245									
<i>of which:</i> vehicle and asset finance	246									
unsecured lending ≤ R30 000 (see item 152 description)	247									
unsecured lending > R30 000 (see item 153 description)	248									
Purchased receivables - retail	249									
Securitisation and resecuritisation exposure	250									
Total credit exposure (EAD) (total of items 224, 233 to 238 and 250)	251									

1. Refer to definition of default specified in regulation 67.

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

IRB approach: Counterparty credit risk ¹	Line no.	Current exposure method								Standardised method					
		OTC derivative instruments						SFT ²		OTC derivative instruments					
		Total notional principal amount	Gross replacement cost	Net replacement cost	Gross potential future exposure add-on	Net potential future exposure add-on	Collateral value after haircut	Credit exposure value	Collateral value	Netting benefits	Current market value of portfolio	Current market value of collateral	Risk position for transaction	Risk position from collateral	Net absolute risk position after the application of CCFs
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
Performing (total of items 253 to 278)	252														
00	253														
01	254														
02	255														
03	256														
04	257														
05	258														
06	259														
07	260														
08	261														
09	262														
10	263														
11	264														
12	265														
13	266														
14	267														
15	268														
16	269														
17	270														
18	271														
19	272														
20	273														
21	274														
22	275														
23	276														
24	277														
25	278														
Default	279														
Total counterparty credit risk (total of items 252 and 279)	280														
Memorandum items: Maximum counterparty credit exposure during the month	281														

1. Refer to regulations 23(15) to 23(19) for the relevant directives related to the measurement of a bank's exposure to counterparty credit risk.

2. Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).

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

IRB approach: Counterparty credit risk ¹ Analysis of OTC derivative instruments and SFT ² Based on prescribed PD bands	Line no.	Standardised method			Internal model ³				Aggregate total across all relevant approaches						
		SFT ²			OTC derivative instruments		SFT ²		Adjusted exposure amount		Risk weighted exposure				
		Credit exposure value	Collateral value	Netting benefit	Effective expected positive exposure	Stressed effective expected positive exposure	Effective expected positive exposure	Stressed effective expected positive exposure	OTC derivative instruments	SFT ²	Default risk ⁴		CVA ^{5,6} risk		Total
											OTC derivative instruments	SFT ²	Standar dised	Advanced	
15	16	17	18	19	20	21	22	23	24	25	26	27	28		
Performing (total of items 253 to 278)	252														
00	253														
01	254														
02	255														
03	256														
04	257														
05	258														
06	259														
07	260														
08	261														
09	262														
10	263														
11	264														
12	265														
13	266														
14	267														
15	268														
16	269														
17	270														
18	271														
19	272														
20	273														
21	274														
22	275														
23	276														
24	277														
25	278														
Default	279														
Total counterparty credit risk (total of items 252 and 279)	280														
Memorandum items:															
Maximum counterparty credit exposure during the month	281														

1. Refer to regulations 23(15) to 23(19) for the relevant directives related to the measurement of a bank's exposure to counterparty credit risk.
2. Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).
3. In the case of cross-product netting, a bank shall report the relevant exposure under SFT.
4. After the application of the scaling factor of 1.06.
5. Means credit valuation adjustment.
6. When the majority of the bank's credit exposure is subject to the standardised approach the bank shall complete the relevant required information specified in items 80 to 86 of the form BA 200 and leave open the relevant column under the IRB approach.

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

Counterparty credit risk Analysis of netting	Line no.	ISDA	ISMA	Netting in terms of relevant requirements specified in regulation 23	Other ²	Total (col. 1 to 4)
		1	2	3	4	5
OTC derivative instruments						
Replacement cost	282					
Potential future exposure add-on	283					
SFT ¹	284					
Cross-product netting	285					

- Means Securities Financing Transactions. In accordance with the relevant requirements specified in regulation 23(15), a bank that did not obtain the approval of the Registrar to adopt the Internal Model Method, shall calculate its exposure to credit risk arising from securities financing transactions in accordance with the relevant requirements specified in regulations 23(8) and 23(9).
- Please provide relevant details separately.

Counterparty credit risk	Line no.	Alpha value
		1
Own estimate of alpha ¹	286	

- Relates to internal model method only.

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

Analysis of standardised CVA ¹ risk weighted exposure	Line no	Weight	EAD	Hedging		Standardised CVA ¹ risk weighted exposure ²
				Single name CDS	Index CDS	
Ratings		1	2	3	4	5
AAA	287	0.70%				
AA	288	0.70%				
A	289	0.80%				
BBB	290	1.00%				
BB	291	2.00%				
B	292	3.00%				
CCC	293	10.00%				
Total (of items 287 to 293)	294					

- Means credit valuation adjustment.
- Total standardised CVA risk weighted exposure may not be equal to the sum of individual requirements calculated, due to, among other things, diversification benefits.

(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 Specified LGD band ¹	Line no.	Specified LGD band ¹		Asset class													
		Lower bound (%)	Upper bound (%)	Corporate	Corporate exposure ¹							SME corporate	Purchased corporate receivables	Total corporate exposure (total of col. 3 to 10)	Public sector entities ¹	Local government and municipalities ¹	Sovereign ¹ (including central government and central banks)
					Specialised lending					object finance	commodity finance						
		1	2	3	high volatility commercial real estate (property development)	income producing real estate	4	5	6			7	8	9	10	11	12
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 Specified LGD band ¹	Line no.	Asset class													Total credit exposure (EAD) (total of col 11 to 17)		
		Banks ¹	Securities firms 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	
		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 Specified maturity band ¹	Line no.	Specified maturity band ¹		Asset class ¹														
		Lower bound (years) ²	Upper bound (years) ²	Corporate	Corporate exposure ³							SME corporate	Purchased corporate receivables	Total corporate exposure (total of col. 3 to 10)	Public sector entities ³	Local government and municipalities ³	Sovereign ³ (including central government and central banks)	
					Specialised lending				project finance	commodity finance	object finance							income producing real estate
		1	2		3	4	5	6										
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 Specified maturity band ¹	Line no.	Asset class ¹														Total credit exposure (EAD) (total of col 11 to 17)
		Banks ³	Securities firms ³	Retail exposure ²											Purchased retail receivables	
				Total retail exposure (total of col 18, 19, 21, 24 and 28)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other					
						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		
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								Public sector entities	Local government and municipaliti es	Sovereign (including central government and central banks)	Banks	
		Corpo rate	Specialised lending					SME corporate	Purchased corporate receivables					Total corporate exposure (total of col.1 to 8)
			high volatility commercial real estate (property development)	income producing real estate	object finance	commodity finance	project finance							
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													
<i>of which:</i> 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	Line no.	Asset class												Total (of col 9 to 15)	
		Securities firms	Total retail exposure (total of col 16, 17, 19, 22 and 26)	Residential mortgage advances	Retail exposure										Purchased retail receivables
					Retail revolving credit		SME retail			Retail other					
					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														
<i>of which:</i> 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;

- (ii) shall in no event be used to support a risk weight for an unrated long-term claim;
- (iii) shall be used only for short-term claims relating to banks and corporate institutions, such as a particular issuance of commercial paper,

Provided that when a short-term rated facility is assigned a risk weight of 50 per cent, an unrated short-term claim shall not be assigned a risk weight lower than 100 per cent.

- (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 claims⁴	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 such an amount as may be specified in writing by the Registrar from time to time.

- (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 category¹					
External credit assessment	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-²	B+ and below or unrated^{3, 4, 5}
Securitisation exposure					
Risk weight	20%	50%	100%	350%	1250% ^{3, 4}
Resecuritisation exposure					
Risk weight	40%	100%	225%	650%	1250% ^{3, 4}
Short-term rating category¹					
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%	
Resecuritisation exposure					
Risk weight	40%	100%	225%	1250%	

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. 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.
4. Excluding a second loss position that complies with the relevant conditions specified in subparagraph (vi) below.
5. 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.

- (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 underlying individual exposures 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 such an amount as may be specified in writing by the Registrar from time to time.
- (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%	<p><u>Transactions with the following counterparties</u></p> <p>Central government of the RSA, provided that the relevant exposure is repayable and funded in Rand</p> <p>Reserve Bank, provided that the relevant exposure is repayable and funded in Rand</p> <p>Corporation for Public Deposits, provided that the relevant exposure is repayable and funded in Rand</p> <p>Bank for International Settlements (BIS)</p> <p>International Monetary Fund (IMF)</p> <p>European Central Bank (ECB)</p> <p>European Stability Mechanism (ESM)</p> <p>European Financial Stability Facility (EFSF)</p> <p>World Bank Group, including the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC)</p> <p>Asian Development Bank (ADB)</p> <p>African Development Bank (AfDB)</p> <p>European Bank for Reconstruction and Development (EBRD)</p> <p>Inter-American Development Bank (IADB)</p> <p>European Investment Bank (EIB)</p> <p>European Investment Fund (EIF)</p> <p>Nordic Investment Bank (NIB)</p> <p>Caribbean Development Bank (CDB)</p> <p>Islamic Development Bank (IDB)</p> <p>Council of Europe Development Bank (CEDB)</p> <p>Intragroup bank balances¹</p> <p>Intragroup balances with other formally regulated financial entities with capital requirements similar to these Regulations¹</p> <p>Intragroup balances with branches of foreign banks</p> <p><u>Assets</u></p> <p>Cash and cash equivalents such as gold bullion</p>

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	<u>Transactions with the following counterparties, including assets</u>
20%	<p><u>Transactions with the following counterparties</u></p> <p>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</p> <p>Banks in the RSA, provided that the claim on the bank has an original maturity of three months or less and is denominated and funded in Rand, excluding any claim on a RSA bank that is renewed or rolled resulting in an effective maturity of more than three months</p> <p>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 and is denominated and funded in Rand, 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</p>
	<p><u>Assets</u></p> <p>Cash items in process of collection</p>
100%	<p><u>Transactions with the following counterparties or assets</u></p> <p>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</p> <p>All other counterparties or assets not covered elsewhere in this paragraph (j)</p>
150%	<p><u>Assets</u></p> <p>Venture capital</p> <p>Private equity</p>

(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 securitisation 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 or subsidiary 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

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

- 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.
- 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.
- 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.
- Refer to subregulation (5)(b)(iv). Only relates to exposures when no specific short-term assessment was issued.
- 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.
- Including entities conducting insurance business.
- 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.
- 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.
- 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:

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\}$$

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
- H_e** is the relevant haircut that relates to the exposure
- C** is the current value of the collateral obtained by the bank
- H_c** is the haircut that relates to the collateral
- H_{fx}** 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:

$$E^* = \max \{0, [(\sum(E) - \sum(C)) + \sum (E_s \times H_s) + \sum (E_{fx} \times H_{fx})]\}$$

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
- E_s** is the absolute value of the net position in a given instrument
- H_s** is the relevant haircut that relates to E_s, that is, the net long or short position of each instrument included in the netting agreement shall be multiplied with the appropriate haircut
- E_{fx}** is the absolute value of the net position in a currency that differs from the settlement currency
- H_{fx}** 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:

$$E^* = \max \{0, [(\sum E - \sum C) + \text{VaR output from the internal model}]\}$$

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 haircut¹

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

H₁₀ = 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 or subsidiary 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%
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%	

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.

- (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 and multiplying the aggregated risk weight with the notional amount of the protection provided.
- (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-

- (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 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 protection received from the parent foreign institution or any other branch or subsidiary of the parent foreign institution in respect of an exposure incurred by the branch in the Republic shall be regarded as eligible protection.

(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.

- (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 fact that 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 Registrar;

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 risk weight such amounts or exposures 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 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-ageing, 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 or grades have convincing empirical evidence that-
 - (i) the grade or grades cover sufficiently narrow PD bands;
 - (ii) the default risk posed by borrowers in a particular grade falls within the specific band;

- (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, and any cross-collateral provision where present;

- (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, provided that when a bank does not use the same estimates for both IRB and internal purposes, the bank shall not only document such differences but shall also be able to demonstrate their reasonableness to the satisfaction of the Registrar;
 - (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)(H) 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 establish whether 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, obtain the prior written approval of the Registrar to temporarily 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,

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.
- (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 total exposure of the reporting banking group to the said small business borrower, which shall be determined or calculated on a consolidated basis, shall at no time exceed such an amount as may be specified in writing by the Registrar from time to time;

- (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.

- (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 such an amount as may be specified in writing by the Registrar from time to time;

(ee) shall exhibit low volatility in loss rates relative to their average level of loss rates, especially in the low PD bands.

(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:

$$RWA = K \times 12,5 \times EAD$$

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

$$K = \frac{[LGD \times N [(1 - R)^{-0.5} \times G(PD) + (R/(1 - R))^{0.5} \times G(0.999)] - PD \times LGD] \times (1 - 1.5 \times b)^{-1} \times (1 + (M - 2.5) \times b)}{1}$$

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

$$R = \frac{0.12 \times (1 - \text{EXP}(-50 \times \text{PD}))}{(1 - \text{EXP}(-50))} + 0.24 \times \frac{[1 - (1 - \text{EXP}(-50 \times \text{PD}))]}{(1 - \text{EXP}(-50))}$$

Provided that the bank shall apply a multiplication factor of 1.25 to the aforesaid correlation parameter “R”, such that correlation $R_{FI} = 1.25 \times R$, 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
- $$b = (0.11852 - 0.05478 \times \ln(\text{PD}))^2$$
- 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 and/or specify in writing to substitute sales for assets as the base.

$$0.04 \times (1 - (S - 40)/360)$$

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

$$R = 0.12 \times (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50)) + 0.24 \times [1 - (1 - \text{EXP}(-50 \times \text{PD})) / (1 - \text{EXP}(-50))] - 0.04 \times (1 - (S-40)/360)$$

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.

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

(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				Default 0%
	Strong	Good	Satisfactory	Weak	
	70%	90%	115%	250%	
	Likely external assessment				
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Financial strength <ul style="list-style-type: none"> Market conditions Financial ratios such as debt service coverage ratio (DSCR), loan life coverage ratio (LLCR), project life coverage ratio (PLCR) and debt-to-equity ratio Stress analysis 	<p>Few competing suppliers or substantial and durable advantage in respect of location, cost or technology. Demand is strong and growing.</p> <p>Strong financial ratios considering the level of project risk.</p> <p>Very robust economic assumptions.</p> <p>The project is able to meet its financial obligations under sustained, severely stressed economic or sectoral conditions.</p>	<p>Few competing suppliers or better than average location, cost or technology but the situation may not last. Demand is strong and stable.</p> <p>Strong to acceptable financial ratios considering the level of project risk.</p> <p>Robust project economic assumptions.</p> <p>The project is able to meet its financial obligations under normal stressed economic or sectoral conditions.</p> <p>The project is only likely to default under severe economic conditions.</p>	<p>The project has no advantage in respect of location, cost or technology. Demand is adequate and stable.</p> <p>Standard financial ratios considering the level of project risk.</p> <p>The project is vulnerable to stresses that are not uncommon through an economic cycle and may default in a normal downturn situation.</p>	<p>The project has worse than average location, cost or technology. Demand is weak and declining.</p> <p>Aggressive financial ratios considering the level of project risk.</p> <p>The project is likely to default unless conditions improve soon.</p>	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
Financial structure <ul style="list-style-type: none"> The duration of the credit compared to the duration of the project. Amortisation schedule 	<p>The useful life of the project significantly exceeds the duration of the loan.</p> <p>Amortising debt.</p>	<p>The useful life of the project exceeds the duration of the loan.</p> <p>Amortising debt.</p>	<p>The useful life of the project exceeds the duration of the loan.</p> <p>Amortising debt repayments with limited bullet payment.</p>	<p>The useful life of the project may not exceed the duration of the loan.</p> <p>Bullet repayment or amortising debt repayments with high bullet repayment.</p>	
Political and legal environment <ul style="list-style-type: none"> Political risk, including transfer risk, considering project type and mitigants Force majeure risk such as war and civil unrest. Government support and project's importance for the country over the long term Stability of legal and regulatory environment (risk of change in law) 	<p>Very low exposure and strong mitigation instruments when required</p> <p>Low exposure</p> <p>Project of strategic importance for the country (preferably export-oriented).</p> <p>Strong support from Government.</p> <p>Favourable and stable regulatory environment over the long term.</p>	<p>Low exposure and satisfactory mitigation instruments when required</p> <p>Acceptable exposure</p> <p>Project considered important for the country.</p> <p>Good level of support from Government.</p> <p>Favourable and stable regulatory environment over the medium term.</p>	<p>Moderate exposure and fair mitigation instruments.</p> <p>Standard protection</p> <p>Project may not be strategic but brings unquestionable benefits for the country.</p> <p>Support from Government may not be explicit.</p> <p>Regulatory changes can be predicted with a fair level of certainty.</p>	<p>High exposure and no or weak mitigation instruments.</p> <p>Significant risks that are not fully mitigated.</p> <p>Project not key to the country.</p> <p>No or weak support from Government.</p> <p>Current or future regulatory issues may affect the project.</p>	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
Political and legal environment <ul style="list-style-type: none"> Acquisition of all necessary supports and approvals for such relief from local content laws Enforceability of contracts, collateral and security 	Strong	Satisfactory	Fair	Weak	
	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 <p>Design and technology risk</p> <p>Construction risk</p> <ul style="list-style-type: none"> Permitting and siting Type of construction contract 	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	
	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	
	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%	
	Likely external assessment				0%
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
<p>Construction risk</p> <ul style="list-style-type: none"> Completion guarantees Track record and financial strength of contractor in constructing similar projects 	<p>Substantial liquidated damages supported by financial substance and/or strong completion guarantee from sponsors with excellent financial standing</p> <p>Strong</p>	<p>Significant liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing</p> <p>Good</p>	<p>Adequate liquidated damages supported by financial substance and/or completion guarantee from sponsors with good financial standing</p> <p>Satisfactory</p>	<p>Inadequate liquidated damages or not supported by financial substance or weak completion guarantees</p> <p>Weak</p>	
<p>Operating risk</p> <ul style="list-style-type: none"> Scope and nature of operations and maintenance contracts Operator's expertise, track record and financial strength 	<p>Strong long-term operations and maintenance contract, preferably with contractual performance incentives and/or operations and maintenance reserve accounts</p> <p>Very strong or committed technical assistance of the sponsors</p>	<p>Long-term operations and maintenance contract and/or operations and maintenance reserve accounts</p> <p>Strong</p>	<p>Limited operations and maintenance contract or operations and maintenance reserve account</p> <p>Acceptable</p>	<p>No operations and maintenance contract. Risk of high operational cost overruns beyond mitigants.</p> <p>Limited/weak or local operator dependent on local authorities</p>	

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-	
Off-take risk					
<ul style="list-style-type: none"> If there is a take-or-pay or fixed-price off-take contract 	Excellent creditworthiness of off-taker. Strong termination clauses. Tenor of contract comfortably exceeds the maturity of the debt	Good creditworthiness of off-taker. Strong termination clauses. Tenor of contract exceeds the maturity of the debt	Acceptable financial standing of off-taker. Normal termination clauses. Tenor of contract generally matches the maturity of the debt	Weak off-taker. Weak termination clauses. Tenor of contract does not exceed the maturity of the debt	
<ul style="list-style-type: none"> If there is no take-or-pay or fixed-price off-take contract 	Project produces essential services or a commodity sold widely on a world market. Output can readily be absorbed at projected prices even at lower than historic market growth rates	Project produces essential services or a commodity sold widely on a regional market that will absorb it at projected prices at historical growth rates	Commodity is sold on a limited market that may absorb it only at lower than projected prices	Project output is demanded by only one or a few buyers or is not generally sold on an organised market	
Supply risk					
<ul style="list-style-type: none"> Price, volume and transportation risk of feed-stocks. Supplier's track record and financial strength 	Long-term supply contract with supplier of excellent financial standing	Long-term supply contract with supplier of good financial standing	Long-term supply contract with supplier of good financial standing – a degree of price risk may remain	Short-term supply contract or long-term supply contract with financially weak supplier – a degree of price risk definitely remains	
<ul style="list-style-type: none"> Reserve risks such as natural resource development 	Independently audited, proven and developed reserves well in excess of requirements over lifetime of the project	Independently audited, proven and developed reserves in excess of requirements over lifetime of the project	Proven reserves can supply the project adequately through the maturity of the debt	Project relies to some extent on potential and undeveloped reserves	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
<p>Strength of sponsor</p> <ul style="list-style-type: none"> Sponsor's track record, financial strength and country/sector experience Sponsor support, as evidenced by equity, ownership clause and incentive to inject additional cash when necessary 	<p>Strong sponsor with excellent track record and high financial standing</p> <p>Strong. Project is highly strategic for the sponsor (core business – long-term strategy)</p>	<p>Good sponsor with satisfactory track record and good financial standing</p> <p>Good. Project is strategic for the sponsor (core business – long-term strategy)</p>	<p>Adequate sponsor with adequate track record and good financial standing</p> <p>Acceptable. Project is considered important for the sponsor (core business)</p>	<p>Weak sponsor with no or questionable track record and/or financial weaknesses</p> <p>Limited. Project is not key to sponsor's long-term strategy or core business</p>	
<p>Security package</p> <ul style="list-style-type: none"> Assignment of contracts and accounts Pledge of assets, taking into account quality, value and liquidity of assets Lender's control over cash flow (e.g. cash sweeps, independent escrow accounts) 	<p>Fully comprehensive</p> <p>First perfected security interest in all project assets, contracts, permits and accounts necessary to run the project</p> <p>Strong</p>	<p>Comprehensive</p> <p>Perfected security interest in all project assets, contracts, permits and accounts necessary to run the project</p> <p>Satisfactory</p>	<p>Acceptable</p> <p>Acceptable security interest in all project assets, contracts, permits and accounts necessary to run the project</p> <p>Fair</p>	<p>Weak</p> <p>Little security or collateral for lenders. Weak negative pledge clause</p> <p>Weak</p>	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	
	Likely external assessment				0%
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
<p>Security package</p> <ul style="list-style-type: none"> Strength of the covenant package (mandatory prepayments, payment deferrals, payment cascade and dividend restrictions) Reserve funds (debt service, operations and maintenance, renewal and replacement, unforeseen events, etc) 	<p>Covenant package is strong for this type of project</p> <p>Project may issue no additional debt</p> <p>Longer than average coverage period.</p> <p>All reserve funds fully funded in cash or letters of credit from highly rated bank</p>	<p>Covenant package is satisfactory for this type of project</p> <p>Project may issue extremely limited additional debt</p> <p>Average coverage period.</p> <p>All reserve funds fully funded</p>	<p>Covenant package is fair for this type of project</p> <p>Project may issue limited additional debt</p> <p>Average coverage period.</p> <p>All reserve funds fully funded</p>	<p>Covenant package is insufficient for this type of project</p> <p>Project may issue unlimited additional debt</p> <p>Shorter than average coverage period.</p> <p>Reserve funds funded from operating cash flows</p>	

(ii) In the case of income-producing real estate and high-volatility commercial real estate exposures, as follows:

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	Risk weights for income-producing real estate exposures				
	70%	90%	115%	250%	0%
	Risk weights for high-volatility commercial real estate exposures				
	95%	120%	140%	250%	
Financial strength <ul style="list-style-type: none"> Market conditions Financial ratios and advance rate Stress analysis 	<p>The supply and demand for the project's type and location are currently in equilibrium.</p> <p>The number of competitive properties coming to market is equal to or lower than forecasted demand.</p> <p>The property's debt service coverage ratio (DSCR) is considered strong (DSCR is not relevant for the construction phase) and its loan or lending-to-value ratio (LTV) is considered low given its property type.</p> <p>Where a secondary market exists, the transaction is underwritten to market standards.</p>	<p>The supply and demand for the project's type and location are currently in equilibrium.</p> <p>The number of competitive properties coming to market is roughly equal to forecasted demand.</p> <p>The DSCR (not relevant for the development of real estate) and LTV are satisfactory.</p> <p>Where a secondary market exists, the transaction is underwritten to market standards.</p> <p>The property can meet its financial obligations under a sustained period of financial stress (e.g. interest rates, economic growth).</p> <p>The property is likely to default only under severe economic conditions.</p>	<p>Market conditions are largely in equilibrium. Competitive properties are coming on the market and others are in the planning stages. The project's design and capabilities may not be state of the art compared to new projects.</p> <p>The property's DSCR has deteriorated and its value has fallen, increasing its LTV ratio.</p> <p>During an economic downturn, the property would suffer a decline in revenue that would limit its ability to fund capital expenditures and significantly increase the risk of default.</p>	<p>Market conditions are weak. It is uncertain when conditions will improve and return to equilibrium. The project is losing tenants at lease expiration. New lease terms are less favourable compared to those expiring.</p> <p>The property's DSCR has deteriorated significantly and its LTV ratio is well above underwriting standards for new loans.</p> <p>The property's financial condition is strained and is likely to default unless conditions improve in the near term.</p>	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	Risk weights for income-producing real estate exposures				
	70%	90%	115%	250%	0%
	Risk weights for high-volatility commercial real estate exposures				
	95%	120%	140%	250%	
<p>Cash-flow predictability</p> <ul style="list-style-type: none"> In the case of complete and stabilised property. In the case of complete but not stabilised property In the case of construction phase 	<p>The property's leases are long-term with creditworthy tenants and the maturity dates are scattered.</p> <p>The property has a track record of tenant retention upon lease expiration.</p> <p>Its vacancy rate is low.</p> <p>Expenses (maintenance, insurance, security, and property taxes) are predictable.</p>	<p>Most of the property's leases are long-term, with tenants that range in creditworthiness.</p> <p>The property experiences a normal level of tenant turnover upon lease expiration.</p> <p>The property's vacancy rate is low.</p> <p>Expenses are predictable.</p>	<p>Most of the property's leases are medium rather than long-term with tenants that range in creditworthiness.</p> <p>The property experiences a moderate level of tenant turnover upon lease expiration.</p> <p>The property's vacancy rate is moderate.</p> <p>Expenses are relatively predictable but vary in relation to revenue.</p>	<p>The property's leases are of various terms with tenants that range in creditworthiness.</p> <p>The property experiences a very high level of tenant turnover upon lease expiration.</p> <p>The property's vacancy rate is high.</p> <p>Significant expenses are incurred preparing space for new tenants.</p>	
	<p>Leasing activity meets or exceeds projections.</p> <p>The project should achieve stabilisation in the near future</p>	<p>Leasing activity meets or exceeds projections.</p> <p>The project should achieve stabilisation in the near future</p>	<p>Most leasing activity is within projections.</p> <p>However, stabilisation will not occur for some time.</p>	<p>Market rents do not meet expectations.</p> <p>Despite achieving target occupancy rate, cash flow coverage is tight due to disappointing revenue.</p>	
	<p>The property is entirely pre-leased through the tenor of the loan or pre-sold to an investment grade tenant or buyer or the bank has a binding commitment for take-out financing from an investment grade lender.</p>	<p>The property is entirely pre-leased or pre-sold to a creditworthy tenant or buyer or the bank has a binding commitment for permanent financing from a creditworthy lender.</p>	<p>Leasing activity is within projections but the building may not be pre-leased and there may not exist a take-out financing.</p> <p>The bank may be the permanent lender.</p>	<p>The property is deteriorating due to cost overruns, market deterioration, tenant cancellations or other factors.</p> <p>There may be a dispute with the party providing the</p>	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	Risk weights for income-producing real estate exposures				
	70%	90%	115%	250%	0%
	Risk weights for high-volatility commercial real estate exposures				
95%	120%	140%	250%		
				permanent financing.	
Asset characteristics					
<ul style="list-style-type: none"> Location 	The property is located in a highly desirable location that is convenient to services that tenants desire.	Property is located in a desirable location that is convenient to services that tenants desire.	The property location lacks a competitive advantage.	The property's location, configuration, design and maintenance have contributed to the property's difficulties.	
<ul style="list-style-type: none"> Design and condition 	Property is favoured due to its design, configuration, and maintenance, and is highly competitive with new properties.	Property is appropriate in terms of its design, configuration and maintenance. The property's design and capabilities are competitive with new properties.	Property is adequate in terms of its configuration, design and maintenance.	Weaknesses exist in the property's configuration, design or maintenance.	
<ul style="list-style-type: none"> Property is under construction 	Construction budget is conservative and technical hazards are limited. Contractors are highly qualified.	Construction budget is conservative and technical hazards are limited. Contractors are highly qualified.	Construction budget is adequate and contractors are appropriately qualified.	Project is over budget or unrealistic given its technical hazards. Contractors may be under qualified.	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	Risk weights for income-producing real estate exposures				
	70%	90%	115%	250%	0%
	Risk weights for high-volatility commercial real estate exposures				
	95%	120%	140%	250%	
<p>Strength of sponsor/developer</p> <ul style="list-style-type: none"> Financial capacity and willingness to support the property. Reputation and track record with similar properties. Relationships with relevant real estate role players 	<p>The sponsor/developer made a substantial cash contribution to the construction or purchase of the property.</p> <p>The sponsor/developer has substantial resources and limited direct and contingent liabilities.</p> <p>The sponsor/developer's properties are diversified geographically and in terms of property type.</p>	<p>The sponsor/developer made a material cash contribution to the construction or purchase of the property.</p> <p>The sponsor/developer's financial condition allows it to support the property in the event of a cash flow shortfall.</p> <p>The sponsor/developer's properties are located in several geographic regions.</p>	<p>The sponsor/developer's contribution may be immaterial or non-cash. The sponsor/developer is average to below average in terms of financial resources.</p> <p>Moderate management and sponsors' quality. Management or sponsor track record does not raise serious concerns.</p> <p>Adequate relationships with leasing agents and other parties providing important real estate services.</p>	<p>The sponsor/developer lacks capacity or willingness to support the property.</p> <p>Ineffective management and substandard sponsors' quality. Management and sponsor difficulties have contributed to difficulties in managing properties in the past.</p> <p>Poor relationships with leasing agents and/or other parties providing important real estate services.</p>	

Risk driver	Rating grade				Default
	Strong	Good	Satisfactory	Weak	
	Risk weights for income-producing real estate exposures				
	70%	90%	115%	250%	
	Risk weights for high-volatility commercial real estate exposures				
	95%	120%	140%	250%	
Security package					
<ul style="list-style-type: none"> Nature of lien 	Perfected first lien	Perfected first lien	Perfected first lien	Ability of lender to foreclose is constrained	
<ul style="list-style-type: none"> Assignment of rents in the case of projects leased to long-term tenants 	The lender has obtained an assignment. They maintain current tenant information that would facilitate providing notice to remit rents directly to the lender, such as a current rent roll and copies of the project's leases.	The lender has obtained an assignment. They maintain current tenant information that would facilitate providing notice to the tenants to remit rents directly to the lender, such as current rent roll and copies of the project's leases.	The lender has obtained an assignment. They maintain current tenant information that would facilitate providing notice to the tenants to remit rents directly to the lender, such as current rent roll and copies of the project's leases.	The lender has not obtained an assignment of the leases or has not maintained the information necessary to readily provide notice to the building's tenants.	
<ul style="list-style-type: none"> Quality of the insurance coverage 	Appropriate	Appropriate	Appropriate	Substandard	

(iii) In the case of object finance, as follows:

Risk driver	Rating grades				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
<p>Financial strength</p> <ul style="list-style-type: none"> Market conditions Financial ratios such as debt service coverage ratio and loan-to-value ratio Stress analysis Market liquidity 	<p>Demand is strong and growing.</p> <p>Strong entry barriers, low sensitivity to changes in technology and economic outlook.</p> <p>Strong financial ratios considering the type of asset.</p> <p>Very robust economic assumptions.</p> <p>Stable long-term revenues.</p> <p>Capable of withstanding severely stressed conditions through an economic cycle.</p> <p>Market is structured on a worldwide basis.</p> <p>Assets are highly liquid.</p>	<p>Demand is strong and stable.</p> <p>Some entry barriers, some sensitivity to changes in technology and economic outlook.</p> <p>Strong / acceptable financial ratios considering the type of asset.</p> <p>Robust project economic assumptions.</p> <p>Satisfactory short-term revenues.</p> <p>Loan can withstand some financial adversity. Default is only likely under severe economic conditions.</p> <p>Market is worldwide or regional.</p> <p>Assets are relatively liquid.</p>	<p>Demand is adequate and stable.</p> <p>Limited entry barriers, significant sensitivity to changes in technology and economic outlook.</p> <p>Standard financial ratios for the asset type.</p> <p>Uncertain short-term revenues.</p> <p>Cash flows are vulnerable to stresses that are not uncommon through an economic cycle. The loan may default in a normal downturn.</p> <p>Market is regional with limited prospects in the short term, implying lower liquidity.</p>	<p>Demand is weak and declining.</p> <p>Vulnerable to changes in technology and economic outlook.</p> <p>Highly uncertain environment.</p> <p>Aggressive financial ratios considering the type of asset.</p> <p>Revenues subject to strong uncertainties.</p> <p>Even in normal economic conditions the asset may default, unless conditions improve.</p> <p>Local market and/or poor visibility.</p> <p>Low or no liquidity, particularly on niche markets.</p>	

Risk driver	Rating grades				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	
	Likely external assessment				0%
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Political and legal environment <ul style="list-style-type: none"> Political risk, including transfer risk Legal and regulatory risks 	<p>Very low.</p> <p>Strong mitigation instruments when required</p> <p>Jurisdiction is favourable to repossession and enforcement of contracts.</p>	<p>Low.</p> <p>Satisfactory mitigation instruments when required</p> <p>Jurisdiction is favourable to repossession and enforcement of contracts.</p>	<p>Moderate.</p> <p>Fair mitigation instruments.</p> <p>Jurisdiction is generally favourable to repossession and enforcement of contracts, even if repossession might be long and/or difficult.</p>	<p>High.</p> <p>No or weak mitigation instruments.</p> <p>Poor or unstable legal and regulatory environment.</p> <p>Jurisdiction may make repossession and enforcement of contracts lengthy or impossible.</p>	
Transaction characteristics <ul style="list-style-type: none"> Financing term compared to the economic life of the asset 	<p>Full payout profile/minimum balloon.</p> <p>No grace period.</p>	<p>Balloon more significant, but still at satisfactory levels.</p>	<p>Important balloon with potential grace periods.</p>	<p>Repayment in fine or high balloon.</p>	

Risk driver	Rating grades				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
<p>Operating risk</p> <ul style="list-style-type: none"> Permits / licensing Scope and nature of operations and maintenance contracts Operator's financial strength, track record in managing the asset type and capability to re-market asset when it comes off-lease 	<p>All permits have been obtained.</p> <p>Asset meets current and foreseeable safety regulations.</p> <p>Strong long-term operations and maintenance contract, preferably with contractual performance incentives, and/or operations and maintenance reserve accounts (if needed)</p> <p>Excellent track record and strong re-marketing capability.</p>	<p>All permits obtained or in the process of being obtained.</p> <p>Asset meets current and foreseeable safety regulations.</p> <p>Long-term operations and maintenance contract, and/or operations and maintenance reserve accounts (if needed)</p> <p>Satisfactory track record and re-marketing capability.</p>	<p>Most permits obtained or in process of being obtained, outstanding ones considered routine.</p> <p>Asset meets current safety regulations.</p> <p>Limited operations and maintenance contract or operations and maintenance reserve account (if needed)</p> <p>Weak or short track record and uncertain re-marketing capability.</p>	<p>Problems in obtaining all required permits.</p> <p>Part of the planned configuration and/or planned operations might need to be revised.</p> <p>No operations and maintenance contract.</p> <p>Risk of high operational cost overruns beyond mitigants.</p> <p>No or unknown track record and inability to re-market the asset.</p>	

Risk driver	Rating grades				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
<p>Asset characteristics</p> <ul style="list-style-type: none"> Configuration, size, design and maintenance (i.e. age, size for a plane) compared to other assets in the same market 	<p>Strong advantage in design and maintenance.</p> <p>Configuration is standard such that the object meets a liquid market.</p>	<p>Above average design and maintenance.</p> <p>Standard configuration, maybe with very limited exceptions - such that the object meets a liquid market.</p>	<p>Average design and maintenance.</p> <p>Configuration is somewhat specific and therefore might cause a narrower market for the object.</p>	<p>Below average design and maintenance.</p> <p>Asset is near the end of its economic life.</p> <p>Configuration is very specific.</p> <p>The market for the object is very narrow.</p>	
<ul style="list-style-type: none"> Resale value Sensitivity of the asset value and liquidity to economic cycles 	<p>Current resale value is well above debt value.</p> <p>Asset value and liquidity are relatively insensitive to economic cycles.</p>	<p>Resale value is moderately above debt value.</p> <p>Asset value and liquidity are sensitive to economic cycles.</p>	<p>Resale value is slightly above debt value.</p> <p>Asset value and liquidity are quite sensitive to economic cycles.</p>	<p>Resale value is below debt value.</p> <p>Asset value and liquidity are highly sensitive to economic cycles.</p>	
<p>Strength of sponsor</p> <ul style="list-style-type: none"> Operator's financial strength, track record in managing the asset type and capability to re-market asset when it comes off-lease Sponsors' track record and financial strength 	<p>Excellent track record and strong re-marketing capability.</p> <p>Sponsors with excellent track record and high financial standing.</p>	<p>Satisfactory track record and re-marketing capability.</p> <p>Sponsors with good track record and good financial standing.</p>	<p>Weak or short track record and uncertain re-marketing capability.</p> <p>Sponsors with adequate track record and good financial standing.</p>	<p>No or unknown track record and inability to re-market the asset.</p> <p>Sponsors with no or questionable track record and/or financial weaknesses.</p>	

Risk driver	Rating grades				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	
	Likely external assessment				0%
	BBB- or better	BB+ to BB	BB- to B+	B to C-	
Security package <ul style="list-style-type: none"> Asset control Rights and means at the lender's disposal to monitor the location and condition of the asset Insurance against damages 	<p>Legal documentation provides the lender effective control (e.g. a first perfected security interest, or a leasing structure including such security) on the asset, or on the company owning it.</p> <p>The lender is able to monitor the location and condition of the asset, at any time and place (regular reports, possibility to lead inspections).</p> <p>Strong insurance coverage including collateral damages with top quality insurance companies.</p>	<p>Legal documentation provides the lender effective control (e.g. a perfected security interest, or a leasing structure including such security) on the asset, or on the company owning it.</p> <p>The lender is able to monitor the location and condition of the asset, almost at any time and place.</p> <p>Satisfactory insurance coverage (not including collateral damages) with good quality insurance companies.</p>	<p>Legal documentation provides the lender effective control (e.g. a perfected security interest, or a leasing structure including such security) on the asset, or on the company owning it.</p> <p>The lender is able to monitor the location and condition of the asset, almost at any time and place.</p> <p>Fair insurance coverage (not including collateral damages) with acceptable quality insurance companies.</p>	<p>The contract provides little security to the lender and leaves room to some risk of losing control in respect of the asset.</p> <p>The ability of the lender to monitor the location and condition of the asset is limited.</p> <p>Weak insurance coverage (not including collateral damages) or with weak quality insurance companies.</p>	

(iv) In the case of commodity finance, as follows:

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
Financial strength <ul style="list-style-type: none"> Degree of over-collateralisation of trade 	Strong	Good	Satisfactory	Weak	
Political and legal environment <ul style="list-style-type: none"> Country risk Mitigation of country risks 	No country risk Very strong mitigation Strong offshore mechanisms Strategic commodity 1 st class buyer	Limited exposure to country risk (in particular, offshore location of reserves in an emerging country) Strong mitigation Offshore mechanisms Strategic commodity Strong buyer	Exposure to country risk (in particular, offshore location of reserves in an emerging country) Acceptable mitigation Offshore mechanisms Less strategic commodity Acceptable buyer	Strong exposure to country risk (in particular, inland reserves in an emerging country) Only partial mitigation No offshore mechanisms Non-strategic commodity Weak buyer	
Asset characteristics <ul style="list-style-type: none"> Liquidity and susceptibility to damage 	Commodity is quoted and can be hedged through futures or OTC instruments. Commodity is not susceptible to damage.	Commodity is quoted and can be hedged through OTC instruments. Commodity is not susceptible to damage.	Commodity is not quoted but is liquid. There is uncertainty about the possibility of hedging. Commodity is not susceptible to damage.	Commodity is not quoted. Liquidity is limited given the size and depth of the market. No appropriate hedging instruments. Commodity is susceptible to damage.	

Risk driver	Rating grade				
	Strong	Good	Satisfactory	Weak	Default
	70%	90%	115%	250%	0%
	Likely external assessment				0%
BBB- or better	BB+ to BB	BB- to B+	B to C-		
Strength of sponsor <ul style="list-style-type: none"> Financial strength of trader Track record, including ability to manage the logistic process 	<p>Very strong, relative to trading philosophy and risks</p> <p>Extensive experience with the type of transaction in question.</p> <p>Strong record of operating success and cost efficiency.</p>	<p>Strong</p> <p>Sufficient experience with the type of transaction in question.</p> <p>Above average record of operating success and cost efficiency.</p>	<p>Adequate</p> <p>Limited experience with the type of transaction in question.</p> <p>Average record of operating success and cost efficiency.</p>	<p>Weak</p> <p>Limited or uncertain track record in general.</p> <p>Volatile costs and profits.</p>	
<ul style="list-style-type: none"> Trading controls and hedging policies Quality of financial disclosure 	<p>Strong standards for counterparty selection, hedging, and monitoring.</p> <p>Excellent</p>	<p>Adequate standards for counterparty selection, hedging, and monitoring.</p> <p>Good</p>	<p>Past deals have experienced no or minor problems.</p> <p>Satisfactory</p>	<p>Trader has experienced significant losses on past deals.</p> <p>Financial disclosure contains some uncertainties or is insufficient.</p>	
Security package <ul style="list-style-type: none"> Asset control Insurance against damages 	<p>First perfected security interest provides the lender legal control over the assets at any time if needed</p> <p>Strong insurance coverage including collateral damages with top quality insurance companies.</p>	<p>First perfected security interest provides the lender legal control over the assets at any time if needed</p> <p>Satisfactory insurance coverage (not including collateral damages) with good quality insurance companies.</p>	<p>At some point in the process, there is a rupture in the control of the assets by the lender.</p> <p>The rupture is mitigated by knowledge of the trade process or a third party undertaking as the case may be.</p> <p>Fair insurance coverage (not including collateral damages) with acceptable quality insurance companies.</p>	<p>Contract leaves room for some risk of losing control over the assets.</p> <p>Recovery may be jeopardised.</p> <p>Weak insurance coverage (not including collateral damages) or with weak quality insurance companies.</p>	

(iv) Retail 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 retail exposures through the application of the relevant formulae and risk components specified below:

- (A) In the case of residential mortgage exposures, which residential mortgage exposures are not in default, as follows:

$$RWA = K \times 12,5 \times EAD$$

where:

RWA is the relevant risk-weighted asset amount

K is the capital requirement, which capital requirement shall be calculated through the application of the formula specified below

$$K = \frac{LGD \times N[(1 - R)^{-0.5} \times G(PD) + (R / (1 - R))^{0.5} \times G(0.999)] - PD \times LGD}{1 - PD}$$

PD is the probability of default, and constitutes a ratio

A bank shall apply a PD ratio equal to the higher of the one-year PD associated with the relevant internal grade to which the pool of exposures is assigned, or 0.03 per cent.

LGD is the loss-given-default ratio estimated by the bank, provided that-

- (i) the LGD estimate in respect of retail exposures secured by residential property shall in no case be less than 10 per cent unless the said exposure is protected by a guarantee obtained from a sovereign;
- (ii) the Registrar may amend the minimum LGD ratio of 10 per cent subject to such conditions as may be specified in writing by the Registrar.

R is the correlation, which correlation shall be a constant number equal to 0.15

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 as follows:

- (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 exposure amounts.
- (ii) In the case of off-balance-sheet items other than foreign exchange or interest rate commitments, the exposure at default shall be equal to the sum of any committed but undrawn amounts multiplied by the credit conversion factors estimated by the reporting bank, provided that-
 - (aa) when the relevant retail exposures have uncertain future drawdown, such as credit cards, the bank shall take into account its history and/or expectation of additional drawings prior to default;
 - (bb) when the bank's estimate of EAD does not incorporate credit conversion factors in respect of additional drawings on undrawn lines prior to default, the bank shall make appropriate adjustments to its estimates of LGD;
 - (cc) when the bank has securitised the drawn balances of retail facilities, the bank shall by way of credit-conversion factors continue to include its exposure in respect of the undrawn balances, that is, the seller's interest, based on the proportions of the seller's and investor's interests of the securitised drawn balances.
- (iii) In the case of foreign exchange or interest rate commitments, in accordance with the relevant provisions of subregulation (6) relating to the said commitments.

- (B) In the case of qualifying revolving retail exposures, which qualifying revolving retail exposures are not in default, as follows:

$$RWA = K \times 12,5 \times EAD$$

where:

RWA is the relevant risk-weighted asset amount

K is the capital requirement, which capital requirement shall be calculated through the application of the formula specified below

$$K = \text{LGD} \times N[(1 - R)^{-0.5} \times G(\text{PD}) + (R / (1 - R))^{0.5} \times G(0.999)] - \text{PD} \times \text{LGD}$$

PD is the probability of default, and constitutes a ratio

A bank shall apply a PD ratio equal to the higher of the one-year PD ratio associated with the relevant internal grade to which the pool of exposures is assigned, or 0.03 per cent.

LGD is the loss-given-default ratio as estimated by the bank

R is the correlation, which correlation shall be a constant number equal to 0.04

EAD is the exposure at default, which exposure shall be measured in accordance with the relevant directives relating to the measurement of EAD specified in item (A) above.

- (C) In the case of other retail exposures, which other retail exposures are not in default, as follows:

$$RWA = K \times 12,5 \times EAD$$

where:

RWA is the relevant risk-weighted asset amount

K is the capital requirement, which capital requirement shall be calculated through the application of the formula specified below

$$K = \text{LGD} \times N[(1 - R)^{-0.5} \times G(\text{PD}) + (R / (1 - R))^{0.5} \times G(0.999)] - \text{PD} \times \text{LGD}$$

PD is the probability of default, and constitutes a ratio

A bank shall apply a PD ratio equal to the higher of the one-year PD ratio associated with the relevant internal grade to which the pool of exposures is assigned, or 0.03 per cent.

LGD is the loss-given-default ratio as estimated by the bank

R is the correlation, which correlation shall be calculated through the application of the formula specified below

$$R = \frac{0.03 \times (1 - \text{EXP}(-35 \times \text{PD}))}{(1 - \text{EXP}(-35))} + 0.16 \times \frac{1 - (1 - \text{EXP}(-35 \times \text{PD}))}{(1 - \text{EXP}(-35))}$$

EXP is the inverse of the natural logarithm, ln

EAD is the exposure at default, which exposure shall be measured in accordance with the relevant directives relating to the measurement of EAD specified in item (A) above.

(D) In the case of retail exposures that are in default-

(i) the capital requirement (K) shall be equal to the higher amount of zero and the difference between the exposure's LGD and the bank's estimate of expected loss, provided that-

(aa) the LGD estimate in respect of retail exposures secured by residential property shall in no case be less than 10 per cent unless the said exposure is protected by a guarantee obtained from a sovereign;

(bb) the Registrar may amend the said minimum LGD ratio of 10 per cent subject to such conditions as may be specified in writing by the Registrar;

(ii) the bank shall assign to the relevant exposure a PD ratio equal to 100 per cent;

(iii) the relevant risk-weighted exposure amount shall be calculated through the application of the formula specified below.

$$\text{RWA} = K \times 12,5 \times \text{EAD}$$

(v) Equity exposures

A bank shall calculate its risk-weighted assets in respect of equity exposures held in its banking book in accordance with the relevant requirements specified in regulation 31.

(vi) Purchased receivables

(A) A bank shall separately calculate its risk-weighted assets in respect of purchased retail receivables and purchased corporate receivables, provided that the bank shall in the calculation of its risk-weighted exposure in respect of a particular purchased receivable or pool of purchased receivables distinguish between-

(i) the risk of default

When purchased receivables unambiguously belong to one asset class, the bank shall calculate the risk of default relating to the said receivables in accordance with the risk-weight function and risk components applicable to that particular exposure type, provided that the bank shall comply with the relevant requirements in respect of the relevant risk-weight function. For example, when the receivables consist of-

(aa) revolving retail exposures but the bank is unable to comply with the requirements relating to qualifying revolving retail exposures, the bank shall apply the risk-weight function relating to other retail exposures;

(bb) hybrid pools containing a mixture of exposure types, that is, the bank is unable to separate the exposures by type, the bank shall apply the risk-weight function producing the highest capital requirement for the exposures included in the pool of purchased receivables.

(ii) the risk of dilution

In the case of purchased corporate receivables and purchased retail receivables, a bank shall calculate the risk weights relating to the risk of dilution, that is, the risk that a receivable amount may be reduced by way of cash or non-cash credit amounts being made against the receivable account, for example, as a result of the return of goods that were sold or disputes regarding the quality of a product, in accordance with the corporate risk-weight function specified in subparagraph (ii) above, provided that-

- (aa) the bank shall estimate the one-year expected loss ratio for dilution risk, expressed as a percentage of the receivable amount, in respect of the pool as a whole or the individual receivables included in the pool on a stand-alone basis, that is, without regard to any assumption of recourse, support or guarantees from the seller or other parties;
- (bb) the bank may use relevant external or internal data to estimate the said expected loss ratio;
- (cc) the bank shall set the PD estimate equal to the estimated expected loss ratio and the LGD ratio equal to 100 per cent;
- (dd) the bank shall apply such a maturity factor as may be specified in writing by the Registrar or, with the prior written approval of the Registrar and provided that the bank manages the risk of dilution in an appropriate manner, a one-year maturity factor;
- (ee) when the risk of dilution is immaterial for the purchasing bank, the bank may apply for the approval of the Registrar not to calculate risk weights in respect of the risk of dilution.

(B) Purchased retail receivables

A bank shall calculate the risk estimates of PD and LGD, or expected loss, in respect of default risk relating to purchased retail receivables on a stand-alone basis, that is, without regard to any assumption of recourse or guarantees from the seller or other parties, provided that-

- (i) the bank shall comply with the relevant minimum requirements relating to retail exposures specified in paragraphs (b)(v)(D), (b)(vi)(B), (b)(viii)(D), (b)(viii)(E) and (c)(iv) above;
- (ii) the bank may use external and internal reference data to estimate the PD ratio and LGD ratio relating to the relevant exposure;
- (iii) when the bank complies with the relevant minimum requirements in respect of retail exposure as envisaged in sub-item (i) above, the bank may apply the "top-down" approach envisaged in paragraph (b)(vi)(F) above in order to calculate the said estimates of PD and LGD, provided that the bank shall in addition to the said requirements in respect of retail exposure comply with the relevant requirements relating to the "top-down" approach, specified in paragraph (b)(vi)(F) above.

(C) Purchased corporate receivables

(i) A bank shall calculate the risk-weighted assets relating to default risk of individual obligors in respect of purchased corporate receivables in accordance with the formula and risk components specified in subparagraph (ii) above, which formula and risk components relate to corporate exposure, provided that-

(aa) when the bank is unable to decompose the expected loss ratio into its PD and LGD components, the bank-

(i) shall determine the risk weight in respect of the purchased corporate receivable from the corporate risk-weight function using a LGD ratio of 45 per cent provided that the exposures exclusively consist of senior claims in respect of corporate borrowers;

(ii) shall calculate the PD ratio by dividing the expected loss ratio by the LGD ratio of 45 per cent;

(iii) shall calculate the EAD amount as the outstanding amount minus the capital requirement relating to the risk of dilution, before the bank takes into consideration the effect of any risk mitigation instrument, provided that in the case of a revolving facility the EAD amount shall be equal to the purchased receivable amount **plus** 75 per cent of any undrawn purchased commitments **minus** the capital requirement relating to the risk of dilution;

(iv) shall in all cases other than the exposures already specified in this sub-item (aa), use a PD ratio equal to the expected loss ratio, a LGD ratio equal to 100 per cent and an EAD amount equal to the outstanding amount **minus** the capital requirement relating to the risk of dilution, before the bank takes into consideration the effect of any risk mitigation instrument;

- (bb) when the bank is able to estimate the PD ratio in a reliable manner, the bank shall determine the risk weight in respect of the relevant exposure from the corporate risk weight function, based on the relevant requirements relating to LGD and M;
- (ii) Subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, a bank may apply the “top-down” approach envisaged in paragraph (b)(vi)(F) above in order to calculate the risk weight relating to default risk in respect of a pool of purchased corporate receivables, provided that-
- (aa) the bank’s programme in respect of purchased corporate receivables shall comply with the relevant requirements specified in paragraph (b)(vi)(F) above;
 - (bb) the receivables-
 - (i) shall be purchased from unrelated, third party sellers, that is, the receivables shall not be originated, either directly or indirectly, by the reporting bank;
 - (ii) shall be generated on an arm’s-length basis between the seller and the relevant obligor;
 - (cc) the bank-
 - (i) shall have a claim in respect of all proceeds from the pool of receivables or a relevant *pro-rata* interest in the proceeds, which claim shall exclude any first-loss or second-loss positions, that is, the cash flows arising from the purchased corporate receivables shall be the reporting bank’s primary protection against default risk;
 - (ii) shall estimate the pool’s one-year expected loss ratio for default risk, expressed as a percentage of the exposure amount, that is, the total EAD amount due to the bank by all obligors in the pool of purchased receivables;

- (iii) shall estimate the expected loss ratio in respect of the purchased receivables on a stand-alone basis, that is, without regard to any assumption of recourse or guarantees from the seller or other parties;
 - (iv) shall, based on the pool's estimated one-year expected loss ratio for default risk, calculate the risk weight for default risk in accordance with the risk-weight function for corporate exposures specified in subparagraph (ii) above;
 - (v) shall utilise relevant external and internal data to estimate the required PD ratios and LGD ratios;
 - (vi) shall follow the directives specified in sub-item (i)(aa) above when the bank is unable to decompose the expected loss ratio into its PD and LGD components;
- (dd) the Registrar shall grant approval to apply the "top-down" approach only in exceptional cases when the calculation of the bank's risk-weighted exposure in respect of purchased corporate receivables in accordance with the requirements specified in subparagraph (ii) relating to corporate exposure is likely to place an undue burden on the reporting bank;
- (D) Purchase price discounts in respect of purchased receivables

A bank-

- (i) shall in accordance with the relevant requirements specified in subregulation (6)(j) above risk weight any purchase price discounts relating to purchased receivables, which purchase price discounts-
 - (aa) provide first loss protection in respect of the risk of default or dilution;
 - (bb) will be refunded to the seller,

- (ii) shall ignore any purchase price discounts that were granted in respect of purchased corporate or retail receivables, other than purchase price discounts envisaged in sub-item (i), when the bank calculates its risk-weighted exposure or credit impairments relating to expected loss provided that the said discounts shall constitute non refundable amounts, that is, the said discounts shall not be paid or repaid to the relevant seller of the receivable amounts.

(vii) Cash and cash equivalent amounts

A bank shall risk weight all cash and cash equivalent amounts such as gold bullion at zero per cent.

(viii) Securitisation or resecuritisation exposure

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

(ix) Other exposures

Unless specifically otherwise stated, a bank shall risk weight all exposures other than the exposures specified above at a risk weight of 100 per cent, which risk weight shall be deemed to represent the unexpected loss in respect of the relevant exposure.

(e) Securitisation or resecuritisation exposure: rating-based approach

Based on-

- (i) the external rating or inferred rating of a securitisation or resecuritisation exposure;
- (ii) whether the external or inferred credit rating represents a long-term or short-term credit rating;
- (iii) the granularity of the underlying pool of assets or exposures;
- (iv) the seniority of a particular position,

a bank shall calculate its risk-weighted assets in respect of a securitisation scheme or resecuritisation exposure by multiplying the relevant amount relating to a particular exposure-

- (A) in the case of an exposure with an external long-term credit rating, or when an inferred rating based on an external long-term credit rating is available, by the appropriate risk weights specified in table 12 below:

Table 12

External long-term rating ¹	Securitisation exposure			Resecuritisation exposure	
	Risk weight – senior, granular position ^{2,3}	Base risk weight – non-senior, granular ⁵	Risk weight for non-granular ⁴	Senior ⁶	Non-senior
AAA	7%	12%	20%	20%	30%
AA	8%	15%	25%	25%	40%
A+	10%	18%	35%	35%	50%
A	12%	20%		40%	65%
A-	20%	35%		60%	100%
BBB+	35%	50%		100%	150%
BBB	60%	75%		150%	225%
BBB-	100%			200%	350%
BB+	250%			300%	500%
BB	425%			500%	650%
BB-	650%			750%	850%
Below BB- and unrated	1250%				

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 the RSA, may have been used instead.
2. Relates to senior positions in a securitisation scheme that consists of an effective number of underlying exposures of no less than 6, which effective number of exposures shall be calculated in accordance with the relevant requirements specified in paragraph (n) below, and where senior position means an effective first claim in respect of the entire amount of the assets/exposures in the underlying securitised pool. For example, in the case of-
 - (a) a synthetic securitisation scheme the “super-senior” tranche shall be treated as a senior position provided that the bank complies with the relevant conditions specified in paragraph (f) below to infer a rating from a lower tranche.
 - (b) a traditional securitisation scheme, in which scheme all tranches above the first-loss position are rated, the highest rated position shall be treated as a senior position provided that when several tranches share the same rating the most senior position in the waterfall of payment shall be treated as the senior position.
3. Including eligible senior exposures that comply with the relevant requirements specified in paragraphs (g) and (h) below relating to the internal assessment approach.
4. Relates to a senior position in a securitisation scheme in which the effective number of underlying exposures, calculated in accordance with the relevant requirements specified in paragraph (n) below, is less than 6.
5. Relates to all positions other than a senior position, such as a position/facility that, in economic substance, constitutes a mezzanine position and not a senior position in respect of the underlying pool.
6. Means a resecuritisation exposure that is a senior position and none of the underlying exposures are resecuritisation exposures, that is, any resecuritisation exposure in respect of which the underlying exposure includes a resecuritisation exposure shall be categorised as a non-senior resecuritisation position or exposure.

(B) in the case of an exposure with an external short-term credit rating, or when an inferred rating based on an external short-term credit rating is available, by the appropriate risk weights specified in table 13 below:

Table 13

External short-term rating ¹	Securitisation exposure			Resecuritisation exposure	
	Risk weight – senior, granular position ^{2,3}	Base risk weight – non-senior, granular ⁵	Risk weight for non-granular ⁴	Senior ⁶	Non-senior
A-1/P-1	7%	12%	20%	20%	30%
A-2/P-2	12%	20%	35%	40%	65%
A-3/P-3	60%	75%	75%	150%	225%
All other ratings or unrated positions	1250%				

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 the RSA, may have been used instead.
2. Relates to senior positions in a securitisation scheme that consists of an effective number of underlying exposures of no less than 6, which effective number of exposures shall be calculated in accordance with the relevant requirements specified in paragraph (n) below, and where senior position means an effective first claim in respect of the entire amount of the assets/exposures in the underlying securitised pool. For example, in the case of-
 - (a) a synthetic securitisation scheme the “super-senior” tranche shall be treated as a senior position provided that the bank complies with the relevant conditions specified in paragraph (f) below to infer a rating from a lower tranche
 - (b) a traditional securitisation scheme, in which scheme all tranches above the first-loss position are rated, the highest rated position shall be treated as a senior position provided that when several tranches share the same rating the most senior position in the waterfall of payment shall be treated as the senior position.
3. Including eligible senior exposures that comply with the relevant requirements specified in paragraphs (g) and (h) below relating to the internal assessment approach.
4. Relates to a senior position in a securitisation scheme in which the effective number of underlying exposures, calculated in accordance with the relevant requirements specified in paragraph (n) below, is less than 6.
5. Relates to all positions other than a senior position, such as a position/facility that, in economic substance, constitutes a mezzanine position and not a senior position in respect of the underlying pool.
6. Means a resecuritisation exposure that is a senior position and none of the underlying exposures are resecuritisation exposures, that is, any resecuritisation exposure in respect of which the underlying exposure includes a resecuritisation exposure shall be categorised as a non-senior resecuritisation position or exposure.

(f) Securitisation exposure: conditions relating to an inferred rating

A bank that applies the rating-based approach in respect of exposures that arise from a securitisation scheme shall assign an inferred rating to all unrated positions that rank more senior than an externally rated securitisation exposure, which externally rated securitisation exposure shall serve as the reference securitisation exposure, provided that-

- (i) the reference securitisation exposure shall in all respects be subordinated to the relevant unrated securitisation exposure;

- (ii) the bank shall take into account any relevant credit enhancement when the bank assesses the relative subordination of the unrated exposure in relation to the reference securitisation exposure. For example, when the reference securitisation exposure benefits from any third-party guarantee or other credit enhancement, which protection is not available to the unrated exposure, the bank shall not assign an inferred rating to the said unrated exposure;
 - (iii) the maturity of the reference securitisation exposure shall be equal to or longer than the maturity of the relevant unrated exposure;
 - (iv) on a continuous basis, the bank shall update any inferred rating in order to reflect any changes in the external rating of the reference securitisation exposure;
 - (v) the external rating of the reference securitisation exposure shall comply with the relevant requirements specified in regulation 38(6) of these Regulations.
- (g) Securitisation exposure: internal assessment approach

When a bank extends facilities such as liquidity facilities or credit-enhancement facilities to a special-purpose institution involved in an asset-backed commercial paper programme, the bank may apply its internal assessment of the credit quality of the said exposures in order to calculate the bank's required amount of capital and reserve funds, provided that-

- (i) the bank's internal assessment process shall comply with the relevant requirements specified in this paragraph (g) and in paragraph (h) below;
- (ii) the bank shall map its internal assessment of exposures extended to the asset-backed commercial paper programme to equivalent external ratings issued by an eligible external credit assessment institution, which rating equivalents shall be used by the bank to determine the appropriate risk weights relating to the relevant exposure in terms of the ratings-based approach specified in paragraph (e) above;
- (iii) based on the credit rating equivalent assigned by the bank to an eligible exposure, the bank shall assign the notional amount of the securitisation exposure extended to the asset-backed commercial paper programme to the appropriate risk weight specified in the rating-based approach in paragraph (e) above;
- (iv) when, in the opinion of the Registrar, the bank's internal assessment process does not comply with the relevant requirements specified in this paragraph (g), or such further conditions as may be specified in writing by the Registrar, the bank shall in the calculation of its required amount of capital and reserve funds relating to all eligible exposures extended to an asset-backed commercial paper programme apply-

- (A) the standard formula approach specified in paragraph (i) below; or
- (B) the approach specified by the Registrar, which approach shall be based on the relevant requirements specified in paragraph (b)(xii)(D)(iii) above,

for such time and on such conditions as may be specified in writing by the Registrar.

- (h) Securitisation exposure: conditions relating to a bank's internal assessment process

For the calculation of a bank's minimum required amount of capital and reserve funds relating to unrated exposures such as liquidity facilities or credit-enhancement facilities, which facilities are extended by the bank to an asset-backed commercial paper programme, the bank may use its internal assessments relating to the said exposures, provided that-

- (i) the relevant asset-backed commercial paper programme-
 - (A) shall be externally rated, which rated exposures relating to the asset-backed commercial paper programme shall be subject to the ratings-based approach specified in paragraph (e) above;
 - (B) shall have in place-
 - (i) appropriate credit and investment guidelines, that is, underwriting standards;
 - (ii) a duly established collection process, which collection process, amongst other things-
 - (aa) shall consider the operational capability and credit quality of the relevant servicer;
 - (bb) shall prevent the co-mingling of funds;
 - (iii) sufficiently robust procedures in order to consider all sources of potential risk, including credit and dilution risk, when estimating the aggregate amount of potential loss relating to the assets/exposures to be purchased by the special-purpose institution, that is, when the credit enhancement provided by the seller is based only on credit-related losses, a separate reserve shall be established to cover any material risk of dilution;
 - (iv) structural features such as wind-down triggers for every pool of purchased assets/exposures in order to reduce the risk relating to a deterioration in the credit quality of the underlying pool of assets/exposures;

- (ii) the bank's internal assessment-
 - (A) of the credit quality of the said securitisation exposure shall be based on criteria similar to the criteria used by an eligible external credit assessment institution for the particular exposure type and shall be equivalent to at least investment grade when initially assigned by the bank;
 - (B) shall correspond to the external credit ratings used by eligible external credit assessment institutions;
- (iii) in order to ensure that a credit-enhancement facility is sufficient, the bank shall review historical information in respect of the assets/exposures transferred to the special-purpose institution, which review shall be based on information for a sufficient number of years and shall include matters such as-
 - (A) losses;
 - (B) delinquencies;
 - (C) dilution; and
 - (D) the turnover rate of receivables;
- (iv) the bank-
 - (A) shall conduct-
 - (i) a credit analysis of the risk profile of the seller of the relevant assets/exposures, which analysis shall include matters such as-
 - (aa) past and expected future financial performance;
 - (bb) current market position;
 - (cc) expected future competitiveness;
 - (dd) leverage;
 - (ee) cash flow;
 - (ff) interest coverage;
 - (gg) debt rating;

- (ii) a review of the seller's-
 - (aa) underwriting standards;
 - (bb) servicing capabilities;
 - (cc) collection processes;
- (B) shall evaluate the characteristics of the underlying pool of assets/exposures, which evaluation shall include matters such as-
 - (i) the weighted average credit score;
 - (ii) any concentrations in respect of a particular obligor, industry or geographical region;
 - (iii) the granularity of the underlying pool of assets/exposures;
- (C) shall apply the relevant internal assessment in the bank's internal risk management processes, including the bank's management information and economic capital systems;
- (D) shall, subject to the provisions of item (E) below, demonstrate to the satisfaction of the Registrar-
 - (i) that the criteria, standards and methodology used in the bank's internal assessment process correspond with the relevant criteria, standards and methodology applied by the eligible external credit assessment institution that rated the relevant asset-backed commercial paper programme, provided that when the methodology or stress factors applied by the said eligible external credit assessment institution change, which change adversely affects the external rating of the programme's commercial paper, the bank shall consider the potential impact of the revised rating methodology or stress factors in order to determine whether the bank's internal assessments assigned to eligible exposures extended to the asset-backed commercial paper programme exposures remain relevant;
 - (ii) which internal assessment category corresponds to which external rating category used by the relevant eligible external credit assessment institution;

- (E) shall not apply the rating methodology used by an external credit assessment institution to derive an internal assessment unless the rating process and rating criteria applied by the relevant external credit assessment institution are publicly available, provided that, subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, the Registrar may allow a bank in exceptional cases when the rating process and rating criteria applied by the relevant external credit assessment institution are not publicly available, to derive an internal assessment in respect of a particular exposure extended by the bank to an asset-backed commercial paper programme;
- (F) shall regularly-
 - (i) review its internal assessment process;
 - (ii) assess the validity of its internal assessments,

which review or assessment may be conducted by the bank's internal or external auditors, an eligible external credit assessment institution or the bank's risk management function, provided that when the review or assessment is conducted by the bank's internal auditors or risk management function, the said auditors/function shall be independent from the business line involved in the relevant asset-backed commercial paper programme and underlying customer relationships;
- (G) shall track the performance of its internal assessments over time in order to-
 - (i) evaluate the performance of the bank's assigned internal assessments; and
 - (ii) make timely adjustments to the said internal assessments;
- (v) the bank's internal assessment process-
 - (A) shall provide a meaningful differentiation and distribution of risk;
 - (B) shall include stress factors relating to credit enhancement, which stress factors shall be at least as conservative as the publicly available rating criteria applied by the major eligible external credit assessment institutions that rate the particular asset/exposure type being purchased into the particular asset-backed commercial paper programme;

- (vi) when the commercial paper issued in terms of an asset-backed commercial paper programme is rated by two or more eligible external credit assessment institutions, the stress factors of which institutions require different levels of credit enhancement to achieve the same external rating, the bank shall apply the stress factor that requires the most conservative or highest level of credit protection. For example, when one eligible external credit assessment institution requires enhancement of 2,5 to 3,5 times historical losses for an asset type to be assigned a single A rating and another eligible external credit assessment institution requires 2 to 3 times historical losses, the bank shall use the higher range of stress factors in order to determine the appropriate level of credit enhancement;
- (vii) in respect of each relevant asset-backed commercial paper programme, the programme administrator shall ensure that-
 - (A) the said asset-backed commercial paper programme is subject to prudent underwriting standards;
 - (B) an appropriate structure relating to each potential purchase transaction is in place, which structure-
 - (i) shall be used to determine whether or not the particular assets/ exposures should be purchased by the special-purpose institution;
 - (ii) shall deal comprehensively with-
 - (aa) the type of asset that may be purchased by the special-purpose institution;
 - (bb) the type and monetary value of exposures arising from the provision of liquidity facilities and credit-enhancement facilities;
 - (cc) the manner in which losses shall be absorbed;
 - (dd) matters relating to the legal and economic isolation of the assets/exposures transferred to the special-purpose institution;

- (viii) the underwriting policy of the asset-backed commercial paper programme shall contain minimum eligibility criteria, which criteria-
 - (A) shall prevent the purchase of assets/exposures that are significantly past due or defaulted;
 - (B) shall limit-
 - (i) excess concentration to an individual obligor;
 - (ii) excess concentration to a geographic area;
 - (iii) the tenor of the assets to be purchased.
- (i) Securitisation exposure: risk-weighted exposure calculated in terms of the standard formula approach

A bank-

- (i) shall calculate its risk-weighted exposure in respect of any unrated securitisation exposure, which exposure is not subject to the internal assessment approach specified in paragraph (g) above, through the application of the formula and the risk components specified below.

$$RWE = K \times 12,5$$

where:

RWE is the relevant risk-weighted exposure amount

K is the capital requirement relating to the securitisation exposure, which capital requirement shall be based on the formulae and the risk components specified in paragraphs (j) to (o) below.

- (ii) may reduce its calculated risk-weighted exposure when the bank obtains eligible risk mitigation instruments against the said securitisation exposure, provided that-
 - (A) the bank shall comply with the relevant requirements specified in subregulation (12);
 - (B) the bank shall only proportionally reduce the bank's capital requirement when the eligible credit risk mitigation instrument covers only first losses or losses on a proportional basis;

- (C) in the case of proportional cover, the bank shall assume that the eligible credit risk mitigation instrument firstly covers the most senior portion of the securitisation exposure, that is, the most junior portion of the securitisation exposure shall be regarded as unprotected or unsecured.

For example, in the case of an originator-

- (i) that obtains proportional cover in the form of cash collateral

Assume that-

- (aa) the originating bank purchased a securitisation exposure of R10 000;
- (bb) the purchased exposure is protected by a credit-enhancement facility in excess of K_{IRB} ;
- (cc) no external or inferred rating in respect of the exposure is available;
- (dd) the capital requirement in respect of the purchased securitisation exposure, calculated in terms of the standard formula specified in paragraph (j) below, is equal to R160, that is, the risk-weighted exposure amount is equal to R2 000 (R160 multiplied by 12,5);
- (ee) the originating bank obtained collateral in the form of cash equal to R8 000, which cash collateral is denominated in Rand;
- (ff) the percentage relating to the minimum capital requirement is equal to 8 per cent.

The capital requirement relating to the securitisation exposure is determined by multiplying the capital requirement calculated in terms of the standard formula, that is, R160, by the ratio of the adjusted exposure amount to the original exposure amount as illustrated below.

Step 1

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\}$$

$$E^* = \max \{0, [10\,000 \times (1 + 0) - 8\,000 \times (1 - 0 - 0)]\}$$

$$= R2\,000$$

where:

E^* is the relevant adjusted exposure amount after risk mitigation (R2 000)

E is the relevant current exposure amount (R10 000)

H_e is the relevant haircut in respect of the exposure

C is the relevant current value of the collateral (R8 000)

H_c is the relevant haircut in respect of the collateral (0)

H_{fx} is the relevant haircut in respect of a mismatch between the collateral and the exposure (0)

Step 2

Capital requirement = $(E^* / E) \times$ capital requirement determined in terms of the standard formula

That is $R2\,000 / R10\,000 \times R160 = R32$.

- (ii) that obtains proportional cover in the form of a guarantee

Assume that the information is the same as in the previous example except that the bank obtained a guarantee from a bank that qualifies for a risk weight of 10 per cent instead of cash collateral.

The protected portion of the securitisation exposure, that is, R8 000 will be assigned the risk weight of the guarantor, that is, 10 per cent.

The capital requirement in respect of the protected portion is equal to $R8\,000 \times 10\% \times 8\% = R64$.

The capital requirement in respect of the unprotected portion, that is, R2 000, is equal to the share of the unprotected portion to the exposure amount, that is, $R2\,000 / R10\,000 = 20\%$. Therefore the capital requirement is equal to $R160 \times 20\% = R32$.

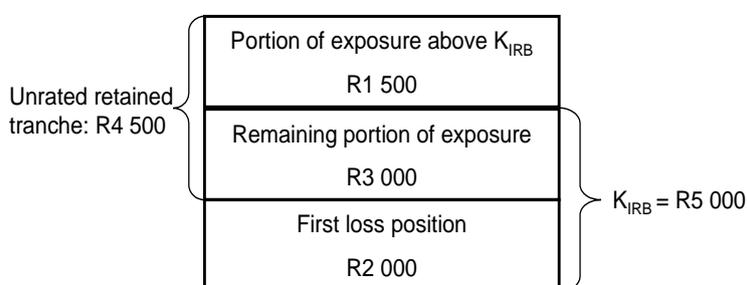
The total capital requirement in respect of the protected and unprotected portions is equal to R64 (protected portion) + R32 (unprotected portion) = R96.

- (iii) that obtains protection in respect of the most senior portion of an exposure

Assume that-

- (aa) a bank that acts as an originator securitises a pool of loans equal to R100 000;
- (bb) the K_{IRB} ratio relating to the underlying pool is equal to 5 per cent, that is, a capital requirement of R5 000;
- (cc) the first loss facility is equal to R2 000;
- (dd) the originating bank retained only the second most junior tranche, which tranche is unrated and equal to R4 500;
- (ee) the risk weight relating to the retained tranche, calculated in terms of the standard formula, is equal to 820 per cent;

The position may be summarised as follows:



The bank's capital requirement without any protection is equal to the sum of the capital requirements for the portion of the tranche above K_{IRB} and the portion of the tranche below K_{IRB} , that is, $R1500 \times 820\% \times 8\% = R984$ **plus** the portion of the tranche below K_{IRB} that constitutes an impairment equal to $R3\ 000 \times 1\ 250\% \times 8\% = R3\ 000$ equals a total capital requirement for the unrated tranche of R3 984.

When the originating bank obtains cash collateral denominated in Rand equal to R2 500, the collateral will be deemed firstly to cover the most senior portion of the tranche, that is, the portion above K_{IRB} , which portion is fully protected and equal to R1 500.

Step 1

$$E^* = \max \{0, [E \times (1 + H_e) - C \times (1 - H_c - H_{fx})]\} = \max \{0, [1\ 500 - 1\ 500]\} = R0$$

where:

E^* is the relevant exposure value after risk mitigation (R0)

E is the relevant current value of the exposure (R1 500)

C is the relevant current value of the collateral (R1 500)

H_e is the relevant haircut in respect of the exposure

H_c and H_{fx} is the relevant haircut in respect of the collateral

Step 2

Capital requirement = $(E^* / E) \times$ capital requirement determined in terms of the standard formula.

That is $0 \times R984 = R0$

The portion of the tranche below K_{IRB} is equal to R3 000, which portion is protected by the remaining cash collateral equal to R1 000.

The R1 000 cash collateral is allocated to the most senior portion of the R3 000 tranche.

Step1

$$E^* = \max \{0, [3\,000 \times (1 + 0) - 1\,000 \times (1 - 0 - 0)]\} = R2\,000$$

Step 2

Capital requirement = $(E^* / E) \times$ capital requirement determined in terms of the standard formula

$$\text{That is } R2\,000/R3\,000 \times R3\,000 = R2\,000$$

The total capital requirement in respect of the unrated tranche is equal to $R0 + R2\,000 = R2\,000$

When the bank obtains an eligible unsecured guarantee of R2 500 instead of cash collateral the capital requirement is determined as specified below.

The most senior portion of the tranche is equal to R1 500, which portion is protected by the guarantee, that is, the portion is fully protected and is assigned a risk weight equivalent to an unsecured exposure to the guarantor, which risk weight is assumed to be equal to 20 per cent.

The capital requirement in respect of the most senior protected portion is $R1\,500 \times 20\% \times 8\% = R24$.

The remaining portion of the tranche is equal to R3 000, the most senior part of which portion is protected by the remaining part of the guarantee, which remaining part is equal to R1 000.

Accordingly, the protected portion of the remaining portion is equal to R1 000 and the unprotected portion is equal to R2 000.

The risk weight of the guarantor is assigned to the protected portion, the capital requirement of which portion is equal to $R1\,000 \times 20\% \times 8\% = R16$.

The capital requirement for the unprotected portion is equal to $R2\,000 \times 125\% \times 8\% = R2\,000$.

The total capital requirement in respect of the unrated tranche is equal to R24 (protected portion above KIRB) **plus** R16 (protected portion below KIRB) **plus** R2 000 (unprotected portion below KIRB) is **equal to** R2 040.

- (j) Securitisation exposure: calculation of IRB capital requirement relating to a specific tranche

The capital requirement relating to a specific tranche shall be equal to the amount of exposures that have been securitised **multiplied by** the higher of-

- (i) $0,0056 \times T$; or
(ii) $(S[L + T] - S[L])$

provided that when the bank holds only a proportional interest in a particular tranche, the bank's capital requirement in respect of the specific portion held shall be equal to the pro-rata share of the capital requirement calculated in respect of the entire tranche.

where:

S[.] is a standard formula, which standard formula is defined as-

$$S[L] = \left. \begin{cases} L & \text{when } L \leq K_{IRB} \\ K_{IRB} + K[L] - K[K_{IRB}] + (d \cdot K_{IRB}/\omega)(1-e^{\omega}) \cdot (K_{IRB} - L)/K_{IRB} & \text{when } K_{IRB} < L \end{cases} \right\}$$

where:

$$h = (1 - K_{IRB} / LGD)^N$$

$$c = K_{IRB} / (1 - h)$$

$$v = \frac{(LGD - K_{IRB}) K_{IRB} + 0.25(1 - LGD) K_{IRB}}{N}$$

$$f = \left(\frac{v + K_{IRB}^2}{1 - h} - c^2 \right) + \frac{(1 - K_{IRB}) K_{IRB} - v}{(1 - h) \tau}$$

$$g = \frac{(1 - c)c}{f} - 1$$

$$a = g \cdot c$$

$$b = g \cdot (1 - c)$$

$$d = 1 - (1 - h) \cdot (1 - \text{Beta}[K_{IRB}; a, b])$$

$$K[L] = (1 - h) \cdot ((1 - \text{Beta}[L; a, b]) L + \text{Beta}[L; a + 1, b] c).$$

h	shall be equal to nil when the securitisation scheme relates to retail exposures
v	shall be equal to nil when the securitisation scheme relates to retail exposures
Beta [L; a, b]	is the cumulative beta distribution with parameters a and b evaluated at L
τ	is a constant value equal to 1 000
ω	is a constant value equal to 20
K_{IRB}	is the capital requirement relating to the underlying exposure, which capital requirement shall be expressed as a ratio calculated in accordance with the relevant requirements specified in paragraph (k) below
L	is the credit-enhancement level, which credit-enhancement level shall be expressed as a ratio calculated in accordance with the relevant requirements specified in paragraph (l) below
T	is the thickness of the exposure, which thickness shall be expressed as a ratio calculated in accordance with the relevant requirements specified in paragraph (m) below
N	is the effective number of exposures in the pool calculated in accordance with the formula specified in paragraph (n) below
LGD	is the exposure-weighted average loss-given-default ratio calculated in accordance with the formula specified in paragraph (o) below

- (k) Securitisation exposure: IRB capital requirement relating to an underlying exposure, denoted by K_{IRB}

The variable K_{IRB} -

- (i) is a ratio, which ratio shall be calculated as-
- (A) the capital requirement relating to the relevant underlying exposures in the pool, that is, the amount of capital that the bank would have been required to maintain if the bank directly held or was directly exposed to the underlying assets/exposures included in the pool, which amount of required capital-
- (i) shall be calculated in accordance with the relevant IRB approach envisaged in subregulation (10);
- (ii) shall include the amount of expected loss relating to any of the said underlying exposures;
- (iii) shall include the effects of any eligible risk-mitigation instruments held against the underlying assets/ exposures included in the pool,

divided by

- (B) the aggregate amount of exposures included in the pool, that is, the sum of all drawn amounts relating to the relevant securitised exposures plus the EAD amount associated with any undrawn commitments related to the securitised exposures.
- (ii) shall be expressed in decimal form, that is, a capital requirement equal to 15 per cent of the pool shall be expressed as 0,15

provided that-

- (A) in the case of a structure that involves a special-purpose institution, all the assets of the special-purpose institution that are related to the securitisation scheme shall be included in the bank's calculation of exposures included in the pool, including assets in which the special-purpose institution invested for a reserve account, such as a cash collateral account;
- (B) when the risk weight relating to the relevant securitisation exposure is equal to 1 250 per cent, the bank shall risk weight the relevant securitisation exposure in accordance with the relevant requirements specified in paragraph (q) read with the relevant provisions of subregulation (6)(j);

- (C) when the bank raised a specific credit impairment or received a non-refundable purchase price discount in respect of an exposure included in the pool, the bank shall in the calculation of the amounts specified in paragraph (k)(i) above apply the gross amount relating to the exposure, that is, the amount before the relevant specific credit impairment and/or non-refundable purchase price discount is taken into consideration, provided that the bank may in the case of an asset that defaulted reduce the amount that constitutes an impairment against the capital and reserve funds of the bank, which impairment relates to the said securitisation exposure, with the said credit impairment raised or non-refundable purchase price discount.
- (l) Securitisation exposure: matters relating to the extent of credit enhancement, denoted by L

The variable L-

- (i) is a ratio, which ratio shall be calculated as-
- (A) the aggregate amount relating to all securitisation exposures that are subordinated in favour of the relevant securitisation tranche in respect of which the capital requirement is calculated;
- divided by**
- (B) the aggregate amount of exposures included in the pool;
- (ii) shall be expressed in decimal form;
- (iii) shall exclude-
- (A) the effects of any tranche-specific credit enhancement such as third-party guarantees that benefit only a single tranche;
- (B) any amount relating to gain-on-sale and/or credit enhancing interest-only strips that are associated with the securitisation scheme;
- (C) any instrument in respect of which the bank is unable to determine the current fair value;
- (D) any unfunded reserve accounts, that is, accounts that will be funded by future receipts from the underlying exposures;

(iv) may include-

- (A) the fair value, that is, the current value prior to the amount that relates to future exposure, of any interest-rate or currency swap contract, which contract is subordinated to the securitisation exposure in question;
- (B) the amount relating to any reserve account funded by accumulated cash flows from the underlying exposures provided that the said account shall be subordinated to the tranche in question.

(m) Securitisation exposure: matters relating to thickness of exposure, denoted by T

The variable T-

(i) is a ratio, which ratio shall be calculated as-

- (A) the nominal amount relating to the particular tranche;

divided by

- (B) the notional amount of exposures included in the pool of exposures;

(ii) shall include-

- (A) the potential future exposure arising from an interest-rate contract or currency swap contract, calculated in accordance with the relevant provisions of the current exposure method specified in subregulation (17);
- (B) any positive current value of an interest-rate contract or currency swap contract.

(n) Securitisation exposure: matters relating to effective number of exposures, denoted by N

The effective number of exposures shall be calculated in accordance with the formula specified below.

$$N = \frac{(\sum_i EAD_i)^2}{\sum_i EAD_i^2}$$

where:

EAD_i is the exposure-at-default amount associated with the i^{th} instrument in the pool of exposures, provided that-

- (i) the bank shall consolidate multiple exposures to the same obligor, that is, the aggregate amount shall be treated as a single instrument;
- (ii) in the case of re-securitisation, that is, the securitisation of securitised exposures, the formula shall apply to the number of securitisation exposures in the securitised pool and not the number of underlying exposures in the original pools;
- (iii) when-
 - (A) the share of the portfolio associated with the largest exposure, C_1 , is available, the bank may compute N as $1/C_1$;
 - (B) the share of the portfolio associated with the largest exposure, C_1 , is no more than 0,03, that is, 3 per cent of the underlying pool, the bank may deem the LGD ratio to be equal to 0,50, that is, 50 per cent, instead of the exposure-weighted average LGD ratio calculated in accordance with the relevant requirements specified in paragraph (o) below, and calculate the effective number of exposures, that is, N , in accordance with the formula specified below:

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

where:

C_m is the share of the pool that corresponds to the sum of the largest 'm' exposures. For example, a 15 per cent share corresponds to a value of 0.15.

m is the threshold determined by the bank

- (C) C_1 is available and does not exceed 3 per cent of the underlying pool, the bank may deem N to be equal to $1/C_1$ and the LGD ratio to be equal to 50 per cent, instead of calculating the respective variables in accordance with the relevant requirements respectively specified in paragraphs (n) and (o).

- (o) Securitisation exposure: matters relating to exposure-weighted average loss-given-default ratio, denoted by LGD

The exposure-weighted average loss-given-default ratio (“LGD”) shall be calculated in accordance with the formula specified below:

$$LGD = \frac{\sum_i LGD_i \cdot EAD_i}{\sum_i EAD_i}$$

where:

LGD_i is the average LGD ratio associated with all exposures relating to the ith obligor, provided that-

- (i) in the case of re-securitisation, that is, the securitisation of a securitisation exposure, the LGD ratio relating to the underlying securitised exposures shall be deemed to be equal to 100 per cent;
- (ii) when the risk of default and the risk of dilution relating to purchased receivables are treated in an aggregate manner, that is, a single reserve or over-collateralisation was established to absorb losses relating to the risk of default and the risk of dilution within the securitisation scheme, the calculation of the relevant LGD ratio shall be based on the weighted average LGD ratio relating to default risk and a 100 per cent LGD ratio relating to dilution risk, that is, the resultant weights shall be the standalone IRB capital requirement relating to default risk and dilution risk.

- (p) Securitisation exposures subject to an early amortisation mechanism

A bank that acts as an originator shall comply with the relevant requirements specified in subregulation (6)(h)(xi) above relating to the investors’ interest, provided that the bank’s capital requirement relating to the investors’ interest shall be equal to-

- (i) the investors’ interest, **multiplied by**
- (ii) the appropriate credit-conversion factor, **multiplied by**
- (iii) K_{IRB}.

(g) Other specified risk weighted exposure

A bank that adopted the foundation IRB approach for the measurement of the bank's exposure to credit risk shall in addition to any relevant exposure and/or amount specified in subregulation (6)(j) to be risk weighted at 1250 per cent, risk weight such exposures as may be specified in table 14 below at a risk weighting of 1250 per cent:

Table 14
Risk weight of 1250 per cent
Any amount relating to expected loss in respect of equity exposures subject to the PD/LGD approach specified in regulation 31

*(12) Credit-risk mitigation: foundation IRB approach**(a) On-balance-sheet netting*

When 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 enters into a netting agreement in respect of loans and deposits as envisaged in subregulation (7)(a) above, the bank shall calculate its risk exposure in accordance with the provisions of the comprehensive approach specified in subregulation (9)(b) above, provided that the bank-

- (i) shall at all times comply with the relevant conditions specified in subregulation (7)(a) above;
- (ii) shall recognise the effect of any currency mismatch in accordance with the relevant requirements specified in subregulation (9)(b) above;
- (iii) shall recognise the effect of a maturity mismatch in accordance with the relevant requirements specified in subregulation (9)(e) above.

(b) Collateral

- (i) Unless specifically otherwise provided, 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 apply the comprehensive approach prescribed in subregulation (9)(b) above in order to calculate the bank's adjusted exposure;

- (B) shall at all times comply with the relevant minimum requirements-
 - (i) prescribed in subregulation (7)(b)(iii) above in respect of eligible financial collateral;
 - (ii) prescribed in subparagraph (ii)(B) below in respect of the further categories of collateral qualifying as eligible collateral in terms of the foundation IRB approach.

(ii) *Eligible collateral*

- (A) Instruments qualifying as eligible financial collateral in terms of the standardised approach shall qualify as eligible collateral in terms of the foundation IRB approach, provided that a bank that adopted the foundation IRB approach-
 - (i) shall at all times comply with the relevant minimum requirements specified in subregulation (7)(b)(iii) above; or
 - (ii) shall be able to calculate and comply with the relevant minimum requirements relating to its own estimates of LGD and EAD specified in subregulations (13)(b)(v)(C) and (13)(b)(v)(D) below.

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

- (B) In addition to eligible financial collateral recognised in terms of the standardised approach, in subregulation (7)(b), the collateral instruments specified below shall be recognised as eligible collateral in terms of the foundation IRB approach in respect of a bank's exposures to corporate institutions, sovereigns or banks, provided that the bank shall comply with the requirements specified below:
 - (i) Financial receivables, excluding receivables arising from securitisation schemes, sub-participations or credit-derivative instruments.

When a bank obtains as collateral in respect of its exposure to a corporate institution, sovereign or bank financial receivables other than receivables arising from securitisation schemes, sub-participations or credit-derivative instruments, such collateral shall be recognised as eligible collateral, provided that-

- (aa) the said financial receivables-
- (i) shall consist of claims with an original maturity of less than or equal to one year, the repayment of which claim shall be dependent upon the commercial or financial flows related to the underlying assets of the obligor;
 - (ii) may include self-liquidating debt arising from the sale of goods or services linked to a commercial transaction or general amounts owed by buyers, suppliers, renters, national and local government authorities, or other non-affiliated persons not related to the sale of goods or services linked to a commercial transaction;
- (bb) the legal mechanism in terms of which the collateral was obtained shall be robust and shall ensure that the bank has clear rights over the proceeds from the collateral.

The bank shall take all steps necessary to fulfil requirements relating to the enforceability of the bank's security interest, such as the registration of a security interest with a registrar.

- (cc) the collateralised transaction shall be duly documented, which documentation-
- (i) shall be binding on all relevant parties;
 - (ii) shall be legally enforceable in all relevant jurisdictions;
 - (iii) shall be legally well founded;
 - (iv) shall be reviewed on a regular basis in order to ensure the transaction's continued enforceability;
 - (v) shall provide the bank with legal authority to sell or assign the receivables to other parties without the consent of the receivables' obligors;
 - (vi) shall comprehensively deal with the collection of receivable amounts in distressed situations;

- (dd) the bank shall have in place clear and robust procedures, adequate-
 - (i) to timely collect the proceeds of the relevant collateral;
 - (ii) to observe any legal conditions required to identify any default event of the obligor;
 - (iii) to identify any event of financial distress of the relevant obligor;
 - (iv) to monitor-
 - (a) reports relating to ageing;
 - (b) control over trade documents;
 - (c) the frequency of audits relating to collateral;
 - (d) the confirmation of accounts;
 - (e) the control over the proceeds of accounts paid;
 - (f) the analyses in respect of dilution;
- (ee) the bank shall have in place sound and robust risk-management processes, which risk-management processes-
 - (i) shall be adequate to determine the credit risk inherent in the receivables, including concentration risk.

When the bank relies on the obligor to determine the credit risk relating to its customers, the bank shall review the credit policy of the obligor to determine the policy's soundness and credibility.
 - (ii) shall include an analysis of the borrower's business and industry type;
 - (iii) shall be adequate to identify any correlation between the obligor and the receivables pledged as security, provided that no receivables relating to affiliates of a particular obligor, including subsidiaries and employees, shall be recognised as eligible collateral;

- (ff) the bank shall ensure that the margin between the amount of the exposure and the value of the receivables takes into account all relevant factors, including the cost of collection, correlations, concentration within the receivables pool pledged as security and potential concentration risk within the bank's total exposures.
- (ii) Commercial real estate and residential real estate, excluding income producing real estate that meets the requirements relating to specialised lending specified in subregulation (11)(c)(i)(D) above.

When a bank obtains as collateral in respect of its exposure to a corporate institution, sovereign or bank commercial real estate or residential real estate, such collateral shall be recognised as eligible collateral, provided that-

- (aa) the risk relating to the obligor shall not materially be dependent upon the performance of the underlying property or project but rather on the underlying capacity of the obligor to repay the debt due from other sources, that is, the repayment of the facility shall not materially be dependent on any cash flow generated by the underlying commercial real estate or residential real estate serving as collateral;
- (bb) the value of the said collateral shall not materially be dependent on the performance of the obligor;
- (cc) the bank's claim in respect of the said collateral-
 - (i) shall be legally enforceable in all relevant jurisdictions;
 - (ii) shall reflect a perfected lien, that is, all legal requirements shall be fulfilled in order to enforce the bank's claim;
 - (iii) shall be realisable within a reasonable timeframe;
- (dd) the bank-
 - (i) shall determine and apply the fair value of the collateral, that is, the value at which the property may be sold under private contract between a willing seller and a willing buyer on an arms-length basis, or less than the said fair value;

- (ii) shall monitor the value of the collateral on a regular basis but not less frequently than once every year;
 - (iii) may use statistical methods such as reference to house price indices or sampling in order to update the bank's estimates of fair value or identify collateral that may have declined in value;
 - (iv) shall make use of the services of a qualified professional person to value a particular property when information indicates that the value of the said property may have materially declined relative to general market prices, or when a credit event such as a default has occurred;
 - (v) shall duly document-
 - (a) the types of commercial real estate and residential real estate that the bank is willing to accept as collateral;
 - (b) the bank's lending policies, including the advance rates, in respect of commercial real estate or residential real estate as collateral;
 - (vi) shall ensure that the property is adequately insured against damage or deterioration;
 - (vii) shall monitor on an ongoing basis-
 - (a) the extent of any permissible preferred claims such as tax in respect of the property;
 - (b) the risk of environmental liability arising in respect of the collateral such as the presence of toxic material on the property.
- (iii) Leases other than leases that expose the bank to residual risk

When a bank obtains collateral in the form of a lease agreement in respect of instruments/ assets that qualify as eligible collateral in terms of the foundation IRB approach, such a lease agreement shall be recognised as eligible collateral, provided that the bank shall in addition to the relevant minimum requirements relating to the relevant type of instrument/asset ensure that-

- (aa) the lessor has in place a robust risk-management process, which risk management process shall comprehensively address matters relating to-
 - (i) the location of the asset;
 - (ii) the use of the asset;
 - (iii) the age and condition of the asset;
 - (iv) the asset's planned obsolescence;
 - (bb) the lessor has in place a robust legal framework, which legal framework shall ensure that-
 - (i) the legal ownership of the lessor in respect of the asset is well established;
 - (ii) the lessor is able to exercise its rights as owner in a timely manner;
 - (cc) the difference between the rate of depreciation of a physical asset and the rate of amortisation of the lease payments is not material, causing the risk mitigation effect of the leased asset to be overstated;
- (iv) Leases that expose the bank to residual risk

When a bank obtains collateral in the form of a lease agreement in respect of instruments/ assets that qualify as eligible collateral in terms of the foundation IRB approach, which lease agreement exposes the bank to residual risk, that is, the bank is exposed to a potential loss due to, for example, a decline in the fair value of the equipment below the residual estimate at the inception of the lease agreement, the bank shall risk weight the relevant exposure in accordance with the relevant requirements specified in subparagraph (iii)(C) below.

- (v) Physical collateral other than the types of collateral specified above, excluding any physical assets acquired by the reporting bank as a result of default by an obligor in respect of an underlying exposure, specified in writing by the Registrar, provided that-
 - (aa) a liquid market shall exist in respect of the said collateral in order to ensure that the collateral can be liquidated in an expeditious and economically efficient manner;

- (bb) a well established market with publicly available market prices relating to the said collateral shall exist and the amount realised by the reporting bank in respect of the said collateral shall not substantially deviate from the said market prices;
- (cc) except for preferential rights in respect of tax obligations or wages of employees, the bank shall have a priority claim in respect of the proceeds of the said collateral;
- (dd) the relevant loan agreement shall include a detailed description of the said collateral and detailed specifications in respect of the manner and frequency of revaluation;
- (ee) the bank shall have in place robust policies, processes and procedures relating to physical collateral, which policies, processes and procedures-
 - (i) shall in the case of inventories such as raw materials or work-in-progress, and equipment, ensure that the bank conducts regular physical inspections of the said collateral;
 - (ii) shall be subject to regular and appropriate independent review;
- (ff) the bank-
 - (i) shall duly document the types of physical collateral and loan-to-value or lending-to-value ratios acceptable to the bank;
 - (ii) shall comply with all the relevant minimum requirements relating to commercial real estate and residential real estate specified in sub-item (ii) above and such further conditions as may be specified in writing by the Registrar in respect of such a further category of physical assets qualifying as eligible collateral.

(iii) Risk weighting

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

- (A) eligible financial collateral in respect of its exposures to corporate institutions, sovereigns or banks, the bank-
- (i) shall calculate an adjusted exposure (E^*) in accordance with the relevant formulae specified in subregulation (9)(b) above, provided that the bank shall comply with the relevant requirements that apply to the said formulae;
 - (ii) shall in the case of transactions other than repurchase and resale agreements subject to master netting agreements, calculate an effective loss-given-default ratio applicable to the collateralised transaction through the application of the formula specified below.

$$LGD^* = LGD \times (E^*/E)$$

where:

LGD* is the effective loss-given-default ratio

LGD shall be equal to 45 per cent, that is, the LGD ratio that applies to a senior unsecured exposure

E is the relevant current value of the exposure

- (iii) shall in the case of repurchase and resale agreements subject to master netting agreements calculate an adjusted exposure (E^*) in accordance with the relevant directives specified in subregulation (9)(b)(ix), which adjusted exposure shall be deemed to represent EAD, that is, the bank shall not recognise the impact of collateral obtained in respect of the said transactions through an adjustment to LGD.

Similar to a bank that adopted the comprehensive approach in respect of collateral obtained in terms of the standardised approach, a bank that complies with the relevant requirements specified in subregulation (9)(b)(xv) relating to repurchase and resale agreements, may apply a haircut of zero per cent in respect of the said agreements.

- (B) collateral in respect of the bank's corporate exposure, which collateral is recognised as eligible collateral in terms of the foundation IRB approach but not in terms of the standardised approach, the bank shall, subject to the provisions of item (C) below, in the case of a senior corporate exposure, divide the senior exposure into-

- (i) a fully collateralised portion

The bank shall subsequently calculate the ratio of the current value of the collateral received to the current value of the exposure through the application of the formula specified below.

$$\text{Ratio} = C/E$$

where:

C is the relevant current value of the collateral received

E is the relevant current value of the exposure

When the said calculated ratio is below the threshold levels denoted **C***, specified in table 15 below, the LGD ratio shall be 45 per cent, that is, the LGD ratio shall be similar to the LGD ratio in respect of an unsecured corporate exposure.

When the said calculated ratio exceeds a higher threshold denoted **C****, that is, the bank has an over-collateralised position, the bank shall, based on relevant type of collateral, assign to the relevant exposure the LGD ratios specified in table 15 below:

Table 15

	Minimum LGD	Required minimum collateralisation level of the exposure (C*)	Required level of over-collateralisation for full LGD recognition (C**)
Receivables	35%	0%	125%
Commercial real estate and/or residential real estate	35%	30%	140%
Other collateral	40%	30%	140%

- (ii) an uncollateralised portion

The portion of the exposure not covered in terms of sub-item (i) above shall be regarded as unsecured and the bank shall assign to the said portion a LGD ratio equal to 45 per cent.

- (C) eligible collateral in the form of a lease agreement, which lease agreement exposes the bank to residual risk, the bank shall risk weight-

- (i) the discounted lease payments based on the financial strength, that is, the PD ratio, of the lessee, and the LGD ratio specified by the Registrar;
- (ii) the residual value at 100 per cent.

(c) *Pools of collateral*

When a bank obtained both eligible financial collateral and other eligible collateral, that is, collateral that is regarded as eligible collateral in terms of the foundation IRB approach but not in terms of the standardised approach, in respect of the bank's exposure to corporate institutions, sovereigns or banks, the bank-

- (i) shall subdivide the adjusted value of the exposure, after the bank has applied the relevant haircut relating to eligible financial collateral, into the relevant portions covered by only one type of collateral, that is, the bank shall divide the exposure into a portion covered by-
 - (A) eligible financial collateral;
 - (B) receivables;
 - (C) collateral consisting of commercial real estate or residential real estate;
 - (D) other collateral;

and, when relevant, an unsecured portion.

When the ratio of the sum of the values of commercial real estate or residential real estate, and other collateral, to the reduced exposure, after the effect of eligible financial collateral and collateral consisting of receivables has been recognised, is below the relevant threshold level specified in paragraph (b)(iii)(B)(i) above, the bank shall assign to the relevant exposure an LGD ratio relating to an unsecured exposure, that is, 45 per cent.

- (ii) shall separately calculate the risk-weighted exposure in respect of each fully secured portion of exposure in order to calculate the exposure's effective LGD and aggregated risk-weighted amount.

(d) *Guarantees*

(i) *Minimum requirements*

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

- (A) shall continuously comply with the relevant requirements specified in subregulation (7)(c)(iv) above;
- (B) shall, except in the case of retail exposures and purchased retail receivables, use the LGD ratios specified in writing by the Registrar in respect of the bank's various exposures;
- (C) shall not in the calculation of the bank's risk-weighted exposure reflect the effect of double default otherwise than in accordance with the relevant requirements specified in paragraph (g) below, that is, the adjusted risk weight relating to a particular exposure shall not be less than a comparable direct exposure to the relevant guarantor unless the bank calculates the said adjusted risk weight in accordance with the relevant requirements specified in paragraph (g) below,

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

(ii) *Eligible guarantors*

In addition to the eligible guarantors specified in the standardised approach in subregulation (7)(c), a bank that adopted the foundation IRB approach for the recognition of risk mitigation relating to guarantees obtained in respect of its exposures to corporate institutions, sovereigns, banks or purchased receivables may also recognise the effect of a guarantee obtained from a guarantor internally rated by the bank, provided that-

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

- (B) 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 foundation IRB approach for the measurement of the bank's risk-weighted credit exposure obtains-

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

- (i) shall divide the relevant exposure into a protected portion and an unprotected portion;
- (ii) shall in respect of the protected portion apply-
- (aa) the risk-weight function relating to the relevant guarantor; and
- (bb) the PD ratio relating to the relevant guarantor, or a higher PD ratio relating to a risk grade between the underlying obligor and the relevant guarantor when the bank deems a complete substitution approach inappropriate,

provided that, based on its seniority or any collateralisation of a guaranteed commitment, the bank may replace the LGD ratio of the underlying transaction with the relevant LGD ratio relating to the said guaranteed position;

- (iii) shall in respect of the unprotected portion, apply the risk weight relating to the underlying obligor;
- (iv) shall in the case of-
- (aa) proportional protection comply with the relevant requirements specified in subregulation (9)(c)(v) above;
- (bb) a currency mismatch between the underlying obligation and the protection obtained comply with the relevant requirements specified in subregulation (9)(c)(vi) above.

- (B) protection in the form of a guarantee in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the guarantee through an adjustment to the relevant PD ratio or LGD ratio, provided that the bank-
- (i) shall comply with the relevant minimum requirements specified in subregulation (14)(c)(i) below;
 - (ii) shall apply the relevant adjustment to the PD ratio or LGD ratio in a consistent manner in respect of a given type of guarantee, and over time.
- (C) protection in the form of a guarantee in respect of purchased receivables, the bank shall in the case of a guarantee-
- (i) that covers both default risk and dilution risk, substitute the risk weight relating to default risk and dilution risk for the risk weight of the guarantor;
 - (ii) that covers only default risk or dilution risk, but not both, substitute the relevant risk weight relating to default risk or dilution risk for the risk weight of the guarantor, and add the relevant capital requirement for the other component;
 - (iii) that covers only a portion of the default risk and/or dilution risk, substitute the risk weight in respect of the protected exposure in accordance with the relevant directives specified above, and add the relevant risk weights relating to the unprotected exposure.
- (D) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (g) below in order to calculate the required risk-weighted asset amount for dilution risk, provided that-
- (i) the bank shall at all times comply with the relevant requirements specified in paragraph (g) below;
 - (ii) PD_0 shall be equal to the estimated EL amount;
 - (iii) LGD_g shall be equal to 100 percent;
 - (iv) the bank shall determine the effective maturity of the relevant exposure in accordance with the relevant requirements specified in subregulation (11)(d)(vi)(A)(ii).

(e) *Credit-derivative instruments*

(i) *Minimum requirements*

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

- (A) shall comply with the relevant requirements specified in subregulation (9)(d);
- (B) shall, except in the case of retail exposures and purchased retail receivables, use the LGD ratios in respect of its various exposures as specified in writing by the Registrar;
- (C) shall not in the calculation of the bank's risk-weighted exposure reflect the effect of double default otherwise than in accordance with the relevant requirements specified in paragraph (g) below, that is, the adjusted risk weight relating to a particular exposure shall not be less than a comparable direct exposure to the relevant protection provider unless the bank calculates the said adjusted risk weight in accordance with the relevant requirements specified in paragraph (g) below,

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

(ii) *Eligible protection providers*

In addition to the eligible protection providers specified in the standardised approach in subregulation (9)(d)(iii), a bank that adopted the foundation IRB approach for the recognition of risk mitigation relating to credit-derivative instruments obtained in respect of corporate institutions, sovereigns or banks may also recognise the effect of protection obtained from a protection provider that is internally rated, provided that the said protection shall comply with the relevant minimum requirements specified in subregulation (9)(d)(xi) above.

(iii) Risk weighting

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

- (A) protection from an eligible protection provider in respect of the bank's credit exposure to a corporate institution, sovereign or bank, the bank-
 - (i) shall divide the relevant exposure into a protected portion and an unprotected portion;
 - (ii) shall in respect of the protected portion, apply-
 - (aa) the risk-weight function relating to the relevant protection provider; and
 - (bb) the PD ratio relating to the relevant protection provider, or a higher PD ratio relating to a risk grade between the underlying obligor and the relevant protection provider when the bank deems a complete substitution approach inappropriate,

provided that, based on its seniority or any collateralisation of a protected exposure, the bank may replace the LGD ratio of the underlying transaction with the relevant LGD ratio relating to the said protected position;
 - (iii) shall in respect of the unprotected portion, apply the risk weight relating to the underlying obligor;
 - (iv) shall in the case of-
 - (aa) proportional protection comply with the relevant requirements specified in subregulation (9)(d)(x) above;
 - (bb) a currency mismatch between the underlying obligation and the protection obtained comply with the relevant requirements specified in subregulation (9)(d)(xi) above;
- (B) protection in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the protection through an adjustment to the relevant PD ratio or LGD ratio, provided that the bank-
 - (i) shall comply with the relevant minimum requirements specified in subregulation (14)(d)(i) below;

- (ii) shall apply the relevant adjustment to the PD ratio or LGD ratio in a consistent manner in respect of a given type of credit-derivative instrument, and over time.
- (C) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (g) below in order to calculate the required risk-weighted asset amount for dilution risk, provided that-
- (i) the bank shall at all times comply with the relevant requirements specified in paragraph (g);
 - (ii) PD_0 shall be equal to the estimated EL amount;
 - (iii) LGD_g shall be equal to 100 percent;
 - (iv) the effective maturity of the relevant exposure shall be determined in accordance with the relevant requirements specified in subregulation (11)(d)(vi)(A)(ii).
- (f) *Maturity mismatches*

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

(g) *Double default*

- (i) In respect of each eligible exposure, a bank that obtained the prior written approval of the Registrar to adopt the foundation IRB approach for the measurement of the bank's exposure to credit risk may apply either the substitution approach envisaged in paragraphs (d) and (e) above or double default approach specified in this paragraph (g), provided that a bank that wishes to apply the double default approach-
 - (A) shall continuously comply with the relevant minimum requirements specified in this paragraph (g);
 - (B) in respect of the said eligible exposure shall calculate the relevant risk-weighted exposure amount and any related required amount of capital and reserve funds in accordance with the formulae and requirements specified in subparagraph (iv) below;

- (C) shall calculate the risk weights and required amount of capital and reserve funds relating to all exposures to a particular obligor, other than eligible exposures envisaged in this paragraph (g), in accordance with the relevant requirements specified in subregulations (11) and (12), including any risk weight or required amount of capital and reserve funds relating to any unhedged or unprotected portion of an exposure in respect of which the hedged or protected portion of the said exposure is subject to the provisions of this paragraph (g);
- (D) may apply the said double default approach to any eligible exposure, irrespective whether the exposure is held in the bank's banking book or trading book.

(ii) Eligible exposure

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 may apply the double default approach only when-

- (A) the relevant underlying obligation or exposure constitutes-
 - (i) a corporate exposure as envisaged in subregulation (11)(c)(i), provided that no specialised lending exposure subject to and mapped into the risk grades specified in subregulation (11)(d)(iii)(C) shall be eligible for treatment in terms of the double default approach;
 - (ii) a claim on a public-sector entity, provided that no sovereign exposure shall be eligible for treatment in terms of the double default approach;
 - (iii) a loan extended to a small business and categorised as a retail exposure as envisaged in subregulation (11)(c)(iv)(A)(iii),

Provided that in no case shall any exposure in respect of which the underlying obligation relates to-

- (aa) a financial entity or institution as envisaged in subparagraph (iii)(B)(i) below; or
- (bb) a member of the same group as the protection provider,

be eligible for treatment in terms of the double default approach.

- (B) the protection provider is a financial entity or institution specified in subparagraph (iii)(B)(i) below;
- (C) the bank obtained protection in respect of the said underlying exposure and the protection obtained relates to-
 - (i) a single-name unfunded credit-derivative instrument such as a credit-default swap;
 - (ii) a single name guarantee;
 - (iii) a first-to-default basket product, in which case the double default approach shall be applied to the asset within the basket with the lowest risk-weighted amount;
 - (iv) an n th-to-default basket product, in which case the protection obtained shall be eligible in terms of the double default approach only when the reporting bank also obtained eligible $(n-1)$ th default protection or $(n-1)$ of the assets within the basket have already defaulted,

that is, under no circumstances shall protection relating to-

- (aa) multiple name credit derivative instruments, other than n th-to-default basket products;
- (bb) multiple name guarantees;
- (cc) index-based products;
- (dd) synthetic securitisation and other tranching products that fall within the scope of the exemption notice relating to securitisation schemes;
- (ee) covered bonds to the extent such instruments are externally rated; and
- (ff) funded credit derivative instruments such as a credit linked note,

be eligible for the double default approach.

(iii) Specific minimum requirements relating to the double default approach

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, which bank wishes to apply the double default approach envisaged in this paragraph (g), shall continuously comply with the requirements specified in this subparagraph (iii).

(A) The PD ratio, LGD ratio, internal rating, external rating or risk weight associated with the relevant exposure prior to the application of the double default approach shall not already factor in any aspect relating to the relevant credit protection obtained, that is, credit protection shall under no circumstances be double counted.

(B) The protection provider-

(i) shall be a financial entity or institution, which financial entity or institution may be-

(aa) a bank, but under no circumstances any public-sector entity or multilateral development bank that is treated in a manner similar to a bank in terms of these Regulations;

(bb) an investment company or institution;

(cc) an insurance or re-insurance company or entity the business of which includes the provision of credit protection on a regular basis;

(dd) any non-sovereign credit export agency, that is, the credit protection shall not in any manner benefit from any sovereign guarantee or counter-guarantee;

(ii) shall be regulated in a manner similar to a bank, that is, the protection provider shall be subject to minimum required capital or solvency requirements, appropriate supervisory oversight and transparency, that is, minimum requirements relating to market discipline, or the protection provider shall have an external rating from an eligible external credit assessment institution of no less than investment grade;

(iii) at the time the credit protection for the relevant exposure was originally obtained, or for any period of time thereafter, had an internal rating with a PD ratio equivalent to or lower than the PD ratio associated with an external credit assessment or rating of A-; and

- (iv) shall have an internal rating with a PD ratio equivalent to or lower than the PD ratio associated with an external investment grade rating or assessment.
- (C) The credit protection obtained shall comply with the relevant minimum operational requirements envisaged in paragraphs (d) and (e) above.
- (D) The reporting bank shall have the legal right and expect to receive payment from the relevant protection provider without first having to pursue the relevant obligor for payment, that is, the reporting bank shall take all reasonable steps in order to ensure that the protection provider is willing and able to promptly pay when a credit event occurs.
- (E) Once a credit event occurs, the purchased credit protection shall make provision for immediate payment in respect of all credit losses incurred by the reporting bank in respect of the hedged portion of the relevant exposure.
- (F) When the payout structure of the relevant credit protection obtained makes provision for physical settlement, the reporting bank shall have legal certainty regarding the deliverability of the relevant loan, instrument or contingent liability and when the bank intends to deliver an obligation other than the underlying exposure, the bank shall ensure that the deliverable obligation is sufficiently liquid in order for the bank to purchase the said obligation for delivery in accordance with the relevant requirements of the contract.
- (G) The terms and conditions of the relevant credit protection shall be duly documented and legally confirmed in writing by the credit protection provider and the reporting bank.
- (H) In the case of protection obtained against dilution risk, the seller of the purchased receivables shall not be a member of the same group as the protection provider.
- (I) The reporting bank shall have in place a sufficiently robust process to monitor and control situations in which the performance of the protection provider and the protected obligor or exposure are dependent upon common factors, that is, the reporting bank shall have in place a sufficiently robust process to ensure that the double default approach is not applied to any exposure in respect of which excessive correlation exists between the creditworthiness of the protection provider and the obligor of the relevant underlying exposure.

For example, situations in which a protection provider guarantees the debt of a supplier of goods or services when the supplier derives a high proportion of its income or revenue from the protection provider shall not be eligible for the double default approach.

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

In respect of any hedged or protected exposure subject to the double default approach, the reporting bank shall calculate its risk-weighted exposure and related required amount of capital and reserve funds through the application of the formulae specified below, which formulae take into account the relevant risk components related to the said protected exposure.

$$RWA_{DD} = K_{DD} \times 12.5 \times EAD_g$$

where:

RWA_{DD} is the risk-weighted asset amount relating to the protected exposure subject to the double default approach

EAD_g is the relevant exposure at default amount, that is, the protected or hedged exposure amount

and

$$K_{DD} = K_0 \times (0.15 + 160 \times PD_g)$$

where:

K_{DD} is the capital requirement in respect of the hedged or protected exposure subject to the double default approach

PD_g is the PD ratio of the protection provider or guarantor, which PD ratio shall be subject to a minimum of 0,03 per cent

K_0 shall be calculated through the application of the relevant formula and in a manner similar to unprotected corporate exposure as envisaged in subregulation (11)(d)(ii), even when the underlying obligation or eligible exposure is a loan extended to a small business qualifying as a retail exposure, provided that in respect of the relevant hedged exposure the risk components specified in the formula below, which risk components relate to the LGD ratio and the maturity adjustment, shall be applied instead of the said risk components specified in the said formula in subregulation (11)(d)(ii).

$$K_0 = LGD_g \cdot \left[N \left(\frac{G(PD_0) + \sqrt{\rho_{os}} \cdot G(0.999)}{\sqrt{1 - \rho_{os}}} \right) - \frac{PD_0}{\sqrt{PD_0}} \right] \cdot \frac{1 + (M - 2.5) \cdot b}{1 - 1.5 \cdot b}$$

where:

PD₀ is the PD ratio of the obligor, which PD ratio shall be subject to a minimum of 0,03 per cent

ρ_{os} is a correlation factor, which correlation factor shall be calculated in accordance with the relevant formula and requirements for the calculation of “R”, specified in subregulation (11)(d)(ii), with PD being equal to PD₀

LGD_g is the LGD ratio associated with the protected or hedged exposure, that is, the LGD ratio relating to a direct exposure to the relevant protection provider or guarantor, provided that when evidence indicates that in the event both the guarantor and the obligor default during the life of the protected exposure the amount recovered depends upon the financial condition of the obligor, the bank shall apply the LGD ratio relating to an unprotected and direct exposure to the said obligor

b is the maturity adjustment coefficient, calculated according to the relevant formula specified in subregulation (11)(d)(ii), provided that PD shall be the lower of PD₀ and PD_g

M is the effective maturity of the credit protection, which maturity shall in no case be less than one year

(13) Method 2: Calculation of credit-risk exposure in terms of the advanced IRB approach

- (a) Unless specifically otherwise provided in this subregulation (13), a bank that obtained the prior written approval of the Registrar to adopt the advanced IRB approach for the measurement of the bank's credit risk exposure in respect of positions held in the bank's banking book-
- (i) shall continuously comply with the relevant minimum requirements specified in subregulation (11)(b) above and paragraph (b) below, and such further conditions as may be specified in writing by the Registrar;
 - (ii) shall comply with the relevant disclosure requirements specified in regulation 43(2);
 - (iii) shall categorise its exposures in accordance with the relevant requirements specified in subregulation (11)(c);
 - (iv) shall, subject to the provisions of paragraphs (b)(v) and (d) below, calculate its risk-weighted exposures in accordance with the relevant requirements, formulae and risk components specified in subregulations (11)(d) to (11)(p) above;
 - (v) shall apply the IRB approach for the measurement of the bank's exposure relating to a securitisation scheme, that is, a bank shall not use the IRB approach for the measurement of the bank's exposure in respect of a securitisation scheme 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 exposures comply with the relevant requirements specified in subregulation (11)(b)(xii);
 - (vi) shall risk weight at 1250 per cent the relevant amounts or exposures specified in subregulations (6)(j) and (11)(q) above.
- (b) *Minimum requirements*
- (i) Subject to such conditions as may be specified in writing by the Registrar, a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall apply the said approach in respect of all material asset classes and business units.
 - (ii) For a minimum period of three years prior to a bank's implementation of the advanced 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, including PD ratios, LGD ratios and EAD amounts;
 - (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 independent review;
 - (F) been broadly in compliance with the relevant minimum requirements specified in subregulation (11) above;
 - (G) been broadly in compliance with the relevant minimum requirements relating to own estimates of LGD and EAD specified in this subregulation (13).
- (iii) A facility rating of a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall exclusively reflect the LGD ratio of the particular exposure, provided that-
- (A) a facility rating shall include all factors that may have an influence on the LGD ratio, such as the type of collateral, the product, the industry or the purpose;
 - (B) any borrower characteristics shall be included as LGD rating criteria only to the extent that such characteristics are predictive of LGD;
 - (C) the bank shall maintain a sufficient number of facility grades in order to avoid the grouping of facilities with widely varying LGD ratios into a single grade.

- (iv) A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall in the case of exposures to corporate institutions, sovereigns and banks collect and store data in respect of-
- (A) the LGD ratios and EAD estimates associated with each relevant facility;
 - (B) the key data that was used to derive a particular risk estimate;
 - (C) the person or model responsible for a particular risk estimate;
 - (D) the estimated and realised LGD ratios and EAD amounts associated with each relevant defaulted facility;
 - (E) the credit risk mitigating effects of guarantees or credit-derivative instruments on LGD ratios, that is, the bank shall retain data in respect of the LGD ratio of the facility before and after the effect of a guarantee or credit-derivative instrument was taken into consideration;
 - (F) the components of loss or recovery for each defaulted exposure such as the amounts recovered, the source of recovery, for example, collateral, liquidation proceeds and guarantees, the time period required for recovery and administrative costs.
- (v) Risk quantification

Unless specifically otherwise provided in this subregulation (13), a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk-

- (A) 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 shall comply with the relevant minimum requirements specified in subregulation (11)(b)(vi)(A) above;
- (B) shall in the case of retail exposures estimate a PD ratio in respect of each relevant retail pool of exposures, which PD estimate shall comply with all the minimum requirements specified in subregulation (11)(b)(vi)(B) above;

(C) shall estimate an appropriate LGD ratio in respect of all relevant facilities and asset classes, which LGD ratio-

- (i) shall incorporate all relevant and material data and information, including conditions relating to an economic downturn when such information is necessary to duly capture the relevant risk;
- (ii) shall not be less than the long-run default-weighted average loss rate given default, based on the average economic loss of all observed defaults within the data source for a particular type of facility, which default-weighted average loss rate given default shall be calculated in accordance with the formula specified below:

$$\text{LGD (\%)} = \frac{1}{n} \sum_{i=1}^n \frac{\text{Economic loss}_i}{\text{Amount at default}_i}$$

For example, when a bank's pool of defaulted exposures consists of 75 defaults where the exposure at default is R10 000 and the bank suffered a complete loss, that is, an LGD ratio of 100%, and 25 defaults where the exposure at default was R1 000 000 but the bank lost only R200 000, that is, an LGD ratio of 20%, the bank's default-weighted average LGD shall be calculated as:

$$\frac{(75 \times 100\%) + (25 \times 20\%)}{100} = 80\%$$

- (iii) shall be based on the definition of default, specified in regulation 67;
- (iv) may be based on averages of loss severities observed during periods of high credit losses, obtained from internal and/or external data, provided that the data shall be representative of long run experience;
- (v) shall appropriately incorporate any potential correlation or dependence between the risk relating to the borrower and the collateral, collateral provider or protection provider;
- (vi) shall incorporate the effect of a currency mismatch between the underlying obligation and any collateral obtained;
- (vii) shall be based on historical recovery rates and empirical evidence and not, for example, solely on the estimated market value of collateral;
- (viii) 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;

- (ix) shall be based on economic and market conditions that are relevant and current;
 - (x) shall be based on a sufficient number of exposures and data periods that will ensure accurate and robust LGD estimates;
 - (xi) shall be based on an estimation technique that performs well in out-of-sample tests;
 - (xii) shall be reviewed on a regular basis but not less frequently than once a year, or when material new information is obtained;
 - (xiii) shall in the case of-
 - (aa) defaulted assets reflect the possibility that the bank may have to recognise additional, unexpected losses during the recovery period;
 - (bb) exposures to corporate institutions, sovereigns or banks be based on a minimum data observation period that covers a complete economic cycle but which observation period shall in no case be less than seven years in respect of at least one of the bank's data sources;
 - (cc) retail exposures be based on a minimum data observation period of no 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;
- (D) shall estimate an appropriate EAD amount in respect of all relevant facilities and asset classes, which EAD amount-
- (i) shall in the case of-
 - (aa) on-balance-sheet items be no less than the current drawn amount after the effect of set-off in terms of the provisions of regulation 13 has been taken into consideration;
 - (bb) off-balance-sheet items, excluding derivative instruments, be based on the bank's internal estimates for each facility type provided that the said internal estimates shall incorporate the possibility that further amounts may be drawn by the obligor up to and after the time of default;

- (cc) derivative instruments be calculated in accordance with the relevant directives and requirements specified in subregulations (15) to (19) below;
- (dd) exposures to corporate institutions, sovereigns or banks be based on a complete economic cycle, provided that-
 - (i) the time period on which the EAD amount is based shall in no case be less than seven years;
 - (ii) the EAD estimates shall be based on a default-weighted average and not a time-weighted average amount;
- (ee) retail exposures be based on a data observation period of no 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 reflect likely draw-downs in respect of the bank's retail exposures;
- (ii) shall be an estimate of the long-run default-weighted average EAD amounts in respect of similar facilities and borrowers over a sufficiently long period of time;
- (iii) shall incorporate any correlation between the default frequency and the extent of EAD amounts;
- (iv) shall incorporate the effects of downturns in the economy, that is, the risk drivers of the bank's internal model or the bank's internal data or external data shall incorporate the cyclical nature of each facility;
- (v) shall be based on criteria that are plausible and intuitive;
- (vi) shall appropriately take into consideration all relevant and material information;
- (vii) shall be based on the definition of default, specified in regulation 67;
- (viii) 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;
- (ix) shall be based on economic and market conditions that are relevant and current;
- (x) shall be based on a sufficient number of exposures and data periods that will ensure accurate and robust estimates of EAD amounts;

- (xi) shall be based on an estimation technique that performs well in out-of-sample tests;
- (xii) may take into account data from external sources, including pooled data, provided that the EAD estimates shall represent long-run experience;
- (xiii) shall be based on historical experience and empirical evidence;
- (xiv) shall be reviewed on a regular basis, but not less frequently than once a year, or when material new information is obtained;
- (xv) shall be based on comprehensive policies, systems and procedures, which policies, systems and procedures shall be adequate-
 - (aa) to prevent further drawings in circumstances short of payment default, such as covenant violations or other technical default events;
 - (bb) to monitor, on a daily basis, facility amounts and current outstanding amounts against committed lines;
 - (cc) to monitor any changes in outstanding amounts per borrower, and per risk grade;
- (E) shall in the case of exposures to corporate institutions, sovereigns or banks calculate the effective maturity in respect of each relevant exposure, which effective maturity shall be calculated in accordance with and comply with the relevant minimum requirements specified in paragraph (d)(ii)(B) below.
- (vi) Validation of internal estimates

As a minimum, a bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk-

- (A) shall comply with the relevant requirements specified in subregulation (11)(b)(x) above and such further conditions as may be specified in writing by the Registrar;
- (B) shall for each relevant risk grade regularly compare realised PD ratios, LGD ratios and EAD amounts with estimated PD ratios, LGD ratios and EAD amounts, and demonstrate to the satisfaction of the Registrar that the realised risk components are within the expected range of risk components for a particular grade;

- (C) shall duly document the data and methods used to compare realised default rates, LGD ratios and EAD amounts with estimated PD ratios, LGD ratios and EAD amounts in respect of each relevant risk 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 have in place sufficiently robust internal standards to deal with situations where realised PD ratios, LGD ratios and EAD amounts substantially deviate from expected PD ratios, LGD ratios and EAD amounts provided that when the realised values continue to be higher than the expected values, the bank shall adjust its estimates of risk components upward in order to reflect the appropriate default and loss experiences of the bank.

(c) *Categorisation of exposures*

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall categorise its credit exposures in accordance with the relevant requirements specified in subregulation (11)(c) above.

(d) *Risk-weighted exposure*

- (i) Unless specifically otherwise provided in this subregulation (13), in order to calculate its risk-weighted credit exposure, a bank that adopted the advanced IRB approach-

(A) shall in the case of-

- (i) exposures to corporate institutions, sovereigns or banks calculate its own estimates of probability-of-default ("PD"), loss-given-default ("LGD"), exposure-at-default ("EAD") and effective maturity ("M") in respect of each relevant borrower grade or credit exposure, provided that the bank shall comply with the relevant minimum requirements specified in respect of the said risk components in subregulations (11)(b) and (11)(d) above and in this subregulation (13);
- (ii) retail exposures and purchased retail receivables calculate its own estimates of PD, LGD and EAD in respect of each relevant retail pool of exposures, provided that the bank shall comply with the relevant minimum requirements specified in respect of the said risk components in subregulations (11)(b) and (11)(d) above and in this subregulation (13);
- (iii) equity exposures apply the market-based approach or PD/LGD approach respectively specified in regulations 31(6)(b) and 31(6)(c), provided that the Registrar may direct the bank to use a particular approach;

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

(ii) Corporate, sovereign and bank exposures

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

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

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

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

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

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

(aa) one year; or

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

$$M = \frac{\sum_t t * CF_t}{\sum_t CF_t}$$

where:

M is the effective maturity of the exposure

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

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

- (ii) In the case of an exposure with an original maturity of less than one year, other than exposures in terms of which an obligor obtains ongoing finance from the relevant bank, which first-mentioned exposure relates to issued or confirmed short-term self-liquidating letters of credit, a fully collateralised capital market transaction such as an OTC derivative transaction or a margin lending agreement, or a repo-style transaction such as a repurchase or resale agreement or a securities lending or borrowing transaction, the effective maturity of the exposure shall be equal to the higher of-
- (aa) one day; or
- (bb) the remaining effective maturity of the exposure, calculated in accordance with the formula and conditions specified in sub-item (i)(bb) above.

Provided that-

- (i) the relevant documentation of the said exposure or transaction shall make provision for daily remargining;
- (ii) the relevant documentation of the said exposure or transaction shall require daily revaluation;
- (iii) the relevant documentation of the said exposure or transaction shall make provision for the prompt liquidation or setoff of collateral in the event of default or failure to remargin;

- (iv) subject to such conditions as may be specified in writing by the Registrar, in addition to the transactions specified in this sub-item (ii), the Registrar may specify other exposures with an original maturity of less than one year that do not form part of a bank's ongoing financing of an obligor to be subject to the provision of this sub-item (ii).
- (iii) In the case of derivative instruments subject to a master netting agreement, the bank shall use the notional amount of each transaction to calculate the weighted average maturity of the transactions, which weighted average maturity shall be used in respect of the explicit maturity adjustment, provided that the effective maturity of the relevant exposure shall be equal to the higher of-
 - (aa) one year; or
 - (bb) the remaining effective maturity of the exposure,provided that the calculated maturity shall be limited to five years.
- (iv) In the case of transactions falling within the ambit of sub-item (ii) above, that is, transactions with an original maturity of less than one year that, for example, relate to a fully collateralised capital market transaction or repo-style transaction, which transaction or exposure is subject to a master netting agreement, the bank shall apply the notional amount of each transaction in order to determine the weighted average maturity of the relevant transactions, which weighted average maturity shall be used in respect of the required explicit maturity adjustment, provided that-
 - (aa) in respect of the relevant transaction type and said average, the bank shall apply a floor equal to the minimum holding period specified in subregulation (9)(b)(xiv)(A);
 - (bb) when more than one transaction type is contained in the said master netting agreement, the bank shall apply to the said average a floor equal to the highest relevant holding period specified in subregulation (9)(b)(xiv)(A).
- (v) In the case of other exposures, that is, exposures not subject to an explicit maturity adjustment, the bank shall assign to the said exposure an effective maturity of 2,5 years unless the exposure is subject to further commitment, that is, a repurchase or resale agreement, in which case the bank shall assign to the said exposure an effective maturity

of six months.

(iii) Specialised lending

- (A) Subject to the provisions of items (B) and (C) below, a bank shall calculate its risk-weighted exposure in respect of specialised lending in accordance with the relevant requirements relating to corporate exposure specified in subparagraph (ii) above, provided that the bank shall comply with the relevant requirements for the estimation of PD, LGD and EAD specified in subregulation (11)(b)(vi)(A) and in paragraphs (b)(v)(C) and (b)(v)(D) above;
- (B) In the case of exposures relating to high-volatility commercial real estate, a bank shall apply the asset correlation formula specified below instead of the asset correlation formula that would otherwise apply to corporate exposure.

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

(C) When-

- (i) a bank is unable to comply with the prescribed requirements in order to estimate the PD ratio, LGD ratio and EAD amount in terms of the advanced approach for corporate exposure; or
- (ii) the Registrar directs a bank to map its internal risk grades to the risk grades specified in subregulation (11)(d)(iii)(C) above,

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

(iv) Retail exposures

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

(v) Equity exposures

A bank shall calculate its risk-weighted exposure in respect of equity investments in accordance with the relevant requirements of this subregulation (13) read with the relevant requirements specified in subregulation (11)(d)(v) above and regulation 31, provided that no investment in a significant minority or majority owned or controlled commercial entity, which investment amounts to less than 15 per cent of the sum of the bank's issued common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds 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 lower than 100 per cent;

(vi) Purchased corporate receivables

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

- (A) the risk weights shall be determined by using the bank's own estimates of PD and LGD as inputs to the corporate risk-weight function;
- (B) in the case of-
 - (i) an exposure other than a revolving facility, the EAD amount shall be equal to the EAD amount determined by the bank, minus the capital requirement relating to the risk of dilution;
 - (ii) a revolving facility the EAD amount shall be equal to the amount of the purchased receivable **plus** 75 per cent of any undrawn purchased commitments **minus** the capital requirement relating to the risk of dilution, that is, in respect of undrawn purchased commitments, the bank shall not use its own estimate of the EAD amount;
- (C) when the purchasing bank is able to estimate in a reliable manner the pool's default-weighted average loss rates given default or average PD, the bank may estimate the other risk component based on an estimate of the expected long-run loss rate, that is, the bank may use an appropriate PD estimate to infer the long-run default-weighted average loss rate given default or use a long-run default-weighted average loss rate given default to infer the appropriate PD ratio, provided that-
 - (i) the LGD ratio used in order to calculate the bank's risk exposure shall in no case be lower than the long-run default-weighted average loss rate given default;

- (ii) the bank shall comply with the relevant requirements specified in paragraph (b)(v)(C) above relating to LGD estimates.
- (D) the effective maturity in respect of purchased corporate receivables-
- (i) shall in the case of drawn amounts, be equal to the pool's exposure-weighted average effective maturity, calculated in accordance with the relevant provisions of paragraph (d)(ii)(B) above;
 - (ii) shall in the case of undrawn amounts in respect of a committed purchased facility, be the same value as for drawn amounts provided that the facility shall contain effective covenants, early amortisation triggers or other features that protect the bank against a significant deterioration in the quality of the future receivables that the bank is required to purchase;
 - (iii) shall in all other cases of undrawn amounts, be equal to the sum of the longest dated potential receivable in terms of the purchase agreement and the remaining maturity of the purchase facility.

(vii) Purchased retail receivables

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

(viii) Securitisation or resecuritisation exposures

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

(e) *Risk weighted exposure equivalent to a deduction against capital and reserve funds*

A bank that adopted the advanced IRB approach for the measurement of the bank's exposure to credit risk shall risk weight any exposure specified in subregulation (11)(q) in accordance with the relevant requirements specified in the said subregulation (11)(q).

(14) Credit-risk mitigation: advanced IRB approach

(a) On-balance-sheet netting

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

- (i) shall at all times comply with the relevant conditions specified in subregulation (7)(a) above;
- (ii) shall recognise the effect of any currency mismatch in accordance with the relevant requirements specified in subregulation (9)(b) above;
- (iii) shall recognise the effect of maturity mismatch in accordance with the relevant requirements specified in subregulation (9)(e) above.

(b) Collateral

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

(ii) Risk weighting

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

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

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

(c) Guarantees

(i) *Minimum requirements*

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

- (A) shall comply with the relevant requirements specified in subregulations (7)(c)(iv), (11)(b)(v) and (11)(b)(vi) above;
- (B) shall assign to all relevant obligors and eligible guarantors a borrower rating and calculate its own estimates of LGD in respect of the bank's various exposures, provided that the bank shall have in place duly specified criteria-
 - (i) to adjust its borrower grades;
 - (ii) to adjust its LGD estimates;
 - (iii) to allocate exposures to relevant retail or receivable pools, which criteria-
 - (aa) shall comply with the relevant minimum requirements for assigning borrower or facility ratings specified in subregulation (11)(b) above;
 - (bb) shall be plausible and intuitive;
 - (cc) shall take into account all relevant information;
 - (dd) shall incorporate-
 - (i) the guarantor's ability and willingness to honour its commitments in terms of the guarantee;

- (ii) any correlation between the guarantor's ability to honour its commitments in terms of the guarantee and the obligor's ability to repay any amounts due;
 - (iii) the effect of any residual risk, such as a currency mismatch between the guarantee and the underlying exposure;
- (C) shall not in the calculation of the bank's risk-weighted exposure reflect the effect of double default otherwise than in accordance with the relevant requirements specified in paragraph (f) below, that is, the adjusted risk weight relating to a particular exposure shall not be less than a comparable direct exposure to the relevant guarantor unless the bank calculates the said adjusted risk weight in accordance with the relevant requirements specified in paragraph (f) below,

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

(ii) *Eligible guarantors*

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

- (A) the guarantee shall comply with the relevant minimum requirements specified in subregulation (7)(c)(iv) above;
- (B) the bank shall have in place a comprehensive policy and criteria in respect of the types of guarantors acceptable to the bank for risk mitigation purposes;
- (C) for purposes of calculating the minimum required amount of capital and reserve funds of a branch in terms of the provisions of the Banks Act, 1990, read with these Regulations, no guarantee received from the parent foreign institution or any other branch of the parent foreign institution in respect of an exposure incurred by the branch in the Republic shall be regarded as an eligible guarantee.

(iii) Risk weighting

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

- (A) protection from a guarantor in respect of the bank's credit exposure to a corporate institution, sovereign or bank, the bank-
 - (i) shall reflect the risk mitigation effect of the guarantee by way of an adjustment either to the PD ratio or LGD ratio of the relevant exposure provided that the bank shall apply the adjustments to the PD ratio or LGD ratio in a consistent manner; or
 - (ii) may reflect the risk mitigation effect of the guarantee in accordance with the relevant requirements relating to the recognition of guarantees in terms of the foundation IRB approach prescribed in subregulation (12)(d) above.
- (B) protection in the form of a guarantee in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the guarantee through an adjustment to the relevant PD ratio or LGD ratio provided that the bank shall apply the relevant adjustments to PD or LGD in a consistent manner in respect of a given type of guarantee, and over time;
- (C) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (f) below in order to calculate the required risk-weighted asset amount for dilution risk provided that the bank shall comply with the relevant requirements specified in subregulation (12)(d)(iii)(D).

*(d) Credit-derivative instruments**(i) Minimum requirements*

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

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

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

- (i) to adjust its borrower grades;
- (ii) to adjust its LGD estimates;
- (iii) to allocate exposures to relevant retail or receivable pools,

which criteria-

- (aa) shall comply with the relevant minimum requirements for assigning borrower or facility ratings specified in subregulation (11)(b) above;
- (bb) shall be plausible and intuitive;
- (cc) shall take into account all relevant information;
- (dd) shall comprehensively address matters relating to payment, including the impact that payments may have on the level and timing of recoveries;
- (ee) shall duly state that the reference asset shall not differ from the underlying asset unless-
 - (i) the reference asset and the underlying exposure relate to the same obligor, that is, the same legal entity;
 - (ii) the reference asset ranks *pari passu* with or more junior than the underlying asset in the event of bankruptcy;
 - (iii) legally effective cross-default clauses, for example, cross-default or cross-acceleration clauses apply;

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

- (ff) shall incorporate-
- (i) the protection provider's ability and willingness to honour its commitments in terms of the protection provided;
 - (ii) any correlation between the protection provider's ability to honour its commitments in terms of the protection provided and the obligor's ability to repay any amounts due;
 - (iii) the effects of any residual risk, such as a currency mismatch between the protection and the underlying exposure;

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

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

(ii) *Eligible protection providers*

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

- (A) the credit-derivative instrument shall comply with the relevant minimum requirements specified in subregulation (9)(d)(xi) above;
- (B) the bank shall have in place a comprehensive policy and criteria in respect of the types of protection providers acceptable to the bank for risk mitigation purposes.

(iii) Risk weighting

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

- (A) protection from a protection provider in respect of the bank's credit exposure to a corporate institution, sovereign or bank, the bank-
 - (i) shall reflect the risk mitigation effect of the protection by way of an adjustment either to the PD ratio or LGD ratio of the relevant exposure provided that the bank shall apply the adjustments to the PD ratio or LGD ratio of the exposure in a consistent manner; or
 - (ii) may reflect the risk mitigation effect of the protection in accordance with the relevant requirements relating to the recognition of credit-derivative instruments in terms of the foundation IRB approach prescribed in subregulation (12)(e) above.
- (B) protection in respect of a retail exposure or pool of retail exposures, the bank may reflect the risk reducing effect of the protection through an adjustment to the relevant PD ratio or LGD ratio provided that the bank shall apply the relevant adjustment to the PD ratio or LGD ratio in a consistent manner in respect of a given type of guarantee, and over time;
- (C) protection against dilution risk in respect of purchased receivables, the bank may apply the double default approach specified in paragraph (f) below in order to calculate the required risk-weighted asset amount for dilution risk provided that the bank shall comply with the relevant requirements specified in subregulation (12)(e)(iii)(C).

(e) Maturity mismatches

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

(f) Double default

(i) Minimum requirements

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

- (A) shall continuously comply with the relevant requirements specified in subregulation (12)(g);
- (B) in respect of eligible exposure shall calculate the relevant risk-weighted exposure amount and any related required amount of capital and reserve funds in accordance with the relevant formulae and requirements specified in subregulation (12)(g) read with the relevant provisions of this paragraph (f);
- (C) shall calculate the risk weights and required amount of capital and reserve funds relating to all exposures to a particular obligor, other than eligible exposures specified in this paragraph (f), in accordance with the relevant requirements specified in subregulations (13) and (14), including any risk weight and required amount of capital and reserve funds relating to any unhedged or unprotected portion of an exposure in respect of which the hedged or protected portion is subject to the provisions of this paragraph (f);
- (D) may apply the said approach to any eligible exposure, irrespective whether the said exposure is held in the bank's banking book or trading book.

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

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

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

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

(15) *Counterparty credit risk and related matters*

- (a) Subject to the provisions of paragraphs (b) and (c) below, for the measurement of a bank's exposure amount or EAD, risk-weighted exposure and related required amount of capital and reserve funds in respect of instruments, contracts or transactions that expose the reporting bank to counterparty credit risk, the bank may-
- (i) at the discretion of the reporting bank, use the current exposure method specified in subregulation (17) below, which current exposure method shall be available only for the measurement of the reporting bank's exposure to counterparty credit risk arising from OTC derivative instruments, that is, exposure to credit risk arising from securities financing transactions shall be calculated, amongst other things, in accordance with the relevant requirements specified in subregulations (8) and (9), irrespective whether the said OTC derivative transaction, contract or agreement is recorded in the reporting bank's banking book or trading book;
- (ii) at the discretion of the bank, use the standardised method specified in subregulation (18) below, which standardised method-
- (A) shall be available only for the measurement of the reporting bank's exposure to counterparty credit risk arising from OTC derivative instruments, that is, exposure to credit risk arising from securities financing transactions shall be calculated, amongst other things, in accordance with the relevant requirements specified in subregulations (8) and (9), irrespective whether the said OTC derivative transaction, contract or agreement is recorded in the reporting bank's banking book or trading book;
- (B) is more risk sensitive than the current exposure method,

Provided that-

- (i) when the bank wishes to adopt the standardised method the bank shall in writing inform the Registrar of its decision, and comply with such further conditions as may be specified in writing by the Registrar;
- (ii) when the standardised method, in the Registrar's discretion, does not duly capture the risk inherent in the bank's relevant transactions, the Registrar may require the bank to apply the current exposure method or the standardised method on a transaction-by-transaction basis, that is, without recognising any effect of netting.

- (iii) subject to the prior written approval of and such further conditions as may be specified in writing by the Registrar in addition to the requirements specified in subregulation (19) below, use the internal model method specified in the said subregulation (19), provided that-
- (A) only under exceptional circumstances or in respect of immaterial exposures, shall a bank that obtained approval from the Registrar to adopt the internal model method be allowed to revert to either the current exposure method or standardised method for all or part of its exposure, provided that the bank shall in all cases demonstrate to the satisfaction of the Registrar that the said reversion to a less sophisticated method does not lead to arbitrage in respect of the bank's required amount of capital and reserve funds;
 - (B) the internal model method may be applied by a bank that adopted the standardised approach or the IRB approach for the measurement of the bank's other exposures to credit risk;
 - (C) the internal model method shall be applied to all relevant exposures in a particular category of exposures that are subject to counterparty credit risk, except exposures that arise from long settlement transactions;
 - (D) the internal model method may be applied to measure the bank's exposure or EAD amount relating to-
 - (i) only OTC derivative instruments;
 - (ii) only securities financing transactions; or
 - (iii) OTC derivative instruments and securities financing transactions,irrespective whether the said transaction, contract or agreement is recorded in the reporting bank's banking book or trading book.
- (iv) subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, use a combination of the aforementioned methods, provided that-
- (A) subject to the provisions of item (D) below, the said approval of the Registrar shall be granted only in exceptional cases and only during the initial implementation period of the internal model method;

- (B) a bank that wishes to apply such a combination of methods shall together with its application to obtain the approval of the Registrar to adopt the internal model method submit a plan to include all material counterparty exposures relating to a particular category of instruments or transactions in the said internal model method;
 - (C) in respect of all OTC derivative transactions and all long settlement transactions in respect of which the reporting bank has not obtained approval from the Registrar to use the internal model method, the bank shall apply either the standardised method or the current exposure method;
 - (D) the Registrar may allow a combination of the current exposure method and the standardised method on a permanent basis within a banking group.
- (b) Irrespective of the method adopted by the reporting bank for the measurement of-
- (i) the bank's exposure to counterparty credit risk, when the bank purchases credit derivative protection against a banking book exposure or against an exposure to counterparty credit risk, the bank shall in respect of the hedged exposure calculate its required amount of capital and reserve funds in accordance with the relevant requirements relating to credit derivative instruments specified in subregulations (9)(d), (12)(e), (12)(g), (14)(d) and (14)(f), that is, in accordance with the relevant substitution or double default requirements;
 - (ii) the bank's exposure to counterparty credit risk arising from OTC derivative instruments or securities financing transactions, the bank may adopt any of the three methods envisaged in paragraph (a) above for the measurement of the bank's exposure or EAD arising from long settlement transactions, provided that-
 - (A) the bank shall continuously comply with the relevant requirements specified in these Regulations or by the Registrar in respect of the selected method;
 - (B) notwithstanding the materiality of a long settlement transaction or position, in order to calculate the bank's required amount of capital and reserve funds relating to the said long settlement transaction or position, a bank that obtained the approval of the Registrar to adopt the IRB approach for the measurement of the bank's exposure to credit risk may apply the risk weights specified in the standardised approach, in subregulation (8);

- (iii) the bank's exposure to counterparty credit risk, the exposure amount or EAD relating to a particular counterparty shall be equal to the sum of the relevant exposure amounts or EADs calculated in respect of each relevant netting set relating to the said counterparty, provided that-
 - (A) for purposes of calculating the relevant amount of required capital and reserve funds for default risk in terms of the relevant requirements specified in this subregulation (15) read with the relevant requirements specified in subregulations (16) to (19), the relevant outstanding exposure or EAD amount shall be net of any incurred credit valuation adjustment (CVA) losses;
 - (B) unless specifically otherwise provided in this subregulation (15) read with the relevant requirements specified in subregulations (16) to (19), the relevant outstanding exposure or EAD amount for a given OTC derivative counterparty shall be the higher of-
 - (i) zero; or
 - (ii) the difference between the sum of all relevant exposure amounts or EADs across all relevant netting sets with the counterparty and the credit valuation adjustment (CVA) for that counterparty which has already been recognised by the bank as an incurred write-down or incurred CVA loss, which CVA loss shall be calculated without taking into account any offsetting debit valuation adjustments related to changes in the fair value of liabilities that are due to a change in the bank's own credit risk which have been deducted from capital, that is-
 - (aa) the incurred CVA loss deducted from exposure to determine outstanding exposure or EAD shall be the CVA loss gross of all relevant debit value adjustments related to changes in the fair value of liabilities that are due to a change in the bank's own credit risk which have been separately deducted from capital;
 - (bb) to the extent that the aforesaid debit value adjustments have not been separately deducted from the bank's capital, the incurred CVA loss used to determine outstanding exposure or EAD shall be net of such debit value adjustments;
 - (C) the aforesaid reduction of exposure or EAD by incurred CVA losses shall not apply in the calculation of the relevant amount of required capital and reserve funds for CVA risk;

- (iv) the bank's exposure to counterparty credit risk, a bank shall, in addition to any capital requirement for default risk related to counterparty credit risk, determine the relevant amount of required capital and reserve funds to cover risk related to mark-to-market losses on the bank's expected exposure to counterparty risk, which losses shall for purposes of these Regulations be referred to as CVA risk or CVA losses in respect of OTC derivatives, provided that-
 - (A) a bank, other than a bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of a bank's exposure to market risk, shall calculate-
 - (i) the relevant required amount of capital for default risk in accordance with the relevant requirements and formulae specified in this subregulation (15) read with the relevant requirements specified in subregulations (16) to (18);
 - (ii) the relevant additional required amount of capital for CVA risk in accordance with the relevant requirements and formula specified in paragraph (f) below;
 - (B) a bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of a bank's exposure to market risk, shall calculate the relevant additional required amount of capital for CVA risk in accordance with the relevant requirements and formula specified in subregulation (19)(h)(i) below, which approach shall be regarded as the advanced approach for the calculation of the relevant required amount of capital and reserve funds for CVA risk, capturing both general and specific credit spread risk, including stressed value-at-risk (VaR) but not incremental risk, and which formula shall form the basis of all relevant inputs into the bank's approved VaR model for bonds, that is, when the bank's approved VaR model is based on full repricing, the bank shall use the formula specified in subregulation (19)(h)(i) for its relevant calculations, provided that-
 - (i) all relevant VaR amounts shall be calculated in accordance with the relevant quantitative requirements specified in regulation 28(8) of these Regulations and shall be the sum of the non-stressed VaR component and the stressed VaR component, provided that when calculating-
 - (aa) the non-stressed VaR component, the bank shall use current parameter calibrations for expected exposure;

- (bb) the stressed VaR component, the bank shall use future counterparty expected exposure (EE) profiles in accordance with the stressed exposure parameter calibrations specified in these Regulations, including the relevant requirements specified in regulation 39(12), provided that the period of stress for the credit spread parameters shall be the most severe one-year stress period contained within the three-year stress period used for the bank's exposure parameters,

Provided that the three-times multiplier inherent in the calculation of VaR and stressed VaR shall also apply in respect of the aforesaid calculations;

- (ii) when the bank's approved VaR model is based on credit spread sensitivities for specific tenors, the bank shall base each relevant credit spread sensitivity on the formula specified in subregulation (19)(h)(ii)(A);
- (iii) when the bank's approved VaR model uses credit spread sensitivities to parallel shifts in credit spreads, which shall for purposes of these Regulations be referred to as regulatory CS01, the bank shall use the formula specified in subregulation (19)(h)(ii)(B);
- (iv) when the bank's approved VaR model uses second-order sensitivities to shifts in credit spreads, that is, spread gamma, the gammas shall be calculated based on the formula specified in subregulation (19)(h)(i);
- (v) a bank that uses the short cut method for collateralised OTC derivatives envisaged in subregulation (19)(e)(ii) shall calculate the relevant capital requirement for CVA risk in accordance with the requirements specified in subregulation (19)(h)(i), assuming a constant EE profile, that is, a constant expected exposure profile, where EE shall be set equal to the effective expected positive exposure of the shortcut method for a maturity equal to the maximum of-
 - (aa) half of the longest maturity occurring in the netting set;
 - and
 - (bb) the notional weighted average maturity of all relevant transactions in the netting set;

- (vi) a bank that obtained the approval of the Registrar for the use of the internal model method for the majority of its business, but the bank uses the Current Exposure Method (CEM) or Standardised Method (SM) for certain smaller portfolios, which bank also obtained the approval of the Registrar for the use of the internal models approach for the measurement of specific risk as part of a bank's exposure to market risk, shall include these non-internal-model-method netting sets into the CVA risk capital requirements in accordance with the relevant requirements specified in subregulation (19)(h)(i), provided that-
 - (aa) the Registrar may instruct the bank in writing to use the method envisaged in paragraph (f) below for the relevant portfolios specified by the Registrar;
 - (bb) any relevant non-internal-model-method netting set shall be included into the advanced CVA risk capital requirement assuming a constant EE profile, where EE shall be set equal to the EAD as calculated in terms of the CEM or SM for a maturity equal to the maximum of-
 - (i) half of the longest maturity occurring in the netting set;
 - and
 - (ii) the notional weighted average maturity of all relevant transactions in the netting set,
 - (cc) when a bank's internal model does not produce an expected exposure profile, the bank shall in the calculation of the relevant required amount apply the same approach as set out in sub-item (bb) above;
- (vii) when the bank's approved market risk VaR model does not appropriately reflect the risk of credit spread changes, because the bank's VaR model, for example, does not appropriately reflect the specific risk of debt instruments issued by a particular counterparty, the bank shall not use the advanced approach for CVA envisaged in subregulation (19)(h)(i) for those relevant exposures, and the bank shall instead determine the required amount of capital for CVA risk through the application of the standardised method specified in paragraph (f) below, that is, the bank shall include in its advanced approach calculations only those exposures to counterparties for which the bank obtained approval from the Registrar to apply its internal model in respect of specific risk for relevant exposures arising from debt instruments;

- (viii) the additional required amount of capital for CVA risk shall be a standalone market risk requirement, calculated on the set of CVAs envisaged in this item (B) read with the relevant requirements specified in subregulation (19)(h)(i) for all relevant collateralised and uncollateralised OTC derivative counterparties, together with eligible CVA hedges, provided that, unless expressly otherwise provided in these Regulations, within the standalone required amount of capital for CVA risk, the bank shall not apply any offset against any other instrument on the bank's balance sheet;
- (C) only hedges used by the bank to mitigate its exposure to CVA risk, and managed as such by the bank, shall be eligible for inclusion in the calculation of the bank's relevant required amount of capital for CVA risk, irrespective whether the relevant required amount is calculated in terms of the standardised or VaR approach, provided that-
- (i) the only hedges eligible for inclusion in the calculation of the bank's required amount of capital for CVA risk in terms of the standardised or VaR approach shall be single-name credit default swaps (CDSs), single-name contingent CDSs, other equivalent hedging instruments referencing the counterparty directly, and index CDSs, that is, counterparty risk hedges other than the instruments specified above shall be excluded from the calculation of the bank's relevant required amount of capital for CVA risk;
 - (ii) in the case of index CDSs-
 - (aa) the basis between any individual counterparty spread and the spreads of index CDS hedges shall in all relevant cases be reflected in the bank's VaR amount, even when a proxy is used for the spread of a counterparty, since idiosyncratic basis still needs to be reflected in such situations, provided that for all counterparties with no available spread, the bank shall use reasonable basis time series out of a representative bucket of similar names for which a spread is available;
 - (bb) when the envisaged basis is not reflected to the satisfaction of the Registrar, the bank shall include in its relevant VaR amount only 50 per cent of the notional amount of the index hedge;
 - (iii) no tranching or nth-to-default CDS shall constitute an eligible CVA hedge;

- (iv) any eligible hedge included in the relevant required amount of capital for CVA risk shall be removed from the bank's relevant calculation of required capital and reserve funds for market risk;
 - (v) when a CDS referencing an issuer is in the bank's inventory, and that issuer also happens to be an OTC counterparty but the CDS is not managed by the bank as a hedge of CVA risk, that CDS shall not be eligible to offset the CVA within the bank's relevant standalone VaR calculation of the required amount of capital for CVA risk;
- (D) the bank shall exclude from the aforesaid additional required amount of capital for CVA risk-
- (i) all relevant transactions with intragroup banks or other formally regulated intragroup financial entities that are subject to 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, provided that the Registrar may in writing instruct a bank to include in its relevant calculations for CVA risk all such transactions with intragroup banks or other formally regulated intragroup financial entities as may be specified in writing by the Registrar;
 - (ii) transactions with a central counterparty (CCP); and
 - (iii) securities financing transactions (SFT), provided that when SFT exposures are deemed by the Registrar to be material, the Registrar may in writing instruct a bank to include in its relevant calculations CVA loss exposures arising from SFT transactions;
- (E) the bank shall calculate the relevant aggregate amount of required capital and reserve funds for counterparty credit risk and credit valuation adjustments in accordance with the relevant requirements specified in paragraph (g) below;
- (v) the bank's exposure to counterparty credit risk arising from OTC derivative instruments or securities financing transactions, the bank shall calculate its required amount of capital and reserve funds relating to any delivery-versus-payment transaction and any non-delivery-versus-payment or free-delivery transaction in accordance with the relevant requirements specified in subregulation (20) below.

(c) *Exposure to central counterparties and related matters*

A bank shall calculate its exposure to central counterparties arising from any relevant OTC derivative instrument, exchange traded derivative instrument or securities financing transaction, and the bank's related required amount of capital and reserve funds, in accordance with the relevant requirements specified in this paragraph (c), provided that-

- (i) any relevant exposures arising from the settlement of cash transactions in respect of equities, fixed income, spot FX or spot commodities shall be calculated in accordance with the relevant requirements specified in subregulation (20);
- (ii) when the clearing member-to-client leg of any relevant exchange traded derivative transaction is conducted in terms of a bilateral agreement, both the client bank and the relevant clearing member shall calculate the relevant exposure amount and required amount of capital and reserve funds in accordance with the relevant requirements related to an OTC derivative instrument;
- (iii) a bank shall ensure that it continuously maintains sufficient capital and reserve funds for all relevant exposures related to counterparty credit risk, including in respect of any relevant exposure to a qualifying central counterparty, that is, the bank shall, for example, consider whether it needs to maintain capital in excess of the minimum required capital and reserve funds specified in terms of the provisions of these Regulations when the bank's relevant transactions with a central counterparty give rise to more risky exposures than what is envisaged in these Regulations or when the bank is uncertain whether or not the relevant counterparty may indeed be regarded as a qualifying central counterparty;
- (iv) when a bank acts as a clearing member, the bank shall continuously assess through appropriate scenario analysis and stress testing whether the level of capital held against the bank's exposures to a central counterparty adequately addresses the risks inherent in the relevant transactions, provided that the bank's assessment shall, for example, include all relevant potential future exposure or contingent exposure resulting from future drawings on default fund commitments, and/or from secondary commitments to take over or replace offsetting transactions from clients of another clearing member when that clearing member defaults or becomes insolvent;
- (v) the bank shall on a regular basis monitor and report to its senior management and the appropriate committee of the bank's board of directors, all relevant exposures to central counterparties, including all relevant exposures arising from trading through a central counterparty and exposures arising from central counterparty membership obligations, such as default fund contributions;

- (vi) when a bank conducts business with a qualifying central counterparty, the bank shall calculate its relevant exposure and the related required amount of capital and reserve funds in accordance with the relevant requirements specified in paragraph (d) below, provided that, subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, when a central counterparty no longer meets the relevant requirements related to a qualifying central counterparty, the bank may continue to treat all relevant transactions with that counterparty in accordance with the relevant requirements specified in paragraph (d) below, for a maximum period of up to three months following the date on which that counterparty no longer meets the said requirements, whereafter the bank shall calculate its relevant exposure and the related required amount of capital and reserve funds in accordance with the relevant requirements specified in paragraph (e) below;
 - (vii) when a bank conducts business with a non-qualifying central counterparty, the bank shall calculate its relevant exposure and the related required amount of capital and reserve funds in accordance with the relevant requirements specified in paragraph (e) below.
- (d) *Exposures to qualifying central counterparties*
- (i) Subject to the provisions of subparagraph (v) below, when a bank acts as a clearing member of a qualifying central counterparty for its own purposes, the bank shall in respect of all relevant OTC derivative instruments, exchange traded derivative instruments and securities financing transactions apply a risk weight of 2 per cent to the bank's relevant trade exposure to the qualifying central counterparty, provided that-
 - (A) when the said bank acting as a clearing member offers clearing services to clients, the 2 per cent risk weight shall also apply to the clearing member's trade exposure to the qualifying central counterparty that arises when the clearing member is obligated to reimburse the client for any losses suffered due to changes in the value of its transactions in the event that the qualifying central counterparty defaults;
 - (B) the bank shall calculate the relevant exposure amount for such trade exposure in accordance with the relevant requirements related to the current exposure method, standardised method or internal model method, respectively specified in subregulations (17) to (19) below, read with the relevant requirements specified in subregulation (9) in respect of collateralised exposure, provided that in the case of banks that apply the internal model method the 20-day floor for the margin period of risk will not apply, provided that the relevant netting set does not contain illiquid collateral or exotic trades and provided there are no disputed trades;

- (C) when settlement is legally enforceable on a net basis in an event of default and regardless of whether the counterparty is insolvent or bankrupt, the bank may calculate the relevant total replacement cost of all contracts relevant to the trade exposure on a net replacement cost basis, provided that the relevant close-out netting sets-
- (i) shall in the case of all relevant repo-style transactions comply with all the relevant requirements specified in subregulation (9)(b)(xvi);
 - (ii) shall in the case of all relevant transactions in derivative instruments comply with all the relevant requirements specified in subregulation (17)(b);
 - (iii) shall in all relevant cases of cross-product netting comply with all the relevant requirements specified in subregulation (19)(d),

Provided that when a bank is unable to demonstrate to the satisfaction of the Registrar that all relevant netting agreements meet the aforesaid requirements, the bank shall regard each relevant single transaction as a netting set of its own for purposes of calculating its relevant trade exposure amount.

- (ii) Without derogating from the provisions of subparagraph (v) below, a bank that acts as a clearing member shall in all relevant cases calculate its relevant exposures, including any potential CVA risk exposure, to clients as bilateral trades, irrespective whether the clearing member guarantees the trade or acts as an intermediary between the client and the relevant qualifying central counterparty, provided that, in order to recognise the shorter close-out period for cleared transactions-
 - (A) a bank that adopted the internal model method and that acts as a clearing member may calculate its relevant exposure amount to clients and the related required amount of capital and reserve funds by applying a margin period of risk of no less than 5 days;
 - (B) a bank that adopted the current exposure method or standardised method may multiply the relevant exposure amount or EAD with a scaling factor of no less than 0.71, provided that when the margin period of risk is greater than 5 days the relevant scaling factor shall be as follows:

Margin period of risk	Scaling factor
6 days	0.77
7 days	0.84
8 days	0.89
9 days	0.95
10 days	1.00

- (iii) When a bank is a client of a clearing member, and the bank enters into a transaction with the said clearing member acting as a financial intermediary, that is, the clearing member completes an offsetting transaction with a qualifying central counterparty, the bank's exposures to the clearing member shall be calculated in accordance with the relevant requirements specified in subparagraph (i) above, provided that-
- (A) the relevant qualifying central counterparty shall identify the relevant offsetting transactions as client transactions and the qualifying central counterparty and/or the clearing member, as the case may be, shall hold collateral to support the relevant transactions, in a manner that prevents any losses to the client due to-
- (i) the default or insolvency of the clearing member;
 - (ii) the default or insolvency of the clearing member's other clients; and
 - (iii) the joint default or insolvency of the clearing member and any of its other clients.

That is, upon the insolvency of the clearing member, there shall be no legal impediment, other than the need to obtain a court order to which the client shall be entitled, to the transfer of the collateral belonging to clients of a defaulting clearing member to the qualifying central counterparty, to one or more other surviving clearing members or to the client or the client's nominee.

- (B) when requested, the bank shall provide the Registrar with an independent, written and reasoned legal opinion that concludes that, in the event of legal challenge, the relevant courts and administrative authorities would find that the client would bear no losses on account of the insolvency of an intermediary clearing member or of any other clients of such intermediary in terms of-
- (i) the law of the jurisdiction(s) of the client, clearing member and qualifying central counterparty;
 - (ii) the law of the jurisdiction(s) in which the branch is located when the foreign branch of the client, clearing member or qualifying central counterparty is involved;
 - (iii) the law that governs the individual transactions and collateral; and
 - (iv) the law that governs any contract or agreement necessary to meet the respective requirements specified in these items (A) and (B);

- (C) relevant laws, regulation, rules, contractual, or administrative arrangements shall provide that the offsetting transactions with the defaulted or insolvent clearing member are highly likely to continue to be indirectly transacted through the qualifying central counterparty, or by the qualifying central counterparty, should the clearing member default or become insolvent, and in which case the client positions and collateral with the qualifying central counterparty shall be transferred at market value unless the client requests to close out the position at market value;
 - (D) when all the conditions and requirements specified in the preceding items (A) to (C) are met, but the client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, the bank shall apply a risk weight of 4 per cent to the relevant client's exposure to the clearing member;
 - (E) when the bank is a client of the clearing member and the conditions and requirements envisaged in items (A) to (D) above are not met, the bank shall calculate all relevant exposures and the related required amount of capital and reserve funds, including any relevant CVA risk exposure, to the relevant clearing member on a bilateral trade basis.
- (iv) When a bank that is a client of a clearing member enters into a transaction with a qualifying central counterparty, and the clearing member guarantees the bank's performance, the bank's exposures to the qualifying central counterparty shall be calculated in accordance with the relevant requirements specified in subparagraph (i) above, provided that-
- (A) the relevant qualifying central counterparty shall identify the relevant offsetting transactions as client transactions and the qualifying central counterparty and/or the clearing member, as the case may be, shall hold collateral to support the relevant transactions, in a manner that prevents any losses to the client due to-
 - (i) the default or insolvency of the clearing member;
 - (ii) the default or insolvency of the clearing member's other clients; and
 - (iii) the joint default or insolvency of the clearing member and any of its other clients.

That is, upon the insolvency of the clearing member, there shall be no legal impediment, other than the need to obtain a court order to which the client shall be entitled, to the transfer of the collateral belonging to clients of a defaulting clearing member to the qualifying central counterparty, to one or more other surviving clearing members or to the client or the client's nominee.

- (B) when requested, the bank shall provide the Registrar with an independent, written and reasoned legal opinion that concludes that, in the event of legal challenge, the relevant courts and administrative authorities would find that the client would bear no losses on account of the insolvency of an intermediary clearing member or of any other clients of such intermediary in terms of-
 - (i) the law of the jurisdiction(s) of the client, clearing member and qualifying central counterparty;
 - (ii) the law of the jurisdiction(s) in which the branch is located when the foreign branch of the client, clearing member or qualifying central counterparty is involved;
 - (iii) the law that governs the individual transactions and collateral; and
 - (iv) the law that governs any contract or agreement necessary to meet the respective requirements specified in these items (A) and (B);
 - (C) relevant laws, regulation, rules, contractual, or administrative arrangements shall provide that the offsetting transactions with the defaulted or insolvent clearing member are highly likely to continue to be indirectly transacted through the qualifying central counterparty, or by the qualifying central counterparty, should the clearing member default or become insolvent, and in which case the client positions and collateral with the qualifying central counterparty shall be transferred at market value unless the client requests to close out the position at market value;
 - (D) when all the conditions and requirements specified in the preceding items (A) to (C) are met, but the client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, the bank shall apply a risk weight of 4 per cent to the relevant client's exposure to the clearing member;
 - (E) when the bank is a client of the clearing member and the conditions and requirements envisaged in items (A) to (D) above are not met, the bank shall calculate all relevant exposures and the related required amount of capital and reserve funds, including any relevant CVA risk exposure, to the relevant clearing member on a bilateral trade basis.
- (v) In all relevant cases, any asset or collateral posted or provided shall, from the perspective of the bank posting or providing such collateral, be assigned the relevant risk weight that otherwise applies to such asset or collateral in terms of the relevant provisions or requirements specified in these Regulations, regardless of the fact that such asset has been posted or provided as collateral, provided that-

- (A) when an asset or collateral of a clearing member or client is posted with or provided to a qualifying central counterparty or a clearing member, and the asset or collateral is not held in a bankruptcy remote manner, the bank posting or providing such asset or collateral shall also recognise the related credit risk, based upon the asset or collateral being exposed to risk of loss that is based on the creditworthiness of the entity or person holding such asset or collateral, provided that-
- (i) when the entity or person holding such asset or collateral is the qualifying central counterparty, a risk weight of 2 per cent shall apply to collateral included in the definition of trade exposure;
 - (ii) the relevant risk weight of the qualifying central counterparty shall apply to assets or collateral posted or provided for any purpose other than the situation provided for in sub-item (i) above;
- (B) collateral posted or provided by a clearing member, including cash, securities, other pledged assets, and excess initial or variation margin, which is often being referred to as overcollateralisation, that is held by a custodian, and is bankruptcy remote from the relevant qualifying central counterparty, shall not be subject to a capital requirement for counterparty credit risk exposure to such bankruptcy remote custodian, provided that for purposes of this item (B), custodian includes a trustee, agent, pledgee, secured creditor or any other person that holds property in a manner that does not give such person a beneficial interest in such property and will not result in such property being subject to legally-enforceable claims by such person's creditors, or to a court-ordered stay of the return of such property, should such person become insolvent or bankrupt;
- (C) collateral posted by a client, that is held by a custodian, and is bankruptcy remote from the relevant qualifying central counterparty, the clearing member and other clients, shall not be subject to a capital requirement for counterparty credit risk, provided that when the collateral is held at the qualifying central counterparty on a client's behalf and is not held on a bankruptcy remote basis-
- (i) a risk weight of 2 per cent shall apply to that collateral when all the relevant conditions and requirements envisaged in paragraph (d)(iii)(A) to (d)(iii)(C) above are met;
 - (ii) a risk weight of 4 per cent shall apply to that collateral when the relevant conditions envisaged in paragraph (d)(iii)(D) apply;

- (vi) When a default fund is shared between products or types of business with settlement risk only, such as in the case of equities and bonds, and products or types of business which give rise to counterparty credit risk, such as OTC derivative instruments, exchange traded derivative instruments or securities financing transactions, the risk weight determined in accordance with the relevant formulae and methodology specified in subparagraph (vii) or (viii) below shall be assigned to all relevant default fund contributions, without any apportionment to different classes or types of business or products, provided that-
- (A) when default fund contributions from clearing members are segregated by product types and only accessible for specific product types, the relevant capital requirements for those default fund exposures shall be determined for each relevant product giving rise to counterparty credit risk in accordance with the formulae and methodology specified in subparagraphs (vii) and (viii) below;
 - (B) when the relevant qualifying central counterparty's prefunded own resources are shared among product types, the qualifying central counterparty shall allocate those funds to each of the relevant calculations, in proportion to the respective product specific exposure or EAD amount;
 - (C) a bank acting as a clearing member shall calculate its relevant required amount of capital and reserve funds related to exposures arising from default fund contributions to a qualifying central counterparty in accordance with-
 - (i) the formulae and methodology related to method 1, set out in subparagraph (vii) below; or
 - (ii) the formulae and methodology related to method 2, set out in subparagraph (viii) below.
- (vii) *Method 1: calculations in respect of default fund exposure*
- (A) Based on the risk sensitive formulae specified in item (B) below, which formulae incorporate-
 - (i) the size and quality of a qualifying central counterparty's financial resources;
 - (ii) the counterparty credit risk exposures of such qualifying central counterparty; and
 - (iii) the application of such financial resources via the qualifying central counterparty's loss bearing waterfall, in the case of one or more clearing member defaults,

a bank that acts as a clearing member may calculate a risk weight for its default fund contributions, provided that the bank's risk sensitive capital requirement for its default fund contribution, denoted by K_{CMI} , shall be calculated using the formulae and methodology specified in item (B) below, which calculation-

- (aa) may also be performed by any relevant qualifying central counterparty, supervisor or other person with access to the relevant required data;
 - (bb) shall be made only when the relevant conditions and requirements specified in item (E) below, are met.
- (B) Any person that wishes to calculate the capital requirement and related risk weight shall firstly calculate the qualifying central counterparty's hypothetical capital requirement due to its counterparty credit risk exposures to all of its relevant clearing members, through the application of the formula specified below:

$$K_{\text{CCP}} = \sum_{\substack{\text{clearing} \\ \text{members } i}} \max(E\text{BRM}_i - IM_i - DF_i; 0) \cdot RW \cdot \text{Capital ratio}$$

where:

K_{CCP} is the hypothetical capital requirement for a qualifying central counterparty, calculated for the sole purpose of determining the capitalisation of clearing member default fund contributions, that is, K_{CCP} does not represent the actual capital requirements for a qualifying central counterparty, which may be determined by the relevant qualifying central counterparty and/or its relevant supervisor

RW is a minimum risk weight of 20 per cent, or such higher risk weight as may be specified in writing by the Registrar when, for example, the clearing members in a qualifying central counterparty are not highly rated

Capital ratio shall be 8 per cent

$$\max(E\text{BRM}_i - IM_i - DF_i; 0)$$

is the exposure amount of the qualifying central counterparty to clearing member 'i', with all values relating to the valuation at the end of the day before the margin called on the final margin call of that day is exchanged, and

- $EBRM_i$ is the exposure value to clearing member 'i' before the application of risk mitigation in terms of the current exposure method for derivative instruments or the comprehensive approach envisaged in subregulation (9)(b), or for securities financing transactions as envisaged in subregulation (9)(b)(xvi), and where, for purposes of this calculation, variation margin that has been exchanged (before the margin called on the final margin call of that day) enters into the mark-to-market value of the transactions
- IM_i is the initial margin collateral posted by the clearing member with the qualifying central counterparty
- DF_i is the prefunded default fund contribution by the clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce the qualifying central counterparty loss

and in respect of which first step-

- (i) each relevant exposure amount shall be the counterparty credit risk exposure amount that a qualifying central counterparty has to a clearing member, calculated as a bilateral trade exposure for OTC derivatives and exchange traded derivatives, either in terms of the relevant requirements related to the current exposure method, or the standard supervisory haircut method for securities financing transactions, provided that the holding periods for securities financing transaction calculations specified in subregulation (9)(b)(xiv) shall apply even if more than 5000 trades are within one netting set, that is, the higher specified supervisory floor for more than 5000 trades shall not apply in this case;
- (ii) for purposes of calculating K_{CCP} via the current exposure method (CEM), the relevant formula specified in subregulation (17) shall be replaced with the formula:

$$A_{Net} = 0.15 * A_{Gross} + 0.85 * NGR * A_{Gross}$$

where, for the purposes of this calculation-

- (aa) the numerator of the NGR shall be $EBRM_i$, as specified hereinbefore, without the CEM add-on in case of OTC derivatives, and the denominator shall be the gross replacement cost, provided that when the minimum variation margin settlement frequency is daily, but the qualifying central counterparty calls margin intraday, then NGR shall be calculated just before margin is actually exchanged at the end of the day, with NGR expected to be non-zero;
- (bb) the NGR shall be calculated on a counterparty by counterparty basis;
- (cc) when NGR cannot be calculated as required, the bank shall apply a transitional default value for NGR of 0.30, until 31 March 2013, whereafter the bank shall follow the relevant approach specified in respect of non-qualifying central counterparties;
- (iii) the potential future exposure calculation under the CEM for options and swaptions that are transacted through a qualifying central counterparty shall be adjusted by multiplying the relevant notional amount of the contract by the absolute value of the option's delta, which shall be calculated according to the relevant requirements and formula specified in subregulation (18)(b);
- (iv) the netting sets that are applicable to regulated clearing members shall be the same as those envisaged in paragraph (d)(i)(C) above, provided that, for all other clearing members, the netting rules specified by the relevant qualifying central counterparty and based upon notification of each of its clearing members, or such requirements related to netting sets as may be specified in writing by the Registrar, shall apply.
- (C) Following the first-step calculation envisaged in item (B) above, the aggregate capital requirement for all relevant clearing members, prior to any relevant concentration and/or granularity adjustment, shall be calculated, assuming a scenario where two average clearing members default and therefore their default fund contributions are not available to mutualise losses, which scenario is incorporated in the risk-sensitive formulae specified below:

$$K_{CM}^* = \begin{cases} c_2 \cdot \mu \cdot (K_{CCP} - DF') + c_2 \cdot DF'_{CM} & \text{if } DF' < K_{CCP} \quad (i) \\ c_2 \cdot (K_{CCP} - DF_{CCP}) + c_1 \cdot (DF' - K_{CCP}) & \text{if } DF_{CCP} < K_{CCP} \leq DF' \quad (ii) \\ c_1 \cdot DF'_{CM} & \text{if } K_{CCP} \leq DF_{CCP} \quad (iii) \end{cases}$$

where:

K^*_{CM} is the aggregate capital requirement on default fund contributions from all relevant clearing members prior to the application of any relevant granularity and/or concentration adjustment

DF_{CCP} is the qualifying central counterparty's prefunded own resources, such as contributed capital, retained earnings, etc., that are required to be used by the relevant qualifying central counterparty to cover its losses before clearing members' default fund contributions are used to cover such losses

DF_{CM} is the prefunded default fund contributions from surviving clearing members available to mutualise losses under the assumed scenario. Specifically:

$$DF'_{CM} = DF_{CM} - 2 \cdot \overline{DF}_i$$

where \overline{DF}_i is the average default fund contribution

DF' is the total prefunded default fund contributions available to mutualise losses under the assumed scenario. Specifically:

$$DF' = DF_{CCP} + DF_{CM}$$

c_1 is a decreasing capital factor, between 0.16 per cent and 1.6 per cent, applied to the excess prefunded default funds provided by clearing members, that is, DF_{CM} :

$$c_1 = \text{Max} \left\{ \frac{1.6\%}{(DF'/K_{CCP})^{0.3}}; 0.16\% \right\}$$

c_2 is 100 per cent; a capital factor applied when a qualifying central counterparty's own resources (DF_{CCP}) are less than such qualifying central counterparty's hypothetical capital requirements (K_{CCP}), and, as a result, the clearing member default funds are expected to assist in the coverage of the qualifying central counterparty's hypothetical capital requirements (K_{CCP})

μ is 1.2; an exposure scalar that is applied in respect of the unfunded part of the qualifying central counterparty's hypothetical capital requirements (K_{CCP})

and

Equation (i) shall apply when a qualifying central counterparty's total prefunded default fund contributions (DF) are less than the qualifying central counterparty's hypothetical capital requirements (K_{CCP}), in which case the clearing members' unfunded default fund commitments are expected to bear such loss and the exposure for a clearing member bank is expected to be greater than the exposure if all default funds had been prefunded, due to the potential failure of other members to make additional default fund contributions when called.

When a qualifying central counterparty's total prefunded default fund contributions (DF) are not sufficient to cover the qualifying central counterparty's hypothetical capital requirements (K_{CCP}), and clearing members do not have an obligation to contribute more default funds to offset a shortfall in qualifying central counterparty loss-absorbing resources, such clearing members shall still be subject to an additional capital requirement because their exposures to such qualifying central counterparty are, in fact, riskier than would be the case if the qualifying central counterparty had access to adequate resources to cover its hypothetical capital requirements. This requirement reflects the underlying assumption that qualifying central counterparties, through own resources and member default funds, are expected to have adequate loss-bearing, mutualised, financial resources to make defaults on their exposures highly unlikely. When such loss-bearing resources are inadequate, the members' exposures are bearing additional risk, and require additional capital.

Therefore, an exposure scalar (μ) of 1.2 is applied in respect of the unfunded part of K_{CCP} , to reflect the bank's increased exposure arising from reliance on unfunded default fund contributions. When a part of the qualifying central counterparty's own financial resources available to cover losses is used after all clearing members' default fund contributions (DF_{CM}) are used to cover losses, then this part of the qualifying central counterparty's contribution to losses shall be included as part of the total default fund (DF).

Equation (ii) shall apply when a qualifying central counterparty's own resource contributions to losses (DF_{CCP}) and the clearing members' default contributions (DF_{CM}), are both required to cover the qualifying central counterparty's hypothetical capital (K_{CCP}), but are, in the aggregate, greater than the qualifying central counterparty's hypothetical capital requirements K_{CCP} . As stated hereinbefore, for DF_{CCP} to be included in the total default fund available to mutualise losses (DF'), the qualifying central counterparty's own resources have to be used before DF_{CM} . When that is not the case, and a part of the qualifying central counterparty's own financial resources is used in combination, on a pro rata or formulaic basis, with the clearing members' default fund contributions (DF_{CM}) to cover qualifying central counterparty losses, then this equation shall be adapted in accordance with such conditions or requirements as may be specified in writing by the Registrar, in order to ensure that this part of the qualifying central counterparty contribution is treated in a manner similar to a clearing member's default fund contribution.

Equation (iii) shall apply when a qualifying central counterparty's own financial resource contribution to loss (DF_{CCP}) is used first in the waterfall, and is greater than the qualifying central counterparty's hypothetical capital (K_{CCP}), so that the qualifying central counterparty's own financial resources are expected to bear all of the qualifying central counterparty's losses before the clearing members' default fund contributions (DF_{CM}) are called upon to bear any loss.

(D) Following the second calculation envisaged in item (C) above, the capital requirement for an individual clearing member 'i' (K_{CMi}) shall be calculated by distributing K_{CM}^* to individual clearing members in proportion to the individual clearing member's share of the total prefunded default fund contributions, that is, the presumption shall be that losses will be allocated proportionate to prefunded DF contributions of clearing members, provided that-

(i) when the relevant practice of the qualifying central counterparty differs, the aforesaid allocation method shall be adjusted in accordance with such conditions or requirements as may be specified in writing by the Registrar following consultation;

- (ii) the granularity and concentration of the relevant qualifying central counterparty shall be taken into account through the application of the respective factors 'N', which accounts for the number of members, and 'β', as follows:

$$K_{CM_i} = \left(1 + \beta \cdot \frac{N}{N-2} \right) \cdot \frac{DF_i}{DF_{CM}} \cdot K_{CM}^*$$

where:

β is equal to $\frac{A_{Net,1} + A_{Net,2}}{\sum_i A_{Net,i}}$

and subscripts 1 and 2 denote the clearing members with the two largest A_{Net} values, and A_{Net}

- (aa) for OTC derivatives is defined as in item (B) hereinbefore, that is,

$$A_{Net} = 0.15 * A_{Gross} + 0.85 * NGR * A_{Gross}; \text{ and}$$

- (bb) for securities financing transactions shall be replaced by $E * H_e + C * (H_c + H_{fx})$, as defined in subregulation (9)(b)

N is the number of clearing members

DF_i is the prefunded default fund contribution from an individual clearing member 'i'

DF_{CM} is the prefunded default fund contributions from all clearing members, or any other member-contributed financial resources that are available to bear mutualised qualifying central counterparty losses

- (iii) when the aforesaid allocation method can not be applied because the relevant qualifying central counterparty does not have prefunded default fund contributions, the allocation method specified below shall apply:

- (aa) allocate K_{CM}^* based upon each relevant clearing member's proportionate liability for default fund calls, that is, unfunded DF commitment; or

- (bb) when such an allocation is not determinable, the allocation of K_{CM}^* shall be based upon the size of each clearing member's posted initial margin,

which allocation approaches shall replace (DF_i / DF_{CM}) in the aforesaid calculation of K_{CM_i} .

(E) In all relevant cases, sufficient information regarding or related to the calculation of K_{CCP} , DF_{CM} , and DF_{CCP} shall be made available-

- (i) to allow the Registrar or any relevant supervisor of the qualifying central counterparty to appropriately oversee the said calculations;
- (ii) to permit each relevant clearing member to calculate its capital requirement for the default fund; and
- (iii) for the relevant supervisor of such clearing member to review and confirm the required calculations,

provided that, as a minimum-

- (aa) K_{CCP} shall be calculated on a quarterly basis or such more frequent basis as may be specified in writing by the Registrar;
- (bb) whichever person makes the aforesaid calculations shall, whenever required, make available to the relevant supervisor of any relevant bank clearing member sufficient aggregate information regarding the composition of the qualifying central counterparty's exposures to clearing members and information provided to the clearing member for the purposes of the calculation of K_{CCP} , DF_{CM} , and DF_{CCP} ;
- (cc) relevant required information shall be made available to the relevant supervisor on a sufficiently frequent basis to allow the supervisor to duly monitor the risks incurred by the relevant clearing members;
- (dd) K_{CCP} and K_{CM} shall be recalculated at least quarterly, or whenever material changes occur in respect of, for example, the number or exposure of cleared transactions, or the financial resources of the relevant qualifying central counterparty.

(viii) *Method 2: calculation in respect of default fund exposure*

A bank that acts as a clearing member may apply a risk weight of 1250 per cent to its default fund exposures to the relevant qualifying central counterparty, provided that-

- (A) an overall limit shall apply in respect of the relevant aggregate amount of risk-weighted exposure related to all the bank's relevant exposures to that qualifying central counterparty, including any relevant amount of trade exposure, which limit shall be equal to 20 per cent times the relevant amount of trade exposures to that qualifying central counterparty, that is, in terms of this approach, the relevant aggregate amount of risk weighted exposure for both trade and default fund exposures of bank "i" to each relevant qualifying central counterparty shall be equal to:

$$\text{Min} \{(2\% * TE_i + 1250\% * DF_i); (20\% * TE_i)\}$$

where:

TE_i is the trade exposure of bank "i" to the relevant qualifying central counterparty, as measured by the bank in accordance with the relevant requirements specified in paragraph (d)(i) above

DF_i is the pre-funded contribution of bank "i" to the relevant qualifying central counterparty's default fund

- (B) since the equation specified in item (A) above already incorporates the 2 per cent risk weight on trade exposures specified in paragraph (d)(i), the said 2 per cent risk weight shall not otherwise apply for purposes of this calculation.

(e) Exposures to non-qualifying central counterparties

In respect of a bank's-

- (i) trade exposure to a non-qualifying central counterparty, based on the relevant type or category of counterparty credit exposure, a bank shall apply the relevant requirements specified in these Regulations for the standardised approach for the measurement of its exposure to credit risk;
- (ii) default fund contributions to a non-qualifying central counterparty, which default fund contributions shall for purposes of this paragraph (e) include both the funded and the unfunded contributions to be paid when required by the relevant central counterparty, the bank shall apply a risk weight of 1250 per cent, provided that in respect of any liability for unfunded contributions, that is, any relevant unlimited binding commitment, the Registrar shall specify in writing the relevant amount of unfunded commitment to which the bank shall apply the aforesaid risk weight of 1250 per cent.

(f) *Matters related to minimum required capital and reserve funds for CVA risk, calculated in terms of the standardised approach*

- (i) A bank, other than a bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of the bank's exposure to market risk, shall calculate the relevant additional required amount of capital on a portfolio basis in accordance with the formula specified below:

$$K = 2.33 * \sqrt{h} * \sqrt{(A - B)^2 + C}$$

where:

$$A = \sum_i 0.5 * w_i * (M_i * EAD_i^{total} - M_i^{hedge} B_i)$$

$$B = \sum_{ind} w_{ind} * M_{ind} * B_{ind}$$

$$C = \sum_i 0.75 * w_i^2 * (M_i * EAD_i^{total} - M_i^{hedge} B_i)^2$$

h is the one-year risk horizon, in units of a year, $h = 1$.

w_i is the weight applicable to counterparty 'i', provided that-

- (i) based on its external rating, counterparty 'i' shall be mapped to one of the seven weights specified in table 16 below:

Table 16

Rating ¹	Weight w _i
AAA	0.7%
AA	0.7%
A	0.8%
BBB	1.0%
BB	2.0%
B	3.0%
CCC	10.0%

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.

- (ii) subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, when a counterparty does not have an external rating, the bank shall map the relevant internal rating of the counterparty to one of the relevant external ratings specified above

EAD_i^{total} is the exposure at default of counterparty 'i', aggregated across all relevant netting sets, including the effect of any relevant collateral in accordance with the relevant requirements specified in these Regulations for the Standardised Method, the Current Exposure Method or the Internal Model Method, provided that in the case of-

- (i) a bank other than a bank that obtained the approval of the Registrar to adopt the Internal Model Method for the measurement of the bank's exposure to counterparty risk, the bank shall apply the following discounting factor to the exposure:

$$(1 - \exp(-0.05 * M_i)) / (0.05 * M_i);$$

- (ii) a bank that obtained the approval of the Registrar to adopt the Internal Model Method for the measurement of the bank's exposure to counterparty risk, the relevant discount factor is already included in M_i , and no further discount shall be applied

B_i is the notional amount of purchased single name CDS hedges, which notional amounts shall be aggregated in the case of more than one position referencing counterparty 'i', and used to hedge the bank's exposure to CVA risk, provided that the bank shall apply the following discounting factor to the relevant notional amount:

$$(1 - \exp(-0.05 * M_i^{hedge})) / (0.05 * M_i^{hedge})$$

B_{ind} is the full notional amount of one or more index CDS of purchased protection, used to hedge the bank's exposure to CVA risk, provided that the bank shall apply the following discounting factor to the relevant notional amount:

$$(1 - \exp(-0.05 * M_{ind})) / (0.05 * M_{ind})$$

W_{ind} is the relevant weight applicable to index hedges, provided that the bank shall map indices to one of the seven weights (w_i) specified in table 16, based on the average spread of index 'ind'

M_i is the effective maturity of the relevant transactions with counterparty 'i', provided that-

- (i) in the case of a bank other than a bank that obtained the approval of the Registrar to adopt the Internal Model Method for the measurement of the bank's exposure to counterparty risk, M_i shall be the notional weighted average maturity as envisaged in regulation 23(13)(d)(ii)(B)(iii), provided that M_i shall for purposes of this calculation not be capped at 5 years;
- (ii) a bank that obtained the approval of the Registrar to adopt the Internal Model Method for the measurement of the bank's exposure to counterparty risk shall calculate M_i in accordance with the relevant requirements specified in subregulation (19)(c)

M_i^{hedge} is the maturity of the hedge instrument with notional B_i , provided that in the case of several positions the bank shall aggregate the relevant quantities $M_i^{\text{hedge}} \cdot B_i$

M_{ind} is the maturity of the index hedge 'ind', provided that in the case of more than one index hedge position, it shall be the relevant notional weighted average maturity

Provided that, subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, when a counterparty is also a constituent of an index on which a CDS is used to hedge the bank's exposure to counterparty credit risk, the notional amount attributable to that relevant single name, as per its reference entity weight, may be subtracted from the relevant index CDS notional amount and treated as a single name hedge (B_i) of the individual counterparty with maturity based on the maturity of the index.

(g) Matters related to the calculation of the aggregate amount of required capital and reserve funds for counterparty credit risk and credit valuation adjustments

The aggregate amount of required capital and reserve funds related to a bank's exposure to counterparty credit risk and CVA risk, that is, default risk and the risk of mark-to-market losses in respect of specified exposures, shall in the case of-

- (i) a bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of a bank's exposure to market risk, be equal to the sum of-

(A) the higher of the relevant required amount of capital and reserve funds for default risk calculated in terms of the internal model method based on-

- (i) current parameter calibrations for EAD; or
- (ii) stressed parameter calibrations for EAD,

Provided that when a bank that obtained the approval of the Registrar for the use of the IRB approach can demonstrate to the satisfaction of the Registrar that in its VaR calculations made in terms of the relevant requirements specified in subregulation (19)(h)(i), the relevant specific VaR model incorporates the effects of rating migrations, the bank shall calculate the risk weights applied to its relevant OTC derivative exposures with the full maturity adjustment as a function of PD and M set equal to 1, provided that when the bank is unable to demonstrate the aforesaid to the satisfaction of the Registrar, the bank shall apply the full maturity adjustment function, through the application of the formula specified below:

$$(1 - 1.5 \times b)^{-1} \times (1 + (M - 2.5) \times b)$$

where:

M is the effective maturity; and

b is the maturity adjustment as a function of the PD,

as envisaged in subregulation (11)(d)(ii) read with the relevant requirements specified in subregulation (13)(d)(ii)(B)

and

- (B) the relevant amount of required capital and reserve funds for CVA risk calculated in accordance with the relevant requirements specified in paragraph (b)(iv) above read with the relevant requirements specified in subregulation (19)(h) below;
- (ii) a bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk, but not for the use of the internal models approach for the measurement of specific risk as part of a bank's exposure to market risk, be equal to the sum of-

- (A) the higher of the relevant required amount of capital and reserve funds for default risk calculated in terms of the internal model method based on-
 - (i) current parameter calibrations for EAD; or
 - (ii) stressed parameter calibrations for EAD,and
 - (B) the relevant amount of required capital and reserve funds for CVA risk calculated in accordance with the standardised approach specified in paragraph (f) above;
- (iii) all banks other than the banks envisaged in subparagraphs (i) and (ii) above, be equal to the sum of-
- (A) the relevant aggregate required amount for default risk calculated in accordance with the relevant requirements related to the said current exposure method or standardised method for all relevant counterparties and instruments; and
 - (B) the relevant amount of required capital and reserve funds for CVA risk calculated in accordance with the standardised approach specified in paragraph (f) above.

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

- (a) Unless specifically otherwise provided in these Regulations, a bank may in respect of its exposure to counterparty credit risk apply an exposure value or EAD of zero, provided that-
 - (i) the said exposure to counterparty credit risk shall relate to protection provided by the reporting bank in the form of a credit-default swap contract, which contract is held in the bank's banking book, provided that the said contract-
 - (A) shall be treated similar to a guarantee provided by the reporting bank and in accordance with the relevant requirements specified in subregulations (9)(d), (12)(e) or (14)(d), as the case may be;
 - (B) shall be subject to required capital and reserve funds in respect of the contract's full notional amount;
 - (ii) the said exposure to counterparty credit risk shall relate to purchased credit derivative protection and the reporting bank shall calculate its required amount of capital and reserve funds in respect of the hedged exposure in accordance with the relevant requirements specified in subregulation (15)(b)(i) above.

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

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

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

- (i) shall in respect of each relevant transaction, contract or netting set calculate the relevant replacement cost or net replacement cost of the said transaction, contract or netting set;
- (ii) shall in respect of each relevant netting set multiply the relevant notional principle amount with the relevant credit conversion factors specified in table 17 below in order to calculate the relevant required add-on amount, which add-on amount shall be calculated independent from and irrespective of the relevant replacement cost or value calculated in terms of the provisions of subparagraph (i) above.

Table 17
Credit conversion factor^{1; 2; 3; 4}

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

Notes:

1. For contracts with multiple exchanges of principal, the bank shall multiply the factors by the number of remaining payments in the contract.
2. For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity shall be set equal to the time until the next reset date. In the case of interest rate contracts with remaining maturities of more than one year that meet the specified criteria, the add-on factor shall be subject to a floor of 0,5 per cent.
3. Forwards, swaps, purchased options and similar derivative contracts not covered by Columns 2 to 5 shall be treated as "other commodities".
4. The bank shall not calculate a potential future credit exposure for single currency floating for floating interest rate swaps, but shall evaluate the credit exposure on these contracts solely on the basis of the relevant mark-to-market value.

- (iii) may recognise eligible collateral obtained in respect of the bank's exposure to counterparty credit risk in accordance with the relevant requirements specified in subregulation (9)(b)(iv) read with the provisions of subregulation (9)(b)(vii);
- (iv) shall in the case of any single name credit derivative contract held in the bank's trading book calculate the bank's exposure amount or EAD through the application of the relevant potential future exposure add-on factors specified in table 18 below:

Table 18
Potential future exposure add-on factor¹

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

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

- (v) shall in the case of any qualifying credit derivative instrument held in respect of a banking book exposure calculate the bank’s required amount of capital and reserve funds in accordance with the relevant requirements specified in subregulation (9)(d);
- (vi) shall in the case of any-
- (A) first to default credit derivative transaction determine the relevant add-on factor based on the lowest credit quality underlying instrument in the basket, that is, when the basket contains any non-qualifying items, the bank shall apply the add-on factor relating to the said non-qualifying reference obligation;
- (B) second and subsequent nth-to-default credit derivative transaction allocate the underlying assets based on the credit quality of the assets, that is-
- (i) the second lowest credit quality shall determine the add-on factor in respect of a second to default transaction; and
- (ii) the nth lowest credit quality shall determine the add-on factor in respect of the nth-to-default transaction;
- (vii) may in respect of any OTC derivative transaction or contract subject to novation or a legally enforceable bilateral netting agreement recognise the effect of the said novation or netting agreement provided that the bank shall at all times comply with the relevant requirements specified in paragraph (b) below;

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

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

where:

RC is the relevant current replacement cost, or

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

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

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

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

where:

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

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

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

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

(b) Matters relating to bilateral netting

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

- (i) net transactions subject to novation, in terms of which netting any obligation between the bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations;
- (ii) net transactions subject to any legally valid form of bilateral netting not included in subparagraph (i) above, including any other form of novation,

provided that in all cases-

- (A) the bank shall have in place a netting contract or agreement with the said counterparty which contract or agreement shall create a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of the said transactions in the event of counterparty failure to perform in accordance with the contractual agreement, irrespective whether or not the said failure relates to default, bankruptcy, liquidation or similar circumstances;
- (B) the bank shall have in place written and reasoned legal opinions confirming that in the event of a legal challenge the relevant courts and administrative authorities would find the bank's exposure to be the said net amount in terms of-

- (i) the law of the jurisdiction in which the counterparty is incorporated or chartered, and when the foreign branch of a counterparty is involved, also in terms of the law of the jurisdiction in which the branch is located;
 - (ii) the law that governs the individual transactions; and
 - (iii) the law that governs any contract or agreement necessary to effect the said novation or netting;
- (C) when a national supervisor or regulator is not satisfied with the legal enforceability of the said agreement, neither counterparty shall apply netting in respect of the relevant transactions or contracts;
- (D) the bank shall have in place robust procedures in order to continuously monitor the legal characteristics of the said netting agreement for possible changes in relevant law that may affect the legal enforceability of the said agreement;
- (E) since the gross obligations are not in any way affected, no payment netting agreement, which agreement is designed to reduce the operational costs of daily settlements, shall be taken into consideration in the calculation of the reporting bank's exposure amount, EAD or required capital and reserve funds;
- (F) no contract containing walk-away clauses, that is, any provision that permits a non-defaulting counterparty to make only limited payments or no payment at all to the estate of a defaulter, even when the defaulter is a net creditor, shall be eligible for netting in terms of these Regulations;
- (G) the exposure amount or EAD shall be the sum of the net mark-to-market replacement cost, if positive, plus the said add-on amount, calculated in accordance with the relevant requirements specified in paragraphs (a) above.

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

(a) Matters relating to the exposure amount or EAD

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

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

The exposure amount or EAD shall be equal to-

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

where:

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

$$CMV = \sum_i CMV_i$$

where:

CMV_i is the relevant current market value of transaction i

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

$$CMC = \sum_l CMC_l$$

where:

CMC_l is the relevant current market value of collateral l

i is the index designating transaction

l is the index designating collateral

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

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

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

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

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

- (ii) shall in the calculation of the exposure amount or EAD include collateral received from a counterparty as a positive amount and collateral posted to a counterparty as a negative amount, provided that only instruments qualifying as eligible collateral in accordance with the relevant provisions of subregulation (9)(b)(iv) shall be recognised as eligible collateral in terms of the provisions of this subregulation (18);
- (iii) shall assign to any risk position that reflects a long position in respect of a transaction with a linear risk profile a positive sign, and to any risk position that reflects a short position in respect of a transaction with a linear risk profile a negative sign;
- (iv) shall in the case of an OTC derivative transaction with a linear risk profile, such as a forward contract, future contract or swap contract, which contract requires an exchange of a financial instrument such as a bond, an equity instrument or a commodity against payment, treat the payment part of the transaction in accordance with the relevant requirements relating to payment legs specified in this subregulation (18);
- (v) shall in the case of transactions that require the exchange of payment against payment, such as an interest-rate-swap contract or foreign-exchange forward contract, identify the relevant payment legs of the contract, which payment legs shall be represented by the contractually agreed gross payments, including the notional amount of the transaction, provided that for purposes of calculating the bank's exposure to counterparty credit risk-
 - (A) the bank may in the case of payment legs with a remaining maturity of less than one year disregard any relevant interest rate risk;
 - (B) the bank may treat transactions that consist of two payment legs denominated in the same currency, such as an interest-rate swap contract, as a single aggregate transaction;
- (vi) shall in the case of transactions with linear risk profiles with equity, equity indices, gold, other precious metals or other commodities as the underlying financial instruments, map-
 - (A) the relevant component of the transaction to a risk position in the relevant equity, equity index or commodity hedging set, which commodity hedging set may relate to gold or other precious metals;

- (B) the relevant payment leg of the transaction to an interest rate risk position within the appropriate interest rate hedging set, provided that when the payment leg is denominated in a foreign currency the bank shall also map the relevant component of the transaction to a foreign exchange risk position in the relevant currency;
- (vii) shall in the case of transactions with linear risk profiles with a debt instrument such as a bond or loan as the underlying instrument, map the relevant transaction to an interest rate risk position with one risk position in respect of the relevant debt instrument and another risk position in respect of the payment leg, provided that-
- (A) any transaction with a linear risk profile that requires an exchange of payment against payment, including any relevant foreign exchange forward contract, shall be mapped to an interest rate risk position in respect of each of the relevant payment legs;
 - (B) when the underlying debt instrument is denominated in a foreign currency, the bank shall map the relevant debt instrument to a foreign exchange risk position in the relevant currency;
 - (C) when a payment leg is denominated in a foreign currency, the bank shall map the relevant payment leg to a foreign exchange risk position in the said currency, that is, the bank, for example, shall map a short-term FX forward contract with one leg denominated in domestic currency into three risk positions, which is, firstly an FX risk position, secondly a foreign currency interest rate risk position and finally a domestic currency risk position;
 - (D) the bank shall assign to any foreign-exchange basis swap transaction an exposure amount or EAD of zero;
- (viii) shall determine the size and sign of all relevant risk positions in accordance with the relevant formulae and requirements specified in paragraph (b) below, provided that in the case of-
- (A) any transaction with a non-linear risk profile in respect of which the reporting bank is unable to determine the required delta value; or
 - (B) any payment leg or transaction with a debt instrument as the underlying instrument and in respect of which payment leg or transaction the reporting bank is unable to determine the required modified duration,

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

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

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

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

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

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

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

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

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

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

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

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

- (ii) a debt instrument, and the payment legs of all transactions, shall be the effective notional value of the outstanding gross payments, including the notional amount, converted to the bank's domestic currency, multiplied by the modified duration of the relevant debt instrument or payment leg;
- (iii) a credit-default swap, shall be the notional value of the relevant reference debt instrument multiplied by the remaining maturity of the said credit-default swap;
- (iv) an OTC derivative instrument with a non-linear risk profile, including options and swaptions, shall be the delta equivalent effective notional value of the relevant financial instrument underlying the transaction provided that the underlying financial instrument is an instrument other than a debt instrument;
- (v) an OTC derivative instrument with a non-linear risk profile, including options and swaptions, in respect of which instrument the underlying is a debt instrument or payment leg, shall be the delta equivalent effective notional value of the relevant financial instrument or payment leg multiplied by the modified duration of the relevant debt instrument or payment leg,

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

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

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

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

where:

- p_{ref}** is the relevant price of the underlying instrument, expressed in the reference currency
- v** is the relevant value of the financial instrument, that is, in the case of an option contract, the option price, and in the case of a transaction with a linear risk profile, the value of the underlying instrument itself
- p** is the price of the underlying instrument, expressed in the same currency as "v"

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

Effective notional value multiplied by the modified duration, or

Delta equivalent in notional value multiplied by the modified duration

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

where:

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

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

r is the relevant interest level

(c) *Matters relating to hedging sets*

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

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

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

- (B) the bank shall assign interest rate positions arising from money deposits received from a counterparty as collateral to the same hedging sets as interest rate risk positions from debt instruments of low specific risk;
- (C) in the case of any underlying debt instrument such as a floating rate note, or payment legs such as floating rate legs relating to interest swaps, in respect of which the interest rate is linked to a reference interest rate that represents a general market interest level such as a government bond yield, a money market rate or swap rate, the bank shall base the rate adjustment frequency on the length of the time interval up to the next re-adjustment of the reference interest rate. Otherwise, the remaining maturity shall be the remaining life of the underlying debt instrument or, in the case of any payment leg, the remaining life of the transaction;
- (D) there shall be one hedging set in respect of each relevant issuer of a reference debt instrument that underlies a credit-default swap;
- (E) there shall be one hedging set in respect of each relevant issuer of a debt instrument of high specific risk, that is, any debt instrument subject to a specific risk capital requirement of more than 1,6 per cent in terms of the relevant requirements relating to the standardised approach for market risk envisaged in regulation 28(4) read with the relevant requirements specified in regulation 28(7), or when deposits are placed as collateral with a counterparty with no debt obligations outstanding of low specific risk;
- (F) when a payment leg emulates a debt instrument of high specific risk, such as a total-return swap contract with one leg emulating a bond, there shall be one hedging set in respect of each relevant issuer of the said reference debt instrument provided that the reporting bank may assign risk positions that arise from debt instruments relating to a specific issuer or from reference debt instruments of the same issuer that are emulated by payment legs or that underlie a credit-default swap to the same hedging set,

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

- (i) the nature of the reference interest rate, that is, a sovereign rate or a rate other than a sovereign rate;
- (ii) the remaining maturity or rate adjustment frequency of the relevant instrument, that is, one year or less, more than one year to five years, and more than five years, as specified in table 19 below:

Table 19

Hedging sets for interest rate risk positions, per currency

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

- (ii) shall in the case of underlying financial instruments other than debt instruments, such as equity instruments, precious metals or commodities, assign the relevant instrument to the same hedging set only when the said instruments are identical or similar instruments, where similar instruments in the case of-
- (A) equity instruments mean instruments issued by the same issuer provided that the reporting bank shall treat an equity index as a separate issuer;
 - (B) precious metals mean instruments relating to the same metal provided that the reporting bank shall treat a precious metal index as a separate precious metal;
 - (C) commodities mean instruments relating to the same commodity provided that the reporting bank shall treat a commodity index as a separate commodity;
 - (D) electric power include delivery rights and obligations that relate to the same peak or off-peak load time interval within any relevant 24 hour interval.

(d) *Matters relating to credit conversion factors*

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

- (i) a net risk position arising from a debt instrument or reference debt instrument apply a credit conversion factor of-
 - (A) 0.6 percent when the risk position relates to a debt instrument or reference debt instrument of high specific risk;
 - (B) 0.3 percent when the risk position relates to a reference debt instrument that underlies a credit-default swap, which instrument is of low specific risk;

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

- (ii) underlying financial instruments other than debt instruments, and in respect of foreign exchange rates, apply the credit conversion factors specified in table 20 below:

Table 20

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

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

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

- (a) *Matters relating to the exposure amount or EAD, and matters related thereto*

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

- (i) shall calculate its counterparty credit exposure or EAD amount at the level of each relevant netting set and through the application of the formulae specified below, provided that-
- (A) the bank shall in no case capture the effect of a reduction of EAD due to a clause in a collateral agreement that requires receipt of collateral when counterparty credit quality deteriorates;
- (B) when the bank's internal model includes the effect of collateral on changes in the market value of the netting set, the bank shall jointly model collateral other than cash of the same currency as the exposure itself with the exposure in its EAD calculations for securities financing transactions;

- (C) when the bank is unable to jointly model any relevant eligible collateral with the exposure to recognise in its EAD calculations for OTC derivatives the effect of collateral, other than cash of the same currency as the exposure itself, the bank shall apply either haircuts that meet the standards of the financial collateral comprehensive approach specified in subregulation (9) of these Regulations with own haircut estimates or the standard haircuts specified in subregulation (9)(b)(xi);
- (D) when the bank identified specific wrong way risk in respect of a counterparty, the bank shall calculate its relevant counterparty credit exposure or EAD amount and any related amount of required capital and reserve funds in accordance with the relevant requirements specified in subparagraph (ii) below.

Exposure amount or EAD = $\alpha \times \text{EEPE}$

where:

EAD is the relevant exposure amount or exposure at default

α is an alpha factor, which alpha factor shall be equal to 1.4 if the bank complies with all the relevant qualitative requirements specified in regulations 39(8) to 39(12) of these Regulations, provided that-

- (i) based on the reporting bank's exposure to counterparty credit risk, the bank's backtesting results of its model, the bank's level of compliance with the qualitative requirements specified in regulations 39(8) to 39(12) of these Regulations, and the related risk factors, the Registrar may specify a higher alpha factor, which related risk factors may include low granularity of counterparties, high exposures to general wrong-way risk or high correlation of market values across counterparties;
- (ii) subject to the prior written approval of the Registrar and in accordance with the relevant requirements specified in paragraph (b) below, the bank may estimate its own alpha factor

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

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

where:

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

and

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

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

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

where:

current date shall be denoted by t_0

and

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

- (ii) shall in the case of an instrument where a connection exists between the counterparty and the underlying issuer, and for which specific wrong way risk has been identified, calculate its relevant counterparty credit exposure or EAD amount and any related required amount of capital and reserve funds in accordance with the relevant requirements specified in this subparagraph (ii), provided that-

- (A) when calculating its relevant required amount of capital and reserve funds for counterparty credit risk, the relevant aforesaid instrument in respect of which a connection exists between the counterparty and the underlying issuer shall be regarded as not being part of the same netting set as other transactions with that counterparty;
- (B) in the case of a single-name credit default swap, the exposure or EAD amount in respect of that swap counterparty shall be equal to the full expected loss in the remaining fair value of the underlying instruments assuming the underlying issuer is in liquidation;

The use of the full amount of expected loss in remaining fair value of the underlying instrument allows the bank to recognise, in respect of such swap, the market value that has already been lost and any expected recoveries.

Accordingly, for such swap transactions, a bank that adopted-

- (i) the standardised approach for the measurement of the bank's exposure to credit risk shall apply the relevant risk weight applicable to an unsecured transaction;
- (ii) the foundation or advanced IRB approach for the measurement of the bank's exposure to credit risk shall set LGD equal to 100 per cent.

Recoveries may be possible on the underlying instrument beneath such a swap. The relevant capital requirement for such underlying exposure shall be calculated without reduction for the swap that introduces wrong way risk. Normally this will result in the underlying exposure being risk weighted equivalent to an unsecured transaction, that is, assuming the underlying exposure is an unsecured credit exposure.

- (C) in the case of equity derivatives, bond options, securities financing transactions, etc., referencing a single company, EAD shall be equal to the value of the transaction under the assumption of a jump-to-default of the underlying security, provided that when this results in the re-use of possibly existing market risk calculations for IRC that already contain an LGD assumption, the LGD shall be set equal to 100 per cent;
- (iii) shall calculate an expected exposure amount or peak exposure amount based on a distribution of exposures that accounts for any non-normality in the said distribution of exposures, including any leptokurtosis, that is, fat tails;

- (iv) may, subject to the prior written approval of and such conditions as may be specified in writing by the Registrar, instead of calculating the exposure amount or EAD by multiplying effective expected positive exposure with the specified alpha factor specified in subparagraph (i) above, use a more conservative measure than effective expected positive exposure, such as a VaR model for counterparty exposure or another measure based on peak exposure instead of average exposure;
- (v) may in the calculation of its counterparty credit exposure or EAD apply any form of internal model, including a simulation model or analytical model, provided that-
 - (A) the said internal model adopted by the reporting bank shall specify the forecasting distribution for changes in the market value of a netting set attributable to changes in market variables such as interest rates or foreign exchange rates, which forecasting distribution for changes in the market value of a netting set may include eligible financial collateral specified in subregulation (9)(b)(iv), provided that the bank shall in respect of the said collateral comply with the relevant quantitative, qualitative and data requirements relating to the internal model method, specified in this subregulation (19);
 - (B) in respect of each relevant future date and based on the changes in the market variables, the model shall compute the bank's exposure to counterparty credit risk relating to a particular netting set;
 - (C) in the case of a counterparty subject to a margining agreement, the model may capture future movements in the value of collateral;
 - (D) to the extent that the reporting bank recognises collateral in the estimation of an exposure amount or EAD via current exposure, the bank shall not recognise the said benefit of collateral in its estimates of LGD, that is, the bank shall apply an LGD ratio of an otherwise similar uncollateralised facility when the bank recognises the value of collateral obtained in the estimation of an exposure amount or EAD;
 - (E) the bank shall at all times comply with the relevant requirements specified in paragraph (f) below.
- (vi) shall determine the effective maturity relating to a particular netting set in accordance with the relevant requirements specified in paragraph (c) below;

- (vii) shall not in the calculation of its exposure amount or EAD apply any cross-product netting otherwise than in accordance with the relevant requirements specified in paragraph (d) below.
- (viii) shall in respect of any netting set subject to margining calculate the relevant exposure in accordance with the relevant requirements specified in paragraph (e) below;
- (ix) may in respect of any OTC derivative transaction or contract subject to novation or a legally enforceable bilateral netting agreement recognize the effect of the said novation or netting agreement in accordance with the relevant requirements specified in subregulation (17) above.

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

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

- (i) the alpha factor shall in no case be less than 1.2, that is, any internally estimated alpha factor shall be subject to an absolute minimum of 1.2;
- (ii) alpha shall constitute a ratio, calculated as-
 - (A) economic capital derived from a joint simulation of all relevant market and credit risk factors relating to counterparty exposure across all relevant counterparties, as the numerator; **divided by**
 - (B) economic capital based on expected positive exposure, as the denominator,
- (iii) any internal estimate of alpha shall take into account the granularity of the relevant exposures;
- (iv) the bank-
 - (A) shall comply with all relevant operating requirements relating to internal estimates of expected positive exposure specified in paragraph (f) below;
 - (B) shall demonstrate to the satisfaction of the Registrar that its internal estimate of alpha captures in the numerator the material sources of stochastic dependency of distributions of market values of transactions or portfolios of transactions across counterparties, such as the correlation of defaults across counterparties and between market risk and default;

- (C) shall in respect of the denominator, apply expected positive exposure in a manner similar to a fixed outstanding loan amount;
 - (D) shall ensure that the numerator and denominator of alpha are calculated in a consistent manner with respect to the modelling methodology, parameter specifications and portfolio composition;
 - (E) shall ensure that the approach applied by the bank in order to determine alpha is based on the internal economic capital approach adopted by the bank, which approach-
 - (i) shall be duly documented;
 - (ii) shall be subject to independent validation.
 - (F) shall frequently review its internal estimates of alpha, but in no case less frequently than once a quarter or more frequently when the composition of the relevant portfolio varies over time;
 - (G) shall continuously assess its model risk;
- (v) when appropriate, any volatility and correlation of market risk factors used in the joint simulation of market risk and credit risk shall be conditioned on the credit risk factor in order to reflect potential increases in volatility or correlation in an economic downturn situation.

(c) *Matters relating to effective maturity*

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

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

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

where:

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

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

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

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

- (i) A bank that obtained the approval of the Registrar to adopt the internal model method for the measurement of the bank's exposure to counterparty credit risk may include in a particular netting set relating to a particular counterparty any exposure arising from a securities financing transaction or both a securities financing transaction and an OTC derivative contract, provided that-
 - (A) in all cases the bank shall have in place a legally sound bilateral netting agreement, which agreement shall comply with the relevant requirements and criteria specified in subparagraph (ii) below;
 - (B) at all times, the bank shall comply with such procedural requirements or additional requirements as may be specified in writing by the Registrar.
- (ii) Legal and operational criteria

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

- (A) the bank shall have in place written and reasoned legal opinion that conclude with a high degree of certainty that in the event of legal challenge the relevant courts or administrative authorities would find the bank's exposure in terms of the said cross-product netting agreement to be the cross-product net amount under the laws of all relevant jurisdictions-
- (i) which legal opinions-
 - (aa) as a minimum, shall address the validity and enforceability of the said cross-product netting agreement under its terms and the impact of the cross-product netting agreement on the material provisions of any included bilateral master agreement;
 - (bb) shall generally be recognised in all relevant jurisdictions or communities.
 - (ii) which laws of all relevant jurisdictions include-
 - (aa) the law of the jurisdiction in which the counterparty is chartered or incorporated and if the foreign branch of a counterparty is involved, the law of the jurisdiction in which the branch is located;
 - (bb) the law that governs the relevant individual transactions;
 - (cc) the law that governs any contract or agreement necessary to effect the netting.
- (B) the bank shall have in place robust internal procedures to verify, prior to including a transaction in a netting set, that the transaction is covered by legal opinions that comply with the aforesaid criteria;
- (C) the bank shall regularly update all relevant legal opinions in order to ensure continued enforceability of the cross-product netting agreement in light of any possible changes in relevant law;
- (D) the cross-product netting agreement shall not contain any walk-away clause, that is, any provision that permits a non-defaulting counterparty to make only limited payments or no payment at all to the estate of the person that defaulted, even when the defaulting person is a net creditor;

- (E) each relevant bilateral master agreement and transaction included in across-product netting agreement shall continuously comply with any relevant legal requirement specified in these Regulations that may have an impact on the legal recognition or enforceability of the said bilateral agreement, contract or transaction;
 - (F) the reporting bank shall duly maintain record of all relevant and required documentation;
 - (G) the reporting bank shall aggregate the relevant credit risk amounts relating to each relevant counterparty in order to obtain the single legal exposure amount across products and transactions covered by the cross-product netting agreement, which aggregated amount, amongst other things, shall form part of the bank's risk management processes relating to credit risk, credit limits and economic capital;
 - (H) the reporting bank shall demonstrate to the satisfaction of the Registrar that the bank effectively integrates the risk-mitigating effects of cross-product netting into its risk management and other information technology systems.
- (e) *Matters relating to margin agreements*
- (i) Subject to the provisions of subparagraphs (ii) and (iii) below, when-
 - (A) a particular netting set is subject to a margin agreement and the reporting bank's internal model is able to capture the effect of margining in its estimation of expected exposure, the bank may apply for the approval of the Registrar to use the said estimated expected exposure amount directly in the formula relating to effective expected exposure, specified in paragraph (a) above;
 - (B) a particular counterparty exposure is subject to a margin agreement and the reporting bank's model is able to calculate expected positive exposure without margin agreements but the model is not sufficiently sophisticated to calculate expected positive exposure with margin agreements, the effective expected positive exposure of a counterparty that is subject to a margin agreement, re-margining and daily mark-to-market as envisaged in subparagraph (ii) below, shall be deemed to be equal to the lesser of-
 - (i) effective expected positive exposure without any held or posted margining collateral, plus any collateral that has been posted to the counterparty independent of the daily valuation and margining process or current exposure, that is, initial margin or independent amount; or

- (ii) an add-on that reflects the potential increase in exposure over the margin period of risk plus the larger of-
 - (aa) the current exposure net of and including all collateral currently held or posted, excluding any collateral called or in dispute; or
 - (bb) the largest net exposure, including all collateral held or posted under the margin agreement that would not trigger a collateral call, which amount shall reflect all relevant thresholds, minimum transfer amounts, independent amounts and initial margins under the margin agreement,

which add-on shall be calculated as:

$$E[\max(\Delta\text{MtM}, 0)]$$

where:

E[...] is the expectation, that is, the average over scenarios

ΔMtM is the possible change of the mark-to-market value of the transactions during the margin period of risk

Provided that-

- (i) changes in the value of collateral shall be reflected using the standard haircut method or own estimates of haircut method envisaged in subregulation (9)(b) of these Regulations, but no collateral payments are assumed during the margin period of risk;
- (ii) the margin period of risk shall be subject to the relevant floor specified in subparagraph (ii) below;
- (iii) through backtesting, the bank shall test whether realised exposures are consistent with the shortcut method prediction over all relevant margin periods within one year envisaged in this item (B), provided that when backtesting indicates that effective EPE is underestimated, the bank shall take appropriate action to make the method more conservative, such as, for example, scaling up risk factor moves;

- (iv) when some of the trades in the netting set have a maturity of less than one year, and the netting set has higher risk factor sensitivities without these trades, the bank shall take this fact into account;
- (ii) In the case of transactions subject to daily re-margining and mark-to-market valuation, when the bank calculates its exposure or EAD amount subject to margin agreements, the bank shall apply a floor margin period of risk of five business days for netting sets consisting only of repo-style transactions, and a floor margin period of risk of 10 business days for all other netting sets, provided that-
 - (A) in respect of all netting sets where the number of trades exceeds 5,000 at any point during a quarter, the bank shall apply a floor margin period of risk of 20 business days for the following quarter;
 - (B) in respect of netting sets containing one or more trades involving either illiquid collateral, or an OTC derivative that cannot be easily replaced, the bank shall apply a floor margin period of risk of 20 business days.

For purposes of this paragraph (e), “illiquid collateral” and “OTC derivatives that cannot be easily replaced” shall be determined in the context of stressed market conditions and shall be characterised by the absence of continuously active markets where a counterparty would, within two or fewer days, obtain multiple price quotations that would not move the market or represent a price reflecting a market discount in the case of collateral, or premium in the case of an OTC derivative.

Examples of situations where trades shall be deemed illiquid include, but are not limited to, trades that are not marked daily and trades that are subject to specific accounting treatment for valuation purposes, such as OTC derivatives or repo-style transactions referencing securities of which the fair value is determined by models with inputs that are not observed in the market.

- (C) in all cases the bank shall duly consider whether trades or securities held as collateral are concentrated in a particular counterparty, and if that counterparty suddenly exited the market, whether the bank would be able to replace its trades;
- (D) when the bank experienced more than two margin call disputes on a particular netting set during the preceding two quarters, and the disputes lasted longer than the applicable margin period of risk, before consideration of this provision, the bank shall in respect of the following two quarters apply a margin period of risk at least double the floor specified hereinbefore for that netting set;

- (E) in the case of re-margining with a periodicity of N-days, irrespective of the shortcut method or full internal model method envisaged hereinbefore, the bank shall apply a margin period of risk of at least the aforesaid specified floor plus the N days minus one day, that is:

$$\text{Margin Period of Risk} = F + N - 1.$$

where:

F is the floor number of days specified hereinbefore

N is the said periodicity of N-days for re-margining

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

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

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

- (i) the qualitative requirements specified in regulation 39(8), which qualitative requirements include matters relating to-
- (A) the bank's EPE model;
 - (B) board and senior management oversight and involvement;
 - (C) an independent risk control function or unit; and
 - (D) backtesting.
- (ii) the operational requirements specified in regulations 39(9) to 39(12), which operational requirements include matters relating to-
- (A) the use test;
 - (B) stress testing;
 - (C) the identification of wrong-way risk; and
 - (D) internal controls and model integrity.

(g) Matters related to minimum required capital and reserve funds for default risk

In order to determine the minimum required amount of capital and reserve funds for default risk in respect of a bank's exposure to counterparty credit risk, a bank that obtained the approval of the Registrar to adopt the internal model method shall use the greater of-

- (i) the portfolio-level capital requirement, excluding the requirement related to credit valuation adjustments (CVA) envisaged in paragraph (h) below, based on Effective EPE using current market data; and
- (ii) the portfolio-level capital requirement based on Effective EPE using a stress calibration, provided that the stress calibration shall be a single consistent stress calibration for the whole portfolio of relevant counterparties,

Provided that the greater of Effective EPE using current market data and the stress calibration shall be applied on a total portfolio level and not on a counterparty by counterparty basis.

(h) Matters related to minimum required capital and reserve funds for credit valuation adjustments (CVA) for a bank that obtained approval for the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of the bank's exposure to market risk

- (i) A bank that obtained the approval of the Registrar for the use of the internal model method for the measurement of the bank's exposure to counterparty credit risk and the internal models approach for the measurement of specific risk as part of the bank's exposure to market risk shall calculate the relevant additional required amount of capital and reserve funds by modelling the impact of changes in the counterparties' credit spreads on the CVAs of all relevant OTC derivative counterparties, together with all relevant eligible CVA hedges, using the bank's value-at-risk (VaR) model for bonds, which VaR model is restricted to changes in the counterparties' credit spreads and does not model the sensitivity of CVA to changes in other market factors, such as changes in the value of the reference asset, commodity, currency or interest rate of a derivative, provided that-

- (A) regardless of its accounting valuation method used to determine CVA, the additional required amount of capital for CVA shall for each relevant counterparty be based on the formula specified below, in which formula the first factor within the sum represents an approximation of the market implied marginal probability of a default occurring between times t_{i-1} and t_i , acknowledging that market implied default probability or risk neutral probability represents the market price of buying protection against a default, which may differ from the actual probability of a default.

$$CVA = (LGD_{MKT}) \cdot \sum_{i=1}^T \text{Max} \left(0; \exp \left(-\frac{s_{i-1} \cdot t_{i-1}}{LGD_{MKT}} \right) - \exp \left(-\frac{s_i \cdot t_i}{LGD_{MKT}} \right) \right) \cdot \left(\frac{EE_{i-1} \cdot D_{i-1} + EE_i \cdot D_i}{2} \right)$$

where:

t_i is the time of the i-th revaluation time bucket, starting from t₀=0

t_T is the longest contractual maturity across the netting sets with the counterparty

s_i is the credit spread of the counterparty at tenor t_i, used to calculate the CVA of the counterparty, provided that the bank shall use-

- (i) the CDS spread of the relevant counterparty whenever it is available; or
- (ii) an appropriate proxy spread that is based on the rating, industry and region of the counterparty when the relevant CDS spread is not available

LGD_{MKT} is the loss given default of the counterparty, which shall be based on-

- (i) the spread of a market instrument of the relevant counterparty; or
- (ii) the appropriate proxy spread that is based on the rating, industry and region of the counterparty when a counterparty instrument is not available

The aforesaid LGD_{MKT} is different from the LGD used to determine the IRB and CCR default risk requirement, as this LGD_{MKT} is a market assessment rather than an internal estimate

EE_i is the expected exposure to the counterparty at revaluation time t_i, as defined in paragraph (a) above, where exposures of different netting sets for such counterparty are added, and where the longest maturity of each netting set is given by the longest contractual maturity inside the netting set, provided that a bank that adopted the short-cut method envisaged in paragraph (e) above for margined trades shall apply the relevant requirements and formula specified in subparagraph (ii) below

D_i is the default risk-free discount factor at time t_i, where D₀ = 1

- (ii) When a bank's approved VaR model-
- (A) is based on credit spread sensitivities for specific tenors, the bank shall base each relevant credit spread sensitivity on the formula specified below:

$$\text{Regulatory CS01}_i = 0.0001 \cdot t_i \cdot \exp\left(-\frac{s_i \cdot t_i}{\text{LGD}_{\text{MKT}}}\right) \cdot \left(\frac{\text{EE}_{i-1} \cdot D_{i-1} - \text{EE}_{i+1} \cdot D_{i+1}}{2}\right)$$

This derivation assumes positive marginal default probabilities before and after time bucket t_i and is valid for $i < T$.

For the final time bucket $i = T$, the corresponding formula is:

$$\text{Regulatory CS01}_T = 0.0001 \cdot t_T \cdot \exp\left(-\frac{s_T \cdot t_T}{\text{LGD}_{\text{MKT}}}\right) \cdot \left(\frac{\text{EE}_{T-1} \cdot D_{T-1} + \text{EE}_T \cdot D_T}{2}\right)$$

- (B) uses credit spread sensitivities to parallel shifts in credit spreads, which shall for purposes of these Regulations be referred to as regulatory CS01, the bank shall use the formula specified below, which derivation assumes positive marginal default probabilities;

$$\text{Regulatory CS01} = 0.0001 \cdot \sum_{i=1}^T \left(t_i \cdot \exp\left(-\frac{s_i \cdot t_i}{\text{LGD}_{\text{MKT}}}\right) - t_{i-1} \cdot \exp\left(-\frac{s_{i-1} \cdot t_{i-1}}{\text{LGD}_{\text{MKT}}}\right) \right) \cdot \left(\frac{\text{EE}_{i-1} \cdot D_{i-1} + \text{EE}_i \cdot D_i}{2}\right)$$

- (iii) Any hedge used and managed by the bank to mitigate its exposure to CVA risk, shall be included in the bank's calculation of the relevant required amount of capital for CVA risk in accordance with the relevant requirements specified in subregulation (15)(b).

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

- (a) A bank shall in respect of-
- (i) any delivery-versus-payment transaction, that is, any transaction settled through a delivery-versus-payment system-
- (A) which system makes provision for the simultaneous exchanges of securities for cash, including payment versus payment;
- (B) which transaction exposes the reporting bank to a risk of loss equal to the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price, that is, the positive current exposure amount;

- (C) which transaction may include-
 - (i) the settlement of commodities;
 - (ii) the settlement of foreign exchange;
 - (iii) the settlement of securities;
 - (iv) settlement through a licensed exchange, clearing house or central counterparty, and which transactions are subject to daily mark-to-market, payment of daily variation margins and involve a mismatched trade;
- (ii) any non-delivery-versus-payment or free-delivery transaction, that is, any transaction in respect of which cash is paid out without receipt of the contracted receivable, which receivable may include a security, foreign currency, gold or a commodity, or conversely, any transaction in respect of which deliverables were delivered without receipt of the contracted cash payment, which transaction exposes the reporting bank to a risk of loss equal to the full amount of the cash amount paid or deliverables delivered,

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

- (A) the provisions of this subregulation (20) shall not apply-
 - (i) to any repurchase agreement, resale agreement, securities lending transaction or securities borrowing transaction that has failed to settle,
 - (ii) to any forward contract or one-way cash payment due in respect of an OTC derivative transaction,

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

- (B) in the case of a system wide failure of a settlement or clearing system, or a central counterparty, the Registrar may, subject to such conditions as may be specified in writing by the Registrar, exempt a bank from the requirements specified in paragraph (b) below;
- (C) a failure of a counterparty to settle a trade as envisaged in this subregulation (20) will not necessarily fall within the ambit of default for the purpose of measuring the reporting bank's exposure to credit risk as envisaged in this regulation 23.

(b) Minimum required amount of capital and reserve funds

A bank shall in the case of-

- (i) any delivery-versus-payment transaction in respect of which payment has not taken place in the period of five business days after the contracted settlement date calculate its required amount of capital and reserve funds by multiplying the relevant positive current exposure amount with the relevant percentage specified in table 21 below.

Table 21

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

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

- (A) the IRB approach shall calculate its risk-weighted exposure and related required amount of capital and reserve funds in accordance with the relevant formulae and requirements specified in subregulations (11) and (13);
- (B) the standardised approach shall calculate its risk-weighted exposure and related required amount of capital and reserve funds in accordance with the relevant requirements specified in subregulations (6) and (8),

provided that-

- (i) when the relevant exposure amount is not material, the reporting bank may choose to apply a risk weight of 100 per cent to the said exposure amount;
- (ii) when five business days have lapsed following the second contractual payment or delivery date and the second leg has not effectively taken place, the bank that made the first payment leg shall assign to the full amount of value transferred plus any relevant replacement cost a risk weight of 1 250 per cent, until the said second payment or delivery leg is effectively made;

- (iii) when determining a risk weight in respect of any failed free-delivery exposure, a bank that adopted-
 - (aa) the IRB approach for the measurement of the bank's exposure to credit risk may in respect of a counterparty in respect of which the bank has no other banking book exposure assign a PD ratio, based on the relevant counterparty's external rating;
 - (bb) the advanced IRB approach for the measurement of the bank's exposure to credit risk may apply an LGD ratio of 45 per cent, in lieu of estimating an LGD ratio, provided that the bank shall apply the said ratio to all failed trade exposures; or
 - (cc) the IRB approach for the measurement of the bank's exposure to credit risk may apply the risk weights specified in the standardised approach, in subregulation (8), or a risk weight of 100 per cent.

(21) EXPECTED LOSS

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

- (a) shall exclude any expected losses in respect of-
 - (i) the bank's equity exposures subject to the PD/LGD approach prescribed in regulation 31(6)(c);
 - (ii) credit exposures resulting from a securitisation scheme;
- (b) shall be determined by multiplying the expected loss ratio relating to a particular credit exposure with the relevant EAD amount;
- (c) shall in the case of-
 - (i) credit exposures relating to corporate institutions other than specialised lending mapped into the standardised risk grades specified in subregulation (11)(d)(iii)(C), sovereigns, banks and the bank's retail portfolios, which exposures-
 - (A) are not in default, and
 - (B) do not constitute protected exposures or eligible exposures subject to the double default approach,
 be calculated by multiplying the exposure's relevant PD ratio with its LGD ratio;

- (ii) credit exposures relating to corporate institutions, sovereigns, banks and the bank's retail portfolios, which exposures are in default, be calculated by estimating the expected loss amount through the application of the relevant LGD ratio;
- (iii) exposures relating to specialised lending mapped into the standardised risk grades specified in subregulation (11)(d)(iii)(C), excluding exposures relating to high-volatility commercial real estate, be calculated by multiplying the relevant EAD amount with the minimum required capital adequacy ratio prescribed in accordance with the relevant provisions of regulation 38(8)(b), and the risk weights specified in table 22 below:

Table 22

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

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

Table 23

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

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

(22) CREDIT IMPAIRMENT

- (a) As a minimum, every bank-
 - (i) shall have in place a sufficiently robust system for the calculation of credit impairment in accordance with the relevant requirements specified in Financial Reporting Standards issued from time to time;
 - (ii) shall have in place sufficiently robust processes and board-approved policies, and sufficient dedicated resources, to ensure-
 - (A) the early identification of assets of deteriorating credit quality;
 - (B) ongoing oversight of problem assets or credit exposure;

- (C) that the bank periodically reviews and assesses-
 - (i) all relevant problem assets at an individual level, or a portfolio level in the case of credit exposures with homogenous characteristics;
 - (ii) the adequacy of the bank's asset classification, provisioning and write-offs;
 - (iii) the value, adequacy and enforceability of all relevant risk mitigation instruments or contracts, including guarantees, credit-derivative instruments or other forms of collateral or credit protection;
- (D) that all relevant off-balance-sheet exposures are duly considered;
- (E) that the bank's credit impairments and write-offs reflect realistic repayment and recovery expectations;
- (F) ongoing collection of past due obligations;
- (G) that the bank's board of directors receives timely and appropriate information on the condition of the bank's relevant credit portfolios, including the classification of credit exposures, the level of provisioning and major problem assets;
- (iii) shall base its decisions in respect of credit impairment primarily on an assessment of the recoverability of individual on-balance-sheet and off-balance-sheet items or portfolios of items with similar characteristics, such as credit card receivables;
- (iv) shall identify and recognise impairments in on-balance-sheet and off-balance-sheet items when it is probable that the bank will not be able to collect, or there is no longer a reasonable assurance that the bank will collect, all amounts due according to the contractual terms of the written agreement.
- (b) When the Registrar is of the opinion that the policies and procedures applied by a bank during its assessment of asset quality, risk mitigation and related credit impairment are inadequate, the Registrar may require the relevant bank to raise a specified credit impairment amount against potential credit losses, for example, by requiring in writing the said bank to transfer a specified amount from retained earnings or distributable reserves to a non-distributable reserve.

(c) *Standardised approach*

A bank that-

- (i) adopted the standardised approach for the measurement of a portion of its exposure to credit risk shall determine the relevant portion of any general allowance for credit impairment or general loan-loss reserve that relate to the credit exposures measured in terms of the standardised approach, that is, the bank shall allocate its general allowance for credit impairment or general loan-loss reserve on a pro-rata basis based on the proportion of risk-weighted credit exposure subject to the standardised approach;
- (ii) makes exclusive use of the standardised approach to determine its risk-weighted credit exposure shall attribute the relevant total amount of general allowance for credit impairment or general loan-loss reserve raised to the standardised approach;
- (iii) adopted the standardised approach for the measurement of its exposure to credit risk may include in tier 2 unimpaired reserve funds, up to a maximum amount of 1.25 per cent of the bank's relevant risk-weighted credit exposure, the relevant gross amount of general allowance for credit impairment or general loan-loss reserve.

(d) *IRB approach*

(i) A bank that-

- (A) makes exclusive use of the IRB approach to determine its risk-weighted credit exposure shall attribute to eligible provisions the aggregate amount of any relevant general allowance or general loan-loss reserve raised for credit impairment;
- (B) adopted the IRB approach for the measurement of the bank's exposure to credit risk shall deduct from its eligible provisions the aggregate amount relating to expected loss calculated in accordance with the relevant requirements specified in subregulation (21) above, provided that when the aggregate amount relating to expected losses-
 - (i) exceeds the bank's eligible provisions, the bank shall in accordance with the relevant requirements specified in regulation 38(5) of these Regulations deduct from its capital and reserve funds the said excess amount;
 - (ii) is less than the bank's eligible provisions, the bank may include in tier 2 unimpaired reserve funds, in item 85 of the form BA 700, up to a maximum amount of 0.6 per cent of the bank's relevant risk weighted exposure amount, or such a lower percentage as may be specified in writing by the Registrar, the relevant surplus amount;

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

(23) Instructions relating to the completion of the monthly form BA 200 are furnished with reference to the headings and item descriptions of specified columns and line items appearing on form BA 200, as follows:

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

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

Columns relating to summary of on-balance-sheet and off-balance-sheet credit exposure: standardised approach, items 14 to 34

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

Items relating to reconciliation of credit impairment: standardised approach

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

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

Columns relating to credit capital requirements based on risk weights: standardised approach, items 47 to 69

Column number	Description
1	<p>Total gross credit exposure</p> <p>This column shall reflect the aggregate gross credit exposure amount relating to the reporting bank's-</p> <ul style="list-style-type: none"> (a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment; (b) off-balance-sheet exposure, including amounts in respect of irrevocable commitments, prior to the application of any credit-conversion factor; (c) exposure in respect of any repurchase or resale agreement; (d) exposure in respect of derivative instruments, calculated in accordance with the relevant requirements specified in subregulations (15) to (19).
2	<p>Specific credit impairment</p> <p>This column shall reflect the aggregate amount relating to any specific credit impairment in respect of the exposure amount reported in column 1.</p>
3	<p>Exposure amount post credit risk mitigation (CRM) and specific credit impairment</p> <p>This column shall reflect the reporting bank's relevant adjusted exposure amount, that is, the relevant amount net of any credit risk mitigation and specific credit impairment, calculated in accordance with the relevant requirements specified in these Regulations.</p>
4 to 10	<p>Breakdown of off-balance-sheet exposure based on credit conversion factors (CCF)</p> <p>Based on the relevant credit conversion factors specified in subregulation (6)(g), these columns shall reflect the appropriate breakdown of the reporting bank's adjusted exposure, that is, amounts included in column 3, relating to off-balance-sheet exposure.</p>

Columns relating to counterparty credit risk based on specified risk weights: standardised approach, items 80 to 86

Column number	Description
1	<p>Total notional principal amount</p> <p>This column shall reflect the relevant effective nominal or notional amounts underlying the reported OTC derivative instruments or contracts.</p>
2	<p>Gross replacement cost</p> <p>This column shall reflect the respective gross positive fair value amounts of the reported OTC derivative instruments, before the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulation 23(7)(a), 23(9)(a), 23(17) or 23(18), or any relevant collateral, has been taken into consideration.</p>
3	<p>Net replacement cost</p> <p>This column shall reflect the respective gross positive fair value amounts of the reported OTC derivative instruments, after the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulations 23(7)(a), 23(9)(a), 23(17) or 23(18), but before the effect of any relevant collateral, has been taken into consideration.</p>
4	<p>Gross potential future exposure add-on</p> <p>Based on the relevant OTC derivative instruments' or contracts' notional principal amounts, this column shall reflect the potential future exposure add-on amount, before the impact of any netting or collateral has been taken into consideration.</p>
5	<p>Net potential future exposure add-on</p> <p>Based on the relevant OTC derivative instruments' or contracts' notional principal amounts, this column shall reflect the adjusted add-on amount for all relevant contracts subject to eligible bilateral netting agreements or contracts.</p>
6	<p>Collateral value after haircut</p> <p>This column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of OTC derivative instruments, after the effect of any relevant haircut has been taken into consideration.</p>
7	<p>Credit exposure value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of all relevant credit exposures arising from securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>

Columns relating to counterparty credit risk based on specified risk weights: standardised approach, items 80 to 86

Column number	Description
8	<p>Collateral value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of all relevant securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
9	<p>Netting benefit</p> <p>This column shall reflect the aggregate amount of all relevant netting benefits arising from eligible master netting agreements taken into consideration in the calculation of the reporting bank's relevant adjusted credit exposure amount arising from securities financing transactions.</p>
10	<p>Current market value of portfolio</p> <p>In respect of all relevant OTC derivative instruments, this column shall reflect the relevant current market value of the relevant portfolio of transactions within the netting set with a particular counterparty, before the impact of any collateral has been taken into consideration.</p>
11	<p>Current market value of collateral</p> <p>This column shall reflect the relevant market value of the collateral assigned to the relevant netting set in respect of OTC derivative instruments.</p>
12	<p>Risk position from transaction</p> <p>This column shall reflect the relevant required risk positions arising from the relevant hedging sets related to OTC derivative instruments.</p>
13	<p>Risk position from collateral</p> <p>This column shall reflect the relevant required risk positions from collateral with respect to the relevant hedging sets related to OTC derivative instruments.</p>
14	<p>Net absolute risk position after the application of CCF's</p> <p>In respect of all relevant OTC derivative instruments, this column shall reflect the absolute aggregate amount of the required risk positions related to the relevant hedging sets, after the application of any relevant credit conversion factor.</p>

Columns relating to counterparty credit risk based on specified risk weights: standardised approach, items 80 to 86

Column number	Description
15	<p>Credit exposure value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of all relevant credit exposures related to securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
16	<p>Collateral value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of all relevant securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
17	<p>Netting benefits</p> <p>This column shall reflect the aggregate amount of all relevant netting benefits arising from eligible master netting agreements taken into consideration in the calculation of the reporting bank's relevant adjusted credit exposure amount related to securities financing transactions.</p>
18	<p>Effective expected positive exposure</p> <p>Based on the relevant requirements specified in subregulation (19)(a), this column shall reflect the relevant required effective expected positive exposure amount related to OTC derivative instruments.</p>
19	<p>Stressed effective expected positive exposure</p> <p>Based on the relevant requirements specified in, amongst others, subregulations (15) and (19) of these Regulations, this column shall reflect the relevant required effective expected positive exposure amount related to OTC derivative instruments in terms of a stressed scenario.</p>
20	<p>Effective expected positive exposure</p> <p>Based on the relevant requirements specified in subregulation (19)(a), this column shall reflect the relevant required effective expected positive exposure amount related to securities financing transactions.</p>
21	<p>Stressed effective expected positive exposure</p> <p>Based on the relevant requirements specified in, amongst others, subregulations (15) and (19) of these Regulations, this column shall reflect the relevant required effective expected positive exposure amount related to securities financing transactions in terms of a stressed scenario.</p>

Columns relating to counterparty credit risk based on specified risk weights: standardised approach, items 80 to 86

Column number	Description
22	<p>Adjusted exposure amount - OTC derivative instruments</p> <p>This column shall reflect the relevant required exposure or EAD amount for OTC derivative instruments, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
23	<p>Adjusted exposure amount - securities financing transactions</p> <p>This column shall reflect the relevant required exposure or EAD amount for securities financing transactions, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
24	<p>Default risk - OTC derivative instruments</p> <p>This column shall reflect the relevant required risk weighted exposure amount for OTC derivative instruments, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
25	<p>Default risk - securities financing transactions</p> <p>This column shall reflect the relevant required risk weighted exposure amount for securities financing transactions, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
26	<p>Standardised approach for CVA</p> <p>Based on the relevant requirements specified in subregulation (15), this column shall reflect the relevant required risk weighted exposure amount for CVA risk, calculated in terms of the standardised approach, provided that, when required by the Registrar, this column shall include any relevant amount related to CVA loss exposures arising from securities financing transactions.</p>

Columns relating to counterparty credit risk based on specified risk weights: standardised approach, items 80 to 86

Column number	Description
27	<p>Advanced approach for CVA</p> <p>Based on the relevant requirements specified in subregulation (19), this column shall reflect the relevant required risk weighted exposure amount for CVA risk, calculated in terms of the advanced approach, provided that, when required by the Registrar, this column shall include any relevant amount related to CVA loss exposures arising from securities financing transactions.</p>
28	<p>Total risk weighted exposure</p> <p>This column shall reflect the relevant required aggregate amount of risk weighted exposure for counterparty credit risk, including any relevant amount of risk weighted exposure-</p> <ul style="list-style-type: none"> (a) arising from OTC derivative instruments and securities financing transactions; (b) calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method; (c) related to CVA risk; (d) related to central counterparties.

Items relating to counterparty credit risk analysis of netting: standardised approach

Item number	Description
87	<p>Replacement cost</p> <p>This item shall reflect the relevant required netting benefit taken into consideration for calculating the relevant net replacement cost in respect of OTC derivative instruments.</p>
88	<p>Potential future exposure add-on</p> <p>This item shall reflect the relevant required netting benefit taken into consideration for calculating the relevant net potential future exposure add-on amount in respect of OTC derivative instruments.</p>
89	<p>Securities financing transactions</p> <p>This items shall reflect the relevant required netting benefit taken into consideration in respect of securities financing transactions.</p>
90	<p>Cross-product netting</p> <p>This item shall reflect the relevant required cross-product netting amount taken into consideration by a bank that obtained the approval of the Registrar to use the internal model method for counterparty credit risk.</p>

Columns relating to counterparty credit risk analysis of standardised CVA risk weighted exposure: standardised approach, items 92 to 99

Column number	Description
2	<p>EAD</p> <p>This column shall reflect the relevant exposure or EAD amount, calculated in terms of the relevant requirements specified in these Regulations, after the application of any relevant discount factor.</p>
3	<p>Single-name CDS</p> <p>This column shall reflect the relevant required notional amount, after the application of any relevant discount factor, of a purchased single-name CDS, single-name contingent CDS and/or other eligible instrument used to hedge CVA risk.</p>
4	<p>Index CDS</p> <p>This column shall reflect the relevant required notional amount, after the application of any relevant discount factor, of an eligible purchased index CDS used to hedge CVA risk.</p>
5	<p>Standardised CVA risk weighted exposure</p> <p>This column shall reflect the relevant required risk weighted exposure amount related to CVA risk, calculated in terms of the the relevant requirements specified in these Regulations for the standardised approach.</p>

Columns relating to analysis of central counterparty trade exposure: standardised approach, items 100 to 103

Column number	Description
1	<p>Trade exposure</p> <p>This column shall reflect the current and potential future exposure amount of a clearing member or a client to a central counterparty arising from any relevant OTC derivative instrument, exchange traded derivative transaction or securities financing transaction, calculated in accordance with the relevant requirements specified in subregulation (15) read with the relevant requirements respectively specified in subregulations (17) to (19) of these Regulations for the current exposure method, the standardised method or the internal model method.</p>
3	<p>Risk weighted exposure</p> <p>This column shall reflect the relevant required risk weighted exposure amount of a clearing member or a client to a central counterparty arising from any relevant OTC derivative instrument, exchange traded derivative transaction or securities financing transaction, calculated in accordance with the relevant requirements specified in subregulation (15) read with the relevant requirements respectively specified in subregulations (17) to (19) of these Regulations for the current exposure method, the standardised method or the internal model method.</p>
4	<p>Calculated in terms of the standardised approach</p> <p>This column shall reflect the relevant required risk weighted exposure amount calculated in terms of the standardised approach for the measurements of the bank's exposure to credit risk with regards to trade exposures to non-qualifying central counterparties.</p>

Columns relating to analysis of qualifying central counterparty default fund guarantees: standardised approach, items 104 and 105

Column number	Description
1	<p>Initial margin collateral posted with a central counterparty</p> <p>Based on the relevant requirements specified in these Regulations, this column shall reflect the relevant aggregate amount related to a clearing member's or client's funded collateral posted or provided to a central counterparty to mitigate the potential future exposure of the central counterparty to the clearing member arising from the possible future change in the value of their transactions, provided that, in accordance with the relevant requirements specified in these Regulations, initial margin shall exclude any relevant amount related to contributions to a central counterparty in terms of any mutualised loss sharing arrangement, that is, when a central counterparty uses initial margin to mutualise losses among the clearing members, the relevant amount shall be treated as a default fund exposure.</p>

Columns relating to analysis of qualifying central counterparty default fund guarantees: standardised approach, items 104 and 105

Column number	Description
2	<p>Prefunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to any prefunded default fund contributions made by the clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.</p>
3	<p>Trade exposure</p> <p>This column shall reflect the relevant aggregate amount related to the current and potential future exposure of a clearing member or a client to a central counterparty arising from OTC derivatives, exchange traded derivatives transactions or securities financing transactions, calculated in accordance with the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method.</p>
4	<p>Risk weighted exposure</p> <p>Based on the relevant requirements specified in subregulation (15)(d), this column shall reflect the relevant risk weighted exposure amount calculated in terms of either method 1 or method 2.</p>

Columns relating to analysis of non-qualifying central counterparty default fund guarantees: standardised approach, items 106 and 107

Column number	Description
1	<p>Prefunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to any prefunded default fund contribution by a clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.</p>
2	<p>Unfunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to unfunded default fund contributions, which contributions-</p> <ul style="list-style-type: none"> (a) are liable to be paid by a clearing member when required by the relevant central counterparty; (b) will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.

Columns relating to analysis of non-qualifying central counterparty default fund guarantees: standardised approach, items 106 and 107

Column number	Description
3	<p>Trade exposure</p> <p>This column shall reflect the relevant aggregate amount related to the current and potential future exposure of a clearing member or a client to a central counterparty, arising from OTC derivatives, exchange traded derivatives transactions or securities financing transactions, calculated in accordance with the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method.</p>
4	<p>Risk weighted exposure</p> <p>This column shall reflect the relevant aggregate risk weighted exposure amount equivalent to a deduction against capital and reserve funds.</p>

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

Item number	Description
113	<p>Impaired advances</p> <p>This item shall reflect the aggregate amount of advances in respect of which the bank raised a specific impairment.</p> <p>As a minimum, an advance is considered to be impaired when objective evidence exists that the bank is unlikely to collect the total amount due.</p>
114 to 117	<p>Assets bought-in</p> <p>These items shall reflect the on-balance sheet carrying value of assets bought-in during the preceding five years to protect an investment, including a loan or advance, which asset has not been disposed of at the end of the reporting period.</p>
118 to 120	<p>Credit impairments</p> <p>These items shall reflect the relevant required aggregate amounts of specific credit impairments and portfolio credit impairments raised by the reporting bank in accordance with the relevant requirements specified in financial reporting standards issued from time to time.</p>
122	<p>Total credit extended</p> <p>This item shall reflect the aggregate outstanding credit exposure amount due to the reporting bank in respect of loans, advances, off-balance-sheet exposure, derivative instruments and repurchase or resale agreements, before the effect of credit risk mitigation has been taken into consideration.</p>

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

Item number	Description
123	<p>Exposure at default (EAD)</p> <p>This item shall reflect the reporting bank's relevant aggregate EAD amount, calculated in accordance with the relevant requirements specified in these Regulations.</p>
124	<p>Average probability of default (PD, EAD weighted)</p> <p>This item shall reflect the reporting bank's relevant EAD weighted average probability of default percentage, calculated in accordance with the relevant requirements specified in these Regulations.</p>
125	<p>Average loss given default (LGD, EAD weighted)</p> <p>This item shall reflect the reporting bank's relevant EAD weighted average LGD percentage relating to credit exposure, calculated in accordance with the relevant requirements specified in these Regulations.</p>
126	<p>Total expected loss (EL)</p> <p>Based on, amongst others, the relevant requirements specified in subregulation (21), this item shall reflect the reporting bank's aggregate expected loss amount.</p>
127	<p>Best estimate of expected loss (BEEL)</p> <p>Based on a PD of 100 per cent in respect of any relevant defaulted exposure, this item shall reflect the reporting bank's best estimate of expected loss amount, which best estimate of expected loss amount is expected to be an amount equal to or higher than the amount raised by the reporting bank in respect of specific credit impairment in accordance with the relevant requirements specified in financial reporting standards issued from time to time, provided that when the aforesaid two amounts differ the reporting bank shall at the written request of the Registrar provide the Registrar with a detailed reconciliation in writing between the two said amounts, which reconciliation shall duly explain the relevant reconciliation differences.</p>

Columns relating to summary of on-balance-sheet and off-balance-sheet credit exposure: IRB approach, items 129 to 156

Column number	Description
1	<p>Utilised: on-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of amounts drawn by clients, which amounts form part of the reporting bank's current on-balance-sheet exposure before the application of any credit risk mitigation (CRM).</p>
2	<p>Off-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of-</p> <p>(a) facilities granted to clients but not drawn, that is, unutilized facilities in respect of which no funds have been paid out and no debit balance has been raised; and</p> <p>(b) other off-balance-sheet items such as guarantees and commitments made by the reporting bank,</p> <p>which amounts form part of the reporting bank's total current exposure, before the application of any risk mitigation or relevant credit conversion factor.</p>
3	<p>Repurchase and resale agreements</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase or resale agreement concluded by the reporting bank.</p>
4	<p>Derivative instruments</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments, including any relevant amount in respect of exposure to counterparty credit risk calculated in accordance with the relevant requirements specified in subregulations (15) to (19).</p>
7	<p>Total credit exposure (EAD)</p> <p>This column shall reflect the aggregate amount in respect of the reporting bank's relevant exposure weighted EAD amount, calculated in accordance with the relevant requirements specified in subregulations (11) and (13).</p>
10	<p>Risk weighted exposure</p> <p>This column shall include any relevant risk weighted exposure amount calculated in respect of the reporting bank's exposure to credit risk, after the application of a scaling factor of 1.06.</p>
12	<p>Risk weighted exposure in respect of assets not subject to double default adjustment</p> <p>This column shall reflect the aggregate amount of credit exposure not subject to any double default adjustment as envisaged in subregulation (12)(g) or (14)(f).</p>

Columns relating to summary of on-balance-sheet and off-balance-sheet credit exposure: IRB approach, items 129 to 156

Column number	Description
13	<p>Risk weighted exposure in respect of assets subject to double default provisions, prior to adjustment</p> <p>This column shall reflect the aggregate amount of credit exposure subject to the requirements of double default envisaged in subregulation (12)(g) or (14)(f), prior to any relevant adjustment in respect of the said double default.</p>

Columns relating to capital requirement in respect of specialised lending subject to specified risk weights and specified risk grades: IRB approach, items 157 to 166

Column number	Description
1	<p>Credit exposure</p> <p>This column shall reflect the relevant current exposure amount of the reporting bank in respect of any specialised lending subject to the risk weights and risk grades specified in subregulation (11)(d)(iii).</p>
3	<p>Expected loss</p> <p>This column shall reflect the relevant expected loss amount in respect of specialised lending, calculated in accordance with the relevant requirements specified in subregulation (21)(c).</p>
4	<p>Specific credit impairment</p> <p>This column shall reflect the relevant amounts in respect of specific credit impairment raised by the reporting bank in respect of specialised lending, calculated in accordance with the relevant requirements specified in financial reporting standards issued from time to time.</p>
5	<p>Number of obligors</p> <p>This column shall reflect the relevant number of obligors included in the specified risk weight category.</p>

Items relating to reconciliation of credit impairments: IRB approach

Item number	Description
217	<p>Interest in suspense</p> <p>Since interest relating to impaired loans may not ultimately contribute to income when doubt exists regarding the recovery of the relevant loan amount or related interest amount due, this item shall reflect the relevant amount of interest in suspense, that is, irrespective of the accounting treatment of interest income from time to time, this item shall reflect the difference between the relevant amount of interest contractually due to the reporting bank by its clients up to the end of the reporting month and the relevant amount of interest income actually included in the operating profit or loss of the bank.</p>
220	<p>Recoveries</p> <p>This item shall reflect the relevant aggregate amount in respect of recoveries, net of any relevant amount relating to specific credit impairment and/ or portfolio credit impairment.</p>

Columns relating to analysis of past due exposure (EAD): IRB approach, items 224 to 251

Column number	Description
2, 4, 6 and 8	<p>Classified in default</p> <p>Based on the respective EAD amounts and in respect of the relevant specified asset classes, these columns shall reflect an analysis of the relevant past due amounts classified as being in default, that is, due to matters such as, for example, early warning signs, an exposure may be classified as being in default even when the said exposure, for example, may not be legally overdue or overdue for more than 90 days.</p>

Columns relating to counterparty credit risk: IRB approach, items 252 to 281

Column number	Description
1	<p>Total notional principal amount</p> <p>This column shall reflect the relevant effective nominal or notional amounts underlying the reported OTC derivative instruments or contracts.</p>
2	<p>Gross replacement cost</p> <p>This column shall reflect the respective gross positive fair value amounts of the reported OTC derivative instruments, before the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulation 23(7)(a), 23(9)(a), 23(17) or 23(18), or any relevant collateral, has been taken into consideration.</p>
3	<p>Net replacement cost</p> <p>This column shall reflect the respective gross positive fair value amounts of the reported OTC derivative instruments, after the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulations 23(7)(a), 23(9)(a), 23(17) or 23(18), but before the effect of any relevant collateral, has been taken into consideration.</p>
4	<p>Gross potential future exposure add-on</p> <p>Based on the relevant OTC derivative instruments' or contracts' notional principal amounts, this column shall reflect the potential future exposure add-on amount, before the impact of any netting or collateral has been taken into consideration.</p>
5	<p>Net potential future exposure add-on</p> <p>Based on the relevant OTC derivative instruments' or contracts' notional principal amounts, this column shall reflect the adjusted add-on amount for all relevant contracts subject to eligible bilateral netting agreements or contracts.</p>
6	<p>Collateral value after haircut</p> <p>This column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of OTC derivative instruments, after the effect of any relevant haircut has been taken into consideration.</p>
7	<p>Credit exposure value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of all relevant credit exposures arising from securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>

Columns relating to counterparty credit risk: IRB approach, items 252 to 281

Column number	Description
8	<p>Collateral value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of all relevant securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
9	<p>Netting benefit</p> <p>This column shall reflect the aggregate amount of all relevant netting benefits arising from eligible master netting agreements taken into consideration in the calculation of the reporting bank's relevant adjusted credit exposure amount arising from securities financing transactions.</p>
10	<p>Current market value of portfolio</p> <p>In respect of all relevant OTC derivative instruments, this column shall reflect the relevant current market value of the relevant portfolio of transactions within the netting set with a particular counterparty, before the impact of any relevant collateral has been taken into consideration.</p>
11	<p>Current market value of collateral</p> <p>This column shall reflect the relevant market value of the collateral assigned to the relevant netting set in respect of OTC derivative instruments.</p>
12	<p>Risk position from transaction</p> <p>This column shall reflect the relevant required risk positions arising from the relevant hedging sets related to OTC derivative instruments.</p>
13	<p>Risk position from collateral</p> <p>This column shall reflect the relevant required risk positions from collateral with respect to the relevant hedging sets related to OTC derivative instruments.</p>
14	<p>Net absolute risk position after the application of CCF's</p> <p>In respect of all relevant OTC derivative instruments, this column shall reflect the absolute aggregate amount of the required risk positions related to the relevant hedging sets, after the application of any relevant credit conversion factor.</p>

Columns relating to counterparty credit risk: IRB approach, items 252 to 281

Column number	Description
15	<p>Credit exposure value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of all relevant credit exposures related to securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
16	<p>Collateral value</p> <p>In the absence of an eligible master netting agreement, this column shall reflect the current value of eligible financial collateral obtained by the reporting bank in respect of all relevant securities financing transactions, after the effect of any relevant haircut has been taken into consideration.</p>
17	<p>Netting benefits</p> <p>This column shall reflect the aggregate amount of all relevant netting benefits arising from eligible master netting agreements taken into consideration in the calculation of the reporting bank's relevant adjusted credit exposure amount related to securities financing transactions.</p>
18	<p>Effective expected positive exposure</p> <p>Based on the relevant requirements specified in subregulation (19)(a), this column shall reflect the relevant required effective expected positive exposure amount related to OTC derivative instruments.</p>
19	<p>Stressed effective expected positive exposure</p> <p>Based on the relevant requirements specified in, amongst others, subregulations (15) and (19) of these Regulations, this column shall reflect the relevant required effective expected positive exposure amount related to OTC derivative instruments in terms of a stressed scenario.</p>
20	<p>Effective expected positive exposure</p> <p>Based on the relevant requirements specified in subregulation (19)(a), this column shall reflect the relevant required effective expected positive exposure amount related to securities financing transactions.</p>
21	<p>Stressed effective expected positive exposure</p> <p>Based on the relevant requirements specified in, amongst others, subregulations (15) and (19) of these Regulations, this column shall reflect the relevant required effective expected positive exposure amount related to securities financing transactions in terms of a stressed scenario.</p>

Columns relating to counterparty credit risk: IRB approach, items 252 to 281

Column number	Description
22	<p>Adjusted exposure amount - OTC derivative instruments</p> <p>This column shall reflect the relevant required exposure or EAD amount for OTC derivative instruments, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
23	<p>Adjusted exposure amount - securities financing transactions</p> <p>This column shall reflect the relevant required exposure or EAD amount for securities financing transactions, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
24	<p>Default risk - OTC derivative instruments</p> <p>This column shall reflect the relevant required risk weighted exposure amount for OTC derivative instruments, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
25	<p>Default risk - securities financing transactions</p> <p>This column shall reflect the relevant required risk weighted exposure amount for securities financing transactions, calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method, which amount shall be net of any relevant incurred CVA loss amount.</p>
26	<p>Standardised approach for CVA</p> <p>Based on the relevant requirements specified in subregulation (15), this column shall reflect the relevant required risk weighted exposure amount for CVA risk, calculated in terms of the standardised approach, provided that, when required by the Registrar, this column shall include any relevant amount related to CVA loss exposures arising from securities financing transactions.</p>

Columns relating to counterparty credit risk: IRB approach, items 252 to 281

Column number	Description
27	<p>Advanced approach for CVA</p> <p>Based on the relevant requirements specified in subregulation (19), this column shall reflect the relevant required risk weighted exposure amount for CVA risk, calculated in terms of the advanced approach, provided that, when required by the Registrar, this column shall include any relevant amount related to CVA loss exposures arising from securities financing transactions.</p>
28	<p>Total risk weighted exposure</p> <p>This column shall reflect the relevant required aggregate amount of risk weighted exposure for counterparty credit risk, including any relevant amount of risk weighted exposure-</p> <ul style="list-style-type: none"> (a) arising from OTC derivative instruments and securities financing transactions; (b) calculated in terms of the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method; (c) related to CVA risk; (d) related to central counterparties.

Items relating to counterparty credit risk analysis of netting: IRB approach

Item number	Description
282	<p>Replacement cost</p> <p>This item shall reflect the relevant required netting benefit taken into consideration for calculating the relevant net replacement cost in respect of OTC derivative instruments.</p>
283	<p>Potential future exposure add-on</p> <p>This item shall reflect the relevant required netting benefit taken into consideration for calculating the relevant net potential future exposure add-on amount in respect of OTC derivative instruments.</p>
284	<p>Securities financing transactions</p> <p>This items shall reflect the relevant required netting benefit taken into consideration in respect of securities financing transactions.</p>
285	<p>Cross-product netting</p> <p>This item shall reflect the relevant required cross-product netting amount taken into consideration by a bank that obtained the approval of the Registrar to use the internal model method for counterparty credit risk.</p>

Columns relating to counterparty credit risk analysis of standardised CVA risk weighted exposure: IRB approach, items 287 to 294

Column number	Description
2	<p>EAD</p> <p>This column shall reflect the relevant exposure or EAD amount, calculated in terms of the relevant requirements specified in these Regulations, after the application of any relevant discount factor.</p>
3	<p>Single-name CDS</p> <p>This column shall reflect the relevant required notional amount, after the application of any relevant discount factor, of a purchased single-name CDS, single-name contingent CDS and/or other eligible instrument used to hedge CVA risk.</p>
4	<p>Index CDS</p> <p>This column shall reflect the relevant required notional amount, after the application of any relevant discount factor, of an eligible purchased index CDS used to hedge CVA risk.</p>
5	<p>Standardised CVA risk weighted exposure</p> <p>This column shall reflect the relevant required risk weighted exposure amount related to CVA risk, calculated in terms of the the relevant requirements specified in these Regulations for the standardised approach.</p>

Columns relating to analysis of central counterparty trade exposure: IRB approach, items 295 to 298

Column number	Description
1	<p>Trade exposure</p> <p>This column shall reflect the current and potential future exposure amount of a clearing member or a client to a central counterparty arising from any relevant OTC derivative instrument, exchange traded derivative transaction or securities financing transaction, calculated in accordance with the relevant requirements specified in subregulation (15) read with the relevant requirements respectively specified in subregulations (17) to (19) of these Regulations for the current exposure method, the standardised method or the internal model method.</p>

Columns relating to analysis of central counterparty trade exposure: IRB approach, items 295 to 298

Column number	Description
3	<p>Risk weighted exposure</p> <p>This column shall reflect the relevant required risk weighted exposure amount of a clearing member or a client to a central counterparty arising from any relevant OTC derivative instrument, exchange traded derivative transaction or securities financing transaction, calculated in accordance with the relevant requirements specified in subregulation (15) read with the relevant requirements respectively specified in subregulations (17) to (19) of these Regulations for the current exposure method, the standardised method or the internal model method.</p>
4	<p>Calculated in terms of the standardised approach</p> <p>This column shall reflect the relevant required risk weighted exposure amount calculated in terms of the standardised approach for the measurements of the bank's exposure to credit risk with regards to trade exposures to non-qualifying central counterparties.</p>

Columns relating to analysis of qualifying central counterparty default fund guarantees: IRB approach, items 299 and 300

Column number	Description
1	<p>Initial margin collateral posted with a central counterparty</p> <p>Based on the relevant requirements specified in these Regulations, this column shall reflect the relevant aggregate amount related to a clearing member's or client's funded collateral posted or provided to a central counterparty to mitigate the potential future exposure of the central counterparty to the clearing member arising from the possible future change in the value of their transactions, provided that, in accordance with the relevant requirements specified in these Regulations, initial margin shall exclude any relevant amount related to contributions to a central counterparty in terms of any mutualised loss sharing arrangement, that is, when a central counterparty uses initial margin to mutualise losses among the clearing members, the relevant amount shall be treated as a default fund exposure.</p>
2	<p>Prefunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to any prefunded default fund contributions made by the clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.</p>

Columns relating to analysis of qualifying central counterparty default fund guarantees: IRB approach, items 299 and 300

Column number	Description
3	<p>Trade exposure</p> <p>This column shall reflect the relevant aggregate amount related to the current and potential future exposure of a clearing member or a client to a central counterparty arising from OTC derivatives, exchange traded derivatives transactions or securities financing transactions, calculated in accordance with the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method.</p>
4	<p>Risk weighted exposure</p> <p>Based on the relevant requirements specified in subregulation (15)(d), this column shall reflect the relevant risk weighted exposure amount calculated in terms of either method 1 or method 2.</p>

Columns relating to analysis of non-qualifying central counterparty default fund guarantees: IRB approach, items 301 and 302

Column number	Description
1	<p>Prefunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to any prefunded default fund contribution by a clearing member that will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.</p>
2	<p>Unfunded default fund contribution</p> <p>This column shall reflect the relevant aggregate amount related to unfunded default fund contributions, which contributions-</p> <p>(a) are liable to be paid by a clearing member when required by the relevant central counterparty;</p> <p>(b) will be applied upon such clearing member's default, either along with or immediately following such member's initial margin, to reduce any central counterparty loss.</p>
3	<p>Trade exposure</p> <p>This column shall reflect the relevant aggregate amount related to the current and potential future exposure of a clearing member or a client to a central counterparty, arising from OTC derivatives, exchange traded derivatives transactions or securities financing transactions, calculated in accordance with the relevant requirements specified in these Regulations for the current exposure method, the standardised method or the internal model method.</p>

Columns relating to analysis of non-qualifying central counterparty default fund guarantees: IRB approach, items 301 and 302

Column number	Description
4	<p>Risk weighted exposure</p> <p>This column shall reflect the relevant aggregate risk weighted exposure amount equivalent to a deduction against capital and reserve funds.</p>

Columns relating to analysis of performing credit exposure, that is, EAD, analysed by effective maturity, items 318 to 329

Column number	Description
3 to 28	<p>EAD per specified asset class and effective maturity</p> <p>Based on the relevant principles contained in, and the relevant requirements specified in, regulation 23(13)(d)(ii)(B), but disregarding any specified prudential floor or ceiling, these columns shall reflect the bank's performing credit exposure, that is, the relevant EAD amounts, according to the specified effective maturity bands.</p>

CREDIT RISK

(Confidential and not available for inspection by the public)

Name of bank:.....

Quarter ended:.....(yyyy/mm/dd)

BA 210

Quarterly

Country:

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

Standardised approach: Credit risk mitigation	Line no.	Original credit and counterparty exposure ¹	Net exposure after netting agreements	Credit risk mitigation ²								Net exposure after netting and credit risk mitigation redistribution effects (col 2+7+8 -9 -10)
				Unfunded credit protection		Funded credit protection		Redistribution of net exposure after netting				
				Guarantees	Credit derivative instruments	Collateral: simple method	Collateral pledged on deposit by third party	Total inflow (+)		Total outflow ³ (-)		
								Standardised approach	IRB approach	Standardised approach	IRB approach	
Asset class		1	2	3	4	5	6	7	8	9	10	11
Corporate exposure (total of items 2 and 3)	1											
Corporate	2											
SME corporate	3											
Public sector entities	4											
Local government and municipalities	5											
Sovereign (including central governments and central bank)	6											
Banks	7											
Securities firms	8											
Retail exposure (total of items 10, 11, 13 and 16)	9											
Residential mortgage advances	10											
Retail revolving credit ⁴	11											
<i>of which:</i> credit cards	12											
SME retail (total of items 14 and 15)	13											
Secured lending	14											
Unsecured lending	15											
Retail – other	16											
<i>of which:</i> vehicle and asset finance unsecured lending ^{5,6}	17											
≤ R30 000	18											
unsecured lending ⁵	19											
> R30 000												

1. Exposure value before the application of any credit conversion factor (CCF), credit risk mitigation (CRM) and any volatility adjustment.
2. Including redistribution effects.
3. The aggregate amount of total outflows shall be equal to the sum of amounts reported in columns 3 to 6.
4. As defined in regulation 23(11)(c)(iv)(B)(ii).
5. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.
6. Including loans in respect of which the maximum NCA rate applies.

Standardised approach: Credit risk mitigation	Line no.	Original credit and counterparty exposure ¹	Net exposure after netting agreements	Credit risk mitigation ²								Net exposure after netting and credit risk mitigation redistribution effects (col 2+7+8 -9 -10)
				Unfunded credit protection		Funded credit protection		Redistribution of net exposure after netting				
				Guarantees	Credit derivative instruments	Collateral: simple method	Collateral pledged on deposit by third party	Total inflow (+)		Total outflow ³ (-)		
								Standardised approach	IRB approach	Standardised approach	IRB approach	
Asset class		1	2	3	4	5	6	7	8	9	10	11
Securitisation and resecuritisation exposure	20											
Total (of items 1, 4 to 9 and 20)	21											

1. Also refer to regulation 35 and the form BA500.

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

Standardised approach: Credit risk mitigation	Line no.	Credit risk mitigation affecting exposure amount						Credit exposure value post credit risk mitigation ¹ (E*) (col 11+12-13)
		Funded credit protection: financial collateral i.t.o comprehensive method						
		Volatility adjustment in respect of exposure	Adjusted value of financial collateral	Memorandum items: volatility and maturity adjustments				
				Total (col 15+16+17)	In respect of collateral	Currency mismatch	Maturity mismatch	
12	13	14	15	16	17	18		
Corporate exposure (total of items 2 and 3)	1							
Corporate	2							
SME corporate	3							
Public sector entities	4							
Local government and municipalities	5							
Sovereign (including central governments and central bank)	6							
Banks	7							
Securities firms	8							
Retail exposure (total of items 10, 11, 13 and 16)	9							
Residential mortgage advances	10							
Retail revolving credit ²	11							
<i>of which:</i> credit cards	12							
SME retail (total of items 14 and 15)	13							
Secured lending	14							
Unsecured lending	15							
Retail – other	16							
<i>of which:</i> vehicle and asset finance unsecured lending ^{3, 4}	17							
≤ R30 000	18							
unsecured lending ³	19							
> R30 000	19							
Securitisation and resecuritisation exposure ⁵	20							
Total (of items 1, 4 to 9 and 20)	21							

1. Before the application of any relevant credit conversion factor (CCF).
2. As defined in regulation 23(11)(c)(iv)(B)(ii).
3. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.
4. Including loans in respect of which the maximum NCA rate applies.
5. Also refer to regulation 35 and the form BA500.

Standardised approach: Restructured credit exposure ¹	Line no.	Actual number of restructured credit exposure transactions in this reporting quarter	Exposure value of restructured credit exposure transactions in this reporting quarter (R'000)	Restructured credit exposure as percentage of asset class exposure (%)
Asset class		1	2	3
Corporate exposure (total of items 23 and 24)	22			
Corporate	23			
SME corporate	24			
Public sector entities	25			
Local government and municipalities	26			
Sovereign (including central governments and central bank)	27			
Banks	28			
Securities firms	29			
Retail exposure (total of items 31, 32, 34 and 37)	30			
Residential mortgage advances	31			
Retail revolving credit ²	32			
<i>of which:</i> credit cards	33			
SME retail (total of items 35 and 36)	34			
Secured lending	35			
Unsecured lending	36			
Retail – other	37			
<i>of which:</i> vehicle and asset finance	38			
unsecured lending ^{3,4}				
≤ R30 000	39			
unsecured lending ³				
> R30 000	40			
Securitisation and resecuritisation exposure⁵	41			
Total (of items 22, 25 to 30 and 41)	42			

1. As defined in regulation 67. When new terms, conditions or concessions are not formalised in writing, the relevant exposure or facility shall be regarded as impaired.

2. As defined in regulation 23(11)(c)(iv)(B)(ii).

3. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.

4. Including loans in respect of which the maximum NCA rate applies.

5. Also refer to regulation 35 and the form BA500.

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

Standardised approach: Credit risk classification and impairment	Line no.	Total gross credit exposure, collateral and specific impairment											Total gross credit exposure (col. 1+4+7+10)	
		Special mention			Sub-standard			Doubtful			Loss			
		Gross exposure	Collateral	Specific credit impairment	Gross exposure	Collateral	Specific credit impairment	Gross exposure	Collateral	Specific credit impairment	Gross exposure	Collateral		Specific credit impairment
Asset class		1	2	3	4	5	6	7	8	9	10	11	12	13
Corporate exposure (total of items 44 and 45)	43													
Corporate	44													
SME corporate	45													
Public sector entities	46													
Local government and municipalities	47													
Sovereign (including central governments and central bank)	48													
Banks	49													
Securities firms	50													
Retail exposure (total of items 52, 53, 55 and 58)	51													
Residential mortgage advances	52													
Retail revolving credit ¹	53													
<i>of which:</i> credit cards	54													
SME retail (total of items 56 and 57)	55													
Secured lending	56													
Unsecured lending	57													
Retail – other	58													
<i>of which:</i> vehicle and asset finance unsecured lending ^{2, 3}	59													
≤ R30 000	60													
unsecured lending ²	61													
> R30 000	61													
Securitisation and resecuritisation exposure⁴	62													
Total (of items 43, 46 to 51 and 62)	63													

1. As defined in regulation 23(11)(c)(iv)(B)(ii).

2. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.

3. Including loans in respect of which the maximum NCA rate applies.

4. Also refer to regulation 35 and the form BA500.

Standardised approach: Credit risk classification and impairment	Asset class	Line no.	Total impairment		
			Total (col. 15+16)	of which: specific credit impairment (col. 3+6+9+12)	of which: portfolio credit impairment
			14	15	16
Corporate exposure (total of items 44 and 45)	43				
Corporate	44				
SME corporate	45				
Public sector entities	46				
Local government and municipalities	47				
Sovereign (including central governments and central bank)	48				
Banks	49				
Securities firms	50				
Retail exposure (total of items 52, 53, 55 and 58)	51				
Residential mortgage advances	52				
Retail revolving credit ¹	53				
<i>of which:</i> credit cards	54				
SME retail (total of items 56 and 57)	55				
Secured lending	56				
Unsecured lending	57				
Retail – other	58				
<i>of which:</i> vehicle and asset finance unsecured lending ^{2, 3}	59				
≤ R30 000	60				
unsecured lending ² > R30 000	61				
Securitisation and resecuritisation exposure ⁴	62				
Total (of items 43, 46 to 51 and 62)	63				

1. As defined in regulation 23(11)(c)(iv)(B)(ii).

2. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.

3. Including loans in respect of which the maximum NCA rate applies.

4. Also refer to regulation 35 and the form BA500.

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

Standardised approach: Credit concentration risk - large exposure to a person ¹	Line no.	Asset class ²	Original credit and counterparty exposure ³							Total credit exposure as % of qualifying capital and reserve funds	Additional capital requirement
			On-balance sheet exposure	Off- balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				
							Total (col. 2 to 5)	Memorandum items:			
								of which: defaulted	Total equity exposure		
Name of person		1	2	3	4	5	6	7	8	9	10
Private-sector non bank: total	64										
(Specify)	65										
	66										
	67										
Bank/regulated securities firm: total	68										
(Specify)	69										
	70										
	71										
Other: total	72										
(Specify)	73										
	74										
	75										
	76										
Total (of items 64, 68 and 72)	77										

1. Refer to section 73 of the Act and regulations 24(6) to 24(8).

2. Based on the following specified keys: 1 = Corporate; 2 = SME corporate; 3 = Public sector entities; 4 = Local government and municipalities; 5 = Sovereign (including central governments and central bank); 6 = Banks; 7 = Securities firms; 8 = Retail; 9 = SME retail 10 = Securitisation exposure

3. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

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

Standardised approach: Credit concentration risk - large exposure to a person ¹	Line no.	Credit risk mitigation			Redistribution of reduced exposures		Specific credit impairment	Net exposure after credit risk mitigation	Risk weighted value of net exposure	Risk weighted value as % of qualifying capital and reserve funds
		Eligible financial collateral	Unfunded credit protection		Outflows (-)	Inflows (+)				
			Guarantees	Credit derivative instruments						
Name of person		11	12	13	14	15	16	17	18	19
Private-sector non bank: total (Specify)	64									
	65									
	66									
	67									
Bank/regulated securities firm: total (Specify)	68									
	69									
	70									
	71									
Other: total (Specify)	72									
	73									
	74									
	75									
	76									
Total (of items 64, 68 and 72)	77									

1. Refer to section 73 of the Act and regulations 24(6) to 24(8).

Approved by:

Approved by*:

Board of Directors

Registrar of Banks*

Date

Date

* solely relates to the relevant deduction from capital and reserve funds

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

Standardised approach: Credit concentration risk - sectoral distribution ¹	Line no.	Original credit and counterparty exposure ²							Risk weighted value of net exposure	Total impairment		
		On- balance sheet exposure	Off- balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				Total (col. 10+11)	of which:	
						Total (col. 1 to 4)	Memorandum items:				specific credit impairment	portfolio credit impairment
							of which: defaulted	Total equity exposure				
1	2	3	4	5	6	7	8	9	10	11		
Agriculture, hunting, forestry and fishing	78											
Mining and quarrying	79											
Manufacturing	80											
Electricity, gas and water supply	81											
Construction	82											
Wholesale and retail trade, repair of specified items, hotels and restaurants	83											
Transport, storage and communication	84											
Financial intermediation and insurance	85											
Real estate	86											
Business services	87											
Community, social and personal services	88											
Private households	89											
Other	90											
Total (of items 78 to 90)	91											
<i>of which:</i>												
Sovereign (central government and central bank)	92											
Public sector entities	93											
Local government and municipalities	94											

1. The classification of credit exposure according to the sectors or industries specified in items 78 to 90 shall be based on the directives and industries specified in the Standard Industrial Classification of all Economic Activities, issued by Statistics South Africa from time to time.

2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

Standardised approach: Credit concentration risk Herfindahl-Hirschman Index (HHI) Wholesale - Industry ¹	Line no.	Risk weighted exposure (R'000)	Risk weighted exposure as % of total risk weighted exposure (col. 1/ total RWE) (%)	Squared value (%) (col. 2)*(col.2) ²	
		1	2	3	
Total (of items 96 to 108)	95				
Agriculture, hunting, forestry and fishing	96				
Mining and quarrying	97				
Manufacturing	98				
Electricity, gas and water supply	99				
Construction	100				
Wholesale and retail trade, repair of specified items, hotels and restaurants	101				
Transport, storage and communication	102				
Financial intermediation and insurance	103				
Real estate	104				
Business services	105				
Community, social and personal services	106				
Private households	107				
Other	108				
of which total:					
Sovereign (central government and central bank)	109				
Public sector entities	110				
Local government and municipalities	111				
Herfindahl-Hirschman Index (HHI) Retail - Product ³		Risk weighted exposure (R'000)	Number of clients	Average risk weighted exposure per client as % of total RWE ⁴ (%)	Squared value (%) * number of clients (col. 3)*(col.3) *(col.2) ⁵
		1	2	3	4
Total (of items 113 to 117)	112				
Credit cards	113				
Current accounts	114				
Mortgages	115				
Instalment sales	116				
Personal and term loans	117				

1. The wholesale HHI shall be based on specified industries.

2. Means the squared value of the percentage reported in column 2.

3. The retail HHI shall be based on specified products.

4. Means (the amount reported in column 1 divided by the number reported in column 2) divided by the total risk weighted exposure amount in column 1.

5. Means the squared value of the percentage reported in column 3, multiplied with the number of clients reported in column 2.

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

Standardised approach: Credit concentration risk ; geographical distribution	Line no.	Original credit and counterparty exposure ²							Risk weighted value of net exposure	Total impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				Total (col. 10+11)	of which:	
						Total (col. 1 to 4)	Memorandum items:				specific credit impairment	portfolio credit impairment
							of which: defaulted	Total equity exposure				
1	2	3	4	5	6	7	8	9	10	11		
South Africa	118											
Other African countries (total of items 120 to 126)	119											
AAA to AA-	120											
A+ to A-	121											
BBB+ to BBB-	122											
BB+ to B-	123											
Below B-	124											
Unrated ³	125											
In default	126											
Europe (total of items 128 to 134)	127											
AAA to AA-	128											
A+ to A-	129											
BBB+ to BBB-	130											
BB+ to B-	131											
Below B-	132											
Unrated ³	133											
In default	134											
Asia (total of items 136 to 142)	135											
AAA to AA-	136											
A+ to A-	137											
BBB+ to BBB-	138											
BB+ to B-	139											
Below B-	140											
Unrated ³	141											
In default	142											

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

Standardised approach: Credit concentration risk \uparrow geographical distribution	Line no.	Original credit and counterparty exposure ²							Risk weighted value of net exposure	Total impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				Total (col. 10+11)	of which:	
						Total (col. 1 to 4)	Memorandum items: of which: defaulted	Total equity exposure			specific credit impairment	portfolio credit impairment
North America (total of items 144 to 150)	143											
AAA to AA-	144											
A+ to A-	145											
BBB+ to BBB-	146											
BB+ to B-	147											
Below B-	148											
Unrated ³	149											
In default	150											
South America (total of items 152 to 158)	151											
AAA to AA-	152											
A+ to A-	153											
BBB+ to BBB-	154											
BB+ to B-	155											
Below B-	156											
Unrated ³	157											
In default	158											
Other (total of items 160 to 166)	159											
AAA to AA-	160											
A+ to A-	161											
BBB+ to BBB-	162											
BB+ to B-	163											
Below B-	164											
Unrated ³	165											
In default	166											

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

Standardised approach: Credit concentration risk - geographical distribution ¹	Line no.	Original credit and counterparty exposure ²							Risk weighted value of net exposure	Total impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				Total (col. 10+11)	of which:	
						Total (col. 1 to 4)	Memorandum items:				specific credit impairment	portfolio credit impairment
							of which: defaulted	Total equity exposure				
1	2	3	4	5	6	7	8	9	10	11		
Total, including South Africa (of items 168 to 174)	167											
AAA to AA-	168											
A+ to A-	169											
BBB+ to BBB-	170											
BB+ to B-	171											
Below B-	172											
Unrated ³	173											
In default	174											

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

Standardised approach: Other selected geographical information ^{1,2}	Line no.	Original credit and counterparty exposure ²						Total impairment				
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure			Total (col. 9 plus 10)	of which:		
						Total (col. 1 to 4)	Memorandum items:			specific credit impairment	portfolio credit impairment raised in respect of specific country	
		1	2	3	4		5	6	7			8
Advanced economies, excluding China	175											
of which: United Kingdom	176											
Emerging market and developing countries, including China (total of items 178, 179, 185 to 187 and 190 to 192)	177											
South Africa	178											
African countries, excluding South Africa	179											
of which:	180											
Sub-Saharan Africa	181											
of which:	182											
Nigeria	183											
Kenya	184											
Namibia	185											
Mozambique	186											
Central and Eastern Europe	187											
Commonwealth of Independent States and Mongolia	188											
Developing Asia, including China	189											
of which:	190											
People's Republic of China	191											
India	192											
Middle East	193											
Western Hemisphere												
Other ³												
(Specify)												
Total (of items 175 and 177)	193											

1. Based on the regional classification contained in the World Economic Outlook Report issued by the International Monetary Fund from time to time, and the residence or place of incorporation of the relevant person or counterparty.

2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

3. Means any country other than the countries specified above and in the World Economic Outlook Report issued by the International Monetary Fund from time to time.

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

Standardised approach: Credit concentration risk - 20 largest exposures in debt and with equity exposure ¹ Name of person	Line no.	Debt exposure	Total equity exposure		Total debt and equity exposure (col. 1+2)	
			Total (of col. 3+4)	of which: privately held equity exposure		of which: publicly traded equity exposure
Total (of items 195 to 214) (Specify)	194					
	195					
	196					
	197					
	198					
	199					
	200					
	201					
	202					
	203					
	204					
	205					
	206					
	207					
	208					
	209					
	210					
211						
212						
213						
214						

1. This table shall be completed based on the total debt and equity exposures.

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

Standardised approach: Watch list ¹	Line no.	Asset class ²	Exposure amount	Risk weighted value of net exposure	Specific impairment	Comments
		1	2	3	4	5
Name of person Total (Please submit required details on separate list)	215					
	216					
	217					
	218					
	219					
	220					
	221					
	222					
	223					
	224					
	225					
	226					
227						
228						

1. Means credit exposures in excess of 1% of qualifying capital and reserve funds reported in item 88 of form BA 700, which credit exposures are not in default but categorised as at least special mention due to particular circumstances that warrant more than normal attention from the reporting bank's senior management.
2. Based on the following specified keys: 1 = Corporate; 2 = SME corporate; 3 = Public sector entities; 4 = Local government and municipalities; 5 = Sovereign (including central governments and central bank); 6 = Banks; 7 = Securities firms; 8 = Retail; 9 = SME retail; 10 = Securitisation exposure

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

IRB approach: Credit risk mitigation	Line no.	Original credit and counterparty exposure ¹	Net exposure after netting agreement	Credit risk mitigation ²						Net exposure after netting and credit risk mitigation redistribution effects ⁵ (col. 2+5+6 minus 7 and 8)	Credit risk mitigation subject to requirements of double default	
				Unfunded credit protection not subject to double default		Redistribution of net exposure after netting					Guarantees	Credit derivative instruments
				Guarantees	Credit derivative instruments	Total inflows ³ (+)		Total outflows ⁴ (-)				
						Standardised approach	IRB approach	Standardised approach	IRB approach		Guarantees	Credit derivative instruments
Asset class		1	2	3	4	5	6	7	8	9	10	11
Corporate exposure (total of items 230 to 237)	229											
Corporate	230											
Specialised lending - high volatility commercial real estate (property development)	231											
Specialised lending - income producing real estate	232											
Specialised lending - object finance	233											
Specialised lending - commodities Finance	234											
Specialised lending - project Finance	235											
SME corporate	236											
Purchased receivables - corporate	237											
Public sector entities	238											
Local government and municipalities	239											
Sovereign (including central government and central bank)	240											
Banks	241											
Securities firms	242											

1. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
2. Including redistribution effects.
3. Column 6 shall be equal to outflows under the standardised approach.
4. The aggregate amount of outflows reported in columns 7 and 8 shall be equal to the aggregate amount of items reported in columns 3 and 4.
5. Before the application of any relevant credit conversion factor.

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

IRB approach: Credit risk mitigation	Line no.	Original credit and counterparty exposure ¹	Net exposure after netting agreement	Credit risk mitigation ²						Net exposure after netting and credit risk mitigation redistribution effects ⁵ (col. 2+5+6 minus 7 and 8)	Credit risk mitigation subject to requirements of double default	
				Unfunded credit protection not subject to double default		Redistribution of net exposure after netting					Guarantees	Credit derivative instruments
				Guarantees	Credit derivative instruments	Total inflows ³ (+)		Total outflows ⁴ (-)				
						Standardised approach	IRB approach	Standardised approach	IRB approach			
Asset class		1	2	3	4	5	6	7	8	9	10	11
Retail exposure (total of items 244, 245, 247, 250 and 254)	243											
Residential mortgage advances	244											
Retail revolving credit ⁶	245											
of which: credit cards	246											
SME retail (total of items 248 and 249)	247											
Secured lending	248											
Unsecured lending	249											
Retail – other	250											
of which: vehicle and asset finance	251											
unsecured lending ^{7, 8} ≤ R30 000	252											
unsecured lending ⁷ > R30 000	253											
Purchased receivables – retail	254											
Securitisation and resecuritisation exposures⁹	255											
Total (of items 229, 238 to 243, and 255)	256											

1. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
2. Including redistribution effects.
3. Column 6 shall be equal to outflows under the standardised approach.
4. The aggregate amount of outflows reported in columns 7 and 8 shall be equal to the aggregate amount of items reported in columns 3 and 4.
5. Before the application of any relevant credit conversion factor.
6. As defined in regulation 23(11)(c)(iv)(B)(ii).
7. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.
8. Including loans in respect of which the maximum NCA rate applies.
9. Also refer to regulation 35 and the form BA500.

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

IRB approach: Credit risk mitigation	Line no.	Credit risk mitigation affecting LGD estimates								
		Total (nominal amounts) (col. 13+14+15+18)	Unfunded credit protection		Eligible financial collateral			Other eligible collateral		
			Guarantees	Credit derivative instruments	Total	of which: subject to maturity mismatch	of which: subject to currency mismatch	Total	of which: residential real estate	of which: commercial real estate
Asset class		12	13	14	15	16	17	18	19	20
Corporate exposure (total of items 230 to 237)	229									
Corporate	230									
Specialised lending - high volatility commercial real estate (property development)	231									
Specialised lending - income producing real estate	232									
Specialised lending - object finance	233									
Specialised lending - commodities finance	234									
Specialised lending - project finance	235									
SME corporate	236									
Purchased receivables - corporate	237									
Public sector entities	238									
Local government and municipalities	239									
Sovereign (including central government and central bank)	240									
Banks	241									
Securities firms	242									
Retail exposure (total of items 244, 245, 247, 250 and 254)	243									
Residential mortgage advances	244									
Retail revolving credit ¹	245									
of which: credit cards	246									
SME retail (total of items 248 and 249)	247									
Secured lending	248									
Unsecured lending	249									
Retail – other	250									
of which: vehicle and asset finance unsecured lending ^{2, 3}	251									
≤ R30 000	252									
unsecured lending ²	253									
> R30 000	254									
Purchased receivables - retail	254									
Securitisation and resecuritisation exposures ⁴	255									
Total (of items 229, 238 to 243, and 255)	256									

1. As defined in regulation 23(11)(c)(iv)(B)(ii).

2. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.

3. Including loans in respect of which the maximum NCA rate applies.

4. Also refer to regulation 35 and the form BA500.

IRB approach: Restructured credit exposure ¹	Line no.	Actual number of restructured credit exposure transactions in this reporting quarter	Exposure value of restructured credit exposure transactions in this reporting quarter (R'000)	Restructured credit exposure as percentage of asset class exposure (%)
Asset class		1	2	3
Corporate exposure (total of items 258 to 265)	257			
Corporate	258			
Specialised lending - high volatility commercial real estate (property development)	259			
Specialised lending - income producing real estate	260			
Specialised lending - object finance	261			
Specialised lending - commodities finance	262			
Specialised lending - project finance	263			
SME corporate	264			
Purchased receivables - corporate	265			
Public sector entities	266			
Local government and municipalities	267			
Sovereign (including central government and central bank)	268			
Banks	269			
Securities firms	270			
Retail exposure (total of items 272, 273, 275, 278 and 282)	271			
Residential mortgage advances	272			
Retail revolving credit ²	273			
<i>of which:</i> credit cards	274			
SME retail (total of items 276 and 277)	275			
Secured lending	276			
Unsecured lending	277			
Retail – other	278			
<i>of which:</i> vehicle and asset finance	279			
unsecured lending ^{3, 4} ≤ R30 000	280			
unsecured lending ³ > R30 000	281			
Purchased receivables – retail	282			
Securitisation and resecuritisation exposures⁵	283			
Total (of items 257, 266 to 271, and 283)	284			

1. As defined in regulation 67. When new terms, conditions or concessions are not formalised in writing, the relevant exposure or facility shall be regarded as impaired.

2. As defined in regulation 23(11)(c)(iv)(B)(ii).

3. Relates to the relevant original exposure amount, excluding relevant retail revolving credit exposure and SME retail exposure.

4. Including loans in respect of which the maximum NCA rate applies.

5. Also refer to regulation 35 and the form BA500.

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

IRB approach: Credit concentration risk - large exposure to a person ¹	Line no.	Asset class ²	Original credit and counterparty exposure ³						Total credit exposure as % of qualifying capital and reserve fund	Exposure value (EAD)	PD (%)	LGD (%)		
			On- balance sheet exposure	Off- balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure							
							Total (col. 2 to 5)	Memorandum items:						
							of which: defaulted	Total equity exposure						
Name of person			1	2	3	4	5	6	7	8	9	10	11	12
Private-sector non bank: total (Specify)	285													
	286													
	287													
	288													
	289													
Bank/regulated securities firm: total (Specify)	290													
	291													
	292													
	293													
	294													
Other: total (Specify)	295													
	296													
	297													
	298													
	299													
Total (of items 285, 290 and 295)	300													

1. Refer to section 73 of the Act and regulations 24(6) to 24(8).

2. Based on the following specified keys: 1 = Corporate; 2 = Specialised lending – high volatility commercial real estate (property development); 3 = Specialised lending – income producing real estate; 4 = Specialised lending – object finance; 5 = Specialised lending – commodities finance; 6 = Specialised lending - project finance; 7 = SME corporate; 8 = Purchased receivables – corporate; 9 = Public sector entities; 10 = Local government and municipalities; 11 = Sovereign (including central government and central bank); 12 = Banks; 13 = Securities firms; 14 = Retail mortgages (including any home equity line of credit); 15 = Retail revolving credit; 16 = Retail – other; 17 = SME retail; 18 = Purchased receivables – retail; 19 = Securitisation exposure.

3. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

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

IRB approach: Credit concentration risk - large exposure to a person ¹	Line no.	Credit risk mitigation				Redistribution of reduced exposures		Specific credit impairment	Expected loss	Risk weighted value of net exposure	Risk weighted value as % of qualifying capital and reserve fund	Additional capital requirement	
		Total (col. 14 to 17)	Eligible financial collateral	Other eligible collateral	Unfunded credit protection		Outflows (-)						Inflows (+)
					Guarantees	Credit derivative instruments							
Name of person		13	14	15	16	17	18	19	20	21	22	23	24
Private-sector non bank: total (Specify)	285												
	286												
	287												
	288												
	289												
Bank/regulated securities firm: total (Specify)	290												
	291												
	292												
	293												
	294												
Other: total (Specify)	295												
	296												
	297												
	298												
	299												
Total (of items 285, 290 and 295)	300												

1. Refer to section 73 of the Act and regulations 24(6) to 24(8).

Approved by:

Approved by*:

 Board of Directors

 Registrar of Banks*

 Date

 Date

* solely relates to the relevant deduction from capital and reserve funds

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

IRB approach: Credit concentration risk - sectoral distribution ¹	Line no.	Original credit and counterparty exposure ²							Exposure value (EAD)	EAD weighted average PD (%)	EAD weighted average LGD (%)	Risk weighted value	Risk weighted value as % of qualifying capital and reserve fund	Specific credit impairment
		On- balance sheet exposure	Off- balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure								
						Total (col. 1 to 4)	Memorandum items:							
								of which: defaulted						
1	2	3	4	5	6	7	8	9	10	11	12	13		
Agriculture, hunting, forestry and fishing	301													
Mining and quarrying	302													
Manufacturing	303													
Electricity, gas and water supply	304													
Construction	305													
Wholesale and retail trade, repair of specified items, hotels and restaurants	306													
Transport, storage and communication	307													
Financial intermediation and insurance	308													
Real estate	309													
Business services	310													
Community, social and personal services	311													
Private households	312													
Other	313													
Total (of items 301 to 313)	314													
<i>of which:</i>														
Sovereign (central government and central bank)	315													
Public sector entities	316													
Local government and municipalities	317													

1. The classification of credit exposure according to the sectors or industries specified in items 301 to 313 shall be based on the directives and industries specified in the Standard Industrial Classification of all Economic Activities, issued by Statistics South Africa from time to time.

2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

IRB approach: Credit concentration risk Herfindahl-Hirschman Index (HHI) Wholesale - Industry ¹	Line no.	Risk weighted exposure (R'000)	Risk weighted exposure as % of total risk weighted exposure (col. 1/ total RWE) (%)	Squared value (%) (col. 2)*(col.2) ²	
		1	2	3	
Total (of items 319 to 331)	318				
Agriculture, hunting, forestry and fishing	319				
Mining and quarrying	320				
Manufacturing	321				
Electricity, gas and water supply	322				
Construction	323				
Wholesale and retail trade, repair of specified items, hotels and restaurants	324				
Transport, storage and communication	325				
Financial intermediation and insurance	326				
Real estate	327				
Business services	328				
Community, social and personal services	329				
Private households	330				
Other	331				
of which total:					
Sovereign (central government and central bank)	332				
Public sector entities	333				
Local government and municipalities	334				
Herfindahl-Hirschman Index (HHI) Retail - Product ³		Risk weighted exposure (R'000)	Number of clients	Average risk weighted exposure per client as % of total RWE ⁴ (%)	Squared value (%) * number of clients (col. 3)*(col.3) * (col.2) ⁵
		1	2	3	4
Total (of items 336 to 340)	335				
Credit cards	336				
Current accounts	337				
Mortgages	338				
Instalment sales	339				
Personal and term loans	340				

1. The wholesale HHI shall be based on specified industries.
2. Means the squared value of the percentage reported in column 2.
3. The retail HHI shall be based on specified products.
4. Means (the amount reported in column 1 divided by the number reported in column 2) divided by the total risk weighted exposure amount in column 1.
5. Means the squared value of the percentage reported in column 3, multiplied with the number of clients reported in column 2.

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

IRB approach: Credit concentration risk – geographical distribution	Line no.	Original credit and counterparty exposure ¹							Exposure value (EAD)	EAD weighted average PD (%)	EAD weighted average LGD (%)	Risk weighted value	Risk weighted value as % of qualifying capital and reserve funds	Credit impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure		Memorandum items of which:						Total (of col. 14 and 15)	Memorandum items:	
						Total (col. 1 to 4)	Defaulted								Equity exposure	of which: specific impairment
		1	2	3	4	5	6	7						8	9	10
South Africa	341															
Other African countries (items 343 to 349)	342															
AAA to AA-	343															
A+ to A-	344															
BBB+ to BBB-	345															
BB+ to B-	346															
Below B-	347															
Unrated ³	348															
In default	349															
Europe (items 351 to 357)	350															
AAA to AA-	351															
A+ to A-	352															
BBB+ to BBB-	353															
BB+ to B-	354															
Below B-	355															
Unrated ³	356															
In default	357															
Asia (items 359 to 365)	358															
AAA to AA-	359															
A+ to A-	360															
BBB+ to BBB-	361															
BB+ to B-	362															
Below B-	363															
Unrated ³	364															
In default	365															

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

IRB approach: Credit concentration risk – geographical distribution	Line no.	Original credit and counterparty exposure ¹						Exposure value (EAD)	EAD weighted average PD (%)	EAD weighted average LGD (%)	Risk weighted value	Risk weighted value as % of qualifying capital and reserve funds	Credit impairment			
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure							Total (of col. 14 and 15)	Memorandum items:		
						Total (col. 1 to 4)	Memorandum items of which:							of which: specific impairment	of which: portfolio impairment	
							Defaulted									Equity exposure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
North America (items 367 to 373)	366															
AAA to AA-	367															
A+ to A-	368															
BBB+ to BBB-	369															
BB+ to B-	370															
Below B-	371															
Unrated ³	372															
In default	373															
South America (items 375 to 381)	374															
AAA to AA-	375															
A+ to A-	376															
BBB+ to BBB-	377															
BB+ to B-	378															
Below B-	379															
Unrated ³	380															
In default	381															
Other (items 383 to 389)	382															
AAA to AA-	383															
A+ to A-	384															
BBB+ to BBB-	385															
BB+ to B-	386															
Below B-	387															
Unrated ³	388															
In default	389															

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

IRB approach: Credit concentration risk – geographical distribution	Line no.	Original credit and counterparty exposure ¹							Exposure value (EAD)	EAD weighted average PD (%)	EAD weighted average LGD (%)	Risk weighted value	Risk weighted value as % of qualifying capital and reserve funds	Credit impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure								Total (of col. 14 and 15)	Memorandum items:	
						Total (col. 1 to 4)	Memorandum items of which:								of which: specific impairment	of which: portfolio impairment
							Defaulted	Equity exposure								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Total, including South Africa (of items 391 to 397)	390															
AAA to AA-	391															
A+ to A-	392															
BBB+ to BBB-	393															
BB+ to B-	394															
Below B-	395															
Unrated ³	396															
In default	397															

1. Based on the rating assigned to the relevant country in which the relevant obligor is domiciled.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Not to include any exposure in default.

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

IRB approach: Other selected geographical information ^{1, 2}	Line no.	Original credit and counterparty exposure ²							Exposure value (EAD)	Total impairment		
		On-balance sheet exposure	Off-balance sheet exposure	Repurchase and resale agreements	Derivative instruments	Total credit exposure				Total (col. 10 plus 11)	of which:	
						Total (col. 1 to 4)	Memorandum items:				specific credit impairment	portfolio credit impairment
							of which: defaulted	Total equity exposure				
1	2	3	4	5	6	7	8	9	10	11		
Advanced economies, excluding China	398											
of which: United Kingdom	399											
Emerging market and developing countries, including China (total of items 401, 402, 408 to 410 and 413 to 415)	400											
South Africa	401											
African countries, excluding South Africa	402											
of which:												
Sub-Saharan Africa	403											
of which:												
Nigeria	404											
Kenya	405											
Namibia	406											
Mozambique	407											
Central and Eastern Europe	408											
Commonwealth of Independent States and Mongolia	409											
Developing Asia, including China	410											
of which:												
People's Republic of China	411											
India	412											
Middle East	413											
Western Hemisphere	414											
Other ³	415											
(Specify)												
Total (of items 398 and 400)	416											

1. Based on the regional classification contained in the World Economic Outlook Report issued by the International Monetary Fund from time to time, and the residence or place of incorporation of the relevant person or counterparty.
2. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.
3. Means any country other than the countries specified above and in the World Economic Outlook Report issued by the International Monetary Fund from time to time.

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

IRB approach: Credit concentration risk - 20 largest exposures in debt and with equity exposure ¹ Name of person	Line no.	Debt exposure	Total equity exposure		Total debt and equity exposure (col. 1+2)	PD (%)	Expected loss	
			Total (of col. 3+4)	of which:				of which: publicly
				privately held equity exposure				traded equity exposure
		1	2	3	4	5	6	7
Total (of items 418 to 437) (Specify)	417							
	418							
	419							
	420							
	421							
	422							
	423							
	424							
	425							
	426							
	427							
	428							
	429							
	430							
	431							
	432							
	433							
	434							
	435							
	436							
	437							

1. This table shall be completed based on the total debt and equity exposures.

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

IRB approach: Watch list ¹	Line no.	Asset class ²	PD rating ³ (%)	Credit exposure ⁴	Expected loss	Risk weighted value of EAD	Specific impairment	Comment
Name of person		1	2	3	4	5	6	7
Total	438							
(Please submit required details on separate list)	439							
	440							
	441							
	442							
	443							
	444							
	445							
	446							
	447							
	448							
	449							
	450							
	451							
	452							

1. Includes credit exposure in respect of which the expected loss exceeds 1% of qualifying capital and reserve funds reported in item 88 of form BA 700, which credit exposure is not yet classified as being in default.

2. Based on the following specified keys: 1 = Corporate; 2 = Specialised lending – high volatility commercial real estate (property development); 3 = Specialised lending – income producing real estate; 4 = Specialised lending – object finance; 5 = Specialised lending – commodities finance; 6 = Specialised lending - project finance; 7 = SME corporate; 8 = Purchased receivables – corporate; 9 = Public sector entities; 10 = Local government and municipalities; 11 = Sovereign (including central government and central bank); 12 = Banks; 13 = Securities firms; 14 = Retail mortgages (including any home equity line of credit); 15 = Retail revolving credit; 16 = Retail – other; 17 = SME retail; 18 = Purchased receivables – retail; 19 = Securitisation exposure.

3. Means the relevant PD rating (%) assigned by the reporting bank.

4. Before the application of any credit conversion factor, credit risk mitigation or volatility adjustment.

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

Standardised and IRB approaches	Line no.	Current period exposure					Prior period exposure		Variance in exposure (col. 5 minus 7)	Current exposure as % of qualifying capital and reserve funds ¹	Responses to questions in notes 2a to 2c		
		On-balance sheet exposure			Off-balance sheet exposure	Total (col. 3+4)	On-balance sheet exposure	Total exposure			2a. At arms-length	2b. Board monitoring	2c. Risk mitigation
		Investments and loans	Other	Total (col. 1+2)									
Exposure to related person ¹	Exposure to:	1	2	3	4	5	6	7	8	9	10	11	12
Significant shareholder (Specify ¹)	453												
	454												
	455												
Member of the board of directors (Specify ¹)	456												
	457												
	458												
Member of senior management (Specify ¹)	459												
	460												
	461												
Company controlled by significant shareholder (Specify ¹)	462												
	463												
	464												
Associate of the bank or controlling company (Specify ¹)	465												
	466												
	467												
Other related persons (Specify ¹)	468												
	469												
	470												
Total (of items 453, 456, 459, 462, 465 and 468)	471												

Notes:

- 1 The required details shall be reported separately in respect of an exposure to a related person equal to or exceeding 0.1% of qualifying capital and reserve funds as reported in item 88 column 1 of the form BA 700. Exposures to related persons individually not equal to or exceeding 0.1% of the said amount of qualifying capital and reserve funds may be grouped together and the aggregate amount reported under "other".
- 2a. Are loans and advances to related persons conducted on an arm's-length basis? (Yes = 1; no = 2)
When no, a separate schedule of all exposure to related persons not at arm's length shall on request be submitted in writing.
- 2b. Does the board of directors of the relevant bank or controlling company effectively monitor extension of credit to related persons? (Yes = 1; no = 2)
- 2c. Are appropriate steps taken to control or mitigate the risks relating to related person exposure? (Yes = 1; no = 2)

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

IRB approach: Analysis of total credit extended ¹ , analysed by PD band	Line no.	Prescribed rating scale		Asset class													
		Lower bound (%)	Upper bound (%)	Corpo rate	Corporate exposure ^{1,2}								Public sector entities ^{1,2}	Local government and municipaliti es ^{1,2}	Sovereign ^{1,2} (including central government and central banks)	Banks ^{1,2}	Securities firms ^{1,2}
					Specialised lending					SME corpo rate	Purcha sed corpo rate receiva bles	Total corporate exposure (total of col. 3 to 10)					
					High volatility commercial real estate (property development)	Income producing real estate	Object finance	Commo dity finance	Project finance								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Performing (total of items 473 to 498)	472																
00	473		0.0000														
01	474	0.0001	0.0120														
02	475	0.0121	0.0170														
03	476	0.0171	0.0240														
04	477	0.0241	0.0340														
05	478	0.0341	0.0480														
06	479	0.0481	0.0670														
07	480	0.0671	0.0950														
08	481	0.0951	0.1350														
09	482	0.1351	0.1900														
10	483	0.1901	0.2690														
11	484	0.2691	0.3810														
12	485	0.3811	0.5380														
13	486	0.5381	0.7610														
14	487	0.7611	1.0760														
15	488	1.0761	1.5220														
16	489	1.5221	2.1530														
17	490	2.1531	3.0440														
18	491	3.0441	4.3050														
19	492	4.3051	6.0890														
20	493	6.0891	8.6110														
21	494	8.6111	12.1770														
22	495	12.1771	17.2220														
23	496	17.2221	24.3550														
24	497	24.3551	34.4430														
25	498	34.4431	99.9999														
Default	499	100.000	100.000														
Total (of items 472 and 499)	500																

1. Not on an EAD basis.

2. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate total amount of credit extended.

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

IRB approach: Analysis of total credit extended ¹ , analysed by PD band	Line no.	Asset class											Total credit extended (col. 11 to 17)	
		Retail exposure ^{1,2}												
		Total retail exposure (total of columns 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 columns 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		
17	18	19	20	21	22	23	24	25	26	27	28	29		
Performing (total of items 473 to 498)	472													
00	473													
01	474													
02	475													
03	476													
04	477													
05	478													
06	479													
07	480													
08	481													
09	482													
10	483													
11	484													
12	485													
13	486													
14	487													
15	488													
16	489													
17	490													
18	491													
19	492													
20	493													
21	494													
22	495													
23	496													
24	497													
25	498													
Default	499													
Total (of items 472 and 499)	500													

1. Not on an EAD basis.

2. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate total amount of credit extended.

IRB approach: EAD weighted average LGD (percentage) Prescribed PD band	Line no.	Prescribed rating scale		Asset class													
		Lower bound (%)	Upper bound (%)	Corpo rate	Corporate exposure ¹					SME corpo rate	Purcha sed corpor ate receiva bles	Total corporate exposure average LGD (%)	Public sector entities ¹	Local government and municipaliti es ¹	Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹
					Specialised lending												
					High volatility commercial real estate (property development)	Income producing real estate	Object finance	Commo dity finance	Project finance								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Performing (total of items 502 to 527)	501																
00	502		0.0000														
01	503	0.0001	0.0120														
02	504	0.0121	0.0170														
03	505	0.0171	0.0240														
04	506	0.0241	0.0340														
05	507	0.0341	0.0480														
06	508	0.0481	0.0670														
07	509	0.0671	0.0950														
08	510	0.0951	0.1350														
09	511	0.1351	0.1900														
10	512	0.1901	0.2690														
11	513	0.2691	0.3810														
12	514	0.3811	0.5380														
13	515	0.5381	0.7610														
14	516	0.7611	1.0760														
15	517	1.0761	1.5220														
16	518	1.5221	2.1530														
17	519	2.1531	3.0440														
18	520	3.0441	4.3050														
19	521	4.3051	6.0890														
20	522	6.0891	8.6110														
21	523	8.6111	12.1770														
22	524	12.1771	17.2220														
23	525	17.2221	24.3550														
24	526	24.3551	34.4430														
25	527	34.4431	99.9999														
Default	528	100.000	100.000														
Total (of items 501 and 528)	529																

1. In respect of the relevant specified PD bands and asset classes, a bank shall report the EAD weighted average LGD percentage relating to the relevant credit exposure, calculated in accordance with the relevant requirements specified in these Regulations.

IRB approach: EAD weighted average LGD (percentage) Prescribed PD band	Line no.	Asset class											Total EAD weighted average LGD (%)	
		Retail exposure ¹												
		Total retail exposure average LGD (%)	Residential mortgage advances	Retail revolving credit		SME retail			Retail other					Purchased retail receivables
				Total	of which: credit cards	Total	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		
17	18	19	20	21	22	23	24	25	26	27	28	29		
Performing (total of items 502 to 527)	501													
00	502													
01	503													
02	504													
03	505													
04	506													
05	507													
06	508													
07	509													
08	510													
09	511													
10	512													
11	513													
12	514													
13	515													
14	516													
15	517													
16	518													
17	519													
18	520													
19	521													
20	522													
21	523													
22	524													
23	525													
24	526													
25	527													
Default	528													
Total (of items 501 and 528)	529													

1. In respect of the relevant specified PD bands and asset classes, a bank shall report the EAD weighted average LGD percentage relating to the relevant credit exposure, calculated in accordance with the relevant requirements specified in these Regulations.

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

IRB approach: Expected loss Prescribed PD band	Line no.	Prescribed rating scale		Asset class																	
		Lower bound (%)	Upper bound (%)	Corpo rate	Corporate exposure ¹								SME corpo rate	Purcha sed corpor ate receiva bles	Total corporate expected loss (total of col. 3 to 10)	Public sector entities ¹	Local government and municipaliti es ¹	Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹	
					Specialised lending				Project finance	Commo dity finance	Object finance	Income producing real estate									High volatility commercial real estate (property development)
					1	2	3	4													
Performing (total of items 531 to 556)	530																				
00	531		0.0000																		
01	532	0.0001	0.0120																		
02	533	0.0121	0.0170																		
03	534	0.0171	0.0240																		
04	535	0.0241	0.0340																		
05	536	0.0341	0.0480																		
06	537	0.0481	0.0670																		
07	538	0.0671	0.0950																		
08	539	0.0951	0.1350																		
09	540	0.1351	0.1900																		
10	541	0.1901	0.2690																		
11	542	0.2691	0.3810																		
12	543	0.3811	0.5380																		
13	544	0.5381	0.7610																		
14	545	0.7611	1.0760																		
15	546	1.0761	1.5220																		
16	547	1.5221	2.1530																		
17	548	2.1531	3.0440																		
18	549	3.0441	4.3050																		
19	550	4.3051	6.0890																		
20	551	6.0891	8.6110																		
21	552	8.6111	12.1770																		
22	553	12.1771	17.2220																		
23	554	17.2221	24.3550																		
24	555	24.3551	34.4430																		
25	556	34.4431	99.9999																		
Default²	557	100.000	100.000																		
Total expected loss (total of items 530 and 557)	558																				

1. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate amount of expected loss.
2. Means the reporting bank's best estimate of the relevant expected loss amount.

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

IRB approach: Expected loss Prescribed PD band	Line no.	Asset class											Total expected loss (col. 11 to 17)		
		Total retail expected loss (total of columns 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 columns 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			
															17
Performing (total of items 531 to 556)	530														
00	531														
01	532														
02	533														
03	534														
04	535														
05	536														
06	537														
07	538														
08	539														
09	540														
10	541														
11	542														
12	543														
13	544														
14	545														
15	546														
16	547														
17	548														
18	549														
19	550														
20	551														
21	552														
22	553														
23	554														
24	555														
25	556														
Default²	557														
Total expected loss (total of items 530 and 557)	558														

1. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate amount of expected loss.
2. Means the reporting bank's best estimate of the relevant expected loss amount.

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

IRB approach: Analysis of risk weighted exposure, analysed by PD band Prescribed PD band	Line no.	Prescribed rating scale		Asset class													
		Lower bound (%)	Upper bound (%)	Corpo rate	Corporate exposure ¹					SME corpo rate	Purcha sed corpor ate receiva bles	Total corporate risk weighted exposure (total of col. 3 to 10)	Public sector entities ¹	Local government and municipaliti es ¹	Sovereign ¹ (including central government and central banks)	Banks ¹	Securities firms ¹
					Specialised lending												
					High volatility commercial real estate (property development)	Income producing real estate	Object finance	Commo dity finance	Project finance								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
Performing (total of items 560 to 585)	559																
00	560		0.0000														
01	561	0.0001	0.0120														
02	562	0.0121	0.0170														
03	563	0.0171	0.0240														
04	564	0.0241	0.0340														
05	565	0.0341	0.0480														
06	566	0.0481	0.0670														
07	567	0.0671	0.0950														
08	568	0.0951	0.1350														
09	569	0.1351	0.1900														
10	570	0.1901	0.2690														
11	571	0.2691	0.3810														
12	572	0.3811	0.5380														
13	573	0.5381	0.7610														
14	574	0.7611	1.0760														
15	575	1.0761	1.5220														
16	576	1.5221	2.1530														
17	577	2.1531	3.0440														
18	578	3.0441	4.3050														
19	579	4.3051	6.0890														
20	580	6.0891	8.6110														
21	581	8.6111	12.1770														
22	582	12.1771	17.2220														
23	583	17.2221	24.3550														
24	584	24.3551	34.4430														
25	585	34.4431	99.9999														
Default	586	100.000	100.000														
Total (of items 559 and 586)	587																

1. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate amount of risk weighted exposure.

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

IRB approach: Analysis of risk weighted exposure, analysed by PD band Prescribed PD band	Line no.	Asset class											Total risk weighted exposure (col. 11 to 17)	
		Retail exposure ¹												
		Total retail risk weighted exposure (total of columns 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 columns 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				
		17	18	19	20	21	22	23	24	25	26	27	28	29
Performing (total of items 560 to 585)	559													
00	560													
01	561													
02	562													
03	563													
04	564													
05	565													
06	566													
07	567													
08	568													
09	569													
10	570													
11	571													
12	572													
13	573													
14	574													
15	575													
16	576													
17	577													
18	578													
19	579													
20	580													
21	581													
22	582													
23	583													
24	584													
25	585													
Default	586													
Total (of items 559 and 586)	587													

1. In respect of the relevant specified PD bands and asset classes, based on the relevant requirements specified in these Regulations, a bank shall report its relevant aggregate amount of risk weighted exposure.

24. Credit risk - Directives and interpretations for completion of the quarterly return concerning credit risk (Form BA 210)

- (1) The content of the return is confidential and not available for inspection by the public.
- (2) The purpose of the return is to obtain selected information in respect of-
 - (a) credit risk mitigation;
 - (b) restructured credit exposure;
 - (c) credit risk classification and related credit impairment or allowance for credit impairment raised by a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk;
 - (d) credit concentration risk;
 - (e) large exposure to a person;
 - (f) exposures included on a watch list of the reporting bank in order to duly manage the said exposures due to particular circumstances that warrant more than normal attention from the reporting bank's senior management;
 - (g) connected lending or lending to a related person.
- (3) Unless specifically otherwise provided or specified in writing by the Registrar, a bank shall in all cases other than the items specified below complete the form BA 210 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) Matters relating to valuation of security/ collateral

(a) Tangible security

(i) The value of tangible security means the net realisable value of the security, that is, the current market value of the security less any realisation costs. The reporting bank shall base the market value on a reliable valuation, that is, the price at which the relevant asset might be sold on the valuation date assuming-

- a willing buyer and seller;
- the transaction is conducted at arm's length;
- a reasonable period for the sale has been allowed; and
- the asset is freely exposed to the market.

(ii) The reporting bank-

(A) shall on a regular basis but not less frequently than once a year monitor the value of its collateral received, provided that the bank shall on a more frequent basis than once a year monitor the value of its collateral received when the market value of the said collateral is subject to significant change;

(B) may apply statistical methods of evaluation such as reference to house price indices or sampling-

(i) to update its valuation estimates; or

(ii) to identify collateral in respect of which the value materially may have declined and which collateral value may need to be re-assessed,

provided that the bank shall make use of a duly qualified professional person to evaluate any relevant property when relevant information indicates that the value of the said collateral materially may have declined relative to general market prices, or when a credit event such as default occurs.

(b) Intangible security

The reporting bank shall include intangible security only when certainty exists in respect of the legal enforceability and value of the relevant security.

(c) *Principles that may influence the value of tangible and intangible security*

Principles that may influence the value of tangible and intangible security to be reported on the form BA 210 include the matters specified below:

(i) *Prudence*

Prudence is the inclusion of a degree of caution in the exercise of the judgements needed in making the estimates required under conditions of uncertainty, such that assets or income are not overstated and liabilities or expenses are not understated.

(ii) *Reliability*

In order to be useful, information must also be **reliable**. Information has the quality of reliability when it is free of material error and bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be expected to represent. Information may be relevant but so unreliable in nature or representation that its recognition potentially may be misleading.

(iii) *Completeness*

In order to be reliable, the information reported in the risk returns shall be **complete** within the bounds of materiality and cost. An omission may cause information to be false or misleading and thus unreliable and deficient in terms of its relevance.

(d) When the value of any relevant security or collateral exceeds the relevant exposure value to which it relates, the reporting bank shall limit the said valuation amount to be reported on the form BA 210 to the said exposure amount.

(5) For purposes of this regulation 24 and the completion of items 43 to 63 of the form BA 210, a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk shall classify all relevant exposures in accordance with the relevant requirements specified below:

- (a) Any credit exposure, including on-balance-sheet items, off-balance-sheet items or credit exposure arising from repo-style transactions or derivative instruments-
 - (i) shall in the case of exposures other than retail exposures be classified per person and not per account;
 - (ii) may in the case of retail exposures be classified per account.

- (b) Classification of any relevant credit exposure amount shall take into account-
- (i) the current financial condition and payment capacity of the relevant obligor;
 - (ii) the payment record of the relevant obligor;
 - (iii) the current value of any relevant collateral; and
 - (iv) other factors that affect the prospects for the collection of principal and interest amounts due.

(c) *Classification categories*

(i) Special mention

Included in the category of special mention are credit exposures in respect of which the obligor is experiencing difficulties that may threaten the bank's position. Ultimate loss is not expected, but may occur if adverse conditions persist.

As a minimum, credit exposure that exhibits one or more of the characteristics specified below shall be included in the category of special mention:

- (A) Early signs of liquidity problems exist, such as delay in the servicing of loans.
- (B) Loan information is inadequate or incomplete. For example, the reporting bank is unable to obtain from the relevant obligor annual audited financial statements or such statements are not available.
- (C) The condition of and control over collateral is questionable.
- (D) The bank fails to obtain proper documentation from or co-operation by the obligor or finds it difficult to maintain contact with the obligor.
- (E) There is a slowdown in business activity or an adverse trend in the obligor's operations that signals a potential weakness in the financial strength of the obligor, but which may not necessarily have reached a point that threatens the ongoing servicing of the relevant exposure.
- (F) Volatility in economic or market conditions is likely to negatively affect the obligor in the future.
- (G) Poor performance persists in the industry in which the obligor conducts business.

- (H) The relevant obligor, or, in the case of a corporate borrower, a key executive, is in ill health.
- (I) The obligor is subject to litigation that is likely to have a significant impact on the financial position of the said obligor.
- (J) The obligor is experiencing difficulty with the servicing of other loans from either the reporting bank or other banks.

Provided that any relevant credit exposure amount that is overdue for more than 60 days shall as a minimum be classified as special mention.

(ii) Substandard

Any credit exposure that reflects an underlying, well defined weakness that may lead to probable loss if not corrected should be included in the category of substandard. The risk that such credit exposure may become an impaired asset is probable, and the bank is relying, to a large extent, on available security.

The primary sources of repayment are insufficient to service the remaining contractual principal and interest amounts, and the bank has to rely on secondary sources for repayment, which secondary sources may include collateral, the sale of a fixed asset, refinancing and further capital.

Credit exposures classified as substandard are likely to exhibit one or more of the characteristics specified below:

- (A) Repayment of the principal amount and/or accrued interest has been overdue for more than 90 days, and the net realisable value of security is insufficient to cover the payment of the principal amount and accrued interest.
- (B) The principal amount and accrued interest are fully secured, but the repayment of the principal amount and/or accrued interest has been overdue for more than 12 months.
- (C) Significant deficiencies exist that threaten the obligor's business, cash flow or payment capability, which deficiencies may include the items specified below:
 - (i) The credit history or performance record of the obligor is not satisfactory.
 - (ii) Labour disputes or unresolved management problems may affect the business, production or profitability of the obligor.

- (iii) Increased borrowings are not in proportion with the obligor's business.
- (iv) The obligor is experiencing difficulty with the repayment of obligations to other creditors.
- (v) Construction delays or other unplanned adverse events resulting in cost overruns are likely to require loan restructuring.
- (vi) The obligor is unemployed.

(iii) Doubtful

Credit exposure in the category of doubtful is considered to be impaired, but is not yet considered final loss due to some pending factors, such as a merger, new financing or capital injection, which factors may strengthen the quality of the relevant exposure.

Doubtful credit exposures exhibit not only all the weaknesses inherent in credit exposures classified as substandard but also have the added characteristics that the said exposures are not duly secured. The said weaknesses make collection in full, on the basis of currently existing facts, conditions and values, highly questionable and improbable. The possibility of loss is high, but due to certain important and reasonably specific factors that may strengthen the asset, the classification of the asset as an estimated loss is deferred until a more exact status may be determined.

Credit exposures classified as doubtful exhibit one or more of the characteristics specified below:

- (A) Repayment of the principal amount and/or accrued interest has been overdue for more than 180 days, and the net realisable value of security is insufficient to cover the payment of the principal amount and accrued interest.
- (B) In the case of unsecured or partially secured credit exposures that have been overdue for less than 180 days, other serious deficiencies, such as default, death, bankruptcy or liquidation of the obligor, are detected or the obligor's whereabouts are unknown.

Credit exposures that have been overdue for 180 days and longer are usually classified as doubtful unless the said exposures are well secured, legal action has actually commenced, and timely realisation of the collateral or enforcement of guarantees obtained will result in the repayment of the relevant principal and interest amounts due, including payments in respect of amounts overdue.

When an account is classified as doubtful, unless particular circumstances pertaining to the relevant obligor dictate otherwise, interest shall no longer be accrued or accrued interest shall be impaired.

(iv) Loss

Credit exposures classified as loss are considered to be uncollectable once collection efforts, such as realisation of collateral and institution of legal proceedings, have been unsuccessful. The relevant exposures are considered of such little value that the said exposures should no longer be included in the net assets of the bank.

This classification does not necessarily mean that the asset has no recovery value. Instead, it is neither practical nor desirable to defer writing off this basically worthless asset even though partial recovery may be effected in the future, that is, banks should not retain exposures on their books while attempting long-term recoveries.

Non-performing credit exposures that have been overdue for at least one year shall be classified as loss unless such exposures are well secured, legal action has actually commenced, and timely realisation of the collateral or enforcement of guarantees obtained will result in the repayment of the relevant principal and interest amounts due, including payment in respect of amounts overdue.

When an account is classified as loss, unless particular circumstances pertaining to the relevant obligor dictate otherwise, interest shall no longer be accrued or accrued interest shall be impaired.

(6) *Matters specifically related to credit concentration risk*

The purpose of items 64 to 77 and 285 to 300 of the form BA 210, amongst other things, is-

- (a) to obtain the approval of the Registrar, as contemplated in section 73(2)(a) of the Act, of any transaction in the form of an investment with or a loan, advance or other direct or indirect credit facility granted to a private-sector non-bank person, as defined in regulation 67, which transaction results in the reporting bank, controlling company, branch or branch of a bank being exposed to that person to an amount exceeding an amount representing the percentage of capital and reserve funds specified in subregulation (7)(b);
- (b) to inform the Registrar, as contemplated in section 73(2)(b) of the Act, of any transaction in the form of an investment with or a loan, advance or other direct or indirect credit facility granted to a person other than a person referred to in paragraph (a), which transaction results in the reporting bank, controlling company, branch or branch of a bank being exposed to that person to an amount exceeding an amount representing the percentage of capital and reserve funds specified in subregulation (7)(b).

(7) *Prescribed percentages relating to specified concentration risk*

The prescribed percentage of a specified amount contemplated in-

- (a) section 73(1)(a) of the Act shall in the case of a bank, controlling company, branch or branch of a bank be 10 per cent of the respective amounts specified in subparagraphs (i) to (iv) below:
- (i) In the case of a bank, joint venture or foreign subsidiary of a bank reporting on a solo basis, the specified amount shall be 10 per cent of the qualifying common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the said reporting bank, joint venture or foreign subsidiary of the bank, as the case may be, as reported in item 88 of the form BA 700, as at the month-end preceding the reporting date to which the form BA 210 relates;
 - (ii) In the case of a bank or controlling company reporting on a consolidated basis, the specified amount shall be 10 per cent of the consolidated net amount of qualifying capital and reserve funds of the said reporting bank or controlling company, as the case may be, as reported in item 88 of the form BA 700, at the latest date for which the relevant statement was submitted;
 - (iii) In the case of a foreign institution that conducts the business of a bank through a branch in the Republic, the specified amount shall be 10 per cent of the qualifying capital and reserve funds of the said foreign institution that conducts the business of a bank through its branch in the Republic;
 - (iv) In the case of a branch of a bank, the specified amount shall be 10 per cent of the qualifying common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the parent bank in the Republic, as reported in item 88 of the form BA 700, as at the month-end preceding the reporting date to which the form BA 210 relates.
- (b) section 73(2) of the Act shall in the case of a bank, controlling company, branch or branch of a bank be 25 per cent of the respective amounts specified in subparagraphs (i) to (iv) below:
- (i) In the case of a bank, joint venture or foreign subsidiary of a bank reporting on a solo basis, the specified amount shall be 25 per cent of the qualifying common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the said reporting bank, joint venture or foreign subsidiary of the bank, as the case may be, as reported in item 88 of the form BA 700, as at the month-end preceding the reporting date to which the form BA 210 relates;

- (ii) In the case of a bank or controlling company reporting on a consolidated basis, the specified amount shall be 25 per cent of the consolidated net amount of qualifying capital and reserve funds of the said reporting bank or controlling company, as the case may be, as reported in item 88 of the form BA 700, at the latest date for which the relevant statement was submitted;
- (iii) In the case of a foreign institution that conducts the business of a bank through a branch in the Republic, the specified amount shall be 25 per cent of the qualifying capital and reserve funds of the said foreign institution that conducts the business of a bank through its branch in the Republic;
- (iv) In the case of a branch of a bank, the specified amount shall be 25 per cent of the qualifying common equity tier 1 capital and reserve funds, additional tier 1 capital and reserve funds and tier 2 capital and reserve funds of the parent bank in the Republic, as reported in item 88 of the form BA 700, as at the month-end preceding the reporting date to which the form BA 210 relates.

(8) *Matters specifically related to exempt exposure*

For purposes of this regulation 24, exempt exposure includes any exposure specified in writing by the Registrar, which exempt exposure shall be reported under “other exposures”, in item 72 or 295, as the case may be, of the form BA 210.

(9) *Matters specifically related to connected lending or lending to a related person*

- (a) In order to prevent any potential abuse arising from connected lending or lending to a related person, every bank and every controlling company shall have in place robust processes, procedures, systems and board-approved policies to ensure, among other things, that-
 - (i) the bank or controlling company, as the case may be, lends money to a related person on an arm’s-length basis, that is, no exposure to a connected or related person of a bank or controlling company shall be extended on terms or under conditions more favourable than a corresponding loan or exposure to a person not related or connected to the said reporting bank or controlling company, which terms or conditions may relate to matters such as credit assessment, tenor, interest rate or a requirement for collateral, unless the related person is an employee of the bank or controlling company and the relevant loan or exposure that is granted on beneficial terms forms part of that person’s remuneration package;
 - (ii) no person benefiting from a particular loan or exposure is responsible for the preparation of the loan assessment or credit decision, or the subsequent management of the exposure or any relevant matter related to that exposure;

- (iii) the monitoring and the reporting of individual and aggregate exposure(s) to related persons are subject to an independent credit review process;
 - (iv) any transaction with a related person and the write-off of any related-party exposure exceeding one per cent of the bank or controlling company's qualifying common equity tier 1 capital and reserve funds, as reported in item 64 of the form BA 700, or otherwise posing special risks, is subject to the prior written approval of the board of directors of that bank or controlling company;
 - (v) any extension of credit to a related person is duly documented and monitored;
 - (vi) the bank or controlling company takes appropriate steps to control or mitigate any risk arising from an exposure granted to a related person.
- (b) When the Registrar is of the opinion that the bank or controlling company's policies, processes, procedures and systems related to connected lending or lending to a related person are inadequate, the Registrar may-
- (i) in addition to any other provisions contained in the Act or in these Regulations related to a bank's exposure to a connected or related person, impose such a limit or limits in respect of the bank's exposure to a connected or related person as the Registrar deems prudent or appropriate, which limit or limits may be in relation to the bank's aggregate amount of qualifying capital and reserve funds or liabilities or assets or any combination thereof;
 - (ii) require the relevant bank or controlling company-
 - (A) to deduct from its capital and reserve funds such amount relating to the said transactions or exposure as may be specified in writing by the Registrar; and/or
 - (B) to obtain adequate collateral in respect of the relevant exposure.
- (c) For the purposes of this regulation 24 "related person" means a related person as defined in regulation 36(6).

(10) Instructions relating to the completion of the quarterly form BA 210 are furnished with reference to the headings and item descriptions of certain columns and line item numbers appearing on form BA 210, as follows:

Columns relating to credit risk mitigation: standardised approach, items 1 to 21

Column number	Description
1	<p>Original credit and counterparty exposure</p> <p>In respect of the specified asset class this column shall reflect the relevant aggregate credit exposure amount relating to the reporting bank's-</p> <p>(a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment;</p> <p>(b) off-balance-sheet exposure, including amounts in respect of irrevocable commitments, prior to the application of any relevant credit-conversion factor;</p> <p>(c) exposure in respect of derivative instruments, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19);</p> <p>(d) exposure in respect of any repurchase or resale agreement.</p>
2	<p>Net exposure after netting</p> <p>In respect of the specified asset class this column shall reflect the reporting bank's net credit exposure amount after the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulations 23(7)(a), 23(9)(a), 23(17) or 23(18) has been taken into consideration.</p>
3	<p>Unfunded credit protection: guarantees</p> <p>In respect of the specified asset class this column shall reflect the aggregate amount in respect of guarantees obtained as credit protection, which amount shall include any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained.</p>
4	<p>Unfunded credit protection: credit derivative instruments</p> <p>In respect of the specified asset class this column shall reflect the aggregate amount in respect of credit derivative instruments obtained as credit protection, which amount shall include any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained.</p>

Column number	Description
5	<p>Funded credit protection: Collateral - simple method</p> <p>In respect of the specified asset class this column shall reflect the aggregate amount in respect of collateral obtained by the reporting bank, which collateral complies with the relevant requirements specified in regulation 23(9)(b).</p>
7 and 8	<p>Redistribution of net exposure after netting: inflows</p> <p>In respect of the specified asset class this column shall reflect the aggregate net amount, that is, the relevant amount after the effect of netting has been taken into consideration, in respect of protected credit exposure that are redistributed to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios, or any transfer of exposure from the IRB approach to the standardised approach.</p>
9 and 10	<p>Redistribution of net exposure after netting: outflows</p> <p>In respect of the specified asset class this column shall reflect the aggregate net amount, that is, the relevant amount after the effect of netting has been taken into consideration, in respect of protected credit exposure that are deducted or redistributed from the original obligor's exposure class to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios, or any transfer of exposure to the IRB approach.</p>
12	<p>Volatility adjustment in respect of exposure</p> <p>In respect of the specified asset class this column shall reflect the relevant volatility adjustment that relates to the reporting bank's relevant credit exposure amount.</p>
13	<p>Adjusted value of financial collateral obtained</p> <p>In respect of the specified asset class this column shall reflect the relevant adjusted value of financial collateral obtained by the reporting bank in respect of its exposure to credit risk.</p>
14 to 17	<p>Memorandum items in respect of financial collateral</p> <p>In respect of the specified asset class these columns shall reflect the relevant required adjustments specified on the form BA 210 relating to financial collateral obtained by the reporting bank in respect of its exposure to credit risk.</p>

Column number	Description
18	<p>Credit exposure value post credit risk mitigation</p> <p>In respect of the specified asset class this column shall reflect the reporting bank's relevant credit exposure amount, which credit exposure amount-</p> <p>(a) shall not incorporate the effect of any relevant credit conversion factor relating to an off-balance-sheet item;</p> <p>(b) shall incorporate the effect of any relevant adjustment relating to financial collateral or other eligible credit risk mitigation instrument obtained by the reporting bank in respect of its said exposure to credit risk.</p>

Columns relating to restructured credit exposure: standardised approach, items 22 to 42

Column number	Description
1	<p>Actual number of restructured credit exposure transactions in this reporting quarter</p> <p>In respect of the specified asset class this column shall reflect the aggregate number of transactions in respect of which the reporting bank allowed a restructuring of the relevant credit exposure.</p>
2	<p>Exposure value of restructured credit exposure transactions in this reporting quarter</p> <p>In respect of the specified asset class this column shall reflect the aggregate drawn amount relating to transactions in respect of which the reporting bank allowed a restructuring of the relevant credit exposure.</p>
3	<p>Restructured credit exposure as percentage of asset class exposure and total credit exposure</p> <p>In respect of the specified asset class this column shall reflect the relevant percentage calculated by dividing the aggregate drawn amount relating to restructured credit exposure by the aggregate gross drawn amount in respect of the relevant asset class.</p>

Items relating to credit risk classification and impairment: standardised approach

Item number	Description
43 to 63	<p>Credit risk classification and impairment</p> <p>Based on, amongst other things, the relevant requirements specified in subregulation (5), a bank shall complete items 43 to 63 of the form BA 210.</p>

Columns relating to credit risk classification and impairment: standardised approach, items 43 to 63

Column number	Description
1, 4, 7 and 10	<p>Gross exposure</p> <p>Based on the specified asset classes, these columns shall reflect the aggregate amount in respect of the reporting bank's gross credit exposure.</p>
2, 5, 8 and 11	<p>Collateral</p> <p>Based on the specified asset classes and the relevant requirements specified in subregulation (4), these columns shall reflect the aggregate amount in respect of collateral obtained by the reporting bank in respect of the bank's gross credit exposure.</p>
3, 6, 9 and 12	<p>Specific credit impairment</p> <p>Based on the specified asset classes, these columns shall reflect the aggregate amount in respect of specific credit impairment raised by the reporting bank in accordance with financial reporting standards issued from time to time.</p>

Items relating to credit concentration risk– large exposure to a person: standardised approach

Item number	Description
64 to 77	<p>Credit concentration risk – large exposure to a person</p> <p>Based on, amongst other things, the relevant requirements specified in subregulations (6) to (8), a bank that adopted the standardised approach for the measurement of the bank's exposure to credit risk shall complete items 64 to 77 of the form BA 210.</p>

Columns relating to credit concentration risk– large exposure to a person: standardised approach, items 64 to 77

Column number	Description
2	<p>On-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure to a person, other than any credit exposure arising from a derivative instrument or repo-style transaction, which amount shall be gross of any valuation adjustment or credit impairment.</p>
3	<p>Off-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure to a person, other than any credit exposure arising from a derivative instrument or repo-style transaction, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>

Column number	Description
4	<p>Repurchase and resale agreements</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure to a person arising from a repurchase or resale agreement concluded with the said person by the reporting bank.</p>
5	<p>Derivative instruments</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure to a person arising from a transaction concluded in respect of a derivative instrument, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19).</p>
9	<p>Total credit exposure as a percentage of qualifying capital and reserve funds</p> <p>This column shall reflect the relevant required percentage by dividing the total credit exposure amount to a person reported in column 6 by the aggregate amount of qualifying tier 1 and tier 2 capital and reserve funds of the reporting bank as reported in item 88 of the form BA 700.</p>
10	<p>Additional capital requirement</p> <p>This column shall reflect the aggregate additional required amount of capital and reserve funds in respect of concentration risk arising from an exposure to a private-sector non-bank person, calculated in accordance with the relevant requirements specified in subregulations (6) to (8) read with the relevant provisions of section 73 of the Act, and such further requirements as may be specified in writing by the Registrar.</p>
11	<p>Eligible financial collateral</p> <p>This column shall reflect the current market value of eligible financial collateral obtained by the reporting bank after the effect of any relevant haircut has been taken into consideration.</p>
12 and 13	<p>Unfunded credit protection</p> <p>These columns shall reflect the relevant required aggregate amounts in respect of unfunded eligible credit protection obtained by the reporting bank in respect of the bank's relevant exposure to credit risk.</p>
14	<p>Redistribution of reduced exposure: outflows</p> <p>This column shall reflect the aggregate amount after the effect of netting has been taken into consideration in respect of protected credit exposure that are deducted or redistributed from the original obligor's exposure class to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios.</p>

Column number	Description
15	<p>Redistribution of reduced exposure: inflows</p> <p>This column shall reflect the aggregate amount after the effect of netting has been taken into consideration in respect of protected credit exposure that are redistributed to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios.</p>
16	<p>Specific credit impairment</p> <p>This column shall reflect the aggregate amount relating to any specific credit impairment raised by the reporting bank in accordance with the relevant requirements of financial reporting standards issued from time to time.</p>
17	<p>Net exposure after credit risk mitigation</p> <p>In respect of any relevant credit exposure to a person, this column shall reflect the reporting bank's net exposure amount after the effect of any relevant netting, credit risk mitigation or redistribution of exposure due to risk mitigation, and the application of any relevant credit-conversion factor, have been taken into consideration.</p>
18	<p>Risk weighted value of net exposure</p> <p>In respect of any relevant credit exposure to a person, this column shall reflect the reporting bank's relevant risk weighted net exposure amount, that is, the sum of the various types of exposure to the said person, multiplied by the respective risk weights.</p>

Items relating to credit concentration risk– sectoral distribution: standardised approach

Item number	Description
78 to 90	<p>Sectoral distribution</p> <p>Based on, amongst others, the relevant specified sectors or industries, read with the relevant directives contained in the Standard Industrial Classification of all Economic Activities issued by Statistics South Africa from time to time, a bank that adopted the standardised approach for the measurement of its exposure to credit risk shall complete the information specified in items 78 to 90.</p>

Columns relating to credit concentration risk– sectoral distribution: standardised approach, items 78 to 94

Column number	Description
1	<p>On-balance-sheet exposure</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, which amount shall be gross of any valuation adjustment or credit impairment.</p>
2	<p>Off-balance-sheet exposure</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>
3	<p>Repurchase and resale agreements</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase or resale agreement concluded by the reporting bank.</p>
4	<p>Derivative instruments</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments.</p>
8	<p>Risk weighted value of net exposure</p> <p>Based on the specified sectors, this column shall reflect the reporting bank's relevant risk weighted net exposure amount, that is, the sum of the various types of credit exposure relating to counterparties assigned to the said sector, multiplied by the respective risk weights.</p>
10 and 11	<p>Credit impairment</p> <p>Based on the specified sectors, these columns shall respectively reflect the aggregate amount relating to specific credit impairment and portfolio credit impairment raised by the reporting bank in accordance with the relevant requirements of financial reporting standards issued from time to time.</p>

Items relating to credit concentration risk- Herfindahl-Hirschman Index (HHI): standardised approach

Item number	Description
95 to 111	<p>Wholesale HHI</p> <p>In order to identify potential concentration in the reporting bank's relevant credit portfolios, the bank shall, based on its risk weighted assets calculated in accordance with the relevant requirements specified in these Regulations, calculate its relevant Herfindahl-Hirschman Index, which index-</p> <p>(a) is defined as $HHI = S$ (proportion of total value)²</p> <p>(b) shall in the case of wholesale exposure be based on specified industries;</p> <p>(c) may range in value, with the most diversified portfolio reflecting a calculated value close to zero and the most concentrated portfolio reflecting a calculated value close or equal to 100 per cent.</p>
112 to 117	<p>Retail HHI</p> <p>In order to identify potential concentration in the reporting bank's relevant credit portfolios, the bank shall, based on its risk weighted assets calculated in accordance with the relevant requirements specified in these Regulations, calculate its relevant Herfindahl-Hirschman Index-</p> <p>(a) which risk weighted assets shall be divided by the relevant number of clients in order to determine the relevant average amount of risk weighted assets per client;</p> <p>(b) which index is defined as $HHI = S$ (proportion of total value)²</p> <p>(c) which index shall in the case of retail exposure be based on specified products;</p> <p>(d) which index may range in value, with the most diversified portfolio reflecting a calculated value close to zero and the most concentrated portfolio reflecting a calculated value close or equal to 100 per cent.</p>

Columns relating to credit concentration risk – geographical distribution: standardised approach, items 118 to 174

Column number	Description
1	<p>On-balance-sheet exposure</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, which amount shall be gross of any valuation adjustment or credit impairment.</p>
2	<p>Off-balance-sheet exposure</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>
3	<p>Repurchase and resale agreements</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase or resale agreement concluded by the reporting bank.</p>
4	<p>Derivative instruments</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments.</p>
8	<p>Risk weighted value of net exposure</p> <p>Based on the specified geographical areas, this column shall reflect the reporting bank's relevant risk weighted net exposure amount, that is, the sum of the various types of credit exposure relating to the relevant counterparties assigned to the specified geographical area, after the effects of netting, other forms of eligible credit risk mitigation, redistribution effects or relevant credit conversion factors have been taken into consideration, multiplied by the respective risk weights.</p>
10 and 11	<p>Credit impairment</p> <p>Based on the specified geographical areas, these columns shall respectively reflect the aggregate amount relating to specific credit impairment and portfolio credit impairment raised by the reporting bank in accordance with the relevant requirements of financial reporting standards issued from time to time.</p>

Columns relating to credit concentration risk – 20 largest exposures in debt and with equity exposure: standardised approach, items 194 to 214

Column number	Description
1	<p>Debt exposure</p> <p>This column shall reflect the aggregate amount relating to the reporting bank's twenty largest debt exposures, which debt exposures also have equity exposure of which the relevant amounts are included in columns 2 to 4, calculated as the sum of any-</p> <ul style="list-style-type: none"> (a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment; (b) off-balance-sheet exposure, including any relevant amount relating to an irrevocable commitment, prior to the application of any relevant credit-conversion factor; (c) exposure in respect of any repurchase or resale agreement; and (d) exposure in respect of any relevant derivative instrument, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19); <p>which debt exposure amount reported in column 1 shall exclude the book value of any investment held by the reporting bank deemed to be an equity exposure in accordance with the relevant requirements specified in regulation 31.</p>
2	<p>Equity exposure</p> <p>This column shall reflect the relevant aggregate equity exposure amount relating to the reporting bank's twenty largest debt exposures which also have equity exposure, gross of any valuation adjustment or credit impairment, including any publicly or privately held instrument deemed to be an equity exposure in accordance with the relevant requirements specified in regulation 31.</p>

Columns relating to watch list: standardised approach, items 215 to 228

Column number	Description
2	<p>Exposure amount</p> <p>This column shall reflect the aggregate gross credit exposure amount in respect of the relevant obligor included in the reporting bank's watch list.</p>
3	<p>Risk weighted value of net exposure</p> <p>This column shall reflect the reporting bank's relevant risk weighted net credit exposure amount, that is, the sum of the various types of credit exposure relating to the relevant counterparties on the bank's watch list, after the effects of netting, other forms of eligible credit risk mitigation, redistribution effects or relevant credit conversion factors have been taken into consideration, multiplied by the respective risk weights.</p>

Columns relating to credit risk mitigation: IRB approach, items 229 to 256

Column number	Description
1	<p>Original credit and counterparty exposure</p> <p>In respect of the specified asset class this column shall reflect the relevant aggregate credit exposure amount relating to the reporting bank's-</p> <p>(a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment;</p> <p>(b) off-balance-sheet exposure, including amounts in respect of irrevocable commitments, prior to the application of any relevant credit-conversion factor;</p> <p>(c) exposure in respect of derivative instruments, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19);</p> <p>(d) exposure in respect of any repurchase or resale agreement.</p>
2	<p>Net exposure after netting agreements</p> <p>In respect of the specified asset class this column shall reflect the reporting bank's net credit exposure amount after the risk reducing effect of any netting agreement that complies with the relevant requirements specified in regulations 23(12)(a), 23(14)(a) or 23(17) to 23(19) has been taken into consideration.</p>

Columns relating to credit risk mitigation: IRB approach, items 229 to 256

Column number	Description
3	<p>Unfunded credit protection: guarantees</p> <p>In respect of the specified asset class this column shall reflect the relevant aggregate nominal amount in respect of guarantees obtained as credit protection, other than guarantees obtained that are subject to the provisions of regulations 23(12)(g) or 23(14)(f) relating to double default-</p> <p>(a) which amount shall exclude any relevant adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained;</p> <p>(b) which protection has not already been incorporated into an estimate of LGD;</p> <p>(c) the relevant value of which protection shall in no case exceed the value of the relevant exposure to which it relates.</p>
4	<p>Unfunded credit protection: credit derivative instruments</p> <p>In respect of the specified asset class this column shall reflect the relevant aggregate nominal amount in respect of credit-derivative instruments obtained as credit protection, other than credit-derivative instruments obtained that are subject to the provisions of regulation 23(12)(g) or 23(14)(f) relating to double default-</p> <p>(a) which amount shall exclude any relevant adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained;</p> <p>(b) which protection has not already been incorporated into an estimate of LGD;</p> <p>(c) the relevant value of which protection shall in no case exceed the value of the relevant exposure to which it relates.</p>

Columns relating to credit risk mitigation: IRB approach, items 229 to 256

Column number	Description
5 and 6	<p>Redistribution of net exposure after netting: inflows</p> <p>In respect of the specified asset class these columns shall include the aggregate net amount, that is, the relevant amount after the effect of netting has been taken into consideration, in respect of protected credit exposure that are deducted or redistributed from the relevant obligor's exposure class to the asset class relating to the relevant protection provider, including any redistribution in similar asset classes or sub-portfolios, or any transfer of exposure from the standardised approach to the IRB approach.</p>
7 and 8	<p>Redistribution of net exposure after netting: outflows</p> <p>In respect of the specified asset class these columns shall include the aggregate net amount, that is, the relevant amount after the effect of netting has been taken into consideration, in respect of protected credit exposure that are redistributed to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios, or any transfer of exposure from the IRB approach to the standardised approach.</p>
10	<p>Credit risk mitigation subject to double default: guarantees</p> <p>In respect of the specified asset class this column shall reflect the aggregate nominal amount in respect of guarantees qualifying as credit protection in accordance with the relevant requirements relating to double default specified in regulation 23(12)(g) or 23(14)(f), which amount shall exclude any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained and which protection has not already been incorporated into an estimate of LGD.</p>
11	<p>Credit risk mitigation subject to double default: credit derivative instruments</p> <p>In respect of the specified asset class this column shall reflect the aggregate nominal amount in respect of credit derivative instruments qualifying as credit protection in accordance with the relevant requirements relating to double default specified in regulation 23(12)(g) or 23(14)(f), which amount shall exclude any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained and which protection has not already been incorporated into an estimate of LGD.</p>

Column number	Description
13	<p>Unfunded credit protection: guarantees</p> <p>In respect of the specified asset class this column shall reflect the aggregate nominal amount in respect of guarantees obtained as credit protection, other than guarantees obtained that are subject to the provisions of regulation 23(12)(g) or 23(14)(f) relating to double default, which amount shall exclude any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained and which protection has been incorporated into an estimate of LGD.</p>
14	<p>Unfunded credit protection: credit derivative instruments</p> <p>In respect of the specified asset class this column shall reflect the aggregate nominal amount in respect of credit-derivative instruments obtained as credit protection, other than credit-derivative instruments obtained that are subject to the provisions of regulation 23(12)(g) or 23(14)(f) relating to double default, which amount shall exclude any adjustment in respect of any mismatch between the relevant credit exposure and the protection obtained and which protection has been incorporated into an estimate of LGD.</p>
15 to 17	<p>Eligible financial collateral</p> <p>In respect of the specified asset class, these columns shall reflect the current market value of eligible financial collateral obtained by the reporting bank as protection against an exposure to credit risk, including any eligible financial collateral subject to adjustment due to a maturity or currency mismatch, the respective aggregate amounts of which shall separately be reported as specified on the form BA 210.</p>
18 to 20	<p>Other eligible collateral</p> <p>In respect of the specified asset class, these columns shall reflect the current market value of any eligible collateral, other than eligible financial collateral, obtained by the reporting bank as protection against an exposure to credit risk, including any relevant residential real estate or commercial real estate, the respective aggregate amounts of which shall separately be reported as specified on the form BA 210.</p>

Columns relating to restructured credit exposure: IRB approach, items 257 to 284

Column number	Description
1	<p>Actual number of restructured credit exposure transactions in this reporting quarter</p> <p>In respect of the specified asset class this column shall reflect the aggregate number of transactions in respect of which the reporting bank allowed a restructuring of the relevant credit exposure.</p>
2	<p>Exposure value of restructured credit exposure transactions in this reporting quarter</p> <p>In respect of the specified asset class this column shall reflect the aggregate drawn amount relating to transactions in respect of which the reporting bank allowed a restructuring of the relevant credit exposure.</p>
3	<p>Restructured credit exposure as percentage of asset class exposure and total credit exposure</p> <p>In respect of the specified asset class this column shall reflect the relevant percentage calculated by dividing the aggregate drawn amount relating to restructured credit exposure by the aggregate gross drawn amount in respect of the relevant asset class.</p>

Items relating to credit concentration risk– large exposure to a person: IRB approach

Item number	Description
285 to 300	<p>Credit concentration risk – large exposure to a person</p> <p>Based on, amongst other things, the relevant requirements specified in subregulations (6) to (8), a bank that adopted the IRB approach for the measurement of the bank's exposure to credit risk shall complete items 285 to 300 of the form BA 210.</p>

Columns relating to credit concentration risk – large exposure to a person: IRB approach, items 285 to 300

Column number	Description
2	<p>On-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure to a person, other than any credit exposure arising from a derivative instrument or repo-style transaction, which amount shall be gross of any valuation adjustment or credit impairment.</p>
3	<p>Off-balance-sheet exposure</p> <p>This column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure to a person, other than any credit exposure arising from a derivative instrument or repo-style transaction, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>
4	<p>Repurchase and resale agreements</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure to a person arising from a repurchase or resale agreement concluded with the said person by the reporting bank.</p>
5	<p>Derivative instruments</p> <p>This column shall reflect the aggregate amount in respect of any credit exposure to a person arising from a transaction concluded in respect of a derivative instrument, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19).</p>
9	<p>Total credit exposure as a percentage of qualifying capital and reserve funds</p> <p>This column shall reflect the relevant required percentage by dividing the relevant total credit exposure amount reported in column 6 by the relevant amount of qualifying tier 1 and tier 2 capital and reserve funds of the reporting bank as reported in item 88 of the form BA 700.</p>
14	<p>Eligible financial collateral</p> <p>This column shall reflect the current market value of eligible financial collateral obtained by the reporting bank after the effect of any relevant haircut has been taken into consideration.</p>

Column number	Description
15	<p>Other eligible collateral</p> <p>In respect of the relevant person this column shall reflect the current market value of any eligible collateral, other than eligible financial collateral, obtained by the reporting bank as protection against a large exposure to credit risk, including any relevant residential real estate or commercial real estate.</p>
16 and 17	<p>Unfunded credit protection</p> <p>These columns shall reflect the aggregate amount in respect of unfunded eligible credit protection obtained by the reporting bank in respect of the bank's relevant large exposure to credit risk.</p>
18	<p>Redistribution of reduced exposure: outflows</p> <p>This column shall reflect the aggregate amount after the effect of netting has been taken into consideration in respect of protected credit exposure that are deducted or redistributed from the original obligor's exposure class to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios.</p>
19	<p>Redistribution of reduced exposure: inflows</p> <p>This column shall reflect the aggregate amount after the effect of netting has been taken into consideration in respect of protected credit exposure that are redistributed to the asset class relating to the protection provider, including any redistribution in similar asset classes or sub-portfolios.</p>
20	<p>Specific credit impairment</p> <p>This column shall reflect the aggregate amount relating to any specific credit impairment raised by the reporting bank in accordance with the relevant requirements of financial reporting standards issued from time to time.</p>

Items relating to credit concentration risk – sectoral distribution: IRB approach

Item number	Description
301 to 314	<p>Sectoral distribution</p> <p>Based on, amongst others, the relevant specified sectors or industries, read with the relevant directives contained in the Standard Industrial Classification of all Economic Activities issued by Statistics South Africa from time to time, a bank that adopted the IRB approach for the measurement of its exposure to credit risk shall complete the relevant information specified in items 301 to 314.</p>

Columns relating to credit concentration risk – sectoral distribution: IRB approach, items 301 to 317

Column number	Description
1	<p>On-balance-sheet exposure</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, which amount shall be gross of any valuation adjustment or credit impairment.</p>
2	<p>Off-balance-sheet exposure</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>
3	<p>Repurchase and resale agreements</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase or resale agreement concluded by the reporting bank.</p>
4	<p>Derivative instruments</p> <p>Based on the specified sectors, this column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments.</p>
11	<p>Risk weighted value</p> <p>Based on the specified sectors, this column shall reflect the reporting bank's relevant aggregate risk weighted credit exposure amount calculated in accordance with the relevant IRB approach adopted by the bank for the measurement of its exposure to credit risk.</p>
13	<p>Specific credit impairment</p> <p>This column shall reflect the aggregate amount relating to any specific credit impairment raised by the reporting bank in accordance with the relevant requirements of financial reporting standards issued from time to time.</p>

**Items relating to credit concentration risk- Herfindahl-Hirschman Index (HHI):
IRB approach**

Item number	Description
318 to 334	<p>Wholesale HHI</p> <p>In order to identify potential concentration in the reporting bank's relevant credit portfolios, the bank shall, based on its risk weighted assets calculated in accordance with the relevant requirements specified in these Regulations, calculate its relevant Herfindahl-Hirschman Index, which index-</p> <p>(a) is defined as $HHI = S$ (proportion of total value)²</p> <p>(b) shall in the case of wholesale exposure be based on specified industries;</p> <p>(c) may range in value, with the most diversified portfolio reflecting a calculated value close to zero and the most concentrated portfolio reflecting a calculated value close or equal to 100 per cent.</p>
335 to 340	<p>Retail HHI</p> <p>In order to identify potential concentration in the reporting bank's relevant credit portfolios, the bank shall, based on its risk weighted assets calculated in accordance with the relevant requirements specified in these Regulations, calculate its relevant Herfindahl-Hirschman Index-</p> <p>(a) which risk weighted assets shall be divided by the relevant number of clients in order to determine the relevant average amount of risk weighted assets per client;</p> <p>(b) which index is defined as $HHI = S$ (proportion of total value)²</p> <p>(c) which index shall in the case of retail exposure be based on specified products;</p> <p>(d) which index may range in value, with the most diversified portfolio reflecting a calculated value close to zero and the most concentrated portfolio reflecting a calculated value close or equal to 100 per cent.</p>

Columns relating to credit concentration risk – geographical distribution: IRB approach, items 341 to 397

Column number	Description
1	<p>On-balance-sheet exposure</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of the reporting bank's on-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, which amount shall be gross of any valuation adjustment or credit impairment.</p>
2	<p>Off-balance-sheet exposure</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of the reporting bank's off-balance-sheet credit exposure, other than any credit exposure arising from a repurchase or resale agreement, or derivative instrument, including any relevant exposure amount in respect of an irrevocable commitment, prior to the application of any relevant credit conversion factor.</p>
3	<p>Repurchase and resale agreements</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of any credit exposure arising from a repurchase or resale agreement concluded by the reporting bank.</p>
4	<p>Derivative instruments</p> <p>Based on the specified geographical areas, this column shall reflect the aggregate amount in respect of any credit exposure arising from derivative instruments.</p>
11	<p>Risk weighted value</p> <p>Based on the specified geographical areas, this column shall reflect the reporting bank's relevant aggregate risk weighted credit exposure amount calculated in accordance with the relevant IRB approach adopted by the bank for the measurement of its exposure to credit risk.</p>
14 and 15	<p>Credit impairment</p> <p>Based on the specified geographical areas, these columns shall respectively reflect the relevant aggregate amount relating to specific credit impairment and portfolio credit impairment raised by the reporting bank in accordance with the relevant requirements of Financial Reporting Standards issued from time to time.</p>

Columns relating to credit concentration risk – 20 largest exposures in debt and with equity exposure: IRB approach, items 417 to 437

Column number	Description
1	<p>Debt exposure</p> <p>This column shall reflect the aggregate amount relating to the reporting bank's twenty largest debt exposures, which debt exposures also have equity exposure of which the relevant amounts are included in columns 2 to 4, calculated as the sum of any-</p> <ul style="list-style-type: none"> (a) on-balance-sheet exposure, gross of any valuation adjustment or credit impairment; (b) off-balance-sheet exposure, including any relevant amount relating to an irrevocable commitment, prior to the application of any relevant credit-conversion factor; (c) exposure in respect of any repurchase or resale agreement; and (d) exposure in respect of any relevant derivative instrument, calculated in accordance with the relevant requirements specified in regulations 23(15) to 23(19); <p>which debt exposure amount reported in column 1 shall exclude the book value of any investment held by the reporting bank deemed to be an equity exposure in accordance with the relevant requirements specified in regulation 31.</p>
2 to 4	<p>Equity exposure</p> <p>These columns shall reflect the relevant required aggregate equity exposure amounts relating to the reporting bank's twenty largest debt exposures which also have equity exposure, gross of any valuation adjustment or credit impairment, including any publicly or privately held instrument deemed to be an equity exposure in accordance with the relevant requirements specified in regulation 31.</p>
6	<p>PD (%)</p> <p>In respect of the reporting bank's relevant exposure to an obligor in respect of whom the relevant debt exposure amount is included in column 1, this column shall reflect the reporting bank's relevant internally calculated PD ratio, which PD ratio shall be expressed as a percentage and shall be rounded to two decimal places.</p>

Column number	Description
7	<p>Expected loss</p> <p>In respect of the reporting bank's relevant exposure to an obligor in respect of whom the relevant debt exposure amount is included in column 1, this column shall reflect the reporting bank's relevant expected loss amount, calculated in accordance with the relevant requirements specified in these Regulations.</p>

Columns relating to watch list: IRB approach, items 438 to 452

Column number	Description
5	<p>Risk weighted value of EAD</p> <p>In respect of the total credit exposure amount relating to the relevant obligor included in the reporting bank's watch list, this column shall reflect the relevant risk weighted amount, calculated in accordance with the relevant requirements specified in these Regulations.</p>
6	<p>Specific credit impairment</p> <p>In respect of the relevant obligor included in the reporting bank's watch list, this column shall reflect the relevant aggregate amount relating to any specific credit impairment raised by the reporting bank in accordance with the relevant requirements of Financial Reporting Standards issued from time to time.</p>

CREDIT RISK

(Confidential and not available for inspection by the public)

Name of bank:

Six months ended:(yyyy/mm/dd)

BA 220**Six monthly**

Country:

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

Standardised and IRB approaches: Assets bought-in	Line no.	Date bought in/acquired ¹	Number of shares held	Type of shares held	Percentage interest held	Historic cost to date	Market value at date of return	Net asset value of company	Credit facilities provided by bank to each company		Attributable share of profit/(loss)
									Granted	Utilised	
									1	2	
Companies¹ - total (Specify)	1										
	2										
	3										
	4										
	5										
Immovable assets² - total (Specify)	6										
	7										
	8										
	9										
	10										
	11										
Total (of items 1 and 6)	12										

1. Report separate details in respect of all investments in companies bought-in, including the date on which the approval for the acquisition of the company was obtained from the Registrar, and the nature of business.

2. Report separate details of any immovable asset bought-in, in respect of which the historic cost to date exceeds 1 per cent of the reporting bank's qualifying capital and reserve funds reported in item 88 of the form BA 700 as at the month-end preceding the month to which this form BA 220 relates, and which asset has not been disposed of at the end of the reporting period.

25. Credit risk - Directives and interpretations for completion of the six-monthly return concerning credit risk (Form BA 220)

- (1) The content of the return is confidential and not available for inspection by the public.
- (2) The purpose of the return is to obtain selected information in respect of assets bought-in.
- (3) The relevant calculation of the reporting bank's required amount of capital and reserve funds in respect of assets bought-in is contained in the form BA 200. Instead of providing any information related to the required amount of capital and reserve funds in respect of assets bought-in, the form BA 220 merely provides selected credit risk related information in respect of such assets bought-in.
- (4) Instructions relating to the completion of the six-monthly form BA 220 are furnished with reference to specific headings and item descriptions appearing on the form BA 220, as follows:

Item number

1 to 5 Companies acquired

These items shall reflect the relevant aggregate amounts relating to companies acquired or bought-in during the preceding five years in order to protect an investment, loan or advance and which companies have not been disposed of at the end of the reporting period. After a lapse of five years any relevant company bought-in shall no longer be regarded as an asset bought-in to protect an advance or investment, and shall be reclassified to the appropriate asset class.

6 to 11 Immovable assets

These items shall reflect the relevant aggregate amounts relating to immovable assets acquired or bought-in during the preceding five years in order to protect a loan or advance and which immovable assets have not been disposed of at the end of the reporting period. After a lapse of five years any relevant asset bought-in shall no longer be regarded as an asset bought-in to protect a loan or advance, and shall be reclassified to the appropriate asset class.