Santander UK plc

2013 Additional Capital and Risk Management Disclosures

Additional Capital and Risk Management Disclosures

Introduction

Santander UK plc's Additional Capital and Risk Management Disclosures for the year ended 31 December 2013 should be read in conjunction with its 2013 Annual Report.

As a significant wholly-owned subsidiary of Banco Santander, S.A., Santander UK plc is not required to produce and publish separate Pillar 3 disclosures. However the additional capital and risk management disclosures set out in this document cover certain disclosures required by the Prudential Regulation Authority ('PRA') for major UK banking groups, together with certain other capital related disclosures recommended by the Enhanced Disclosure Task Force ('EDTF') to the extent that they are not already included in the Annual Report.

Impact of CRD IV

The PRA requires UK banking groups to disclose reconciliations of accounting and regulatory measures of capital under the CRD IV[1] rules, the EU implementation of Basel III, and historically required disclosure of a "glide path" to CRD IV explaining how end-point requirements would be met.

The following table sets out the impact of CRD IV on the Santander UK group on the basis that it was implemented on 31 December 2013. As the PRA have implemented CRD IV without the transitional path for Common Equity Tier 1 ('CET 1') capital, the information below reflects the CRD IV end point position. The previously disclosed information for 31 December 2012 is shown as comparatives. This reflects our interpretation of the CRD IV rules at that date, prior to the changes to the rules which occurred throughout 2013.

Pro Forma CRD IV capital and RWAs

	Reported 31 December 2013 Current PRA rules £m	**Proforma 31 December 2013 CRD IV End Point £m**	Reported 31 December 2012 Current PRA rules £m	Proforma 31 December 2012 CRD IV End Point £m
Core Tier 1 Capital ('CT1') - current PRA rules	**9,680**	**9,680**	9,302	9,302
CRD IV Adjustments to CT1				
Excess of regulatory expected losses over impairment losses		**(335)**		(370)
Defined Benefit pension adjustment		**(310)**		(101)
Other (see below)		**(66)**		(23)
CET 1 capital - CRD IV		**8,969**		8,808
Pillar 1 RWAs - current PRA rules	**75,252**	**75,252**	76,524	76,524
CRD IV Adjustments to RWAs				
Securitisation		**983**		970
Counterparty Risk and Other (see below)		**1,415**		2,028
RWAs - CRD IV		**77,650**		79,522
CT1 or CET 1 capital / RWAs Ratio	**12.9%**	**11.6%**	12.2%	11.1%
Difference to CT1 Ratio		**(1.3)%**		(1.1)%

In the above results, securitisation positions which are currently treated as deductions are reflected as 1,250% risk weighted assets under CRD IV. The other adjustments to Core Tier 1 capital include the effect of additional valuation adjustments, deferred tax, securitisation and unrealised losses on available-for-sale securities. The counterparty risk and other adjustments to RWAs include credit valuation adjustment, central counterparty clearing, asset value correlation, specific credit risk adjustments and risk weight reductions for SME exposures.

The Santander UK group exceeds the minimum level of the CRD IV end point CET 1 capital ratio (calculated as CET 1 capital divided by RWAs) as specified by the PRA for 2014, and no further capital actions are required to address the CET 1 position.

[1] The Capital Requirements Directive IV ('CRD IV') and Capital Requirements Regulation ('CRR') legislative package, collectively referred to as CRD IV

Composition of Regulatory Capital under CRD IV – Transitional Own Funds Disclosure

The disclosure below provides PRA-requested reconciliations of accounting and regulatory measures of capital under the PRA's implementation of CRD IV for 31 December 2013. This is prepared in a format consistent with the Annex VI Transitional own fund disclosure template to the European Banking Authority Draft Implementing Technical Standards on Disclosure for Own Funds by institutions.

The results in the first column reflect the potential composition of regulatory capital under CRD IV in the first year of the transitional implementation period. For the purposes of this disclosure these reflect the transitional status to be applied in 2014 as defined by the PRA under Policy Statement PS7/13 'Strengthening capital standards: implementing CRD IV, feedback and final rules'.

The end point position can be derived as the sum of the transitional result and the associated end point adjustment. The assumptions adopted for the Pro Forma CRD IV capital and RWAs disclosure above have been reflected in the following table.

	31 December 2013 £m	CRD IV end point adjustments £m
CET 1 capital: instruments and reserves		
Capital Instruments and the related share premium accounts	8,725	-
Retained earnings	3,307	-
Accumulated other comprehensive income (and other reserves)	(116)	-
CET 1 before regulatory adjustments	**11,916**	**-**
CET 1: regulatory adjustments		
Additional value adjustments	(98)	-
Intangible Assets (net of related tax liability)	(2,335)	-
Fair value reserves related to gains or losses on cash flow hedges	110	-
Negative amounts resulting from the calculation of regulatory expected loss amounts	(544)	-
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing	(25)	-
Defined benefit pension fund assets	(92)	-
Regulatory adjustments applied to CET 1 in respect of amounts subject to pre-CRR treatment		
Amounts to be deducted from or added to CET 1 capital with regard to additional filters and deductions required pre-CRR	37	-
Total Regulatory adjustments to CET 1	**(2,947)**	**-**
CET 1 Capital	**8,969**	**-**
Additional Tier 1 ('AT1') capital: instruments		
Amount of qualifying items and related share premium amounts subject to phase out from AT1	1,298	(1,298)
AT1 before regulatory adjustments	**1,298**	**(1,298)**
Total regulatory adjustments to AT1 capital	**-**	**-**
AT1 capital	**1,298**	**(1,298)**
Tier 1 ('T1') Capital	**10,267**	**(1,298)**
Tier 2 ('T2') Capital: instruments and provisions		
Capital Instruments and the related share premium accounts	1,767	834
Amount of qualifying items and related share premium accounts subject to phase out from T2[1]	1,253	(1,253)
T2 before Regulatory adjustments	**3,020**	**(419)**
Total Regulatory adjustments to T2 capital	**-**	**-**
T2 Capital	**3,020**	**(419)**
Total Capital (TC = T1 + T2)	**13,287**	**(1,717)**

[1] Existing capital instruments with a value of £820m on 31 December 2013 will additionally contribute to Tier 2 capital at the end of the CRD IV transition period on 31 December 2021 if they are not called prior to this date.

Leverage Ratio

The Santander UK group monitors its leverage on the basis of an internal measure of adjusted total assets against Tier 1 capital, taking into account the Santander UK group's risk appetite and balance sheet structure. The following table summarises the group's leverage at 31 December 2013 and the previously disclosed result for 31 December 2012.

	31 December 2013 £m	31 December 2012 £m
Total Assets	**270,305**	293,044
Intangible Assets & Other Adjustments	**(2,971)**	(2,388)
Counterparty Netting[1]	**(23,667)**	(46,219)
Total Adjusted Assets (including cash at central banks held for liquidity purposes)	**243,667**	244,437
Less: cash at central banks held for liquidity purposes	**(24,841)**	(27,585)
Total Adjusted Assets (excluding cash at central banks held for liquidity purposes)	**218,826**	216,852

	31 December 2013 £m	31 December 2012 £m
Leverage Ratios, excluding cash at central banks held for liquidity purposes (Exposure as detailed above)		
Tier 1 capital (current PRA rules)	**11,059**	11,203
Leverage ratio expressed as a percentage	**5.1%**	5.2%
Leverage ratio expressed as a multiple	**20x**	19x
Leverage Ratios, including cash at central banks held for liquidity purposes		
Tier 1 capital (current PRA rules)	**11,059**	11,203
Leverage ratio expressed as a percentage	**4.5%**	4.6%
Leverage ratio expressed as a multiple	**22x**	22x

[1] Counterparty Netting represents reductions to balance sheet asset amounts from netting allowable under leverage exposure calculations. This netting is different in nature to netting applied to credit risk exposures for the purposes of determining net credit exposure, as detailed in the Santander UK plc annual report Risk Management Report section.

Regulatory Leverage – using PRA definition

The Basel III and CRD IV rules include proposals for the use of a leverage ratio as a backstop measure. These proposals will continue to develop over the coming years. In the interim, the PRA has requested that UK banking groups disclose leverage ratios using a PRA-specified methodology to determine capital and exposure as at 31 December 2013. The PRA-specified methodology for exposure ('Regulatory Exposure') is not fully aligned with CRD IV or to the January 2014 Basel Committee framework.

The table below provides three leverage ratio calculations, and includes those specified by the PRA. The first measure uses the current Tier 1 Capital Base under PRA rules. The second measure, the 'Adjusted End Point CRD IV Measure', reflects the end point CRD IV CET 1 capital base at 31 December 2013 and the Other Tier 1 capital instruments under current PRA rules. The third measure reflects solely the end point CRD IV Tier 1 capital at 31 December 2013, which is equal to end point CET 1 since all current Other Tier 1 capital is assumed to be ineligible. Santander UK exceeds the proposed minimum 3% leverage ratio under all of these measures.

	31 December 2013 £m	31 December 2012 £m
Total Assets	**270,305**	293,044
Intangible Assets & Other Adjustments	**(2,971)**	(2,388)
Counterparty Netting	**(13,121)**	(46,220)
Off-Balance Sheet	**20,477**	24,468
Total Regulatory Exposure	**274,690**	268,904

	31 December 2013 as a ratio	**31 December 2013 as a multiple**	31 December 2012 as a ratio	31 December 2012 as a multiple
Regulatory Leverage				
Tier 1 Measure (Basel 2, current PRA rules)	**4.0%**	**25x**	4.2%	24x
Less: End Point CRD IV CET1 adjustments	**(0.3%)**		(0.2%)	
Adjusted End Point CRD IV Measure	**3.7%**	**27x**	4.0%	25x
Less: Currently eligible Other Tier 1 Capital(1)	**(0.4%)**		(0.7%)	
End Point CRD IV Measure	**3.3%**	**31x**	3.3%	30x

(1) The End Point CRD IV measure of capital assumes that all current Other Tier 1 instruments are ineligible. It does not allow for the natural replacement of these instruments over the transition period.

The leverage ratio is broadly unchanged from 31 December 2012 to 31 December 2013 with reductions in total assets being offset by benefits in the level of netting. Refinements have been made to the approach used for the estimation of leverage exposure during 2013.

At 31 December 2013, when PRA adjustments for the purpose of the 2013 capital shortfall exercise are made, the end point CRD IV leverage ratio is 3.0%.

Leverage ratios at 31 December 2013 calculated using exposures under CRD IV rules or the January 2014 Basel Committee framework are not materially different to those calculated using the PRA-specified methodology.

Use of Internal Model-Based Approaches for Determination of Capital Requirements

In accordance with Basel 2 rules, and with approval of the PRA and the Banco de España (the Bank of Spain), Santander UK uses internal models to calculate regulatory capital requirements for credit risk and market risk. Further details on the internal models used are included under credit risk and market risk in the risk types section of this document.

For credit risk two model-based approaches are used, which are collectively termed the Internal Ratings-Based ('IRB') approach. The less advanced approach is the foundation IRB ('FIRB') approach, under which a bank can calculate capital requirements using an internal assessment of the probability of default ('PD') of a counterparty, combined with supervisory formula to estimate the exposure at default ('EAD') and loss given default ('LGD') and for specialised lending risk weight and expected loss. The more sophisticated approach is the advanced IRB ('AIRB') approach under which a bank can calculate capital requirements using internal assessments for PD, EAD and LGD. Where these model-based approaches are not used, the standardised approach is used, under which a bank will apply a risk weighting to exposures depending on the category of exposure and where available an external credit rating.

The Santander UK scope of the use of IRB credit risk approaches and standardised approach is detailed in the table below:

	AIRB	**FIRB**	**Standardised**
Retail	Residential Mortgages Unsecured Personal Loans Bank Accounts	**-**	Credit Cards Consumer Finance Other
Non Retail	Banks Insurers Large Corporates Social Housing	Corporate	Sovereigns Other

For market risk, a combination of a Value at Risk ('VaR') model and a Stressed VaR ('SVaR') model are used to calculate capital requirements for risks within the trading book. For Santander UK, such models are used to calculate the capital requirements for certain risk factors as approved by the PRA with the remainder using the standardised approach.

Risk-weighted assets by Business Division

2013		**Regulatory exposure**			**Risk-weighting**			**RWAs**		
	Balance sheet amount £bn	**Standardised approach £bn**	**IRB Approach £bn**	**Total £bn**	**Standardised approach %**	**IRB Approach %**	**Total %**	**Standardised approach £bn**	**IRB Approach £bn**	**Total £bn**
Retail Banking										
- Secured lending	**148.1**	**0.2**	**157.3**	**157.5**	**77.1**	**14.5**	**14.5**	**0.1**	**22.8**	**22.9**
- Unsecured lending	**7.5**	**5.1**	**6.5**	**11.6**	**77.6**	**65.0**	**70.5**	**4.0**	**4.2**	**8.2**
- Operational risk								**5.4**	**-**	**5.4**
Commercial Banking										
- Customer assets	**22.1**	**13.4**	**14.6**	**28.0**	**93.8**	**72.6**	**82.7**	**12.6**	**10.6**	**23.2**
- Non customer assets[1]	**13.4**	**0.8**	**1.5**	**2.3**	**28.7**	**25.3**	**25.8**	**0.2**	**0.4**	**0.6**
- Market risk[2]								**1.4**	**-**	**1.4**
- Operational risk								**1.4**	**-**	**1.4**
Markets										
- Credit risk	**0.1**	**-**	**0.1**	**0.1**	**-**	**35.6**	**35.6**	**-**	**-**	**-**
- Counterparty risk	**19.2**	**2.1**	**3.8**	**5.9**	**27.1**	**31.2**	**30.4**	**0.6**	**1.2**	**1.8**
- Market risk[2]								**3.3**	**-**	**3.3**
- Operational risk								**0.3**	**-**	**0.3**
Corporate Centre										
- Customer assets[3]	**9.6**	**2.0**	**9.0**	**11.0**	**75.5**	**10.6**	**23.2**	**1.5**	**1.0**	**2.5**
- Eligible liquid assets[4]	**31.5**	**28.1**	**0.0**	**28.1**	**-**	**-**	**-**	**-**	**-**	**-**
- Operational risk								**0.4**	**-**	**0.4**
Intangible assets and securitisation deductions	**2.3**									
Other assets[5]	**16.5**	**7.0**	**3.6**	**10.6**	**42.0**	**26.2**	**36.6**	**3.0**	**0.9**	**3.9**
	270.3							**34.2**	**41.1**	**75.3**

2012		Regulatory exposure			Risk-weighting			RWAs		
	Balance sheet amount £bn	Standardised approach £bn	IRB approach £bn	Total £bn	Standardised approach %	IRB approach %	Total %	Standardised approach £bn	IRB approach £bn	Total £bn
Retail Banking										
- Secured lending	156.6	0.1	164.3	164.4	55.4	14.4	14.4	-	23.6	23.6
- Unsecured lending	7.5	5.1	5.6	10.7	78.4	84.9	82.2	4.0	4.8	8.8
- Operational risk								5.2	-	5.2
Commercial Banking										
- Customer assets	19.6	10.5	14.1	24.6	98.1	76.8	85.8	10.3	10.8	21.1
- Non customer assets[1]	16.0	0.6	0.7	1.3	55.8	12.5	33.8	0.3	0.1	0.4
- Market risk[2]								1.3	-	1.3
- Operational risk								1.3	-	1.3
Markets										
- Credit risk	0.1	-	0.1	0.1	-	39.8	39.8	-	-	-
- Counterparty risk	28.1	2.0	4.2	6.2	25.9	31.2	29.5	0.5	1.3	1.8
- Market risk[2]								2.7	-	2.7
- Operational risk								0.4	-	0.4
Corporate Centre										
- Customer assets[3]	11.0	3.9	9.4	13.3	74.4	10.8	29.3	2.9	1.0	3.9
- Eligible liquid assets[4]	33.0	34.8	-	34.8	-	-	-	-	-	-
- Operational risk								1.0	-	1.0
Intangible assets and securitisation deductions	2.4									
Other assets[5]	18.7	6.3	3.5	9.8	61.9	32.4	51.0	3.9	1.1	5.0
	293.0							33.8	42.7	76.5

(1) Non customer assets principally consist of the securities lending/borrowing and repo businesses of the Short Term Markets business.
(2) Market Risk RWAs are determined using both internal model-based and standardised approaches. See Market Risk section.
(3) Customer assets in the Corporate Centre largely comprise Social Housing.
(4) Eligible liquid assets include reverse repurchase agreements collateralised by eligible sovereign securities.
(5) The balance sheet amounts of other assets have not been allocated segmentally, although the RWAs have been allocated to Corporate Centre. The RWAs cover Credit Risk, Market risk and Operational risk.

Basel II Pillar 1 Risk Types

The following sections of this document cover credit risk (which includes counterparty risk), market risk and operational risk, which are the risk types included in Basel II Pillar 1 that contribute to the level of RWAs.

Credit Risk

Counterparty Risk is included in this section where indicated. Movements in RWAs during 2013 and 2012 were as follows:

Credit Risk	**2013 £bn**	2012 £bn
RWAs at 1 January	**62.0**	64.2
Book size[1]	**1.3**	(3.2)
Book quality[2]	**(2.2)**	(1.0)
Model updates[3]	**(0.5)**	2.0
RWAs at 31 December	**60.6**	62.0

Counterparty Risk	**2013 £bn**	2012 £bn
RWAs at 1 January	**2.2**	2.2
Book size[1]	**0.1**	(0.1)
Book quality[2]	**0.1**	0.1
Model updates[3]	**-**	-
RWAs at 31 December	**2.4**	2.2

(1) Book size relates to organic changes in book size and composition (including new business and maturing loans).
(2)Quality of book changes caused by experience such as underlying customer behaviour or demographics, including changes through model calibrations/realignments.
(3) Model implementation, change in model scope or any change to address other model issues.

There were no significant movements in Credit Risk and Counterparty Risk RWAs during 2013. For Credit Risk, the 31 December 2013 RWAs of £60.6bn were composed of £39.5bn using the IRB approach and £21.1bn using the standardised approach (2012: £41.3bn IRB, £20.7bn standardised). For Counterparty Risk, the 31 December 2013 RWAs of £2.4bn were composed of £1.6bn using the IRB approach and £0.8bn using the standardised approach (2012: £1.4bn IRB, £0.8bn standardised)

Key Features of Credit Risk Models

The following table shows the key features of the Santander UK group's IRB models, outlining the model methodology or approach, the number of years of loss data used, the exposure class covered and applicable regulatory thresholds for each of the PD, LGD and EAD components. The RWAs as at 31 December 2013 are also shown. This table does not include portfolios covered by the IRB approach for securitisations (£0.5bn RWAs), where estimates of expected loss are not performed.

Component Modelled	Portfolio	Number of significant models and size of associated portfolio (RWAs)	Model Description and Methodology	Number of Years Loss Data	Exposure Classes Measured	Applicable Industry-wide regulatory thresholds
PD	Residential Mortgages	One Model (£22.8bn)	Statistical scorecard produces a PD that is scaled to a long-run cycle average	>10 years	Retail Mortgages	PD floor of 0.03%
	Unsecured Personal Loans	One Model (£2.3bn)	Statistical scorecard produces a PD that is scaled to a long-run average	<3 years	Other Retail	PD floor of 0.03%
	Bank Accounts	One Model (£2.0bn)	Observed default rates segmented into statistical score bands, scaled to a long-run average	6-10 years	Qualifying Revolving Retail Exposures	PD floor of 0.03%
	Social Housing	One Model (£1.0bn)	Expert judgement rating model	Low default portfolio	Corporates	PD floor of 0.03%
	Corporate	Five Models (£8.3bn)	Statistical rating model for Corporates and slotting model for Specialised Lending	>10 years	Corporates	PD floor of 0.03%
	Global Models	Three Models (£4.2bn)	Combination of statistical and expert judgement models for Global Banks, Insurers and Large Corporates	Low default portfolios	Corporates & Institutions	PD floor of 0.03%
LGD	Residential Mortgages	One Model (£22.8bn)	Data driven estimates of loss and propensity to write-off, stressed to a downturn position	3-5 years	Retail Mortgages	LGD floor of 10% at a portfolio level
	Unsecured Personal Loans	One Model (£2.3bn)	Regression based estimates of loss and propensity to write-off, with expert judgement where appropriate	<3 years	Other Retail	NA
	Bank Accounts	One Model (£2.0bn)	Data driven estimates of loss and propensity to write-off, using a long run average	3-5 years	Qualifying Revolving Retail Exposures	NA
	Social Housing	One Model (£1.0bn)	Data driven estimate of realisable value of collateral	Low default portfolio	Corporates	NA
	Corporate	Five Models (£8.3bn)	Foundation IRB	NA	Corporates	NA
	Global Models	Three Models (£4.2bn)	Combination of statistical and expert judgement models for Global Banks, Insurers and Large Corporates	Low default portfolios	Corporates & Institutions	NA
EAD	Residential Mortgages	One Model (£22.8bn)	Long-run credit conversion factors applied to on and off balance	6-10 years	Retail Mortgages	EAD must be at least equivalent to current balance utilisation at account level
	Unsecured Personal Loans	One Model (£2.3bn)	Regression based model	<3 years	Other Retail	EAD must be at least equivalent to current balance utilisation at account level
	Bank Accounts	One Model (£2.0bn)	Long-run credit conversion factors applied to on and off balance	6-10 years	Qualifying Revolving Retail Exposures	EAD must be at least equivalent to current balance utilisation at account level
	Social Housing	One Model (£1.0bn)	Data driven estimate	Low default portfolio	Corporates	EAD must be at least equivalent to current balance utilisation at account level
	Corporate	Five Models (£8.3bn)	Foundation IRB	NA	Corporates	EAD must be at least equivalent to current balance utilisation at account level
	Global Models	Three Models (£4.2bn)	Combination of statistical and expert judgement models for Global Banks, Insurers and Large Corporates	Low default portfolios	Corporates & Institutions	EAD must be at least equivalent to current balance utilisation at account level

Probability of Default ('PD') disclosures

The following tables show the distribution by credit quality of the value of exposures, credit risk parameters and capital for the Santander UK group's IRB portfolios, by exposure class. This excludes specialised lending and securitisation portfolios where PD is not estimated for RWAs calculations. The initial table below details the relationship between the IRB model portfolio and exposure class.

IRB Model Portfolio	Exposure class
Residential Mortgages	Retail Mortgages
Unsecured Personal Loans	Other Retail
Bank Accounts	Qualifying Revolving Retail Exposures
Social Housing	Corporates
Corporate	Corporates
Global Models – Banks	Institutions
Global Models – Insurers	Corporates
Global Models – Large Corporates	Corporates

Santander UK uses a single rating scale to provide a consistent approach for reporting default risk across all the credit risk portfolios. The scale is comprised of eight grades for non-defaulted exposures numbered from 9 (lowest risk) to 2 (highest risk). In the tables below, the PD bands and associated PD ranges reflect those used for PRA reporting purposes. The PD band numbering is inverted, with 1 representing the lowest risk, and the definition of default is in accordance with PRA rules.

For the corporates and institutions exposure classes, the PD bands for an individual counterparty exposure are determined by the through-the-cycle PD value assigned to the counterparty exposures. This through-the-cycle PD is also used in the calculation of average PD, RWAs and average risk weighting for these classes. For the retail mortgages, qualifying revolving retail exposures and other retail exposure classes, the PD band and PD range reflect the point-in-time PD of an individual counterparty exposure, but the PD used for average PD, RWAs and average risk weighting is cycle-adjusted and hence can be different to the point-in-time PD. This results in the average PD being outside the specified PD range for some PD bands.

For all exposure classes the average PD and average LGD reflect exposure at default-weighted values. The analysis for corporates and institutions includes both banking book exposures and counterparty risk exposures.

At 31 December 2013

Corporates

PD Band	PD Range %	Exposure at default estimate £m	Average PD %	Average LGD %	RWAs £m	Average Risk Weighting %	External Rating Equivalent Range	External Rating Equivalent Average PD
1	0.000 to 0.160	10,394	0.065	18	1,460	14	AAA to A-	A
2	0.160 to 0.290	3,001	0.189	33	1,136	38	A- to BBB	BBB+
3	0.290 to 0.530	2,456	0.370	40	1,393	57	BBB to BBB-	BBB-
4	0.530 to 0.920	1,151	0.692	41	906	79	BBB- to BB+	BB+
5	0.920 to 1.560	910	1.320	43	875	96	BB+ to BB	BB
6	1.560 to 2.700	719	2.393	43	827	115	BB to BB-	BB-
7	2.700 to 35.000	229	7.772	43	335	146	BB- to C	B-
	In default	107	100.00	42		-		
	Total	18,967			6,932	37		

Institutions

PD Band	PD Range %	Exposure at default estimate £m	Average PD %	Average LGD %	RWAs £m	Average Risk Weighting %	External Rating Equivalent Range	External Rating Equivalent Average PD
1	0.000 to 0.037	3,956	0.033	46	672	17	AAA to A+	A+
4	0.045 to 0.058	1,570	0.056	46	369	24	A	A
6	0.076 to 0.100	964	0.095	62	358	37	A to A-	A-
8	0.134 to 0.211	64	0.159	53	29	46	A- to BBB+	BBB+
9	0.211 to 0.339	52	0.267	61	34	64	BBB+ to BBB-	BBB
10	0.339 to 0.544	34	0.448	58	24	70	BBB- to BB+	BBB-
11-13	0.544 to 99.999	1	0.960	49	1	90	BB+ to C	BB+ to C
	In default	-	-	-	-	-		
	Total	6,641			1,487	22		

Retail Mortgages

PD Band	PD Range %	Exposure at default estimate £m	Average PD %	Average LGD %	RWAs £m	Average Risk Weighting %
1	0.000 to 0.015	2,613	0.193	8	90	3
2	0.015 to 0.030	3,806	0.165	9	119	3
3	0.030 to 0.060	9,453	0.166	9	289	3
4	0.060 to 0.120	24,117	0.199	8	824	3
5	0.120 to 0.250	46,846	0.612	9	3,862	8
6	0.250 to 0.500	33,655	1.278	11	5,079	15
7	0.500 to 1.000	14,216	2.194	13	3,562	25
8	1.000 to 2.000	4,299	4.671	12	1,586	37
9	2.000 to 4.000	6,557	7.263	10	2,528	39
10	4.000 to 8.000	3,607	13.163	12	2,117	59
11	8.000 to 15.000	1,408	23.928	11	872	62
12	15.000 to 30.000	1,542	41.346	12	948	62
13	30.000 to 60.000	1,267	65.491	12	568	45
14	60.000 to 99.999	716	66.252	12	328	46
	In default	3,122	100.000	16	-	-
	Total	157,224			22,772	14

Qualifying Revolving Retail Exposures

PD Band	PD Range %	Exposure at default estimate £m	Average PD %	Average LGD %	RWAs £m	Average Risk Weighting %
2	0.010 to 0.030	88	0.042	78	2	2
4	0.050 to 0.100	2,168	0.179	75	168	8
5	0.100 to 0.200	145	0.302	75	17	12
6	0.200 to 0.500	350	0.775	73	85	24
7	0.500 to 1.000	509	1.400	74	197	39
8	1.000 to 2.000	376	2.941	74	248	66
9	2.000 to 5.000	427	6.442	73	468	110
10	5.000 to 10.000	187	12.220	72	296	158
11	10.000 to 20.000	144	20.479	71	284	197
12	20.000 to 40.000	62	37.988	67	132	213
13	40.000 to 99.999	38	63.578	66	63	164
	In default	53	100.00	77	-	-
	Total	4,547			1,960	43

Other Retail

PD Band	PD Range %	Exposure at default estimate £m	Average PD %	Average LGD %	RWAs £m	Average Risk Weighting %
4	0.050 to 0.100	4	0.235	88	2	50
5	0.100 to 0.200	14	0.318	88	7	50
6	0.200 to 0.500	99	0.547	88	70	71
7	0.500 to 1.000	343	0.796	88	294	86
8	1.000 to 2.000	641	1.587	88	722	113
9	2.000 to 5.000	608	3.542	88	809	133
10	5.000 to 10.000	150	7.604	88	218	145
11	10.000 to 20.000	32	13.718	88	57	178
12	20.000 to 40.000	16	26.507	88	36	225
13	40.000 to 99.999	22	61.378	88	49	218
	In default	34	100.000	88	-	-
	Total	1,963		.	2,264	115

Significant IRB models and model performance

With £148bn of on balance sheet exposure at 31 December 2013, the residential mortgage portfolio comprised 98% of all retail IRB exposures. Therefore the IRB models employed to calculate RWAs for this portfolio are considered the most significant. PD is determined by the new business application score and a bespoke default-risk scorecard for the back-book. These models produce account level, point-in-time PD estimates which are adjusted to a long-run average default rate using a variable scalar methodology employing observed and inferred default rate data back to 1989. Within each of the legacy portfolios (the former Abbey and Alliance & Leicester businesses) the scaling of the PD (grouped into 14 non-default risk grades) is performed separately across 13 risk segments determined by balance-to-value and buyer type.

For Santander UK's foundation IRB models employed in Commercial Banking, PD is determined via a calibration of the rating model outputs to observed defaults.

LGD is calculated as the proportion of the EAD expected to be written-off multiplied by the probability of a write-off occurring after a default event. The loss proportion uses a 'workout' approach, that is one minus the expected recovery proportion, plus direct and indirect recovery costs associated with the recovery process. Data on losses is taken from 2000 onwards. The probability of write-off given default is measured from observed loss rates from quarterly tranches of accounts entering default since 2007. Downturn LGD is determined by stressing the model inputs to values observed during the worst points of the last recession. For example the forced sale discount is increased from 21% in normal times to a downturn value of 28%. The downturn probability of write-off given default uses the highest observed values, typically seen from in defaults occurring during 2008. Other parameters such as time from default to sale, balance owing at sale and property value are also adjusted to be applicable for downturn conditions.

The performance of all Santander UK's IRB models is monitored each quarter in accordance with Santander UK's model monitoring policies. The monitoring assesses the performance of the rating system with respect to the accuracy of the calibration, discrimination and stability of the component models. The models produce both point-in-time and regulatory values of PD, LGD and EAD. Actual values for these parameters are compared with:

- The point-in-time estimates to ensure the models remain accurate; and
- The regulatory values to ensure the margin of conservatism in regulatory capital.

The model monitoring analyses the causes of significant variance between actual and predicted parameters and identifies actions required to remediate. The monitoring and actions taken to correct under-performance are reviewed by Santander UK's Model Committee and escalated to the Risk Management Committee as necessary. Should the monitoring indicate that a model is underestimating risk, a temporary capital charge is raised until the cause is resolved.

The table below compares the IRB model expected loss with the amount of impairment allowances calculated under the IFRS rules and the impairment charge. The amount of expected loss not covered by impairment allowances contributes to deductions from regulatory capital.

	Expected Loss		Impairment	
	31 December 2012	31 December 2013	Allowances at 31 December 2013	Charge for 2013
	£bn	£bn	£bn	£bn
Residential Mortgages	**1.1**	**1.0**	**0.6**	**0.1**
Unsecured Personal Loans	**0.1**	**0.1**	**0.1**	**-**
Bank Accounts	**0.2**	**0.1**	**-**	**0.1**
Social Housing	**-**	**-**	**-**	**-**
Corporate	**0.3**	**0.3**	**0.3**	**(0.1)**
Global Models	**-**	**-**	**-**	**-**
Total	**1.7**	**1.5**	**1.0**	**0.1**

Differences in the value of EL and provisions arise from differences in the way the two measures are calculated under the regulatory capital and accounting rules. These include, but are not limited to:

- Differences in the definition of default and impairment used for EL and provisions, respectively;
- Regulatory floors and economic cycle adjustments applied to PD and LGD values used in EL;
- Provisions recognise losses as at the balance sheet date while EL is a forward-looking measure of loss arising from defaults in the 12 months; and
- Differences in the cost of recovery and discount rates applied to EL and provisions.

The IRB model expected loss is not regarded as an indicator of expected losses in accordance with the current draft of the accounting standard IFRS 9 due to the level of regulatory floors and prudence built into the IRB models.

Market Risk

Movements in RWAs during 2013 and 2012 were as follows:

Market Risk	2013 £bn	2012 £bn
RWAs at 1 January	**4.1**	2.8
Movement in risk levels(1)	**(0.1)**	0.8
Model updates(2)	**(0.4)**	0.5
Methodology and policy(3)	**1.2**	-
RWAs at 31 December	**4.8**	4.1

(1) Changes in risk due to position changes and market movements.
(2) Updates to the model to reflect recent experience, change in model scope.
(3) Methodology changes to the calculations driven by regulatory policy changes.

The methodology and policy increase in RWAs in 2013 was due to PRA revisions to internal model conditions. The 31 December 2013 RWAs of £4.8bn were composed of £4.3bn using the internal model-based approach and £0.5bn using the standardised approach (2012: £3.6bn internal model-based, £0.5bn standardised)

Key Features of Market Risk Models

The following table shows the key features of the Santander UK group's market risk internal models used for the assessment of RWAs, outlining the model methodology or approach, the number of years of market data used and applicable regulatory thresholds.

Component Modelled	Number of significant models and size of associated portfolio (RWAs)	Model Description and methodology	Number of years market data	Applicable regulatory thresholds for the industry
VaR	1 model	Historical simulation method with two-years of daily price history, equally weighted.	2 years	Regulatory VaR is calculated using 10 day holding period and 99% confidence interval.
SVaR	1 model	Same methodology as above except uses 1 year's daily price history.	1 year period of significant stress relevant to the banks portfolio, reviewed quarterly	Regulatory SVaR is calculated using 10 day holding period and 99% confidence interval

Model Performance

As the VaR confidence level is 99% (for both Internal VaR and Regulatory VaR) and a 1 day time horizon is used, the expectation is that on 99% of days, the following day's actual P&L outcome will either be a gain or a loss of smaller magnitude than the VaR level. Hence we would expect that for 1% of days, which is equal to 2 - 3 times a year, the actual reported P&L loss will exceed the VaR level from the previous day. For Regulatory VaR, the PRA BIPRU classification for P&L outcomes not exceeding the acceptable level is green and Santander UK maintained a green status for 2013. One such exception occurred during 2013. This was regarded as an isolated event and no changes to the internal model were deemed necessary.

Operational risk

Santander UK calculates its operational risk capital requirement under the standardised approach in accordance with PRA rules. The standardised approach uses the average of three years' income of each business line. The average three year income is adjusted to take into account historical income of any businesses acquired during that period. The reduction of RWAs in 2013 of £0.7bn was a result of a lower average three year income.