RBS Group

Pillar 3 Report 2012

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Pillar 3 Report 2012

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Forward-looking statements

This document contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 with respect to the financial condition, results of operations and business of The Royal Bank of Scotland Group plc ('the Group'). Generally, words such as 'may', 'could', 'will', 'expect', 'intend', 'estimate', 'anticipate', 'believe', 'plan', 'seek', 'continue', 'project', 'should', 'probability', 'risk', 'value-at-risk', 'target', 'goal', 'objective', 'endeavour', 'outlook', 'optimistic' and 'prospects' or similar expressions or variations on such expressions identify forward-looking statements.

Any forward-looking statements set out herein represent the Group's expectations or beliefs concerning future events and involve known and unknown risks and uncertainty that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. For further risks and uncertainties faced by the Group that may impact the statements set out in this document, refer to the Group's 2012 Annual Report and Accounts and any other interim or update information published by the Group, including information furnished to the Securities and Exchange Commission on Form 6-K.

Any forward-looking statements set out herein speak only as at the date of this document. Except as required by the Financial Services Authority (FSA), the London Stock Exchange or other applicable law or regulation, the Group does not have any obligation to update or revise publicly any forward-looking statements, whether as a result of new information, further events or circumstances or otherwise, and expressly disclaims any obligation to do so.

Basis of disclosure

The Pillar 3 disclosures being made by the Group are designed to comply with the FSA Handbook (Prudential sourcebook for Banks, Building Societies and Investment Firms (BIPRU) 11). They should be read in conjunction with the Group's 2012 Annual Report and Accounts, approved on 27 February 2013.

There are important differences between the Group's accounting disclosures and the Capital Requirements Directives (CRD) disclosures, which can be summarised as follows:

- The Basel II disclosures represent a regulatory, rather than an accounting basis of consolidation. Various businesses (for example insurance) are included in the latter, but not in the former. Therefore, these disclosures may not be comparable to other external disclosures made by the Group.
- The definition of exposure differs between Basel II and accounting. The Basel II definition used in the Pillar 3 disclosures is exposure at default rather than carrying value at the balance sheet date, as used in the Group's financial reporting.
- It is not always possible to aggregate the disclosures across the different Basel II approaches to obtain a meaningful Group view. This is particularly relevant for the credit risk disclosures.

The information presented in this Pillar 3 Report is not required to be and has not been subject to external audit.

Whilst the Group has participated in discussions at the British Bankers' Association and other trade bodies, it is possible that disclosures made by other banks, especially outside the UK, are not directly comparable.

The Group has not omitted any disclosures on the grounds that the information may be proprietary or confidential.

Disclosures in relation to remuneration are included on pages 320 to 342 of the Group's 2012 Annual Report and Accounts.

Background

The Basel II framework was implemented in the European Union (EU) through the CRD.

The framework is based on three Pillars:

- *Pillar 1 - Minimum capital requirement:* defines rules for the calculation of credit, market and operational risk;
- *Pillar 2 - Supervisory review process:* requires banks to undertake an individual capital adequacy assessment process for other risks; and
- *Pillar 3 - Market discipline:* requires expanded disclosures to allow investors and other market participants to understand the risk profiles of individual banks.

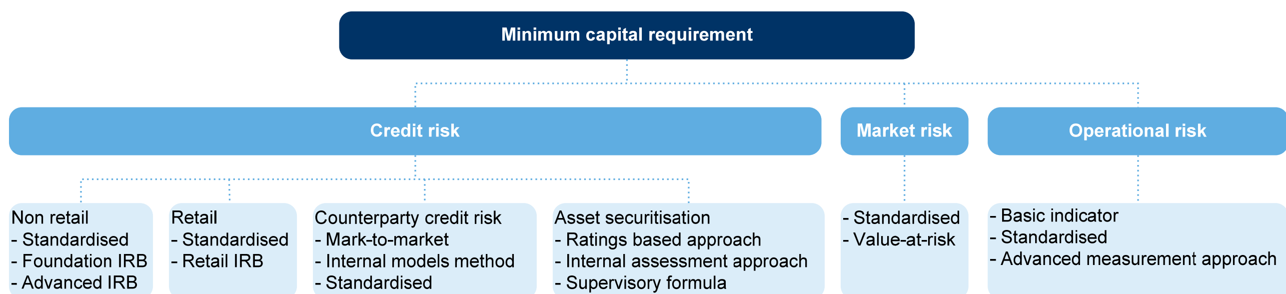
Banks are required to disclose their material risks as part of the Pillar 3 framework. Most of these requirements have already been satisfied within the Group's 2012 Annual Report and Accounts, available on the Group's website. The Group's 2012 Annual Report and Accounts include a range of risk factors and provides in-depth analysis on the specific risks to which the Group is exposed.

These Pillar 3 disclosures provide additional information over and above that contained in the Group's 2012 Annual Report and Accounts. Further information on regulatory developments, and in particular on the impact of Basel III and CRD IV, is included on page 135 and 136 of the Group's 2012 Annual Report and Accounts.

Pillar 1 - Minimum capital requirement

Basel II requires risk-weighted assets (RWAs) to be calculated for credit, market and operational risk with various approaches available to banks, with differing levels of sophistication. The minimum capital requirement is calculated as 8% of RWAs.

Chart 1: Minimum capital requirement structure



Application in the Group

For credit risk, the majority of the Group uses the internal ratings based (IRB) approach for calculating RWAs. The standardised approach is used for exposures in certain portfolios.

Refer to pages 242 to 251 of the Group's 2012 Annual Report and Accounts for market risk disclosures, which includes market risk minimum capital requirements.

For operational risk, the Group uses the standardised approach to calculate RWAs based on gross income. Refer to pages 282 to 284 of the Group's 2012 Annual Report and Accounts for operational risk disclosures, which includes operational risk minimum capital requirements.

Pillar 2 - Supervisory review process

Pillar 2 focuses on risks either not adequately covered in, or excluded from, Pillar 1. The first part of Pillar 2 is the Group Board's individual capital adequacy assessment process (ICAAP) of capital requirements over the short and long-term.

The ICAAP is followed by in-depth discussions between the Group and regulators on the appropriate capital levels (this second stage is called the supervisory review and evaluation process).

For the Group, Pillar 2 currently focuses on pension risk and interest rate risk in the banking book (IRRBB), together with stress tests to assess the adequacy of capital across a range of economic scenarios and time periods. Whilst IRRBB forms part of these Pillar 3 disclosures, pension risk is detailed on page 292 to 293 of the Group's 2012 Annual Report and Accounts.

Pillar 3 - Market discipline

The Group is committed to delivering best practice risk and capital disclosures, to ensure that stakeholders understand the risks inherent within the Group. The Pillar 3 disclosures are designed to encourage and promote market transparency and stability. It represents one component of the Group's broader disclosures framework.

Group Internal Audit undertakes an annual review to provide management and the Board with assurance relating to the adequacy and effectiveness of the systems and controls over the production of the Pillar 3 disclosures.

The Group publishes its Pillar 3 disclosure on an annual basis, in line with the timescales required by the CRD.

The Group's various subsidiaries in Europe are responsible for publishing capital and RWA data externally through an appropriate mechanism (such as websites and annual reporting statements), thereby satisfying the European Banking Authority requirements for member state disclosures. Outside the EU, local subsidiaries may make additional disclosures under Pillar 3, as required by their local regulators.

The Group continues to participate in the British Bankers' Association drive towards consistent Pillar 3 disclosures for UK banks wherever possible. Footnotes are included with the data tables to ensure transparency regarding the approaches used for the disclosures. At the EU and global level, different definitions and assumptions adopted by other banks can make direct comparison difficult.

The Royal Bank of Scotland Group plc is the parent undertaking for all authorised firms in the Group and is subject to consolidated supervision by the FSA. The Pillar 3 disclosure has been prepared for the Group in accordance with BIPRU 11 of the FSA handbook.

Regulatory and statutory consolidations

Control

Inclusion of an entity in the statutory consolidation is driven by the Group's ability to exercise control over that entity. The regulatory consolidation applies a comparable test but consolidation is restricted to certain categories of entity. Non-financial companies and insurance companies are excluded from the regulatory consolidation. In addition, certain special purpose entities are excluded from the regulatory consolidation in accordance with FSA rules.

Significant influence or joint control

Where the Group does not have control of an entity but has more than 20% of the voting rights or capital of that entity, then it must be included in the regulatory consolidation on a pro-rata basis unless it falls into one of the excluded categories or the Group has agreed a different treatment with the FSA (by obtaining a waiver). Such entities will only be included in the statutory consolidation on a pro-rata basis where the Group has joint control. Entities where the Group has significant influence will be equity accounted in the statutory consolidation.

Solo-consolidation, impediments to the transfer of capital resources and aggregate capital deficiency

Individual firms within the Group apply the provisions in BIPRU 2.1 (solo-consolidation waiver) in a limited number of cases only. In 2012, The Royal Bank of Scotland plc had no solo-consolidated subsidiaries whilst National Westminster Bank Plc had three solo-consolidated subsidiaries. The waiver is only used where the business is an extension of the parent bank's activities undertaken through a subsidiary for commercial reasons and which requires solo-consolidation to ensure that there are no adverse consequences to the capital ratios.

The Group operates on an integrated basis with all Group companies being subject to policies, governance and controls that are set centrally. Aside from regulatory requirements, there are no current or foreseen material, practical or legal impediments to the transfer of capital or prompt repayments of liabilities when due.

There were no capital deficiencies (defined as the amount where the actual capital resources are less than the required minimum) in respect of subsidiaries not included in the Group consolidation.

Risk governance

The Group is committed to the highest standards of corporate governance in every aspect of the business, including risk management. For further information refer to pages 117 to 120 of the Group's 2012 Annual Report and Accounts.

Risk appetite

Risk appetite is an expression of the level of risk that the Group is prepared to accept in order to deliver its business objectives. For further information refer to pages 114 to 115 of the Group's 2012 Annual Report and Accounts.

Capital

It is the Group's policy to maintain a strong capital base and to utilise it efficiently throughout its activities to optimise the return to shareholders while maintaining a prudent relationship between the capital base and the underlying risks of the business. In carrying out this policy, the Group has regard to the supervisory requirements of the FSA. The FSA uses the risk asset ratio (RAR) as a measure of capital adequacy in the UK banking sector, comparing a bank's capital resources with its RWAs (the assets and off-balance sheet exposures are 'weighted' to reflect the inherent credit and other risks). By international agreement, the RAR should be not less than 8% with a Tier 1 component of not less than 4%. In 2012, the Group's total RAR was 14.5% (2011 - 13.8%) and the Tier 1 RAR was 12.4% (2011 - 13.0%).

Capital allocation

Capital resources are allocated to the Group's businesses based on key performance parameters agreed by the Group Board in the annual strategic planning process. Principal among these is a profitability metric which assesses the effective use of the capital allocated to the business. Projected and actual return on equity is assessed against target returns set by the Group Board. The allocations also reflect strategic priorities and balance sheet and funding metrics.

Minimum capital and RWAs

The following table details the Group's total RWAs and minimum capital by risk type.

Table 1: RWAs and minimum capital requirement by risk type

	2012		2011	
Risk type	RWAs £m	Minimum capital requirement (1) £m	RWAs £m	Minimum capital requirement (1) £m
Credit risk				
- non-counterparty risk	323,054	25,844	344,221	27,538
- counterparty risk	48,034	3,843	61,918	4,953
Market risk (2)	42,625	3,410	64,039	5,123
Operational risk	45,853	3,668	37,922	3,034
	459,566	36,765	508,100	40,648
Asset Protection Scheme (APS) relief	-	-	(69,064)	(5,525)
	459,566	36,765	439,036	35,123

Notes:
(1) Minimum capital requirement is defined as 8% of the RWAs.
(2) Includes the impact of CRD III.

Key points

- Gross RWAs decreased by £48.5 billion in 2012, mainly as a result of lower market risk through active reduction in derivatives, including the impact of restructuring a large derivative exposure to a highly leveraged counterparty in the first half of 2012.
- Non-counterparty and counterparty risk RWAs fell, driven by sales and run-off, partly offset by the impact of regulatory uplifts.
- The Group exited the APS in October 2012.

Table 2: Composition of regulatory capital

	2012 £m	2011 £m
Shareholders' equity (excluding non-controlling interests)		
Shareholders' equity per balance sheet	68,130	74,819
Preference shares - equity	(4,313)	(4,313)
Other equity instruments	(431)	(431)
	63,386	70,075
Non-controlling interests		
Non-controlling interests per balance sheet	2,318	1,234
Non-controlling preference shares	(548)	(548)
Other adjustments to non-controlling interests for regulatory purposes	(1,367)	(259)
	403	427
Regulatory adjustments and deductions		
Own credit	691	(2,634)
Defined pension benefit adjustment	913	-
Unrealised losses on available-for-sale (AFS) debt securities	409	1,065
Unrealised gains on AFS equity shares	(63)	(108)
Cash flow hedging reserve	(1,666)	(879)
Other adjustments for regulatory purposes	(197)	571
Goodwill and other intangible assets	(13,545)	(14,858)
50% excess of expected losses over impairment provisions (net of tax)	(1,904)	(2,536)
50% of securitisation positions	(1,107)	(2,019)
50% of APS first loss	-	(2,763)
	(16,469)	(24,161)
Core Tier 1 capital	47,320	46,341
Other Tier 1 capital		
Preference shares - equity	4,313	4,313
Preference shares - debt	1,054	1,094
Innovative/hybrid Tier 1 securities	4,125	4,667
	9,492	10,074
Tier 1 deductions		
50% of material holdings	(295)	(340)
Tax on excess of expected losses over impairment provisions	618	915
	323	575
Total Tier 1 capital	57,135	56,990
Qualifying Tier 2 capital		
Undated subordinated debt	2,194	1,838
Dated subordinated debt - net of amortisation	13,420	14,527
Unrealised gains on AFS equity shares	63	108
Collectively assessed impairment provisions	399	635
Non-controlling Tier 2 capital	-	11
	16,076	17,119
Tier 2 deductions		
50% of securitisation positions	(1,107)	(2,019)
50% excess of expected losses over impairment provisions	(2,522)	(3,451)
50% of material holdings	(295)	(340)
50% of APS first loss	-	(2,763)
	(3,924)	(8,573)
Total Tier 2 capital	12,152	8,546
Supervisory deductions		
Unconsolidated investments		
- Direct Line Group	(2,081)	(4,354)
- Other investments	(162)	(239)
Other deductions	(244)	(235)
	(2,487)	(4,828)
Total regulatory capital	66,800	60,708

Table 3: Basel III - own funds disclosure - transitional basis

As recommended by the interim Financial Policy Committee of the Bank of England, a reconciliation between the accounting capital as published in the financial statements and the Basel III transitional capital position has been prepared. This is in line with the FSA's statement, 'CRD IV Transitional Provisions on Capital Resources', where the own funds have been prepared on a 'year 1 transitional basis'. The full basis shows the same calculation based on a full implementation of CRD IV. This is based on our interpretation of the CRD IV proposals published in July 2011.

The 'year 1 transitional basis' applies the rules as if CRD IV had been implemented at 31 December 2012.

Instruments which do not include a call option and an incentive to redeem will be grandfathered. Instruments which have a call option and an incentive to redeem will generally be grandfathered until the effective maturity. Instruments which are not eligible for grandfathering are excluded.

In the first year of transition, the regulatory adjustments will be calculated under the new rules. The CRD IV deductions are determined by applying the transitional percentage (0% in year 1). The residual balance will be deducted according to the current rules, except where the FSA has specified a different treatment.

2012	Current basis £m	Transitional basis £m	Full basis £m
Common Equity Tier 1 (CET1) capital: Instruments and reserves			
Capital instruments and the related share premium accounts	30,864	30,864	30,864
- Ordinary shares (6,070,765,000 at £1)			
Retained earnings including current year loss	10,596	10,596	10,596
Accumulated other comprehensive income	26,160	26,160	26,160
B shares (51,000,000,000 at £0.01)	510	510	-
Less innovative issues moved to Additional Tier 1 (AT1) capital	(431)	(431)	(431)
Less preference shares moved to AT1 capital	(4,313)	(4,313)	(4,313)
Non-controlling interest per accounting balance sheet	2,318	2,318	2,318
Less innovative issues moved to AT1 capital	(548)	(548)	(548)
Less minority interest deconsolidated	(1,367)	(1,367)	(1,770)
Minority interests allowable	403	403	-
Common Equity Tier 1 capital (before regulatory adjustments)	63,789	63,789	62,876
Common Equity Tier 1 capital: Regulatory adjustments			
Additional value adjustments (1)	-	(310)	(310)
Intangible assets (net of related tax liability)	(13,545)	-	(13,956)
Deferred tax assets that rely on future profitability excluding those arising from temporary differences (2)	-	(323)	(3,231)
Fair value reserves related to gains or losses on cash flow hedges	(1,666)	(1,666)	(1,666)
Excess of expected loss over impairment provisions	(1,904)	-	(6,154)
Gains or losses on liabilities valued at fair value resulting from changes in own credit standing (3)	691	691	493
Defined benefit pension fund assets	913	(144)	(144)
Exposure amount which qualify for a risk-weighting of 1,250%, where the institution opts for the deduction alternative (securitisation positions)	(1,107)	-	-
Regulatory adjustments relating to unrealised gains and losses	346	346	-
Of which:			
- unrealised losses on AFS debt	409	409	-
- unrealised gains on AFS equity	(63)	(63)	-
Other adjustments for regulatory purposes	(197)	-	-
Qualifying AT1 deductions that exceed the AT1 capital of the institution	-	(8,420)	-
Common Equity Tier 1 (total regulatory adjustments)	(16,469)	(9,826)	(24,968)
Common Equity Tier 1 capital	47,320	53,963	37,908

For the notes to this table refer to the following page

Table 3: Basel III - own funds disclosure - transitional basis (continued)

2012	Current basis £m	Transitional basis £m	Full basis £m
Additional Tier 1 capital: Instruments			
Capital instruments and related share premium accounts	5,075	-	-
Qualifying Tier 1 capital and the related share premium accounts subject to phase out from AT1	4,125	4,571	-
Qualifying Tier 1 capital included in consolidated AT1 capital issued by subsidiaries and held by third parties (subject to phase out £3,695 million)	292	4,042	-
Additional Tier 1 capital (before regulatory adjustments)	9,492	8,613	-
Additional Tier 1: Regulatory adjustments			
Deductions from AT1 capital during the transitional period	-	(17,033)	-
Of which:			
- intangible assets	-	(13,956)	-
- excess of expected loss over impairment provisions	-	(3,077)	-
Other Basel II regulatory adjustments	323	-	-
Additional Tier 1 (total regulatory adjustments)	323	(17,033)	-
Additional Tier 1 capital	9,815	(8,420)	-
Qualifying AT1 deductions that exceed the AT1 capital of the institution (4)	-	8,420	-
Tier 1 capital (5)	57,135	53,963	37,908
Tier 2 Capital: Instruments and provisions			
Capital instruments and the related share premium accounts	15,614	-	-
Qualifying items and the related share premium (6)	-	2,774	7,292
Qualifying own funds instruments issued by subsidiaries and held by third parties	-	12,605	5,185
Unrealised gains on AFS equity shares	63	-	-
Credit risk adjustments	399	399	399
Tier 2 capital (before regulatory adjustments)	16,076	15,778	12,876
Tier 2 Capital: Regulatory adjustments			
Residual amounts deducted during the transitional period			
- excess of expected loss over impairment provisions	-	(3,077)	-
Other Basel II regulatory adjustments	(3,924)	-	-
Tier 2 (total regulatory adjustments)	(3,924)	(3,077)	-
Tier 2 capital	12,152	12,701	12,876
Total deductions	(2,487)	-	-
Total capital	66,800	66,664	50,784

2012	Current basis	Transitional basis	Full basis
RWAs (7)	£460bn	£495bn	£495bn
Core Tier 1 ratio	10.3%	10.9%	7.7%

Notes:

(1) The additional valuation adjustment, arising from the application of the prudent valuation requirements to assets measured at fair value, has been included in full in the year one transition in line with the guidance from the FSA. This uses methodology agreed with the FSA pending the issue of the final rules by the European Banking Authority.

(2) The FSA requires firms to take a CET1 deduction in the year one transition equal to 10% of the deferred tax assets which do not relate to temporary differences.

(3) The deduction for the valuation adjustment for own credit risk for derivative liabilities (the debit valuation adjustment) is assumed to transition on the same basis as other regulatory adjustments (0% in year one of transition).

(4) Where the deductions from AT1 capital exceed the amount of AT1 capital, the excess must be deducted from CET1 capital. The excess of AT1 deductions over AT1 capital in the year 1 transition is due to the application of the current rules to the transitional amounts.

(5) The fully loaded CRD IV Tier 1 capital ratio as reported in the Group's 2012 annual results announcement was based on Tier 1 capital of £38.2 billion which assumed full divestment of Direct Line Group.

(6) In the event that the July 2011 CRD IV rules relating to maturity restrictions on hedging are unchanged, the fully loaded Tier 1 capital position would reduce by approximately £0.5 billion for insignificant investments. We have identified management actions that would be taken in the event that the original requirements are retained in the final agreement and consequently we believe that a deduction would not be needed.

(7) CRD IV RWA uplifts assume approval of all regulatory models and completion of planned management actions and include the impact of credit valuation adjustments, and asset valuation correlation on banks and central clearing counterparties. EU corporates, pension funds and sovereigns are assumed to be exempt from CVA volatility charge in calculating RWA impacts.

Table 4: Basel III - leverage ratio

RBS monitors and reports an internationally recognised leverage definition (assets/equity) based on funded tangible assets (total assets minus derivatives and intangible assets) divided by qualifying regulatory Tier 1 capital. As at 31 December 2012, the Group reported leverage on this basis of 15x (2011 - 17x).

The FSA has requested that banks publish the leverage ratio as defined in the Basel III agreement. This is shown below, along with the ratio on the assets/equity basis.

The Basel III agreement introduced a leverage ratio as a non-risk-based backstop limit intended to supplement the risk-based capital requirements. It aims to constrain the build up of excess of leverage in the banking sector, introducing additional safeguards against model risk and measurement errors.

The transitional period for the introduction of this ratio started with a supervisory monitoring period in 2011, with a parallel run period from January 2013 to December 2017. A minimum ratio of 3% is applied initially. The requirement is expected to be included in Pillar 1 from 1 January 2018. Monitoring of leverage has been reported to the FSA since September 2011, but in the absence of final European rules and legislation, the 3% ratio is not currently a requirement.

The Basel III leverage percentages are lower than currently reported, primarily due to the inclusion of potential future exposure on derivatives and undrawn commitments. In addition, inclusion or exclusion of grandfathered capital instruments can result in material differences. We consider assets/divided by equity to be a better measure, and accordingly management monitors that metric. On that basis, the Group's leverage compares well to domestic and international peers. Should the Basel III leverage ratio become a more critical benchmark of capital strength, it may not encourage banks to provide lending facilities and undrawn lines of credit to both personal and corporate customers, since these credit lines are penalised under the calculation of the Basel III ratio.

Exposure measure	Assets/ equity basis £bn	Pro forma Basel III leverage £bn
Cash and balances at central banks	79.3	79.3
Debt securities	157.4	157.4
Equity shares	15.2	15.2
Derivative financial instruments	441.9	441.9
Loans and advances to banks and customers	459.3	459.3
Reverse repurchase agreements and other securities financing transactions	104.8	104.8
Disposal group assets	14.0	14.0
Goodwill and intangible assets	13.5	13.5
Other assets	26.9	26.9
Total assets	1,312.3	1,312.3
Netting of derivatives and securities financing transactions (1)		(392.9)
Exclude derivative financial instruments	(441.9)	
Regulatory deductions and other adjustments (2)	(13.5)	(14.9)
Adjusted total tangible assets	856.9	
Potential future exposure on derivatives (3)		130.9
Undrawn commitments (4)		187.5
End point Basel III leverage exposure measure		1,222.9
Transitional adjustments to assets deducted from regulatory Tier 1 capital		2.9
Transitional Basel III leverage exposure measure		1,225.8

Leverage ratio	Exposure £bn	Tier 1 capital £bn	Leverage	Leverage %
Tier 1 leverage ratio	856.9	57.1	15x	6.7%
Tangible equity leverage ratio (5)	856.9	49.8	17x	5.8%
Basel III transitional measure	1,225.8	54.0	23x	4.4%
Basel III full end point measure (6)	1,222.9	37.9	32x	3.1%
Basel III adjusted end point measure (7)	1,222.9	48.0	25x	3.9%

For the notes to these tables refer to the following page.

Notes:
(1) Netting adjustments: regulatory netting of derivative and secured financial transaction assets against corresponding liabilities.
(2) Regulatory deductions: to ensure consistency between the numerator and the denominator, items that are deducted from capital are also deducted from total assets (covers goodwill and intangibles (£13.5billion), deferred tax assets (£3.2 billion) and cash flow hedge reserves (£1.7 billion). Other adjustments reflect the difference between the scope of the regulatory consolidation and the consolidation for financial reporting.
(3) Potential future exposure on derivatives: regulatory add-on which is calculated by assigning percentages based on the type of instrument and the residual maturity of the contract to the underlying values of derivative contracts.
(4) Undrawn commitments: regulatory add-on relating to off-balance sheet undrawn commitments based on a 10% credit conversion factor for unconditionally cancellable commitments and 100% of other commitments. Off-balance sheet items comprise:

	UK Retail £bn	UK Corporate £bn	Wealth £bn	International Banking £bn	Ulster Bank £bn	US Retail & Commercial £bn	Markets £bn	Total £bn
Unconditionally cancellable items (after application of 10% CCF)	3.3	0.5	0.1	0.8	0.2	1.8	-	6.7
Undrawn commitments	9.6	33.9	4.7	102.6	2.1	15.6	12.3	180.8
	12.9	34.4	4.8	103.4	2.3	17.4	12.3	187.5

International Banking facilities are primarily undrawn facilities to large multinational corporations, many of which are domiciled in the UK.
(5) Tangible equity leverage ratio is total tangible equity divided by total tangible assets (after netting derivatives).
(6) The fully loaded CRD IV Tier 1 capital ratio as reported in the Group's 2012 annual results announcement was based on Tier 1 capital of £38.2 billion which assumed full divestment of Direct Line Group.
(7) Basel III adjusted Tier 1 capital includes grandfathered ineligible capital instruments.

Table 5: Capital instruments

The following table details the main terms and conditions of the Group’s capital instruments treated as Tier 1 capital under Pillar 1, or Tier 2 capital which includes an incentive for the issuer to redeem. The balances are the International Financial Reporting Standards (IFRS) balance sheet carrying amounts, which may differ from the amount which the instrument contributes to regulatory capital. Regulatory balances exclude, for example, issuance costs and fair value movements, while dated capital is required to be amortised on a straight-line basis over the final five years of maturity. For accounting purposes the capital instruments in the following table are included within equity or subordinated liabilities, details of which are included on pages 434 to 444 of the Group’s 2012 Annual Report and Accounts.

Description	Step-up coupon	2012 £m	2011 £m
Pillar 1 treatment - Tier 1			
RBSG - undated loan capital			
US$762 million 7.648% perpetual regulatory (callable quarterly from September 2031)	3 month US$ LIBOR plus 2.5%	476	497
RBSG - debt preference shares			
Series F US$156 million 7.65% (callable any time from March 2007)		97	101
Series H US$242 million 7.25% (callable any time from March 2004)		150	157
Series L US$751 million 5.75% (callable any time from October 2009)		465	485
Series 1 US$65 million 9.118% (callable any time from March 2010)		41	43
Series 1 £15 million 7.387% (callable any time from December 2010)		15	15
NatWest Plc - debt preference shares			
Series A £140 million 9% (not callable)		145	145
Series C US$246 million 7.7628% (callable quarterly from April 2002)		161	169
RBS US Capital Trusts - debt trust preferred securities			
€391 million 6.467% (callable quarterly from June 2012)	3 month EURIBOR plus 2.1%	319	340
US$486 million 6.8% (callable quarterly from March 2008)		302	309
US$318 million 4.709% (callable quarterly from July 2013)	3 month US$ LIBOR plus 1.865%	199	210
US$394 million 6.425% (callable quarterly from January 2034)	3 month US$ LIBOR plus 1.9425%	365	382
RBS NV US Capital Trusts - debt trust preferred securities			
US$1,285 million 5.90% Trust Preferred V (callable any time from July 2008)		713	684
US$200 million 6.25% Trust Preferred VI (callable any time from September 2008)		112	108
US$1,800 million 6.08% Trust Preferred VII (callable any time from February 2009)		999	958
RBS US Capital Trusts - equity trust preferred securities			
US$357 million 5.512% (redeemable September 2014)	3 month US$ LIBOR plus 1.84%	198	198
US$276 million 3 month US$ LIBOR plus 0.80% (redeemable September 2014)	3 month US$ LIBOR plus 1.8%	153	153
€166 million 4.243% (redeemable January 2016)	3 month EURIBOR plus 1.69%	112	112
£93 million 5.6457% (redeemable June 2017)	Interpolation between 3 month and 4 month LIBOR plus 1.69%	93	93
RBSG - paid in equity trades			
CAD321 million 6.666% (callable quarterly from October 2017)	3 month CDOR plus 2.76%	156	156
US$564 million 6.99% (callable quarterly from October 2017)	3 month US$ LIBOR plus 2.67%	275	275

Table 5: Capital instruments (continued)

Description	Step-up coupon	2012 £m	2011 £m
Pillar 1 treatment - Tier 1 (continued)			
RBSG - equity preference shares			
Series M US$578 million 6.4% (callable any time from September 2009)		313	313
Series N US$553 million 6.35% (callable any time from June 2010)		292	292
Series P US$247 million 6.25% (callable any time from December 2010)		138	138
Series Q US$516 million 6.75% (callable any time from June 2011)		268	268
Series R US$254 million 6.125% (callable any time from December 2011)		126	126
Series S US$661 million 6.6% (callable any time from June 2012)		321	321
Series T US$1,281 million 7.25% (callable any time from December 2012)		615	615
Series U US$1,013 million 7.64% (callable every ten years from September 2017)	3 month US$ LIBOR plus 2.32%	494	494
Series 1 €1,250 million 5.5% (callable quarterly from December 2009)		859	860
Series 2 €785 million 5.25% (callable quarterly from June 2010)		512	512
Series 3 €471 million 7.0916% (callable quarterly from September 2017)	3 month EURIBOR plus 2.33%	325	325
Series 1 £54 million 8.162% (callable quarterly from October 2012)	3 month LIBOR plus 2.33%	54	54
Tier 2 capital securities which contain an incentive for the issuer to redeem			
Pillar 1 treatment - Upper Tier 2			
RBSG - undated loan capital			
£0.5 million 11% and £0.4 million 5.5% (not callable)		1	1
RBS - undated loan capital			
£1 million floating rate undated subordinated notes (callable semi-annually from March 2011)	6 month LIBOR plus 0.75%	1	1
€176 million 5.125% undated subordinated notes (callable quarterly from July 2014)	3 month EURIBOR plus 1.65%	155	161
€170 million floating rate undated subordinated notes (callable quarterly from July 2014)	3 month EURIBOR plus 1.60%	138	141
£56 million 6% undated subordinated notes (callable every five years from September 2014)	Aggregate of 1.85% and the 5 year UK Gilts yield	61	62
£54 million 5.125% undated subordinated notes (callable every five years from March 2016)	Aggregate of 1.95% and the 5 year UK Gilts yield	61	61
CAD474 million 5.37% fixed rate undated subordinated notes (callable quarterly from May 2016)	3 month CDOR plus 1.48%	328	347
£51 million 6.25% undated subordinated notes (callable every five years from December 2012)	Aggregate of 2.35% and the 5 year UK Gilts yield	51	53
£103 million 9.5% undated subordinated bonds (callable every five years from August 2018)	9.5% or the 5 year UK Gilts yield Plus 2.375%	137	137
£35 million 5.5% undated subordinated notes (callable every five years from December 2019)	Aggregate of 1.84% and the 5 year UK Gilts yield	39	37
£21 million 6.2% undated subordinated notes (callable every five years from March 2022)	Aggregate of 2.05% and the 5 year UK Gilts yield	46	45
£16 million (2011 - £22 million) 5.625% undated subordinated notes (callable every five years from September 2026)	Aggregate of 2.10% and the 5 year UK Gilts yield	24	23
£19 million 5.625% undated subordinated notes (callable every five years from June 2032)	Aggregate of 2.41% and the 5 year UK Gilts yield	13	13
NW - undated loan capital			
€10 million floating rate undated step-up notes (callable quarterly from October 2009)	3 month EURIBOR plus 2.15%	9	9
€178 million 6.625% fixed/floating rate undated subordinated notes (callable quarterly from October 2009)	3 month EURIBOR plus 2.15%	146	150
£87 million floating undated subordinated step-up notes (callable every five years from January 2010)	5 year UK Gilts yield plus 2.98%	92	91
£53 million 7.125% undated subordinated step-up notes (callable every five years from October 2022)	5 year UK Gilts yield plus 3.08%	55	56

Table 5: Capital instruments (continued)

Description	Step-up coupon	2012 £m	2011 £m
Tier 2 capital securities which contain an incentive for the issuer to redeem *continued*			
Pillar 1 treatment - Lower Tier 2			
RBS plc - dated loan capital			
AUD90 million (2011 - AUD450 million) floating rate subordinated notes 2017 (callable quarterly from February 2012)	3 month BBSW plus 0.78%	58	298
CAD217 million (2011 - CAD700 million) 4.25% subordinated notes 2015 (callable quarterly from March 2010)	3 month CDOR plus 0.72%	135	444
US$686 million (2011 - US$1,500 million) floating rate subordinated notes 2016 (callable quarterly from April 2011)	3 month US$ LIBOR plus 0.7%	425	971
US$229 million (2011 - US$500 million) floating rate subordinated notes 2016 (callable quarterly from October 2011)	3 month US$ LIBOR plus 0.78%	142	324
€227 million (2011 - €500 million) 4.5% subordinated notes 2016 (callable quarterly from January 2011)	3 month EURIBOR plus 0.85%	185	420
€102 million (2011 - €500 million) floating rate subordinated notes 2017 (callable quarterly from January 2012)	3 month EURIBOR plus 0.75%	84	419
AUD265 million (2011 - AUD410 million) floating rate subordinated notes 2014 (callable quarterly from October 2009)	3 month BBSW plus 0.87%	171	272
AUD397 million (2011 - AUD590 million) 6% subordinated notes 2014 (callable quarterly from October 2009)	3 month BBSW plus 0.87%	257	392
AUD50 million (2011 - AUD450 million) 6.5% subordinated notes 2017 (callable quarterly from February 2012)	3 month BBSW plus 0.78%	32	303
US$450 million (2011 - US$1,500 million) floating rate subordinated callable step-up notes 2017 (callable quarterly from August 2012)	3 month US$ LIBOR plus 0.7%	279	971
CHF34 million (2011 - CHF200 million) 2.75% subordinated notes 2017 (callable quarterly from December 2012)	3 month CHF LIBOR plus 0.62%	23	138
€1,000 million 4.625% subordinated notes 2021 (callable quarterly from September 2016)	3 month EURIBOR plus 1.3%	938	948
US$322 million (2011 - US$750 million) floating rate Bermudan callable subordinated notes 2015 (callable quarterly from September 2010)	3 month US$ LIBOR plus 0.74%	199	485
First Active plc - dated loan capital			
£60 million 6.375% subordinated bonds 2018 (callable quarterly from April 2013)	3 month LIBOR plus 2.54%	63	64
RBS N.V. - dated loan capital			
€5 million floating rate Bermudan callable subordinated notes 2015 (callable quarterly from October 2010)	3 month EURIBOR plus 1.5%	4	4
AUD175 million floating rate Bermudan callable subordinated notes 2018 (callable quarterly from May 2013)	3 month BBSW plus 0.79%	109	111
AUD575 million 6.5% Bermudan callable subordinated notes 2018 (callable quarterly from May 2013)	3 month BBSW plus 0.79%	366	378
US$1,500 million floating rate Bermudan callable subordinated notes 2015 (callable quarterly from March 2010)	3 month US$ LIBOR plus 0.7%	892	930
€1,500 million floating rate Bermudan callable subordinated notes 2015 (callable quarterly from June 2010)	3 month EURIBOR plus 0.75%	1,215	1,246
€100 million 5.13% flip flop Bermudan callable subordinated notes 2017 (callable annually from December 2012)	3 month EURIBOR plus 0.94%	72	78

Credit risk

Credit risk is the risk of financial loss owing to the failure of a customer or counterparty to meet its obligation to settle outstanding amounts. The credit risk that the Group faces arises mainly from wholesale and retail lending, the provision of letters of credit and guarantees; and counterparty credit risk arising from derivative contracts entered into with customers. The Group's credit risk management framework addresses not only credit risk but also concentration risk, settlement risk, issuer risk, wrong way risk and credit mitigation risk.

Credit risk management

Information on how the Group manages credit risk can be found on pages 157 to 193 of the Group's 2012 Annual Report and Accounts.

Measurement of credit RWAs under Basel II

The Group has been granted a waiver by the FSA to use the internal ratings-based (IRB) approach when calculating capital requirements for the majority of its credit exposures. This approach allows the Group to use its own models to determine probability of default (PD), loss given default (LGD) and exposure at default (EAD) to calculate regulatory capital.

In some instances, the Group applies the standardised (STD) approach, whereby exposures are allocated to exposure classes in accordance with the FSA's BIPRU 3 regulations. Under this approach, the Group uses credit ratings from external rating agencies (Standard & Poor's, Moody's and Fitch) when assessing exposures to corporates, sovereigns and financial institutions.

Credit risk models

The Group uses credit risk models to support quantitative risk assessments in the credit approval process, ongoing credit risk management, monitoring and reporting, as well as the calculation of regulatory capital.

In line with the three risk parameters defined in the IRB approach, credit risk models are divided into three categories: PD, EAD and LGD.

Probability of default/customer credit-grade models

PD models assess whether a customer will be able to repay its obligations over a one year period.

The Group uses both wholesale and retail credit assessment models:

- *Wholesale models -* As part of the credit assessment process, the Group assigns each counterparty an internal credit grade based on its PD. The Group uses a number of credit grading models, which consider risk characteristics relevant to the customer. Credit grading models utilise a combination of quantitative inputs, such as recent financial performance, and qualitative inputs, such as management performance or sector outlook. The Group uses a credit grade in many of its risk management and measurement frameworks, including credit sanctioning and managing single-name concentration risk.

- *Retail models -* Each customer account is scored using models that consider the material drivers of default. Scorecards are statistically derived using customer data. Customers are given a score related to a probability of default, and the score is used to support automated credit decisions.

Exposure at default models

EAD models estimate the level of use of a credit facility at the time of a borrower's default, recognising that customers may make more use of their existing credit facilities as they approach default. For revolving and variable drawdown products that are not fully drawn, EAD is higher than current utilisation.

Models that measure counterparty credit risk exposure are used for derivatives and other traded instruments, where the amount of credit risk exposure may depend on one or more underlying market variables, such as interest rates or foreign exchange rates. These models drive the Group's internal credit risk management activities.

Loss given default models

LGD models estimate the amount that cannot be recovered by the Group in the event of default. When estimating LGD, the Group takes into account both borrower and facility characteristics, as well as any collateral, credit protection or insurance. The cost of collections and a time discount factor for the delay in cash recovery are also incorporated.

Changes to wholesale credit risk models

The Group is updating its wholesale credit risk models, incorporating more recent data and reflecting new regulatory requirements applicable to wholesale IRB modelling. In 2012, the Group implemented updates to certain models, such as those used in the sovereign and financial institutions exposure classes. These updates affected the risk measures in the Group's disclosures. Further updates, primarily of models used for the Group's corporate exposure class, are planned for 2013.

Updates to models have generally affected relatively low risk segments of the Group's portfolio. For example, the changes stemming from the introduction of updated PD models largely affected assets bearing the equivalent of investment grade ratings.

In anticipation of these changes, the Group modified various risk frameworks, including its risk appetite framework and latent loss assessment. In addition, with the agreement of its regulators, the Group adjusted upwards the RWAs of some portfolios prior to the introduction of the new models.

Model changes affect year-on-year comparisons of risk measures in certain disclosures. Where meaningful, the Group in its commentary has differentiated between instances where movements in risk measures reflect the impact of model changes, and those that reflect movements in the size of underlying credit portfolios or their credit quality. However, it is not practicable to quantify the impact of model updates on individual asset quality bands.

Separately, as agreed with the FSA, the Group has started to apply the supervisory slotting approach to calculate RWAs related to commercial real estate assets. This approach does not use modelled measures to determine RWAs and capital requirements.

Model review governance

The model review and approval process and governance arrangements are detailed in the following chart.

Chart 2: Governance structure for model review and approval

The challenge and review processes provide assurances that the Group's calculation methodologies and credit risk models remain appropriate.

The frequency and extent of validation reflects the importance and complexity of models. When they affect RWAs, new models and material changes to models must be reviewed and approved by the FSA before implementation.

Overview of credit risk tables

Distinction between counterparty and non-counterparty risk

Credit risk exposures are split between counterparty and non-counterparty risk. Counterparty credit risk principally comprises exposures arising from over-the-counter (OTC) derivatives and repurchase agreements (repos). Non-counterparty credit risk excludes exposures arising from OTC derivatives and repos, but includes loans and advances to customers, banks and central banks, as well as holdings of debt and equity securities.

Distinction between sector clusters and regulatory exposure classes

Two principal classifications are used to analyse credit risk exposures in this section: sector cluster and exposure class.

- *Sector cluster* - Consists of exposures classified by industry using standard industrial classification codes. The Group uses this type of classification for internal risk management purposes.

- *Exposure class* - Consists of exposures classified in accordance with BIPRU, namely regulation 4.3.2 for the IRB approach and regulation 3.2.9 for the STD approach. The Group uses this type of classification when calculating its regulatory capital requirements.

The following summarises the organisational structure of the credit risk tables:

	Total credit risk (non-counterparty and counterparty combined)	Non-counterparty credit risk only	Counterparty credit risk only
Sector cluster view	Tables 6 to 7		
Divisional view	Table 8		
Exposure class vs. sector cluster view		Table 9	
Exposure class view	Tables 10 and 27	Tables 11 to 26, 28 and 29	Tables 30 to 32

Tables 6, 7, 9 to 12 include exposures to:

- businesses primarily related to insurance activities that are not part of the regulatory consolidation and so are not zero risk-weighted;
- non-customer assets such as property, plant and equipment and deferred tax; and
- residual consortium partner holdings.

These items are included under the other items sector cluster in Tables 6, 7, and 9. Table 8 does not include these items. However, they are allocated across exposure classes in Table 10 and are included in the respective unallocated lines in Tables 11 and 12. Other tables exclude these items.

IRB and STD approaches

Where applicable, credit risk exposures under the IRB approach and STD approaches are shown in the same table. However, in the analysis of asset quality (Tables 17 to 26), the two approaches are covered separately. Exposures subject to the supervisory slotting approach are categorised as IRB.

Definitions used in tables

The following terms appear in column, row or table headings in the tables and are defined in the glossary: IRB approach, asset quality (AQ) bands, counterparty credit risk, credit conversion factor (CCF), credit quality steps (CQS), EAD, exposure class, minimum capital requirements, LGD, non-counterparty credit risk, PD, RWAs, STD approach, trading book, non-trading book and undrawn commitments.

Other terms specific to the disclosures and tables in this section are defined below:

Credit risk mitigation (CRM) - Use of security, collateral or guarantees to reduce potential loss if a customer fails to settle all or part of its obligations to the Group. The application of CRM depends on the approach (STD or IRB) governing capital calculation related to a credit exposure.

EAD figures may be either pre or post CRM, and labelled accordingly.

EAD pre CRM:

- STD approach: EAD before legally enforceable netting, collateral and guarantees.
- IRB approach: EAD before legally enforceable netting only.

EAD post CRM:

- STD approach: EAD after legally enforceable netting, collateral and guarantees.
- IRB approach: EAD after legally enforceable netting only.

Defaulted assets (AQ10) - Assets with a PD of 100%.

Exposure-weighted average LGD (for each AQ band) - Calculated by multiplying EAD of each position by associated LGD, giving an LGD-weighted EAD value for each position. LGD-weighted EADs for each position are added together for the whole AQ band, and the final sum is divided by the total EAD for the AQ band to arrive at an exposure-weighted average LGD for each AQ band.

Exposure-weighted average PD (for each AQ band) - Calculated by multiplying EAD of each position by associated PD, giving a PD-weighted EAD for each position. PD-weighted EADs for each position are added together for the whole AQ band, and the final sum is divided by the total PD for the AQ band to arrive at an exposure-weighted average PD for each AQ band.

Geographical region - Determined by country of residence for individuals and country of incorporation for companies. Rest of the World (RoW) includes exposures to supranationals and ocean-going shipping companies.

Non-credit obligation assets (IRB exposure class) - As per BIPRU, comprises the residual value of leases only.

Non-customer assets - Assets owned by the Group without associated credit risk or uncertainty related to obligor performance affecting their future value. Includes tangible assets such as property, plant and equipment.

Other items (sector cluster) - Tangible assets, prepayments, accrued income, items in transit, deferred tax assets, intra-group assets and consortium partner holdings.

Other items (STD exposure class) - As per BIPRU, tangible assets, prepayments, accrued income, cash items, and holdings of equity and gold bullion.

Residual maturity - Revolving facilities are included in the 'within one-year' band. Exposures are classified using maturity bands in line with contractual maturity.

Unallocated (exposure class view) - Includes inter-group assets and non-customer assets not included under STD (other items) and IRB (non-credit obligation asset) exposure lines.

Undrawn weighted average credit conversion factor (for each AQ band) - Calculated by multiplying the undrawn commitment of each position by the associated CCF, giving a CCF-weighted undrawn for each position. CCF-weighted undrawns for each position are added together for the whole AQ band and the final sum is divided by the total CCFs for the AQ band to arrive at an exposure weighted average CCF for each AQ band.

Western Europe excluding the UK - Andorra, Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Gibraltar, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Monaco, the Netherlands, Norway, Portugal, San Marino, Spain, Sweden, Switzerland and the Vatican City State (Holy See).

Total credit risk

Table 6: Total credit risk EAD, RWAs and minimum capital requirements by sector cluster

Sector cluster		Non-counterparty credit risk EAD pre CRM £m	Non-counterparty credit risk EAD post CRM £m	Non-counterparty credit risk RWAs £m	Non-counterparty credit risk Minimum capital requirement £m	Counterparty credit risk EAD post CRM £m	Counterparty credit risk RWAs £m	Counterparty credit risk Minimum capital requirement £m	Total credit risk EAD post CRM £m	Total credit risk RWAs £m	Total credit risk Minimum capital requirement £m
2012											
Sovereigns and quasi-sovereigns	Central banks	78,154	78,154	2,867	229	13,242	110	9	91,396	2,977	238
	Central governments	37,694	37,694	3,686	295	1,353	504	40	39,047	4,190	335
	Other sovereign	8,545	7,151	1,262	101	2,675	395	32	9,826	1,657	133
Financial institutions and securitisation vehicles	Banks	27,952	26,887	8,318	665	37,382	13,351	1,068	64,269	21,669	1,733
	Non-bank financial institutions	44,432	42,726	16,153	1,293	31,488	9,208	735	74,214	25,361	2,028
	Securitisation vehicles	32,531	32,531	10,390	831	7,768	2,503	200	40,299	12,893	1,031
Corporates	Property	97,333	92,190	59,762	4,781	8,889	10,028	802	101,079	69,790	5,583
	Natural resources	32,461	30,651	17,192	1,375	4,704	3,157	253	35,355	20,349	1,628
	Transport	37,608	36,145	22,541	1,803	5,023	3,951	316	41,168	26,492	2,119
	Manufacturing	34,998	32,458	23,047	1,844	1,690	686	55	34,148	23,733	1,899
	Retail and leisure	35,901	33,569	26,141	2,091	2,042	1,370	110	35,611	27,511	2,201
	Services	32,174	30,334	24,001	1,920	2,033	1,325	106	32,367	25,326	2,026
	Telecoms, media and technology	17,217	15,716	12,261	981	2,518	1,361	109	18,234	13,622	1,090
Personal	Mortgages	158,207	158,207	46,895	3,752	-	-	-	158,207	46,895	3,752
	Other personal	51,268	50,291	28,108	2,249	22	19	1	50,313	28,127	2,250
Other items		26,670	26,670	20,430	1,634	73	66	7	26,743	20,496	1,641
		753,145	731,374	323,054	25,844	120,902	48,034	3,843	852,276	371,088	29,687

Table 6: Total credit risk EAD, RWAs and minimum capital requirements by sector cluster (continued)

		Non-counterparty credit risk				Counterparty credit risk			Total credit risk		
Sector cluster		EAD pre CRM £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m
2011											
Sovereigns and quasi-sovereigns	Central banks	81,392	81,392	503	40	17,074	17	1	98,466	520	41
	Central governments	52,431	52,433	1,068	85	1,501	18	1	53,934	1,086	86
	Other sovereign	14,505	12,582	502	40	3,133	199	16	15,715	701	56
Financial institutions and securitisation vehicles	Banks	39,170	37,601	9,579	766	47,176	11,697	936	84,777	21,276	1,702
	Non-bank financial institutions	54,704	50,894	19,430	1,554	47,964	24,747	1,980	98,858	44,177	3,534
	Securitisation vehicles	50,804	50,802	19,496	1,560	7,452	3,412	273	58,254	22,908	1,833
Corporates	Property	111,396	105,735	56,604	4,528	8,771	8,216	657	114,506	64,820	5,185
	Natural resources	38,369	36,108	16,294	1,304	5,175	2,507	201	41,283	18,801	1,505
	Transport	49,643	47,211	22,136	1,771	5,926	4,811	385	53,137	26,947	2,156
	Manufacturing	39,931	35,761	20,913	1,673	2,611	1,109	89	38,372	22,022	1,762
	Retail and leisure	47,132	43,633	31,753	2,540	2,715	1,575	126	46,348	33,328	2,666
	Services	37,320	33,149	25,257	2,021	2,487	1,697	136	35,636	26,954	2,157
	Telecoms, media and technology	20,915	18,772	13,070	1,046	2,585	1,716	137	21,357	14,786	1,183
Personal	Mortgages	159,209	159,209	51,827	4,146	-	-	-	159,209	51,827	4,146
	Other personal	50,844	49,832	28,870	2,310	52	42	3	49,884	28,912	2,313
Other items		32,623	32,623	26,919	2,154	154	155	12	32,777	27,074	2,166
		880,388	847,737	344,221	27,538	154,776	61,918	4,953	1,002,513	406,139	32,491

Table 7: Total credit risk EAD by sector cluster, geographical region and residual maturity

		EAD post CRM							
		By geographical region					By residual maturity		
Sector cluster		UK £m	US £m	Western Europe (excl. UK) £m	RoW £m	Total £m	Within 1 year £m	After 1 year but within 5 years £m	After 5 years £m
2012									
Sovereigns and quasi-sovereigns	Central banks	41,741	14,527	31,177	3,951	91,396	79,865	11,263	268
	Central governments	9,249	14,681	11,483	3,634	39,047	2,931	17,643	18,473
	Other sovereign	2,161	509	4,700	2,456	9,826	2,014	4,560	3,252
Financial institutions and securitisation vehicles	Banks	5,871	10,002	31,444	16,952	64,269	24,969	36,798	2,502
	Non-bank financial institutions	19,604	26,300	14,810	13,500	74,214	24,224	34,338	15,652
	Securitisation vehicles	11,763	6,189	14,498	7,849	40,299	9,654	15,814	14,831
Corporates	Property	62,032	8,412	24,442	6,193	101,079	35,293	46,106	19,680
	Natural resources	7,880	11,193	8,012	8,270	35,355	10,271	20,122	4,962
	Transport	15,401	5,508	6,955	13,304	41,168	8,920	21,426	10,822
	Manufacturing	11,562	9,758	7,795	5,033	34,148	13,361	16,960	3,827
	Retail and leisure	20,594	6,564	6,215	2,238	35,611	11,187	16,790	7,634
	Services	20,365	7,178	3,591	1,233	32,367	8,568	14,141	9,658
	Telecoms, media and technology	5,716	4,967	4,916	2,635	18,234	4,910	12,065	1,259
Personal	Mortgages	117,553	21,716	18,177	761	158,207	3,081	13,996	141,130
	Other personal	37,836	9,110	2,107	1,260	50,313	31,411	12,186	6,716
Other items						26,743			
		389,328	156,614	190,322	89,269	852,276	270,659	294,208	260,666
2011									
Sovereigns and quasi-sovereigns	Central banks	24,088	30,148	39,283	4,947	98,466	93,782	4,367	317
	Central governments	10,720	17,797	20,112	5,305	53,934	9,448	16,322	28,164
	Other sovereign	4,365	426	6,922	4,002	15,715	4,939	4,885	5,891
Financial institutions and securitisation vehicles	Banks	7,117	11,828	40,118	25,714	84,777	34,672	47,772	2,333
	Non-bank financial institutions	24,437	37,673	20,580	16,168	98,858	34,454	46,311	18,093
	Securitisation vehicles	11,870	12,952	20,730	12,702	58,254	15,205	22,415	20,634
Corporates	Property	68,841	9,048	29,325	7,292	114,506	37,931	53,911	22,664
	Natural resources	8,166	14,071	9,960	9,086	41,283	11,981	23,670	5,632
	Transport	17,829	6,132	11,543	17,633	53,137	9,481	27,008	16,648
	Manufacturing	11,847	12,052	9,401	5,072	38,372	14,688	19,740	3,944
	Retail and leisure	28,077	7,890	7,009	3,372	46,348	12,670	24,484	9,194
	Services	21,600	8,106	4,390	1,540	35,636	9,627	15,722	10,287
	Telecoms, media and technology	6,323	5,420	6,306	3,308	21,357	4,832	14,143	2,382
Personal	Mortgages	114,516	24,394	19,132	1,167	159,209	3,176	13,147	142,886
	Other personal	37,664	8,855	2,253	1,112	49,884	31,704	11,419	6,761
Other items						32,777			
		397,460	206,792	247,064	118,420	1,002,513	328,590	345,316	295,830

Table 8: Credit risk-weighted assets by division and approach

The following table shows total RWAs split by the Group's divisions at 31 December 2012. The table includes a break-out of those calculated under the supervisory slotting approach. For an analysis of the inputs to the Group's supervisory slotting RWAs, as applied to income producing real estate (IPRE) and project finance, please refer to Table 21.

2012	Non-counterparty credit RWAs £m	Of which is slotting £m	Counterparty credit RWAs £m	Of which is slotting £m	STD approach	IRB approach
UK Retail	35,809	-	-	-	Some credit card exposures.	Most exposures.
UK Corporate	76,797	8,874	-	-	Some corporate exposures; and some retail exposures.	Most exposures.
Wealth	9,819	-	10	-	All exposures, predominantly retail.	None.
International Banking	46,081	922	12	-	Some corporate exposures, particularly oil and gas, agriculture and mining and metals; and some retail exposures.	Most exposures.
Ulster Bank	33,277	236	626	76	None.	All exposures.
US Retail & Commercial	48,583	-	837	-	All exposures.	None.
Markets	9,399	734	34,664	2,190	Some exposures arising from Derivative and repo transactions undertaken by the Group's broker/dealer.	Most exposures.
Group Centre	1,866	793	355	-	Some exposures arising from derivative transactions by Group Treasury.	Most exposures.
Non-Core	40,992	7,079	11,464	3,956	Some exposures arising from securitisations; and some exposures arising from commercial property and retail loans.	Most exposures.
	302,623	18,638	47,968	6,222		

Non-counterparty credit risk

Table 9: Non-counterparty credit risk by exposure class and sector cluster

The following table maps exposures classified by sector cluster (in line with the Group's internal risk management process) to exposures classified by exposure class (as defined by BIPRU rules for calculating regulatory capital).

	EAD pre CRM															
	Sovereigns and quasi-sovereigns			Financial institutions and securitisation vehicles			Corporates							Personal		
Exposure class	Central banks £m	Central governments £m	Other sovereign £m	Banks £m	Non-bank financial institutions £m	Securitisation vehicles £m	Property £m	Natural resources £m	Transport £m	Manufacturing £m	Retail and leisure £m	Services £m	Telecoms, media and technology £m	Mortgages £m	Other personal £m	Total £m
2012																
IRB approach																
Central governments and banks	39,141	28,174	1,569	1,034	-	-	-	-	-	-	-	169	-	-	-	70,087
Institutions	-	-	4,077	21,914	9	-	-	-	17	-	-	1	-	-	-	26,018
Corporates	-	-	938	430	26,100	2,055	82,381	29,007	32,226	24,567	24,121	20,076	14,268	17	1,331	257,517
Retail	-	-	19	-	141	-	3,199	53	696	2,120	2,846	3,174	314	127,721	34,130	174,413
Equities	-	-	-	1	540	-	209	-	7	187	88	23	57	-	-	1,112
Securitisation positions	-	-	-	-	796	26,769	234	108	93	-	627	-	-	-	-	28,627
Non-credit obligation assets	-	18	91	101	88	-	192	70	1,310	35	218	67	69	-	-	2,259
	39,141	28,192	6,694	23,480	27,674	28,824	86,215	29,238	34,349	26,909	27,900	23,510	14,708	127,738	35,461	560,033
STD approach																
Central governments and banks	38,710	9,484	11	-	3,728	-	-	-	-	-	-	21	-	-	-	51,954
Regional governments or local authorities	-	-	1,615	-	-	-	4	-	-	-	-	1	-	-	-	1,620
Administrative bodies and non-commercial undertakings	-	-	13	-	9	-	-	-	-	-	-	43	-	-	-	65
Multilateral development banks	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	3
Institutions	-	-	-	3,972	85	-	-	-	-	-	-	-	-	-	11	4,068
Corporates	-	18	147	140	11,689	3,080	4,691	2,762	2,572	7,398	6,151	6,368	2,379	358	2,009	49,762
Retail	-	-	23	4	206	269	531	83	238	375	999	979	82	11,317	11,893	26,999
Secured by mortgages on																
- commercial real estate	-	-	13	-	370	46	4,845	49	53	69	580	751	24	283	358	7,441
- residential property	-	-	1	-	505	73	316	-	2	14	55	313	4	18,067	1,323	20,673
Past due items	-	-	1	-	46	-	668	3	32	26	182	51	6	443	194	1,652
Securitisation positions	-	-	-	-	24	239	-	-	-	-	-	-	-	-	-	263
Other items	303	-	27	353	96	-	63	326	362	207	34	137	14	1	19	1,942
	39,013	9,502	1,851	4,472	16,758	3,707	11,118	3,223	3,259	8,089	8,001	8,664	2,509	30,469	15,807	166,442
	78,154	37,694	8,545	27,952	44,432	32,531	97,333	32,461	37,608	34,998	35,901	32,174	17,217	158,207	51,268	726,475
Other items (sector cluster)																26,670
																753,145

Table 9: Non-counterparty credit risk by exposure class and sector cluster (continued)

	EAD pre CRM															
	Sovereigns and quasi-sovereigns			Financial institutions and securitisation vehicles			Corporates							Personal		
Exposure class	Central banks £m	Central governments £m	Other sovereign £m	Banks £m	Non-bank financial institutions £m	Securitisation vehicles £m	Property £m	Natural resources £m	Transport £m	Manufacturing £m	Retail and leisure £m	Services £m	Telecoms, media and technology £m	Mortgages £m	Other personal £m	Total £m
2011																
IRB approach																
Central governments and banks	59,899	41,162	10,543	4,681	262	-	-	-	76	-	-	63	-	-	-	116,686
Institutions	-	-	-	29,586	53	-	-	-	-	-	-	-	-	-	-	29,639
Corporates	-	-	171	471	31,776	8,108	96,533	34,709	40,915	30,858	28,927	24,328	18,473	15	1,370	316,654
Retail	-	-	21	-	184	-	4,007	58	780	2,298	3,337	3,513	353	125,983	35,299	175,833
Equities	-	-	-	32	633	1	180	39	-	32	171	30	103	-	-	1,221
Securitisation positions	-	-	-	-	3,203	38,064	-	115	97	-	646	111	-	-	-	42,236
Non-credit obligation assets	-	20	88	103	95	-	187	86	4,642	44	367	77	73	-	-	5,782
	59,899	41,182	10,823	34,873	36,206	46,173	100,907	35,007	46,510	33,232	33,448	28,122	19,002	125,998	36,669	688,051
STD approach																
Central governments and banks	21,176	11,230	14	-	2,548	-	-	-	-	-	-	245	-	-	-	35,213
Regional governments or local authorities	-	-	3,443	-	-	-	-	-	-	-	-	29	-	-	-	3,472
Administrative bodies and non-commercial undertakings	-	-	126	-	32	-	8	-	-	-	-	14	-	-	-	180
Multilateral development banks	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	30
Institutions	-	-	-	3,790	33	-	-	-	-	-	24	-	-	-	-	3,847
Corporates	-	19	82	38	14,167	3,232	4,400	3,020	2,578	6,230	9,018	7,024	1,822	38	1,342	53,010
Retail	-	-	4	5	285	298	285	21	128	195	2,602	700	37	14,651	12,111	31,322
Secured by mortgages on																
- commercial real estate	-	-	2	6	489	41	5,379	72	42	50	1,712	676	11	50	12	8,542
- residential property	-	-	-	-	405	145	32	-	-	4	41	249	-	17,997	484	19,357
Past due items	-	-	-	-	52	1	286	3	26	48	218	51	13	475	176	1,349
Securitisation positions	-	-	-	-	392	893	-	-	-	-	-	-	-	-	-	1,285
Other items	317	-	11	428	95	21	99	246	359	172	69	210	30	-	50	2,107
	21,493	11,249	3,682	4,297	18,498	4,631	10,489	3,362	3,133	6,699	13,684	9,198	1,913	33,211	14,175	159,714
	81,392	52,431	14,505	39,170	54,704	50,804	111,396	38,369	49,643	39,931	47,132	37,320	20,915	159,209	50,844	847,765
Other items (sector cluster)																32,623
																880,388

Table 10: Non-counterparty and counterparty credit risk EAD, RWAs and minimum capital requirements by regulatory approach and exposure class

	Non-counterparty credit risk					Counterparty credit risk		
Exposure class	EAD pre CRM £m	Average EAD pre CRM £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m
2012								
IRB approach								
Central governments and banks	70,087	91,572	70,087	6,731	539	11,231	742	59
Institutions	26,018	31,382	23,652	6,919	553	36,618	13,275	1,062
Corporates	257,517	284,556	239,801	143,630	11,492	57,842	28,587	2,286
Retail								
small and medium-sized enterprises (SMEs)	12,865	13,495	12,865	7,993	639	-	-	-
secured by real estate collateral	127,708	126,832	127,708	31,987	2,559	-	-	-
qualifying revolving retail exposures	26,780	26,761	26,780	9,540	763	-	-	-
other retail exposures	7,060	7,525	7,060	6,320	506	-	-	-
	174,413	174,613	174,413	55,840	4,467	-	-	-
Equities								
exchange-traded exposures	665	490	665	1,846	147	-	-	-
private equity exposures	340	381	340	777	63	-	-	-
other exposures	309	514	309	902	72	-	-	-
	1,314	1,385	1,314	3,525	282	-	-	-
Securitisation positions	28,627	34,217	28,627	5,999	480	3,869	1,358	109
Non-credit obligation assets	10,447	13,526	10,447	7,972	638	-	-	-
	568,423	631,251	548,341	230,616	18,451	109,560	43,962	3,516
STD approach								
Central governments and banks	53,113	48,666	53,113	3	-	5,678	9	1
Regional governments or local authorities	1,665	2,038	1,614	85	7	175	28	2
Administrative bodies and non-commercial undertakings	65	126	65	16	1	-	-	-
Multilateral development banks	12	23	12	-	-	2	-	-
Institutions	4,428	4,350	4,428	1,052	84	787	224	17
Corporates	54,887	55,487	53,606	47,610	3,809	4,678	3,791	305
Retail	27,388	29,140	27,047	18,971	1,517	12	9	1
Secured by mortgages on								
- commercial real estate	7,441	8,633	7,435	6,967	557	8	8	1
- residential property	20,759	20,498	20,758	7,314	585	-	-	-
Past due items	1,652	1,448	1,643	2,173	174	2	3	-
Securitisation positions	263	661	263	262	21	-	-	-
Other items	13,049	14,447	13,049	7,985	638	-	-	-
	184,722	185,517	183,033	92,438	7,393	11,342	4,072	327
Total	753,145	816,768	731,374	323,054	25,844	120,902	48,034	3,843

Table 10: Non-counterparty and counterparty credit risk EAD, RWAs and minimum capital requirements by regulatory approach and exposure class (continued)

	Non-counterparty credit risk					Counterparty credit risk		
Exposure class	EAD pre CRM £m	Average EAD pre CRM £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m	EAD post CRM £m	RWAs £m	Minimum capital requirement £m
2011								
IRB approach								
Central governments and banks	116,686	119,426	114,806	2,220	178	16,676	382	31
Institutions	29,639	34,550	28,072	7,437	595	44,256	11,108	889
Corporates	316,654	325,244	289,262	143,416	11,470	75,739	41,896	3,352
Retail								
SMEs	14,741	16,713	14,741	9,560	765	-	-	-
secured by real estate collateral	126,133	125,472	126,133	35,390	2,831	-	-	-
qualifying revolving retail exposures	26,858	26,880	26,858	10,450	836	-	-	-
other retail exposures	8,100	8,910	8,100	7,470	598	-	-	-
	175,832	177,975	175,832	62,870	5,030	-	-	-
Equities								
exchange-traded exposures	272	619	272	1,564	125	-	-	-
private equity exposures	384	424	384	1,218	97	-	-	-
other exposures	565	684	565	1,799	144	-	-	-
	1,221	1,727	1,221	4,581	366	-	-	-
Securitisation positions	42,237	46,970	42,237	9,103	731	3,516	2,372	190
Non-credit obligation assets	17,246	14,729	17,245	12,381	990	-	-	-
	699,515	720,621	668,675	242,008	19,360	140,187	55,758	4,462
STD approach								
Central governments and banks	36,139	31,782	36,139	144	12	6,020	-	-
Regional governments or local authorities	3,515	3,828	3,515	132	11	236	16	1
Administrative bodies and non-commercial undertakings	180	148	180	39	3	-	-	-
Multilateral development banks	39	42	39	-	-	-	-	-
Institutions	4,229	3,558	4,229	1,310	105	1,637	359	29
Corporates	57,953	61,093	56,645	48,169	3,854	6,658	5,753	458
Retail	31,706	31,788	31,315	21,692	1,736	34	25	2
Secured by mortgages on								
- commercial real estate	8,542	4,952	8,440	8,443	675	-	-	-
- residential property	19,373	11,272	19,373	6,821	545	-	-	-
Past due items	1,349	1,653	1,340	1,794	144	4	7	1
Securitisation positions	1,285	1,503	1,285	2,399	192	-	-	-
Other items	16,563	26,417	16,562	11,270	901	-	-	-
	180,873	178,036	179,062	102,213	8,178	14,589	6,160	491
Total	880,388	898,657	847,737	344,221	27,538	154,776	61,918	4,953

Minimum capital requirements related to equities are made up as follows:

	2012 £m	2011 £m
IRB (PD/LGD) approach	124	187
Simple risk-weighted approach	130	133
Capital adds-on calculated centrally and allocated across exposure classes	28	46
	282	366

For analysis of the inputs to these capital calculations, refer to Table 23 (PD/LGD approach) and Table 24 (simple risk-weighted approach)

Table 11: Non-counterparty credit risk by exposure class and geographical region

	EAD pre CRM				
Exposure class	UK £m	US £m	Western Europe (excl. UK) £m	RoW £m	Total £m
2012					
IRB approach					
Central governments and banks	821	27,115	33,656	8,495	70,087
Institutions	3,911	1,830	11,142	9,135	26,018
Corporates	127,928	23,315	68,927	37,347	257,517
Retail	153,662	158	20,035	558	174,413
Equities	575	49	464	24	1,112
Securitisation positions	7,874	5,675	9,329	5,749	28,627
Non-credit obligation assets	1,017	-	1,227	15	2,259
	295,788	58,142	144,780	61,323	560,033
STD approach					
Central governments and central banks	45,416	5,297	874	367	51,954
Regional governments or local authorities	23	113	1,384	100	1,620
Administrative bodies and non-commercial undertakings	-	61	-	4	65
Multilateral development banks	-	-	-	3	3
Institutions	44	163	3,253	608	4,068
Corporates	8,578	33,781	3,762	3,641	49,762
Retail	4,972	20,659	687	681	26,999
Secured by mortgages on					
- commercial real estate	1,952	4,702	400	387	7,441
- residential property	8,611	10,280	735	1,047	20,673
Past due items	348	599	617	88	1,652
Securitisation positions	-	263	-	-	263
Other items	204	1,738	-	-	1,942
	70,148	77,656	11,712	6,926	166,442
	365,936	135,798	156,492	68,249	726,475
Not allocated to region					26,670
					753,145

Table 11: Non-counterparty credit risk by exposure class and geographical region (continued)

	EAD pre CRM				
Exposure class	UK £m	US £m	Western Europe (excl. UK) £m	RoW £m	Total £m
2011					
IRB approach					
Central governments and banks	6,747	45,497	49,134	15,308	116,686
Institutions	1,718	2,195	13,493	12,233	29,639
Corporates	146,308	33,152	90,919	46,275	316,654
Retail	153,899	157	21,105	672	175,833
Equities	639	121	324	137	1,221
Securitisation positions	8,765	12,637	11,694	9,140	42,236
Non-credit obligation assets	1,528	175	2,337	1,742	5,782
	319,604	93,934	189,006	85,507	688,051
STD approach					
Central governments and banks	29,401	4,750	560	502	35,213
Regional governments or local authorities	24	116	3,211	121	3,472
Administrative bodies and non-commercial undertakings	-	169	8	3	180
Multilateral development banks	-	-	-	30	30
Institutions	82	972	1,646	1,147	3,847
Corporates	10,245	35,566	3,738	3,461	53,010
Retail	6,201	23,264	1,070	787	31,322
Secured by mortgages on					
- commercial real estate	1,851	5,384	1,160	147	8,542
- residential property	7,237	10,117	708	1,295	19,357
Past due items	377	502	379	91	1,349
Securitisation positions	-	1,285	-	-	1,285
Other items	292	1,769	36	10	2,107
	55,710	83,894	12,516	7,594	159,714
	375,314	177,828	201,522	93,101	847,765
Not allocated to region					32,623
					880,388

Table 12: Non-counterparty credit risk by exposure class and residual maturity

Exposure class	EAD pre CRM Within 1 year £m	After 1 year but within 5 years £m	After 5 years £m	Total £m
2012				
IRB approach				
Central governments and banks	42,182	16,296	11,609	70,087
Institutions	14,607	6,518	4,893	26,018
Corporates	99,106	106,291	52,120	257,517
Retail	36,018	11,402	126,993	174,413
Equities	-	176	936	1,112
Securitisation positions	8,915	5,524	14,188	28,627
Non-credit obligation assets	774	564	921	2,259
	201,602	146,771	211,660	560,033
STD approach				
Central governments and banks	29,218	12,273	10,463	51,954
Regional governments or local authorities	117	961	542	1,620
Administrative bodies and non-commercial undertakings	12	46	7	65
Multilateral development banks	-	3	-	3
Institutions	3,908	159	1	4,068
Corporates	6,318	32,959	10,485	49,762
Retail	4,025	11,160	11,814	26,999
Secured by mortgages on				
- commercial real estate	1,389	4,516	1,536	7,441
- residential property	896	5,904	13,873	20,673
Past due items	377	842	433	1,652
Securitisation positions	-	-	263	263
Other items	94	443	1,405	1,942
	46,354	69,266	50,822	166,442
	247,956	216,037	262,482	726,475
Not allocated to maturity				26,670
				753,145
2011				
IRB approach				
Central governments and banks	77,595	15,268	23,823	116,686
Institutions	17,101	9,952	2,586	29,639
Corporates	114,921	136,633	65,100	316,654
Retail	36,729	11,640	127,464	175,833
Equities	-	-	1,221	1,221
Securitisation positions	16,081	8,691	17,464	42,236
Non-credit obligation assets	1,054	2,773	1,955	5,782
	263,481	184,957	239,613	688,051
STD approach				
Central governments and banks	18,082	5,299	11,832	35,213
Regional governments or local authorities	716	1,947	809	3,472
Administrative bodies and non-commercial undertakings	72	66	42	180
Multilateral development banks	-	30	-	30
Institutions	3,036	809	2	3,847
Corporates	7,285	32,126	13,599	53,010
Retail	5,497	11,358	14,467	31,322
Secured by mortgages on				
- commercial real estate	1,837	5,454	1,251	8,542
- residential property	711	5,070	13,576	19,357
Past due items	486	347	516	1,349
Securitisation positions	-	-	1,285	1,285
Other items	178	439	1,490	2,107
	37,900	62,945	58,869	159,714
	301,381	247,902	298,482	847,765
Not allocated to maturity				32,623
				880,388

Key points for Tables 6 to 12

Overview

The Group's exposures decreased during 2012 with EAD post CRM falling 15% to £852 billion at 31 December 2012 from £1,003 billion at 31 December 2011. This was primarily driven by the Group's decision to reduce exposure to certain business lines, the broad slowdown in economic activity, and the Group's continued effort to realise CRM opportunities via counterparty and collateral netting.

The majority of the Group's exposures were subject to the IRB approach, and a fall in these exposures more than offset an increase in the smaller portion of exposures held under the STD approach. The increase in exposures subject to the STD approach was due to the placement of large amounts of cash with the Bank of England.

The reduction in RWAs was not as pronounced as the decline in EAD. Credit risk RWAs fell to £323 billion at 31 December 2012 from £344 billion at 31 December 2011, a drop of 6%. The smaller decrease in RWAs reflects changes in the credit risk models that underpin the Group's RWA calculations, as discussed on page 15.

The major year-on-year changes in both sector cluster and exposure class amounts shown in the preceding tables were driven by the following:

Non-Core disposal strategy

Over the course of 2012, the Group continued to exit legacy business lines through disposals in its Non-Core division. The disposals contributed to the reductions shown in the corporates (especially property and transport) and the non-bank financial institutions sector clusters. The impact was also evident in the corporates and institutions exposure classes.

General slowdown in economic activity

During 2012, activity slowed across most of the sectors and regions in which the Group operates, resulting in both lower business volumes and a tightening of Group risk limits. Challenging economic conditions in Western Europe and North America led to lower exposures as the Group reduced limits in those sectors affected by the slowdown. The impact was evident in most sector clusters (other than central banks and personal), particularly the retail and leisure subset of corporates, and the financial institutions sector clusters. Reductions in most exposure classes (aside from central governments and banks) resulted in lower exposures subject to both the IRB and STD approaches.

Sterling appreciation

In 2012, sterling appreciated 4.4% against the US dollar and 2.6% against the euro, which led to a reduction in sterling balances in the Group's key foreign markets. This had a significant effect on the wholesale portfolio, most of which is subject to the IRB approach.

Reduction in securitisation positions

The Group actively reduced positions through disposals and by limiting new securitisation activity, as demonstrated by falls in the securitisation vehicles sector cluster. For additional information refer to pages 54 to 67.

Limit reductions in downgraded sovereign nations

The eurozone crisis led the Group to reduce its internal risk limits on exposures to several countries, including Italy, the Netherlands, Spain and France. As a result, exposures to the corporates, financial institutions, central governments and other sovereigns sector clusters also fell. There were corresponding reductions in the corporates, financial institutions, central governments and banks exposure classes.

Liquidity management

The Group's overall liquidity portfolio fell modestly in the year to 31 December 2012. Its exposure to eurozone central banks and the US Federal Reserve Bank was relatively lower, but exposure to the Bank of England was significantly higher. Changes in the Group's balances with central banks reflected fluctuations in the Group's liquidity requirements.

Personal sector resilience

The Group's exposure to the personal sector cluster overall was broadly flat, as was its exposure to the retail exposure class. The small rise in exposures to the UK personal sector cluster reflected the Group's increased activity in the UK retail market, driven by growth in the domestic mortgage book and a resilient performance from the remaining UK retail book despite the challenging domestic economy. As of 31 December 2012, the UK mortgage sector cluster EAD post CRM was £117.6 billion, up from £114.5 billion in the previous year. The corresponding RWAs were £17.7 billion as of 31 December 2012, down from the previous year's figure of £21.9 billion.

However, the increase in the domestic retail portfolio was offset by declining mortgage exposures in the Group's other main retail markets, namely the US and Ireland, where property markets were weak. As of 31 December 2012, the Ireland mortgage sector cluster EAD post CRM was £17.3 billion, down from £18.1 billion a year earlier. The corresponding RWAs rose slightly, to £16.9 billion at 31 December 2012, from £15.7 billion at the end of the previous year.

Commercial real estate

Overall exposure to commercial real estate (CRE) fell in 2012, mainly in the UK, Western Europe and Ireland, in line with the Group's strategy. The mix of geography, sector and type (investment versus development) remained broadly unchanged. Most of the fall in exposure was in Non-Core as a result of repayments, asset sales and write-offs. With the exception of Spain and Ireland, the Group has minimal CRE exposure to eurozone periphery countries. Despite the reduction in exposure, RWAs in the CRE book increased in 2012 as the Group moved to the supervisory slotting approach for IPRE. The effect was evident in the property sector and corporates exposure classes.

Key points for Tables 6 to 12 (continued)

Tightening credit spreads on credit default swaps (CDS) indices - A tightening of credit spreads on both the CDX index in North America and the iTraxx index in Europe resulted in mark-to-market falls in the Group's long CDS positions. This lowered exposures in the banks and non-bank financial institutions sector clusters, and institutions and corporate exposure classes.

CRM opportunities - Due to its continued focus on CRM, the Group realised netting opportunities in its trading portfolios, resulting in lower exposures across the banks and non-banks financial institutions sector clusters, and the institutions and corporates exposure classes subject to the IRB approach.

Geographical region

General

Exposures to Western Europe, the US and the RoW declined significantly, but exposures to the UK fell only marginally.

UK

Exposures to most corporate sectors in the UK declined, in line with the fall in corporate exposures globally, as discussed previously. Specifically:

- Exposures to the banks and non-bank financial institutions sectors fell as a result of the realisation of netting opportunities. However, this decrease was largely offset by an increase in the proportion of cash held at the Bank of England, as reflected in the rise in the central banks sector cluster, and central governments and banks exposure class under the STD approach.
- The Group also increased its exposure to the domestic UK retail market, as reflected in the personal sector cluster.
- The Group reduced its exposures to the property, retail and leisure, and transport sector clusters, in part through disposals in the Non-Core division. Changes in the CCF model used by the Group's UK corporate division contributed to CCF falls, which resulted in lower EAD.

US

The main drivers of falling exposures in the US were reductions in:

- holdings of US Federal Reserve Bonds due to lower operational liquidity requirements;
- legacy securitisation positions, in line with the Group's reduced risk limits in this sector;
- counterparty exposures to non-bank financial institutions and corporates, driven by the realisation of netting opportunities, lower trading volumes and tighter CDS index credit spreads;
- the mortgage sector in light of the challenging US housing market; and
- the sterling value of exposures denominated in US dollars, due to the appreciation of sterling against the US dollar.

Western Europe

The decrease in exposure to Western Europe was driven by reductions in:

- corporate exposures, particularly across the property and transport (airlines) sectors;
- Group risk limits following sovereign credit downgrades;
- legacy positions in European securitisations;
- counterparty exposures to corporates and institutions as a result of the continued realisation of netting opportunities and tighter CDS credit spreads;
- Irish mortgages as the Group continued to run down this portfolio; and
- the sterling value of exposures denominated in euros, due to the appreciation of sterling against the euro.

Rest of the World

The decrease in exposures to the RoW reflected:

- Non-Core disposals from the Group's legacy Latin American and Asian books;
- A change in the Group's Japanese Yen clearing status (self-clearing) from membership to agency; and
- a reduction in counterparty balances due to the continued realisation of netting opportunities (particularly in South America).

Maturity

General

Exposures in all maturity bands fell, in line with the global decline in exposures.

Within one year

Decreases were led by limit reductions in countries subject to sovereign credit rating downgrades, which resulted in less short-term government and sovereign financing, significant reductions in counterparty exposures to financial institutions, and a decline in holdings of short-term US government and short-dated re-securitisations. Under the IRB approach, exposures to institutions, corporates, and central governments and banks fell. By contrast, an increase in the central governments and banks exposure class under the STD approach reflected the Group's placing of excess liquidity in short-dated deposits with the Bank of England.

After one year, but within five years

The Group's reduced activity in securitisation markets resulted in lower exposure to medium-term securitisation positions. Declines across most sector clusters and exposure classes, particularly corporates, were driven by Non-Core disposals and risk limit reductions in several corporate businesses. The increase in the central government and banks exposure class reflected the placing of a greater portion of the Group's liquidity portfolio with the Bank of England.

After five years

Lower sovereign risk limits resulted in reduced exposures to the central governments and banks exposure class. Smaller exposures to corporates and institutions were due to Non-Core disposals in the property and transport (particularly airlines) sectors.

Credit risk mitigation

The Group employs a number of techniques to mitigate credit risk. For information on the Group's approach to CRM, including detailed discussion of collateral and other credit enhancements, refer to pages 168 to 171 of the Group's 2012 Annual Report and Accounts. For specific information on the mitigation of counterparty credit risk, refer to pages 49 to 52.

Under the STD approach, CRM is incorporated as per BIPRU rules.

The following table details how different risk mitigants are incorporated into IRB risk parameters (LGD, PD and EAD).

Table 13: Incorporation of credit risk mitigants within IRB risk parameters

	LGD	PD	EAD
Real estate (commercial and residential)	✓		
Other physical collateral	✓		
Third-party guarantee	✓		
Credit derivative	✓		
Parental guarantee (connected parties)		✓	
Financial collateral			
- trading book			✓
- non-trading book	✓		
Netting (on and off-balance sheet)			✓
Receivables	✓		
Life policies	✓		
Credit insurance	✓		

Table 14: Non-counterparty credit risk exposures covered by guarantees and credit derivatives

The following table details total exposures covered by guarantees and credit derivatives. For further detail on collateral, refer to pages 175 and 176 of the Group's 2012 Annual Report and Accounts.

Exposure class	2012 Exposures covered by guarantees or credit derivatives (1,2) £m	2011 Exposures covered by guarantees or credit derivatives (1,2) £m
IRB approach		
Central governments and banks	13	422
Institutions	749	647
Corporates	8,527	11,242
Securitisation positions	-	7
Non-credit obligation assets	3	17
	9,292	12,335
STD approach		
Central governments and banks	3,436	2,557
Corporates	16	12
Retail	488	655
Secured by mortgages on residential property	316	496
Past due items	17	19
Securitisation positions	-	526
	4,273	4,265
	13,565	16,600

Notes:
(1) Exposures covered by guarantees and credit derivatives are shown as the lower of the value of the guarantee or credit derivative or the value of the associated EAD post CRM of the facility. Guarantees disclosed do not include parental guarantees where the PD substitution approach is applied.
(2) Excludes tranched credit protection purchased in relation to synthetic securitisation activity.

Key point

- Exposures covered by guarantees or credit derivatives fell in line with the wider decline in credit exposures, reflecting the Group's continued focus on mitigating credit risk.

Table 15: Non-counterparty credit risk exposures covered by eligible financial collateral (STD approach)

STD exposure class (1)	2012 £m	2011 £m
Corporates	1,243	1,241
Retail	341	402
Secured by mortgages on commercial real estate	5	102
	1,589	1,745

Note:
(1) Exposures covered by eligible financial collateral as per BIPRU rules.

Key point

- The Group's exposures subject to the STD approach fell by 14%. However, the amount of collateral held against them fell by only 9%, reflecting the Group's continued focus on mitigating credit risk when possible.

Asset quality analysis of non-counterparty credit risk exposures

Under the IRB approach, the Group utilises a master grading scale comprising 27 grades to evaluate the credit quality of its exposures. These grades, which map to ten AQ bands, are used to rate both wholesale and retail exposures. The relationship between the AQ bands and PDs is detailed in the following table. Tables 17 to 23 analyse the asset quality of the Group's non-counterparty exposure using the IRB approach. For these exposures, the asset quality is disclosed according to the Group's internal AQ bands, as defined in Table 16. Table 26 shows the asset quality of the Group's non-counterparty credit risk exposures under the STD approach. For the exposures, asset quality is disclosed according to CQS, as defined in Table 25.

Table 16: AQ band mapping to PD range

AQ bands	Probability of default range
AQ1	>= 0.00000 < 0.00034
AQ2	>= 0.00034 < 0.00048
AQ3	>= 0.00048 < 0.00095
AQ4	>= 0.00095 < 0.00381
AQ5	>= 0.00381 < 0.01076
AQ6	>= 0.01076 < 0.02153
AQ7	>= 0.02153 < 0.06089
AQ8	>= 0.06089 < 0.17222
AQ9	>= 0.17222 < 1.00000
AQ10	= 1.00000

Tables 17 to 23 analyse the asset quality of the Group's non-counterparty credit risk exposures using the IRB approach. For these exposures, the asset quality is disclosed according to the Group's internal AQ bands, as defined in Table 16. These tables exclude products were no PDs exist, such as securitisation positions and non-customer assets.

Table 17: Total IRB non-counterparty credit risk exposures post CRM by AQ band

IRB exposure class	AQ1 £m	AQ2 £m	AQ3 £m	AQ4 £m	AQ5 £m	AQ6 £m	AQ7 £m	AQ8 £m	AQ9 £m	AQ10/default £m	Total £m
2012											
Central governments and banks	62,481	697	4,340	2,103	382	15	56	6	7	-	70,087
Institutions	6,807	2,208	4,003	8,920	1,352	128	105	4	1	124	23,652
Corporates (1)	38,062	14,253	21,098	30,580	35,163	24,603	16,724	5,429	3,612	28,939	218,463
Retail											
SMEs	-	-	16	1,139	958	4,755	2,264	1,306	501	1,927	12,866
secured by real estate collateral	4	3,739	-	52,819	40,013	8,914	9,617	2,775	3,910	5,917	127,708
qualifying revolving retail exposures	138	7,253	126	4,299	4,944	3,185	2,846	2,592	367	1,028	26,778
other retail exposures	-	-	-	93	1,279	1,789	1,017	832	192	1,859	7,061
	142	10,992	142	58,350	47,194	18,643	15,744	7,505	4,970	10,731	174,413
Equities (2)	-	-	36	-	196	168	232	1	1	17	651
Total	107,492	28,150	29,619	99,953	84,287	43,557	32,861	12,945	8,591	39,811	487,266
2011											
Central governments and banks	110,781	567	1,352	527	49	12	115	12	-	1,391	114,806
Institutions	22,057	1,740	2,641	1,136	100	90	128	37	1	142	28,072
Corporates (1)	57,818	16,436	24,451	41,493	43,751	29,666	18,363	5,641	8,919	34,556	281,094
Retail											
SMEs	-	15	2	1,176	1,007	5,478	2,684	1,717	820	1,842	14,741
secured by real estate collateral	-	2,946	-	25,452	41,511	29,471	14,902	1,762	5,288	4,801	126,133
qualifying revolving retail exposures	126	6,492	561	3,987	5,319	3,179	2,780	2,892	454	1,068	26,858
other retail exposures	-	-	-	118	1,265	2,153	1,718	645	240	1,961	8,100
	126	9,453	563	30,733	49,102	40,281	22,084	7,016	6,802	9,672	175,832
Equities (2)	-	-	9	-	-	383	310	13	7	50	772
Total	190,782	28,196	29,016	73,889	93,002	70,432	41,000	12,719	15,729	45,811	600,576

Notes:
(1) Corporate exposures exclude those exposures treated under the supervisory slotting approach. For more information refer to Table 21.
(2) Equity exposures exclude those exposures calculated using the simple risk-weight approach. For more information refer to Tables 10 and 24.

Tables 18 to 23 analyse each of the exposure classes in turn, detailing the key parameters of the IRB RWA calculation for each of them.

Table 18: Central governments and banks IRB non-counterparty credit risk exposures post CRM by AQ band

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	62,481	697	4,340	2,103	382	15	56	6	7	-	70,087
Exposure-weighted average LGD	44.4%	45.1%	38.4%	46.0%	40.4%	11.3%	19.8%	13.3%	87.5%	-	44.0%
Exposure-weighted average PD	0.01%	0.04%	0.06%	0.24%	0.56%	1.81%	3.48%	10.55%	28.96%	-	0.03%
Risk-weighted average (£m)	3,436	236	641	1,867	474	5	32	4	35	-	6,730
Exposure-weighted average risk-weight	5.5%	33.8%	14.8%	88.8%	124.1%	33.3%	58.0%	76.3%	524.9%	-	9.6%
Undrawn commitments (£m)	44,902	60	628	1,862	165	1	3	-	-	-	47,621
Undrawn weighted average CCF	0.3%	23.1%	2.5%	7.6%	12.4%	88.1%	101.3%	-	-	-	0.7%
2011											
EAD post CRM (£m)	110,781	567	1,352	527	49	12	115	12	-	1,391	114,806
Exposure-weighted average LGD	8.6%	46.0%	39.2%	36.5%	8.6%	24.1%	9.7%	51.3%	-	89.4%	10.2%
Exposure-weighted average PD	0.01%	0.04%	0.08%	0.16%	0.62%	1.32%	2.88%	8.62%	-	100%	1.22%
Risk-weighted average (£m)	1,555	68	337	178	11	7	35	28	-	-	2,219
Exposure-weighted average risk-weight	1.4%	12.0%	24.9%	33.7%	22.3%	60.8%	30.7%	232.4%	-	-	1.9%
Undrawn commitments (£m)	41,253	55	222	62	31	2	4	-	-	-	41,629
Undrawn weighted average CCF	6.7%	28.1%	3.5%	89.9%	81.2%	30.3%	100.8%	-	-	-	6.9%

Key points

- Overall exposure in central governments and banks decreased 39% to £70 billion at 31 December 2012 from £115 billion at 31 December 2011.

- The decrease in exposures in AQ1 and the corresponding increase in exposures in AQ2-AQ4 were largely due to the impact of the model changes, described on page 15, and the following factors:
  - a fall in exposures to government bonds rated AQ1 due to a re-balancing of the Group's liquidity portfolio away from these positions towards larger holdings with the Bank of England (the latter being held under the STD approach); and
  - downgrades in some remaining government bonds (Japan, Italy, Turkey and India), which contributed to increases in AQ2-AQ4 bands.

- The introduction of a new sovereign LGD model led to the overall rise in LGD to 44.0% at 31 December 2012 from 10.2% at 31 December 2011, which resulted in increased LGDs for many of the Group's sovereign holdings, particularly those of US government debt.

Table 19: Institutions IRB non-counterparty credit risk exposures post CRM by AQ band

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	6,807	2,208	4,003	8,920	1,352	128	105	4	1	124	23,652
Exposure-weighted average LGD	14.0%	55.0%	48.2%	56.2%	61.4%	28.1%	34.2%	62.1%	59.4%	82.3%	42.8%
Exposure-weighted average PD	0.03%	0.04%	0.06%	0.20%	0.57%	1.36%	3.94%	13.27%	27.88%	100%	0.68%
Risk-weighted average (£m)	345	347	844	3,913	1,162	96	196	11	5	-	6,919
Exposure-weighted average risk-weight	5.1%	15.7%	21.1%	43.9%	86.0%	75.5%	186.6%	302.6%	354.7%	-	29.3%
Undrawn commitments (£m)	9,551	7,700	12,915	13,317	1,890	83	59	10	11	1	45,537
Undrawn weighted average CCF	5.2%	2.0%	5.6%	8.4%	8.5%	17.0%	7.4%	17.8%	6.3%	101.2%	5.9%
2011											
EAD post CRM (£m)	22,057	1,740	2,641	1,136	100	90	128	37	1	142	28,072
Exposure-weighted average LGD	36.7%	48.2%	57.4%	60.0%	56.2%	38.9%	59.4%	56.7%	50.0%	81.7%	40.7%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.16%	0.67%	1.79%	3.24%	7.33%	20.48%	100%	0.58%
Risk-weighted average (£m)	3,667	685	1,418	1,028	141	139	240	117	2	-	7,437
Exposure-weighted average risk-weight	16.6%	39.4%	53.7%	90.5%	140.7%	154.1%	187.9%	313.2%	349.3%	-	26.5%
Undrawn commitments (£m)	36,156	681	2,775	1,102	175	29	64	33	-	4	41,019
Undrawn weighted average CCF	4.8%	13.7%	10.2%	10.0%	11.3%	10.6%	5.9%	8.1%	-	102.6%	5.5%

Key points

- Overall exposures in the institutions exposure class fell by 16% to £24 billion at 31 December 2012 from £28 billion at 31 December 2011.
- The decrease in exposures in AQ1 and the corresponding increase in exposures in AQ2-AQ4 were largely due to the impact of the model changes, described on page 15, which increased the PDs of several of the Group's bank counterparties.

Table 20: Corporates IRB non-counterparty credit risk exposures post CRM by AQ band

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	38,062	14,253	21,098	30,580	35,163	24,603	16,724	5,429	3,612	28,939	218,463
Exposure-weighted average LGD	28.0%	35.2%	38.6%	35.0%	27.0%	27.5%	32.4%	35.9%	46.9%	62.5%	35.7%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.21%	0.69%	1.51%	3.50%	10.05%	26.63%	100%	14.53%
Risk-weighted average (£m)	5,162	2,717	5,883	13,657	21,096	20,217	37,161	8,742	10,299	57	124,991
Exposure-weighted average risk-weight	13.6%	19.1%	27.9%	44.7%	60.0%	82.2%	222.2%	161.0%	285.1%	0.2%	57.2%
Undrawn commitments (£m)	58,378	17,374	23,119	20,598	10,106	5,107	4,184	564	372	1,138	140,940
Undrawn weighted average CCF	24.2%	23.6%	23.1%	24.7%	31.3%	38.9%	35.1%	46.2%	48.8%	64.4%	25.9%
2011											
EAD post CRM (£m)	57,818	16,436	24,451	41,493	43,751	29,666	18,363	5,641	8,919	34,556	281,094
Exposure-weighted average LGD	28.9%	34.3%	35.0%	32.7%	27.9%	27.8%	35.3%	34.2%	38.6%	58.5%	34.5%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.22%	0.70%	1.49%	3.30%	10.44%	26.40%	100%	13.87%
Risk-weighted average (£m)	7,246	3,237	6,105	17,849	26,710	23,920	21,617	8,561	21,679	89	137,013
Exposure-weighted average risk-weight	12.5%	19.7%	25.0%	43.0%	61.0%	80.6%	117.7%	151.8%	243.1%	0.3%	48.7%
Undrawn commitments (£m)	62,935	17,357	23,643	21,370	11,771	6,274	4,379	626	700	2,065	151,120
Undrawn weighted average CCF	29.5%	29.5%	32.0%	32.7%	35.9%	42.1%	48.3%	39.6%	55.5%	75.2%	32.7%

Key points

- The corporates exposure class fell by 22% to £218 billion at 31 December 2012 from £281 billion at 31 December 2011. The relative distribution of corporate customer exposures moved into lower quality AQ bands as the challenging economic environment affected creditworthiness. The move into lower quality AQ bands was partially offset by a decrease due to Non-Core disposals of assets in lower quality AQ bands.
- The reduction in undrawn weighted CCFs across all AQ bands reflected a rise in undrawn facilities with lower CCFs.

Table 21: Corporates under the supervisory slotting approach post CRM by AQ category (1)

2012	Category 1 (strong)	Category 2 (good)	Category 3 (satisfactory)	Category 4 (weak)	Category 5 (defaulted)	Total
EAD post CRM (£m)	7,720	6,325	2,255	1,987	3,051	21,338
Exposure-weighted average risk-weight	67.3%	80.5%	115.0%	250.0%	-	87.4%
Undrawn commitments (£m)	1,299	502	108	73	74	2,056
Undrawn weighted average CCF	56.9%	55.5%	70.5%	78.1%	77.0%	58.7%
2011						
EAD post CRM (£m)	6,782	503	118	494	319	8,216
Exposure-weighted average risk-weight	67.6%	90.0%	115.0%	250.0%	3.4%	78.2%
Undrawn commitments (£m)	1,190	70	7	39	58	1,364
Undrawn weighted average CCF	73.9%	51.0%	88.6%	90.3%	91.6%	74.0%

Note:
(1) Customers are split into five supervisory slotting categories; within each category, customers are also divided into two maturity bands: below and above 2.5 years. The risk-weight applied to each exposure is based on a combination of its supervisory slotting category and maturity band. There are no RWAs associated with exposures in category 5 as these are addressed via capital deductions.

Of which: Project finance

2012	Category 1 (strong)	Category 2 (good)	Category 3 (satisfactory)	Category 4 (weak)	Category 5 (defaulted)	Total
EAD post CRM (£m)	5,889	1,112	250	189	453	7,893
Exposure-weighted average risk-weight	68.3%	87.0%	115.0%	250.0%	-	82.9%
Undrawn commitments (£m)	1,019	39	22	20	25	1,125
Undrawn weighted average CCF	64.2%	37.7%	49.5%	71.9%	84.0%	63.6%
2011						
EAD post CRM (£m)	6,782	503	118	494	319	8,216
Exposure-weighted average risk-weight	67.6%	90.0%	115.0%	250.0%	3.4%	78.2%
Undrawn commitments (£m)	1,190	70	7	39	58	1,364
Undrawn weighted average CCF	73.9%	51.0%	88.6%	90.3%	91.6%	74.0%

Table 21: Corporates under the supervisory slotting approach post CRM by AQ category (continued)

Of which: IPRE (1)

2012	Category 1 (strong)	Category 2 (good)	Category 3 (satisfactory)	Category 4 (weak)	Category 5 (defaulted)	Total
EAD post CRM (£m)	1,831	5,213	2,005	1,798	2,598	13,445
Exposure-weighted average risk-weight	63.9%	79.1%	115.0%	250.0%	-	90.0%
Undrawn commitments (£m)	280	463	86	53	49	931
Undrawn weighted average CCF	30.3%	57.0%	75.7%	80.4%	73.3%	52.9%

Note:
(1) IPRE for 2012 only as there were no exposures for 2011.

Key point

- The increase in EAD under the supervisory slotting approach was due to the inclusion of IPRE. Previously, only the Group's project finance exposures were included under the supervisory slotting approach.

Table 22: Retail IRB non-counterparty credit risk exposures post CRM by AQ band

Total retail exposures

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	142	10,992	142	58,350	47,194	18,643	15,744	7,505	4,970	10,731	174,413
Exposure-weighted average LGD	9.2%	35.6%	61.7%	13.3%	20.0%	39.5%	43.1%	47.9%	34.4%	45.3%	26.1%
Exposure-weighted average PD	0.03%	0.04%	0.08%	0.21%	0.65%	1.52%	3.87%	10.30%	38.55%	100%	8.46%
Risk-weighted average (£m)	-	129	6	2,680	7,204	9,026	14,058	7,865	7,715	7,157	55,840
Exposure-weighted average risk-weight	0.2%	1.2%	4.0%	4.6%	15.3%	48.4%	89.3%	104.8%	155.2%	66.7%	32.0%
Undrawn commitments (£m)	3,190	7,674	31	10,361	17,145	4,663	1,250	467	42	321	45,144
Undrawn weighted average CCF	4.4%	100%	100%	74.0%	31.6%	44.1%	58.0%	80.9%	89.7%	5.3%	53.5%
2011											
EAD post CRM (£m)	126	9,453	563	30,733	49,102	40,281	22,084	7,016	6,802	9,672	175,832
Exposure-weighted average LGD	9.1%	36.2%	54.0%	16.9%	17.5%	27.5%	35.8%	52.3%	31.0%	46.8%	26.6%
Exposure-weighted average PD	0.03%	0.04%	0.08%	0.26%	0.65%	1.44%	3.47%	10.90%	39.10%	100%	8.44%
Risk-weighted average (£m)	-	108	16	1,696	6,106	14,680	15,293	7,809	9,544	7,618	62,870
Exposure-weighted average risk-weight	0.2%	1.1%	2.9%	5.5%	12.4%	36.4%	69.2%	111.3%	140.3%	78.8%	35.8%
Undrawn commitments (£m)	2,911	6,761	276	7,611	19,089	5,194	1,867	587	59	294	44,649
Undrawn weighted average CCF	4.3%	98.8%	100%	96.6%	28.6%	49.6%	56.2%	80.9%	94.6%	8.0%	53.9%

Of which: Retail SME exposures (1)

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	-	-	16	1,139	958	4,755	2,264	1,306	501	1,927	12,866
Exposure-weighted average LGD	-	-	48.4%	70.8%	43.4%	42.8%	41.8%	44.7%	46.4%	56.7%	47.6%
Exposure-weighted average PD	-	-	0.05%	0.17%	0.76%	1.54%	4.01%	10.96%	38.36%	100.00%	18.93%
Risk-weighted average (£m)	-	-	1	336	418	2,886	1,589	1,180	709	873	7,992
Exposure-weighted average risk-weight	-	-	8.5%	29.5%	43.6%	60.7%	70.2%	90.4%	141.5%	45.3%	62.1%
Undrawn commitments (£m)	-	-	10	723	143	657	136	72	14	-	1,755
Undrawn weighted average CCF	-	-	100%	100%	100%	100%	100%	100%	100%	-	100%
2011											
EAD post CRM (£m)	-	15	2	1,176	1,007	5,478	2,684	1,717	820	1,842	14,741
Exposure-weighted average LGD	-	49.4%	58.3%	71.8%	43.6%	43.1%	41.7%	41.5%	43.1%	56.6%	46.7%
Exposure-weighted average PD	-	0.05%	0.06%	0.17%	0.75%	1.52%	3.94%	10.71%	39.59%	100%	18.66%
Risk-weighted average (£m)	-	1	-	352	452	3,382	1,906	1,471	1,084	911	9,559
Exposure-weighted average risk-weight	-	8.6%	10.2%	29.9%	44.9%	61.7%	71.0%	85.7%	132.1%	49.5%	64.9%
Undrawn commitments (£m)	-	10	1	779	166	798	102	111	19	-	1,986
Undrawn weighted average CCF	-	100%	100%	100%	100%	100%	100%	100%	100%	-	100%

For the notes to this table refer to page 42.

Table 22: Retail IRB non-counterparty credit risk exposures post CRM by AQ band (continued)

Of which: Retail secured by real estate collateral (2)

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	4	3,739	-	52,819	40,013	8,914	9,617	2,775	3,910	5,917	127,708
Exposure-weighted average LGD	8.0%	8.0%	-	8.4%	12.5%	20.7%	31.4%	14.6%	27.4%	25.7%	13.8%
Exposure-weighted average PD	0.03%	0.04%	-	0.21%	0.65%	1.47%	3.89%	11.54%	38.42%	100%	6.75%
Risk-weighted average (£m)	-	33	-	1,998	5,053	3,198	9,124	2,016	5,763	4,802	31,987
Exposure-weighted average risk-weight	0.9%	0.9%	-	3.8%	12.6%	35.9%	94.9%	72.7%	147.4%	81.2%	25.0%
Undrawn commitments (£m)	2	2,115	-	4,161	2,731	249	52	17	1	16	9,344
Undrawn weighted average CCF	100%	100%	-	99.9%	90.8%	98.8%	87.1%	99.9%	100%	100%	97.2%
2011											
EAD post CRM (£m)	-	2,946	-	25,452	41,511	29,471	14,902	1,762	5,288	4,801	126,133
Exposure-weighted average LGD	-	6.5%	-	7.9%	9.5%	16.7%	23.5%	13.7%	23.6%	23.2%	13.6%
Exposure-weighted average PD	-	0.04%	-	0.27%	0.65%	1.40%	3.22%	13.22%	38.97%	100%	6.60%
Risk-weighted average (£m)	-	23	-	1,042	3,844	8,019	9,260	1,274	6,890	5,038	35,390
Exposure-weighted average risk-weight	-	0.8%	-	4.1%	9.3%	27.2%	62.1%	72.3%	130.3%	104.9%	28.1%
Undrawn commitments (£m)	-	1,724	-	3,926	2,429	535	481	10	7	23	9,135
Undrawn weighted average CCF	-	100%	-	99.9%	89.8%	99.3%	67.0%	100%	100%	100%	95.5%

Of which: Qualifying revolving retail exposures (3)

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	138	7,253	126	4,299	4,944	3,185	2,846	2,592	367	1,028	26,778
Exposure-weighted average LGD	9.3%	49.8%	63.4%	56.9%	63.6%	66.6%	71.4%	75.9%	70.7%	76.8%	61.5%
Exposure-weighted average PD	0.03%	0.04%	0.08%	0.23%	0.63%	1.58%	3.72%	8.90%	38.23%	100%	5.97%
Risk-weighted average (£m)	-	96	4	311	892	1,219	2,148	3,534	843	493	9,540
Exposure-weighted average risk-weight	0.2%	1.3%	3.4%	7.2%	18.1%	38.3%	75.4%	136.3%	229.4%	48.0%	35.6%
Undrawn commitments (£m)	3,187	5,559	21	5,478	14,270	3,756	1,062	379	27	304	34,043
Undrawn weighted average CCF	4.3%	100%	100%	50.9%	19.6%	30.7%	51.2%	76.5%	83.8%	0.1%	39.1%
2011											
EAD post CRM (£m)	126	6,492	561	3,987	5,319	3,179	2,780	2,892	454	1,068	26,858
Exposure-weighted average LGD	9.1%	49.6%	53.9%	56.4%	63.4%	67.8%	69.9%	77.0%	72.0%	76.9%	61.9%
Exposure-weighted average PD	0.03%	0.03%	0.08%	0.21%	0.65%	1.61%	3.86%	9.50%	38.03%	100%	6.40%
Risk-weighted average (£m)	-	84	16	261	973	1,239	2,073	4,154	1,062	588	10,450
Exposure-weighted average risk-weight	0.2%	1.3%	2.9%	6.5%	18.3%	39.0%	74.6%	143.6%	233.7%	55.1%	38.9%
Undrawn commitments (£m)	2,911	5,028	275	2,904	16,492	3,861	1,284	465	33	271	33,524
Undrawn weighted average CCF	4.3%	98.4%	100%	91.1%	18.9%	32.3%	48.6%	76.0%	90.4%	0.1%	39.9%

For the notes to this table refer to page 42.

Table 22: Retail IRB non-counterparty credit risk exposures post CRM by AQ band (continued)

Of which: Other retail exposures (4)

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	-	-	-	93	1,279	1,789	1,017	832	192	1,859	7,061
Exposure-weighted average LGD	-	-	-	64.6%	69.3%	76.1%	77.5%	77.0%	74.7%	78.3%	75.6%
Exposure-weighted average PD	-	-	-	0.33%	0.76%	1.59%	3.85%	9.46%	42.37%	100%	29.70%
Risk-weighted average (£m)	-	-	-	35	840	1,723	1,198	1,135	400	989	6,320
Exposure-weighted average risk-weight	-	-	-	38.2%	65.7%	96.3%	117.8%	136.4%	208.9%	53.2%	89.5%
Undrawn commitments (£m)	-	-	-	-	2	-	-	-	-	-	2
Undrawn weighted average CCF	-	-	-	-	100%	-	-	-	-	-	100%
2011											
EAD post CRM (£m)	-	-	-	118	1,265	2,153	1,718	645	240	1,961	8,100
Exposure-weighted average LGD	-	-	-	65.8%	69.0%	75.9%	77.7%	75.4%	75.5%	78.9%	75.7%
Exposure-weighted average PD	-	-	-	0.27%	0.78%	1.52%	4.32%	11.30%	42.29%	100%	27.81%
Risk-weighted average (£m)	-	-	-	41	837	2,040	2,053	911	508	1,080	7,470
Exposure-weighted average risk-weight	-	-	-	34.8%	66.2%	94.8%	119.5%	141.3%	212.0%	55.1%	92.2%
Undrawn commitments (£m)	-	-	-	1	1	-	-	-	-	-	2
Undrawn weighted average CCF	-	-	-	100%	100%	-	-	-	-	-	100%

Notes:
(1) Consist primarily of loans and overdrafts to SMEs.
(2) Consist of mortgages.
(3) Consist primarily of personal credit card and overdraft exposures.
(4) Consist primarily of unsecured personal loans.

Key points

- Although exposures remained largely unchanged over the year, the proportion of the retail exposure class in higher quality AQ bands increased. These shifts were largely driven by PD re-calibrations and quality improvements in the UK retail book.

- The increase in exposures in the AQ1-AQ4 bands in the secured by real estate collateral class was largely due to the Group’s re-calibration of its UK retail mortgage PDs, reflecting an improvement in the credit quality of the underlying book. This led to a fall in PDs and a move of exposures to higher quality AQ bands, as well as a decline in RWAs across this exposure class. At the same time, the quality of the underlying book improved as a result of increased business in higher quality AQ bands and the run-off or impairment of exposures in lower quality AQ bands. However, LGDs also rose, especially across higher exposure bands, owing to further property price deterioration in Ireland.

- Similarly, exposure increases in higher quality and decreases in lower quality AQ bands were visible in the qualifying revolving retail exposure class. These increases were driven by PD recalibrations and an overall improvement in credit quality. CCFs fell in the qualifying revolving retail exposure class, in particular in the AQ4 band, due to a recalibration of average CCFs.

Table 23: Equity exposures calculated using the IRB approach post CRM by AQ band

The exposures represent direct investments or investments in shares traded on an exchange.

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	-	-	36	-	196	168	232	1	1	17	651
Exposure-weighted average LGD	-	-	90.0%	-	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Exposure-weighted average risk-weight	-	-	136.0%	-	285.9%	160.5%	285.2%	520.1%	648.4%	-	238.0%
2011											
EAD post CRM (£m)	-	-	9	-	-	383	310	13	7	50	772
Exposure-weighted average LGD	-	-	90.0%	-	-	90.0%	90.0%	90.0%	90.0%	90.0%	90.0%
Exposure-weighted average risk-weight	-	-	199.0%	-	-	344.8%	276.8%	679.0%	650.8%	-	301.9%

Key point

- An exposure of £196 million appeared in AQ5 during 2012 as a result of new investment, which was offset by run-off across other AQ bands.

Table 24: Equity exposures post CRM calculated using the simple risk-weight approach

2012	Exchange-traded equity exposures	Private equity exposures	Other equity exposures	Total
EAD post CRM (£m)	169	120	172	461
Exposure-weighted average risk-weight	290.0%	370.0%	370.0%	351.3%
Undrawn commitments (£m)	-	-	30	30
Undrawn weighted average CCF	-	-	100%	100%
2011				
EAD post CRM (£m)	2	109	337	448
Exposure-weighted average risk-weight	370.0%	370.0%	370.0%	370.0%
Undrawn commitments (£m)	-	-	61	61
Undrawn weighted average CCF	-	-	100%	100%

Key points

- The increase in exchange-traded exposures was as a result of new investments.
- The decrease in other equity exposures was driven by the Group’s sale of several equity positions.

Asset quality of non-counterparty credit risk exposures under the STD approach

Under the STD approach, the Group uses CQS to calculate the RWAs associated with non-counterparty credit risk exposures. Each rated exposure in the STD portfolio is assigned to one of six CQS. The CQS map to the ratings of the three major ratings agencies, as shown in the table below. Each CQS is associated with a particular risk-weighting. Each exposure is multiplied by the appropriate risk weighting to calculate the relevant RWA amount. If no external rating is available, the Group assigns the exposure a risk-weighting in line with BIPRU.

Table 25: Credit quality steps mapping to external credit gradings

Credit quality step	Standard & Poor's	Moody's	Fitch
Step 1	AAA to AA-	Aaa to Aa3	AAA to AA-
Step 2	A+ to A-	A1 to A3	A+ to A-
Step 3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-
Step 4	BB+ to BB-	Ba1 to Ba3	BB+ to BB-
Step 5	B+ to B-	B1 to B3	B+ to B-
Step 6	CCC+ and below	Caa1 and below	CCC+ and below

Table 26: Total standardised non-counterparty credit risk exposure by credit quality step

The following table analyses the asset quality of the Group's non-counterparty credit risk exposures using the STD approach. For these exposures, the asset quality is disclosed according to CQS, as defined in Table 25.

	Credit quality step (CQS)						Unrated	
STD exposure class	Step 1 £m	Step2 £m	Step 3 £m	Step 4 £m	Step 5 £m	Step 6 £m	exposure £m	Total £m
2012								
Central governments and banks	51,706	-	243	-	1	-	5	51,955
Regional governments or local authorities	1,472	15	41	18	-	-	23	1,569
Administrative bodies and non-commercial undertakings	61	-	4	-	-	-	-	65
Multilateral development banks	3	-	-	-	-	-	-	3
Institutions	570	3,112	122	2	-	-	261	4,067
Corporates	7,251	547	2,026	1,552	886	46	36,173	48,481
Retail	-	-	-	-	-	-	26,658	26,658
Secured by mortgages on								
- commercial real estate	6	-	-	-	11	-	7,419	7,436
- residential property	1	-	-	-	-	-	20,672	20,673
Past due items	-	-	-	-	-	-	1,643	1,643
Securitisation positions	179	24	26	33	-	-	-	262
Other items	820	145	145	60	21	-	750	1,941
Total EAD post CRM	62,069	3,843	2,607	1,665	919	46	93,604	164,753
Total EAD pre CRM	62,068	3,843	2,608	1,716	919	46	95,241	166,441
2011								
Central governments and banks	33,998	-	356	-	1	-	857	35,212
Regional governments or local authorities	3,287	52	-	94	-	-	40	3,473
Administrative bodies and non-commercial undertakings	169	-	-	-	-	-	12	181
Multilateral development banks	30	-	-	-	-	-	-	30
Institutions	1,014	1,780	63	6	-	-	983	3,846
Corporates	10,222	753	1,863	1,363	967	167	36,327	51,662
Retail	-	-	-	-	-	-	30,931	30,931
Secured by mortgages on								
- commercial real estate	-	-	-	-	-	-	8,440	8,440
- residential property	-	-	-	-	-	-	19,359	19,359
Past due items	-	-	-	-	-	-	1,340	1,340
Securitisation positions	401	38	10	86	749	-	-	1,284
Other items	427	96	148	23	11	2	1,479	2,186
Total EAD post CRM	49,548	2,719	2,440	1,572	1,728	169	99,768	157,944
Total EAD pre CRM	49,548	2,719	2,440	1,572	1,728	169	101,580	159,756

Key points

- Overall EAD post CRM increased to £165 billion at 31 December 2012 from £158 billion at 31 December 2011. The largest increase was in CQS1, which rose to £62 billion from £50 billion. This was driven by the placing of a greater proportion of the Group's liquidity portfolio with the Bank of England.
- The fall in unrated exposures was due to the appreciation of sterling against the US dollar, given that large parts of the Group's unrated exposures are held in the US.

Expected loss and impairment

The table below shows the expected loss predicted for the following year at 31 December 2010 and 31 December 2011, and the impairment charges recorded for each of the subsequent years. It includes expected losses both for assets that have already defaulted (and for which an impairment was recognised where appropriate under IFRS), and for assets that were still performing at year end.

Expected loss is calculated by applying the Group's PD, LGD and EAD models to its portfolios. The Group's PD models incorporate differing degrees of through-the-cycle (TTC) and point-in-time (PIT) characteristics depending on the portfolio.

The impairment charge is the amount recorded in the income statement. The Group's accounting policy on impairments is set out on page 365 of the Group's 2012 Annual Report and Accounts.

The methodologies and underlying principles used to calculate expected loss in accordance with regulatory requirements differ significantly from those followed for the recognition of impairments under financial reporting standards. Impairments are typically calculated where a loss has occurred (for example, under the IFRS incurred loss model). An expected loss is a forward-looking measure that is applied to all assets regardless of whether a loss has been incurred.

Key differences include the following:

- *Timing* - For the period between a default and the associated asset being written-off or recovered, an expected loss is calculated according to regulatory requirements, while some or all of the associated impairment may already be recognised in the income statement.

- *Cyclicality* - For PD models with predominantly TTC characteristics (notably wholesale models), expected loss does not, by definition, produce a result that aligns with actual loss experience in every one year period.

For regulatory capital purposes, the amount by which expected loss exceeds cumulative impairment provisions is deducted from capital. 50% is deducted from Core Tier 1 capital and 50% from Tier 2 capital.

Table 27: Expected loss and impairment charge

	Expected loss predicted for following year at the end of						Impairment charge as applied during year	
	2011			2010				
IRB exposure class	Non-defaulted (AQ1-AQ9) £m	Defaulted (AQ10) £m	Total £m	Non-defaulted (AQ1-AQ9) £m	Defaulted (AQ10) £m	Total £m	2012 £m	2011 £m
Central governments and banks	3	1,267	1,270	6	-	6	-	1,099
Institutions	39	116	155	43	126	169	24	-
Corporates	2,110	21,323	23,433	2,657	16,983	19,640	3,277	4,904
Retail								
- SMEs	304	994	1,298	460	900	1,360	206	277
- retail secured by real estate collateral	731	711	1,442	510	382	892	738	757
- qualifying revolving retail exposure	472	781	1,253	683	839	1,522	401	406
- other retail exposures	226	1,473	1,699	323	1,699	2,022	201	229
Equities	39	45	84	26	16	42	-	-
	3,924	26,710	30,634	4,708	20,945	25,653	4,847	7,672

Key points

- At 31 December 2011, expected loss was £30.6 billion whereas the impairment charge for the following year was £4.8 billion. The majority of expected loss as at 31 December 2011 and 31 December 2010 related to already defaulted assets, for which impairment provisions had already been made. This difference and the cumulative impairment provisions to that date had already been absorbed into the Group's regulatory capital and was reflected in the Group's capital ratios through capital deduction.

- The increase in expected loss to £30.6 billion at 31 December 2011 from £25.7 billion was driven mainly by growth in defaulted assets, primarily in the property sector, led by Ulster Bank. An additional contributing factor was the impairment of Greek exposure, which was the result of a distressed exchange.

- The increase in expected loss in retail secured by real estate collateral was largely attributed to a deterioration of the risk parameters associated with the Republic of Ireland. The Group had taken impairment charges against these exposures in the previous year. As a result, the associated impairment charges did not show an increase year-on-year.

- The 2011 impairment charge for central governments and banks related to Greek government bonds.

- Despite continuing challenges in the commercial real estate portfolio, the impairment charge for 2012 fell 37%. This was as a result of asset disposals in Non-Core and asset run-off.

Probability of default and exposure at default

Wholesale credit grading models are hybrid models. They exhibit a degree of cyclicality that reflects broader credit conditions, but not the full cyclicality of a more PIT methodology.

The Group has developed both TTC and PIT retail PD models. Depending on the product category, it may use either for pricing, setting risk appetite or estimating losses. The Group uses only models subject to PIT recalibration and incorporating a degree of conservatism to calculate regulatory capital.

The following table shows the estimated PD at the beginning of the past two reporting periods, compared with the actual default rate realised during the period. For wholesale exposures, the PD shown is the average counterparty PD. For retail exposures, it is the average account level PD. Exposures in default at the start of the period are excluded as their probability of default is 100%. The default rate is the number of defaults observed during the year divided by the number of obligors or accounts at the start of the period.

The EAD ratio displayed represents the total predicted model EAD at the end of the previous reporting period against the actual exposure at the time of default for all assets that defaulted during the period.

Table 28: Predicted probability of default, actual default rates and EAD outcomes versus predictions

	PD				EAD	
IRB exposure class	Estimate at 2011 %	Actual 2012 %	Estimate at 2010 %	Actual 2011 %	Estimate to actual ratio 2012 %	Estimate to actual ratio 2011 %
Central governments and banks	0.30	-	0.41	0.44	-	155
Institutions	0.50	0.07	0.43	-	106	-
Corporates	2.41	3.76	2.73	5.12	115	118
Retail						
- SMEs	3.94	3.43	4.28	3.63	107	104
- retail secured by real estate collateral	2.42	1.89	2.37	1.74	101	101
- qualifying revolving retail exposures	2.20	1.95	2.65	2.07	104	102
- other retail exposures	4.31	4.24	5.23	4.52	109	108
Equities	3.98	4.76	3.64	3.51	-	-

Key points

- Year-on-year trends in default rates generally reflect the overall improvement in credit quality across the Group's portfolios. The exception was retail secured by real estate collateral, the credit quality of which continued to deteriorate owing to difficult conditions in the Irish mortgage market.

- In the corporates exposure class, the difference between estimated and actual default rates fell materially from the previous year. Nonetheless, a difference remains, largely driven by the continued strain in the property market and the hybrid nature of wholesale models. These models produce PD estimates reflective of long-term average, not current, conditions.

- The movement in PD estimates in the four retail exposure classes is the result of regular model recalibrations to reflect the most recent actual default rates.

Loss given default

In the corporates exposure class, actual LGD includes all defaulted cases that closed during the period. Closure of a case comprises either the write-off of a debt, the return of a debt to the performing book, or a combination of the two, as in the case of a partial write-off. Central governments and banks, institutions and equities are not included owing to nil or very low volumes, making disclosure not meaningful.

In the following table, actual LGD for the reporting period is compared against estimated LGD across the total portfolio, both defaulted and non-defaulted, at the beginning of the period.

In retail exposure classes, LGD models are used to estimate losses over defined periods ranging from 36 to 72 months to align with the collections and recoveries process. The actual losses included in the table below are defaulted exposures with outcomes observed during the relevant reporting period. LGD estimated and actual are EAD-weighted.

Table 29: Loss outcomes versus predictions

IRB exposure class	LGD - estimated 2011 %	LGD - actual 2012 %	LGD - estimated 2010 %	LGD - actual 2011 %
Corporates	34.5	20.6	33.4	23.5
Retail				
- SMEs	46.7	41.1	44.4	41.0
- retail secured by real estate collateral	13.6	13.5	12.6	8.7
- qualifying revolving retail exposures	61.9	77.6	74.7	80.4
- other retail exposures	75.7	79.4	74.7	83.6

Key points

- LGD estimated rates are those associated with all exposures. In the case of unsecured retail exposures (qualifying revolving retail exposures and other retail exposures), LGD estimated rates include estimates related to both defaults that will not be subject to recovery proceedings and defaults that are. In contrast, LGD actual rates for these unsecured retail exposures reflect only those defaults subject to recovery proceedings. As a result, LGD estimated rates differ from LGD actual rates. LGD estimated rates for those exposures subject to recovery proceedings are in line with LGD actual rates for these same exposures.
- In the corporates exposure class, actual LGD for those cases that closed during 2012 was lower than that previously estimated. Loss rates on defaulted cases that, at 31 December 2012, were still managed by the Group's remediation, and recoveries functions tended to be higher, evidenced by provision coverage levels.

Counterparty credit risk

Counterparty credit risk relates to OTC derivative and repo contracts in either the trading or the non-trading book. It is the risk of loss arising from the failure of a customer to meet its obligations, the amount of which varies according to market factors, such as interest rates, exchange rates and asset prices.

Counterparty credit risk is covered by the Group's credit risk framework. However, a number of specific policies apply to OTC derivative and repo products. These include policies that address documentation requirements, product-specific requirements (for example, equity/futures and securities lending), counterparty-specific requirements (for example, hedge funds, and pension funds), issuer risk, margin trading, collateral and custodians.

Exposure calculation methods

Internal model method

Where granted approval by the FSA, the Group uses the internal model method (IMM) for regulatory capital calculations. For OTC derivatives, the IMM calculates EAD as the product of effective expected positive exposure and an alpha factor. The alpha factor quantifies the extra capital needed to reflect the institution-specific characteristics of counterparty credit risk exposures. The alpha value used by the Group is 2. For repos, the IMM used is repo value-at-risk (VaR), which has two main components:

- an unsecured exposure amount (known as 'expected exposure'), which is a sum of the difference between the exposure to, and the collateral held for, a counterparty across all positions, while taking into account counterparty master netting agreements; and
- a potential change in value amount, calculated using the Group's internal daily VaR model at a 99th percentile confidence interval.

Mark-to-market method

Where the Group has not been granted approval by the FSA to use the IMM for regulatory capital purposes, it calculates counterparty credit risk exposures using the mtm method. Exposure is calculated as the positive mtm value of outstanding contracts plus an additional potential future exposure that varies according to the transaction.

The following table details counterparty credit risk exposures post CRM by regulatory approach, exposure calculation and product type. For an analysis of counterparty RWAs and minimum capital requirements, refer to Tables 1, 6, 8 and 10.

Table 30: Counterparty credit risk exposures post CRM by regulatory approach, exposure calculation method and product type

	2012			2011		
Product type	Mark-to-market method £m	Internal model method £m	Total £m	Mark-to-market method £m	Internal model method £m	Total £m
IRB approach						
OTC derivatives	50,851	35,095	85,946	66,401	38,155	104,556
Repos	19,751	3,863	23,614	30,043	5,588	35,631
	70,602	38,958	109,560	96,444	43,743	140,187
STD approach						
OTC derivatives	1,273	583	1,856	2,017	147	2,164
Repos	9,246	167	9,413	12,215	55	12,270
	10,519	750	11,269	14,232	202	14,434
	81,121	39,708	120,829	110,676	43,945	154,621

Key points

- Total counterparty EAD post CRM fell to £121 billion at 31 December 2012 from £155 billion at 31 December 2011 largely due to decreases in trading volumes.
- Other reasons for the reductions in exposure were:
  - the Group's continued focus on CRM in 2012, which allowed the Group to benefit from significant counterparty and collateral netting opportunities;
  - tightening credit spreads on both US and European CDS indices; and
  - the appreciation of sterling against the US dollar and the euro.
- The decreases in exposure were partially offset by increases resulting from the impact of model changes.

Table 31: Counterparty credit risk EAD by AQ band under the IRB approach

2012	AQ1	AQ2	AQ3	AQ4	AQ5	AQ6	AQ7	AQ8	AQ9	AQ10/default	Total
EAD post CRM (£m)	39,584	15,760	21,298	14,866	4,921	1,959	1,767	252	1,340	1,333	103,080
Exposure-weighted average LGD	34.8%	50.8%	45.6%	43.6%	44.9%	38.8%	33.2%	44.6%	53.8%	55.8%	41.8%
Exposure-weighted average PD	0.02%	0.04%	0.07%	0.20%	0.66%	1.44%	2.88%	9.13%	25.65%	100%	1.81%
Risk-weighted average (£m)	4,105	3,785	6,727	6,684	5,168	2,903	2,410	446	5,500	10	37,738
Exposure-weighted average risk-weight	10.4%	24.0%	31.6%	45.0%	105.0%	148.2%	136.5%	176.9%	410.4%	0.7%	36.6%
2011											
EAD post CRM (£m)	100,089	5,607	5,918	7,480	6,849	2,353	4,053	1,188	1,676	1,829	137,042
Exposure-weighted average LGD	26.6%	42.1%	37.7%	44.1%	32.5%	28.3%	70.6%	72.6%	54.1%	66.4%	31.5%
Exposure-weighted average PD	0.03%	0.04%	0.07%	0.22%	0.68%	1.46%	3.94%	10.74%	23.24%	100%	1.92%
Risk-weighted average (£m)	16,377	1,087	2,047	4,785	6,154	2,728	12,075	1,917	6,049	17	53,236
Exposure-weighted average risk-weight	16.4%	19.4%	34.6%	64.0%	89.9%	116.0%	297.9%	161.3%	361.0%	1.0%	38.8%

Key points

- Movements in exposures between AQ bands were largely due to the model changes discussed on page 15.
- Specifically, the decreases in exposures in AQ1 and increases in AQ2-AQ4 were the result of the Group updating PD models.
- Decreases in the proportion of exposures under AQ5-AQ10 were primarily due to the disposal of Non-Core exposures carrying comparatively higher PDs.
- LGD increases across AQ1-AQ6 were due to implementation of new models for financial institutions. Decreases in AQ7-AQ10 were due to Non-Core disposals.

Counterparty credit limit setting

Counterparty credit limits are established through the Group's credit risk management framework. Limits are based on the credit quality of the counterparty and the projected maximum potential future exposure of anticipated derivative transactions, based on 95th percentile confidence levels. They also reflect the nature of the relevant documentation.

Counterparty credit risk management

The Group credit policy framework governs counterparty credit risk management requirements. The legal and administrative capacity of derivative counterparties to enter into collateral agreements is assessed. The policy framework establishes minimum documentation requirements under collateral agreements including: unsecured thresholds, minimum transfer amounts, minimum haircuts, collateral eligibility criteria and collateral call frequency. Where netting and/or collateral enforceability criteria are not fulfilled, exposure is assumed to be uncollateralised. Appropriate derivative documentation is executed for clients prior to trading. Exceptions to this require specific approval from a senior risk officer. The framework also includes a formal escalation policy for counterparty collateral disputes and unpaid collateral calls.

The risk mitigating impact of netting and collateralisation on the counterparty credit risk relating solely to OTC derivatives under the mtm method is shown in the following table. Owing to the model structure, netting benefits cannot be provided for OTC derivatives under the IMM approach.

Table 32: Netting and collateralisation impact on counterparty credit risk

Counterparty credit risk	2012 £m	2011 £m
Positive gross mtm value of contracts plus potential future credit exposure	238,670	252,760
Netting benefits	(165,914)	(163,565)
Net current credit exposure plus potential future credit exposure	72,756	89,195
Collateral held	(20,631)	(20,776)
Exposure at default post CRM	52,125	68,419

Key point

- Despite a fall in the positive gross mtm value of contracts, the level of both netting and collateral remained at the same level, reflecting the Group's increased focus on CRM opportunities.

Collateral required in the event of a credit rating downgrade
The Group calculates the additional collateral it would be required to post in the event of its credit ratings being downgraded by one or two notches. This is undertaken on a daily basis for treasury and liquidity management purposes. For further information, refer to page 139 of the Group's 2012 Annual Report and Accounts.

Credit valuation adjustments
A credit valuation adjustment (CVA) represents an estimate of the adjustment to the fair value of a derivative contract that a market participant would make to incorporate any credit risk inherent in counterparty derivative exposures. CVAs for monoline insurance companies are calculated on a trade-by-trade basis, using market observable credit spreads. The methodology used for credit derivative product companies is similar although, in the absence of market observable credit spreads, it estimates the cost of hedging expected default losses in excess of the capital available in each vehicle. For all other counterparties, CVAs are calculated either on a trade-by-trade basis reflecting the estimated cost of hedging the risk through credit derivatives, or on a portfolio basis, reflecting an estimate of the amount the third party would have to pay to assume the additional credit risk.

The counterparty exposure management (CEM) team charges the relevant trading desk a credit premium at the inception of a trade in exchange for taking on the credit risk over the life of the transaction. CEM may then hedge the credit risk and default sensitivities using interest rate swaps, foreign exchange and other credit derivatives from third-party providers. The Group's trading desks are thus 'insured' against some future credit events, including spread widening and default.

Credit derivatives
As part of its credit risk strategy to manage credit risk concentrations, the Group buys credit derivative products. The counterparties from which the Group buys this protection are subject to standard credit risk analysis. Eligibility criteria apply: credit protection bought from the same corporate group as the reference entity is not eligible credit protection. A summary of the notional principal amount of credit derivative transactions is detailed in the following table, split between protection bought for portfolio management purposes and that relating to intermediation in the credit derivative markets. Disclosures on credit derivatives are included on pages 221 to 223 of the Group's 2012 Annual Report and Accounts.

Table 33: Credit derivative transactions

	2012		2011	
Notional principal amount of credit derivative transactions	Credit default swaps £m	Total return swaps £m	Credit default swaps £m	Total return swaps £m
Used for own credit portfolio - protection bought	5,417	-	15,780	-
Used for intermediation activities - protection bought	282,972	921	466,153	457
Used for intermediation activities - protection sold	262,702	798	440,302	129
	551,091	1,719	922,235	586
APS - protection bought	-	-	131,800	-
	551,091	1,719	1,054,035	586

Key points
- The value of the Group's credit protection decreased as a result of the fall in the Group's book and the subsequent drop in protection required, and a tightening of credit spreads on the key CDS indices on which the Group trades.
- 2011 disclosures include the value of the APS protection held by the Group. The Group exited the APS in October 2012.

Securitisation

Definitions

Special purpose entities and securitisation

Securitisation is the process by which assets or cash flows are transformed into transferable securities. The underlying assets or cash flows are transferred by the originator or an intermediary, typically an investment bank, to a special purpose entity (SPE), which issues securities to investors. Asset securitisations involve issuing debt securities (asset-backed securities) that are backed by the cash flows of income-generating assets (ranging from trade receivables to residential mortgage loans).

SPEs are set up for a specific limited purpose. They do not usually provide a commercial service or employ staff. SPEs, including those used for securitisation purposes, may take a variety of legal forms, such as trusts, partnerships and companies. Typically, their share capital is held ultimately by charitable trusts.

Securitisations can broadly take two forms: traditional and synthetic. In traditional securitisations, an originating bank transfers ownership of a pool of assets to an arm's length SPE. In synthetic securitisations, the originating bank retains ownership of a pool of assets, but transfers the associated credit risk to an arm's length SPE through the use of credit-linked notes or credit derivatives.

The following definitions are used in these Pillar 3 disclosures:

Asset-backed commercial paper (ABCP) conduit - A securitisation vehicles funding a pool of assets through the issuance of exclusively short-term securities (namely commercial paper). A conduit may hold the assets of one or more originators (referred to as a single-seller or multi-seller conduit, respectively), one of which may also be the sponsor.

Non-trading book - Positions, exposures, assets and liabilities that are not in the trading book. It is also referred to as the 'banking book'.

Re-securitisation - A securitisation in which the underlying asset or pool of assets is made up of bonds issued by securitisation SPEs.

Securitisation position - Any exposure the Group may have to a securitisation. This includes not only exposures arising from the purchase or retention of the securities issued by a securitisation SPE, but also loans and liquidity facilities to securitisations, and the counterparty credit risk exposure of derivative positions transacted with a securitisation.

Securitised exposure - An asset or pool of assets that is securitised by way of a traditional or synthetic securitisation.

Significant risk transfer assessment - An assessment prescribed by BIPRU and designed to determine whether or not a securitisation structure effectively transfers the risks of the assets to a party or parties other than the originator.

Term securitisation - A securitisation vehicle funding a pool of assets through the issuance of both short and long-term securities. A term securitisation may hold the assets of one or more originators, one of which will typically also be the manager.

Trading book - A trading book consists of positions in financial instruments and commodities held either with the intent to trade, or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any covenants restricting their tradability, or able to be hedged completely.

Objectives and roles

By participating in securitisation activity, the Group aims to achieve one or more of the following objectives:

- To diversify its sources of funding, either for the Group or customers;
- To facilitate prudential balance sheet management, either for the Group or customers; and
- To earn fees for its provision of liquidity lines to customers' conduit assets.

In doing so, the Group may incur a range of risks, including credit (non-counterparty and counterparty), liquidity, legal and reputational risk for which it must hold regulatory capital. For details of BIPRU rules governing the calculation of regulatory capital required in respect of securitisations, refer to pages 57 and 58.

Under BIPRU, the Group may play one or more of the following roles in a securitisation transaction:

Originator - To diversify its sources of funding and manage its balance sheet, the Group securitises assets it has purchased or created. The origination of securitisation assets may expose the Group to credit risk, both non-counterparty and counterparty, and market risk, particularly if the structure of the transaction does not allocate these risks to others. Even if it does, the Group may nevertheless be exposed to these risks if it retains a securitisation position by, for example, providing the SPE with a liquidity facility.

Investor - To generate financial returns, the Group invests in a securitisation. It may do so by:

- purchasing securities issued by an SPE;
- entering into derivative transactions with an SPE; or
- lending to an SPE, often by providing a back-up liquidity facility the SPE can use if it is unable to issue securities, particularly commercial paper. Investment in securitisations exposes the Group to market risk and credit risk, both non-counterparty and counterparty.

To generate additional fee income, the Group may play other roles as well:

Arranger - The Group may structure a securitisation transaction, drafting the documentation that governs the behaviour of the SPE, and then sell the securities issued by the SPE to investors. The Group may act as arranger for securitisation transactions it originates or, alternatively, for securitisation transactions originated by its customers, principally large corporates.

Manager - The Group may rebalance the asset pool as required by the terms of the transaction.

Other administrative roles - As a 'contractual party', the Group may do any of the following, alone or in combination:

- hold the bank account of an SPE on its own books;
- monitor the credit quality of the underlying assets on behalf of investors;
- report on the performance of the SPE to investors; and
- make payments to investors on behalf of the SPE.

Sponsor - The Group may establish and manage an ABCP conduit or term securitisation that purchases bonds or other financial assets from third parties. It may do so on its own account or on behalf of its customers. In its role as sponsor, the Group is particularly exposed to credit and liquidity risk.

Underwriter - The Group may underwrite the securities issued by an SPE. The associated securitisation transaction may be originated by the Group or its customers.

Types of risks

As noted above, as an originator, or sponsor of or as an investor in a securitisation transaction, the Group may incur both credit and market risk. BIPRU prescribes how the Group calculates the regulatory capital it holds in connection with those risks. In addition, the Group may incur other types of risk.

Credit risk - The risk of loss arising from the failure of a customer or counterparty to meet its obligations to settle outstanding amounts. Securitisation may expose the Group to credit risk for any of several reasons.

If the Group invests in an SPE by purchasing (or, in the case of a securitisation it has originated, retaining) the bonds it issues, conducting derivative transactions with it or lending to it, the Group is exposed to the risk that the SPE may fail to meet its obligations to settle outstanding amounts to it. This may happen because cash flows generated by the underlying assets are insufficient to repay creditors, including bondholders, derivative counterparties or lenders. In such a case, the SPE pays principal and interest to creditors in order of seniority, with the most senior paid first.

When the Group originates a securitisation transaction, if the securitisation structure does not transfer the associated risks, including credit risk, to a third party, the Group is exposed to credit risk just as it would be if the securitisation had never taken place. Credit risk is heightened if the assets in the SPE are not diversified by sector, geography or borrower.

The Group may seek to mitigate credit risk arising from the purchase (or retention) of bonds issued by an SPE through the use of unfunded protection, usually credit default swaps, but also guarantees. The Group hedges the credit risk associated with purchased bonds, which are generally held in the trading book, as appropriate. The Group does not usually hedge the credit risk associated with retained bonds, which are generally held in the non-trading book.

In Non-Core, the Group holds legacy securitisation assets guaranteed by monoline insurance companies suffering financial distress, which reduces the value of their guarantees. For more information on unfunded protection and a full disclosure of monoline exposures, refer to page 222 of the Group's 2012 Annual Report and Accounts.

Market risk - The risk of loss arising from fluctuations in interest rates, foreign currency, credit spreads, equity prices and risk-related factors such as market volatility. Securitisation may expose the Group to market risk for two major reasons.

First, if the Group invests in a securitisation, it is exposed to the risk of loss due to fluctuations in interest rates, foreign currencies and other prices. For example, if the Group purchases notes issued by an SPE paying interest at a rate other than the rate paid by the assets the SPE holds, the two rates may respond differently to changes in market interest rates and cause the Group to suffer a loss. Similarly, if market interest rates rise, the value of fixed notes issued by an SPE will fall, causing the Group to suffer a loss.

If the Group purchases notes issued by an SPE in a currency other than the currency of the underlying assets, giving rise to the possibility that the cash flows generated by the assets may not be sufficient to repay investors, the Group may also suffer a loss.

Second, if the structure of a securitisation transaction does not transfer the associated market risk to a third party, the Group remains exposed to it as if the securitisation had never taken place.

Liquidity and funding risk - The risk that the Group may be unable to meet its financial obligations when they fall due. The Group originates securitisations to diversify its sources of funding; to the extent that it is unable to fund itself through securitisation, it is exposed to the risk that it may not be able to obtain adequate funding from other sources. The Group also sponsors securitisations; as sponsor, it may provide liquidity facilities to the SPE. If the SPE utilises these facilities, the Group will need to fund them, giving rise to the risk that it may not be able to do so.

Legal risk - The risk that the Group may incur losses as a result of the failure of the documentation to perform as expected. Legal risk is elevated if the parties to the transaction are located in different jurisdictions, as the documentation effective in one jurisdiction may not be effective in another. Additional losses may arise as a result of costs incurred by the parties in an effort to address documentary shortcomings.

Reputational risk - The risk of reputational damage or financial loss arising from the failure of the Group to meet stakeholders' expectations of the Group's conduct and performance. If in its capacity as originator, sponsor or investor, the Group fails to meet the expectations of stakeholders, it may be unable to build or sustain relationships with customers, incur regulatory censure or experience reduced access to funding sources.

Monitoring risks

The Group actively monitors and manages the risks inherent in its securitisation activities. With respect to the non-trading book, Non-Core manages the legacy positions mentioned above, including some re-securitisations. Group Treasury manages other securitisations, particularly those used by the Group as a means of diversifying its funding sources. The divisions that conduct transactions with SPEs manage trading book securitisation positions, including some re-securitisations.

Credit risk

The Group's overall exposure to securitisation is governed by its sector concentration framework. If the Group retains or purchases bonds issued by an SPE, conducts derivative transactions with it or lends to it, the Group monitors the performance of the vehicle in part by reviewing information provided by the trustee as well as by rating agencies or other third parties. Assisted by third party advisors, a specialist team monitors re-securitisations. If the securitisation structure does not transfer credit risk to a third party, the Group manages it as if the securitisation had never taken place. For further information refer to page 122 of the Group's 2012 Annual Report and Accounts.

Market risk

The Group manages this risk in accordance with its policy on market risk. For further information, refer to page 124 of the Group's 2012 Annual Report and Accounts.

Liquidity and funding risk

The Group manages these risks in accordance with Group policy on liquidity and funding risk. For further information, refer to page 122 of the Group's 2012 Annual Report and Accounts.

Legal risk

To manage legal risk, the Group follows a protocol designed to ensure that it meets its obligations as originator before and after the transaction is completed. Further, it monitors changes in relevant legislation in various jurisdictions as required thereafter.

Reputational risk

The Group manages reputational risk in accordance with its reputational risk management framework. For more information, refer to page 126 of the Group's 2012 Annual Report and Accounts.

Regulatory treatment of securitisation

The Group determines the regulatory capital required for exposures related to its securitisation activities in accordance with BIPRU. In so doing, with respect to each securitisation transaction, it considers:

- the effectiveness of the securitisation structure in achieving risk transfer; and
- whether the securitisation positions it holds relate to the trading or non-trading book.

Refer to Chart 3 on the following page for an illustration of the regulatory treatment of securitisation.

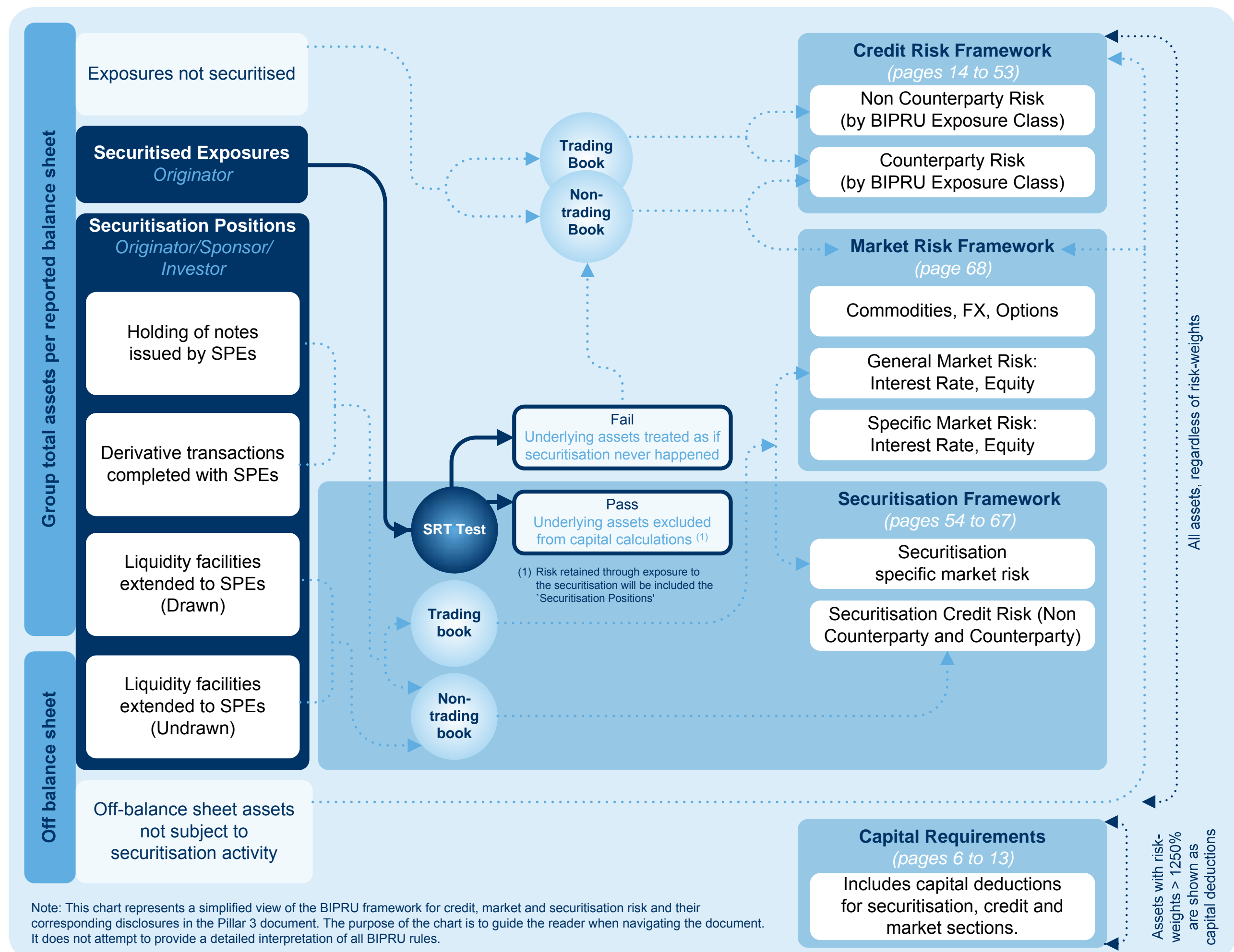
In instances where it is an originator, in accordance with BIPRU, the Group carries out a significant risk transfer assessment to evaluate whether the securitisation structure effectively transfers the risks associated with the underlying assets to the holders of the securitisation positions.

If risk transfer takes place, the Group need not hold any capital against the underlying assets. However, to the extent that it does not, the Group must hold capital against the underlying assets as if the securitisation had never taken place. In other words, the Group does so in accordance with BIPRU rules governing the calculation of capital held in connection with credit risk, whether non-counterparty or counterparty, or market risk.

As noted earlier, the Group may play any of several roles in respect of securitisations. Of these, three may result in the Group holding securitisation positions in connection with which a capital charge is required: originator, sponsor or investor.

In the case of securitisation exposures related to the trading book, the Group calculates regulatory capital needed for specific and general market risk. In the case of exposures related to the non-trading book, the Group calculates regulatory capital needed for credit risk, either non-counterparty or counterparty.

Chart 3: Regulatory treatment of securitisation



Calculation of risk-weighted exposures

The Securitisation Framework allows RWA calculation using either the STD approach or the IRB approach. The choice of approach depends on the credit framework adopted by the firm under Pillar 1 for the underlying portfolio of securitised exposures. The Group holds securitisation positions subject to both approaches, as shown in Table 34.

The Group categorises securitised exposures according to risk weight band when calculating RWAs. Under BIPRU, the highest risk-weight band is 1,250%, for which exposures are deducted from capital. Unrated positions under the STD approach are classified under this category. Risk-weight bands are shown in Tables 35 and 36.

Under the IRB approach, the Group uses the ratings-based approach (RBA) to assess rated positions. The Group recognises ratings issued by Standard & Poor's, Moody's, Fitch or DBRS when assessing debt issued by SPEs under the RBA. For most transactions, the Group uses the services of two or more of these rating agencies, which are formally classified as external credit assessment institutions.

For those unrated commercial paper conduit programmes it sponsors, the Group uses the internal assessment approach (IAA), introduced by CRD II. Under IAA, the Group uses rating agency methodologies to determine inferred ratings or internal credit grades, which it then uses to determine capital requirements. Stress analysis is also used to confirm whether or not the programme can continue to issue paper with a public rating of A1/P-1 or A1+/P-1, but each pool does not itself receive a public rating.

Summary of accounting policies including derecognition

Accounting assessment takes place at the time of a transaction and under accounting rules depends on a securitisation's residual risk. By contrast, regulatory assessments (refer to page 57) take place at regular intervals. The resulting capital calculations can differ depending on the change in residual risk over time.

Recognition of sales

A securitisation is first assessed by the Group to determine whether it needs to consolidate any of the vehicles used. An assessment is made under International Accounting Standard (IAS) 27 'Consolidated and Separate Financial Statements' and Standing Interpretations Committee (SIC) 12 'Consolidation - Special Purpose Entities'. Both IAS 27 and SIC 12 require the consolidation of entities where, on balance, the risks and rewards are retained by the Group.

Whether a securitisation is treated as a sale or financing depends on whether the derecognition tests of IAS 39 'Financial Instruments: Recognition and Measurement' are met. The Group's accounting policy on derecognition is as follows.

A financial asset is derecognised when the contractual right to receive cash flows from the asset has expired or when it has been transferred and the transfer qualifies for derecognition. A transfer requires that the Group either: (a) transfers the contractual rights to receive the asset's cash flows; or (b) retains the right to the asset's cash flows, but assumes a contractual obligation to pay these cash flows to a third party. Following a transfer, the Group assesses the extent to which it retains the risks and rewards of ownership of the transferred asset. The asset remains on the balance sheet if all of the risks and rewards are retained. The asset is derecognised if all of the risks and rewards are transferred. If the majority of the risks and rewards are neither retained nor transferred, the Group assesses whether or not it retains control of the asset. If it does not retain control, the asset is derecognised. Where the Group retains control, it continues to recognise its involvement.

A financial liability is removed from the balance sheet when the obligation is discharged, cancelled or expires. On redemption or settlement of debt securities (including subordinated liabilities) issued by the Group, the Group derecognises the debt instrument and records a gain or loss depending on the difference between the debt's carrying amount and the cost of redemption or settlement. The same treatment applies where the debt is exchanged for a new debt issue with different terms. An assessment of any difference in terms considers qualitative and quantitative characteristics, including a comparison of the present value of cash flows under the new terms with the present value of the remaining cash flows of the original debt issue, discounted at its effective interest rate.

Key assumptions for valuing securitisation positions

Securitisation positions are valued using external information, such as market data for recent transactions, price information from third-party managers and advisors, and asset performance data provided to all bond holders at interest payment dates.

Synthetic securitisations

Synthetic securitisations are assessed using the same approach as non-synthetic securitisations. Any derivatives are treated in accordance with IAS 39 requirements.

Assets awaiting securitisation

Assets are valued using normal methods appropriate to the asset class, until a securitisation meets the criteria to be derecognised under IFRS standards. At both 31 December 2012 and 31 December 2011, the Group had no assets categorised as awaiting securitisation.

The Group recognises all contractual commitments, such as liquidity lines, and applies the accounting policies set out in the Group's 2012 Annual Report and Accounts.

Securitisation and re-securitisation exposures

Additional information detailing the Group's accounting policies, and treatment of securitisations and re-securitisations, can be found on pages 447 and 448 of the Group's 2012 Annual Report and Accounts.

Types of transactions

The Group securitises a variety of assets in the role of originator, which typically include the following:

Residential mortgages and commercial real estate - The Group securitises residential mortgages and commercial real estate loans that it originates itself. Mortgages and real estate loans are assigned to SPEs, which fund themselves principally through the issue of floating rate notes.

Credit cards - In the UK, the Group securitises credit card receivables that it originates itself. Noteholders have a proportionate interest in a pool of credit card receivables that are assigned by the Group to a receivables trust.

Other loan types - The Group selectively securitises other loans that it originates, principally those to corporates and small and medium-sized enterprises.

SPEs used by the Group

Securitisation SPEs used by the Group hold either the securitised assets themselves (traditional securitisations) or the rights to those assets (synthetic securitisations).

At 31 December 2012, the Group had one remaining multi-seller commercial paper conduit programme in use, Thames Asset Global Securitization (TAGS), for which the Group provides programme-wide credit enhancement and liquidity facilities. The programme is capable of issuing short-term commercial paper with which to fund itself. However, at 31 December 2012 it did not have any commercial paper in issue. Details can be found in the conduit disclosure on pages 449 and 450 of the Group's 2012 Annual Report and Accounts.

The Group also had a single own-asset conduit, Churchill, in place at 31 December 2012. All of the commercial paper issued by the conduit was retained by the Group.

The transactions in which the Group acts as a swap counterparty, has originated all the assets and continues to administer the associated SPEs include the following:

- Arran (cards master trust);
- Arran (UK residential mortgages SPEs);
- Artesian (UK water companies SPEs);
- Celtic (Irish residential mortgages SPEs);
- EPIC (commercial real estate SPEs);
- Greenock (UK residential mortgages SPEs); and
- Talisman (commercial real estate SPEs).

All of the securities issued by Greenock were retained by the Group.

SPEs with the same brand name share similarities such as the asset type securitised and the Group's role in the transaction.

Notes on the following tables

Tables 34 to 37 - Show the Group's total securitisation positions, as discussed under the 'Regulatory treatment of securitisation' on page 57. The exposures include those retained from the Group's own securitised assets, investments in SPE notes, credit lines to SPEs and derivative transactions with SPEs.

Table 34 - Shows the Group's exposures, RWAs, minimum capital requirements and capital deductions calculated under the STD and IRB approaches.

Table 35 - Shows exposures and minimum capital requirements according to risk-weight bands.

Table 36 - Shows exposures by underlying exposure type and risk-weight bands.

Table 37 - Shows underlying exposures by:

- the role of the Group;
- on and off-balance sheet categories; and
- underlying exposure type.

The off-balance sheet category represents the part of a liquidity facility that has not been utilised.

Table 38 - Shows the Group's securitised exposures (for which it retains no risk) by:

- the role of the Group;
- exposure type; and
- the nature of the securitisations.

Table 39 - Shows the Group's securitisation of its own assets during the year.

Table 40 - Shows past due or impaired amounts of assets of which the Group is the originator.

Table 41 - Shows exposures subject to securitisation-specific market risk capital regulations.

The term 'exposure amount' used in the following tables refers to exposure at default (EAD), which is calculated according to BIPRU rules.

Exposure amount is shown along with other measures in Tables 34, 35 and 41. Tables 36 and 37 show exposure amounts exclusively.

Tables 38 to 40 show outstanding amounts of securitised positions, as reported on the investment reports of the SPEs in which these positions are held.

Table 34: Securitisation positions, retained or purchased, RWAs and minimum capital requirements

	Aggregate amounts of securitisation positions, retained or purchased				Of which, re-securitisation positions retained or purchased			
2012 - non-trading book	Exposure amount £m	RWAs £m	Minimum capital requirements £m	Of which deduction from capital £m	Exposure amount £m	RWAs £m	Minimum capital requirements £m	Of which deduction from capital £m
IRB approach	33,081	7,357	1,174	585	838	244	151	133
Standardised approach	522	262	280	259	-	-	-	-
	33,603	7,619	1,454	844	838	244	151	133
2012 - trading book								
IRB approach	1,755	1,288	853	751	557	288	230	207
Standardised approach	1,740	675	673	619	364	225	138	120
	3,495	1,963	1,526	1,370	921	513	368	327
2011 - non-trading book								
IRB approach	47,944	11,467	3,118	2,191	8,138	3,876	1,608	1,299
Standardised approach	1,442	2,399	349	157	-	-	-	-
	49,386	13,866	3,467	2,348	8,138	3,876	1,608	1,299
2011 - trading book								
IRB approach	2,662	2,238	1,050	871	976	1,038	388	305
Standardised approach	1,872	888	892	821	542	263	312	291
	4,534	3,126	1,942	1,692	1,518	1,301	700	596

Key points

- Retained or purchased securitisation and re-securitisation positions in both the non-trading and trading book continued to decline in 2012, in line with the Group's risk reduction strategy.
- Disposals in the Non-Core division's structured credit portfolio led to decreases in exposures in both non-trading book securitisation and re-securitisation positions.
- Decreases in non-trading book securitisation positions were also driven by the Group's efforts to reduce reliance on short-term wholesale funding in early 2012. This resulted in the Group winding down commercial paper conduit programmes. At 31 December 2012, the commercial paper issued by these conduits was nil. Churchill, a single own-asset conduit, still had internally held notes in issue.
- Further decreases in non-trading book securitisation positions were the result of bond 'collapse' programmes in Non-Core. These programmes involve buying back bonds issued by an SPE and selling off the underlying assets.
- During the third quarter of 2012, market opportunities led to significant disposals of trading book securitisation and re-securitisation positions. These disposals were largely bond positions in the structured credit portfolio, in line with the Group's Non-Core asset reduction strategy.
- The reduction in standardised RWAs primarily reflects the switch of a portfolio protection trade from 1,250% weighting to capital deduction.

Table 35: Securitisation positions, retained or purchased by risk-weightings

Risk-weight bands	Aggregate amounts of securitisation positions retained or purchased: Exposure amount STD £m	IRB £m	Total £m	Minimum capital requirements STD £m	IRB £m	Total £m	Of which, re-securitisation positions retained or purchased: Exposure amount STD £m	IRB £m	Total £m	Minimum capital requirements STD £m	IRB £m	Total £m
2012 - non-trading book												
≤ 10%	-	21,508	21,508	-	139	139	-	-	-	-	-	-
> 10% ≤ 20%	180	5,802	5,982	3	74	77	-	134	134	-	2	2
> 20% ≤ 50%	24	3,207	3,231	5	86	91	-	548	548	-	11	11
> 50% ≤ 100%	26	1,398	1,424	2	97	99	-	6	6	-	-	-
> 100% ≤ 350%	33	204	237	11	44	55	-	1	1	-	-	-
> 350% ≤ 650%	-	377	377	-	149	149	-	16	16	-	5	5
1,250%/deduction	259	585	844	259	585	844	-	133	133	-	133	133
	522	33,081	33,603	280	1,174	1,454	-	838	838	-	151	151
2012 - trading book												
≤ 10%	-	175	175	-	1	1	-	62	62	-	-	-
> 10% ≤ 20%	553	185	738	9	3	12	-	80	80	-	1	1
> 20% ≤ 50%	282	153	435	10	4	14	147	65	212	5	1	6
> 50% ≤ 100%	215	294	509	17	21	38	63	95	158	5	8	13
> 100% ≤ 350%	66	53	119	15	9	24	30	35	65	5	5	10
> 350% ≤ 650%	5	142	147	3	63	66	5	11	16	3	6	9
> 650% ≤ 1,250%	-	2	2	-	2	2	-	2	2	-	2	2
1,250%/deduction	619	751	1,370	619	750	1,369	119	207	326	120	207	327
	1,740	1,755	3,495	673	853	1,526	364	557	921	138	230	368
2011 - non-trading book												
≤ 10%	-	30,024	30,024	-	190	190	-	-	-	-	-	-
> 10% ≤ 20%	401	7,467	7,868	6	101	107	-	2,267	2,267	-	38	38
> 20% ≤ 50%	39	4,628	4,667	2	152	154	-	2,800	2,800	-	77	77
> 50% ≤ 100%	10	1,272	1,282	1	77	78	-	604	604	-	33	33
> 100% ≤ 350%	86	1,719	1,805	16	262	278	-	1,152	1,152	-	154	154
> 350% ≤ 650%	-	643	643	-	145	145	-	16	16	-	7	7
1,250%/deduction	906	2,191	3,097	324	2,191	2,515	-	1,299	1,299	-	1,299	1,299
	1,442	47,944	49,386	349	3,118	3,467	-	8,138	8,138	-	1,608	1,608
2011 - trading book												
≤ 10%	-	237	237	-	1	1	-	-	-	-	-	-
> 10% ≤ 20%	418	448	866	7	8	15	-	146	146	-	4	4
> 20% ≤ 50%	263	401	664	9	12	21	188	156	344	6	5	11
> 50% ≤ 100%	260	361	621	21	41	62	33	223	256	3	31	34
> 100% ≤ 350%	91	163	254	24	33	57	11	98	109	2	19	21
> 350% ≤ 650%	19	185	204	10	78	88	19	39	58	10	18	28
> 650% ≤ 1,250%	-	9	9	-	6	6	-	9	9	-	6	6
1,250%/deduction	821	857	1,678	821	871	1,692	291	305	596	291	305	596
	1,872	2,661	4,533	892	1,050	1,942	542	976	1,518	312	388	700

Key points

- The reduction in securitisation positions across all risk-weight bands was in line with the Group's strategy.
- Changes in the relative proportion of non-trading book securitisation positions towards lower risk bands was due to disposal activity discussed in the key points accompanying the previous table. They reflect the disposal of higher risk-weighted exposures in the Group's structured credit portfolio, particularly evident in the 1,250% risk-weight band.
- Because of its vulnerability to changes in interest rates and other market factors, a large portion of the trading book portfolio (mainly UK and US securitisations and re-securitisations) was comparatively higher risk. These securitisation positions were concentrated in the 1,250% risk-weight band.

Table 36: Securitisation positions, retained or purchased, by risk-weightings and underlying exposure type

Risk-weight bands	Residential mortgages £m	Commercial mortgages £m	Credit card receivables £m	Leasing £m	Loans to corporates or SMEs £m	Customer loans £m	Trade receivables £m	Auto receivables £m	Re-securitisation £m	Other assets £m	Total £m
2012 - non-trading book											
≤ 10%	10,883	207	916	319	66	722	954	3,994	-	3,447	21,508
> 10% ≤ 20%	3,276	429	98	20	176	-	22	275	134	1,552	5,982
> 20% ≤ 50%	121	1,172	-	-	148	-	-	30	548	1,212	3,231
> 50% ≤ 100%	154	205	-	-	77	-	-	-	6	982	1,424
> 100% ≤ 350%	90	2	-	-	-	-	-	-	1	144	237
> 350% ≤ 650%	69	207	-	-	-	-	-	-	16	85	377
1,250%/deduction	357	46	-	53	-	-	-	-	133	255	844
	14,950	2,268	1,014	392	467	722	976	4,299	838	7,677	33,603
2012 - trading book											
≤ 10%	78	17	2	-	-	-	-	-	62	16	175
> 10% ≤ 20%	68	238	38	-	-	-	-	60	80	254	738
> 20% ≤ 50%	14	64	1	-	-	-	-	8	212	136	435
> 50% ≤ 100%	14	133	-	-	-	-	-	1	158	203	509
> 100% ≤ 350%	27	21	-	-	-	-	-	-	65	6	119
> 350% ≤ 650%	33	49	-	-	-	-	-	-	16	49	147
> 650% ≤ 1,250%	-	-	-	-	-	-	-	-	2	-	2
1,250%/deduction	406	303	-	-	-	-	-	-	326	335	1,370
	640	825	41	-	-	-	-	69	921	999	3,495
2011 - non-trading book											
≤ 10%	12,277	432	1,707	597	70	599	1,820	8,017	-	4,505	30,024
> 10% ≤ 20%	1,428	554	96	50	-	1,064	202	409	2,267	1,798	7,868
> 20% ≤ 50%	98	1,243	-	-	147	-	51	-	2,800	328	4,667
> 50% ≤ 100%	149	49	1	-	88	-	7	7	604	377	1,282
> 100% ≤ 350%	99	339	-	-	-	-	-	-	1,152	215	1,805
> 350% ≤ 650%	47	48	-	-	168	-	-	-	16	364	643
1,250%/deduction	1,149	94	-	-	13	-	-	-	1,299	542	3,097
	15,247	2,759	1,804	647	486	1,663	2,080	8,433	8,138	8,129	49,386
2011 - trading book											
≤ 10%	182	33	-	-	-	-	-	-	-	22	237
> 10% ≤ 20%	137	265	81	-	-	-	-	31	146	206	866
> 20% ≤ 50%	26	163	17	-	-	-	-	-	343	115	664
> 50% ≤ 100%	13	109	17	-	-	-	-	10	256	216	621
> 100% ≤ 350%	8	49	-	-	-	-	-	13	109	75	254
> 350% ≤ 650%	13	48	-	-	-	-	-	-	59	84	204
> 650% ≤ 1,250%	-	-	-	-	-	-	-	-	9	-	9
1,250%/deduction	519	135	-	-	-	-	-	-	596	428	1,678
	898	802	115	-	-	-	-	54	1,518	1,146	4,533

Key points

- Auto receivables and credit card exposures in the non-trading book decreased as the Group wound down its client-facing conduits.
- The disposal of structured credit portfolio bond positions and other bonds with high risk-weightings was the primary cause of the reduction in non-trading re-securitisations.

Securitisation *continued*

Table 37: Securitisation positions, retained or purchased, on and off-balance sheet

Underlying exposure type	As originator		As sponsor		As investor		Total	
	On-balance sheet £m	Off-balance sheet £m	On-balance sheet £m	Off-balance sheet £m	On-balance sheet £m	Off-balance sheet £m	On-balance sheet £m	Off-balance sheet £m
2012 - non-trading book								
Residential mortgages	-	-	888	795	11,142	2,125	12,030	2,920
Commercial mortgages	-	11	-	-	2,022	235	2,022	246
Credit card receivables	-	-	77	-	473	464	550	464
Leasing	-	-	148	5	239	-	387	5
Loans to corporates or SMEs	-	-	77	-	360	30	437	30
Consumer loans	-	-	447	61	106	108	553	169
Trade receivables	-	-	191	34	388	363	579	397
Auto receivables	-	-	450	352	1,891	1,606	2,341	1,958
Re-securitisations	98	-	-	-	671	69	769	69
Other assets	-	5	146	21	4,309	3,190	4,455	3,216
	98	16	2,424	1,268	21,601	8,190	24,123	9,474
2012 - trading book								
Residential mortgages	9	-	-	-	517	114	526	114
Commercial mortgages	94	4	-	-	596	131	690	135
Credit card receivables	-	-	-	-	41	-	41	-
Auto receivables	-	-	-	-	69	-	69	-
Re-securitisations	153	2	-	-	504	262	657	264
Other assets	13	1	-	-	956	35	969	36
	269	7	-	-	2,683	542	2,952	549
2011 - non-trading book								
Residential mortgages	-	-	483	2,931	10,197	1,636	10,680	4,567
Commercial mortgages	11	13	-	-	2,463	272	2,474	285
Credit card receivables	-	-	-	1,564	168	72	168	1,636
Leasing	-	-	50	532	65	-	115	532
Loans to corporates or SMEs	-	13	88	-	381	4	469	17
Consumer loans	-	-	-	1,597	23	43	23	1,640
Trade receivables	-	-	44	1,411	534	91	578	1,502
Auto receivables	-	-	12	6,365	1,214	842	1,226	7,207
Re-securitisations	198	-	-	138	7,279	523	7,477	661
Other assets	42	-	226	1,010	3,540	3,311	3,808	4,321
	251	26	903	15,548	25,864	6,794	27,018	22,368
2011 - trading book								
Residential mortgages	10	-	-	-	814	74	824	74
Commercial mortgages	28	2	-	-	733	39	761	41
Credit card receivables	-	-	-	-	115	-	115	-
Auto receivables	-	-	-	-	54	-	54	-
Re-securitisations	201	-	-	-	1,068	249	1,269	249
Other assets	2	1	-	-	975	168	977	169
	241	3	-	-	3,759	530	4,000	533

Table 37: Securitisation positions, retained or purchased, on and off-balance sheet (continued)

Key points

- The winding down of the conduit business was the main driver of the overall reduction in the Group's non-trading book securitisation positions, seen across both the on and off-balance sheet categories.
- This particularly affected exposures arising from auto receivables, credit card receivables and residential mortgage securitisations. The reductions were partially offset by an increase in off-balance sheet securitisation positions as investor.
- The increase in off-balance sheet securitisation exposures as investor resulted from the re-classification of certain securitisations and re-securitisation exposures from the as sponsor to as investor category.

Table 38: Securitised exposure amounts

	Outstanding amounts of exposures securitised			
	As originator		Sponsor -	
Exposure type	Traditional £m	Synthetic £m	traditional £m	Total £m
2012 - non-trading book				
Residential mortgages	-	-	1,641	1,641
Commercial mortgages	2,684	191	499	3,374
Credit card receivables	-	-	41	41
Loans to corporates or SMEs	2,945	-	134	3,079
Consumer loans	-	-	814	814
Trade receivables	-	-	561	561
Auto receivables	-	-	803	803
Other assets	-	-	228	228
	5,629	191	4,721	10,541
2012 - trading book				
Re-securitisations	1,987	-	-	1,987
2011 - non-trading book				
Residential mortgages	-	-	2,999	2,999
Commercial mortgages	1,345	203	509	2,057
Credit card receivables	-	-	863	863
Leasing	-	-	344	344
Loans to corporates or SMEs	3,066	-	307	3,373
Consumer loans	-	-	1,850	1,850
Trade receivables	-	-	1,000	1,000
Auto receivables	-	-	4,055	4,055
Other assets	-	-	922	922
	4,411	203	12,849	17,463
2011 - trading book				
Re-securitisations	2,259	-	-	2,259

Key point

- In 2012, securitised exposures decreased in both the non-trading and trading books for two reasons:

  - low interest rates reduced the comparative advantage of funding by securitisation; and

  - the Group lowered its risk limits for this activity.

Table 39: Exposures securitised during the year

Exposure type	Outstanding amounts of exposures securitised						
	As originator				As sponsor		
	Traditional £m	Recognised gain or loss on sale £m	Synthetic £m	Recognised gain or loss on sale £m	Traditional £m	Recognised gain or loss on sale £m	Total new securitised exposures £m
2012 - non-trading book							
Commercial mortgages	1,410	56	-	-	-	-	1,466
Auto receivables	-	-	-	-	392	-	392
Residential mortgages	-	-	-	-	227	-	227
	1,410	56	-	-	619	-	2,085
2012 - trading book							
Re-securitisations	1,684	-	-	-	-	-	1,684
2011 - non-trading book							
Commercial mortgages	1,351	41	-	-	-	-	1,392
Leasing	-	-	-	-	286	-	286
Consumer loans	-	-	-	-	271	-	271
Trade receivables	-	-	-	-	361	-	361
Auto receivables	-	-	-	-	1,253	-	1,253
	1,351	41	-	-	2,171	-	3,563
2011 - trading book							
Re-securitisations	2,259	-	-	-	-	-	2,259

Key point

- The residential mortgages category increased from nil in 2011. This was the result of the creation of a servicer advance facility to a residential mortgage lender in the Group's remaining multi-seller conduit programme, TAGS.

Table 40: Impaired and past due securitised exposure and losses

The following table shows the Group's impaired or past due securitised exposures. Losses on these exposures recognised by the Group during 2012 were nil.

	Outstanding amounts of exposures securitised	
	As originator	
2012 - non-trading book	Impaired/past due £m	Losses £m
Loans to corporates or SMEs	120	-
2011 - non-trading book		
Loans to corporates or SMEs	12	-

Table 41: Total trading book minimum capital requirement amounts (excluding capital deductions) for outstanding securitised exposures subject to market risk capital requirements

	Exposure amount			Minimum capital requirement (excluding reductions)		
Underlying portfolio	Traditional £m	Synthetic £m	Total £m	Traditional £m	Synthetic £m	Total £m
2012 - trading book						
Residential mortgages	234	-	234	24	-	24
Commercial mortgages	522	-	522	43	-	43
Credit card receivables	41	-	41	1	-	1
Auto receivables	69	-	69	1	-	1
Re-securitisations	594	-	594	41	-	41
Other assets	665	-	665	46	-	46
	2,125	-	2,125	156	-	156
2011 - trading book						
Residential mortgages	379	-	379	24	-	24
Commercial mortgages	666	-	666	50	-	50
Credit card receivables	115	-	115	3	-	3
Auto receivables	54	-	54	5	-	5
Re-securitisations	922	-	922	-	-	-
Other assets	719	-	719	168	-	168
	2,855	-	2,855	250	-	250

Key point

- As noted in Table 34, the Group sold significant securitisation and re-securitisation positions during the third quarter of 2012, and the sales led to reductions in both exposure amounts and minimum trading book capital requirements.

Market risk

Refer to pages 242 to 251 of the Group's 2012 Annual Report and Accounts for market risk disclosure, which includes market risk minimum capital requirement.

Operational risk

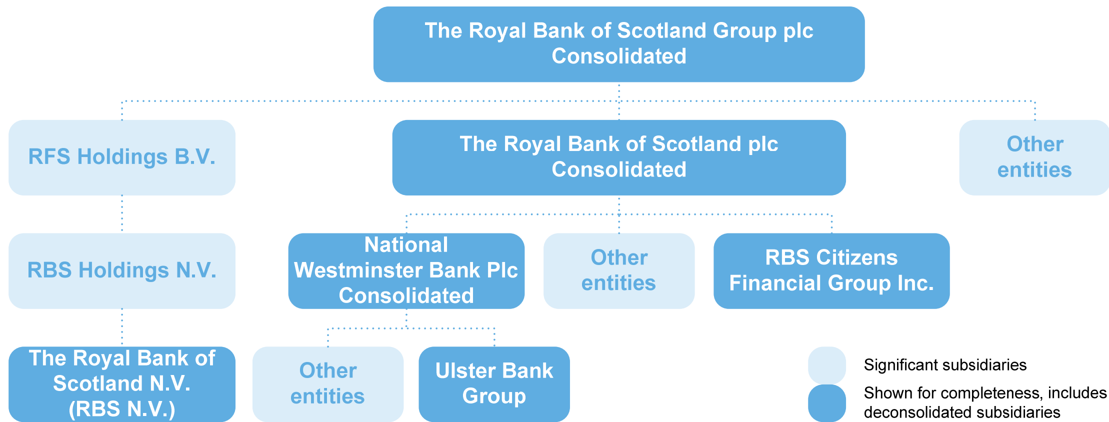
Refer to pages 282 to 284 of the Group's 2012 Annual Report and Accounts for operational risk disclosure, which includes operational risk minimum capital requirement.

Additional disclosures

Significant subsidiaries

Chart 4 represents a simplified regulatory hierarchy of the Group, specifically highlighting those subsidiaries and regions which are of significance. The Group has considered the requirements of the significant subsidiary disclosures and concluded that the following entities are within scope: The Royal Bank of Scotland plc Consolidated, National Westminster Bank Plc Consolidated, Ulster Bank Group, RBS N.V. and RBS Citizens Financial Group, Inc.

Chart 4: Regulatory Group hierarchy



As highlighted by the diagram, data for these five significant subsidiaries does not aggregate to the overall Group position.

Subsidiaries deconsolidated for regulatory reporting purposes include Direct Line Group plc, RBS Group Insurance Services Limited (excluding Lombard Direct Home Insurance Services Limited) and RBS Life Holdings Limited.

Table 42: Significant subsidiaries minimum capital requirement

Risk type	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m	RBS Citizens Financial Group £m
2012					
Credit risk					
- non-counterparty	24,802	8,168	2,986	1,377	4,278
- counterparty	3,798	398	123	100	67
Market risk	3,141	830	12	224	-
Operational risk	3,308	1,148	162	346	426
	35,049	10,544	3,283	2,047	4,771
2011					
Credit risk					
- non-counterparty	24,733	7,774	3,066	2,859	4,629
- counterparty	4,774	561	92	279	78
Market risk	4,752	1,044	21	369	-
Operational risk	2,958	1,230	178	13	435
	37,217	10,609	3,357	3,520	5,142

Additional disclosures *continued*

Table 43: Significant subsidiaries RWAs

Risk type	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m	RBS Citizens Financial Group £m
2012					
Credit risk					
- non-counterparty	310,021	102,097	37,326	17,212	53,480
- counterparty	47,476	4,970	1,543	1,253	837
Market risk	39,268	10,379	153	2,804	-
Operational risk	41,355	14,350	2,019	4,321	5,328
	438,120	131,796	41,041	25,590	59,645
2011					
Credit risk					
- non-counterparty	309,160	97,182	38,324	35,732	57,860
- counterparty	59,677	7,009	1,152	3,489	976
Market risk	59,400	13,053	260	4,614	-
Operational risk	36,971	15,362	2,225	167	5,432
	465,208	132,606	41,961	44,002	64,268

Table 44: Significant subsidiaries credit risk minimum capital requirement

Credit risk approach	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m	RBS Citizens Financial Group £m
2012					
Non-counterparty					
- advanced IRB	17,419	7,045	2,950	808	-
- standardised	7,383	1,122	36	569	4,278
Counterparty	3,798	398	123	100	67
	28,600	8,565	3,109	1,477	4,345
2011					
Non-counterparty					
- advanced IRB	17,004	6,628	3,044	2,296	-
- standardised	7,729	1,146	22	563	4,629
Counterparty	4,774	561	92	279	78
	29,507	8,335	3,158	3,138	4,707

Note:
(1) Credit risk capital requirements include both intra-group and non-customer assets.

Table 45: Significant subsidiaries non-counterparty credit risk IRB minimum capital requirement

Advanced IRB exposure class and sub-class	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m
2012				
Central governments and banks	375	8	2	155
Institutions	438	73	7	115
Corporates	10,848	3,358	1,165	488
Retail				
SMEs	639	504	162	-
secured by real estate collateral	2,559	1,992	1,433	-
qualifying revolving retail exposures	763	539	67	-
other retail exposures	506	357	28	-
	4,467	3,392	1,690	-
Equities				
exchange-traded exposures	92	2	-	5
private equity exposures	25	6	2	30
other exposures	57	7	-	15
	174	15	2	50
Securitisation positions	477	-	-	-
Non-credit obligation assets	640	199	84	-
	17,419	7,045	2,950	808
2011				
Central governments and banks	97	8	8	80
Institutions	231	48	3	364
Corporates	9,825	3,258	1,342	1,640
Retail				
SMEs	765	602	164	-
secured by real estate collateral	2,831	1,330	1,330	-
qualifying revolving retail exposures	836	575	64	-
other retail exposures	598	434	32	-
	5,030	2,941	1,590	-
Equities				
exchange-traded exposures	69	16	-	9
private equity exposures	20	10	1	77
other exposures	124	15	-	37
	213	41	1	123
Securitisation positions	614	-	-	89
Non-credit obligation assets	994	332	100	-
	17,004	6,628	3,044	2,296

Note:
(1) RBS Citizens Financial Group is not included as it is wholly on the Basel II standardised approach.

Table 46: Significant subsidiaries non-counterparty credit risk STD minimum capital requirement

Standardised exposure class	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m	RBS Citizens Financial Group £m
2012					
Regional governments or local authorities	4	-	-	3	1
Administrative bodies and non-commercial undertakings	1	-	-	-	1
Institutions	501	36	-	16	4
Corporates	3,488	360	10	353	2,189
Retail	1,475	151	8	43	1,143
Secured by mortgages on					
- commercial real estate	574	182	-	12	283
- residential property	547	128	-	11	374
Past due items	164	28	17	10	55
Securitisation positions	21	-	-	-	21
Other items	608	237	1	121	207
	7,383	1,122	36	569	4,278
2011					
Central governments and banks	-	-	-	12	-
Regional governments or local authorities	2	-	-	9	2
Administrative bodies and non-commercial undertakings	3	-	-	-	3
Institutions	346	66	-	14	22
Corporates	3,461	341	2	192	2,199
Retail	1,676	199	2	46	1,254
Secured by mortgages on					
- commercial real estate	664	108	-	11	430
- residential property	532	147	-	13	276
Past due items	130	31	17	13	47
Securitisation positions	192	-	-	-	192
Other items	723	254	1	253	204
	7,729	1,146	22	563	4,629

Table 47: Significant subsidiaries counterparty credit risk requirement

	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m	RBS Citizens Financial Group £m
2012					
Counterparty credit risk	3,798	398	123	100	67
2011					
Counterparty credit risk	4,774	561	92	279	78

Table 48: Significant subsidiaries market risk trading book and other business

2012 (1)	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m
Trading book business				
Interest rate position risk requirement	224	39	8	2
Equity position risk requirement	1	1	-	-
Option position risk requirement	9	-	-	-
Specific interest rate risk of securitisation positions	156	54	-	-
Commodity position risk requirement	2	2	-	-
Foreign exchange position risk requirement	10	10	4	2
Total (standard method)	402	106	12	4
Pillar 1 model based position risk requirement	2,739	724	-	220
Total position risk requirement	3,141	830	12	224

The principal contributors to the Pillar 1 model based position risk requirement are:

	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m
VaR	793	120	-	32
Stressed VaR	1,115	289	-	111
Incremental risk charge	390	131	-	77
All price risk	12	-	-	-
Total add-ons	429	184	-	-

2011 (1)	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m
Trading book business				
Interest rate position risk requirement	1,106	902	14	-
Equity position risk requirement	3	3	-	-
Option position risk requirement	26	26	-	-
Specific interest rate risk of securitisation positions	250	71	-	-
Commodity position risk requirement	2	2	-	-
Foreign exchange position risk requirement	8	8	7	1
Total (standard method)	1,395	1,012	21	1
Pillar 1 model based position risk requirement	3,357	32	-	368
Total position risk requirement	4,752	1,044	21	369

The principal contributors to the Pillar 1 model based position risk requirement are:

	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V. £m
VaR	815	9	-	72
Stressed VaR	1,526	23	-	156
Incremental risk charge (IRC)	329	-	-	140
All price risk (APR)	297	-	-	-

Note:
(1) As the new capital changes for Basel 2.5 have been implemented, the average, minimum and maximum are not available for stressed VaR, IRC or APR.

Table 49: Significant subsidiaries capital resources

	2012				
Shareholders' equity (excluding non-controlling interests)	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V.(1) £m	RBS Citizens Financial Group (2) £m
Shareholders' equity per balance sheet	59,288	20,700	6,894	1,467	14,928
Preference shares - equity	-	-	(959)	-	-
Other equity instruments	(1,421)	-	-	-	-
	57,867	20,700	5,935	1,467	14,928
Non-controlling interests					
Non-controlling interests per balance sheet	137	1,257	500	-	-
Non-controlling preference shares	-	(1,164)	-	-	-
Other adjustments to non-controlling interests for regulatory purposes	-	-	(477)	-	-
	137	93	23	-	-
Regulatory adjustments and deductions					
Own credit	1,563	-	-	(285)	-
Defined pension benefit adjustment	913	-	(82)	-	-
Unrealised (gains)/losses on AFS debt securities	(1,710)	2	-	2,031	(189)
Unrealised gains on AFS equity shares	(40)	(23)	-	(15)	-
Cash flow hedging reserve	(1,815)	10	-	1	382
Other adjustments for regulatory purposes	10	(165)	-	(30)	-
Goodwill and other intangible assets	(12,403)	(736)	-	(3)	(6,609)
50% excess of expected losses over impairment provisions (net of tax)	(1,954)	(1,407)	(1,088)	(17)	-
50% of securitisation positions	(1,001)	(331)	-	(40)	-
	(16,437)	(2,650)	(1,170)	1,642	(6,416)
Core Tier 1 capital	41,567	18,143	4,788	3,109	8,512
Other Tier 1 capital					
Preference shares - equity	-	-	1,436	2,014	179
Preference shares - debt	2,759	286	-	-	-
Non-controlling preference shares	-	1,164	-	-	-
Innovative/hybrid Tier 1 securities	3,551	-	-	(308)	-
	6,310	1,450	1,436	1,706	179
Tier 1 deductions					
50% of material holdings	(239)	(387)	-	(1,129)	-
Tax on excess of expected losses over impairment provisions	634	457	353	-	-
Other adjustments for regulatory purposes	-	-	(314)	-	(8)
	395	70	39	(1,129)	(8)
Total Tier 1 capital	48,272	19,663	6,263	3,686	8,683

For the notes to this table refer to page 77.

Table 49: Significant subsidiaries capital resources (continued)

	2012				
Qualifying Tier 2 capital	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V.(1) £m	RBS Citizens Financial Group (2) £m
Undated subordinated debt	4,814	2,265	98	-	-
Dated subordinated debt, net of amortisation	18,121	4,612	1,029	2,624	217
Unrealised gains on AFS equity shares	40	23	-	15	1
Collectively assessed impairment provisions	379	-	-	-	764
	23,354	6,900	1,127	2,639	982
Tier 2 deductions					
50% of securitisation positions	(1,001)	(331)	-	(40)	-
50% excess of expected losses over impairment provisions	(2,588)	(1,864)	(1,441)	(17)	-
50% of material holdings	(239)	(387)	-	(1,129)	-
Other adjustments for regulatory purposes	-	-	314	120	-
	(3,828)	(2,582)	(1,127)	(1,066)	-
Total Tier 2 capital	19,526	4,318	-	1,573	982
Supervisory deductions					
Unconsolidated investments	(37)	-	-	-	-
Other deductions	(193)	(56)	-	-	-
	(230)	(56)	-	-	-
Total regulatory capital	67,568	23,925	6,263	5,259	9,665

For the notes to this table refer to page 77.

Table 49: Significant subsidiaries capital resources (continued)

	2011				
Shareholders' equity (excluding non-controlling interests)	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V.(1) £m	RBS Citizens Financial Group (2) £m
Shareholders' equity per balance sheet	61,726	16,135	6,301	2,775	15,117
Preference shares - equity	-	-	(959)	-	-
Other equity instruments	(1,421)	-	-	-	-
	60,305	16,135	5,342	2,775	15,117
Non-controlling interests					
Non-controlling interests per balance sheet	128	1,272	512	18	-
Non-controlling preference shares	-	(1,177)	-	-	-
Other adjustments to non-controlling interests for regulatory purposes	-	-	(489)	-	-
	128	95	23	18	-
Regulatory adjustments and deductions					
Own credit	(1,157)	-	-	(759)	-
Unrealised (gains)/losses on AFS debt securities	(2,114)	(1)	-	2,565	(162)
Unrealised gains on AFS equity shares	(106)	(4)	-	(124)	-
Cash flow hedging reserve	(1,018)	14	-	18	503
Other adjustments for regulatory purposes	(230)	11	(134)	(149)	-
Goodwill and other intangible assets	(12,365)	(812)	-	(8)	(6,938)
50% excess of expected losses over impairment provisions (net of tax)	(2,553)	(1,773)	(1,217)	(95)	-
50% of securitisation positions	(1,605)	(424)	-	(39)	-
50% of APS first loss	(2,763)	-	-	-	-
	(23,911)	(2,989)	(1,351)	1,409	(6,597)
Core Tier 1 capital	36,522	13,241	4,014	4,202	8,520
Other Tier 1 capital					
Preference shares - equity	-	-	1,448	2,100	327
Preference shares - debt	2,857	293	-	-	-
Non-controlling preference shares	-	1,177	-	-	-
Innovative/hybrid Tier 1 securities	3,645	-	-	-	-
	6,502	1,470	1,448	2,100	327
Tier 1 deductions					
50% of material holdings	(235)	(339)	-	(355)	-
Tax on excess of expected losses over impairment provisions	920	640	439	-	-
Other adjustments for regulatory purposes	-	-	(492)	-	(11)
	685	301	(53)	(355)	(11)
Total Tier 1 capital	43,709	15,012	5,409	5,947	8,836

For the notes to this table refer to page 77.

Table 49: Significant subsidiaries capital resources (continued)

	2011				
Qualifying Tier 2 capital	RBS Consolidated £m	NatWest Consolidated £m	Ulster Bank Group £m	RBS N.V.(1) £m	RBS Citizens Financial Group (2) £m
Undated subordinated debt	4,916	2,290	100	3,094	-
Dated subordinated debt, net of amortisation	17,272	4,989	1,060	-	-
Unrealised gains on AFS equity shares	106	4	-	124	1
Collectively assessed impairment provisions	584	5	4	-	801
Non-controlling Tier 2 capital	11	-	-	-	-
	22,889	7,288	1,164	3,218	802
Tier 2 deductions					
50% of securitisation positions	(1,605)	(424)	-	(39)	-
50% excess of expected losses over impairment provisions	(3,473)	(2,413)	(1,656)	(95)	-
50% of material holdings	(235)	(339)	-	(355)	-
50% of APS first loss	(2,763)	-	-	-	-
Other adjustments for regulatory purposes	-	-	492	-	-
	(8,076)	(3,176)	(1,164)	(489)	-
Total Tier 2 capital	14,813	4,112	-	2,729	802
Supervisory deductions					
Unconsolidated investments	(111)	(111)	-	-	-
Other deductions	(184)	(177)	-	(4)	-
	(295)	(288)	-	(4)	-
Total regulatory capital	58,227	18,836	5,409	8,672	9,638

Notes:
(1) RBS N.V. disclosure is based on the De Nederlandsche Bank (DNB) disclosure, with specific national discretions applied by DNB.
(2) RBS Citizens Financial Group disclosure is based on FED Band 1 which does not incorporate a Core Tier 1 definition. The above amount shows value for Core Tier 1.

Past due and impaired assets

A credit exposure is past due when its contractual repayment is overdue by 90 days or more.

A loan is impaired and an impairment loss incurred when there is objective evidence that events since the loan was granted have adversely affected expected cash flows from the loan. The impairment loss is the difference between the carrying value of the loan and the present value of estimated future cash flows discounted at the loan's original effective interest rate.

Impairment loss provision methodology

Provisions for impairment losses are assessed under three categories:

- *Individually assessed provisions -* Provisions required for individually significant impaired assets which are assessed on a case-by-case basis, taking into account the financial condition of the counterparty and any guarantor and collateral held after being stressed for downside risk. This incorporates an estimate of the discounted value of any recoveries and realisation of security or collateral. The asset continues to be assessed on an individual basis until it is repaid in full, transferred to the performing portfolio or written-off.

- *Collectively assessed provisions -* Provisions on impaired credits below an agreed threshold which are assessed on a portfolio basis to reflect the homogeneous nature of the assets, such as credit cards or personal loans. The provision is determined based on a quantitative review of the relevant portfolio, taking account of the level of arrears, the value of any security and average loss experience over the recovery period.

- *Latent loss provisions -* Provisions held against impairments in the performing portfolio that have been incurred as a result of events occurring before the balance sheet date but which have not been identified at the balance sheet date. The Group has developed methodologies to estimate latent loss provisions that reflect:

  - the probability that the customer will default;

  - historical loss experience adjusted where appropriate, in the light of current economic and credit conditions; and

  - the period between an impairment event occurring and a loan being identified and reported as impaired.

Provision analysis

The Group's consumer portfolios, which consist of high volume, small value credits, have highly efficient largely automated processes for identifying problem credits and very short timescales, typically three months, before resolution or adoption of various recovery methods. Corporate portfolios consist of higher value, lower volume credits, which tend to be structured to meet individual customer requirements. Provisions are assessed on a case-by-case basis by experienced specialists with input from professional valuers and accountants. The Group operates a transparent provisions governance framework which sets thresholds whereby suitable oversight and challenge is undertaken and significant cases will be presented to a committee chaired by the Group Chief Executive or the Group Finance Director.

The Group's accounting policy on impairments and impairment loss provision methodology are set out on pages 365, 179 and 180 respectively of the Group's 2012 Annual Report and Accounts.

Disclosure basis

The following tables detailing past due and impaired assets and provisions are presented on an IFRS basis rather than on a regulatory basis.

Table 50: Past due exposures, impaired exposures and provisions by industry sector

Industry sector	Impaired assets (1) £m	Past due assets £m	Individually and collectively assessed provisions £m	Latent provisions £m	Total provisions £m	Charge to income statement (2) £m
2012						
Agriculture and fisheries	157	20	73		73	21
Building and construction	1,362	121	640		640	94
Business services	1,805	76	1,103		1,103	280
Financial services	1,147	21	725		725	212
Manufacturing	743	46	372		372	136
Individuals	8,910	542	4,233		4,233	1,579
Power and water	118	-	21		21	(4)
Property	19,934	1,289	9,859		9,859	2,212
Public sector and quasi-government	1,030	160	521		521	144
Telecoms, media and technology	72	-	37		37	19
Tourism and leisure	1,486	111	726		726	176
Transport and storage	653	181	336		336	289
Wholesale and retail trade	1,069	74	644		644	230
Latent				1,960	1,960	(73)
	38,486	2,641	19,290	1,960	21,250	5,315
2011						
Agriculture and fisheries	136	9	63		63	(7)
Building and construction	1,644	118	703		703	139
Business services	1,609	106	881		881	677
Financial services	1,915	65	1,350		1,350	201
Manufacturing	871	170	535		535	229
Individuals	7,382	439	3,534		3,534	1,858
Power and water	88	-	23		23	3
Property	20,655	1,000	8,862		8,862	3,670
Public sector and quasi-government	996	81	458		458	304
Telecoms, media and technology	528	-	183		183	120
Tourism and leisure	1,391	46	643		643	334
Transport and storage	574	15	146		146	78
Wholesale and retail trade	958	49	516		516	180
Latent				1,986	1,986	(545)
	38,747	2,098	17,897	1,986	19,883	7,241

Notes:
(1) Excludes debt securities and equity shares totalling £942 million (2011 - £3,174 million).
(2) Excludes impairment losses on debt securities and equity shares totalling £36 million (2011 - £1,466 million).

Additional disclosures *continued*

Table 51: Past due exposures, impaired exposures and provisions by geographic area

Geographic area (1)	Impaired assets (2) £m	Past due assets £m	Individually and collectively assessed provisions £m	Latent provisions £m	Total provisions £m	Charge to income statement (3) £m
2012						
UK	18,413	2,007	9,082		9,082	2,420
Europe	17,817	633	9,500		9,500	2,456
North America	1,719	-	402		402	490
RoW	537	1	306		306	22
Latent				1,960	1,960	(73)
	38,486	2,641	19,290	1,960	21,250	5,315
2011						
UK	15,575	1,700	7,583		7,583	3,364
Europe	20,349	330	9,240		9,240	3,993
North America	1,898	-	589		589	482
RoW	925	68	485		485	(53)
Latent				1,986	1,986	(545)
	38,747	2,098	17,897	1,986	19,883	7,241

Notes:
(1) The analysis by geographic area is based on the location of the lender. This analysis is used for financial reporting and differs from the disclosure in the credit risk section of this document which is based on the country of incorporation of the counterparty.
(2) Excludes debt securities and equity shares totalling £942 million (2011 - £3,174 million).
(3) Excludes impairment losses on debt securities and equity shares totalling £36 million (2011 - £1,466 million).

Table 52: Loan impairment provisions movement

	Individually assessed provisions (1) £m	Collectively assessed provisions £m	Latent provisions £m	Total provisions £m
At 1 January 2011	10,236	5,296	2,650	18,182
Transfer to disposal groups	(158)	(536)	(79)	(773)
Currency translation and other adjustments	(244)	1	(40)	(283)
Disposals	8	-	-	8
Amounts written-off	(2,205)	(2,322)	-	(4,527)
Recovery of amounts previously written-off	275	252	-	527
Charge to income statement				
- continuing operations (2)	5,195	2,591	(545)	7,241
- discontinued operations	(8)	-	-	(8)
Unwind of discount	(342)	(142)	-	(484)
At 31 December 2011	12,757	5,140	1,986	19,883
Transfer from disposal groups	153	548	63	764
Currency translation and other adjustments	(506)	211	(15)	(310)
Disposals	(4)	-	(1)	(5)
Amounts written-off	(2,633)	(1,633)	-	(4,266)
Recovery of amounts previously written-off	122	219	-	341
Charge to income statement				
- continuing operations (2)	3,192	2,196	(73)	5,315
- discontinued operations	4	-	-	4
Unwind of discount	(336)	(140)	-	(476)
At 31 December 2012	12,749	6,541	1,960	21,250

Notes:
(1) Includes provisions against loans and advances to banks.
(2) Excludes impairment losses on securities totalling £36 million (2011 - £1,466 million).

Non-traded equity risk

Refer to page 156 of the Group’s 2012 Annual Report and Accounts for non-traded equity risk disclosure including balance sheet value and fair value of the Group’s non-traded equity positions and net realised and unrealised gains.

Non-traded interest rate risk

Refer to pages 153 and 154 of the Group’s 2012 Annual Report and Accounts for non-traded interest rate risk disclosure including value-at-risk and sensitivity of net interest income.

Structural hedges

Refer to page 155 of the Group’s 2012 Annual Report and Accounts for disclosure on structural foreign currency exposures.

Glossary

Acronyms

ABCP	Asset-backed commercial paper
AFS	Available-for-sale
APR	All price risk
APS	Asset Protection Scheme
AQ	Asset quality
AT1	Additional Tier 1
BBSW	Bank Bill Swap Reference Rate (Australia)
BIPRU	Prudential sourcebook for Banks, Building Societies and Investment Firms
CCF	Credit conversion factor
CDOR	Canadian Dollar Offered Rate
CDS	Credit default swap
CDX	Credit default swap index
CEM	Counterparty exposure management
CET1	Common Equity Tier 1
CQS	Credit quality step
CRD	Capital Requirements Directive
CRE	Commercial real estate
CRM	Credit risk mitigation
CVA	Credit valuation adjustment
DNB	De Nederlandsche Bank
EAD	Exposure at default
EEC	European Economic Community
EPE	Expected positive exposure
EU	European Union
EURIBOR	Euro Interbank Offered Rate
FSA	Financial Services Authority
GRA	Group Risk Analytics
IAA	Internal assessment approach
IAS	International Accounting Standard
ICAAP	Individual capital adequacy assessment process
IFRS	International Financial Reporting Standard
IMM	Internal model method
IPRE	Income producing real estate
IRB	Internal ratings based
IRC	Incremental risk charge
IRRBB	Interest rate risk in the banking book
LGD	Loss given default
LIBOR	London Interbank Offered Rate
mtm	mark-to-market
OTC	Over-the-counter
PD	Probability of default
PFE	Potential future exposure
PIT	Point-in-time
RAR	Risk asset ratio
RBA	Ratings based approach
RoW	Rest of the World
RWAs	Risk-weighted assets
SFT	Securities financing transaction
SIC	Standing Interpretations Committee
SME	Small and medium-sized enterprises
SPE	Special purpose entity
STD	Standardised
SVaR	Stressed value-at-risk
TAGS	Thames Asset Global Securitization
The Group	The Royal Bank of Scotland Group plc and its subsidiaries
TTC	Through-the-cycle
VaR	Value-at-risk

Key terms

Alpha - in the context of regulatory capital for counterparty risk, under the internal model method, Alpha is a multiplier applied to the effective EPE to determine the exposure at default. Alpha may be set using an own estimate with a floor of 1.2. It accounts for the extra capital needed for derivatives, compared to loans with the same EPE, to reflect the additional risks.

Arm's length - parties in a transaction or a business relationship are at arm's length when they are independent and on an equal footing. They should be acting in their own self interest and not subject to any pressure or duress from any of the other parties.

Asset quality (AQ) band - probability of default banding for all counterparties on a scale of 1 to 10.

BIPRU (Prudential sourcebook for Banks, Building Societies and Investment Firms) - the part of the FSA Handbook that sets out detailed prudential requirements for the banks that they regulate.

Commercial paper conduit - a special purpose entity that issues commercial paper and uses the proceeds to purchase or fund a pool of assets. The commercial paper is secured on the assets and is redeemed either by further commercial paper issuance, repayment of assets or liquidity drawings.

Core Tier 1 capital - the highest quality regulatory capital under Basel II, comprising called-up share capital and eligible reserves plus equity non-controlling interests, less intangible assets and other regulatory deductions.

Counterparty credit risk - the risk that a counterparty defaults before the maturity of a derivative or repo contract. In contrast to non-counterparty credit risk, the exposure to counterparty credit risk varies by reference to a market factor (e.g. interest rate, exchange rate, asset price).

Credit conversion factor (CCF) - the CCF is an estimate of the proportion of undrawn commitments that will be drawn at the point of default. It is used in determining EAD and reflects the assumption that drawn balance at default might be greater than the current balance.

Credit default swap (CDS) - a contract where the protection seller receives premium or interest-related payments in return for agreeing to make payments to the buyer on a defined credit event. Credit events usually include bankruptcy, payment default and rating downgrades.

Credit grade - a rating that represents an assessment of the credit worthiness of a customer. It is a point on a scale representing the probability of default of a customer.

Credit quality step (CQS) - a grade on the FSA credit quality assessment scale based on the credit ratings of external credit assessment institutions. It is used to assign risk weights under the standardised approach to credit risk.

Credit risk - credit risk is the potential that a borrower or counterparty will fail to meet its financial obligations. It arises mainly from direct lending but also from products such as debt securities, derivatives and guarantees.

Credit risk mitigation (CRM) - reducing the credit risk of an exposure by application of techniques such as netting, collateral, guarantees and credit derivatives.

Credit spread - the credit spread is the yield spread between securities with the same currency and maturity structure but with different associated credit risks, with the yield spread rising as the credit rating worsens. It is the premium over the benchmark or risk-free rate required by the market to take on a lower credit quality.

Credit valuation adjustment (CVA) - the CVA is the difference between the risk-free value of a portfolio of trades and its market value, taking into account the counterparty's risk of default. It represents the market value of counterparty credit risk, or an estimate of the adjustment to fair value that a market participant would make to reflect the creditworthiness of its counterparty.

Effective expected positive exposure (effective EPE) - effective EPE is a measure used to determine EAD for OTC derivatives under the internal model method. It is calculated as the weighted average of non-decreasing expected positive exposures. The weight of each exposure is calculated as a percentage of total expected exposure over the relevant period. When calculating the minimum capital requirement, the average is taken over the first year.

Expected loss - represents the anticipated loss on an exposure over one year. It is determined by multiplying probability of default, loss given default and exposure at default and can be calculated at individual, credit facility, customer or portfolio level.

Exposure at default (EAD) - an estimate of the expected level of utilisation of a credit facility at the time of a borrower's default. The EAD may be higher than the current utilisation (e.g. where further drawings are made under a revolving credit facility before default) but will not typically exceed the total facility limit.

Exposure class - exposures are assigned to classes defined under BIPRU regulations, namely regulation 4.3.2 for the advanced IRB approach and regulation 3.2.9 for the standardised approach. This classification is required by the regulatory framework when calculating the capital requirements of banks.

Fair value - the amount for which an asset could be exchanged or a liability settled, between knowledgeable and willing parties in an arm's length transaction.

Key terms continued

Guarantees - an agreement by a third party to cover the potential loss to the Group should a specified counterparty default on its commitments.

Haircut - a downward adjustment to collateral value to reflect its nature, any currency or maturity mismatches between a credit risk mitigant and the underlying exposure to which it is being applied.

Incremental risk charge (IRC) - the IRC model aims to quantify the impact of defaults, and rating changes of credit risk instruments in the trading book, that are not fully reflected in the VAR of the portfolio.

Interest rate risk - the adverse impact on the value or interest income of a financial asset arising from changes in interest rates.

Interest rate risk in the banking book (IRRBB) - the risk to net interest income and the equity reserves resulting from adverse movements in interest rates.

Internal model method (IMM) - in the context of counterparty credit risk, the IMM is the most risk-sensitive and sophisticated approach to calculating EAD out of the three methods available under Basel II. Under the IMM firms may use their internal model which should be aligned to the firm's internal risk management practices. EAD is calculated as the product of alpha and EPE.

Internal rating based approach (IRB) - a method of estimating the amount of credit risk taken by a bank. Under IRB a bank may use internal estimates to generate risk components for use in the calculation of its credit risk regulatory capital requirements. There are two approaches: foundation and advanced (including retail).

Latent loss provision - provisions held against impairments in the performing loan portfolio that have been incurred as a result of events occurring before the balance sheet date but which have not been identified as impaired at the balance sheet date. The Group has developed methodologies to estimate latent loss provisions that reflect historical loss experience (adjusted for current economic and credit conditions) and the period between an impairment occurring and a loan being identified and reported as impaired.

Loss given default (LGD) - an estimate of the amount that will not be recovered by the Group in the event of default, plus the cost of debt collection activities and the delay in cash recovery.

Market risk - the risk that the value of an asset or liability will change as a result of market factors such as foreign exchange rates, commodity prices, interest rates, credit spreads and equity prices.

Mark-to-market (mtm) - the adjustment in the value of an asset or liability to reflect any change in market prices.

Mark-to-market method - in the context of counterparty credit risk, the MTM method is the simplest of three methods used to determine exposure values. The exposure value is calculated as the MTM value plus the potential future exposure (PFE) value, where the PFE is a percentage of the notional value of the contract. The percentage to be applied varies by product and maturity.

Minimum capital requirement - the minimum amount of regulatory capital that a financial institution must hold to meet the Pillar 1 requirements for credit, market and operational risk.

Monoline insurer - a specialist insurance company which provides guarantees to issuers that enhance the credit of the bond issued.

Netting - the process by which the value of assets taken from a given counterparty is offset by the value of assets given to the same counterparty, thereby reducing the exposure of one party to the other to the difference between the two.

Non-trading book - positions, exposures, assets and liabilities that are not in the trading book. It is also referred to as "banking book".

Operational risk - the risk of loss resulting from inadequate or failed processes, people, systems or from external events.

Over-the-counter (OTC) derivatives - derivatives with tailored terms and conditions negotiated bilaterally, in contrast to exchange traded derivatives which have standardised terms and conditions.

Pillar 1 - the part of the Basel II Accord which sets out the process by which regulatory capital requirements should be calculated for credit, market and operational risk

Pillar 2 - the part of the Basel II Accord which sets out the process by which a bank should review its overall capital adequacy and the processes under which the supervisors evaluate how well financial institutions are assessing their risks and take appropriate actions in response to the assessments.

Pillar 3 - the part of the Basel II Accord which sets out the information banks must disclose about their risks, the amount of capital required to absorb them, and their approach to risk management. The aim is to strengthen market discipline.

Point-in-time (PIT) - an assessment of PD or a rating system based on a view of a counterparty's current rather than future financial situation given economic conditions. This differs from a through-the-cycle approach, which considers performance over the duration of an economic cycle.

Position risk requirement - a capital requirement applied to a position treated under BIPRU 7 (Market risk) as part of the calculation of the market risk capital requirement.

Key terms continued

Probability of default (PD) - the likelihood that a customer will fail to make full and timely repayment of credit obligations over a one year time horizon.

Provision - a liability of uncertain timing or amount.

Repo - repurchase agreements are short-term funding arrangements that allow counterparties to use financial securities as collateral for interest-bearing cash loans. The borrower agrees to sell a security to the lender subject to a commitment to repurchase the same security at an agreed date and price; usually the original sale price plus an amount representing interest for the period.

Re-securitisations - securitisations in which the underlying pools of assets are themselves bonds issued by securitisation SPEs.

Residential mortgaged backed securities - securities that represent claims on the principal and interest payments made by borrowers in a pool of the residential mortgages. The mortgages are equitably assigned to SPEs, which fund themselves principally through the issue of floating rate notes. On repayment of the financing, any further amounts generated by the mortgages will be paid to the originator.

Residual maturity - the remaining time in years that a borrower is permitted to take to fully discharge their contractual obligation (principal, interest and fees) under the terms of a loan agreement.

Retained excess spread - the cumulative remaining net interest payments from the underlying assets of securitisation, after all payables and expenses are covered and which is not due to be repaid to the originator until maturity of the transaction.

Risk-weighted assets (RWAs) - assets the value of which is adjusted for their associated risks using weightings established by the Basel Capital Accord as implemented by the FSA. This RWA value is then multiplied by a regulatory ratio to calculate the amount of capital required by the Group against these assets. Certain assets are not weighted but deducted from capital.

Securitisation - process by which assets or cash flows are transformed into transferable securities. The underlying assets or cash flows are transferred by the originator or an intermediary, typically an investment bank, to a special purpose entity which issues securities to investors. Asset securitisations involve issuing debt securities (asset-backed securities) that are backed by the cash flows of income-generating assets (ranging from credit card receivables to residential mortgage loans).

Securitisation position - refers to any exposures the Group may have to a securitisation. These include not only the securities issued by a securitisation SPE, but also loans, liquidity facilities and derivatives transacted with a securitisation SPE.

Securitised exposure - an asset, or a pool of assets, that has been securitised, either via a traditional securitisation or a synthetic securitisation. See traditional securitisation and synthetic securitisation below.

Special purpose entities (SPEs) - an entity created by a sponsor, typically a major bank, finance company, investment bank or insurance company. An SPE can take the form of a corporation, trust, partnership, or a limited liability company. Its operations are typically limited for example in a securitisation to the acquisition and financing of specific assets or liabilities.

Standard industrial classification - a classification of businesses by type or economic activity. It is applied by international government agencies to provide a framework for the collection, tabulation, presentation and analysis of data related to industry sectors, and its use promotes uniformity.

Standardised approach - a method used to calculate credit risk capital requirements under Pillar 1 of Basel II. In this approach the risk weights used in the capital calculation are determined by regulators.

Stress testing - a technique used to evaluate the potential effects on an institution's financial condition of an exceptional but plausible event and/or movement in a set of financial variables.

Stressed value-at-risk (SVaR) - a VaR measure using historical data from a one year period of stressed market conditions. For the purposes of calculating regulatory SVaR, a time horizon of ten trading days is assumed at a confidence level of 99% (Refer to VaR definition below).

Supervisory slotting approach - a method of calculating regulatory capital, specifically for lending exposures in project finance and income producing real estate, where the PD estimates do not meet the minimum IRB standards. Under this approach, the bank classifies exposures from 1 to 5, where 1 is Strong and 5 is Default. Specific risk-weights are assigned to the classifications in line with BIPRU 4.5.

Synthetic securitisation - a securitisation process in which, the originating bank retains legal ownership of a pool of assets, but transfers the associated credit risk to an arm's length SPE through the use of credit-linked notes or credit derivatives.

The standardised approach (STD) - an approach to calculating operational risk capital requirements whereby capital required is determined by multiplying three years' historical gross income by a percentage determined by the regulator. The percentage ranges from 12 to 18%, depending on the type of underlying business being considered.

Key terms continued

Tier 1 capital - capital with the greatest capacity to absorb loss. It includes: Core Tier 1 capital plus other Tier 1 securities in issue, less material holdings in financial institutions.

Tier 1 capital ratio - Tier 1 capital as a percentage of risk-weighted assets.

Tier 2 capital - capital that has less capacity to absorb loss than Tier 1. It includes: subordinated debt with a minimum original term to maturity of five years and other Tier 2 securities in issue, eligible collective impairment allowances, unrealised available-for sale equity gains and revaluation reserves less certain regulatory deductions.

Trading book - a trading book consists of positions in financial instruments and commodities held either with the intent to trade, or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability, or able to be hedged completely.

Traditional securitisation - securitisation in which the originating bank transfers legal ownership of a pool of assets to an arm's length SPE.

Undrawn commitments - assets/liabilities that have been committed but not yet transacted. In terms of credit risk, these are obligations to make loans or other payments in the future.

Value-at-Risk (VaR) - a technique that produces estimates of the potential loss in the market value of a portfolio over a specified time period at a given confidence level.